animals may, however, grow fresh rays, and thus one may find a starfish consisting of one large ray and four quite small ones, the whole shaped like a comet.

The Ophiurids (the name means “ snake-tails") include the brittle-stars, sand-stars, and basket-fish or medusa-heads.

The two former, which may often be found hiding under the rocks, or in the seaweed, or in pools at low tide, resemble the ordinary starfish in having five distinct arms. These, however, as shown in fig. 3, are long and serpent-like, and are attached to a relatively small body or disk. The digestive and generative systems do not extend to the rays but are confined to the body. The arms are cylindrical and have no groove on the under side such as exists in starfish; but the water-vessel traverses the solid bones that form the axis of the arm, and the podia pass out through special openings (see Echinoderma, fig. 18).

In Ophiurids it is the arms that are used for locomotion and not the podia, so that the latter have no terminal suckers. The axial ossicles, which correspond to the plates flooring the arm-groove in a starfish, resemble vertebrae connected by pairs of straight muscular bundles, and articulated by tenon-and-mortise joints, according to whose degree of development the arms vary in their power of coil­ing. These vertebrae are encased in the tough outer skin of the arm, in which are developed plates. Spines borne by these plates aid the animal in locomotion. The skin of the disk also bears small plates, which are often covered with prickles. The mouth is on the under surface of the disk, and round it are a number of short, flat processes, the mouth-papillae, which serve as strainers. Inside the mouth are seen the five tooth-plates, borne on a strong frame of complicated structure. In the sand-stars the rays are com­paratively short, with their spines closely pressed to their sides, so that they look like lizards’ tails; in the brittle-stars the rays are much longer and more flexible, with the spines standing out, so that they look like wriggling centipedes attached round a little sea-urchin. The brittle-stars are more active than the sand-stars, and can go more than two yards in a minute; some of them, if seized, break off their arms, which continue breaking into smaller pieces; but the body can soon grow new ones. Sand-stars and brittle-stars are found in all seas, usually occurring in quantities, but are most abundant in the rock-pools of the tropics. By con­stantly sweeping their arms over the sea bottom, they gather food consisting of minute animals. They eat the bait of fishermen, and their fish as well if they find any already dead, but they are themselves a favourite food with many fish, notably the cod.

The basket-fish or medusa-heads are Ophiurids whose arms branch several times, their ends often curling and interlacing. They live in deeper water and are often brought up clinging to fishermen’s lines.

The feather-stars (fig. 4) have a central body and five arms, each forking at least once and fringed with small branches (pinnules) which give the feathery appearance. The mouth is in the middle of the body, and from it grooves pass along the arms and all their branches. The animal lives with the mouth upwards, and although it can crawl and even swim by movement of its arms, it generally fixes itself to a stone or seaweed or some zoophyte, by means of a bunch of small jointed and hooked processes (cirri) growing from the back or under side of the body. It gets its food in this way: the arm-grooves (Echinoderma, fig. 12, C) are lined with minute hairs (cilia) always waving in the direction of the mouth, towards which they drive a stream of water; this stream, containing minute organisms, constantly flows through the coiled gut, which extracts nourishment from it. The feather-stars were formerly placed with the starfish, but they really belong to another class of Echinoderms—the Crinoidea.

In 1823 J. V. Thompson, of Cork, discovered that the feather-star when quite young was fixed by a stalk, just as are nearly all crinoids (see Echinoderma, figs. 1 and 2). The stalked crinoids are not so numerous as they once were, but feather-stars belonging to about half a dozen genera *(Antedon, Actinometra,* &c.) are found in all seas at all depths, often in enormous numbers.

(F. A. B.)

**STARGARD,** a town of Germany, in the Prussian province of Pomerania, situated on the left bank of the navigable Ihna, 20 m. E. of Stettin on the railway to Danzig and at the junction of lines to Posen, Schneidemühl and Cüstrin. Pop. (1905), 26,908. Formerly a member of the Hanseatic League, the town retains memorials of its early importance in the large church of St Mary, built in the 14th century, the 16th-century town- hall, and some gateways and towers dating from the 14th century. The walls which formerly surrounded it have been mostly converted into promenades. Extensive new law-courts and three large barracks arc among the modern buildings. Stargard has a considerable market for cattle and horses, and carries on trade in grain, spirits and raw produce. Its manufactures include cigars, tobacco, wadding and stockings; and there are also iron-foundries, and linen and woollen factories in the town.

Stargard, mentioned as having been destroyed by the Poles in 1120, received civic rights in 1229, and became the capital of eastern Pomerania. As a Hanseatic town it enjoyed consider­able commercial prosperity, but it had also to undergo siege and capture in the middle ages and during the Thirty Years’ War. In 1807 it was taken by Schill. The name Stargard (from the Slavonic Starogad or Starigrod, meaning “ old town ") is common to several other towns in the north of Germany, of which the chief are Preussisch-Stargard, near Danzig, and Stargard an der Linde in Mecklenburg-Strelitz.

See Zuck, *Führer durch Stargard* (Stargard, 1900).

**STARK, JAMES** (1794-1859), British painter, was born in Norwich, and as he showed strong artistic inclinations early in life was, at the age of seventeen, articled to John Crome for three years. He was elected in 1812 a member of the Norwich Society, to the exhibitions of which he had already contributed; but in 1817 he migrated to London and entered the Royal Academy Schools. He soon returned to Norwich and did not finally settle in the metropolis until 1830, though he was meanwhile a regular contributor to the British Institution and Suffolk Street Galleries. In 1840 he moved to Windsor, but after an interval of some years went back to London, where he died in 1859. Between 1831 and 1859 most of his pictures were shown at the Royal Academy, though he still continued to exhibit occasionally in other galleries. He undertook in 1827 the publication of a work on *The Scenery of the Rivers of Norfolk,* which was completed seven years later; the illustrations he