

## OBITUARY

## FRANK PELL UNDERHILL

(1877-1932)

IN the death of Dr. Frank Pell Underhill medical science has lost an active and enthusiastic worker in the fields of physiology and pharmacology, whose accomplishments brought credit alike to him and to the university with which he was connected.

Endowed with high ideals of true scholarship, Dr. Underhill's experimental work always bore the marks of painstaking accuracy with a just appreciation of the value of truth, with the result that his conclusions were universally recognized as based upon trustworthy evidence. In the classroom and in the laboratory he strove diligently to inculcate in his students the same regard for truth, the same spirit of research that animated him, the many joint papers coming from the laboratory testifying to the value of his influence in the training of younger investigators in his chosen field of work. To such men as Underhill the scientific world owes much, for upon their labors the present-day advances in science are largely dependent. Men like Underhill give impulse and stimulus to men of lesser intellectual advancement and thereby help to raise the level of scientific accomplishments.

Dr. Underhill graduated from the Sheffield Scientific School in 1900 with his interest in physiological chemistry well developed, and after three years of graduate study he received the degree of doctor of philosophy. From 1903 to 1907 he served as instructor and from 1907 to 1918 as assistant professor of physiological chemistry in the Sheffield Scientific School, but from 1912 to the college year 1918-1919 he occupied also the position of professor of pathological chemistry in the Yale Medical School. For the following three years the title of his chair was changed to that of experimental medicine. On the reorganization of the university in 1921 he was appointed professor of pharmacology and toxicology in the school of medicine, which position he occupied up to the time of his decease. Thus, for nearly thirty years Underhill, through his ability as a teacher and his activities in research, was a potent factor in the development of physiological activities at Yale University.

During the years 1907-1918 five volumes of "Studies in Physiological Chemistry" came from the Sheffield Laboratory, of which Underhill was one of the editors and where a large number of his researches appeared. Among his earlier contributions reference may be made to his studies of carbohydrate metabolism, such as "The Mechanism of Phlorhizin Diabetes"; "The Rôle of Calcium in the Regulation of Blood Sugar Content"; "The Relation of the Acid-

Base Equilibrium of the Body to Carbohydrate Metabolism and its Application in Human Diabetes." Equally worthy of note are his studies of "The Physiological Action of Tartrates"; "Tartrate Nephritis"; "The Physiological Action of Some Protein Derivatives"; "The Metabolism of Ammonium Salts"; "Creative Metabolism." In 1915 he published his book on "The Physiology of the Amino Acids," which gives a good résumé of knowledge of these important components up to that date.

During the world war Underhill was in charge of an investigation by the section on intermediary metabolism of the Medical Division of the Chemical Warfare Service, with the rank of lieutenant-colonel, and in 1920 there appeared the book "Lethal War Gases, Physiology and Experimental Treatment." In 1921 he published a "Manual of Selected Biochemical Methods," as applied to urine, blood and gastric analysis, and in 1924 there appeared a volume entitled "Toxicology, or the Effects of Poisons." During the later years of his life he was much occupied with a study of the pathological chemistry of burns, with many suggestions as to treatment.

Such briefly is a partial outline of the scientific activities of this man whose life was devoted to the experimental study of physiological problems of great importance. What he accomplished will stand throughout the years as a striking memorial of his great industry, of his skill in arriving at definite results and of his judgment in drawing correct conclusions from his experimental work. He was typical of the best to be found among the scientific workers of his generation.

RUSSELL H. CHITTENDEN

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## RECENT DEATHS

DR. ADAM CAPEN GILL, emeritus professor of mineralogy and petrography at Cornell University, died on November 8, at the age of sixty-nine years.

DR. SIDNEY POWERS, consulting geologist of the Amerada Petroleum Corporation, died on November 6, at the age of forty-two years.

A CORRESPONDENT writes: Wilhelm N. Suksdorf, who for years was the outstanding field botanist of the Pacific Northwest, was struck by a train and killed near his home at Bingen, Washington, on October 3. As a result of financial aid toward his field work and taxonomic studies given by the State College of Washington through a number of years, sometime before his death Mr. Suksdorf executed a will by the terms of which his very considerable private herbarium and