

ary, 1904, after anæsthetizing the middle region of the left nostril thoroughly with a ten percent. solution of cocaine, I removed the anterior half of the left middle turbinal, and freely opened the ethmoidal bulla and anterior group of cells. Pus flowed freely. The cavity was curetted and flushed with an antiseptic solution. The bleeding, which was profuse, was controlled from time to time by the application of adrenalin chloride solution. The patient experienced considerable relief after the ethmoidal cells were opened, but, as pain was still present over the frontal cavity, and pus was still present in the middle meatus, I opened the frontal cavity a few days after the above operation. An incision was made in the left interfrontal furrow. The left frontal bone was exposed, and a small button of bone was removed by trephine, midway between the supra-orbital notch and the median line. Pus welled up out of the opening; the cavity was explored and the mucosa was found to be much thickened and covered with unhealthy granulation tissue. I curetted lightly, and washed out the cavity with 1 in 5000 bichloride solution and then swabbed with chloride of zinc, 40 grains to the ounce. Free communication was made into the nose by enlarging and curetting freely the naso-frontal duct. A wick of iodoform gauze was inserted in the large opening, and the external excision was closed, with the exception of its lower third, which was kept open by a small piece of gauze. The gauze was removed from the nose two days following the operation, and the frontal cavity and nose were flushed with an antiseptic solution daily. There was a free discharge for two weeks from the cavity, and at the end of that time, as I did not think the progress satisfactory, I enlarged the naso-frontal duct to ensure complete drainage. The discharge perceptibly decreased after this, and in a week the external opening was allowed to close by granulation. On February 26th, after a stay of one month in the hospital, the patient was discharged. Up to the present time there has been no recurrence of pus in the nose or pain in the head. The patient has gained in weight and enjoys good health.

With regard to the treatment of empyema of the frontal cavity it is advisable in all cases before resorting to the radical or external operation to establish as free drainage as possible between the nose and frontal cavity. This can be accomplished by the removal of all growths in the region of the hiatus semilunaris and naso-frontal duct. In the majority of cases excision of the anterior half of the middle turbinal is necessary to facilitate free drainage. If dependent drainage can be established through the nose, and the cavity freely irrigated, resolution sometimes occurs; on the other hand, in cases of long standing it is usually necessary to resort to the radical operation to effect a cure.