same pressure. As the hair-cells shrink away the heavy, elastic expansile tectorial membrane attempts to press after them, but it cannot do so because of the reticulate membrane which arrests it.

The hair-cells are free, for they have shrunk beneath the reticulate membrane, which is now a roof above their heads, and the underlying segment of the basilar membrane is free, and now the undamped fibres and the free hair-cells can fully respond to the particular "sound pattern" which has awakened their activities, and transmit their impressions through the cochlear branch of the auditory nerve to the cortex, which interprets them as a particular sound.

With regard to the share which the ligamentum spirale has in the intricate mechanism of auditory accommodation, I shall, in this communication, merely state that many experiments and clinical and histological observations have convinced me that there must be an intra-labyrinthine muscle capable of altering the tension of the basilar fibres and Corti's rods, and I believe that there is sufficient evidence to warrant at least the provisional assumption that this muscle is the spiral ligament.

The size of this so-called ligament is entirely disproportionate to its function, if such is merely to attach the edge of the basilar membrane to the outer wall of the labyrinth. It is, moreover, possible to demonstrate the fact that the nucleated spindles, of which it is largely composed, all radiate outwards from its attachment to the edge of the basilar membrane.

My own observations, carried out upon fresh human and animal labyrinths, leave no room for personal doubt that these nucleated spindles are a form of plain muscle-fibre, in many ways analogous to those which Schäfer has demonstrated as constituting the long-disputed dilator pupillæ of the human eye.

CLINICAL NOTE.

HYPERPLASIA OF THE NASAL SEPTUM ASSOCIATED WITH NASAL POLYPI.

By W. J. HARRISON, M.B.,

Newcastle.

ALTHOUGH some hyperplasia of the septal mucous membrane is not uncommon, particularly over the tuberculum septi or when pus is present in the accessory sinuses, so marked a condition as that described below unattended by suppuration appears to be rare.

Mr. F—, aged forty-nine, was sent to me on account of deafness of long standing which had been getting rapidly worse.

He had been very subject to colds for some years, and in the intervals he was troubled by a fairly copious discharge of clear fluid from both nostrils and a heavy feeling in the head. Five years ago he had polypi removed from the left side and was told that the right side also required to be cleared, but owing to business matters he neglected having anything further done.

On examination the left side was found to be free from any recurrence, nor could any sign of pus be found either at the first or any subsequent examination.

On both sides there was a clear air-way in the region of the inferior turbinates and the septum was of normal thickness.

Immediately above this the septum was enormously thickened, especially on the right side, where it completely blocked any view of the middle turbinate region, being in contact with the outer wall of the nose. The thickening was soft, and dimpled on being touched with a probe. On the left side the thickening was not so marked, and it could be seen that the enlargement was not uniform, but that the mucous membrane was thrown into irregular folds or lobes. By measurement the septum was found to be $2\frac{1}{2}$ cm. thick at the anterior part.

By posterior rhinoscopy the upper and lower portions of the septum appeared normal, but the central half was enlarged and appeared about 1 cm. thick. No pus could be detected. Cocaine and adrenalin reduced the swelling to about half its usual size, and polypi were seen and removed from the right side. Neither the number nor size of these was great. After their removal one could make out that the enlargement extended backwards in the middle turbinal region and was apparently connected with the swelling seen by posterior rhinoscopy. At no time could any trace of pus be found, the only discharge being clear and watery.

By repeated applications of the cautery the septal swelling was reduced till free nasal respiration was established. The rhinorrhœa was cured, and the sense of smell, which had been very much impaired, was greatly improved. When last seen some months after the last cauterisation the septum was nearly normal in thickness, and the patient said that he had been entirely free from colds, that his head symptoms had disappeared, and that his general health had much improved.

SOCIETIES' PROCEEDINGS.

ROYAL SOCIETY OF MEDICINE—LARYNGOLOGICAL SECTION.

January 9, 1914.

DR. D. R. PATERSON, *President, in the Chair.*

Thickening of the Palate and Upper Part of the Larynx, probably due to Congenital Syphilis.—H. Lambert Lack.—The cases showed diffuse thickening of the uvula, pillars of the fauces and adjacent parts of the soft palate, and of the epiglottis, aryænoïds and