

only to be wetted when the tide is up, and sometimes above high water mark. Poli says that when they resist any attempt to force them from their station, they expel the air and water on all sides and produce a vacuum, so that it is very difficult to overcome the pressure of the atmosphere; and Mr. Fremby, who had an opportunity of studying their habits on the

Fig. 42.

coast of Chili, states that when not apprehensive of danger their attachment is very slight, and by pushing them gently they will easily slide from the surface to which they are attached; but if a direct attempt is made to unfix them by force, they will part with a portion of their shells sooner than let go their hold.



Chiton cenerus.

When we consider that these animals are not only often exposed to the violent action of the waves, but also to the attack of countless enemies, we see abundant reason for the coat of mail with which their Creator has covered them. Even the fleshy or cartilaginous margin, or zone, as my lamented friend, the Rev. Lansdown Guilding, in his admirable memoir on this tribe, denominated it, is defended sometimes by scales, spines, and bristles, at others rough with numerous little bony tubercles; it is also described as in general fringed, so that when the animal attaches itself to a rock or stone, it is altogether calculated, by the application of the prone part of its body, to produce a vacuum. The wing-shell and other bivalves that suspend themselves by a byssus, are sufficiently protected by their shells from the attack of their enemies, without so complete an adhesion of the body as is necessary for the coat-of-mail shell. Mr. Guilding, who had excellent opportunities of observation, informs us that these animals are night-feeders,