

Anatomical Studies, No. 52.

Two Cases of False Masculine Hermaphroditism in Cattle (Path. Nos. 5018 and 11125).

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SOME forms of this condition must not be confused with freemartinism [Curson (1930, 1932)], e.g. were it not for the testes which were found in the ovarian region, Specimen 11, 125 might be taken merely as an arrest in the development of the internal genitalia of a heifer.

(1) *Specimen* 5018 obtained from a Hereford beast (D.O.B. 316) which arrived at Onderstepoort on 21.3.1922, was put aside on 24.12.24, no systematic post-mortem examination having been made. The *external appearance* of the animal, especially in front, was that of a bull, as will be seen from Fig. 1A. Fig. 1B shows the vulva associated with much vulval hair. In addition, the clitoris was enlarged. Fig. 1C indicates the udder of a virgin heifer. It is known that on urinating, the water came away in squirts. *Internally*, two small testes, each with a well developed epididymis, were present in the subcutaneous tissue dorsal to the udder, and each was connected no doubt by a fibrous cord with the cranial extremity of what appeared to be a fused glandula seminalis with the vas deferens. See Fig. 1D. So much for the derivatives arising from the mesonephric duct!

As will be noted in Fig. 1D a sac-like structure (? vagina or uterus) is placed between the glandulae seminales. This represents the fused Mullerian ducts. Cranially there arose two fibrous cords [only one is represented in the drawing (Fig. 1D)], within there was a cavity, containing a putty-like material, and laterally the sides were fused with the vas cum glandula seminalis mass. Caudal to the external urethral orifice the canal was female in form, although as mentioned above, the clitoris and vulval hair were overdeveloped.

Histologically, the testes showed aspermatogenesis. See Fig. 1E.

(2) *Specimen* 11,125 was received from the Johannesburg Abattoir on 12.1.31, due to the kindness of Dr. G. Martinaglia. On account of the testes found in the ovarian region, the specimen is clearly a case of masculine false hermaphroditism. See Fig. 2A. Otherwise, as stated above, it resembles a freemartin.

Histologically the testes showed aspermatogenesis. See Fig. 2b. Magn. 20 ×.

A case of true hermaphroditism (bilateral) has recently been described by Kaura (1933).

REFERENCES.

- KAURA, R. W. (1933). A bovine hermaphrodite. *Vet. Jl.*, Vol. 89 (4), p. 186.
CURSON, H. H. (1930). Anatomical Studies, No. 16: On two cases of freemartinism. *16th Rpt. Dir. Vet. Serv.*, p. 577.
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Fig. 1A.



Fig. 1b.

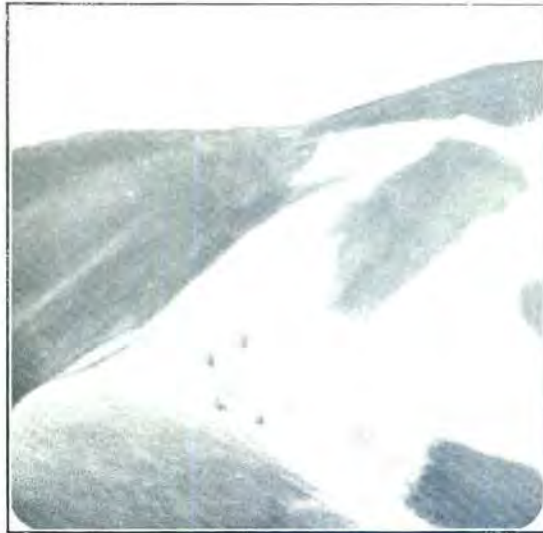


Fig. 1c.

Hereford D.O.B. 316.

