As pointed out in my paper of Oct. 22nd, 1899, yet further study showed me that in a great number of livers having no symptoms of cirrhosis, similar minute diplococcoid forms are to be recognized in the cells (although in not such great numbers). While again, as I pointed out at full length in a paper upon the diplococcoid form of the colon bacillus (Adami, Abbott, Nicholson, *Trans. of the Assoc. of Amer. Physicians*, 1899, and *Jour. of Experimental Medicine*, 1899, Vol. 3), by inoculating pure cultures of typical colon bacilli into the veins of a rabbit after a few hours one gets similar appearances.*

These observations led me further to study the bacteriology of apparently normal healthy organs and as I pointed out in my address at Chicago, in December, 1899 (*Journ. Amer. Med. Assoc.*, Dec., 1899) we are bound to conclude under ordinary conditions that there is a constant passage in of colon and other bacilli from the intestines throughout life and these diplococcoid forms staining badly, and often having a brownish tinge, are present in the abdominal lymphatic glands and in the artery, indicating the constant destruction of these bacteria in these organs. Since then the very remarkable paper of Dr. Ford, late Fellow in Pathology, McGill University (*Trans. of the Assoc. of Amer. Physicians*, Vol. XV., 1900, p. 399, and *Journal of Hygiene*, Vol. I., 1901, p. 277), has carried on these researches further and has shewn that in at least 80 per cent. of the livers and kidneys of healthy normal animals, bacteria are to be obtained which are capable of development provided the proper culture media be adopted and provided that these organs be cultivated for a sufficiently long time after their removal from the animals used.

How now do these observations bear upon Pictou Cattle Disease and upon ordinary portal cirrhosis in man? As I pointed out in the *British Medical Journal* of October, 1898: "It may be argued that inasmuch as such forms are constantly to be found in the liver, it is clear that the bacillus can, under ordinary conditions, have no power to induce excessive active tissue formation, or otherwise, every living being should suffer from cirrhosis. But there is this to be noticed: In the ordinary liver in which cirrhosis is absent, the forms visible are almost all corpses and even long action of strong carbolized fuchsin will not lead them to become stained. In cirrhosis, on the other hand, while there are many of these non-staining forms, areas can be made out in which diplococcus-like bodies stain deeply. Either they have only recently entered the organ and are just killed, or they are still alive, though in a form so attenuated that it is only with

* Ohlmacher in the last number of the *Journal of Medical Research* has confirmed fully our observations upon the existence and peculiar properties of the diplococcoid forms of the colon bacillus.