and the sheep, there are two preparatory stomachs for retaining the food previous to rumination, a third for receiving it after it has undergone this process, and a fourth for effecting its digestion. Ruminants without horns, as the Camel, Dromedary, and Lama, have only one preparatory stomach before rumination, answering the purpose of the two first stomachs of the bullock; a second, which I shall presently notice, and which takes no share in digestion, being employed merely as a reservoir of water; a third, exceedingly small, and of which the office has not been ascertained; and a fourth, which receives and digests the food after rumination. Those herbivorous animals which do not ruminate, as the horse and ass, have only one stomach; but the upper portion of it is lined with cuticle, and appears to perform some preparatory office, which renders the food more easily digestible by the lower portion of the same cavity.*

The remarkable provision above alluded to in the *Camel,* an animal which nature has evidently intended as the inhabitant of the sterile and arid regions of the East, is that of reservoirs of water, which, when once filled, retain their contents for a very long time, and may minister not only to the wants of the animal that possesses it, but, also, to those of man. The second stomach of the Camel has a separate compartment, to which is attached a series of cellular appendages; (exhibited, on a small scale, in Fig. 315;) in these the water is retained by strong muscular bands, which close the orifices of the cells, while the other portions of the stomach are performing their usual functions. By the relaxation of these muscles, the water is gradually allowed to mix with the contents of the stomach, and thus the Camel is enabled to support long marches across the desert, without receiving any fresh supply. The Arabs, who traverse those extensive plains, accompanied by these useful animals, are, it is said, sometimes obliged, when faint, and in danger of perishing from thirst, to kill one of their camels, for the sake

* Home, Phil. Trans. 8vo. 1806, p. 370.