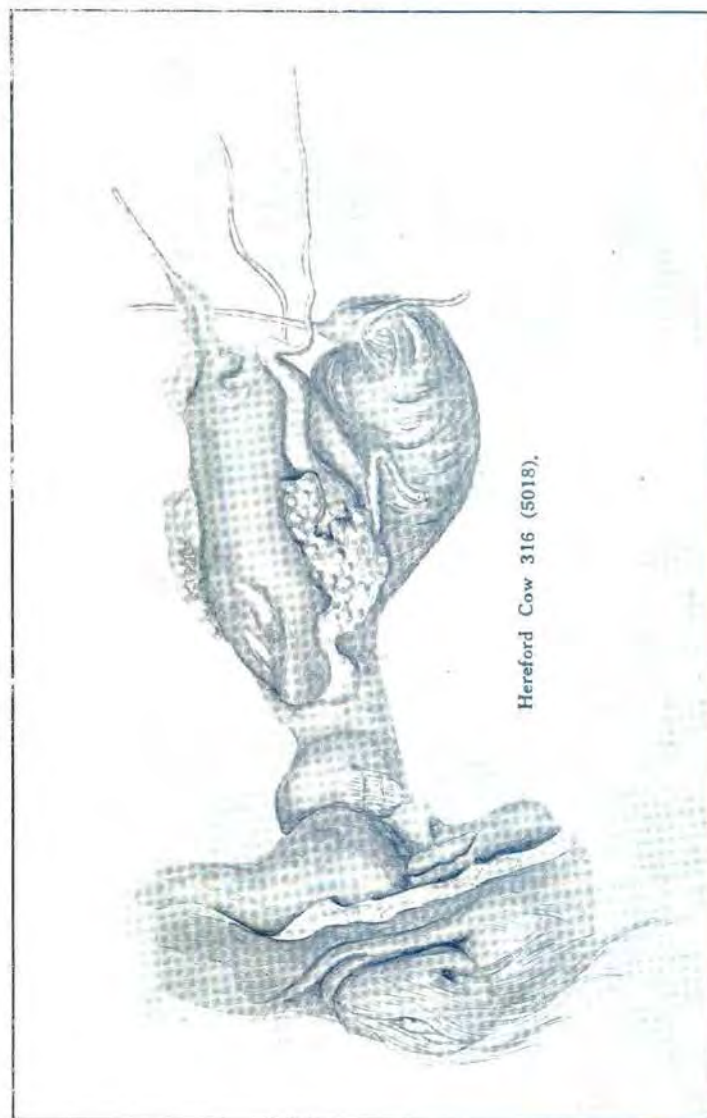


Fig. 1b.



Fig. 1e.
Hereford D.O.B. 316.

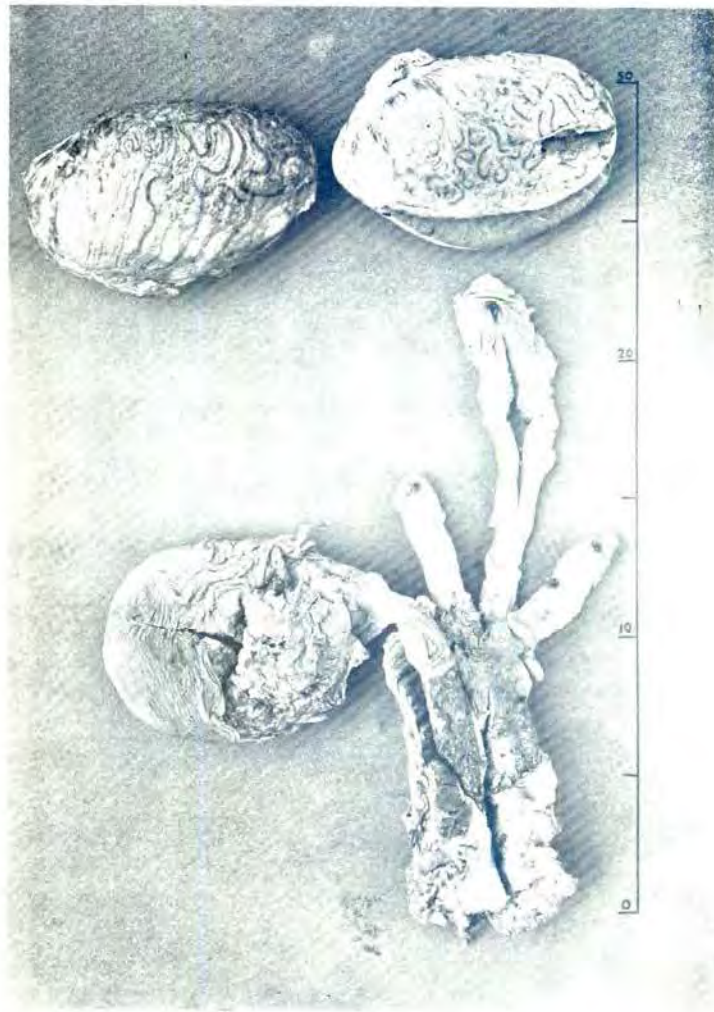


Fig. 2A.

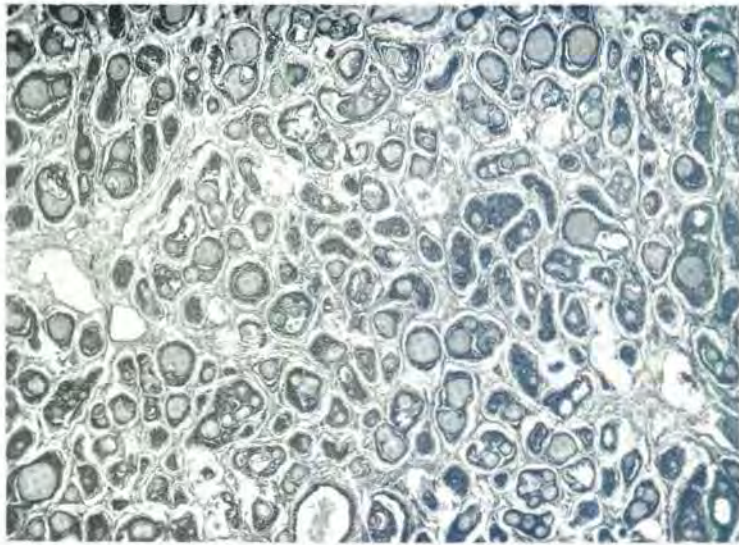


Fig. 2a.