

OBITUARIES

Prof. Alfred Wohl

PROF. ALFRED WOHL died in Stockholm on December 25, 1939, at the age of seventy-six years. He was born on October 3, 1863, at Graudenz and received his early training at the Universities of Heidelberg and Berlin. He obtained his doctorate in 1886 at the University of Berlin, working under the supervision of Prof. A. W. von Hoffman, and spent the next two years in the *Laboratorium des Vereins für Rübenzuckerindustrie*, Berlin. In 1891 he became *Privat-dozent* in Emil Fischer's laboratory in the University of Berlin, and in 1904 was appointed director of the Laboratory for Organic Chemistry and Technology at the *Technische Hochschule*, Danzig, a post which he held until he retired on reaching his seventieth birthday in 1933.

During a period of almost fifty years uninterrupted research, Wohl made many important contributions to both organic and physical chemistry. His early connexion with the sugar industry probably laid the foundation for his deep interest in this branch of organic chemistry. We owe to him methods for the degradation of sugars, the preparation of the optically active glyceraldehyde and much of our early knowledge of fermentation enzymes. He also devised methods of making artificial honey which are still in use to-day, and during the War of 1914-18 produced an economical process for growing yeast.

In other branches of organic chemistry, Wohl carried out the synthesis and investigation of many important compounds such as phenylhydroxylamine, the semi-aldehyde of malonic acid, malic and tartaric dialdehydes, lactic acid aldehyde, the acetal of methyl glyoxal, and the preparation of glyoxal by the interesting method of the ozonization of acetylene. He also showed that nitrobenzene reacts with potash to give nitrophenol.

One of Wohl's outstanding achievements was the demonstration of the wide applicability of vanadium pentoxide as an oxidation catalyst; by its use he carried out the oxidation of naphthalene to phthalic anhydride and of anthracene to anthraquinone, and thus opened a new path to the cheap production of intermediates for the dyestuffs industry.

Wohl always showed a fervent interest in the theoretical aspects of organic chemistry, and developed a theory of chemical reactivity based on Michael's theory of primary association of reaction spots and on the polarity of linkages. Much of his work was devoted to the substantiation of these ideas and in this respect he made special studies of the reactivity of bromacetamide, hydrazonium compounds, and of the Friedel-Crafts synthesis. His interest in theory extended to physical chemistry and his most important contribution in this field was the formulation of an equation of state for gases, based upon a simple modification of van der Waals' equation. He also published a series of papers in the *Berichte* on methods

of analysis of gases. In developing these methods, he devised a new type of glass tap and also a means of producing vacua suitable for low-pressure distillations by the use of charcoal cooled by liquid air and an ordinary filter-pump.

Wohl was a man of outstanding personality and an enthusiastic, ardent, and inspiring teacher. He spared no effort to help his students, and during term it was his daily practice to gather them together in small groups in the laboratory and discuss with them their research problems.

Many honours were conferred on Wohl. He held the office of president in the *Deutsche Chemische Gesellschaft* in 1933 and was given the honorary degree of Dr. Ing. of the *Technische Hochschule*, Hanover, in 1928, and Dr. Agr. of the *Landwirtschaftliche Hochschule*, Berlin, in 1931.

Although he retired in 1933, he carried on experimental work until 1938, and in his last years developed a process for the manufacture of pulp from fibrous vegetable materials.

Mr. R. A. Smith

WE regret to record the death, at the age of sixty-six years, of Mr. Reginald A. Smith, formerly keeper of the Department of British and Medieval Antiquities of the British Museum, which took place at Colchester on January 13.

Reginald Allender Smith was born in 1873 and educated at Christ's Hospital and University College, Oxford. In 1898 he was appointed to the staff of the British Museum in the Department of Ethnography and British and Medieval Antiquities, as it then was, of which Charles Hercules Read was at that time keeper. Smith was assigned to the archaeological collections, of which he became keeper in 1927, after the ethnographical collections had become a distinct department. He retired in 1938.

Smith was fortunate both in his chief and in the nature of his duties—the care and arrangement of the prehistoric and early historic collections of antiquities of the Museum. By his association with Read he was trained in that appreciation of the significance of form and technique in which his chief was pre-eminent, while his care for, and arrangement of, the collections committed to his charge developed to the full his capabilities of scientific precision in observation and interpretation of detail which enabled him during a period of nearly forty years to make to the advancement of archaeological studies a contribution which was no less valuable than it was individual, and, indeed, unique.

A variety of circumstances combined to afford Smith the opportunity to attain the position which he afterwards held in the archaeological world. Of these, one of the most influential was the part assigned to him in carrying out the policy initiated