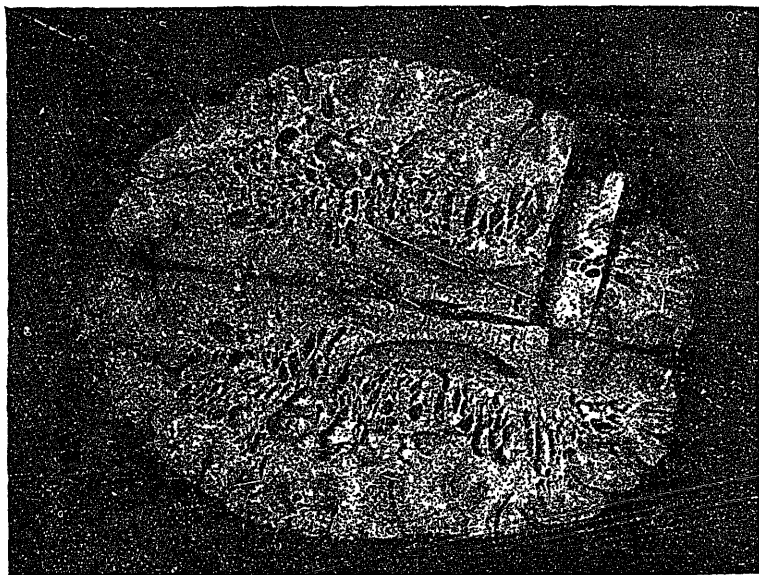


A section through the affected area stained with hæmatoxylin and eosin, when examined under the microscope, shows that the smooth cyst wall is formed by the surrounding brain substance, without a lining or limiting membrane of any description. Here and there a slight roughness, with a narrow band of diffusely staining hyaline material can be made out, showing degeneration of tissue, but as a rule the nerve elements are intact and take the stain perfectly, no small celled infiltration is to be seen, nor can any inflammatory action, or attempt at repair, be detected. With an oil immersion, or even a number seven lens, groups of bacteria are found in the cyst walls, and most of the capillaries are



positively choked with them, while some of the larger vessels with thick walls also contain vast numbers.

In regard to the period of time at which the changes took place, I think that there can be little hesitation in saying that they occurred post mortem, and continued after the brain was placed in formalin. For in the first place, this would account for the lesions being found only in the more central parts of the brain, as the formalin would soon penetrate the pons and medulla, while an appreciable time would elapse before it reached the centre of the hemispheres. Again, absence of inflammatory reaction throughout the nervous system and lack of evidence of a general ante mortem infection would point to the same conclusion. The characters of the bacillus still further emphasize this view, for as W. Welch¹ says in speaking of such conditions: "In the

1. Johns Hopkins Bulletin 1899 and 1900.