

NOTICES OF MEMOIRS.

OPALIZED SHELLS FROM NEW SOUTH WALES.

ON SOME MOLLUSCAN REMAINS FROM THE OPAL DEPOSITS (UPPER CRETACEOUS) OF NEW SOUTH WALES. By R. BULLEN NEWTON, F.G.S. Proc. Malac. Soc. London, vol. xi, pt. iv, pp. 217–35, pl. vi, 1915.

THE famous opal deposits of New South Wales, first referred to in geological literature by M. W. Anderson in 1892 as of Upper Cretaceous age and the probable equivalent of the Desert Sandstone of Queensland, has yielded from time to time the remnants of an interesting fauna and flora in which original structures have been replaced by opaline matter of rich and varied coloration. Further writers on this subject include the names of J. B. Jaquet, G. de V. Gipps, R. Etheridge, jun., H. Woodward, Ralph Tate, G. Gürich, A. S. Woodward, and F. Chapman. Some new material from White Cliffs (N.S.W.) was recently obtained by Mr. Newton from a gem merchant in Sydney, during a visit last year to Australia to attend the meeting of the British Association, and he has made it the opportunity of preparing a small memoir upon the palæontology of the deposits with special reference to specimens in the British Museum (Geological and Mineral Departments) and in the private collection of the Rev. F. St. J. Thackeray, of Mapledurham. Including the new species described, the Pelecypoda now comprise seventeen forms or species, whereas only two species of Gastropoda and three Cephalopoda have as yet been recorded. The genus *Unio* is recognized for the first time from these beds, three new species being described, while two new species of *Cyrenopsis* are also added to the fauna. Associated with these and other fresh-water Mollusca are certain marine forms belonging to *Fissilunula*, *Inoceramus*, *Euspira*, *Actinocamax*, etc., which indicate an estuarine origin for the deposits. Mingled with these are fossils of other groups such as *Araucarioxylon*, *Isocrinus*, *Ceratodus*, *Cimoliosaurus*, *Polyptychodon*, and Dinosaurian remains. The author points out an interesting resemblance which he has traced between this fauna and that characterizing the uppermost Cretaceous beds of Canada, particularly the Belly River Series of Alberta, which is also of estuarine character, the inference being that the Australian opalized deposits were probably laid down in similar late Cretaceous times.

REVIEWS.

I.—C. SCHUCHERT. REVISION OF PALEOZOIC STELLEROIDEA, WITH SPECIAL REFERENCE TO NORTH AMERICAN ASTEROIDEA. United States National Museum, Bulletin 88, 302 pp., 38 plates. 1915.

THIS book is not what Professor Schuchert intended when he first began the work, but it will be most useful for all that. The most original part is the description of the older Palæozoic starfishes