were fed a diet of polished rice. The disease could be cured by adding "silverskin" to the polished rice.

After an absence of more than a year, during which Dr. Grijns took part in a military expedition, he returned to Weltevreden and succeeded Dr. Eijkman, who in 1898 was nominated professor in the University of Utrecht. Until 1917 and from 1912 on as its director, Dr. Grijns was connected with that laboratory, except for a few years of sick leave, which he spent in Holland. During these years, he confirmed and extended the research work on polyneuritis begun by Eijkman. He was the first to express clearly the conception of beriberi, that it developed when the diet was lacking certain substances which were of importance in the metabolism of the peripheral nervous system. The Indian Government in 1902 was convinced and forbade the use of polished rice in all jails, where from then on beriberi disappeared. Dr. Grijns called it a deficiency disease, since it was due to a deficiency of unknown substances. Curative substances similar to those occurring in rice bran were found in a kind of bean, called Katjang idjo, in meat and in other native legumes. These foodstuffs lost their curative properties when they were heated to 120° C. In another series of experiments he disproved the infection theory and the theory that starch was the cause of the disease and also Schaumann's phosphoric acid and nuclein theory.

During his stay in the Dutch East Indies, Dr. Grijns for several years taught such subjects as anatomy, physiology and legal medicine in the school for the training of native physicians. He also did research on the significance of drinking water, insects and soil being the cause of the spread of infectious diseases, and he investigated the epidemiology of cholera and plague. In 1917, Dr. Grijns returned to Holland, where he became connected with the Colonial Institute for Tropical Hygiene and later again with the laboratory of Dr. Eijkman. From 1921 until 1935 he was professor in animal physiology in the Agricultural College in Wageningen, during which time he continued his studies on vitamins and published several papers dealing with reproduction and fertility in rats. Research workers, throughout the world, who have been concerned with the discovery of the various vitamins, will be interested to know that Dr. Grijns's important papers have been translated into English and published by Noorduin en Toon, Gorinchem, Holland.

With the retirement of Dr. Grijns, the College of Wageningen loses one of its inspiring and much beloved teachers and an able investigator.

M. C. KIK

COLLEGE OF AGRICULTURE
UNIVERSITY OF ARKANSAS

AWARD OF THE JOHN FRITZ GOLD MEDAL

THE John Fritz gold medal has been awarded for 1936 to William Frederick Durand, professor emeritus of mechanical engineering at Stanford University. Professor Durand was cited as an "authority in hydrodynamic and aerodynamic science, and in its practical application; outstanding leader in research and in engineering education."

The award is given each year for "notable scientific or industrial achievement." The Board of Award is composed of sixteen past-presidents of the four national engineering societies of civil, mining and metallurgical, mechanical and electrical engineers. This is the thirty-second award to be made.

Professor Durand is an inventor of precision measuring instruments. Becoming interested in scientific and engineering research early in life, he devoted his attention to mathematics and physics, and to problems of ship propulsion, hydraulics of pipes and aeronautics. He was one of the first men to engage in scientific research in aeronautics. He constructed a wind-tunnel at Stanford University, and conducted a long series of investigations on propellers.

Professor Durand was born in Bethany, Conn., in 1859 and was graduated from the United States Naval Academy in 1880. He served in the Engineers Corps of the Navy until 1887, and then went to the Agricultural and Mechanical College of Michigan as professor of mechanical engineering. He received the degree of doctor of philosophy from Lafayette College in 1888. From 1891 to 1904 he was professor of marine engineering in Cornell University. In the latter year he joined the faculty of Stanford University. The University of California bestowed the honorary degree of doctor of laws upon him in 1923.

In 1914, Professor Durand with others organized the National Advisory Committee for Aeronautics, authorized by the Congress, and was named chairman in 1916. In 1918 he was scientific attaché at the American Embassy in Paris, and served as a member of the Inter-allied Commission on Inventions.

He was appointed by President Coolidge in 1925 member and secretary of the Aircraft Board, of which the late Dwight W. Morrow was chairman. In 1929 he joined the Advisory Board of Engineers of the Boulder Dam, and has served as consultant on projects of the Bureau of Reclamation, including the Grand Coulee Dam, and the all-American canal near the Mexican border. Last March President Roosevelt named him chairman of a committee to review the entire question of airship design and construction for the U. S. Navy.

