partially nephrectomized rat; David M. Greenberg, associate professor of biochemistry, University of California, for research on the biochemistry of magnesium; H. Keffer Hartline, fellow in medical physics, Johnson Foundation, University of Pennsylvania, for a study of visual phenomena as indicated in the impulses in single optic nerve fibers; Carl C. Speidel, professor of anatomy, University of Virginia, for investigations on the fundamental activities of nerves in the living animal.

E. A. Andrews, professor emeritus of zoology, the Johns Hopkins University, for field observations on the variation of snails (*Neritina*) in salt-water ponds in Jamaica; Walter F. Loehwing, professor of botany, State University of Iowa, for a study of the effects of inorganic nutrients on the vegetative and reproductive cycle of plants; William Patten, professor emeritus of zoology, Dartmouth College, for field expenses in collecting material for research on the origin of vertebrates; George Harrison Shull, professor of botany and genetics, Princeton University, for part of the expense of investigations on the genetics of the evening primrose.

Edward F. Castetter, professor of biology, University of New Mexico, for a study of the ethno-biology of the Indians of the southwestern United States; Walter B. Jones, director, Alabama Museum of Natural History, for investigations on the Moundville culture of Alabama; Arthur Randolph Kelly, assistant professor of anthropology, University of Illinois, for a study of the physical anthropology of the Bronze Age people of Greece.

Harold C. Bingham, Sanbornton, New Hampshire, for a comparative study of the psychobiology of gorillas and other anthropoid apes; G. LaVerne Freeman, instructor and research associate in psychology, Northwestern University, for use in a study of diurnal rhythm, including both sleep and waking activity; Donald McLean Purdy, associate professor of psychology, University of Kansas, for the study of an unusual case of defective vision.

GEORGE K. BURGESS,
Chairman

THE WASHINGTON AWARD

THE Washington Award for 1932, "in recognition of devoted, unselfish, and preeminent service in advancing human progress," was presented to Dr. William David Coolidge, associate director of research in the laboratory of the General Electric Company at Schenectady, following a dinner and reception on February 24 at the Hotel Sherman, Chicago. Dr. Coolidge is the eleventh to be so honored by the Washington Award Commission, the first presentation being to President Hoover, in 1919. Dr. Harry Woodburn Chase, president of the University of Illinois, delivered the principal address of the evening, evaluating the importance of research in the present social order.

Among the best-known contributions of Dr. Coolidge are ductile tungsten for lamp filaments, wrought tungsten for contacts and x-ray targets, the hot cathode x-ray tube, various types of x-ray generating equipment, the "C" tube for submarine detection and signalling, and the cathode ray tube.

His achievement of drawn tungsten filaments made the incandescent lamp cheap and reliable, and his improvements in the x-ray tube augmented and made less dangerous to operate that modern laboratory instrument. The beam of Dr. Coolidge's cathode-ray tube, having the power of a ton of radium, has unknown possibilities in the realm of science and medicine. An exhibit of the achievements for which the award was given to Dr. Coolidge was on display at the hotel.

Dr. Coolidge graduated from the Massachusetts Institute of Technology in 1896, afterwards receiving his Ph.D. from the University of Leipzig. Returning to the United States, he joined the teaching staff of the institute, serving as assistant in physics, instructor in physical chemistry, and as assistant professor of physico-chemical research. In 1905 he became a member of the staff of the General Electric Research Laboratory, under Dr. Willis R. Whitney, and in 1908 was made assistant director of that organization, a position he occupied until 1928, when he was made associate director.

The Washington Award, presented to Dr. Coolidge, was founded sixteen years ago by John Watson Alvord, and it is administered by the Western Society of Engineers. Presentation was made by Mr. Frank D. Chase, president of the society.

AWARD OF THE POPULAR SCIENCE MONTHLY

DR. IRVING LANGMUIR, associate director of the research laboratory of the General Electric Company, at Schenectady, N. Y., has received the *Popular Science Monthly* annual award of $10,000 for notable scientific achievement. The award, together with a gold medal commemorating it, was presented to Dr. Langmuir on February 29 at the Engineers Club in New York City.

This award was established two years ago for the double purpose of honoring Americans who have done notable scientific work and of stimulating the public mind to a greater appreciation of the values of scientific investigation. The first winners were Dr. George H. Whipple, of the University of Rochester, and Dr. George R. Minot, of Harvard University, who received the award jointly last year for their discovery and development of a cure for pernicious anemia.

The committee of award consisted of twenty-two leading men of science, and nearly 1,800 organizations were requested to present nominations.

Dr. Langmuir is known for his contributions to the knowledge of atomic structure; the theory of the single molecular layer; the heat of atomic hydrogen