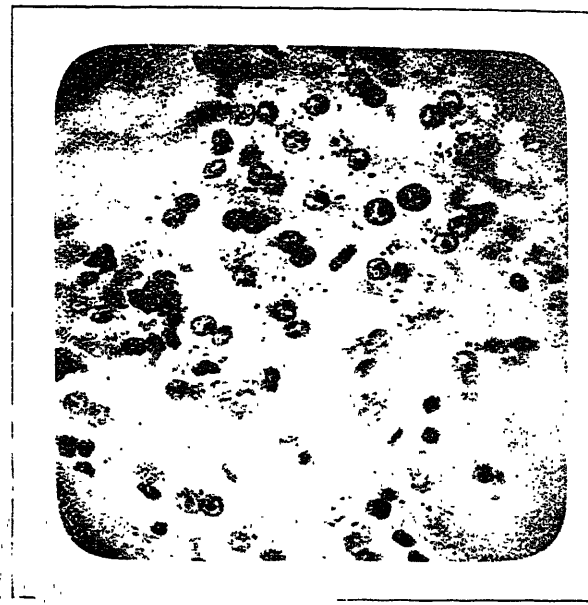


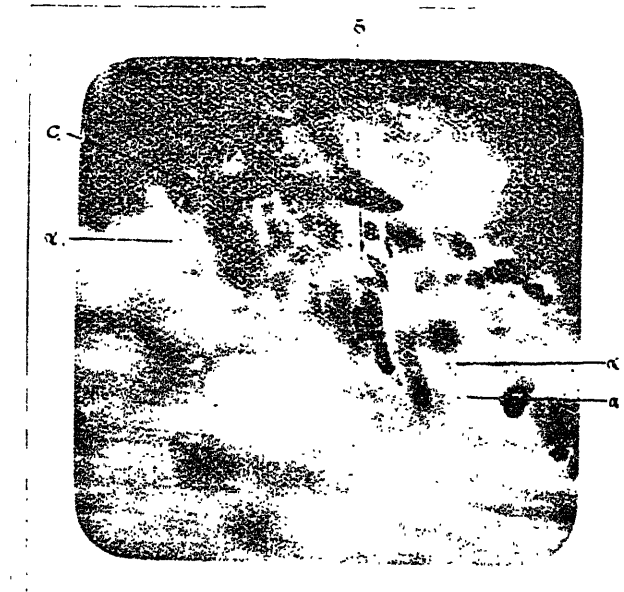
PICTOU CATTLE DISEASE.

Fig. II.—Section of Liver of Cow killed in course of the disease: Stained with Carbol Fuchsin 24 hours bleached in the sunlight for six weeks after mounting. Photographed under Reichert $\frac{1}{2}$ th immersion. A few of the diplococcus forms surrounded by a faint halo can be well seen: these appear to be largely within the liver cells. With a magnifying glass the position of several other germs not perfectly in focus, can be made out.



PICTOU CATTLE DISEASE.

Fig. III.—Section of Liver of RABBIT inoculated intraperitoneally with pure culture of microbe, and dying 21 days later. Treated like preceding and photographed under the same magnification. Innumerable diplococcus forms in the main *within* the liver cells. Some, not perfectly in focus seen as ovoid bodies, others as dots (end on). The varying size is apparently due to different degrees of bleaching (in part).



PROGRESSIVE CIRRHOSIS IN MAN.

Fig. IV.—Section of Liver from case of more diffuse Cirrhosis than the preceding: treated similarly to preceding.
a,a. Diplococcus forms within degenerating liver cells.
b,b. The same in the immediate neighbourhood of what appear to be fusiform connective tissue nuclei.
c. Group of diplococcus forms in liver cell.

