

ONTARIO AGRICULTURAL COMMISSION.

APPENDIX K.

EVIDENCE

RELATING TO

HORSE BREEDING.

Sitting to take oral evidence, held at Toronto, June 23rd, 1880. *Present*—Mr. DRYDEN, M.P.P. (Chairman), Hon. S. C. WOOL and Messrs. J. P. WISER, M.P., A. H. DYMOND, F. MALCOLM, T. BALLANTYNE, M.P., J. H. GIBSON, W. WHITELAW, E. BYRNE, THOS. STOCK, A. WILSON, and J. P. McMILLAN.

DR. McMONAGLE'S EVIDENCE

P. R. McMONAGLE, M.D., was called and examined.

To Mr. Wisser.—My attention in regard to breeding has been particularly paid to roadsters and thoroughbred horses. I would like to say first a few words on the subject of breeding generally, as I have heard a good deal in previous evidence about coupling animals of similar types and characteristics, and coupling those of different types and characteristics.

THE THEORY OF BREEDING.

There is no mystery about breeding. I think scientific men at the present day thoroughly understand the theory of generation, and how crosses are produced in the coupling of different breeds. All embryos are produced by the contact of a sperm cell with a germ cell. The uterus and its appendages always produce germ cells, which are like a quantity of eggs floating about in mucilaginous matter. If the germ cells of a cross-bred animal are examined under the microscope, they will be found to be a number of eggs of different sizes, possessing a vitality and outline distinct from each other. It is the contact of these germ cells with the spermatazoa of the male that produces conception and life. If a thoroughbred animal comes in congress with another of its own type or character, the germ cells and the sperm cells will have an affinity for each other, and will produce nothing but what is similar to the ancestral line previous to the production. But if the breeds are crossed, they will produce something new.

EFFECT OF CROSSING WITH A PURE-BRED MALE.

If the sperm cells of a thoroughbred are brought into contact with the germ cells of an inferior grade or mongrel animal, the impressive power of the male will enable his

[*Dr. McMonagle.*]