edge of first rib, and the periosteum separated by a levator from the front of the rib. The intercostal muscle is then divided and the periosteum separated from the back of the rib with Langenbeck's *geiss fuss*. An arched piece is then removed from the first rib and cartilage with a grooved chisel or pliers and the opening cleared to the pleura. The intercostal artery is not injured and the upper part of the rib is left. If the surfaces of the pleura are adherent an exploratory puncture is made with a hypodermic needle to find the cavity. If blood appears in the syringe try in another direction, when the cavity is entered muco-pus will be aspirated. The cavity is opened by passing the pointed thermo cautere—heated to dull red—along the course of the needle, keeping in mind the position of the large blood vessels. But little matter flows out. The cavity is then explored with probes or the finger for communications from other vomicæ and these are enlarged by the thermo cautere, making one cavity. It is then packed with sterilized gauze and one suture put in the centre of the wound, antiseptic gauze protective and bandage applied. The dressing is changed daily. If no adhesions are found, as happened in one case, a pneumo thorax results. In this case it was circumscribed and the dyspnœa soon disappeared, and the pluritis set up glued the surfaces together, after which the cavities were opened. In a few days after the reaction resulting from the operation subsides, the injections of Koch lymph were begun. In the three cases where adhesions had occurred the operation was well borne, no local or general complications. For a day or two there was considerable coughing and irritation, but it was easily allayed and no pain was complained of. The lung can be touched and burned without pain—unlike the pleura. When the eschar was thrown off the wound was larger and the effect of the tuberculin observed, which were well marked. Dr. Sonnenberg considered the lung tissue more susceptible to the action of the remedy than any other.

The first patient was a coachman (W. Meister) aged 36 years, with no hereditary predisposition, had suffered more or less since 1880 with all the usual symptoms of phthisis, including haemoptesis, had at the time of operation (15th Dec.) a cavity in right apex and infiltration in left. An injection of ·005 c.c. tuberculin produced a slight reaction. On the the third day after the operation the temperature was normal, when ·005 c.c. produced no reaction. Slight reaction on two following days from 1 and 2 c.m.m. . The doses were gradually increased, reaction always slight.

The second patient (G. Adams) aged 43, had no hereditary taint. His lung affection dated from an attack of pneumonia in 1886. Had lost 35 pounds during last three years. There was a cavity in the right apex and infiltration in left. He was operated on, on the 15th Dec., and on the 18th temperature had returned to normal, when the injections were commenced.

The third patient (W. Kippenhahn) aged 44, suffered since the spring of 1889 and had a cavity in left apex with consolidation in right. In all three the pleural surfaces were adherent over the cavity.

The fourth case (C. Feidler) aged 37, had been an invalid for over a year. Had constant fever during preceding summer and had lost in weight. A cavity existed at a point opposite the fourth intercostal space right side; dulness in left apex. Had continued fever up to the time of operation. The chest was opened in the fourth interspace. The pleural surfaces were not adherent and a pneumo thorax was produced and an adhesive pluritis occurred. After the symptoms of this subsided the cavity was opened.

In the *Deutsche Medicinische Wochenschrift* of February 5th, Dr. Sonnenberg reports that he had operated on another case since, and that the three cases first operated on were cured, and the last one as good as cured. Fiedler had succumbed. The lymph injections had no effect upon him, the tem-