

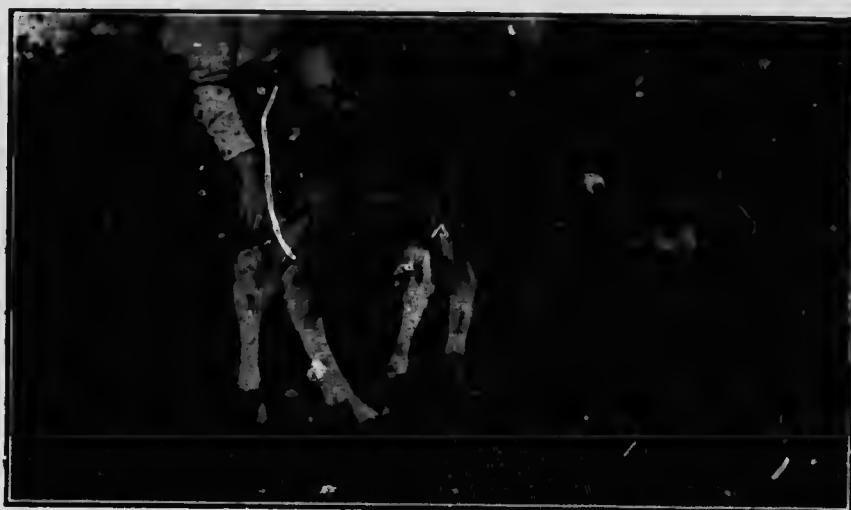
### PART III.

## The Bacteriology of Joint-III

In earlier investigations the importance of this phase of the subject had not been overlooked, but due to unavoidable difficulties, a careful study of the disease from this standpoint had been impossible. During the last summer a number of cases were seen and much material obtained for bacteriological examination.

After a careful examination of the diseased animal, cultures were generally made from the blood and joint fluid. As much as possible of the latter was removed from the joint, as the organisms when present are rarely plentiful. On arriving at the laboratory some of the synovia was injected into either the rabbit or guinea pig.

For making cultures in the field, Wright vaccine bottles and caps were used with excellent success, contamination will rarely occur if proper precautions are taken.



No 1. A typical case of Joint-III. Notice the swollen hock joint.

The etiological relationship of certain organisms to this disease has been discussed in earlier reports.<sup>3</sup> The ability of the *B. Abortivus Equinus* to excite septic arthritis was dealt with at that time. Streptococci have frequently been found in the diseased joints either alone or associated with other bacteria.

Some of the previous work had unfortunately to be undertaken with samples of synovia, which had been collected and forwarded to the laboratory by persons not familiar with bacteriological technique. Therefore, the value of the bacteriological findings must be considered as doubtful.

In purulent cases slight extraneous contamination would have no effect, but where the initial infection was slight or absent such a mishap might be disastrous. Since taking the samples in person, I have absolutely failed to find certain organisms that were frequently present in mailed specimens. The value of correct knowledge in regard to the cause of a disease is very apparent if treatment along biological lines is anticipated. Therefore, as many samples as possible were taken during the season and a careful record of each case kept.

The following table contains most of the information in a condensed form.