part is no doubt a truism, but, with one exception only, I have never made this experimental incision, safe though it is.

The stapes was absolutely immovably fixed, and the operation was done at the express desire of the patient, who was a Roman Catholic priest, in order that it might be of some assistance to others. He had already been subjected to every form of treatment known to me, including the injection of the liquid ointment I have referred to. In another instance I operated on, a case for vertigo, the stapes was fixed also by bone. In neither case was the mucosa red!

In conclusion, as to prognosis: In fixation, through immobility of the malleus: good. Through the formation of cicatricial tissue: fair. By bone ankylosis: bad.

AUSTRIAN OTOLOGICAL SOCIETY.

Meeting held December 18, 1905.

Chairman: PROFESSOR v. URBANTSCHITSCH.

DR. BARANY gave a lecture upon the *Theory of the Function of the Semicircular Canals.*

In the latest text-book of physiology Nagel makes the statement that the theory of Machs and Breuers concerning the function of the semicircular canals, which is, that they are a sense organ for the perception of movement in different planes, is firmly established and almost universally recognised. Dr. Barany had made a series of experiments which threw some light upon the subject. Doubt concerning the correctness of these opinions arose.

If one rotates to the right in the vertical axis of the body about ten times, there commences on stopping a horizontal nystagmus towards the left. The movement of the eyeball towards the left is strong, the return to the right being much weaker. If the eyes are closed and the eyeball moved repeatedly to the left, a sensation of rotation to the left side is evolved; if the eyeball is now moved to the right the sense of rotation will cease.

Disturbance of the centre of gravity, as well as nystagmus, will appear only if the experimenter stands in a plane which forms an angle with the horizontal. In this case, if the eyes are open a slight stupor supervenes simultaneously with the nystagmus, so

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that the observer is unable to see anything clearly. If the eyes are closed the nystagmus is severe and the disturbance of the centre of gravity marked. If in the above circumstances the eyes are voluntarily moved in the direction of the strongest movement of the nystagmus so that this is strengthened the disturbance of the sense of equilibrium is increased; by movement of the eyes in the opposite direction this disturbance is diminished. These experiments appear to show that stimulation of the vestibular apparatus does not directly affect the consciousness by causing the sensation of rotation, but that a reflex nystagmus is started by the vestibular nerves, and that this gives rise to the rotatory sensations.

Proof for or against these theories can only be obtained from a case with complete bilateral ophthalmoplegia and nuclear paralysis of all the eye muscles, together with an intact vestibule. In such a case, if there were sense of rotation, or disturbance of the sense of equilibrium, there would be proof that the vestibule alone could cause the symptoms.

The relation of nystagmus caused by labyrinthine disease to that caused by optical experiments is very interesting. Optical nystagmus is easily produced. A white roller is covered with black stripes at short distances from each other; the patient glances along the roller in a direction parallel to its axis; the roller is then rotated as the hands of a clock, seen from the patient; this causes a horizontal nystagmus to the right. Further, if there is a labyrinthine nystagmus to the left, this can be corrected by causing the patient to look at the rotating roller in the manner described; the nystagmus is, however, in no way influenced after ceasing the experiment.

Professor A. KREIDL remarked that it was assumed that the movements of the endolymph gave rise to the ocular movements. These were, therefore, in the relationship of cause and effect. The disturbance of the endolymph was, therefore, the ultimate cause of the sensation of rotation. *Knowles Renshaw.*

Abstracts.

NOSE AND ACCESSORY SINUSES.

Green, D. C. (Boston).—*Subcutaneous Correction of a Roman Nose.* "Boston Med. and Surg. Journ.," June 28, 1906.

Patient, a girl with a marked Roman nose as the result of periostitis following injury. An incision was made within the nose through the

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