

inter-radial plates and a row of basals, a large body-cavity. The two upper joints of each ray are separated from those of the ray next it by a prolongation downwards of the plated skin which covers the upper surface or 'disk' of the body. Seated upon the bevelled sides of each radial-axillary joint, there is a series of five joints, the last of the five bevelled again like the radial axillaries for the insertion of two joints. These five joints form the first series of 'brachials,' and from the base of this series the arms become free.

The first of the brachial joints, that is to say, the joint immediately above the radial axillary, is, as it were, split in two by a peculiar kind of joint, called, by Müller, a 'syzygy.' All the ordinary joints of the arms are provided with muscles producing various motions, and binding the joints firmly together. The syzygies are not so provided, and the arms are consequently easily snapped across where these occur. This is a beautiful provision for the safety of an animal which has so wide and complicated a crown of appendages. If one of the arms get entangled, or fall into the jaws or claws of an enemy, by a jerk the star-fish can at once get rid of the embarrassed arm; and as all this group have a wonderful power of reproducing lost parts, the arm is soon restored.

When the animal is dying, it generally breaks off its arms at these syzygies; so that almost all the specimens which have been brought to Europe have arrived with the arms separate from the body.

About six arm-joints or so above the first on either branch there is a second brachial accessory and