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On a False Masculine Hermaphrodite in an Avian Hybrid.

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WHILE on district duty in November, 1932, in the Lichtenburg District, one of us (N.F.V.) was shown by Mr. Morley, of P.O. Barberspan, a hybrid bird. According to the owner two eggs by a Rhode Island cock out of a guinea-fowl hen were laid some time in 1929. Both eggs hatched, but one chick died. The second chick was successfully reared, and as will be seen in Figs. 1 and 2 the bird was white with numerous red speckled feathers on the back, neck, breast and abdomen. The bird was larger than a Rhode Island hen, but smaller than a cock. The body was much elongated and the head possessed a curved beak which was longer than that of a fowl. The eye was "wild", the comb rudimentary, and the back of the head showed a tuft of small quills which pointed backwards. The wings were well developed and flight was stronger than in the case of the domesticated fowl. The legs appeared to be short for the size of the body.

The habits of the hybrid were always somewhat wild; in fact, it preferred the company of tame guinea-fowls to domesticated fowls. When caught, a weird squawk was emitted and the captor would be readily bitten. Mr. Morley had never noticed any attempt at mating.

Thanks to the owner's generosity, the bird was presented to the Anatomical Department of the Faculty of Veterinary Science at Onderstepoort in December, 1932. Here it was placed in a pen with a White Leghorn cock and fed by the Poultry Officer* on an egg-producing ration. Although mating took place during the observation period of eighteen months, no eggs were laid.

Finally, on 17th August, 1934, the hybrid was killed and the genitalia examined (J.H.deB). Apart from the fact that the cloaca was smaller than in the case of the usual (egg-laying) hen, all that was seen was a pair of poorly developed testes (T) (1.5 × .6 cm.), there being no signs of female genitalia or male excretory ducts. (See Fig. 3.)

* Mr. E. van Manen, to whom thanks are due for his interest in the observation.

With the presence of the male glands and the feminine appearance of the bird, it is evident that the specimen was a false masculine hermaphrodite.

Microscopically the testes were in a condition of aspermatogenesis. (See Fig. 4, A, and Fig. 5, A.) In order to familiarise the reader with the appearance of a normal fowl testicle, a section is shown (Fig. 4, B, and Fig. 5, B) from a year-old White Leghorn cock along with views of *normal* spermatozoa, both kindly stained (Giemsa) by Mr. C. Jackson (Fig. 6, A and B).



Fig. 1.—View of hybrid.



Fig. 2.—Another view of hybrid.



Fig. 3.—Urogenital system of hybrid.

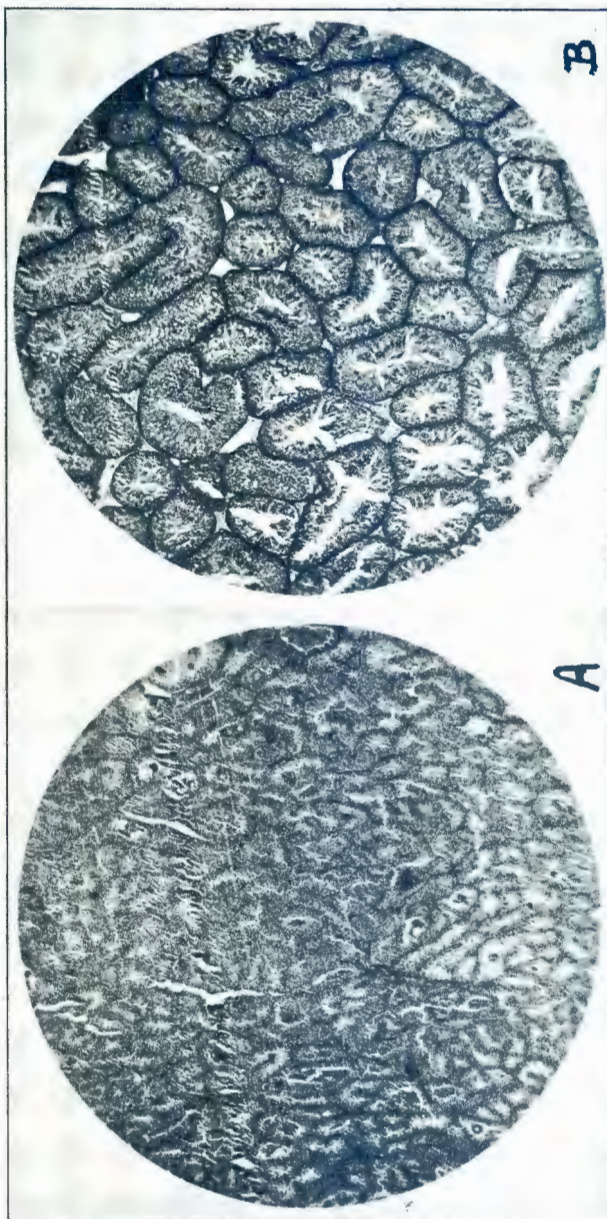


Fig. 4.—A. Testis of hybrid (low power).
B. Normal cock ($\times 40$).

