 SECTION M (ENGINEERING)

Vice-president and chairman, John T. Faig.
Retiring vice-president, F. M. Feiker.
Secretary, L. W. Wallace, 26 Jackson Place, Washington, D. C.

(Report by L. W. Wallace)

Section M held two sessions, one Friday morning and one in the afternoon, which were well attended, about 125 being present in the morning and 150 in the afternoon. Interest was great and discussion was active. The admirable address of the retiring vice-president, F. M. Feiker, dwelt upon the place of the engineer in public life and stressed the thought that the engineer is dependent upon the work of the pure scientist. The address will be published. John Mills, of the Western Electric Company, gave an address on "The atom—what it means to the engineer." He explained the modern theory of atom formation and organization. He aroused a great deal of interest in the subject, and inquiries were made as to what books one should use in this subject. Mr. Mills's discussion, because of its clarity and scope, was a real contribution. Charles F. Kettering, of the General Motors Research Corporation, disclosed in a very fascinating and illuminating manner the relationships between the several branches of science. He emphasized the definite relationship between science and engineering, pointing out that all branches of knowledge deal with the fundamentals of mass and energy. He expressed the need for a standard nomenclature for these fundamentals as essential to scientific and engineering progress. Mr. Kettering's wish that greater intelligence should be fostered regarding the forces of nature in general to the end that opinion and fact may be more clearly distinguished, is shared by scientific workers in all fields. Ernest L. Robinson, of the General Electric Company, presented a most lucid paper on the utilization of products of combustion. His discussion started with a consideration of the Carnot and Rankine cycles and then traced the changes that have been made in steam generating and utilizing units in an endeavor to approach more fully the theoretical usage set forth as an ideal in the Carnot cycle. His paper is particularly noteworthy as a summary of progress in that direction. Dr. Sanford A. Moss, of the General Electric Company, presented a discussion of the gas turbine and made a real contribution. Much credit is due to Vice-president Faig for having arranged such an inspiring and generally successful program and for the charming way in which he contributed to the pleasure of the sessions. It is his thought that Section M may serve an important end by seeking to interpret for engineers the recent developments in the related sciences. The papers presented at this session fulfilled that mission admirably.

 SECTION N (MEDICAL SCIENCES)

Vice-president and chairman, Richard P. Strong.
Retiring vice-president, Francis Weld Peabody.
Secretary, A. J. Goldfarb, College of the City of New York, New York City.

(Report by A. J. Goldfarb)

The Cincinnati sessions of Section N were the most successful of any in recent years, specially notable for the very high character of the papers presented and the distinction of the speakers, and for the maintained lively interest of the audience, who took unusually active part in the discussions. Professor Francis W. Peabody, of Harvard University, in his retiring vice-presidential address gave a lucid account of the uniquely useful rôle that Section N aims to play in an age of increasing specialization and the partial intellectual isolation that must inevitably come with specialization among workers in science. The section aims to bring together at its sessions specialists in the fields where medical science makes contact with the fundamental sciences and with special lines of study that are not primarily medical but have pronounced relations to certain aspects of medical science. Dr. L. O. Howard, of the U. S. Bureau of Entomology, gave a most interesting account of Dengue fever in the southern United States. Characterized by low mortality and high morbidity, this fever is spread by the house-mosquito and may be controlled by systematic operations against that insect. Dr. Howard also gave a delightful illustrated account of European stations dealing with tropical diseases, including the men of these stations and the nature of their work. Dr. Richard P. Strong, of Harvard Medical School, gave a scholarly account of part of his recent studies in Central America, dealing with the discovery of a flagellate protozoan parasite in the latex of plants, which passes through successive stages of parasitism in a hemipterous insect, a lizard, and at length becomes the cause of disease in various mammals. This paper was followed by a well-studied
presentation of the history of parasitology by Professor Henry B. Ward, of the University of Illinois.

