OBITUARY

FREDERICK SLATE

FREDERICK SLATE, professor of physics emeritus, University of California, died at his home in Berkeley on February 26, at the age of seventy-eight years. He was born in London and came to the United States when twelve years of age. He took his bachelor's degree in 1871 at Brooklyn Polytechnic Institute, after which he accepted a position as civil engineer with the Northwestern Pacific Railroad. He entered the University of California as a graduate student in 1873, becoming graduate assistant in chemistry in 1875 and instructor in chemistry in 1876. After two years of study in Germany, he returned to the University of California in 1879 as superintendent of the physics laboratory. On the death of Professor John LeConte in 1891 he became head of the department of physics, which position he held until his retirement in 1918. The University of California conferred on him the degree of LL.D. in 1925.

Professor Slate was active in gaining recognition for scientific courses in the university curriculum and the establishment of a College of Natural Science. He was dean of this college from 1896 to 1909. He took an active part, not only in the early development of the university, but also in the establishment and early growth of the high school system throughout the state. His influence was always on the side of solid foundations and high standards. His publications were mainly in the field of mechanics. In the class room he possessed to an unusual degree the power of clear exposition and the ability to inspire his students with the spirit of work. His teaching was marked by strong individuality and by the demand for exactness in thought and expression. He was a potent inspiration to many. He was a man of great sincerity, truthfulness and loyalty.

ELMER E. HALL

UNIVERSITY OF CALIFORNIA

CHRISTINE LADD-FRANKLIN

THE career of Dr. Christine Ladd-Franklin, who died on March 5, 1930, at the age of eighty-two years, was remarkable in several ways. It was remarkable for brilliancy of achievement. Her theory of color vision, whether or not it shall be the final word on the subject, has certainly done excellent service by holding together the most important facts, and by relating psychology, physiology and photochemistry, along with an evolutionary conception of the development of the color sense. This theory arose out of her study of the theories of Helmholtz and Hering during her work in Germany in 1891–92. She pointed out defects in each of these rival theories and showed how the merits of each could be combined into a single theory. Her work in symbolic logic, perhaps even more brilliant than that in color theory, dates from even further back, from her early days at the Johns Hopkins in 1878–82. Besides these major achievements there were several others of interest, especially her discovery with König in 1895 of the "normal night-blindness of the fovea," and her resuscitation of the "blue arcs" in 1926, and making something of theoretical interest out of this phenomenon.

One of the most remarkable features of her career was her vitality to the last. Her output of publications, which declined from the time when she was about fifty-five, mounted again when she was seventy-five. She maintained to the last her keen interest in all the new developments in her chosen lines. Little of importance escaped her notice, and her judgment and keen power of criticism remained as good as ever. Nor was there any diminution in her zeal for promoting the views which she had espoused.

One should not omit to mention the strong feminist element in her motivation. She was proud of having been a pioneer in university study by women at a time when special private arrangements had to be made in order to allow her the privilege of a university connection, and she was keenly interested in every fresh advance made by women in scientific production. To those who saw her at close range, with her keen logical mind and her cheerful aggressiveness, she certainly appeared a remarkable woman.

R. S. WOODWORTH

COLUMBIA UNIVERSITY

RECENT DEATHS

PROFESSOR STEPHEN A. FORBES, since 1917 chief of the Illinois State Natural History Survey, professor at the University of Illinois from 1884 to 1921, and dean of the college of science from 1888 to 1905, died on March 13 after a week's illness, at the age of eighty-five years. He had been continuously in the state's service for nearly sixty years.

THE death is reported of Dr. Thomas Rakestraw Baker, professor emeritus of natural science at Rollins College, Florida. He was ninety-three years old.

DR. HENRY CHAPMAN MERCER, anthropologist, archeologist, historian and founder of the Mercer Museum at Doylestown, Pennsylvania, connected with the Bucks County Historical Society, died on March 9 at the age of seventy-four years.

