

should not be lightly undertaken ; it is an extensive and dangerous one, to be thought of only in cases which are otherwise incurable. The incisions advocated by different surgeons are as follows : Estlander recommends an incision along an intercostal space, from which the rib above and below the space is removed, the length of rib depending on the extent of the cavity. Several such incisions may be necessary, according to the vertical extent of the empyema. Godlee recommends a V- or U-shaped flap in order to expose the ribs. Barker advises an incision along the course of a rib, from which three ribs may be attacked. Gould employed a vertical incision. This last method is found very serviceable in such cases, and allows of sufficiently free access, with a minimum extent of wound. The details of carrying out the operation must necessarily vary in different cases ; the principle is the same in all, namely, to remove the outer rigid wall, and to allow, in consequence, of retraction of this wall, with obliteration of the cavity. The effect of such an operation may best be illustrated by the narration of a case in which the good results obtained by interference with the rigid wall are well shown.

CASE 4. F. C., æt. 23, admitted to Toronto General Hospital, October 10, 1893, under the care of Mr. Cameron, suffering from empyema. The patient's family history is to the effect that his father died of pneumonia, mother died of Bright's disease, an uncle of phthisis, and a grand-uncle of stonemason's lung. Four years before admission the patient was strong and healthy, and was working as "gripman" on cable cars in Montana ; the air of the locality was contaminated with noxious gases from smelting works. On January 24, 1891, he was chilled when on his car ; he was taken home, and has been sick ever since. Pneumonia developed, and was complicated with pleuritic effusion. Aspiration was performed six times in six weeks, and on one of these occasions the pleural cavity was washed out ; in the others the cannula became plugged : the left side of the chest collapsed.

In the summer of 1891 he went to Barrie, and received much benefit by the change of air, his general health improving ; but the improvement was only temporary, and in October a sinus opened in the sixth left intercostal space in the nipple line, and pus continued to discharge from it up to the time of admission in the Toronto General Hospital in October, 1893. The discharge varied in character, being thick and thin by turns, and usually offensive. He lost flesh rapidly, and was troubled much with profuse perspiration, and was very weak. He had a constant cough, and profuse but difficult expectoration. His pulse was frequent, the temperature normal. In the latter part of 1891, and in the early part of 1892, he attended as an out-patient in the Toronto General Hos-