Solids; Form of Adsorption Curves; Heat of Adsorption; and Activation Energy of Adsorption and Rate of Adsorption."

July 14: Louis S. Kassel, "Heterogenous Reactions."

July 15: Paul H. Emmett, "Studies on the Mechanism of Ammonia Synthesis Over Iron Catalysts."

July 15: A. T. Larson, "The Methanol Synthesis."

July 18 to 29: "Relation of Properties to Constitution of Organic Compounds," directed by E. Emmet Reid.

THEORETICAL

July 18 to 22: "The Relation of Structure to Physical Properties, Melting and Boiling Points, Optical Activity, etc., and to Chemical Properties, such as Reactivity."

July 18: E. Emmet Reid, "Introduction to Week's Work."

July 19: E. Emmet Reid, assisted by F. O. Rice's students, "Free Radicals."

July 20: M. S. Kharasch, "The Use of the Electronic Theory in Elucidating Reactions in Organic Chemistry."

July 21: P. A. Levene, "Chemical Structure and Optical Activity."

July 22: C. S. Hudson, "An Extension of Emil Fischer's Proof of the Configurations of the Sugars."

APPLICATIONS

July 25 to 29: "The Designing of Organic Compounds for Specified Purposes as Illustrated in Chemotherapy and in the Arts."

July 25: E. Emmet Reid, "Introduction to Week's Work."

July 26: David I. Macht, "The Present Status of Possibilities and Limitations in Regard to the Relationship between Chemical Structure and Physiological Action."

July 27: H. J. Barrett, "Relation of Resin Formation to Structure."

July 28: H. A. Lubs, "Relation of Color to Constitution in the Thioindigoid Dyes."

July 29: R. E. Rose, "The Relation of Structure to the Color of Dyes."

OTHER FEATURES

Another course of interest to chemistry teachers will be that in "Undergraduate Curriculum Content." This will be worked out to develop an improved curriculum for undergraduate chemistry students and will be conducted to some extent in connection with the conferences on "Recent Developments in Chemistry." Attendance at the latter will not be required, but will be encouraged as providing an opportunity for teachers to select at first hand and to organize material from up-to-date developments. Registrants in the course on "History of American Chemistry" will have the privilege of conferring with Dr. C. A. Browne, authority in the field of historical chemistry.

The following sound films will be presented as public lectures during the summer:

June 30: "Cosmic Rays," by R. A. Millikan.

July 14: "Oil Films on Water," by Irving Langmuir.

July 28: "Some Biochemical, Pharmacological and Medical Experiences as Told to Chemists," by J. J. Abel.

MEMBERS ELECTED BY THE WASHINGTON ACADEMY OF SCIENCES

THE following have recently been elected to membership in the Washington Academy of Sciences:

HONORARY MEMBER

Sir James Hopwood Jeans has been made an Honorary Member in recognition of his contributions to the dynamical theory of gases, to cosmogony, and to astrophysics. His brilliant applications of mathematical physics to the problems of astronomy have made him one of the leaders in the recent great advance in that science. Among his important publications are the following books: "The Dynamical Theory of Gases," "Problems in Cosmogony and Stellar Dynamics," and "Astronomy and Cosmogony." He is a research associate of the Carnegie Institution of Washington.

MEMBERS

Dr. Frederick Sumner Brackett, director of the division of radiation and organisms, of the Smithsonian Institution. Dr. Brackett is well known for his investigations in spectroscopy, including the development of thermopiles, and for his researches on plants and radiation, the results of which have been published in various journals.

Members newly elected to the Washington Academy of Sciences are characterized in the *Journal* of the academy as follows:

Dr. Robert Herman Bogue, research director, Portland Cement Association Fellowship at the Bureau of Standards. Dr. Bogue was elected to membership in recognition of his contributions to colloid chemistry and to the physical chemistry of silicates. He is the author of numerous papers on these subjects.

Professor Oakes Ames, professor of botany, supervisor of Biological Laboratory and Botanical Garden (Cuba), Arnold Arboretum and Botanical Museum, Harvard. Professor Ames was elected to membership in recognition of his contributions to systematic orchidology. He is the preeminent authority in this large and exceedingly difficult group of plants.

Dr. Thomas Barbour, director of the Museum of Comparative Zoology. Dr. Barbour was elected to membership in recognition of his contributions to herpetology and ornithology.

