

## CHAPTER IX.

FOSSIL ECHINODERMA; COMPRISING THE CRINOIDEÆ, OR LILY-LIKE ANIMALS; STELLERIDÆ, OR STAR-FISHES; ECHINIDÆ, OR SEA-URCHINS.

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THE fossil remains of the Echinoderma (*spiny-skin animals*) are found among the earliest traces of animal existence hitherto discovered; for numerous species of the Crinoideæ, and one genus of the *Stelleridæ*, occur in the Silurian deposits.

The animals of this group present the radiated character very decidedly, for their parts are arranged around one common centre; the star-fish and sea-urchin of our coasts are familiar examples of this type of organization. Their external integument or skin is, in most examples, protected by spines (hence the name of the order), and in general perforated by minute foramina for the admission of sea-water, or the protrusion and retraction of minute tubes or hollow tentacula, which constitute their common organs of adhesion and locomotion. The two first families have their skeletons formed