II. Acute or subacute caseous pneumonia.

III. Chronic phthisis.

The first form is rare in children. Formerly it was thought that one of the most common changes in broncho-pneumonia, particularly in children, was caseation, but it is now considered a tuberculous process, and when it does happen it means either a preparation of the soil by a catarrhal process or a lowering of the tissue resistance so that the bacilli already existing in the bronchial nodes are enabled to develop.

Osler says tuberculous broncho-pneumonia most commonly follows the infectious diseases, particularly measles and whooping cough. He recognizes three groups: "In the first the child is taken ill suddenly while teething or during convalescence from fever, the temperature rises rapidly, the cough is severe, and there may be signs of consolidation at one or both apices with râles. Death may occur within a few days, and the lung shows areas of broncho-pneumonia, with perhaps here and there scattered, opaque, greyish nodules."

The second type is frequently met with, beginning as a broncho-pneumonia, following an attack of bronchitis or one of the infectious diseases already mentioned, and is attended with the well-recognized symptoms and signs of a severe inflammation of the lungs. Cough at first slight, becomes severe. There is increased temperature, rising to 103° and 104° or more, sometimes remitting in the morning. The respirations are frequent and superficial.

Auscultation gives moist, dry, crepitant and subcrepitant râles—tubular breathing is frequently heard and there may be limited areas of defective resonance on percussion.

I recall a case of this type of tuberculous broncho-pneumonia occurring in my practice in a girl three years old, who had had measles a few months before, and from which she had apparently made a satisfactory recovery. The sickness began with chills for a few days, with gradual rise in temperature. My attention at first was more directed to the fever, and not to the lungs until, after a few days' illness, when I diagnosed what seemed to be a simple broncho-pneumonia. The symptoms and signs were such as are usually found in these cases. Resolution did not take place. Perspirations became troublesome, the fever hectic, there were frequent attacks of dyspnœa, and the cough was severe. The persistency of the symptoms, the great loss of flesh following close upon an attack of measles, and having a bad family history, I, later, regarded the disease as tuberculous in character. Death took place at the end of six weeks.

Chronic phthisis is often preceded by impaired health, perhaps with often-repeated chills, or it may come on insidiously during convalescence from an infectious disease. There is moderate fever and loss of flesh. The cough is often overlooked. The symptoms may mitigate for a time, but physical examination shows the presence of râles and areas of defective resonance, and the case rapidly develops into that condition familiar to the profession as chronic phthisis. In acute cases it seems difficult from the symptoms and signs to make a positive diagnosis as few, if any, differential indications exist. Osler says: "The profession is gradually recognizing the fact that the majority of cases of broncho-pneumonia are tuberculous." The simple and tuberculous pneumonia, according to the same authority, perhaps, occur with equal frequency in the upper lobes, but the tuberculous form is more apt to invade the central portion, and the most marked dulness and signs may be areas corresponding to the roots of the lung.

Jacobi says: "Contrary to what we see in adults, in whom the tubucular deposits take place in the apices, the principal changes in the tuberculosis of children are often seen in the lower lobes because the frequent attacks of broncho-pneumonia which are apt to be starting-points of tuberculosis are more frequently observed in these lobes. If, as some suppose, infection is principally through the bronchial glands, one would naturally expect the existence of tuberculosis in children to occur frequently in the central portions corresponding to the root of the lung.

The physical signs are of little value in assisting with the diagnosis. The fever is of little value. The pneumonias following measles and whooping-cough are more frequently tuberculous than those after scarlatina and diphtheria. The existence of disease in the apices or central portion is suggestive, and softening may early be detected.

Careful enquiry should be made into the personal and family history of the child, at the same time it must not be forgotten that infection may occur in a perfectly healthy child.