A symposium was devoted to the endocrinies. Professor Thomas R. Sprunt, of the Johns Hopkins University, spoke of difficulties that beset an internist who tries to sort significant observations from a confusing array of symptoms, to separate facts from the chaos of myth, pseudo-facts and ignorance that is associated with endocrinology. A paper by Professor George W. Crile, of Western Reserve University, read by his colleague, Dr. Laver, dealt with changes in electrical conductivity in brain and liver and heat changes, associated with endocrine variations. Professor R. E. Hoskins, of Ohio State University, editor-in-chief of Endocrinology, gave a masterly discussion of what is and what is not in this field. Merciless toward pseudo-science, his treatment was encouraging and stimulating toward the further evolution of this difficult but fundamental line of work. It was said by those who should know that Professor Hoskins's paper was the clearest, most scientific and most satisfying presentation of endocrinological science thus far produced in English. Professor J. J. R. Macleod, of the University of Toronto, gave a closely reasoned and altogether delightful discussion of the history of insulin. He showed that many minds have contributed to our present knowledge of this wonderful agent. He described the painstaking efforts of Banting to secure a product that would not produce injurious symptoms in the patient. He pointed out the steps that are being taken to remove the other characters of diabetes, aside from the control of sugar in blood and urine. He dwelt on the peculiar problems of glycogen storage and suggested the probability of the existence of another hormone, separate from insulin and influencing fat metabolism. The problem of the regeneration of the islets of Langerhans, when the ravage of the disease has been halted by insulin treatment, was also considered. An interesting point came out in the discussion, that, had the present laws of Ohio on the capture and killing of all stray dogs and cats been in force in Toronto, the discovery of insulin could not have taken place as it did.

The American Student Health Association
President, Joseph E. Raycroft.
Secretary-treasurer, Warren E. Forsythe, University of Michigan, Ann Arbor, Mich.

(Report by Warren E. Forsythe)

The American Student Health Association held a meeting with the American Association for the Advancement of Science for the first time this year. The Cincinnati meeting was the most successful in the history of the American Student Health Association, characterized by great freedom of discussion and very valuable comparing of notes. There were five sessions, attended by 25 persons keenly interested in methods and results of work directed toward the health of students in educational institutions. The following notes may give an idea of the discussions. Dr. C. W. Goddard reported an admirable system of supervision of sanitation at the University of Texas. Dr. J. E. P. Holland reported experience with a sharp epidemic of diphtheria at the University of Indiana. Dr. H. S. Diehl presented results in the employment of physicians for dispensary and hospital work on full and part-time bases. Dr. Richard Kimpton presented a strong case for the necessity of very careful eye examinations to preserve the efficiency of college and university students. Dr. J. E. Raycroft gave a strong plea for proper evaluation of student-health work in several particulars. The most interesting discussion resulted from a symposium on the responsibilities and opportunities of health departments for the supervision of athletics, athletes and the care of athletic injuries. It was revealed that Harvard University has a very effective system whereby the physician is in complete control of all matters that have any relation to the health of participants in teams and games. A similar system was reported at Yale.

SECTION O (AGRICULTURE)

Vice-president and chairman, R. A. Pearson.
Retiring vice-president, R. W. Thatcher.
Secretary, P. E. Brown, Iowa State College, Ames, Iowa.

(Report by R. W. Thatcher)

Section O held joint sessions at Cincinnati with the American Society of Agronomy, as shown below. The address of the retiring vice-president for Section O was given at the agricultural scientists' dinner Friday evening, by Dr. R. W. Thatcher, director of the New York Agricultural Experiment Station, Geneva, N. Y. His topic was "A program for agricultural development."

The American Society of Agronomy
President, M. F. Miller.
Secretary, P. E. Brown, Iowa State College, Ames, Iowa.

(Report by R. W. Thatcher)

Two sessions on Friday, held jointly with Section O, were devoted to a well-attended symposium on "Research fundamental to the solving of economic problems of crop plants." The subject was discussed from seven different viewpoints, by as many speakers, as follows: Taxonomy, Dr. C. R. Ball, of the U. S. Department of Agriculture; Mycology, Dr. C. L.
SECTION N (MEDICAL SCIENCES)
A. J. Goldfarb and Warren E. Forsythe

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