

but is hollowed out behind and above to form the inner side of the mastoid antrum, the outer wall of which is completed by the post-auditory process of the squama."

Bruhl and Politzer say: "The posterior extremity of the petrous portion is formed by the mastoid process. In the new-born it is represented by a small prominence that contains no airspaces except the bean-shaped antrum. The antrum resembles in size and shape that of the adult (12 mm. long by 8 mm. high, by 6 mm. broad). At birth it lies immediately beneath the cortical portion of the squama, but as the meatus develops the mastoid cells develop and it assumes a deeper position. In the third year the mastoid cells reach their full development."

You can see here that there is quite a diversity of opinion among the anatomists, the more recent writers granting that there is a mastoid process at the end of the first year. Some obscurity is caused by speaking of the development of the pneumatic spaces as if these cells were essential, for while we all know that bone in most parts of the body generally becomes more pneumatic as age advances, yet there are individuals in whom the mastoid never becomes pneumatic, but remains diploetic. In all the cases comprised in the series I intend to speak of there was within the cortex cancellous bone, and in some of the cases the spaces were as large as in some adult mastoid bones.

During the two years ending April 28th, 1910, I operated on a series of fourteen cases of this nature occurring in eleven infants (the disease in three cases being bilateral), whose ages varied from four months to twenty months. I have arbitrarily selected twenty months as being the upper age limit of infancy, though I had several other cases whose age was not much over this limit. During the same period of two years I performed a total of 37 mastoid operations, so that the infantile cases numbered nearly 38% of the total—an unusually large percentage.

During the two years preceding April 28th, 1908, I did not have any infantile cases, although there were almost as many cases of all ages. I can offer no good reason for this sudden occurrence of these infantile cases. We all know that infants are especially liable to middle ear disease on account of the shortness of the Eustachian tube, its relatively large lumen, and the low level at which its pharyngeal orifice stands, but why there should be so large an outbreak of secondary bone disease is hard to explain except on the supposition that these babies who developed the bone disease were lacking in resistance.

A careful bacteriological examination of the pus from the bone