has devoted his research to the Far North, has completed the third of a series of Alaskan ethnological field studies. A reconnaissance was made of the lower Yukon River between the Bering Sea to Nulato, including some comparative studies among the Eskimo at Fortuna Ledge. Most of the trip was devoted to the Ingalik, an Athapaskan-speaking tribe of Eskimo, where a surprisingly rich culture which is now being studied in detail was recorded. According to Professor Osgood, this work promises to change fundamentally the present conception of these primitive people. His study carried him into Russia, where, with the cooperation of the National Research Council, he surveyed the existing materials there which are pertinent to the knowledge of the distribution and development of the aboriginal culture which spread over the whole northwestern interior of the American continent.

The Caribbean area has been subjected to an extensive archeological survey by Dr. Froelich G. Rainey, who carried on excavations in Puerto Rico under the joint auspices of the Peabody Museum, the New York Academy of Sciences and the American Museum of Natural History. This work was rewarded by the discovery of distinct superimposed strata of remains which bring a new clarification to the position of this island in its relation to the cultures of South America and those of Central America.

In the field of oceanography, the Bingham Foundation at the Peabody Museum is now engaged in developing models of deep-sea fishes. These fishes, which undergo distortion as they are brought up from the depths of the oceans, have been seen in their natural forms only by investigators who descend in special apparatus to study deep-sea marine life. Several of the models have been completed and the work will give an indication of the predominant common forms of deep-sea fishes and of the morphologically peculiar aberrant types found only in a deep-sea environment.

The foundation, under the curatorship of Professor Albert E. Parr, is completing its study of fluctuations of shallow-water temperatures along the Atlantic coast of the United States and their possible relations to the fluctuations in the abundance and migrations of marine fishes. A project in process is the investigation of the eye and optical mechanism of the flying fishes, interesting because of their need for rapid adjustment from submarine to aerial vision.

AERONAUTICS AND AIR-CONDITIONING AT CORNELL UNIVERSITY

EACH year an increasing number of students at Cornell University are choosing aeronautical engineering as their specialty. The university, however, does not attempt to duplicate the work of the specially equipped schools of aeronautics throughout the country. It aims to teach the fundamentals of this rapidly expanding field to a limited group of seniors some of whom may be expected to spend a year of graduate study in one of the recognized schools for aeronautics.

A small wind tunnel built by students, capable of attaining flight conditions of twenty miles an hour for a two square foot section has served for the past few years for laboratory purposes. There is now in process of design by the students a larger wind tunnel which will use a twenty-five horse power blower to deliver 80 miles an hour on a ten square foot surface of tunnel throat.

Under the direction of K. D. Wood, assistant professor of the mechanics of engineering, the work offered in aeronautics consists of an introductory course in aerodynamics, taken in the third year, followed by courses in airplane design in the fourth year. The study of aeronautical power plants is undertaken in connection with the work in automotive design.

Supplementing the class-room instruction, the facilities of the modern airport at Ithaca are being used extensively for test flights and for calculations resulting from such flights.

A number of students have gained their student pilot licenses on the field and they form the nucleus of the Cornell Flying Club, made up of fifty members. Each year the club conducts a ground school with Professor Wood in charge.

As an outgrowth of temporary courses given this year in air-conditioning, the Sibley School of Mechanical Engineering at Cornell University will offer an option for seniors in fluid flow, heat transmission, refrigeration and air-conditioning, beginning in the first semester of 1936. This new option will be given in addition to the options now available to seniors studying for the M.E. degree in steam power-plant, industrial, automotive, aeronautical and hydraulic power-plant engineering.

The official announcement points out that these courses are regarded as particularly fitting, as Willis H. Carrier, a graduate of the School of Mechanical Engineering at Cornell University with the class of 1901, has contributed greatly to the application of scientific principles in the air-conditioning. The new option will be offered by the department of heat-power engineering, and will be in charge of C. O. Mackey, assistant professor, who has spent some time with the Carrier Engineering Corporation.

THE KANSAS CITY MEETING OF THE AMERICAN CHEMICAL SOCIETY

THE spring meeting of the American Chemical Society opens at Kansas City on April 13. The sessions will be held in the new municipal auditorium. Sev-

eral symposia reporting advances in spheres of human welfare have been arranged and a group of foreign chemists will address the convention. Dr. Frank B. Dains, professor of chemistry at the University of Kansas, has been appointed honorary chairman of the local committee. Andrew S. Barada, president of Barada and Page, Inc., has been named general chairman; G. Harry Clay, of Luzier's, Inc., has been chosen vice-chairman, and James A. Austin, of the Jensen-Salsbery Laboratories, Inc., is secretary.

