presented by existing genera such as Hyalonema (fig. 15), in beds of the Carboniferous and Silurian periods. Some of the recent species, Euptectella aspergillum (Owen), and Aphrocallistes bocagei (Wright), are among the most delicate and beautiful of living organisms; the genus Umbellula and several other characteristic Pennatulidæ; several fine new species of the Crinoid genus Pentacrinus, so abundant in the blue clays of the Lias; and species of the genera Rhizocrinus (fig. 17), Bathycrinus, and Hyocrinus, crinoids



Fig. 22.-Polycheles crucifer, v. W.-S.

having few affinities with familiar living animals, but nearly related to the Apiocrinidæ of Jurassic times; a series of star-fishes related more or less nearly to the genera Archaster, Porcellanaster, and Hymenaster, genera rich in species and recalling many fossil forms; species of the genera Porocidaris and Salenia; what turns out to be a large and prominent family of regular urchins, the Echinothuridæ, long known only by an obscure