

seen; the effect of two or three leeches in front of the external meatus is almost magical.

Paracentesis is performed if the membrana tympani is bulging from the presence of matter in the drum cavity. This is followed by the air douche through the eustachian catheter or by Politzer's Method. In scarlet fever the ears should not be neglected.

Ninety pages are devoted to what Dr. Roosa calls "Chronic Non-suppurative Inflammation of the Middle Ear," which he divides into two forms, the "catarrhal" and the "proliferous." The former is the most common cause of deafness; and is almost invariably associated with catarrh of the naso-pharyngeal space. There is thickening and excessive secretion from the mucous membrane. In the latter there is an entire absence of catarrhal symptoms; the character of the inflammation being essentially hypertrophic with connective tissue formations.

In the treatment of nasal catarrh, Dr. Roosa strongly condemns the use of the nasal douche (known as Thudichum's or Essex's Nasal Donche). Sixteen cases of acute inflammation of the Middle Ear are reported, which Dr. Roosa believes can be directly traced to the use of this apparatus.

He was the first to call attention to this dangerous procedure. In the treatment of the eustachian tube, or rather, as he maintains, the middle ear through the tube, Dr. Roosa differs from the English surgeons; he believes that the eustachian catheter is *essential*, and that, except in the case of young children, Politzer's method, although most valuable and indispensable, is as an adjuvant to the former. The improvement in the hearing from inflation of the drum daily with atmospheric air, doubtless depends upon the re-establishment of the equilibrium of atmospheric pressure upon the two surfaces of the drum membrane. Dr. Roosa is not explicit on this point however. With reference to the modern operations upon the tympanic membrane and division of the tensor tympani muscle, Dr. Roosa does not seem to have had much experience. He however speaks approvingly of Dr. Hinton's method of treating the middle ear by perforation of the membrana tympani and washing out the cavity and eustachian tube by injections forced from the external meatus through the middle ear and eustachian tube, or *vice versa*. Hinton

maintains that in nearly all cases of deafness of long standing, the drum cavity is more or less filled with dry mucus. Roosa cannot concede this, although it is supported by high authority, and notably that of Schwartz of Halle. In Dr. Roosa's practice, the results of treatment have not been brilliant, in these cases of "chronic non-suppurative inflammation of the middle ear." In 355 cases, 48 per cent. were unimproved. This appears less surprising when we learn that in one-half of these cases the hearing had been more or less impaired for periods varying from five to forty years.

Cases of acute suppuration of the middle ear, according to Roosa, are too often allowed to terminate in chronic suppuration and impairment of hearing; although the results of judicious treatment are most satisfactory,—the discharge arrested; the perforation healed, and the hearing restored, in many cases in a few days. Paracentesis of the membrane may be necessary. After perforation, in addition to syringing with warm water and the instillation of zinci sulph: gr. ii.— $\bar{5}$ i. the air douche, either by Politzer's method or the eustachian catheter, should also be used once or twice a day. Should there be tenderness, redness or swelling over the mastoid, the process should be cut down upon and the incision extended upwards at least half an inch.

"Chronic suppuration of the middle ear" it seems is often mistaken for that "rare disease," chronic suppuration of the external auditory canal. Dr. Roosa combats the prejudice against the stoppage of a purulent discharge from the ear. In the language of Wild, "*we can never tell*" (after the discharge has once set in) *how, when, or where it will end, or what it may lead to.*" Dr. Roosa thinks this should be impressed upon the attention of every practitioner of medicine. As a pre-requisite to the successful treatment of this affection, the parts must be thoroughly cleansed, by the practitioner personally, at least twice a week. This can only be done by a combination of syringing and the use of the air tube through the eustachian tube. In recent cases Dr. Roosa uses weak solutions of zinci sulph.; in old cases he uses strong solutions of argent. nit. Nitrate of silver solutions are found to be of little value unless containing at least 40 grains to the ounce; they are sometimes used as