lowly forms of life are some of which the true zoological grade has been the subject of much uncertainty. Of these, the fossil known as Calceola sandalina (Fig. 349) has been successively described as a lamellibranch, a hippurite, and a brachiopod; but is now regarded as a rugose coral possessing an opercular lid. The Pleurodictyum problematicom, a well-known form of the Lower Devonian beds, is now classed with the Favositidæ among the perforate corals. The puzzling genus Stromatopora occurs in some of the limestones as abundantly and much in the same way as reef-building corals do in a modern coral-reef. The curious Receptaculites, already (p. 1235) referred to, is a well-known Devonian The last graptolites are met with in the Devonian fossil. They are of the simple type so characteristic of system. the Upper Silurian rocks, and have chiefly been found in the Hercynian formation of the Harz.<sup>132</sup> The corals of the Devonian seas were both abundant in individuals and varied in their specific and generic range. Not a single species is common either to the Silurian system below or the Carboniferous above. Among the rugose forms, the genera Cyathophyllum, Acervularia, and Cystiphyllum are characteristic. The tabulate kinds belong chiefly to the important genera of Favosites, Alveolites, and Heliolites. Calceola and Pleurodictyum, already referred to, are important Lower Devonian corals, while Phillipsastræa is of great consequence among the coral-reefs of the Upper Devonian rocks. Of the echinoderms by far the most abundant representatives are crinoids, which occur in great profusion in the limestones, sometimes forming entire beds of rock. They belong chiefly to two families-the Cyathocrinidæ, simple pedunculate forms with