

and from an eighth to half an inch in diameter. This is simply a pile of little button-like discs, each one with a hole through the center, and some radial striæ on the flat sides. So there is a perforation through the whole length of the stem. Sometimes several of the *segments* remain attached together; but generally, they are separated and scattered through the rock. In some European countries they have long been known as "St. Cuthbert's beads." We find them in great abundance in the drift of the Northwestern States. At the top of the stem we find a little urn composed of many stony plates nicely joined together by their edges. The urn has a cover similarly formed. Most of these bodies are found disjointed in the rocks; but there is one which seems to have held together very firmly (*Car-y-oc'-ri-nus*) and is found in the Niagara strata almost everywhere. The external surfaces of the plates of the cup are elaborately chased and embossed; but this I must tell you is not an armed and rooted crinoid; it is a *Cystid*, having no arms and with a tail-like stem. In the true crinoids we find a row of arms—generally ten—rising from the border of the urn or cup; and these often branch or give off a delicate fringe. The arm and its subdivisions are composed of flattened stony plates or pieces joined together according to the general plan of the animal.

We thus see that when nature adopts a particular method for the construction of one part of an animal, she pursues faithfully the same method in the formation of all the parts. Thus it appears that the works of nature are formed according to *plans*. Any thing which is a plan has been thought out. The plans of Nature are the expressions of mind.

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### XXXIII. THE KING CRAB'S GRANDFATHER AND OTHER GRANDFATHERS.

#### CAMBRIAN FOSSILS.

ONE who strolls along the coast of New England or the contiguous islands will notice many things "cast up by the sea," but one of the most interesting is the King Crab, *Lim'-u-*