

we know that they included ancient forms of mayfly, cockroach, cricket, and beetle. It is remarkable that from some coal-fields hardly a single trace of insect life has been obtained, while in others great numbers of specimens have been brought to light. A remarkable variety of forms has been found in the Saarbrück Coal-field; but perhaps the greatest number of individual specimens has come from that of Commentry, which up to the end of the year 1884 is computed to have furnished not less than 1300 individuals.



Fig. 373.—Carboniferous Scorpion.

Eoscorpium glaber (B. N. Peach), Lower Carboniferous, Eskdale, Scotland.

Some of the insects were of considerable size. Thus the neuropterous *Archæoptilus* from the Derbyshire Coal-field had a spread of wing of perhaps fourteen inches or more; and a species of *Dictyoneura* (*D. Monyi*) had a wing about twelve inches in length. Others were remarkable for the vividness of their coloring (*Brodia*), the markings of which are still recognizable in the fossil specimens. One of the most singular features yet observed among these ancient insects is the union in the same individual of types of structure which are now entirely distinct. M. Ch. Brongniart has recently shown that wings which were admittedly neuropterous, and were referred to the genus *Dictyoneura*, were really attached to bodies which are unquestionably orthopterous.¹⁹³

¹⁹³ Ch. Brongniart, Bull. Soc. Geol. France (3), xi. p. 142; also Scudder, Geol. Mag. 1881, p. 293; Mem. Boston. Soc. Nat. Hist. iii. 1883, p. 213; Proc. Amer. Acad. 1884, p. 167; Bull. U. S. Geol. Surv. Nos. 31 and 71. H. Woodward, Q. J. Geol. Soc. 1872, p. 60. The student interested in the study of fossil insects will find Mr. Scudder's Bibliography of the subject, Bull. U. S. Geol. Surv. No. 71, 1890, a valuable book of reference.