

nodules, which lie in bands in a yellow clay about 30 or 40 feet below the Top Hard Coal.

The East Kent insect-remains occur in core shales, the horizon of which is not yet determined.

The wings obtained by Dr. Moysey are not referable to any known families. Three new families are formed to contain them, one of which is nearly related to the Dictyoneuridæ with some suggestion of the family Heliolidæ. A second new family is allied to the Heliolidæ, and the third new family to the Homiopteridæ, or, as the writer believes, near to the Lithomantidæ.

The East Kent insect-remains contain one wing, referable to the genus *Soomylacris* (*Ettoblattina*), a species of which is already known from the Forest of Dean Coal-field.

The finding of two species of the same genus in coal-fields so widely separated as those of the Forest of Dean and East Kent is not without interest, in view of the generally accepted belief in the former continuity of the Coal-measures across the South of England.

CORRESPONDENCE.

THE USE OF THE TERM 'CHARMOUTHIAN'.

SIR,—In the May number of the GEOLOGICAL MAGAZINE for this year, on p. 232, the reviewer of Jukes-Browne's *Students' Handbook of Stratigraphical Geology* says: "The term Charmouthian for part of the Lias (pp. 383, 387) is used for the Middle Lias zones of the Ammonite genera *Paltoptero-ceras spinatum* and *Amaltheus margaritatus*, whereas on p. 405 the term is taken to include also the Lower Lias zones of *capricornus* and *armatus*. This is unfortunate and no improvement. *As a matter of fact* [italics mine] the term is inappropriate as no Middle Lias (as above defined) occurs in the cliffs at Charmouth. If used at all the term should be applied to the Lower Lias clays (zones *obtusus* to *capricornus*)."

Surely, if used at all, the term should be applied to the beds included in the Charmouthian by the author of the term. This, according to Renevier,¹ was Mayer-Eymar, who proposed the term in 1864² and included within it the same beds as Opperl included in his Pliensbachian in 1858³ and d'Orbigny in his Liasian in 1852,⁴ namely, the zone of *Dero-ceras armatum* to that of *Paltoptero-ceras spinatum* inclusive. Since these zones occur in the neighbourhood of Charmouth, I see no objection to applying the term with its original connotation, as Jukes-Browne appears to have applied it.

By the "Middle Lias (as above defined)" the reviewer presumably means the *margaritatus* and *spinatus* zones. To say that, as a matter

¹ Renevier, "Chronographe Géologique": Congrès Géologique international, Compte-rendu de la sixième session, 1897, p. 572.

² Mayer-Eymar, "Tableau synchronistique des Terrains Jurassiques," 1864. I have not verified this reference.

³ Opperl, *Die Juraformation Englands, Frankreichs, und des Südwestlichen Deutschlands*, (1856) 1858, p. 815.

⁴ D'Orbigny, *Cours élémentaire de Paléontologie et de Géologie stratigraphiques*, vol. ii, p. 448, 1852.

of fact, no Lias of these zones occurs in the cliffs at Charmouth is untrue, unless "cliffs at Charmouth" is limited to Black Ven. Above a big gully immediately under the western end of Fairy Dell on Stonebarrow Cliff, within a mile of Charmouth Church, a section is exposed showing the Three Tiers at the base of *margaritatus* in place (last seen July, 1911); and, nearer Charmouth, in Stonebarrow Cliff west of the Dell, the lowest Tier with Ammonites of the *margaritatus* group may be seen. Incidentally it may be mentioned that the Three Tiers (as well as the beds immediately below down to the Belemnite Stone) are about half as thick here as at Golden Cap. The western end of Stonebarrow cannot reasonably be excluded from the "cliffs at Charmouth".

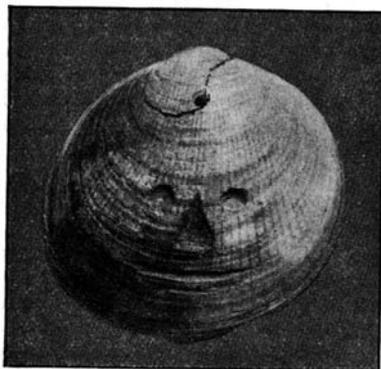
Renevier¹ held that, on account of priority, Pliensbachian should be used rather than Charmouthian. I am not aware that this principle is binding in stratigraphical nomenclature. But, whatever term finally is selected, there is no need either to shift the boundaries of Mayer-Eymar's Charmouthian or to object to the term on the score of topographical inexactitude.

W. D. LANG.

THE RED CRAG PORTRAIT.

SIR,—In the last number of the GEOLOGICAL MAGAZINE (May, 1912) the Rev. O. Fisher figures some of the early handiworks of man. Among these is the sawn bone recorded as from the Crag, which was in Sir Joseph Prestwich's collection for many years and is now in the British Museum.

This reminds one not merely of the Red Crag portrait-shell, in which Sir Joseph was much interested, but accentuates the fact that this shell has never been illustrated. Consequently no figures of it are available for those who are interested, and its appearance is only known to our personal friends and some others who have seen it. Without repeating its history it must be mentioned in explanation



Carved Shell of *Pectunculus glycymeris*, Linn. Red Crag: Walton-on-the-Naze, Essex. Reproduced from a photograph, nat. size.

¹ Renevier, loc. cit.