

CONUS.

TESTA turbinata, seu inversè conica, rariùs subventricosa, convoluta, spird plerumque brevissimà. Apertura longitudinalis, angustata, edentula, basi subeffusa, labio externo plerumque supernè emarginato.

WHATEVER dismemberments the greater number of the Linnean genera have been subjected to, Conus has always remained entire; the reason of this appears to be that the general form of the shells included in it, is subject to but slight variation; so that though it is one of the most numerous genera, it has usually been divided only into two families, the coronated and those which have no coronet. The variations, however, in general form, to which this Genus is liable, are such, that without great precaution, several other genera may be confounded with it, such as Strombus, and sometimes, though rarely, Cypræa, in a young state; and its affinity to some Pleurotomæ is so near, that there exist some species which cannot, without difficulty, be placed in their respective genera. We think, moreover, that the Genus might be advantageously divided into more numerous families, and that a further division would be desirable to the student on account of the number of species. Those with a comparatively elongated spire, for instance, might be well placed together: for though the spire of the Cones can never be properly said to be elongated, still there are some whose spire is equal in length to one-third of the whole shell: those whose spire is very short might, perhaps, with equal propriety, constitute a family: some again which are rather ventricose, like C. bullatus, Aulicus, Geographus, Tulipa, &c. might be divided into two families, the ventricose coronated, and the ventricose without a coronet.

more numerous divisions might much facilitate the examination of species. We have not met with any author who mentions the notch in the upper extremity of the outer lip so common to Cones, and on which account it is sometimes so difficult to distinguish the species from neither are we quite satisfied that the animal inhabitant of the Cones, is furnished with an operculum: for Lamarck appears only to give it one on the authority of Adanson's figure, and collectors have never taken the pains to preserve these animals, common as they are, in spirits. We have, however, one reason for believing them to have an operculum: it is, that close to the upper extremity of the linear aperture, and on the body whorl there is generally a small indentation, which has the appearance of having been produced by the attrition of some hard substance frequently passing in and out of the aperture; and which, moreover, is never covered with epidermis.

In general shape the Cones, as their name imports, may be described as inversely conical, turbinate, sometimes, though seldom, rather ventricose convolute shells, whose spire is generally very short, though in a few species rather elongated. The longitudinal aperture is, in most instances, as long as the shell, generally narrow, spreading a little towards the base where it is rather effuse. The outer lip is mostly very straight, seldom a little arched, and always without teeth; nor are there ever any teeth on the Columella: the superior extremity of this external lip is very commonly emarginate, or notched close to the last volution. We believe the Cones are always covered with a more or less thick epidermis when living; but as very little interest has hitherto been attached to these or any other shells, except on account of their beauty, when deprived of their natural characters, we are not, indeed, surprised that this unsightly covering should generally have disappeared, before they find a place in the drawers of collectors: yet, as we ourselves are admirers of nature in her own garb and unadorned by art, we must be allowed to regret, that the practice of what is commonly termed shell cleaning, should be so very general. That the brilliancy of their colours is enhanced by this practice we readily admit, but their real characters are too often lost by this artificial

polish, and the shells thus divested of their natural appearance, must be considered in a scientific point of view, as imperfect. If the persons employed to collect shells, were aware how much the value of those which have their epidermis is increased by retaining it, they would gladly bring into the market a due proportion of unsophisticated specimens. Our love of science would be thus satisfied, and we should unreluctantly confess, that no Genus of Shells, when cleaned, can boast of more beauty, or of more splendour and variety of colouring, than that under our consideration: for this reason, and in consequence of their great rarity some of them are very highly estimated; of these, the Gloria maris, the Omaicus, the Aurisiacus, the Cedo-nulli, and a few others, may be considered as the most valuable.

Fossil cones are not unfrequent; but, we believe, that they occur only in the newer strata, or those above the chalk, such as the London Clay and Crag in England, the Calcaire grossière in France, and the contemporaneous beds in other countries: there are a few seen in collections, filled with a coarse dark green arenaceous substance; these belong to the Terrains calcareo-trappéens of Brongniart. Doubtful casts are met with in the inferior Oolite, according to Conybeare and Phillips.

There is a circumstance relating to the animal which we think worth mentioning, it is its habit of absorbing the testaceous matter from the outside of the inner concealed volutions, so that when a section of a cone is made, the inner portions of shell remain exceedingly thin, while the outer or exposed parts are comparatively thick and strong. The animals of many other marine shells have the same habit, but we are inclined to think

only those which have an operculum.

The Cones, as we have already observed, may be confounded with the Pleurotomæ, and the young specimens of some Strombi, and those cones which are rather ventricose with young Cyprææ, but they may be distinguished in the following manner: from the Pleurotomæ, by their short spire, their linear aperture, and their straight columella; from the young Strombi, by their being entirely destitute of varicose sutures, and by their never having any appearance of a notch near the lower extremity of the outer lip; the young Strombi, moreover,

are seldom, if ever, so regularly conical: from the young Cyprææ, by the thickness of their shell, the coronated or abrupt spire, by their not being polished in every part, which the Cyprææ always are, because the mantle of their inhabitant deposits testaceous matter over the whole shell, and because they never have an epidermis.

In order to show the various shapes of the different divisions of Cones, we were obliged to give them in

two plates, the species we have represented are,

Fig. 1. Comes antediluvianus, a fossil species from Piacenza, whose spire is coronated and more acute than any other species with which we are acquainted

2. Conus grandis with its epidermis.

4. --- australis.*

5. —— an hitherto undescribed species, it is very elegantly shaped and beautifully marked; it is now in the cabinet of the Rev. Dr. Goodall. We have named it C. deplicatus, the following are its characters: C. gracilis, subventricosus, spira brevinscula acuta; anfractu ultimo superne rotundato, lineis transversis duplicatis impresso: testa alba, maculis, strigisque fulvis ornata.

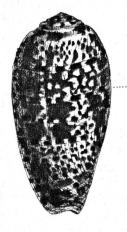
6. Conus Terebra.

7. --- Nussatella.

8. —— Dormitor, a fossil from Barton, approaching very nearly to a Pleurotoma.

9. Conus bullatus, two views.

^{*} In the plate this is called C. gracilis; but upon examination we find that it accords with C. australis, Lam.











4. Conus gracilis. 5....duplicatus.

5. duplicatus
8. Dormitor.
9. bullatus.