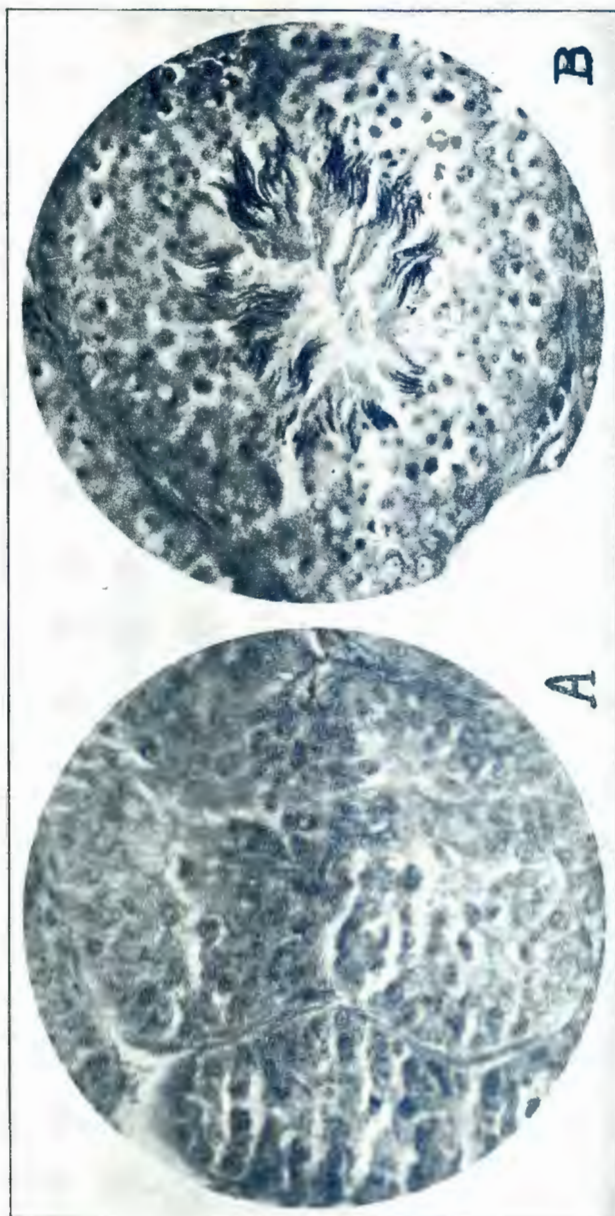


Fig. 5.—A. Testis of hybrid (high power).
B. Normal cock (high power) ($\times 425$).

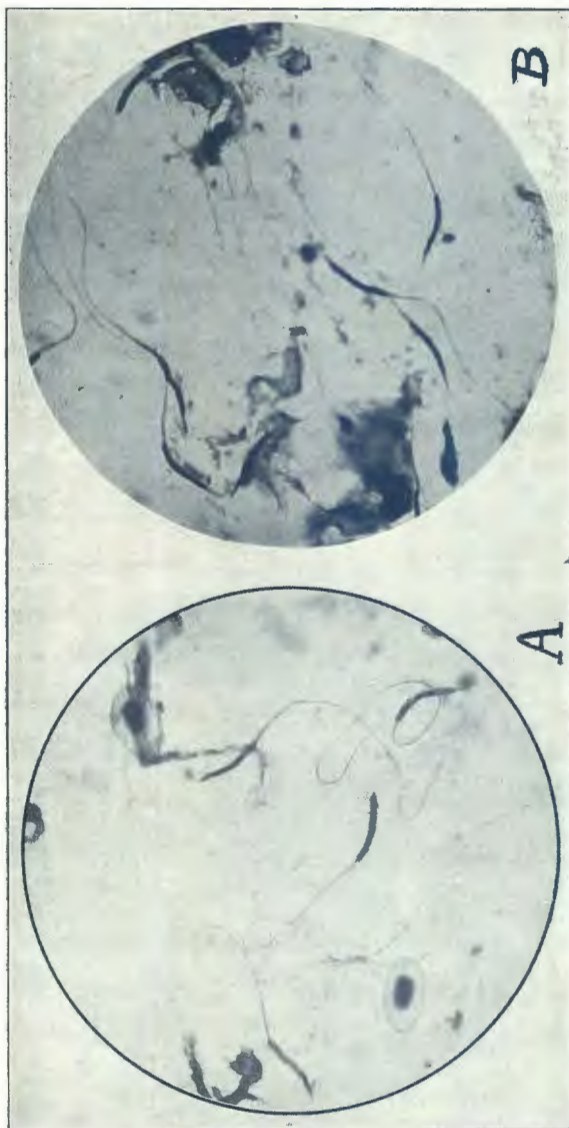


Fig. 6.—A. and B. Normal spermatozoa of white leghorn cock ($\times 900$).