

Bats have been supposed to possess a peculiar, or sixth sense, enabling them to perceive the situations of external objects without the aid either of vision or of touch. The principal facts upon which this opinion has been founded were discovered by Spallanzani, who observed that these animals would fly about rapidly in the darkest chambers, although various obstacles were purposely placed in their way, without striking against or even touching them. They continued their flight with the same precision as before, threading their way through the most intricate passages, when their eyes were completely covered, or even destroyed. Mr. Jurine, who made many experiments on these animals, concludes that neither the sense of touch, of hearing or of smell, was the medium through which bats obtain perceptions of the presence and situation of surrounding bodies; but he ascribes this extraordinary faculty to the great sensibility of the skin of the upper jaw, mouth, and external ear, which are furnished with very large nerves.*

The wonderful acuteness and power of discrimination which many animals exercise in the discovery and selection of their food, has often suggested the existence of new senses, different from those which we possess, and conveying peculiar and unknown powers of perception. An organ, which appears to perform some sensitive function of this kind, has been discovered in a great number of quadrupeds by Jacobson.† In the human skeleton there exists a small perforation in the roof of the mouth, just behind the sockets of the incisor teeth, forming a communication with the under and fore part of the nostrils. This canal is perceptible only in the dried bones; for, in the living body, it is completely closed by the membrane lining the mouth, which sends a prolongation into it; but in quadrupeds, this passage is pervious even during life, and is sometimes of considerable width. Jacobson found, on examining this structure with

* Sir Anthony Carlisle attributes this power to the extreme delicacy of hearing in this animal.

† See *Annales du Musée*, xviii. 412.