

## Obituary.

PROF. A. CRUM BROWN, F.R.S.

ALEXANDER CRUM BROWN was born at Edinburgh on March 26, 1838. His father was Dr. John Brown, minister of Broughton Place United Presbyterian Church; his mother was a sister of Walter Crum, a chemist of distinction. Educated at the Royal High School and at the University of Edinburgh, he graduated as M.A. in 1858 and as M.D. in 1861. In the following year he was awarded the D.Sc. degree of London, and thereafter studied in Germany under Bunsen and Kolbe. Returning to Scotland in 1863, he began his career in Edinburgh as an extra-mural lecturer in chemistry. For six years he taught small classes of medical students and busied himself with research. On the election of Prof. Lyon Playfair in 1869 to represent the University in Parliament, Crum Brown was appointed to succeed him in the chair of chemistry. The department placed under his charge was at first purely medical, but during his tenure it gradually changed its character, and at his retirement in 1908 had become one of the chief departments in the Faculty of Science.

Crum Brown was a man of extraordinary mental activity. The mention of a new subject sent his mind darting and exploring in all directions. In a few moments some pithy saying, some apt suggestion, or perhaps some awkwardly pointed question would be the outcome, showing his instantaneous grasp of the problem and his insight into its implications. That he was a pioneer far in advance of his contemporaries may be seen in the thesis which he presented at the age of twenty-three for the degree of Doctor of Medicine. It was entitled "On the Theory of Chemical Combination," and displayed such originality of thought as earned it a most discouraging reception, so that the author was deterred from publishing it at the time, and only printed it for circulation among his friends eighteen years later. Even to-day this thesis of 1861 bears a modern aspect, polarity and interatomic forces being at the basis of the presentation, and graphic formulæ being freely used. A pioneering research on the function of the semicircular canals in regard to the sense of balance and rotation, and another (in conjunction with Fraser) on the relationship between physiological activity and chemical constitution, illustrate his fertility of mind. Essentially of a speculative and philosophical turn, he yet invented many practical devices and supervised many practical researches. His name will always be associated with the rule for position isomers in benzene compounds and with the electrosynthesis of dibasic acids. He became a fellow of the Royal Society in 1879, and was an honorary graduate of all the Scottish Universities. During the years 1892 and 1893 he was president of the Chemical Society.

Apart from his chemistry, Crum Brown was of the widest general culture, and his mastery of languages assumed in Edinburgh circles almost legendary form. His business ability was utilised by his University, his church, and by the Royal Society of Edinburgh, of which he acted as secretary for a quarter of a century. In social gatherings he shone by reason of his wit and his gifts as a raconteur.

Two years after his retirement from University duties, his life was shadowed by the loss of his wife, a daughter of the Rev. James Porter, of Drumlee, Co. Down. Gradually failing bodily health confined him to the house for the past six years, but his mental ability remained unimpaired. His friends could always enjoy the refreshment of a talk with him—a talk sure to abound with quaintly apt stories and interesting reminiscences. After a few weeks' illness he died peacefully on October 28, the last representative of an academic period of singular brilliance.

PROF. J. P. KUENEN.

THE unexpected death of Dr. Johannes Petrus Kuenen on September 25, having taken away from the University of Leyden in the full vigour of life a beloved professor, who only a few days before was invested with the dignity of Rector Magnificus, means a heavy blow to his many friends and in particular to myself. Kuenen returned to Leyden sixteen years ago, and since that time I shared with him the laboratory where he was one of my first pupils. He was born in 1866 and matriculated in 1884 in Leyden, where his father, the celebrated critic of the Old Testament, was then professor. By a life of idealism according to a tradition handed down from father to son he fulfilled the expectations which he then awakened.

As early as 1889 Kuenen became assistant in my laboratory. In 1892 he took his degree on a gold medal prize paper, and in 1893 he lectured as a privat docent. His brilliant experimental researches opened to him a career in Great Britain. After having worked for a time in Ramsay's laboratory, he was appointed professor in Dundee. In a touching letter Sir James Walker tells me how he was struck by the tall and handsome young Dutchman, the first meeting being the beginning of a friendship for life. When we read in Leyden that Kuenen was from the first a success in Dundee, both with his students and his colleagues, that he contrived to do in very adverse circumstances a considerable amount of research work, and that Sir James Walker admired the simple way in which Kuenen overcame experimental difficulties, we see that his friends both at Dundee and Leyden have the same vivid recollection of him. And when Sir James Walker reminds us of Kuenen's genial manner, of his quiet humour in conversation, and of his singing Schubert's songs, it is as if we hear Kuenen here in the laboratory, and with deep mourning we recall the ennobling influence of his presence and the happiness he spread around him everywhere he went by his kind and sunny heart.

Having declined different calls from Holland he accepted that from Leyden in 1906, where he took upon himself the teaching of one of the courses to which Lorentz had consecrated a good deal of his precious powers. Welcomed here with the greatest joy, he immediately exerted a great influence on our scientific life. He earned the profound gratitude of his pupils and general admiration for his love for science, his deep learning and insight, modesty, and unselfishness. To his unlimited helpfulness we have all been