Nature reports the following deaths: Dr. G. G. Chisholm, formerly reader in geography in the University of Edinburgh and secretary of the Royal

Scottish Geographical Society from 1910 until 1925, on February 9, aged seventy-nine years; Mr. A. A. Campbell Swinton, F.R.S., known for his pioneer work on X-rays and radio communication, on February 19, aged sixty-six years; Dr. F. Arnall, head of the department of pure and applied chemistry at the Cardiff Technical College, whose interest was mainly in organic chemistry, on February 7, aged thirty-four years, and Professor Felix M. Exner, director of the Zentralanstalt für Meteorologie und Geodynamik and professor of terrestrial physics in the University of Vienna, who was an honorary member of the Royal Meteorological Society, on February 7, aged fifty-three years.

SCIENTIFIC EVENTS

THE FAUNA OF THE BRITISH EMPIRE

THE annual meeting of the Society for the Preservation of the Fauna of the Empire was held on March 4 at the offices of the Zoological Society, London. Lord Onslow, the president, was in the chair.

According to the London *Times*, the report of the executive committee stated that since the last report the acting secretary had made a visit to America solely with the object of enlisting the cooperation of American conservationists in the work of the society. An influential committee had been formed in New York, under the auspices of the Boone and Crockett Club, with Mr. Madison Grant as chairman, and it included Professor Henry Fairfield Osborn, Colonel Kermit Roosevelt, Mr. Childs Frick and Major F. R. Burnham. This committee had charged itself with the collection of a fund to promote efforts with which American conservationists are in sympathy, and it was believed that the society would thereby receive substantial help. The Wild Life Protection Society of America had also, through Dr. Hornaday, generously made a contribution to their funds.

It was impressed on our secretary in America that it was expected that any help forthcoming from the citizens of the United States of America would be equaled by similar support from our own people. We are confident that this will be the case, but definite efforts are necessary, and we urge our members not to fail us in this respect. The need is urgent. To meet changing conditions we must extend the sphere of our activities. The character of our endeavor during the next ten years will do much to decide the fate of the wild life of the world. This may sound ambitious, but as some 70 per cent. of the larger mammals of the world are in this empire, the responsibility resting on those who claim its citizenship is not to be disregarded. This society, based as it is in the capital city of the empire, and with its twenty-five years' record of achievements behind, can, it is submitted, claim to be the correlating focus of wild life conservation for the dominions, colonies and dependencies which all go to make up the empire of to-day.

Lord Onslow reported that the society wished to carry preservation much farther than it had ever been carried before. That must be done if wild animals were to be preserved in their wild state. As time proceeded, it became more necessary to stabilize reserves by establishing them as absolute sanctuaries. That had been done in America and other countries, and it was by the establishment of national parks in the future that this problem would probably be solved.

He was glad to say that a debate which took place in the House of Lords elicited a satisfactory reply from Lord Passfield, both as to the general policy of the government in regard to game preservation, and to an assurance that the monstrous practice of slaughtering game from motor-cars would be severely dealt with.

A CENTURY OF PROGRESS IN CHEMISTRY

A GROUP of chemists representing leading laboratories in educational institutions and industrial organizations throughout the country has recommended plans for a chemistry exhibit at the Chicago World's Fair in 1933, it is announced by Maurice Holland, director of the National Research Council Science Advisory Committee to the fair.

The group, under the chairmanship of Dr. Arthur D. Little, of Cambridge, Massachusetts, has been collaborating with the Science Advisory Committee in the development of plans for exhibits by all the sciences at the Chicago Fair which is to be held to celebrate the hundred years of progress made since Chicago became a city in 1833.

The chemistry exhibit will include representations of the laboratories, respectively, of an alchemist of the Middle Ages, of some chemist of 1833, and the modern laboratory of 1933. It is suggested that the laboratory of 1833 be the replica of the laboratory of some famous chemist of a century ago. The modern laboratory would be completely equipped for analyses, control work and research.

To illustrate the comprehensive contribution of chemistry to our daily modern life, it is proposed that a typical living room of the 1833 period be exactly reproduced alongside a living room of to-day by which the differences in living conditions in the two periods would be demonstrated. A descriptive pamphlet telling the story of the change and the part played by chemistry would be distributed. A kitchen of 1833 and one of 1933 are also proposed.