

are characterised by a variety of algebraic treatment and a wealth of illustrations and examples, but nowhere does technical manipulation outrun the geometry. The first of these, a provocative little book, appeared at a time when metrical systems alternative to that of Euclid were known only to the few. It is not surprising that such a teacher carried throughout his life the esteem and appreciation of his students. One of his most distinguished pupils, A. C. Aitken, writes of the critical time in his own student days when the University of Otago was temporarily without a professor of mathematics, and how willingly Sommerville filled the gap by weekly correspondence. The written solutions and comments went far beyond what was necessary for mere elucidation.

Beginning in 1905, Sommerville wrote more than thirty original papers and notes which have been published in well-known journals at home and abroad. The first, entitled "Networks of the Plane in Absolute Geometry" (*Proc. Roy. Soc. Edinburgh*, 25) is typical of the sequel. The main theme is that of combinatory geometry, exemplified by a systematic investigation of "The Division of Space by Congruent Triangles and Tetrahedra" (1923) in the same journal, and extended to  $n$  dimensions (Palermo, 48, 9-22; 1924). Out of this grew the work upon the relations connecting angle sum and the volume of a polytope in space of  $n$  dimensions (*Proc. Roy. Soc. London*, 1927).

Sommerville was ever ready to apply his special gifts to unusual examples, as in his analysis of preferential voting and a highly original treatment of the musical scale. He was also much interested in astronomy, and was one of the founders of the New Zealand Astronomical Society and its first secretary. At the Adelaide meeting of the Australasian Association for the Advancement of Science held in 1924 he was president of Section A. His was a life of unsparing activity, and the fruits of his work will abide. There has passed from Scotland one who had already become her leading geometer of the present century.

H. W. TURNBULL.

WE regret to announce the following deaths:

Dr. James Mackintosh Bell, O.B.E., formerly of the Canadian Geological Survey, and in 1905-1911 director of the Geological Survey of New Zealand, on March 31, aged fifty-six years.

Dr. James Munsie Bell, dean of the School of Applied Science in the University of North Carolina, who has carried out important researches in physical chemistry, on March 3, aged fifty-three years.

Prof. Arthur Ranum, professor of mathematics at Cornell University, on February 28, aged sixty-three years.

## News and Views

Caleb Whitefoord, F.R.S. (1734-1810)

CALEB WHITEFOORD, friend of Benjamin Franklin in the hey-day of the latter's fame, was born in 1734, at Edinburgh (the exact date would seem to be unrecorded). Whitefoord was the natural son of Col. Charles Whitefoord, himself the third son of Sir Adam Whitefoord, Bt., of the shire of Ayr. He died on February 4, 1810, at his home in Argyle Street, in the vicinity of Soho, and was buried in Paddington Churchyard. Graduating at the University of Edinburgh, Whitefoord sought London as the best field for the exercise of his varied gifts, chief among these being a faculty for satirical journalism. Eventually there were few literary, scientific and political celebrities of his period outside his circle. Intimacy with Franklin (they were then neighbours in Craven Street, Strand) led to the opinion that Whitefoord would make an eligible diplomatic agent for the purpose of assisting in the restoration of peace with America. Accordingly, he became secretary to the Commission which concluded peace with the United States at Paris, in 1782. He was elected a fellow of the Royal Society on June 24, 1784, when Sir Joseph Banks was president. A fellow of the Royal Society of Edinburgh, and of the Society of Antiquaries, London, he was a vice-president of the Society of Arts, and a member of the Philosophical Society of Philadelphia. Whitefoord's portrait was painted by Sir Joshua Reynolds in the eventful year 1782, and

hangs in the National Portrait Gallery; a mezzotint of this by S. W. Reynolds is prized. A pleasing drawing (head and bust), by R. Cosway, is reproduced in the *European Magazine* for 1810. In 1790 Whitefoord presented a fine portrait of Benjamin Franklin, by Joseph Wright, to the Royal Society. Such interesting connexion with the Society is further emphasised by the circumstance that Whitefoord, with Count Rumford, signed, in 1801, the certificate of recommendation for the election of Warren Hastings.

### Industrial Research and the State

MR. STANLEY BALDWIN, as Lord President of the Council, may be regarded as a Minister of Research, since he is responsible to Parliament for the Committee of the Privy Council for Scientific and Industrial Research. He is keenly alive to the possibilities of scientific and industrial research, and this attitude marks the message he sent recently to the conference of industrial research associations, reference to which was made in *NATURE* of March 31, p. 504. Mr. Baldwin confirmed his promise on behalf of the Government in replying to a question in the House of Commons on March 27, when he said:

"ABOUT two years ago, steps were taken by the Department of Scientific and Industrial Research to ascertain the views of the Councils of Research Associations connected with the Department on a