

chamber which constitutes an enlargement of the channel.

The general arrangements will be clear from the diagrammatic sketch in the figure. C is the observation chamber, which is air-tight, and provided with a platform for carrying the observer and the necessary measuring appliances. B is the bell-mouthed air inlet, which is provided with a series of guide plates of honeycomb section on the delivery side to ensure that the air enters the chamber in parallel filaments. V is the outlet and suction fan. S is the model under test, connected to the weighing beam at A.

The advantages of this method as regards simplicity, comparative cheapness of construction, and convenience in making the observations are obvious, and in respect of its accuracy it is claimed that, using the results of M. Eiffel's earlier experiments on falling plates as data, a complete check has been afforded by the results obtained in the new apparatus. It may be doubted, however, if the accuracy of this method is so great as that obtained in a carefully designed parallel channel, for there can hardly fail to be a disturbance of the stream lines due to the sudden enlargement at the inlet similar to that observed in the flow of water. From a curve published in the article, it appears that plates as large as 90 cm. by 15 cm. have been used in a current drawn from an inlet 150 cm. in diameter. According to the writer's experience with this method, the apparent pressure for normal impingement of the current on a plate the area of which is the same fraction of that of the inlet as in the examples cited would be about 10 per cent. in excess of its true value, but in the case of small inclinations, which is, of course, relatively more important in aeronautical work, the error would be much smaller, and possibly of the same order of magnitude as those incurred in the estimations of the velocity of the current. In this branch of aeronautics valuable results may be expected from M. Eiffel's researches.

T. E. STANTON.

C. H. GREVILLE WILLIAMS, F.R.S.

CHARLES HANSON GREVILLE WILLIAMS was born at Cheltenham, September 22, 1829, the son of S. Hanson Williams, a solicitor; his death occurred on June 15, 1910. He commenced his professional career as first assistant to Prof. Anderson, of Glasgow University; after some years spent in research work he moved to Edinburgh, where he conducted a tutorial class under Dr. Lyon Playfair. From 1857 to 1859 he was lecturer on chemistry in the Normal College, Swansea. In 1859 he returned to Glasgow as chemist to the works of Messrs. Miller, chemical manufacturers. He migrated to Greenford Green in 1863, remaining with Messrs. Perkin until 1868. About that year he entered into partnership with M. Edouard Thomas, at the Star Chemical Works, Brentford, the firm being makers of coal-tar colours, and subsisting until 1877. Mr. Greville Williams about this time gave up his connection with manufacturing chemistry and became photometric supervisor to the Gas Light and Coke Company, with whom he remained until 1901, then retiring into the country, where he seldom saw his old friends and acquaintances, but was much interested in the study of the ancient Egyptian language and the translation of inscriptions. Until rheumatism disabled him he was an expert draughtsman and calligraphist, a fair game shot, and an enthusiastic angler. Although in reality a charming companion, with unusual conversational powers, and a keen appreciation of literary and artistic culture, Greville Williams possessed a very modest and retiring disposition, and

became, especially of late years, an almost complete recluse. He was more nervous about his state of health than he need have been, and, in consequence, cut himself off unnecessarily from scientific and social intercourse. This isolation was also due, no doubt, in part to his straitened circumstances, which necessitated strict economy and debarred him from the continuance of his scientific researches—hard lines for a thorough enthusiast; and such he was, possessed, moreover, with the true chemical instinct and a general scientific aptitude. It is a pity that the genius for investigation which was shown in his researches on isoprene, on beryl, and on the bases from bituminous shale, from the Boghead mineral, and from the destructive distillation of cinchonine, did not develop in accordance with more modern methods in his later years. But he made many interesting discoveries, and has left a considerable record of thoroughly sound work.

Greville Williams was elected F.R.S. in June, 1862. He outlived the rest of the distinguished "fifteen" of that year. It was in 1862 also that he joined the Chemical Society. He contributed a number of papers to the publications of these societies, as well as many notes to the *Chemical News*, and also wrote articles for *Ure's Dictionary* and for *Watts's Dictionary*, as well as for the *Journal of Gas Lighting*. His chief literary work was "A Handbook of Chemical Manipulation" (Van Voorst, 1857); a supplement appeared in 1879.

On November 25, 1852, Greville Williams married Henrietta Bosher; she died on February 16, 1904. One son and three daughters survive.

The writer of this notice has lost a friend of nearly sixty years' standing—a friend of rare quality and of high Christian character.

A. H. C.

NOTES.

WE announce with deep regret the death, on Monday last at Milan, at the age of seventy-five years, of Prof. G. V. Schiaparelli, Foreign Member of the Royal Society.

THE death (on June 12) is announced of Dr. W. H. Seaman, professor of chemistry in Harvard University, at the age of seventy-three years.

WE regret to announce the death, on July 4, of Mr. R. Russell, I.S.O., who was for thirty-six years connected with the administration of education in Natal. In 1877 he became Superintendent of Education, and retired in 1903.

AT the general monthly meeting of the members of the Royal Institution, held on Monday last, it was announced that the King has consented to become Patron of the institution.

THE Janssen prize of the Paris Academy of Sciences has been awarded to Prof. W. W. Campbell, director of the Lick Observatory, University of California.

SIR J. J. THOMSON, F.R.S., has been elected president of the Junior Institution of Engineers, in succession to Sir H. J. Oram, K.C.B.

DR. F. A. BATHER, F.R.S., has been appointed by the trustees to represent the British Museum (Natural History) at the forthcoming International Geological Congress in Stockholm.

THE Cullen Victoria Jubilee prize has been awarded by the Royal College of Physicians of Edinburgh to Dr. R. W. Philip, for his work on tuberculosis. The prize is awarded once in every four years for the "most important contribution to practical medicine."