هده د من

important pathological phenomena; the principal of which have heard better than those where satisfactory evidence are the following :-

the membrane, which is often pulpy and flocculent. In ed; the base and crura of the stapes are frequently entirely embedded in it; while the fenestra rotunda appears only like a superficial depression in the swollen membrane. Oc-land satisfactory experiments of Professor Muller on the casionally there is a collection of mucus.

2nd. Concretions of various kinds are visible on the surface of the thickened membrane. In some cases these have the consistence of cheese, and are analogous to tuberculous matter; in others they are fibro-calcareous, and exceedingly hard.

3rd. But by far the most frequent and peculiar characteristic of this second stage of the disease, is the formation of membranous hands between various parts of the tympanic cavity. These bands are at times so numerous as to occupy nearly the entire cavity. They are found connecting the inner surface of the membrana tympani to the internal wall of the tympanum; to the stapes; and to the incus. They have also been detected between the malleus cous membrane, it becomes ulcerated, the membrana tymand the promontory; as well as between the incus, the pani is destroyed, and the tensor tympani muscle atrophied. walls of the tympanum, and the sheath of the tensor tym-| The ossicula auditus are diseased, and ultimately dispani muscle: and they so connect various parts of the cir-charged from the ear, and the disease not unfrequently cumference of the fenestra rotunda, as to form a network communicates itself to the tympanic walls, affecting also over the membrana propria. But the place where these the brain and other important organs. Of this class of disadhesions are most frequently visible, is between the crura of the stapes and the adjoining walls of the tympanic cavity; this, for example, was the case in twenty-four instances out of a hundred and twenty dissections-heing a fifth of the number. In one dissection, the bands of adhesion were five in number: and in other instances they were so strong, that, in removing the stapes, the mucous 26, p. 298. membrane was torn from the surface of the promontory. Sometimes, so broad and expanded have been these adhesive bands, as to have assumed the appearance of a membranous veil. They have also been known to contain blood subject in the "Philosophical Transactions," and shewed and scrofulous matter. In some examples the surface of that the cases likely to be relieved by the practice were the promontory is rough, and in two instances the mem-those in which the Eustachian tubes were permanently brane attached to the base of the stapes was ossified, and closed, or when blood had been extravasated behind the the anchylosis of the latter to the fenestra ovalis was complete.

It must appear obviously impossible, that many of the membrana tympani" itself. remarkable phenomena which have just been pointed out can be present, without the co-existence of functional derangement, more or less serious, in the organ of hearing. Itleman has performed it in several cases. He gives a table, The thickening of the mucous membrane, and deposition which includes lifteen. Of these, six were performed for of mucus, must necessarily interfere with the course of chronic thickening of the membrane, and the remaining sonorous vibrations towards the membrane of the fenestra nine for obstruction of the Eustachian tube. One case rotunda, and hinder the free action of the stapes.

walls of the tympanum, cannot do otherwise than impede in saying, that " nothing is more rare than the cure of deafthe natural movements of the former, which has very fre- ness by perforation of the membrana tympani." He then quently been found so firmly attached to the fenestra ova- details at length the history of an instance of idiopathic lis, as to require considerable pressure with the scalpel to hæmorrhage into the cavity of the tympanum. In this disengage it. Morgagni states, that he found the cavity of case, deafness, which was complete, was removed by the the tympanum intersected by numerous membranes, which impeded the movements of the ossicula ; and it appears allow the author to describe the local appearances, the highly probable that these bands of adhesion produce irregular movements in the ossicula. I am inclined to ascribe deafness, and many of the distressing symptoms that often parent, gray appearance, had a dull brown colour, and was accompany it, as noises like the rushing of waters, &c., to slightly congested at the margin; the vertical line, indithe continued pressure exerted on the contents of the labyrinth by the stapes being drawn inwards, as a consequence of the formation and subsequent contraction of the adhesions. In this opinion I have been strengthened by the examination of living persons, having frequently observed, pressure against it produced an elastic pitting. The head that where the membrana tympani has been removed by was carefully supported, with the left car turned up, and disease, or where the contents of the vestibule have not re- the auricle drawn towards the vertex. The speculum be-

The second stage is characterized by a variety of very stance of the latter bone being anchylosed,) the patients existed, that the disease consisted in the thickened and ad-1st. A very considerable thickening of the substance of herent state of the membrane under consideration.

Another effect resulting from the pathological conditions this state the tympanic plexus of nerves becomes conceal-lapparent in this stage of the disease, seems to be deserving of very attentive consideration. From the interesting researches of Dr. Wollaston, and the more recent admirable physiology of hearing, it would appear that too high a state of tension of the membrana tympani is an obstacle to the transmission of the sonorous vibrations to the internal ear. In several of the dissections, it will be observed that the membrana tympani was bound to various parts of the tympanic cavity by firm bands of adhesion ; that in others, the tendon of the muscle was surrounded by thick membrane, while occasionally both it and the substance of the tensor tympani muscle were atrophied. All these changes must most certainly exert an injurious influence upon the membrana tympani; and from them doubtless arise many of the phenomena observable in deafness.

In the third stage of inflammation of the tympanic mueases I am about to treat at length in a separate communication.

[In 120 dissections made by Mr. Toynbee, there were 20 ears in the first stage of inflammation of the tympanic cavity, 65 in the second stage, 6 in the third stage, and 29 in a healthy state.]-Medico-Chirurgical Transactions, vol.

On the Treatment of Deafness by Puncturing the Membrana Tympani.-Sir Astley Cooper wrote a memoir on this membrane. To those cases other pathologists have added " a morbidly thickened and cartilaginous condition of the membrana tympani" itself. In the last number of the Northern Journal, we find an interesting communication on the results of the operation by Dr. Mercer. This gentunda, and hinder the free action of the stapes. The bands of adhesion connecting the stapes with the toration of hearing. The operator then agrees with Itard operation. As the example is an instructive one, we shall mode of operating, and the instrument :-

" The membrana tympani, instead of its normal, transcating the handle of the malleus, was lost in the surrounding colour, and the membrane, instead of presenting its concave appearance, seemed pushed outwards into the meatus. On touching it with a probe it was almost insensible, and ceived any impression through the stapes, (as in the in-'ing introduced as far as the second curve of the meatus,

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