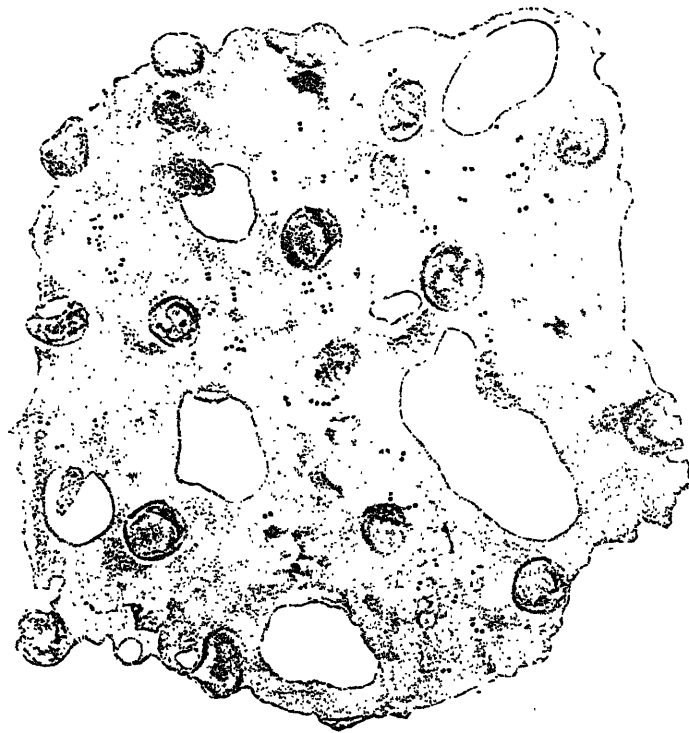


Fig. V.—From section of liver, stained by carbol thionin, of rabbit dying 16 hours after intravenous inoculation of 0.5 c. cm. of a 48 hour broth culture of bacillus gained from spleen of case of progressive portal cirrhosis. Drawing made by Zeiss's camera lucida, $\frac{1}{2}$ in. immersion lens (Winkel), Oc. 1. Sections from liver of rabbit inoculated intravenously with like dose of *B. coli* showed identical appearance.

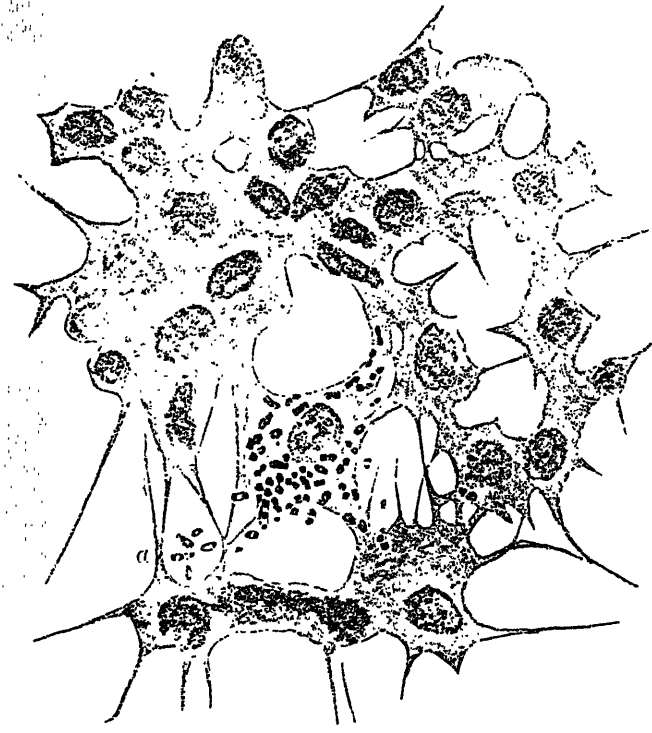


Fig. VI.—From section of mesenteric gland from case of portal cirrhosis. Stained carbol thionin, drawn under camera lucida, $\frac{1}{2}$ immersion lens (Reichert), Oc. 4. The section shows portion of a lymph sinus with colon bacilli which have apparently undergone proliferation *post mortem* in one of the large lymph cells. At *a* either the staining is partial or the bacilli already show signs of degeneration.



Fig. VII.—At other portion of the same section, drawn under the same magnification. Here in a lymph sinus some of the cells show in their protoplasm small clear spaces containing two, or more rarely three or four, fine deep brown spherules—shadows of colon bacilli. At *a* is shown the shadow (unstable) of some other form. At *b* is a large cell filled with fine pigment particles unsurrounded by halos. Elsewhere in the section were large accumulations of amorphous brown pigment.