

over 20 kilometres with this apparatus.—S. **Posternak** : The synthesis of the hexaphosphate of inosite and its identity with the phospho-organic reserve principle of green plants. The ester was prepared from inosite and phosphoric acid in presence of an excess of phosphorus pentoxide. The yield is low, 3 to 5 per cent., and the substance is identical in all respects with the natural product from phytine.—R. **Levilliant** and L. J. **Simon** : The action of chlorosulphonic acid on methyl hydrogen sulphate. Methyl chlorosulphonate, $\text{Cl}\cdot\text{SO}_2\cdot(\text{O}\cdot\text{CH}_3)$, can be isolated from the products of this reaction.—P. **Thiéry** : The geology of the region of Alais (Gard).—L. **Gentil** : The genesis of the forms of strata in chalk districts called *rideaux*.—S. **Stefanescu** : The teeth of elephants and mastodons.

CAPE TOWN.

Royal Society of South Africa, June 18.—Dr. J. D. F. Gilchrist, president, in the chair.—Miss Ethel M. **Doidge** : South African Microthyriaceæ. This group of fungi has been recently revised by von Hohnel and Theissen and others, and the characters of the family Microthyriaceæ have been more clearly defined. A short account of the genera represented in South Africa, and descriptions of species in the Cryptogamic section of the Union Mycological Herbarium, Pretoria, are given.—C. L. **Herman** : Note on carbolic acid as a fixative for histological preparations. Carbolic acid in 5 per cent. solution was found a most efficient fixative for histological purposes: It has been used since 1912 for all organs, including the central nervous system. For the thyroid gland it is especially good, as it gives thorough fixation of the colloid without shrinking or distortion. It acts by precipitating the protein without, however, entering into combination with it. It rapidly penetrates all tissues, especially the nervous tissue, and fixes both the cytoplasm and the nucleus without distortion or alteration. The optical differentiation becomes very good, and all cell-structures are found well and clearly defined. Staining is facilitated, and all stains are readily taken up.—J. R. **Sutton** : A contribution to the study of the diamond macle, with a note on the internal structure of diamond. The first part of this paper describes the aspect and characteristics of macles from various South African diamond mines, and gives statistics showing that the standard thickness to which macles tend to conform is almost exactly one-half that of the perfect octahedron standing upon an equal face. The so-called "twinning plane" is not necessarily a true plane at all, but rather an irregular surface. Bultfontein Mine is remarkable for the large number of irregular twins it produces and the small percentage of macles. In the second part the author discusses the "grain" of diamonds, as revealed by broken macles and by broken simple crystals, in which the fracture lies in a dodecahedral plane of symmetry, and deduces therefrom the primary cubical structure. The points of agreement and disagreement with the structure deduced by Bragg (by means of X-ray research) are indicated. Three orders of cleavage are shown, i.e. parallel to the faces of the octahedron, cube, and rhombic dodecahedron respectively.

BOOKS RECEIVED

Strawberry Growing. By Prof. S. W. Fletcher. (The Rural Science Series.) Pp. xxii+325+xxiv. plates. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1917.) 1.75 dollars.

A Large State Farm: A Business and Educational Undertaking. By Lt.-Col. A. G. Weigall and Castell Wrey. Pp. xiii+82. (London: John Murray, 1919.) 2s. 6d. net.

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The Flower and the Bee: Plant Life and Pollination. By J. H. Lovell. Pp. xvii+286. (London: Constable and Co., Ltd., 1919.) 10s. 6d. net.

Utility Ducks and Geese: Their Successful Management for Egg and Meat Production, with Brief Notes on Some Ornamental Waterfowl. By J. W. Hurst. Pp. 93. (London: Constable and Co., Ltd., 1919.) 2s. 6d. net.

The Farmer and the New Day. By K. L. Butterfield. Pp. ix+311. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1919.) 8s. 6d. net.

The Fauna of British India, including Ceylon and Burma Coleoptera, Chrysomelidæ (Hispinæ and Cassidinæ). By Prof. S. Maulik. Pp. xi+439. (London: Taylor and Francis, 1919.)

The Cactaceæ: Descriptions and Illustrations of Plants of the Cactus Family. By N. L. Britton and J. N. Rose. Vol. i. (Publication No. 248.) Pp. vii+236+xxxvi. plates. (Washington: The Carnegie Institution, 1919.)

The Iron and Steel Industry of the United Kingdom under War Conditions: A Record of the Work of the Iron and Steel Production Department of the Ministry of Munitions. By Dr. F. H. Hatch. Pp. xii+167. (London: Privately printed for Sir John Hunter by Harrison and Sons, 1919.)

The North Riding of Yorkshire. By Capt. W. J. Weston. Pp. viii+161. (Cambridge: At the University Press, 1919.) 2s. 6d. net.

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