

also advisable whenever the sound-perceiving apparatus remains normal, and when on account of serious pathological conditions of the stapedo-vestibular articulation stapedectomy is impossible.

The histological preparation which accompanied this paper represented a section of the vestibular cavity of the internal ear of a rabbit on which *tyridianoixi oralis* had been performed. In the place of the absent stapes was a newly-formed connective tissue, the vestibular membranes preserving their normal structure. Two little fragments of the destroyed stapes having fallen into the vestibule, had become encapsuled by connective tissue, which formed a sort of cross-piece in the anterior part of the cavity of the vestibule. It is interesting to note that the animal never showed any disturbance of equilibrium during the six months it remained under observation, and preserved a moderate hearing power.

JAMES DONELAN (*trans.*).

THE PNEUMATIC TREATMENT OF DISEASES OF THE EAR.

BY DR. G. NUOLI (Rome).

In order to get, he said, as clear an idea as possible of the pneumatic treatment, as practised by means of the electric-motor ear-pump, he had made an anatomical study of the effects of the treatment on the auditory organ of a dead body. By means of this pump the air in the external auditory canal was condensed and rarefied with rapid alternations, and the tympanum was consequently propelled either inwards or outwards in such a way as to take a very rapid regular movement, which might repeat itself two or three hundred times a minute without any disturbance or injury. The whole action of the audotympanic movement might be observed through apertures made in the roof or sides of the cavity of the tympanum. Whilst the handle of the hammer was propelled outward, the head was propelled inwards, and *vice versâ*, the whole of the small bone turning on a horizontal axis placed exactly above the small apophysis. The horizontal portion of the articular surface of the anvil is struck vertically by the corresponding articular surface of the head of the hammer; the anvil, however, sliding, transformed this vertical movement into a horizontal one. The whole movement becomes greater if the tendon of the tensor tympani be cut, whereas if this muscle be laid bare and stretched, the curvature of the membrane was increased, and the movements produced by the pump became most limited. By means of the frontal mirror, let the eye be fixed on some luminous point in the outline of the stirrup, and provided the anatomical piece be normal,

that point will then be seen to acquire minimum vibrations during the application of the pump. These vibrations could be measured only with the aid of the most accurate mathematical instruments.

A vibratory movement may be discerned also in the liquid of the semicircular canals, if, with a file, a very tiny hole be bored in correspondence with each of them, and the eye be fixed on a luminous point produced by the endolabyrinthic liquid reflecting the light of the frontal mirror.

By making a suitable cut in the hard wall of the middle ear, so as to expose the round window, one could also see the vibration communicated to the membrane of this window by the endolabyrinthic liquid. The pneumatic treatment made in the way described gave a regular vibrating movement to all the parts forming the middle and internal ear. Their diagnostic means did not allow them to judge absolutely the clinical results, and in which cases the treatment might be advisable. On some patients it would have a useful effect—on others no effect at all. They could draw the conclusion that the treatment would be useful in chronic, but not in suppurative, diseases of the middle ear.

SOCIETIES' MEETINGS.

PROCEEDINGS OF THE LARYNGOLOGICAL SOCIETY OF LONDON.

Fifty-third Ordinary Meeting, December 1, 1899.

F. DE HAVILLAND HALL, M.D., *President, in the Chair.*

A Diagnostic Mistake. By SIR FELIX SEMON.

On October 18, 1898, I was consulted by Mr. A. W——, aged thirty-nine, on account of soreness of the throat on the right side, about the level of the larynx, limited to one definite spot. He also stated that his voice had become gruff, and that swallowing, particularly of his saliva, was somewhat inconvenient. He had not brought up any blood, and stated that he had not lost flesh.

On examination the pharynx was healthy, but the right vocal cord was fixed in about the cadaveric position, and the mucous membrane over the right arytenoid cartilage and the adjoining portion of the plate of the cricoid was considerably tumefied. There was no definite evidence of new growth and no ulceration. On phonation the left cord crossed the median line.