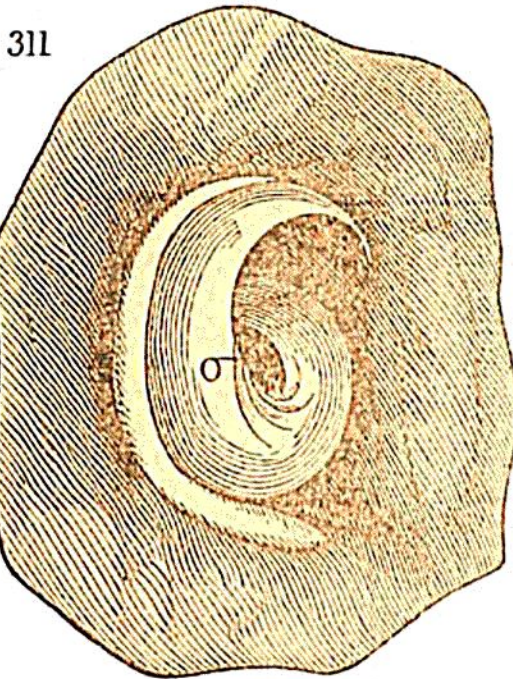


valve is shown in Fig. 311, which represents an inner view of the cardiac portion of the stomach of the horse; o being the termination of the œsophagus.



The stomach of the *Water Rat* is composed of two distinct cavities, having a narrow passage of communication: the first cavity is lined with cuticle, and is evidently intended for the maceration of the food before it is submitted to the agents which are to effect its digestion; a process which is completed in the second cavity, provided, for that purpose, with a glandular surface.

In proportion as nature allows of greater latitude in diet, we find her providing greater complication in the digestive apparatus, and subdividing the stomach into a greater number of cavities, each having probably a separate office assigned to it, though concurring in one general effect. A gradation in this respect may be traced through a long line of quadrupeds, such as the *Hog*, the *Peccari*, the *Porcupine*, (Fig. 308,) and the *Hippopotamus*, where we find the number of separate pouches for digestion amounting to four or five. Next to these we may rank the very irregular stomach of the *Kangaroo*, (Fig. 309) composed of a multitude of cells, in which the food probably goes through several preparatory processes; and still greater complication is exhibited by the stomachs of the *Cetacea*, as, for example, in that of the *Porpus* (Fig. 310.) As the fishes upon which this animal feeds are swallowed whole, and have large sharp bones, which would injure any surface not defended by cuticle, receptacles are provided, in which they may be softened and dissolved, and even converted into nourishment, by themselves, and without interfering with the digestion of the soft parts. The narrow com-