Dr. Johannes Hadeln Bruun, research associate at the Bureau of Standards. Dr. Bruun was elected to membership in recognition of his work on the separation and identification of the constituents of petro-

leum, the results of which have been published in various journals.

Charles Allen Cary, physiological chemist, Research Laboratories, Bureau of Dairy Industry. Mr. Cary was elected to membership in recognition of his contributions to the knowledge of nutrition and particularly the protein metabolism of milking cows. He is the author of numerous papers on these subjects.

Henry B. Collins, Jr., assistant curator, Division of Ethnology, U. S. National Museum. His election to membership was in recognition of his archeological researches in the southeastern section of the United States and in Alaska, and his contributions to physical anthropology.

Dr. James Fitton Couch, chemist, Bureau of Animal Industry. Dr. Couch was elected to membership in recognition of his work on the active principles of stock-poisoning plants. The results of his work have been published in various journals and bulletins.

Dr. Carl S. Cragoe, physicist, Bureau of Standards. Dr. Cragoe was elected to membership in recognition of his work on the thermodynamic properties of ammonia and of petroleum products.

Dr. Leon Francis Curtiss, physicist, Bureau of Standards. Dr. Curtiss was elected to membership in recognition of his investigations in radioactivity and cosmic radiation.

Dr. Francis Marion Defandorf, physicist, Bureau of Standards. Dr. Defandorf was elected to membership in recognition of his contributions to the science of electrical measurements, particularly in the field of high voltage.

Herbert N. Eaton, acting chief of the hydraulic laboratory, Bureau of Standards. Mr. Eaton was elected to membership in recognition of his work in aeronautics and hydraulics. He has written numerous articles on aeronautic instruments.

PRESENTATION TO PROFESSOR CONANT

THE William H. Nichols Medal of the New York section of the American Chemical Society for 1932 was presented on March 1 to Professor James Bryant Conant, chairman of the division of chemistry at Harvard University, in recognition of his work in organic chemistry, particularly in the chemistry of chlorophyll.

Professor Arthur E. Hill, of New York University, made the presentation. Other speakers were Professor James F. Norris, of the Massachusetts Institute of Technology, who discussed Professor Conant's personal career, and Professor Hans T. Clarke, of the College of Physicians and Surgeons, Columbia University, who recounted his scientific accomplishments. Mr. Walter S. Landis, chairman of the New York Section of the American Chemical Society, presided.

The Nichols Medal, established in 1903, is one of the most distinguished honors in American chemical science. The award, made for the research published during the past year, which in the opinion of the jury is most original and stimulative to further research, was bestowed on Professor Conant for his work in organic chemistry, particularly in the chemistry of chlorophyll. The late Dr. Nichols, the donor, was chairman of the board of the Allied Chemical and Dye Corporation and a charter member of the American Chemical Society.

Past winners include Professor William Lloyd Evans, of the Ohio State University, who received it in 1929 in recognition of his research into the structure of the sugar molecule; Dr. Samuel Edward Sheppard, assistant director of the research department of the Eastman Kodak Company, who was medallist in 1930, for his work in the chemistry of photography, and Dr. John Arthur Wilson, of Milwaukee, honored in 1931 for achievement in colloid chemistry, applied particularly to leather and sanitation.

Professor Conant, who was born in Boston in 1893, is a graduate of Harvard University, where he received the A.B. in 1913 and the Ph.D. in 1916. He served during the war as lieutenant in the Sanitary Corps, and later became major in the research division of the Chemical Warfare Service. An assistant professor of chemistry at Harvard after the close of the war, he became associate professor in 1925, and full professor in 1927. He is a former chairman of the organic division of the American Chemical Society. He is the author of "Organic Chemistry," joint author of "Practical Chemistry," and editor-in-chief of Volumes II and IX of "Organic Syntheses." His research has included work in reduction and oxidation, hemoglobin, free radicals, a quantitative study of organic reactions, besides the chemistry of chlorophyll.

SCIENTIFIC NOTES AND NEWS

APPOINTMENT of Dr. Vannevar Bush as vice-president of the Massachusetts Institute of Technology was announced by President Karl T. Compton following the regular meeting of the corporation on March 9. He has been a member of the faculty of electrical engineering since 1923. Dr. Bush was also elected a member of the corporation and will be dean of engineering. Plans have been made for the subdivision into the School of Science, the School of Engineering, the School of Architecture, the Division of Humanities