

the rest, and all adjusted to each other with a view to the perfect performance of some peculiar function in the economy of each individual.

The joints, or little bones, of which the skeletons of all these animals were composed, resemble those of the star-fish: their use, like that of the bony skeleton in vertebral animals, was to constitute the solid support of the whole body, to protect the viscera, and to form the foundation of a system of contractile fibres pervading the gelatinous integument with which all parts of the animal were invested.\*

The bony portions formed the great bulk of the animal, as they do in star-fishes. The calcareous matter of these little bones was probably secreted by a Periosteum, which in cases of accident, to which bodies so delicately constructed must have been much exposed in an element so stormy as the sea, seems to have had the power of depositing fresh matter to repair casual injuries. Mr. Miller's work abounds with examples of reparations of this kind in various fossil species of Crinoïdeans. Our Pl. 47, Fig. 2, a. represents a reparation near the upper portion of the stem of *Apiocrinites Rotundus*.

\* As the contractile fibres of radiated animals are not set together in the same complex manner as the true muscles of the higher orders of animals, the term Muscle, in its strict acceptation, cannot with accuracy be applied to Crinoïdeans; but, as most writers have designated by this term the more simple contractile fibres which move their little bones, it will be convenient to retain it in our descriptions of these animals.