

tuberculous lungs or the lungs in perlsucht is much more difficult. I repeatedly and carefully wash in such cases the portions of tissue with a solution of bichloride of mercury, after having used all the precautions above-mentioned on their removal from the body. Then I cut away, by means of properly heated instruments, the superficial layers until such a depth is reached as one would consider free from the presence of the bacteria of putrefaction. The flasks which have in such manner been provided with tubercular material are placed in the breeding apparatus and kept at a constant temperature of  $37^{\circ}$  or  $38^{\circ}\text{C}$ . In the first week there should be no appreciable change; but in case contamination of the culture has occurred, a change does take place. This can be recognized by the appearance of white, grey or yellowish spots, and the jelly also becomes liquified. This is due to a growth of bacteria, and proceeds from the tubercular substances introduced or arises remotely from them. The growth advances rapidly, and on account of impurity the experiment fails. The true products of the growth of the tubercle bacilli cannot be seen by the unaided eye until the second week after planting, usually on the tenth day. Then appear very small points like dry scales, which vary in number and extent according as the tubercle mass, when introduced, was broken, or, by rubbing, was brought into contact with a greater or less extent of the jelly surface. These points lie around the smaller fragments of tubercle in smaller or larger circles. If there were but few-bacilli in the tissue introduced, it is almost impossible to have removed them from the tissue to the jelly, consequently when they multiply they can be seen within the tissue itself when sufficiently transparent—as in scrofulous gland tissue—appearing dark by transmitted and white by reflected light. By the aid of a lens of slight power—30 to 40 diam.—they can be seen at the end of the first week. The organisms appear as very fine structures, generally of a spindle or **S** shape, or other similarly curved figures. Spread upon a slide, stained, and examined with a high power, the characteristic extremely small bacilli are seen. The growth of these colonies advances gradually during three or four weeks. They grow larger, form smooth