

centre, and by drawing it inward, transforms it from a plane to a conoid, within the same circumference; and so keeps it in due order. The want of this tension, from the misformation, or straining of those extremely delicate parts—often times, no doubt, by the convulsive motions before birth—is, perhaps, the most frequent cause of want of hearing, although many causes are assignable, and it is for this reason that some deaf persons hear speech a little, when a drum beats near them, or when in a carriage running on pavement, that do not hear at all at other times; because the violent percussion of the air beats in the tympanum to a suitable degree, as wind fills and expands the sails of a ship, which otherwise hang loose and flaccid.

The causes, however, of deafness, both natural and adventitious, may be as various as the numerous respective minute parts on which hearing depends, and being internal, and not to be investigated by sight, it is not always possible to determine precisely where the defect lies, nor indeed, if it were, by reason of its inaccessibleness, to remedy it.

Neither is it within the compass of the present design to treat fully on the sense of hearing; but only to touch upon the subject so far as might be necessary for some to understand how easily that part of the bodily system is disordered, and in order to lead the mind to attend to the important consequences thereof.

Be the cause of want of hearing natural, or by subsequent accident, what it may, the certain effect is destitution or privation of the common faculty of speech. Being dumb is only the consequence of being deaf, not an independent defect, nor owing to any infallible sympathy of the nerves of hearing and those of the tongue, as Montaigne and many of the ancients supposed. Many have remained dumb who were not born deaf, but who have lost their hearing in infancy, before they had acquired speech, for indeed we are all born dumb, that is, speechless, for a time. The loss of hearing also at any age will in time incur the loss of speech, either totally or partially.

The capacities for attaining oral, or spoken language, besides the sense of hearing, are competent powers of mind, the voice, and the common organs of speech. Now in healthy per-