Professor Edward Bartow, of the State University of Iowa, president of the society, will open the general session on Monday. Seventeen divisional sections, representing practically every branch of chemistry, will take part in the meeting. Delegations from eighty local sections will attend.

The divisions and their chairmen include:

Agricultural and Food Chemistry—Dr. J. H. Nair, The Borden Company, Syracuse, N. Y.; *Biological Chemistry*—Professor C. G. King, University of Pittsburgh; *Cellulose Chemistry*—Dr. G. J. Ritter, Forest Products Laboratory, Madison, Wis.; *Chemical Education*—Professor Harrison Hale, University of Arkansas; *Colloid Chemistry*—Professor S. S. Kistler, University of Illinois; *Gas and Fuel Chemistry*—Dr. O. O. Malleis, Appalachian Coals, Inc., Cincinnati, Ohio; *History of Chemistry*—Professor Tenney L. Davis, Massachusetts Institute of Technology; *Industrial and Engineering Chemistry*—Professor Walter G. Whitman, Massachusetts Institute of Technology; *Leather and Gelatin Chemistry*—J. Harold Hudson, Eastman Kodak Company, Rochester, N. Y. *Medicinal Chemistry*—Professor R. Norris Shreve, Purdue University; *Organic Chemistry*—Professor Henry Gilman, Iowa State College; *Paint and Varnish Chemistry*—E. W. Boughton, R. T. Vanderbilt Company, Inc., New York City; *Petroleum Chemistry*—F. W. Hall, The Texas Company, New York City; *Physical and Inorganic Chemistry*—Professor J. W. Williams, University of Wisconsin; *Rubber Chemistry*—Dr. N. A. Shepard, Firestone Tire and Rubber Company, Akron, Ohio; *Sugar Chemistry*—J. K. Dale, A. E. Staley Manufacturing Company, Decatur, Ill.; *Water, Sewage and Sanitation Chemistry*—R. C. Bardwell, Chesapeake and Ohio Railway Company, Richmond, Va.

SCIENTIFIC NOTES AND NEWS

DR. CHARLES A. KRAUS, head of the department of chemistry of Brown University, has been awarded the Theodore William Richards Medal of the Northeastern Section of the American Chemical Society, for "conspicuous achievement in chemistry." The medal will be presented at Boston on April 10. The first medal was awarded in 1932 to Dr. A. A. Noyes, of the California Institute of Technology, and the second in 1934 to Dr. Gregory Paul Baxter, professor of chemistry at Harvard University.

ON the occasion of the presentation of the Washington award to Dr. Charles Franklin Kettering, vice-president of General Motors Corporation in charge of research, a dinner was given in his honor on February 25, which was attended by six hundred guests. The citation was read by Frank D. Chase, chairman of the Washington Award Commission, after which Frank F. Fowle, president of the Western Society of Engineers, made the presentation. Dr. Kettering responded with an address entitled "Research and Social Progress."

THE Worcester Reed Warner Medal of the American Society of Mechanical Engineers has been awarded to Professor Stephen Timoshenko, of the department of engineering mechanics of the University of Michigan, for his "contributions to the theory of the design of elastic structures and the treatment of dynamics of moving machinery." The medal, provision for which was made in the will of Worcester Reed Warner, honorary member and past-president of the society, is of gold. It is bestowed annually on the author of "the most worthy paper dealing with progressive ideas in mechanical engineering or efficiency in management."

THE dean of the Washington University School of Medicine has announced the establishment by the Mu Chapter of the Phi Beta Pi Medical Fraternity of a lectureship to be named in honor of Professor Leo Loeb. In establishing a lectureship to bear his name, the students who compose the present membership of the local chapter of the Phi Beta Pi fraternity express to Dr. Loeb their appreciation of his stimulating instruction to them and to earlier classes of medical students and record their recognition of his important contributions to medical science.

AT the regular clinical pathologic conference in the Peter Bent Brigham Hospital, Boston, on February 17, Dr. Henry A. Christian, physician-in-chief at the institution, was presented with a volume of medical papers dedicated to him by his former students, colleagues and house officers, as a token of affection on his sixtieth birthday. The presentation was made by Dr. Francis G. Blake, Sterling professor of medicine at the Yale University School of Medicine. The volume contains 1,000 pages of papers on phases of internal medicine.

SIX former pupils of Dr. Alfred N. Whitehead, professor of philosophy at Harvard University, who are connected with the department of philosophy at differ-