

the posterior surface of the pia-arachnoid was seen to contain numerous patches of lymph in the sub-arachnoid space; these existed as either fusiform collections of pus or were spread out in broad plaques over the posterior surface of the cord. There was distinct œdema of the pia, and in places it was markedly thickened. On section at various levels of the cord marked congestion was the main feature presented, but there seemed to be no evidences of punctate hæmorrhages.

With reference to the organs in general, the main conditions present were *acute purulent pericarditis*, œdema and partial collapse of the lungs, with acute bronchitis; obsolescent apical tuberculosis with left adhesive pleurisy, acute parenchymatous nephritis and catarrhal enteritis. The spleen was of normal size, and there was no further evidence in general of a septicæmia.

*Bacteriological Examination.*—Fresh coverslips, taken directly from the purulent exudate from the cerebral and spinal meninges, showed it to consist mainly of pus cells, fibrin, granular and colloid-looking masses. Some of the cells were of enormous size, three to four times that of an ordinary pus cell, containing large nuclei; some appeared to be vacuolated, and in a large number there were cell inclusions. Other cells, again, seemed much more ill defined, and their nuclei were irregular and fragmented. The leucocytes present were for the most part of the polynuclear variety. Specimens were stained by various methods, some with Löffler's blue, others with fuchsin, safranin, and also by Gram's method. With Löffler's blue one saw semmel-shaped diplococci, resembling very much the gonococcus, except that the size varied very much and that they tended, further, frequently to form tetrads. The staining, too, was extremely irregular, some, and particularly the larger ones, taking up an almost black color, while others adjacent to them might be scarcely stained at all. While many of these were found within the cells, a very large number were constantly found free, our experience in this respect being quite at variance with that of Weichselbaum, Councilman and others; with this exception, however, the coverslip preparations corresponded in all respects to the descriptions given by these authors. On staining by Gram's method, the bacteria became decolorized.

Coverslips from the pericardial exudate showed likewise a pure culture of the same micro-organism, while others made from the larger bronchial tubes showed similar cocci mixed with numerous other forms. In the largest bronchi there were chiefly lanceolate diplococci and the meningococcus above described. Coverslips were likewise made from the spleen and liver pulp, from the heart blood and the bile, but in none of these instances did we obtain any bacteria.

On the following morning Dr. Adami removed some of the nasal