

I must enter at some length into the natural history of these shells, because the conclusions to which I have been led, by a long and careful investigation of fossil species, are at variance with those of Cuvier and Lamarck, as to the fact of Ammonites being external shells, and also with the prevailing opinions as to the action of the siphon and air chambers, both in Ammonites and Nautili.

Mechanical Contrivances in the Nautilus.

The Nautilus not only exists at present in our tropical seas, but is one of those genera which occur in a fossil state in formations of every age; and the molluscous inhabitants of these shells, having been among the earliest occupants of the ancient deep, have maintained their place through all the changes that the tenants of the ocean have undergone.

The recent publication of Mr. R. Owen's excellent Memoir on the Pearly Nautilus, (*Nautilus Pompilius* Lin.) 1832, affords the first scientific description ever given of the animal by which this long-known shell is constructed.* This

* It is a curious fact, that although the shells of the Nautilus have been familiar to naturalists, from the days of Aristotle, and abound in every collection, the only authentic account of the animals inhabiting them, is that by Rumphius, in his history of Amboyna, accompanied by an engraving, which, though tole-