Following publication of the report of this discussion, notice was given of a Grace approving in principle the policy of dividing mineralogy and petrology for the purposes of teaching and research into crystallography on one hand and mineralogy and petrology on the other. The Grace was passed unopposed on Mar. 8. This is the first part of the Syndicate's report, which received almost unanimous support in the discussion: the second was the desirability of housing mineralogy and petrology in a new building, thus making room for crystallography in the old. It is to be hoped that the means will speedily be found to build and equip the new laboratories and thus to make possible in Cambridge the kind of teaching and research on the need for which there seems such unanimity of opinion among competent judges. It may be remarked that every branch of research mentioned in the discussion, both in X-ray work on crystal structure, and in the study of ores, of rocks, and of silicate-melts, has its direct application in industry.

Obituary.

PROF. F. M. EXNER.

FELIX M. EXNER, professor of geophysics in the University of Vienna, director of the Zentralanstalt für Meteorologie und Geodynamik, Vienna, and joint editor with Süring of the *Meteorologische Zeitschrift*, died in Vienna on Feb. 7. Exner, who was a son of the physiologist Sigmund Exner, was born in Vienna on Aug. 23, 1876. He was educated at the University of Vienna, where he graduated as Ph.D. in 1900. After ten years as assistant at the Zentralanstalt, he became professor of cosmical physics at the University of Innsbruck in 1910, returning to Vienna in 1917 to take up the post of director of the Zentralanstalt and professor of geophysics.

Exner was a very active research worker in meteorology and allied sciences, and published a large number of papers in the proceedings of the Vienna Academy of Sciences, the *Meteorologische Zeitschrift*, the *Annalen der Hydrographie*, and various other journals. These papers cover a wide field. He was particularly interested in the mechanism of changes of pressure, and in the earlier years, in the correlation between meteorological factors over different regions of the globe. He treated the latter question at great length in a paper in the proceedings of the Vienna Academy of Sciences, vol. 122, the work having been largely carried out during a visit to the United States.

Exner was an industrious and sound, rather than a brilliant worker, and he will be remembered for his treatise "Dynamische Meteorologie", rather than for his original work. This book, which gives a very clear exposition of the outlook of the Austrian school of meteorologists, stands alone to-day as the only available exposition of the mathematical aspects of meteorology. Its preparation, which must have involved years of unremitting labour, was doubtless facilitated by his appointment to the professorship of cosmical physics at Innsbruck. The Austrians are fortunate in having this professorship, to which they can appoint a young man to enable him to carry on research work or authorship unimpeded by official duties, and this professorship has usually been the avenue of approach to the post of director of their meteorological service.

There is no text-book in the English language which is strictly comparable with Exner's. The dynamical methods followed by Exner, Margules, and others of the Austrian school of meteorologists have not been very widely used in England or the United States, and as a result, English text-books are either descriptive or physical, rather than mathematical. Thus Exner's book has met a widely felt need among meteorologists, and is one of the few books of which we can say with complete honesty that it is indispensable to any serious student.

Exner was also the author of an article on dynamical meteorology in the "Enzyklopädie der mathematischen Wissenschaften", but a more outstanding service to science was the publication in 1922 of a revision of Pernter's classic text-book on meteorological optics. He also prepared the European portion of "World's Weather Records", published by the Smithsonian Institution.

As director of the Austrian meteorological service, Exner was a member of the International Meteorological Conference. His pleasing personality won him the respect and liking of his international colleagues, and his death will be regretted by meteorologists throughout the world. D. B.

DR. G. G. CHISHOLM.

GEORGE GOUDIE CHISHOLM, who was the first lecturer (1908) and later the first reader (1921) in geography at the University of Edinburgh, and acted also as secretary of the Royal Scottish Geographical Society from 1910 to 1925, died very suddenly in Edinburgh on Feb. 9. Born on May 1, 1850, he was thus on the eve of completing his eightieth year, though few of his associates realised the fact; his mental vigour being unimpaired to the end, while even physically there were few signs of age.

A native of Edinburgh, Dr. Chisholm attended the Royal High School there and took the degrees of M.A. and B.Sc. at the University, which after his retirement in 1923 bestowed upon him the LL.D. He spent his earlier life in Scotland, going to London in 1895. There, until the date of his Edinburgh appointment, he was engaged in lecturing and literary work, and soon became a prominent figure at the annual meetings of the British Association, being president of Section E (Geography) in 1907. Of his writings, those through which his influence was most felt were his "Handbook of Commercial Geography", first published in 1889, of which an eleventh edition appeared in 1928,