Lithichnozoa.—In the Old Red Sandstone of Scotland, Captain Brickenden has described tracks which agree best with the Chelonians or Tortoises, as shown on Fig. 227.

In the red sandstone near Pottsville, in Pennsylvania, Isaac Lea has described the tracks of an animal which he calls Sauropus primævus. They are shown on Fig. 228.

Professor H. D. Rogers, in opposition to Mr. Lea's opinion, places these tracks in the lower part of the carboniferous formation. So he does, also, those other analogous species which he found 1500 feet lower in the series. He also found what he thinks may be the trail of a mollusc in his Umbral Series.

5. Carboniferous Period.

The two very distinct parts into which this formation is divided, differ widely in their palæontological characters. The lower part, called the carboniferous or mountain limestone, is rich in marine relics. But it is the remains of terrestrial plants, which so abound in the upper part, called the coal measures, that gives the name and the highest interest to the formation. Marine remains abound in this part also; but the land plants predominate. In the brief space which we can devote to the fossils of this formation we shall dwell chiefly upon the plants and upon the higher tribes of animals.

Plants.—Compared with the formations below there was an immense development of plants in the carboniferous rocks. Previously it would seem that not much dry land existed, certainly not in a condition for producing vegetation; for the plants in these lower rocks are almost entirely marine, and of course flowerless. But in the carboniferous era land plants were introduced abundantly, more than 683 species having been described in that formation, according to Prof. Unger. But they were mostly flowerless plants, chiefly such as form the class of Acrogens, such as the Ferns, the Equisetaceæ and Lycopodiaceæ. Yet many of them were large trees. Take the ferns, for example. In tropical regions, at the present day, these sometimes grow as high as forty or fifty feet, and the trunks are covered with the scars of the leaves that have fallen off. Fig. 229 exhibits some of these gigantic ferns.

Most of the fossil ferns probably belonged to species no larger than the ferns now growing in temperate latitudes; but some of them were tree ferns. Fig. 230 shows Neuropteris ovata from the coal, and it can hardly be distinguished from species now common in this country.