

shown at τ in Fig. 385. Eight or more principal branches arise from the main trunk; and each of these is afterwards divided and subdivided to an extreme degree of minuteness, so as to form in all, many hundred plates. The olfactory membrane, with all its nerves, is closely applied to every plate in this vast assemblage, as well as to the main trunk, and to the internal surface of the surrounding cavity: so that its extent cannot be less than 120 square inches in each nostril. An organ of such exquisite sensibility requires an extraordinary provision for securing it against injury, by the power of voluntarily excluding noxious vapours; and nature has supplied a mechanism for this express purpose, enabling the animal to close, at pleasure, the orifice of the nostril. The hog, which, in its natural state, subsists wholly on vegetable food, resembles herbivorous tribes in the external form and relative magnitude of the turbinated bones; but they are more simple in their structure, being formed of single, and slightly convoluted plates, without partitions or perforations. In this respect, they approach to the human structure, which is even less complicated, and indicates a greater affinity to vegetable than to animal feeders. Man, indeed, distinguishes more accurately vegetable odours than those proceeding from animal substances; while the reverse is observed with regard to quadrupeds whose habits are decidedly carnivorous. A dog, for instance, is regardless of the odour of a rose or violet; and, probably, as he derives from them no pleasure, is unable to discriminate the one from the other. Predacious animals, as Sir B. Harwood observes, require both larger olfactory nerves, and a more extensive surface for their distribution, than the vegetable eaters. The food of the latter is generally near at hand; and as they have occasion only to select the wholesome from the noxious plants, their olfactory organs are constructed for the purpose of arresting the effluvia of odorous substances immediately as they arise. The former are often under the necessity of discovering the lurking places of their prey at a considerable distance, and are therefore, more sensible to