

the next day. Upon opening the abdomen the liver was seen to be enlarged, reaching down to the level of the umbilicus. The puncture of the liver by the needle was plainly visible, surrounded by a small patch of ecchymosis. Upon lifting the organ up to remove it, an abscess of the right lobe gave way upon the under side near the centre, from which eight or ten ounces of pus escaped. The heart was, in appearance, healthy. The right auricle was extremely distended, and there was a difference of opinion as to whether its walls, and those of the right ventricle, were not considerably thinner than usual. In texture the organ was somewhat softer than normal, tearing easily. No microscopic examination was made. The valves were normal.

This case is not unique in medical records, yet it is one of deep interest, and especially in regard to the action of anæsthetics. It is useless to speculate upon what might or might not have been done. I cannot, however, abstain from expressing one or two convictions. First, that under full anæsthesia this man would not have died at the time and in the manner that he did. Second, that with *partial* anæsthesia, his death would have occurred as it did, and gone to swell the list of casualties from anæsthetics. He evidently died from inhibition of the heart's action, the impulse being transmitted from the puncture. The mode of death was precisely similar to those which have occurred from tooth drawing under chloroform when movements of the patient, etc., were proof that the anæsthesia was not profound.—*Med. News.*

ON THE TREATMENT OF OBSTRUCTION OF THE TRACHEA AND BRONCHI BY CROUP MEMBRANE AFTER TRACHEOTOMY.

Translated from the Centralblatt für Laryngologie by Dr. McDONAGH.

Pieniaczek, of Krakau, describes two forms of obstruction:—1. The mild form, which is characterized by collections of mucus, etc., set free in the lower part of the trachea by the croupous exudation. Steam inhalations must be used in such cases of collection and drying of the mucopurulent secretions. 2. The severe

form. In these cases false membrane forms in such quantity that the trachea beneath the canula becomes plugged. In larger tracheas, as in older children, the collection occurs at the bifurcation; and in smaller tracheas, at the end of the canula. In such cases are indicated emetics, inhalations of steam, sprays, syringing small quantities of fluid into the trachea in order to excite cough, or irritation of the mucous membrane with a feather. For inhalation Pieniaczek uses biborate of soda, lime water, lactic or boric acid, resorcin, etc., without ascribing special value to any of them, inasmuch as they only excite cough and thereby cause the expulsion of the exudation. If the canula becomes stopped up by the accumulation, it must be removed and cleaned, the separation of the membrane being usually thereby facilitated. If this does not suffice, and symptoms of suffocation appear, mechanical removal is then absolutely indicated. This is best accomplished by means of the soft elastic catheter, which is to be preferred on account of its flexibility. The separation of the exudation from the mucous membrane is made easier by having the end of the catheter cut obliquely. After the introduction of the catheter, the exudation is aspirated and removed, and when necessary, artificial respiration performed. In this way false membrane extending as far as the bifurcation can be removed. If there is extension even into the bronchi, this experiment is insufficient, and then one has recourse to Schroetter's laryngeal forceps. This instrument is introduced into the wound with the blades opening forward and backward, so as to avoid wounding the division between the bronchi. In this way the author has removed croup membrane from the bronchi in a few children, overcome the fatal asphyxia, and saved the patient. In order to determine the point of stenosis, the author uses a long ear speculum, which allows, when the neck is well forced backward, a view of the lower part of the trachea. The deeper the situation of the false membrane, the greater care is required in the manipulation of the forceps to avoid wounding the parts. Artificial respiration must be performed if the dyspnoea continues in spite of the removal of the membrane. Such an experiment is, of course, useless when there are marked evidences of blood-poisoning, and is only to be tried in suitable cases.