the Takelma of Oregon, for example, are marvels of succinct presentation and put to shame many a more pretentious monograph. It is therefore regrettable that he left incomplete his magnificent collection of materials on Nootka, Yana and Hupa.

Dr. Sapir's major published contribution, however, lies in the field of language. His control of the perfected techniques of Indo-European and Semitic philology was extended into the realm of primitive languages. Lexical and grammatical contributions, ranging from Hebrew and Tocharian to American Indian Uto-Aztecan, Hokan, Athapascan and Wakashan, attest his extraordinary fertility. The soundness of these analyses can not be challenged. Beyond this, though fully recognizing independent developments, his emphasis on "drift"—the idea that languages differentiated from a common base will show parallel modifications—led him to suggest genetic connection in families previously regarded as distinct.

The more unique contribution lay, not in structural nor historical phases, but in language as a psychologic-symbolic phenomenon. In the first place, he offered in "Language" (1921) a new approach of broad philosophic sweep. Pointing out that the traditional classification of languages relates properly only to their techniques, he emphasized the more fundamental characterizations of conceptual types and degrees of synthesis. The primary concern is with basic concepts, their radical or relational, pure or concrete nature, and the mechanisms for their expression. Essentially, this is emphasis on language as thought rather than as form.

His studies of the interrelations of psychiatry and culture are closely allied to this. Here he was concerned that psychiatry and psychoanalysis should profit from a study of variant cultural matrices and that cultural behavior as mechanism for thought and living should be understood in terms of psychological experience. When chairman of the Division of Anthropology and Psychology, National Research Council (1934–35), he had opportunity to lay the groundwork for coordinated studies along these lines, which may be expected to bear future fruit.

His most striking personal characteristics were a crystalline quality of thought and speech and an ever-present kindliness. The artistry of his effortless verbal performances, his articulateness, was a delight. It is no accident that half his writings are groups of poems, literary and musical criticism, showing the same heightened sensibility to nuances of sound and meaning, the same intuitions, that fertilized his linguistic and psychiatric work.

No life can be long enough to accomplish the program he set for himself, but we can only regret that his proved so brief.

LESLIE SPIER

NEW HAVEN, CONN.

EDMUND CECIL SHOREY
1865–1939

DR. EDMUND C. SHOREY, retired senior biochemist of the Bureau of Plant Industry, U. S. Department of Agriculture, died on January 30 at Emergency Hospital, Washington, D. C., after a protracted illness. He served, since retiring in 1935, as a collaborator with the Division of Soil Fertility Investigations, where formerly he was in charge of biochemical investigations of soils and fertilizers.

Dr. Shorey, born on March 5, 1865, in Lanark County, Ontario, Canada, was graduated from Queens University, Kingston, Ontario, with a B.A. degree in 1886, an M.A. degree in 1887, a D.Sc. degree in 1896 and gold and silver medals in chemistry and natural science, respectively.

His professional career began as chemist for the Kohala Sugar Company of Hawaii in 1893. Upon annexation of Hawaii in 1899, he became food commissioner for the territory and served for four years. In 1903, Dr. Shorey entered the field that later held his major attention, when he joined the Hawaii Agricultural Experiment Station as chemist. In 1907 he was transferred to the Bureau of Soils in Washington, D. C., and was associated with the Division of Fertility Investigations until 1915, when he was placed in charge of the Division of Chemical Investigations. He left the government service in 1918 to engage in industrial chemical research, but returned to the Division of Soil Fertility Investigations in 1922 as biochemist, becoming senior biochemist in 1928.

Dr. Shorey's major interest was in the organic constituents of soils and the nature of humus. His outstanding research in this field gained him an international reputation. His intense interest in this research was maintained until the last, as evidenced by the publication last March of his work upon the presence of allantoin in several soils. He was actively engaged in similar work up to his final illness.

Dr. Shorey was a fellow of the American Association for the Advancement of Science, a member of the American Chemical Society for more than forty years, a member of the Society of Biological Chemists, a member of the Washington Academy of Sciences and a fellow of the American Institute of Chemists. His home at the time of his death was in Falls Church, Va.

OSWALD SCHREINER

BUREAU OF PLANT INDUSTRY

RECENT DEATHS

WILLIAM H. COLLINS, director of the Observatory of Haverford College from 1892 to 1904 and prefect of the college from 1897 to 1919, died on March 11, aged seventy-nine years.

