

basal movements, prevents these fluids being expelled, and a pneumonic inflammation is initiated, since pneumococci are usually present in the mouth. A Dr. William Pasteur has shown, many cases of so-called "ether pneumonia" are really instances of massive pulmonary collapse due to trauma affecting the diaphragm. Pneumonia of a "septic" type is liable to follow profound narcosis when operations upon the tongue, jaws, or upper air-passages have been performed, and is due to aspiration of blood, particles of growth, pus, or contaminated saliva and mucus. Such complications will usually reveal themselves within a week of inhalation. In this connection, the observations of Mikulicz published in a report issued in 1898 may be recalled. Having reduced the frequency of post-operative pneumonia after the use of ether, he replaced that anæsthetic in his chair by chloroform. However, he soon found that the incidence of pneumonia was rendered greater by the change. Mikulicz then replaced chloroform by local and regional analgesia. To his surprise he found that post-operative pneumonia became more frequent still. Thus, out of 144 laparotomies, he lost 27 patients from lung complications. It follows that the prognosis in severe cases is more favourable when ether is used. That the lung complications attributed to anæsthetics are in fact due to infection from the abdomen, possibly through the lymphatics, appears to be more than probable.

*Prophylaxis.* Before the operation, the teeth, mouth, and nasal passages should be assiduously cleansed, and unhealthy gums painted with an iodine preparation. If the breath is foul and the stomach unhealthy, lavage and careful asepticizing of the alimentary tract with salol or other means may be pursued. Atropine, given hypodermically, will lessen or prevent bronchorrhœa and salivation. The anæsthetic vapour should be warmed and moistened, and given so that the laryngeal reflex is active subsequently to full anæsthesia (third degree of narcosis) having been obtained by the induction. After the operation, the patient's body temperature must be maintained, and he must be protected from draughts as he is conveyed back to bed.

Hydrothorax and œdema affecting the bases may follow the exhibition of ether by inhalation if the kidneys are diseased and albuminuria exists. It may be associated with acute œdema of the tongue and larynx, and is usually fatal. If an undue quantity of saline is introduced by the method of ether infusion, pulmonary œdema is a serious danger; and hence strict limitation of the amount must be practised, especially if renal inadequacy exists.

Persons suffering from angioneurotic œdema are in serious danger lest the air-passages should suddenly become involved. I have met with one such case, and gave chloroform while tracheotomy was performed. Both local analgesia and ether are contra-indicated for these cases.

All anæsthetics, when inhaled in great quantity, especially if the oxygen content of the blood is not kept at about its normal during