

of a woman from whom a four months old imacerated foetus was removed, and who died later from septic peritonitis and endometritis. Gas was only noted after death.

Mann's Case is instructive from the fact that it shows the possibility of infection during life in association with the *Streptococcus pyogenes*, and rapid spread of the process with marked constitutional reaction, recovery following energetic treatment.

Welch's and Flexner's unfinished paper in the *Journal of Experimental Medicine* affords us many examples from which to draw conclusions concerning infection by the gas bacillus, the most important and instructive of which will be briefly alluded to. In their third case, injury occurred to a man who fell from a wagon, sustaining injury to right hip and thigh. There was no external wound. The skin over the thigh was much swollen and reddened, emphysematous crackling being easily obtainable on the inner side and in the popliteal space. At autopsy, a traumatic rupture of the rectum was discovered.

Case ix of this series; a man with typhoid, died of symptoms of perforation of the bowel. At autopsy, this diagnosis was found to be correct, and a small opening, 39c. above the caecal valve was found. The peritoneal cavity was filled with gas, and the *Bac. Aerogenes Capsulatus* was shown to be present in abundant numbers in the peritoneal exudate.

Instances might be multiplied showing the different phases of infection by this *Bacillus*, but reference must be made to the list at the end of this paper for further details; for infection may occur at any time and under all circumstances when ordinary inoculation and growth could be expected. The pathological anatomy, however, is peculiar to infection by the gas-bacillus, and while depending on many conditions, may be briefly summarized as follows:

The nervous system; as shown by Reuling and Herring, large or small gas-cysts may occur in the cerebrum, with destruction of the grey and white matter. The walls of the Cavities are smooth, devoid of any lining or sack, and a layer of degenerate cells, with complete absence of nuclear staining, alone forms the boundaries of the cyst. The capillaries, round about, are completely blocked in many places by crowds of bacilli.

The digestive system; the results here depend upon the point and mode of infection, of course, the influence of this must always be considered, but the liver is the organ often affected most severely. When cut into this organ may appear riddled with cavities containing gas, whose walls are again lined with degenerated cells, this time hepatic. Blood containing many bubbles of gas, oozes from the cut hepatic and portal vessels, producing hillocks of foam on the cut surface, and giving rise to a very strange but characteristic appearance. The spleen fares likewise, though generally not so markedly. The Malpighian bodies are indistinct, and on pressure bloody, frothy fluid is squeezed on to the cut surface. Of the renal system, the kidneys are most commonly affected, so that gas-blebs may appear under their capsules, and on section, foamy material may be squeezed from the blood-vessels. Gas-cysts are frequently seen. The heart often shows marked changes, the myocardium being of