society are attenuated and it is only by a reduction of the staff and the sale in the autumn of plants and other property that the remaining fellows may enjoy their facilities for a few months more and the society can meet its obligations in keeping with its honored traditions.

Mr. H. J. Greenwood, who presided at the meeting, said he was sorry that nothing had transpired since they last met of a hopeful character regarding the future of the gardens. Many of them, perhaps, had not been very sanguine that the decision would be materially changed. Efforts had been made by a large number of fellows, and more particularly by Colonel Moore, to keep in touch with the Minister of the Crown affected, but, in view of the grave situation in the world, members of the cabinet would not be able to give consideration to the matter of the gardens at the present time. Apart from that, he reminded the meeting that it was determined some years ago that the whole of the Crown leases in private hands were to be reviewed and treated in an economic way. When, in the early days of the consideration of the future of the gardens, the council made an offer of £2,000 for a further lease, if granted, they were advised that the sum likely to be required for this inner circle would probably be £3,000 to £5,000 a year. It was obvious that even in a mood of optimism efforts to meet such a rent would have been doomed to failure. In any case they had to face the definite statement that there would be no renewal of the lease.

The Duchess of Hamilton, who elicited the fact that the curator had the longest service of the officials of the society who were to go, paid a tribute to the work of Mr. North, and recalled that he began the cultivation of the soya bean, which might one day be of great help to agriculture.

The chairman, having intimated that it was proposed that a testimonial should be opened for the staff of the society, accepted a proposal that it should be done at once, and subscriptions were made during and at the close of the meeting. It was also stated that the government had asked for, and had been given, particulars of the age and length of service of the staff.

Colonel T. C. Moore, M.P., gave a short account of his efforts to secure the preservation of the gardens. While hopes had not actually materialized, he said, they were not without possibility of coming to fruition. With the support of the council he had approached the Pilgrim Trust for a contribution towards the upkeep of the society, and through Sir Ernest Graham-Little had tried to find out what the London University Senate might do. The Pilgrim Trust did not meet until the latter part of September, but full details had been collated for them. To Mr. Lansbury he had submitted alternative suggestions. One, that, subject to the Pilgrim Trust and the university cooperating to maintain the integrity of the society, the lease should be renewed under new and more democratic conditions, had not much chance of acceptance. The other was to agree that the society should lapse and that the government should take over the gardens and administer them, offering facilities to subscribing fellows, but providing for the admission of the public, and with two free days. That was a scheme which he thought might appeal to Mr. Lansbury, and it had been promised full consideration.

OPPORTUNITIES FOR EMPLOYMENT OF ENGINEERING GRADUATES

A FORTY per cent. increase in enrolment in the engineering schools of the country during the past five years narrows professional possibilities in some of the fields, as the saturation point approaches, according to a statement made to a representative of the *U. S. Daily* by Mr. W. C. John, specialist in professional education at the Federal Office of Education.

The total enrolment in 145 leading engineering schools reached 78,685 during 1930–1931, of whom 12,161 were undergraduate seniors and 2,939 students of graduate engineering.

The problem of the placement of graduates of engineering schools becomes more difficult as the number of students increases. Reports collected by Mr. F. L. Bishop, secretary of the Society for the Promotion of Engineering Education, indicate that but 38.2 per cent. of the graduates of 88 institutions have been placed this year. The report involved 5,866 graduates, of whom only 2,240 obtained positions.

The latest statistics on engineering education are now in process of compilation by the Office of Education and will soon be available for public distribution. These statistics will show a great increase in the number of students pursuing some phase of engineering. The four leading fields are electrical, mechanical, civil and chemical engineering, with mining and metallurgy ranking fifth in popularity.

Nearly 20,000 students were enrolled in electrical engineering courses alone in 1930–1931. Of these, 18,565 were undergraduates. More than 15,500 were pursuing mechanical engineering with over 15,000 enrolled as undergraduates.

Civil engineering ranked third in popularity with a total enrolment of over 14,500, of which 13,813 were undergraduates. Next in order was chemical engineering which mustered over 9,600. Of these, 9,154 were undergraduates. Mining and metallurgy were represented by nearly 3,000. Mr. Bishop's study on placement of students from the 88 institutions reporting indicates that 33.4 per cent. of the electrical engineering group were placed, 41 per cent. of the mechanical, 37.5 per cent. of the civil and 46.3 per

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-