

pital during the autumn, and late in September the tube was removed without any appreciable effect upon the temperature, which still ran an irregular course, however, and the sinus did not close satisfactorily, but a small amount of discharge would come from it from time to time. In January, 1895, I again put the child under chloroform, and thoroughly scraped the sinus, but found no collection of pus. The sinus healed after this, and shortly after the child left the hospital.

In June, 1895, the patient was again admitted into the hospital with a discharge from the sinus. The mother was told that a further operation was advisable, but she would not consent to it, and the child was discharged after a few days. The present condition of the child (twenty months after operation) is that a sinus still exists. This heals up and remains closed for a month or two, and then breaks down and discharges again for a short period. There is no doubt but that a limited cavity still exists which is not completely obliterated, and in all probability this will not heal until a portion of the rigid outer wall is removed by operation.

The operative procedure which has proved of value in long-standing cases of empyema is that which is known as *thoracoplasty*, or Estlander's operation. This operation is called for chiefly in neglected cases, in which the early interference advocated in this paper has not been adopted. Inefficient drainage has prevented closure of the cavity; the lungs, under such circumstances, remain in a contracted condition; the pleural walls become greatly thickened, and exist as rigid structures; the pleura may sometimes be as much as an inch thick. We can imagine that, under these circumstances, such a chronic case having presented itself, one has endeavored, by establishing free drainage, to obtain a cure; the lung remains unexpanded; the chest wall retracts as much as possible; the diaphragm rises to an exceptional position; and still the space remains unobliterated. Nature, unaided, is unable to effect a cure; the continued discharge weakens the patient, and eventually a fatal result ensues. It was for such cases that Estlander, in 1879, advocated a formidable operation calculated to provide relief for these apparently hopeless cases. Gould, in 1888, advocated this procedure, and published several cases treated successfully after this fashion. The principle upon which the operation depends is the removal of the rigid outer wall of the abscess, including the bone and the thickened pleura. A special operation is planned for each case, depending on the extent of the cavity to be obliterated. It is held that almost the entire outer wall of the abscess cavity, with the ribs covering it, must be removed in order to secure success. Gould reports a successful case in which he excised portions of nine ribs, including a total length of fifty-four inches of bone. This operation