

duced, and then the characteristic basic dulness is found, but only after considerable effusion has been poured out.

3. Metallic sounds are not characteristic of pyopneumothorax, since they are sometimes heard in other thoracic conditions. Yet they are very frequently associated with the condition, and even the coin sound or *bruit d'airain* may be heard over large smooth-walled cavities. Indeed, according to Osler's note recently published, this sign was present and a localized pneumothorax was strongly suspected. The autopsy revealed a large cavity, the walls of which were covered with "granulation tissue and presented here and there papillary projections which, on section, contained remnants of branches of the vessels and bronchi."

This sign is not always present, and it has been seen to vary from time to time in the same subject.

4. Hippocratic succussion is a conclusive sign, concerning the presence of air (gas) and liquid simultaneously within a cavity.

A question in the diagnosis of perforative pneumothorax often arises, whether one has a valvular or free opening, or if the case is seen after this condition has been present for some time, whether there be any communication remaining between the bronchus and the pleural sac. Some have urged that one can decide upon this question by observing the character of the breath sounds. If one hears the inspiratory murmur and the expiratory murmur one must conclude that the air enters and leaves the pleural cavity. It would appear, however, from the history of several cases that this is not reliable. Such auscultatory findings show at most, perhaps, that air enters the lung involved and doubtless the changed character of the respiratory murmur is a product of collapsed lung and resonating chamber,—the pleura sac.

Powell, of London, in his work on Diseases of the Lungs and Pleura, holds, on the contrary, that an amphoric respiratory murmur is diagnostic of a free opening and of special value on this point is the expiratory portion of the amphoric sound.

#### CONCLUSIONS.

1. There is such a form of pneumothorax as the *non-perforative form*.

2. Latent pneumothorax is not infrequent.

3. Occurring in the course of pulmonary tuberculosis pneumothorax may have a retarding effect upon the disease.

4. Recovery of a total pneumothorax may take place without any sign of fluid.

5. In the advanced cases of pulmonary tuberculosis, or at any rate where the patients were regarded as the subjects of pulmonary tuberculosis, fluid is present and the prognosis is grave.