Professor Durand is a past president of the American Society of Mechanical Engineers, a life member

and gold medalist of the American Society of Naval Engineers, and a member of many scientific and engineering societies in America, England and France. He was awarded the Daniel Guggenheim medal for aeronautical achievement in May, 1935. He was a trustee of the Guggenheim Fund for the Promotion of Aeronautics throughout the life of that organization. He is the author of technical books and general editor of a study of aerodynamic theory.

RECENT DEATHS

DR. JOSEPH COLT BLOODGOOD, professor of clinical surgery at the Johns Hopkins University and director of the Garvan Cancer Research Laboratory, died on October 23 in his sixty-eighth year.

DR. HENRY SCHWARZ, since 1921 professor emeritus of obstetrics and gynecology at the medical school of Washington University, St. Louis, died on October 23. He was seventy-nine years old.

DR. GEO. GAILEY CHAMBERS, professor of mathematics at the University of Pennsylvania, died on October 4 at the age of sixty-two years.

DR. D. ROBERTS HARPER, 3D, physicist in the coal research laboratory of the Carnegie Institute of Technology, Pittsburgh, died on October 19 at the age of fifty years.

DR. ARCHIBALD PATTERSON KNIGHT, who retired from the professorship of physiology and animal biology at Queen's University, Canada, in 1920, died on October 19, at the age of eighty-six years.

THE death is recorded in *Nature* of Edgar Thurston, formerly superintendent of the Government Museum, Madras, which took place at Penzance on October 5 at the age of eighty years.

THE death is announced, at the age of sixty-six years, of Dr. Gustavus Buchböck, professor of chemistry in the University of Budapest.

A CORRESPONDENT writes: "Gerrit P. Wilder, botanist on the staff of Bernice P. Bishop Museum, Honolulu, Hawaii, since 1924, passed away on September 29 at the age of seventy-eight years. One of the most active horticulturalists in the Pacific, Mr. Wilder made a series of expeditions to Tahiti, the Marquesas, Samoa, Fiji, New Zealand and Australia, the West Indies, Ceylon and other places, introducing into Hawaii many tropical plants and trees. He was a specialist in edible fruits and avocados. Among his publications are 'Fruits of the Hawaiian Islands,' 'The Breadfruit of Tahiti,' 'Flora of Rarotonga' and 'The Flora of Makatea.'"

SCIENTIFIC NOTES AND NEWS

THE Nobel Prize in physiology and medicine was awarded on October 24 to Dr. Hans Spemann, professor of zoology and director of the Zoological Institute at the University of Freiburg in Breisgau, for the discovery of "the organizing effect during embryonic evolution." Prior to the war Dr. Spemann was director of the Kaiser Wilhelm Institute of Biology at Dahlem. He gave the Silliman lectures at Yale University in 1933.

THE Council of the State Medical Society of Wisconsin at the recent annual session in Milwaukee presented its award for distinguished service to the society, the medical profession and public health to Edward Asahel Birge, LL.D., president emeritus of the University of Wisconsin, and to Dr. Arthur Jackson Patek, Milwaukee, founder and for several years editor of the *Wisconsin Medical Journal*. Dr. Birge, now eighty-four years old, was for fifty years associated with the university as instructor in natural history, professor of zoology, dean of the college of arts and sciences (1891 to 1918) and president (1918 to 1925).

DR. EDWARD C. WENTE, research physicist in charge of investigations in acoustics in the Bell Telephone Laboratories, New York, received on October 23 the new Progress Medal, which is to be awarded annually by the Society of Motion Picture Engineers in recognition of leading inventions in motion-picture technology. The medal was awarded to Dr. Wente for his work in acoustics and acoustical instruments with special reference to their application to the recording, transmission and reproduction of speech and music.

FOR distinguished work in the field of ornithology on this continent during the past two years, Herbert L. Stoddard, of Beachton, Ga., was awarded the Brewster Memorial Medal at the Toronto meeting of the American Ornithologists' Union.

DR. LUDWIG PRANDTL, professor of applied mechanics at the University of Göttingen, has been awarded the Ernst Abbe Memorial Prize for Applied Mathematics and Physics, established by the firm of Carl Zeiss, Jena.

THE Harvard Medical School Alumni Association held on October 23 a dinner in honor of Dr. David L. Edsall, who recently retired as dean of the Harvard Medical School. Dr. James B. Conant, president of Harvard University, presided, and speakers included Dr. A. Lawrence Lowell, president emeritus of Harvard University, and Dr. Charles S. Burwell, dean of the Medical School. At a meeting preceding the din-