

Abscesses in Pigs' Glands.—Owing to the occurrence of small abscesses in a number of glands of export pigs, a bacteriological examination of several superficial lymph glands was made with a view to determining whether any particular organism was constantly present. Some forty-two specimens were examined, and all these showed a mixed bacterial flora. In addition to other organisms, two of the glands were found to contain spirochaetes, two were tuberculous, and one on culture showed presence of a diphtheroid morphologically similar to *C. pyogenes*, but differing in cultural characteristics. In fifteen cases *C. pyogenes* was isolated on culture.

Pasteurization of Skim-milk for Pigs.—Tests were carried out on a small steam-pasteurizing plant which is intended for farm sterilization of skim-milk where the incidence of tuberculosis in pigs is high. The plant maintained the milk at a temperature of approximately 170° F. for approximately thirty seconds. It was found to be quite effective in destroying the tubercle bacillus. Experiments were carried out in which milk containing tubercle bacilli was passed through the sterilizing-plant and subsequently tested for pathogenicity by guinea-pig inoculation. The deposit from a definite amount of milk was inoculated into guinea-pigs before and after pasteurization. In no case did a guinea-pig inoculated with pasteurized milk develop tuberculosis. The virulence of the milk in the quantities used was satisfactorily demonstrated by the development of tuberculosis in animals inoculated with the unheated milk.

The apparatus provides a supply of hot water while in use, and while perhaps it is illogical to attempt to combat tuberculosis in pigs by pasteurizing milk rather than by striking at the root of the problem—the tuberculous cow—it is felt that the former measure is preferable to no action at all, which may be the case when a farmer declines to have his herd tuberculin tested for fear of too heavy losses through condemnation of reactors.

POULTRY.

Leucosis.—Experimental work on this subject has been carried out. It has been shown that a myelogenous form of leucæmia occurs in New Zealand, and that this is readily transmissible from fowl to fowl by intraperitoneal injections of suspensions of diseased organs. It is also transmissible by Berkefeld N. and Seitz E. K. filtrates, although less readily than by cell-containing suspensions. The causal agent has now been passed through birds to the third generation, during which series some birds developed erythroleucosis and leucæmia, while some developed pure erythroleucosis. This condition is characterized by severe anæmia associated with the appearance in the circulation in the later stages of large numbers of large, primitive, undifferentiated cells with large, round, regular, deeply basophilic nuclei. These are presumed to be very early precursors of red cells, and this contention is supported by the extensive range of intermediate cell types seen in smears. Naturally occurring cases of erythroleucosis have not been recorded. As post-mortem examination of affected birds may reveal no gross abnormality, such cases might be missed. A routine examination of blood from sick birds is to be carried out whenever possible.

Fowl Paralysis.—Sporadic cases occur in which there is definite enlargement of the sciatic nerves. All attempts at transmission of the condition by inoculation of nerve and tissue extracts have been unsuccessful.

MISCELLANEOUS.

Bacteriological Contamination of Eggs.—Following reports that deterioration had occurred in a shipment of export eggs, many of which contained bacteria of the genus *Pseudomonas*, an investigation was made of the conditions which predispose to bacterial contamination of eggs.

It was found that eggs, either washed or unwashed, usually remained good for a period of at least six weeks if kept at a temperature of 22° C. Even the deliberate exposure of eggs to cultures of *Pseudomonas fluorescens* by swabbing them with cultures resulted in only a few of them becoming affected by this organism.

Exposure of the eggs to moist conditions, however, resulted in their becoming rotten in two to three weeks even in the absence of *Pseudomonas*. It was observed that eggs may contain a sufficient concentration of *Pseudomonas* to produce a vivid fluorescence of the albumen and remain otherwise normal. *Pseudomonas* was found to be of quite common occurrence in the egg-washing appliances used in preparing eggs for export, and has frequently been isolated from such material.

It is interesting to note that of a batch of eggs imported from England by air-mail for hatching (which, incidentally, were all infertile), *Pseudomonas* was cultured from one of the twelve.