

services in applied chemistry." Other organizations participating are the American Chemical Society, the American Electrochemical Society, the American Institute of Chemical Engineers and the American Section of the Société de Chimie industrielle.

Alfred P. Jones, of the Houston Properties Corporation, will detail the accomplishments of Mr. Oenslager which led to the award. Professor Marston T. Bogert, of Columbia University, past president of the American Chemical Society and of the Society of Chemical Industry, will make the presentation. Mr. Oenslager will deliver an address describing the development of organic accelerators for rubber vulcanization. Dr. A. E. Marshall, of New York, chairman of the award committee, will preside.

"Five major achievements mark the change in rubber technology during the past thirty years," according to the announcement of the award committee. "These are reclaimed rubber, the cord tire, the carbon black tread, the nitrogenous organic accelerator and antioxidants. Mr. Oenslager may be credited with two of these—the carbon black tread and the nitrogenous organic accelerator. As a direct result of his efforts the rubber industry has been revolutionized and from it have come economies of manufacture, increase in service and savings to consumers which run into the hundreds of millions of dollars annually."

Mr. Oenslager began his researches in 1906, setting out with the definite object of finding substances to be used in rubber mixtures which would decrease the rate of cure and increase the physical qualities of low grades of crude rubber. He found that the best organic accelerators contained nitrogen and his discovery has been put to wide use.

His experiments also laid the foundation for the most widely accepted theory of vulcanization—that zinc oxide is necessary to vulcanization with most of the nitrogen accelerators. He also viewed rubber as a colloid which needed uniformity of dispersion and toward this end he introduced what is known as the master batch.

In 1911, Mr. Oenslager developed the carbon black tread for automobile tires which was adopted for large scale production the following year.

"Were we to remove these two main features from tires to-day," the award committee points out, "the mileage figures would drop to one half the present values. If the modern tire can show savings to consumers over those of twenty-five years ago of \$800,000,000 a year, then appraise the accelerator and the carbon black at a \$400,000,000 annual saving and it will not be far out of line."

Mr. Oenslager was born in Harrisburg, Pennsylvania, in 1873. After attending schools in that city he prepared for college at Phillips Exeter Academy,

entering Harvard University in 1890. While in college he became greatly interested in chemistry and after his graduation in 1894 he devoted two years of study to that science in the Harvard Graduate School.

In 1896 he became associated with S. D. Warren and Company as a chemist and remained in that post for nine years. In 1905 he was appointed research chemist to the Diamond Rubber Company. This company later was purchased by the B. F. Goodrich Company, with which Mr. Oenslager is now associated.

OFFICERS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

A FULL account of the Atlantic City meeting of the American Association for the Advancement of Science, and the scientific societies associated with it, edited by the general secretary, Dr. Burton E. Livingston, will be published in the issue of SCIENCE for February 3. Officers of the association were elected on December 30 as follows:

PRESIDENT

Henry Norris Russell, Princeton University.

PERMANENT SECRETARY

Henry B. Ward, University of Illinois.

GENERAL SECRETARY

Burton E. Livingston, the Johns Hopkins University.

TREASURER

John L. Wirt, Carnegie Institution of Washington.

MEMBERS OF THE COUNCIL

George T. Hargitt, Duke University.

Dugald C. Jackson, Massachusetts Institute of Technology.

MEMBERS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

Edwin B. Wilson, Harvard School of Public Health.

A. F. Woods, U. S. Department of Agriculture.

Philip Fox, Adler Planetarium and Astronomical Museum (to succeed Henry B. Ward)

REPRESENTATIVE ON THE BOARD OF TRUSTEES OF SCIENCE SERVICE

Burton E. Livingston, the Johns Hopkins University.

VICE-PRESIDENTS AND CHAIRMEN OF SECTIONS

A—*Mathematics*. C. N. Moore, University of Cincinnati.

B—*Physics*. C. J. Davisson, Bell Telephone Laboratories.

C—*Chemistry*. Arthur B. Lamb, Harvard University.

D—*Astronomy*. V. M. Slipher, Lowell Observatory.

E—*Geology*. Rollin T. Chamberlin, University of Chicago.

F—*Zoological Sciences*. A. S. Pearse, Duke University.

G—*Botanical Sciences*. K. M. Wiegand, Cornell University.

