nevertheless, microscopical examination failed to show any distinct change in the stapedio-vestibular articulation. On investigation of the labyrinth by serial sections there was found complete degeneration of the nerve—only a few isolated fibres escaping—equally in all the turns. It was less in the nerve to the upper canal, the other nerve fibres being normal. The cochlea showed also post destructive and plastic changes, which were most striking in the uppermost coil, where also the bony framework was affected.

The question remains as to whether the latter changes arose from basilar meningitis six years before the commencement of the ear trouble, or from a disease of the bones—osteo-psathyrosis—in the extremities, and osteo-malacia in the vertebræ and spongy parts of the temporal bone. Perhaps the nerve degeneration may depend on morphinism, from which the patient suffered many years before dulness of hearing set in.

Dundas Grant.

(*To be continued.*)

AMERICAN OTOLOGICAL SOCIETY.

Twenty-fourth Annual Meeting ("Med. Rec.," Sept. 26, 1891) Sept. 22, 1891.

GORHAM BACON, M.D., President

Dr. H. KNAPP.—*Mastoid Inflammation.*

Two cases had been operated on. In one, after otorrhœa fatal meningitis occurred, and the autopsy showed that death had been preventable. Besides the aural there were intense cerebral symptoms, headache, nausea, giddiness, and stupor. In the fourth week Dr. Knapp chiselled into the mastoid process to the depth of fully half an inch, and finding no pus desisted. Slight relief supervened, but symptoms returned, and the patient died comatose in the eight week. The autopsy showed diffuse purulent meningitis, a small abscess in the jugular fossa, and a collection of pus in the tympanic attic. The abscess in the jugular fossa was only separated from the surgical opening by a thin scale of bone, and Dr. Knapp thought that life might have been saved if the opening had gone three millimètres deeper.

In the second case there was persistent pain in the mastoid region, radiating over the head and neck to the clavicle. The upper part of the drum-membrane was red and bulging. Six weeks of treatment failing to give relief the mastoid was opened, but nothing was found except congestion of the bone and cells. Free scooping was carried out as far as the periphery of the drum cavity and the patient soon got well.

Dr. C. J. BLAKE (Boston).—*Free Opening of the Mastoid and removal of all Diseased Tissue.*

Twenty-three cases had been treated. After shaving, washing, and disinfecting the skin, an incision was made down to the bone and the soft parts were retracted. The bone was opened by means of a small drill, then a larger one and a chisel. All soft bone was cleared away by the use

of a sharp steel spoon, working from the dura if exposed. An incision was made in the posterior part of the membrana tympani, and weak sublimate lotion was driven through. Drainage was effected by frequent use of the probe. Dependence on incision down to the bone, and delay in adopting the more radical measures, had had fatal results.

Dr. GRUENING (New York), was guided chiefly by local tenderness. If all diseased bone is removed, it is not necessary to disturb the tympanic cavity. He uses a small chisel and the ordinary bone forceps or rongeur (gouge-forceps).

Dr. J. M. RAY (Louisville).—*Acute Suppuration of the Middle Ear.*

A case in which the affection was attended by septic meningitis and death. *Post-mortem*, there was no involvement of the bone, so that the process must have spread to the meninges through the general circulation.

Dr. B. A. RANDALL (Philadelphia).—*Otitic Epilepsy, Trephining and Fatal Septic Meningitis*

A case of otorrhœa with epileptic seizures of growing frequency. There was an aural exostosis nearly closing the canal. Exploratory trephining was performed behind the meatus without exposing abnormal tissue short of the denuded antrum and attic. No cholesteatoma. There was slow healing without trouble for fourteen days, when local pain and swelling returned, followed by severe headache, rapid deterioration, and death from meningitis on the twenty-first day. *Post-mortem*, there was purulent sub-arachnoid effusion of the entire convexity, with no trace of direct communication from the temporal bone. No lesion of the cerebrum or of the labyrinth was discoverable to account for the epileptiform convulsions, and the septic infection had to be ascribed to absorption along the trephining track.

Dr. GORHAM BACON (New York).—*Use of the Leiter Coil in Mastoid Disease.*

He had obtained very satisfactory results from its use in the early stage.

Dr. CHARLES H. BURNETT (Philadelphia).—*Excision of the Membrana Tympani and Necrotic Malleus for Chronic Purulent Otitis Media.*

Four cases were so treated. All ordinary treatment had been previously tried. The operation was performed under ether with electric head-lamp illumination. In the first, of twenty-five years' duration, suppuration was checked, and hearing power remained the same. The second had lasted six years; hearing improved greatly, discharge lessened. In the third—very chronic—the discharge and frequent pain disappeared, and the hearing greatly improved. In the fourth, of thirty years' duration, the discharge stopped, and the hearing improved to a very considerable degree.

Dr. THEOBALD (Baltimore).—*Healing of Old Perforations in the Tympanic Membrane.*

Some attempts to effect this had been partially successful. He preferred absorbent wool moistened with vaseline to other forms of

artificial membrane, and as means of stimulating the formation of new tissue to close the canal, he thought the addition of balsam of Peru to the vaseline had some influence.

Dr. THEOBALD.—*Dislocation of the Malleus Handle.*

An unusual case reported, probably of old standing and due to previous ear disease.

Dr. HUNTINGTON RICHARDS added some further points to his former communication on the *Anatomy of the Elephant's Ear*.

REVIEWS.

Schrötter, L. V.—"Vorlesungen über die Krankheiten des Kehlkopfs, der Luftröhre, der Nase und des Rachens." 4^e Lieferung.

THE 23rd lecture treats of the traumatic affections of the throat, fractures by struggles, suicide, etc. The thyroid cartilage is broken in most cases. Diagnosis may not be possible, but crepitation is often made out. Incisions are treated, and also burns caused by internal or external influences. The author records two cases of divided epiglottis by uncovered knives when used for operation.

Lecture 24 deals with foreign bodies in the larynx. Methods of anaesthesia are detailed, and operative measures described. Lectures 26 to 28 deal with cicatrices and their consequences, stenosis, and deformities. Lectures 29 to 32 treat of benign neoplasms. The author deals particularly with catarrh considered as a factor in their production, or as a result. Of 100 cases 22 per cent. were females. The author strongly recommends that no uncovered knives be used.

The 33rd lecture deals with malignant tumours of the larynx. Sarcomata, rarer than the others, are not so malignant. He pays great attention to the immobility of the cord as an early aid to diagnosis, which is often difficult. The 34th lecture is upon ulcers and cicatrices. The author deals particularly with the differential diagnosis. *Michael.*

Massei, F. (Neapel).—*Pathologie und Therapie des Rachens, der Nasenhöhlen und des Kehlkopfs.* "Nach der zweiten Auflage ins Deutsche übertragen, von Dr. Emanuel Fink" (Hamburg). 1^e Lieferung. (Pathology and Therapy of the Pharynx, the Nasal Cavities, and the Larynx.) German Translation of the Second Edition, by Dr. Emanuel Fink (Hamburg). Leipzig: Felix. 1892. 240 pages.

THE well-known book of Massei (see the report in this Journal) has been translated into German in a satisfactory manner. *Michael.*

Hankel (Glauchau). — *Handbuch der Inhalationen—Anæsthetica, Chloroform, Äther, Stickstoffoxyde, Äthylbromid, mit besonderer Berücksichtigung der strafrechtlichen Verantwortlichkeit bei Anwendung derselben.* ("Handbook