

He was born in 1847 in Illinois and he received the M.A. degree from the University of Chicago. For five years he was at the U. S. Naval Observatory in Washington and left there in 1875 to go to the Cincinnati Observatory as director. When Leander McCormick, the son of the inventor of the famous reaping machine, gave to the University of Virginia the 26-inch refractor, the telescope was the largest and the finest in the world. In looking for a director, the distinguished astronomer Simon Newcomb recommended for the position the director of the Cincinnati Observatory. For thirty years, from 1882 to 1912, when he was retired on the Carnegie Foundation, Professor Stone directed the work of the McCormick Observatory. No photographic work was attempted, but valuable visual observations were made on double stars, variable stars, nebulae, the satellites of Saturn, etc. In addition, he observed three total solar eclipses, that of 1869 in Iowa, he was in charge of the Naval Observatory expedition to Colorado in 1878 and of the McCormick expedition to South Carolina in 1900.

Professor Stone was as much at home in the field of mathematics as he was in astronomy. He was the founder and the first editor of the *Annals of Mathematics*, later taken over by the American Mathematical Society.

The Vanderbilt fellowships at the University of Virginia attracted to the McCormick Observatory many capable young men. Among those now living who hold the degrees of doctor of philosophy from Virginia and who have attained prominent scientific positions are the following: Edgar Odell Lovett, president of Rice Institute; Heber D. Curtis, director of the University of Michigan Observatory; Charles P. Olivier, director of the Flower Observatory; Herbert R. Morgan, U. S. Naval Observatory; Ralph E. Wilson, Dudley Observatory; G. F. Paddock, Lick Observatory, and T. McN. Simpson, Randolph-Macon College.

The combination of a great telescope and skill as a mathematician brought distinction to the University of Virginia. Naturally the McCormick telescope did not long remain the largest in the world. Four years after its opening, the Lick telescope of 36-inch aperture was dedicated.

Professor Stone came of a prominent family. He was a brother of Melville Stone, for many years general manager of the Associated Press.

S. A. MITCHELL

#### ARTHUR GRAY LEONARD

DR. ARTHUR GRAY LEONARD, professor of geology at the University of North Dakota and state geologist for thirty years, died at his home in Grand Forks on December 17, 1932. He was born at Clinton, New York, March 15, 1865. He graduated from Oberlin College in 1889, received the degree A.M. from his

alma mater in 1895 and the Ph.D. degree from the Johns Hopkins University in 1898. He served as assistant state geologist of Iowa, assistant professor of geology at the University of Missouri and professor of geology at Western College before going to the University of North Dakota in 1903.

The wide range of Dr. Leonard's contribution to the knowledge of the geology of North Dakota is indicated by the titles of his numerous geological papers in scientific journals and the reports of the United States Geological Survey and the North Dakota Geological Survey on such subjects as lignite coal, clay, gravel and the possibilities of oil and gas. A complete list of his publications numbers over fifty.

Dr. Leonard's greatest contribution to the science aside from that as a teacher was his addition to the basic knowledge of the geology of lignite coal, its origin and the relation of the lignite-bearing beds to the geologic time scale.

HOWARD E. SIMPSON

#### JOHN F. G. HICKS

THE many friends and former students of Dr. J. F. G. Hicks will regret to learn of his death on December 13, at his home in Portland, Oregon. At the time of his death he was teaching in the Institute of Technology Junior College in Portland. His health failed while he was doing research at the Bureau of Standards on paper deterioration (1929-1931).

Dr. Hicks was born in Philadelphia in 1884. He received his B.S. degree from the University of Pennsylvania in 1906, and his M.S. and Ph.D. degrees from the University of Illinois in 1916 and 1918, respectively.

Besides holding several industrial positions, Dr. Hicks held professorships in the departments of chemistry of Oregon State College, University of Nevada and North Pacific College. At the time of his death he was actively engaged in writing a textbook of chemistry.

RALPH W. HUFFERD

#### RECENT DEATHS

CHARLES G. FAIRCHILD, formerly professor of physics at Oberlin College and later president of Rollins College, died on January 20, at the age of eighty-nine years.

DR. WINFIELD S. DUDGEON, professor of botany at Ewing Christian College, Allahabad, India, died at Ames, Iowa, on December 26, at the age of forty-six years. Professor Dudgeon had been spending a sabbatical year in the United States.

DR. JOHN H. STUMBERG, a member of the research staff of the Rockefeller Institute at Princeton, died suddenly on January 20, at the age of twenty-six years.

*Nature* announces the deaths of Professor Paolo