cent. of the chemical. In mining 45.1 per cent. were placed and in industrial engineering, 44.2 per cent. It was found that institutions west of the Mississippi placed about 3 per cent. more students than those east. Colleges in urban centers have placed about 5 per cent. less of their graduates.

The survey covers enrolments in 41 separate fields of engineering to which are added special and unclassified groups.

A study of the total distribution of students of engineering throughout the four years shows that more than 50 per cent. do not reach the senior year while 2,360 enter graduate work.

For the session 1930–31, a total of 25,332 students enrolled in freshman courses, 19,631 in sophomore courses, 16,262 in junior and 12,161 in senior courses. There were 73,386 undergraduates.

In recent years there also has been a notable tendency for students to continue higher studies after completing their undergraduate work.

THE NEW YORK STATE GEOLOGICAL ASSOCIATION

THE seventh annual field meeting of the New York State Geological Association was held at Port Henry on May 15 and 16, under the presidency of Dr. Harry N. Eaton, of Elmira College. Dr. O. D. von Engeln, of Cornell University, was secretary. About 115 persons were in attendance representing twenty different institutions. Dr. D. H. Newland, Dr. R. Ruedemann and Mr. C. A. Hartnagel, of the New York State Museum, acted as field leaders. The region chosen for the excursions is one of great natural beauty, rich in historic associations and classic from the standpoint of pre-Cambrian and mining geology.

Upon meeting at Fort Ticonderoga on Friday, the party moved to Fort Crown Point and Port Henry studying the fine exposures of the early Paleozoics of the Crown Point Peninsula, and observing the glacial deposits and evidences of marine transgression. North of Port Henry were seen pre-Cambrian igneous rocks, metamorphosed sediments of the Grenville series, and faults between the pre-Cambrians and the Paleozoics.

During Saturday forenoon a trip was made to Mineville (six miles) to study the great magnetite ore body in the pre-Cambrian and the mines of the Witherbee-Sherman Company which have been worked for many years.

At the dinner on Friday night talks explanatory of the local geological features were made by Drs. Ruedemann and Newland, and Dr. H. L. Alling showed a series of microphotographs to illustrate the origin of the magnetite ore.

The invitation of the University of Rochester to act as host for the meeting in 1932 was accepted. Dr. H. L. Alling and Dr. J. E. Hoffmeister were elected president and secretary, respectively, for the ensuing year.

SYMPOSIUM OF THE AMERICAN CHEMICAL SOCIETY

A SYMPOSIUM on "New Research Tools" will be held in Buffalo on August 31, as the opening event of the eighty-second meeting of the American Chemical Society. The chairman of the symposium will be Dr. Karl Taylor Compton, president of the Massachusetts Institute of Technology, who in cooperation with other investigators has selected twelve new research tools for discussion.

The twelve fields to be discussed are roughly divided into three groups. Speakers and their topics on radiation and atomic structure are: Professor Donald H. Andrews, the Johns Hopkins University, "The Use of Raman Spectro in Qualitative Analysis"; Professor George L. Clark, University of Illinois, "X-Rays as a Research Tool in Chemistry and Industry"; Professor Worth H. Rodebush, University of Illinois, "Molecular Beams"; Professor Charles P. Smyth, Princeton University, "Dipole Moments"; Professor Harold C. Urey, Columbia University, "Molecular Spectra."

Speakers at a second group of subjects, dealing with new advances and applications of certain practical tools, are: Dr. Saul Dushman, General Electric Research Laboratory, "New Gauges"; Dr. Per K. Frolich, Standard Oil Development Company, "Catalysis"; Professor Frederick G. Keyes, the Massachusetts Institute of Technology, "High Pressure Technique"; Dr. W. A. Peters, Jr., E. B. Badger and Sons, New York, "Distillation"; Dr. Robert B. Sosman, U. S. Steel Corporation, "High Temperature Technique"; Dr. Lewis R. Koller, General Electric Research Laboratory, "High Temperature Control."

Various aspects of micro-analysis comprise a third group of topics, the speakers being: Professor Fred Allison, Alabama Polytechnic Institute, "Microanalysis of Solutions"; Professor E. M. Chamot, Cornell University, "Micro-analytical Methods as Time and Labor Savers"; Dr. Frederick G. Cottrell, U. S. Department of Agriculture, "Micro-analysis of Gases"; Dr. J. B. Nichols, E. I. du Pont de Nemours & Co., "The Ultra-Centrifuge and its Field of Research."

The committee which, with Professor Compton, selected the topics and speakers included the following representatives of pure science: Professor Roger Adams, head of the department of chemistry of the University of Illinois; Wilder D. Bancroft, professor of physical chemistry of Cornell University; Dr. Frederick G. Cottrell, of the Bureau of Chemistry and Soils of the U. S. Department of Agriculture; William D. Harkins, professor of chemistry, Univer-