

ly due to the contraction of the ventricles, and hence we recognize in it the *bruit musculaire*, but it is also due to the tension of the auriculo-ventricular valves during their closure and to the prolongation of the note thus caused by the chorda tendines which, like their diminutives the ossicles, are subtended between two moveable surfaces, the valve and heart wall.

In the second form we have learned from the patient that he feels in his ear a constant ticking which, upon a closer scrutiny, has turned out to be a pulsatory sensation, occurring regularly for a considerable period with equable intermissions, and being synchronous with the beats of the heart, or of the radial artery at the wrist. Indeed, so correct an indicator of the rate of the circulation has it proved, that he has, by counting the ticks, judged as correctly of the rate of his own circulation as a Physician has done by the more ordinary method. This tinnitus may readily be distinguished from every other, and, for convenience sake, may be called provisionally, at least, the *pulsatile*. Its character, we believe, would suggest that it was in some manner more or less directly connected with the internal carotid artery, or rather with the part of the vessel winding through the carotid canal, and in close proximity to the internal ear. The exact abnormality that may exist in such cases cannot be predicted during life, we may, at most, form but an approximation of the truth. It is possible that the blood of such patients may be in a watery or spanæmic state, and a species of *Lruit de soufflet* produced in the part which is heard by the patient; or perhaps some extra-vascular pressure may exist such as the impaction of fibrinous exudation or serous effusion between the wall of the bony canal and that of the elastic vessel. Be the real cause, however, what it may, these to us seem the most probable. They are not, however, exactly convertible cases, for it is worth remarking that the pulsatile tinnitus dependent upon poverty of the blood would be heard in both ears, while that resulting from compression of the vessel would be confined to one side. The first case of pulsatile tinnitus we ever met with was one sided, and was remarkable in being associated with paralysis of the muscles, supplied by the facial nerve on the corresponding side of the face. The case appeared to have had an inflammatory origin, and yielded rapidly to mercury pushed to salivation, and succeeded by Iodid Potass; rendering it evident that some vascular product had been thrown out in the *trajet* of the facial nerve,—and which, we think, the anatomical relations will shew to be feasible,—involved the carotid by extension. There, certainly, was no more general cause of morbid action; for the palsy was perfectly local, and unaccompanied by a single mark of either cerebral or spinal disturbance.