

yields; that the larvæ do cause some effect on an animal is proved by the fact that they are sensitive to the protein contained in the parasites.

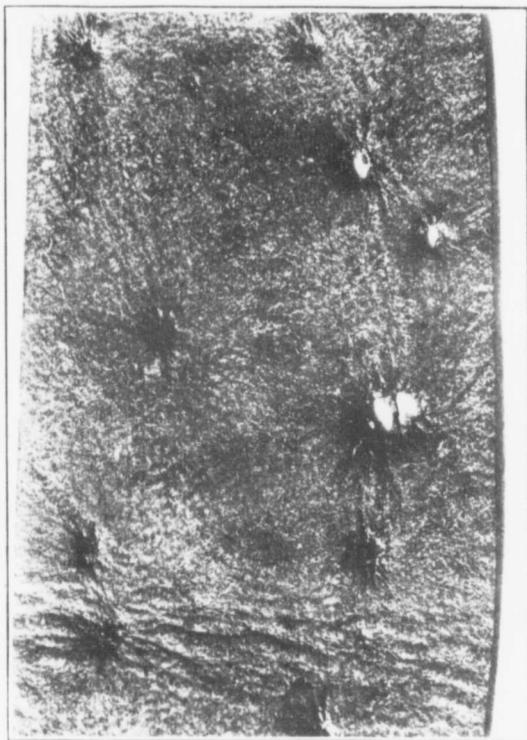


Fig. 27.—Actual size of leather,  $3\frac{1}{2}$  in. x  $3\frac{3}{4}$  in.

The poisonous qualities of warble juice have been proved by a number of experiments. (Figs. 28 and 29.)

When the juice derived from the larvæ is injected into a sensitive animal, that is, one which has been harbouring the parasites, the reaction termed anaphylaxis is frequently produced. The reaction occurs in two forms, one, which is rapidly fatal, kills the animal in a few moments; the other, appearing in twenty minutes to half an hour, causes grave symptoms followed by recovery. The amount of material which is necessary to produce the effect appears to be very small; in one case, a full grown cow was killed with the juice of three and one half larvæ. In other cases, larger amounts were used; but, as stated before, the degree of sensitiveness in the animal appears to be more important than the size of dose which is administered. In the rapidly fatal attacks, the most marked symptoms noted were those of asphyxia. In the non-fatal cases, œdemas occurred in many parts of the body and also a marked wrinkling of the skin. Blood may be passed from the natural openings. Cases of anaphylaxis have also been diagnosed in animals, which had not received any injection. These cases occurred in dairy animals and were probably produced through injury to the warbles on their backs. In two cases, there was a definite history of such injury. A number of reports from Veterinarians have also been received describing similar cases in cattle.

NOTE.—A full description of this reaction was published in the Journal of the American Veterinary Association, Vol. 4, No. 1, April, 1917.