

has not hitherto been recorded from Cornwall.—(2) A protractor for use in constructing stereographic and gnomonic projections; by A. Hutchinson. A short historical account was given of the stereographic projection, and a protractor designed to facilitate its construction was shown. By the aid of this protractor the radii of both great circles and small circles could be readily determined. It can also be applied to the construction of the gnomonic projection and to measuring the angles between planes and zones.—(3) Supplementary notes on the mineral kaolinite; by A. B. Dick. Further observations on the optical characters of kaolinite from Anglesea lead to some alterations in the data given in a previous paper. The refractive index is about 1.563 for sodium light, and the optic axial angle, $2V$, is about 68° instead of 90° . The double refraction is very low. Kaolinite from limestone at Hambleton quarry, Bolton Abbey, Yorkshire, and from sandstone near Newcastle-on-Tyne were described.—(4) An attachment to the goniometer for the measurement of complex lamellated crystals; by H. L. Bowman. The apparatus, consisting of a small screen pierced by a pin-hole, can be attached to a goniometer, and is capable of adjustment so that minute portions of a crystal face can be successively illuminated.—(5) A new form of quartz-wedge, a modification of the Wright-wedge; by J. W. Evans. A quartz-wedge cut parallel to c is placed over a gypsum-plate parallel to a showing red of the first order, and extending beyond the thin end of the wedge, so that the projecting portions can be used as an ordinary gypsum-plate. The region where the wedge overlies the gypsum is graduated at the position of exact compensation and at each thousand micromillimetres of relative retardation. If when placed over a mineral in the diagonal position the black band is moved towards the thin end of the wedge, the direction of insertion is that of the vibrations which traverse the mineral with the smaller velocity; if towards the thick end, the direction is that corresponding to the greater velocity.—(6) Calculation of the chance that the double refraction of a crystal section cut at random shall exceed a particular fraction of the maximum; by H. Hilton. The problem is soluble completely for a uniaxial and partially for a biaxial crystal.

CORRESPONDENCE.

ON THE DATE OF PUBLICATION OF FREDERICK DIXON'S "GEOLOGY OF SUSSEX."

SIR,—It will be remembered that Frederick Dixon died in 1849, leaving his "Geology of Sussex" in manuscript, and that Richard Owen undertook to see it through the press. John Morris, in his "Catalogue of British Fossils," 2nd ed., 1854, notes that Dixon's book was published in 1852 (not 1850 as stated on the title-page), and this supported by rumour led William Davies to make the same statement in some of his letters (MSS. concerning types of "British Fossil Vertebrata," Geol. Dept. Library, Brit. Mus. (N.H.), Pressmark 16.0. W., p. 29), in which statement he was not alone. A certain amount of uneasiness has thus arisen regarding this book and the

numerous specific names it contains, and the following notes would seem to settle the matter in a fairly satisfactory manner:—

On October 13th, 1849, Edward Forbes wrote to Owen saying he had just heard of the death of Dixon and that his part of the MS. could be finished in two or three days. On February 2nd, 1850, G. B. Holmes wrote to Owen asking how Dixon's work is getting on. On December 30th, 1850, George Landseer, the artist, wrote to Owen saying "what a nice book Mr. Dixon's makes, a very useful one . . . I was looking over it the other day, and it seems carried out with great care." W. H. Fitton, on February 4th, 1852, wrote to Owen as follows: "During some weeks of the last summer made an acquaintance with the widow of your late friend Mr. Dixon. I obtained from her a copy of her husband's book on the fossils of the chalk, etc., at the usual bookseller's price of £3 3s. 0d." Fitton further notes that her agreement with Longman expired in December, 1851, and with his usual kindness suggests that Mrs. Dixon should not be allowed to be at any loss over its production. Further, Messrs. Longman, Green, & Co. have favoured me with a letter dated 10th March, 1908, in which they say that Dixon's *Sussex* "was published in December, 1850."

I think we may therefore, on this evidence, safely accept the date 1850, as stated on the title-page. C. DAVIES SHERBORN.

THE NOMENCLATORIAL HISTORY OF THE CORAL *CANINIA*.

SIR,—In the April number of the *GEOLOGICAL MAGAZINE*, pp. 158–171, Mr. R. G. Carruthers, in addition to his admirable description of *Caninia* and of its contained species, enters fully into the question of its nomenclature. Since this question has given rise to some controversy, and is by no means easy of settlement, a consensus of opinion on the subject is desirable. If I venture to intrude on a field outside my own special work, it is only as a student of nomenclature and bibliography, and in response to a definite request for my opinion made last November by Dr. Arthur Vaughan.

After looking up the literature with the help of my colleague, Mr. W. D. Lang, I sent Dr. Vaughan a long letter, which came to the same conclusions regarding the interpretation of *Caninia* and of its genotype as those based by Mr. Carruthers on his independent studies, and thus brought Dr. Vaughan round to the same view. Mr. Carruthers has asked me to publish my confirmation of his conclusion, and to add one or two details that had escaped him.

The species *Caninia cornucopiæ* does not date from the Congrès de Turin. The report of that Congress appeared in *Atti riunione scienziati Ital.*, ii, Torino, 1841, pp. 227–228. *Caninia* was there defined as a fossil ally of *Cyathophyllum*, distinguished by infundibuliform tabulæ. No species was mentioned. The name *C. cornucopiæ* therefore dates from the paragraph by Paul Gervais, *Diet. Sci. Nat.* (De Blainville), Suppl. I, p. 485. This paragraph is quoted in full by Mr. Carruthers (p. 166). The life of the Supplement was cut short, and the plate therein referred to was never issued. In subsequent editions of the "Dictionnaire des Sciences naturelles," *Caninia* continues to be quoted by Gervais, with mention of *C. cornucopiæ* as the only species.