

SEA-ANEMONES.



WHEN the tide ebbs and leaves the rocks exposed we may find here and there a few soft, rounded objects attached to the bare rock, often bright red in colour, and looking like strawberries or ripe cherries.

They are found especially on the sheltered sides of high rocks and in the angles formed by slight ridges and clefts. We do not seem to have any local name for these objects, although they are so common and conspicuous; one wonders why our name-inventing forefathers did not bestow on them some descriptive title. Their English name is "sea-anemone," a term derived from their resemblance to the anemone flower.

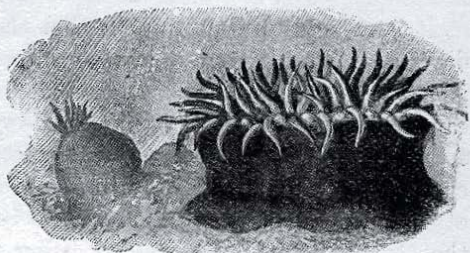
It is only when they are covered by the water, however, that they deserve the name of anemone, for then they open out like a bud and spread out circles of leaf-like projections, much as an opening daisy or dandelion does. They usually remain open during the whole time that the tide is up; when the water goes back again these leaves all curl in towards the middle of the anemone and are folded up inside, leaving only a little dimple on the top to indicate where they have disappeared.

Sea-anemones, however, are by no means flowers. Their jelly-like consistency and their habits would lead us to classify them as animals, and this they undoubtedly are. Though they seem to be rooted to one spot, and to open and close like a plant, their real habits are those of an animal. As a matter of fact, they are carnivorous animals; they first kill their victims by poisoning them, and afterwards devour them. If they had the power of moving rapidly in pursuit of prey, they would be as deadly to the general population of the beach as are the most venomous snakes

to the creatures on land. As it is, they account for a very considerable number of

the beach inhabitants by simply lying in wait and grasping the little animals that happen to stray within their reach.

The beautiful circles of leaflets which we see so regularly arranged are really active grasping tentacles, armed with whole batteries of little poisonous stings. With these tentacles they seize hold of any little creature, such as a "sholtie" or a young crab, that happens to move over them. The poor animal is held fast in spite of all its struggles, tentacle after tentacle is brought up by the anemone to grasp it, while hundreds of fine stinging darts discharge into



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it their poison, and the victim, its struggles gradually becoming more and more feeble, is ultimately drawn into the centre of the animal, where lie its mouth and its stomach. Then the tentacles are all closed in over the prey, and remain thus closed for a time—a day or several days, according to the size of the animal caught. During this time the process of digestion is going on, and when it is completed the skeleton and useless parts of the animal are discharged by the same opening as that by which it was taken in, and the anemone once more spreads its tentacles to wait for its next victim.

It is not only living animals that the anemone will devour. Anything of animal nature, dead or alive, is grist to its mill; and though it has no eyes, it can quite well distinguish what is good for food. A waving branch of seaweed borne towards it by currents in the water is quite ignored, while a bit of flesh is never allowed to come in contact with the tentacles without an effort being made to secure it. By some natural power, whether by the sense of smell or of taste or by some other sense unknown to us, the creature distinguishes unfailingly what it needs. It is great fun to feed it with small portions of limpet or of whelk, and by doing so one can see exactly how the process of feeding is carried on.

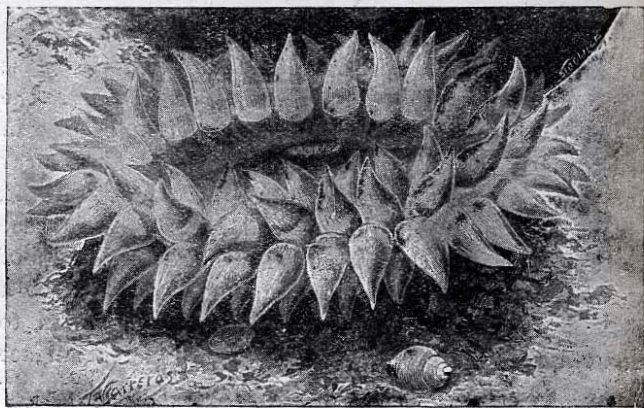
One might imagine that the anemone would easily fall a prey to larger and stronger animals. It has no hard skin or shell to protect it, and its beautiful jelly-like appearance would suggest to any hungry fish or crab that it is not only easy to demolish but would form a juicy morsel. Yet it does not seem to be in any danger from such enemies. I was once amusing

myself by throwing little pieces of bait into the sea among a crowd of sillocks. Along with the bait, which consisted of limpet and fish, I threw in a morsel of one of these red anemones. A bold young sillock immediately snapped it up. Then something seemed to go wrong, for the poor young fish suddenly shot the anemone out of its mouth and swam off without so much as looking at the other bait which I threw all round about it. The piece of anemone was less palatable than it looked.

Strangely enough an anemone is not much inconvenienced by being cut into bits. The individual pieces if put into the sea again close up and grow into new animals. No doubt the piece which the sillock swallowed was fully alive, and stung the mouth and throat of its captor so severely that the fish was only too glad to be rid of it.

All anemones are not red in colour like those of which we have been speaking. There is a great number of different kinds of these creatures round our shores, but most of them are only to be found by careful searching. Some are found in rock-pools; these are generally coloured more or less like the seaweeds in the pools. Others are found only in dark places; under large stones or boulders near low-water mark they grow in all attitudes—upright, sideways, and upside down—attached by their base to the surface of the stone. The greatest variety of them I ever saw was found among the stones of a little jetty or pier, which was being taken down to make room for a larger pier. The under surface and the sides of the stones on this pier were simply covered with anemones of all sizes, shapes, and colours.

The various kinds of anemone differ not only in colour but also in size and shape. Some are minute things, with a thin body or stalk crowned at the top with long, fine tentacles, which they wave about actively through the water in search for small prey. Others again are large, and one kind, known as the dahlia, which is common in Orkney, attains to gigantic proportions; when its tentacles are expanded it is as wide across the top as the mouth of a large breakfast cup. The dahlia is variously coloured, sometimes dark crimson, the tentacles being marked with broad rings of crimson and white, sometimes green with red markings. The outside of its body is usually covered with bits of gravel and broken shells, so that when the animal closes up there is nothing to be seen but a rounded heap of gravel. When open it is a magnificent creature, and its broad, tapering tentacles shine with an iridescent light.



Dahlia anemone.