

same description applies in all respects both to the osseous and to the membranous canals contained within them; the space (p) which intervenes between the two, being filled with the perilymph. But the form of the membranous vestibule demands more particular notice, as it is not so exact an imitation of that of the osseous cavity; being composed of two distinct sacs, opening into each other: one of these (u) is termed the *utricle*;\* and the other (s,) the *sacculus*. Each sac contains in its interior a small mass of white calcareous matter, (o, o,) resembling powdered chalk, which seems to be suspended in the fluid contained in the sacs by the intermedium of a number of nervous filaments proceeding from the acoustic nerves (u and n,) as seen in Fig. 396. From the universal presence of these cretaceous substances in the labyrinth of all the mammalia, and from their much greater size and hardness in aquatic animals, there can be little doubt that they perform some office of great importance in the physiology of hearing.† Their size and appearance in the Dog is shown in Fig. 397; and in the Hare, in Fig. 398.

The Cochlea, again, is an exceedingly curious structure, being formed of the spiral convolutions of a double tube, or rather of one tube, separated into two compartments by a partition (l,) called the *lamina spiralis*, which extends its whole length, except at the very apex of the cone, where it suddenly terminates in a curved point, or hook (h,) leaving an aperture by which the two portions of the tube communicate together. In Fig. 395, a bristle (b, b) is passed through this aperture. The central pillar, round which these tubes take two and a half circular turns, is termed the *modiolus*. Its apex is seen at (m.) One of these passages is distinguished by the name of the *vestibular tube*,‡ in consequence

\* Scarpa and Weber term it the *sinus* or *alveus utriculosus*; it is called by others the *sacculus vestibuli*. Breschet gives it the name of *le sinus median*. See the Memoir already quoted, p. 98.

† These cretaceous bodies are termed by Breschet *otolithes*, and *otoconies*, according as they are of a hard or soft consistence. Ibid. p. 99.

‡ *Scala vestibuli*.