ing continues good, and nothing more is thought of the matter till the next attack. If more care were taken to make the tests, there is little doubt but that the hearing of ears which have passed through two or three such attacks would be found impaired. Still, as one can lose nearly one-half of the normal hearing power without being specially inconvenienced, the slow deterioration is not noticed for a long time. This gradual lessening of the hearing power after repeated tympanic hyperæmia is the result of connective tissue formation in the mucous membrane covering the walls of, and ossicles in, the drum cavity. The ossicles become adherent to the walls of the cavity at the points where they touch, the joints between the ossicles become anchylosed, and so the power of conducting sound-waves to the nervous ear is lessened.

Again, as this thickening advances, the tympanum becomes less able to withstand fresh attacks, and so an otorrhœa is apt to eventually result, with all its attendant inconveniences and perils ; nor do the dangers from tympanic catarrh, not diagnosticable except by objective examination, and presenting only symptoms of severe pain in the ear, stop at the point mentioned. Such attacks are very common among infants. Woakes thinks convulsions are often caused by pressure upon the labyrinth, from an exudation into the tympanum due to an acute aural catarrh, resulting from dentition. He, Politzer and others describe a fold of the meninges, which in infancy passes through the petro-squamosal suture into the drum. Cases of fatal meningitis may thus develop before the tympanic inflammation has caused rupture of the drumhead. While such results may be rare, certain it is that the ultimate production of a foul otorrhœa in infants, after one or more neglected attacks of earache during dentition, is a common occurrence. Possibly the ear is not thought of as a source of pain, until the appearance of the discharge. Deaf-mutism can thus result if the hearing becomes greatly impaired before speech has been learned, even if the child escapes the more fatal dangers of an otorrhœa.

Having thus reviewed some of the consequences of tympanic catarrh of which *pain* is usually the only symptom, I beg to lay stress upon the facts that earache is only a *symptom* ; that diagnosis must extend to the discovery of its cause ; that if this cause, in turn, is due to other abnormal conditions, they must be found ; that the therapeusis of earache, especially recurring earache, must go further than relief of pain. There is not the space in the limits of this paper to enter into the therapeusis of tympanic catarrh, appropriate as such a course might be. To some of its causes, too frequently overlooked, I desire to direct attention.

Chronic abnormalities of the naso-pharynx are a prolific cause of tympanic catarrh. Follicular pharyngitis, post-nasal vegetations and hypertrophied tonsils are, in my experience, the most common throat lesions observed in connection with recurring earache. It is, I think, a more or less common belief that, if chronic follicular pharyngitis does not cause so much throat discomfort as to call attention to itself, or if post-nasal adenoid vegetations do not interfere with nasal respiration, these troubles may be left alone. That they can produce deafness and recurring hyperæmia of the tympanum without special throat or nasal symptoms, I do not think admits of doubt. Situated, as they often are, near the pharyngeal mouths of the Eustachian tubes, these inflamed follicles or vegetations act as irritants, increase the vascularity of the tubes, and cause an Eustachian catarrh. This can reach the tympanum by direct continuity of mucous membrane. Again, as soon as ventilation of the tympanum through the Eustachians is hindered, and the air already in the tympanum has been absorbed—no renewal taking place through the tubes—atmospheric pressure in the external canal drives the drumhead inwards, producing undue pressure upon the ossicles. Impairment of hearing and tinnitus usually follow at once. If unrelieved, hyperæmia and pain follow. Relief comes as soon as the Eustachians again admit air to the drums. Inflation by Politzer's method promptly removes the ear symptoms and the application of a nitrate of silver solution to the mouths of the tubes lessens the secondary catarrh ; but it will surely return, unless the primary trouble is removed. As regards enlarged tonsils, their importance, from an otological standpoint, has been exaggerated. Probably they rarely occur unaccompanied by other morbid conditions of the throat, which more immediately affect the ear. By lessing the air-space, they may, indeed, produce these conditions. This will certainly be the case if they interfere with nasal respiration. The same is true,