

is, the side opposite to the ear-drum, and which is shown in Fig. 391, is occupied by a rounded eminence (p,) of a triangular shape, termed the *promontory*; on each side of which there is an opening in the bone, closed, however, by the membrane lining the whole internal surface of the cavity. The opening (o,) which is situated at the upper edge of the promontory is called the *fenestra ovalis*, or oval window; and that near the under edge (r,) is the *fenestra rotunda*, or round window.

Connected with the membrane of the ear-drum, at one end, and with the fenestra ovalis at the other, there extends a chain of very minute moveable bones, seen at (b,) in Fig. 390; but more distinctly at m, i, s; in Fig. 393, which is drawn on a somewhat larger scale, and in which, as before, p is the promontory; and r the fenestra rotunda. These bones, which may be called the *tympenic ossicula*, are four in number, and are represented, enlarged to twice the natural size, in Fig. 392. The names they have received are more descriptive of their shape than of their office. The first is the *malleus*, or hammer (m;) and its long handle (h) is affixed to the centre of the ear drum: the second is the *incus*, or anvil (i;) the third, which is the smallest in the body, being about the size of a millet seed, is the *orbicular bone* (o;)* and the last is the *stapes*, or stirrup (s,) the base of which is applied to the membrane of the fenestra ovalis. These bones are regularly articulated together, with all the ordinary apparatus of joints, and are moved by small muscles provided for that purpose. Their office is apparently to transmit the vibrations of the ear-drum to the membrane of the fenestra ovalis, and probably, at the same time, to increase their force.

The more internal parts of the ear compose what is de-

* Blumenbach, and other anatomists, consider this as not being a separate bone, but only a process of the *incus*; a view of the subject which is supported by the observations of Mr. Shrapnell, detailed in the Medical Gazette, xii. 172.