- H—*Anthropology*. T. Wingate Todd, Western Reserve University.
 I—*Psychology*. Walter R. Miles, Yale University.
 K—*Social and Economic Sciences*. Wesley C. Mitchell, Columbia University.
 L—*Historical and Philological Sciences*. Waldo G. Leland, American Council of Learned Societies.
 M—*Engineering*. C. F. Kettering, General Motors Corporation.
 N—*Medical Sciences*. Charles R. Stockard, Cornell University.
 O—*Agriculture*. A. R. Mann, Cornell University.
 Q—*Education*. Walter F. Dearborn, Harvard University.

SECRETARIES OF SECTIONS

- A—*Mathematics*. E. R. Hedrick, University of California at Los Angeles.
 B—*Physics*. H. A. Barton, American Institute of Physics.
 C—*Chemistry*. J. H. Simons, Chicago, Ill.
 D—*Astronomy*. H. T. Stetson, Ohio Wesleyan University.
 E—*Geology*. Kirtley F. Mather, Harvard University.
 F—*Zoological Sciences*. George R. La Rue, University of Michigan.
 G—*Botanical Sciences*. Sam F. Trelease, Columbia University.
 H—*Anthropology*. W. M. Krogman, Northwestern University.
 I—*Psychology*. John E. Anderson, University of Minnesota.
 K—*Social and Economic Sciences*. James Ford, Harvard University.
 L—*Historical and Philological Sciences*. Joseph Mayer, American Association of University Professors.
 M—*Engineering*. N. H. Heck, U. S. Coast and Geodetic Survey.
 N—*Medical Sciences*. W. M. Simpson, Miami Valley Hospital.
 O—*Agriculture*. P. E. Brown, Iowa State College.
 Q—*Education*. William S. Gray, University of Chicago.

SCIENTIFIC NOTES AND NEWS

At the banquet of the Cambridge meeting of the Geological Society of America the fifth presentation of the Penrose Medal for distinguished achievement was made to Dr. Edward Oscar Ulrich, of Washington, who recently retired after long service with the U. S. Geological Survey. The presentation was made by Dr. W. O. Hotchkiss, president of the Michigan College of Mines. At the same time the society honored the sole survivor of the thirteen men who formed it in 1888, Dr. Herman LeRoy Fairchild, professor emeritus of geology at the University of Rochester, with the presentation of an inscribed copy of "The Geological Society of America," a history which he helped to prepare. Dr. Fairchild is a former president of the society.

At the close of the recent meeting at Washington of the National Council of Geography Teachers, the first award of the certificate of merit for service in teaching geography was presented to Dr. William Morris Davis, professor emeritus of geology at Harvard University.

DR. HENRY EYRING, research associate in chemistry at the Frick Chemical Laboratory of Princeton University, received the ninth annual \$1,000 award of the American Association for the Advancement of Science at the close of the Atlantic City meeting. The prize was given for Dr. Eyring's paper entitled "Quantum Mechanics of Conjugate Double Bonds," presented to the chemical section.

THE annual gold medal award for conspicuous achievement in the medical sciences, given by the Phi Lambda Kappa fraternity, was presented to Dr. Béla

Schick, of the Mount Sinai Hospital, New York City, discoverer of the Schick test for diphtheria, at the annual dinner on January 1. The annual gold medal award for the best thesis on a medical subject written by an undergraduate medical student was presented to Myron G. and Maurice M. Rosenbaum, of the University of Buffalo School of Medicine.

THE Rudolf-Virchow Medal of the Berlin Anthropological Society has been awarded to Professor Karl Pearson, director of the Francis Galton Laboratory for National Eugenics, University of London.

Nature reports that in commemoration of the seventieth birthday of Sir P. C. Rây, founder, foundation-president and patron of the Indian Chemical Society, a jubilee volume of some 350 pages is being published by the society, containing contributions from many eminent chemists in India and abroad.

DR. MARCHOUX, professor at the Institut Pasteur, Paris, has been nominated a Grand Officer of the Legion of Honor.

DR. CHARLES ZELENY, professor of zoology at the University of Illinois, was elected president of the American Society of Zoologists at the Atlantic City meeting.

At the Cambridge meeting of the Geological Society of America the following officers were elected: Dr. Charles Kenneth Leith, of the University of Wisconsin, *president*; Professor Rollin T. Chamberlin, University of Chicago; Dr. E. M. Kindle, chief of the Division of Paleontology of the Canadian Geological Survey; Professor E. S. Moore, of the University of