are referred to the Middle Silurian. It is a portion of the frond of a Neuropteris.

Animals. - The genera of Corals, Crinoids, Brachiopods, Trilobites, and of other classes are to a large extent the same as in America. A Crinoid of an unusual form is represented in Fig. 828, a Crotalocrinus; Corals, in Figs. 826, 827 ; a common Pentamerus, in Fig. 829.

Trilobites are common, as in the American rocks. Some of the species are represented in Figs. 832-841. Figs. 832, 835, and 838 are of species from the Wenlock; Figs. 833, 834, 836, 837, 839, and 840 range below, and all but 840 above, the Wenlock.

Fig. 831, from Salter, is that of a large Limuloid, of the genus Pterygotus, from the Wenlock beds. It shows well the chelate termination of the antennæ, but it is imperfect in wanting the four pairs of slender legs which


Fig. 882, Sphærexochus mirus; 883, $a$, Cheirurus bimucronatus; 884, a, Encrinurus punctatus; 885, E. variolaris; 886, a, Phacops Downingli ; 887, Acldaspis Brightii ; 888, A. Barrandii; 889, Cyphaspis megalops ; 840, Proetus latifrons ; 841, Hemiaspis limuloides. Figs. 882 to 840, after Murchison; 841, after Woodward.
are situated between it and the large posterior pair (see page 623). The jaws in the figure, one of which is separately shown in Fig. 831 a, are the basal portions of the posterior legs.

Fig. 841 represents the Hemiaspis limuloides of Woodward, a form intermediate between a modern Limulus and the Eurypterids; the genus has species in both the Wenlock and Ludlow beds.

A Ceratiocaris of the Ludlow group is shown in Fig. 842. Fig. 845, a spine (referred to a genus of Sharks, Onchus), is supposed to be from a Ceratiocaris.

The first of Amphipod Crustaceans, Necrogammarus Salweyi, is reported from the Ludlow.

A Scorpion has been found in the Upper Ludlow beds of Lesmahago in Lanarkshire, Scotland, and in beds of nearly the same age in Gothland, Sweden; the latter is named the Palceophonus nuncius by Torell and Lind-