WILLARD DELL BIGELOW, since 1913 director of the research laboratory of the National Canners Association, died on March 6 at the age of seventy-two years.

He was a member of the Bureau of Chemistry of the U. S. Department of Agriculture from 1892 to 1913, the last ten years as assistant chief.

DR. FERDINAND VON LINDEMANN, professor of mathematics emeritus of the University of Munich, died on March 7 in his eighty-seventh year.

SCIENTIFIC EVENTS

WORK OF THE SCHOOL OF TROPICAL MEDICINE AT THE UNIVERSITY OF PUERTO RICO

THE School of Tropical Medicine of the University of Puerto Rico under the auspices of Columbia University, according to the annual report of Dr. George W. Bachman, director of the school, has completed twenty-five research projects out of fifty-eight undertaken. Current investigations include nutrition and malnutrition, parasitism, epidemiological surveys, skin and fungi studies, immunological response to infections, biological properties of various agents of disease, pathological and blood examinations and clinical work.

A survey of the health and socio-economic conditions found in the tobacco, coffee and fruit regions of Puerto Rico was carried on by the department of bacteriology in cooperation with the Puerto Rico Reconstruction Administration. The department also investigated streptococcus infection in the tropics. It has commenced a study on the incidence of pneumococcus with relation to the cultural and biological characteristics of the flora of the respiratory tract of normal Puerto Ricans.

A study of tuberculosis in tonsils was carried forward in collaboration with the Henry Phipps Institute of Philadelphia, and a study of the prevalence of abortion diseases in cattle of the Island was made in cooperation with the Bureau of Animal Industry of the U. S. Department of Agriculture. A joint investigation by the department of chemistry and the Agricultural Experiment Station was made of forage crops.

The department of medical zoology made a study of vitamin A and the part it plays in immunology to invasion by schistosomes or blood flukes. An extensive survey was conducted in several sections of the Island to find the breeding places of the sandfly.

An epidemic of black "piedra," a disease of the hair marked by small stony nodules never before reported in North America, was traced by the department of mycology and dermatology to a fungus classified as "Piedraia hortai." A parasite survey of mice, never before attempted in Puerto Rico, but facilitated during the year by quantities of rodents brought into the department of pathology, brought to light several parasites previously unrecorded in the Island, and one trematode, or fluke, hitherto considered only an Old World inhabitant. The chance finding in the laboratory of a wild brown mouse, sickly and deformed and presenting all the characteristics of the musculotaneous variety of leprosy, as seen in rats, opened a new problem of investigation on the character of spontaneous leprosy in mice. The department of pathology made a further study of the problem of internal hydrocephalus of rabbits.

Research on the medicinal properties of Puerto Rican plants is now being conducted at the University of Wisconsin by Conrado Asenjo, Jr., fellow of the Guggenheim Foundation and a member of the chemical staff of the school. Under the guidance of Professor Karl P. Link, of the University of Wisconsin, plans for a laboratory of phytochemistry are being elaborated for the continuation of this work at the school.

Reforestation of the Island of Santiago off the Eastern coast of Puerto Rico is under way in preparation for use of the island as a free range for apes. Gibbons collected for breeding purposes from the mountains near Chieng Mai, Siam, by Dr. C. R. Carpenter, of the Columbia University School of Medicine, will be transferred from the modern cages now housing them to the Island, and a field laboratory will be constructed.

Occupancy of the University Hospital in San Juan, which is being remodeled under the supervision of the Puerto Rico Reconstruction Administration, will be effected by March, 1939.

ADMISSION REQUIREMENTS IN THE COLLEGE OF ENGINEERING AT CORNELL UNIVERSITY

BEGINNING next September, a more comprehensive and closely controlled plan of selective admission will be adopted in all four schools of the College of Engineering at Cornell University, according to an announcement made by Dean S. C. Hollister. The School of Chemical Engineering has had such a system since its establishment last July, when it was decided that available facilities for instruction could accommodate only about a hundred of the more than three hundred applicants for admission to the freshman class. Increased enrolment in the Sibley School of Mechanical Engineering this year has produced another serious problem, and similar conditions are foreseen in the Schools of Civil and Electrical Engineering.

The number of applicants admitted to the several schools of the college is limited by the facilities available for adequate instruction. Since the number of applicants exceeds these limits, the Committee on Admissions in each of the schools will exercise discretion-