DSPACE

https://dspace.org/

On the structure and development of the bursa ovarica and infundibulum tubae in Elephantulus myurus jamesoni : with special reference to the ovarial bursa in mammals, and to its function

Austoker, Joyce

2014-10-15
http://hdl.handle.net/10539/15744

Downloaded from a DSpace repository. https://dspace.org/

ILLUSTRATED PLATES.

All the sections examined were stained with Hansen's haemotoxylin-eosin stain.

Figures I - VII are graphical reconstructions of ovaries of elephantulus myurus jamesoni at various stages in its development.

Figures A - I are sections of the ovaries: A - F being camera lucida reproductions of the sections, and G - I being photomicrographs.

FIG. I.

Ovary and surrounding membranes in situ x 8. This is the ovary of an adult female showing its suspensory ligaments, the fallopian tube and uterus.

FIG. II.

Reconstruction of the mesonephros and genital gland of a 1.2 c.m. embryo x 50. The genital gland is here a thickened ridge on the medial side of the mesonephros. The Mullerian and Wolffian ducts are present. The metanephros is at the posterio-lateral side of the mesonephros.

FIG. III.

Reconstruction of the ovary of a 2.2 c.m. embryo x 50. The ovary is here triangular in shape. The mesovarium, mesometrium, ligamentum ovarii proprium and ventral mesosolpinx are clearly definable. The ostium tubae has become slightly swollen marking the beginning of the infundibular hood. The Mullerian duct (oviduct) is joined to the free edge of the ventral mesosalpinx.

O T : ostium tubae. U L : uterine lip. M D : Mullerian duct. O V : ovarium. M V : mesovarium.

V M S : Ventral mesosalpinx. M M : mesometrium.

L O P : ligamentum ovarii proprium.

/ FIG. IV.

FIG. IV.

Reconstruction of the ovary of an embryo neonatus x 50. The infundibulum tubae is much better developed here than in Fig. III. The ovarian and uterine lips are quite clearly developed.

I N F : infundibulum tubae. M V : mesovarium.
O L : ovarian lip. O V : ovarium. O V D : oviduct.
U L : uterine lip. V M S : ventral mesosalpinx.

FIG. V.

Reconstruction of the ovary of a young animal which has not yet ovulated x 50. The infundibulum is a much enlarged hood at the anterior end of the ovary. The uterine lip has grown down past the ovary, and the ovarial lip has grown down and fused to the mesovarium. The ostium tubae is still antero-laterally situated.

I N F : infundibulum tubae. M V : mesovarium.
O L : ovarian lip. O T : ostium tubae. O V : ovarium.
O V D : oviduct. U L : uterine lip.

FIG. VI.

Reconstruction of the ovary of a mature animal x 50. The infundibulum tubae has here been drawn round so as to envelop the ovary. The ovarian lip is attached to the mesovarium and the uterine lip has grown down past the ovary. The ostium tubae is at the postero-lateral corner of the ovary, the position it will maintain throughout its adult life.

I N F : infundibulum tubae. M V : mesovarium.
O L : ovarian lip. O V : ovarium. O V D : oviduct.
U L : uterine lip.

FIG. VII.

A schematic representation of the ovary and oviduct of an abnormal specimen of elephantulus. The infundibulum

/ has not

has not developed as a periovarian capsule, and the ovary is bare in the peritoneal cavity. The oviduct has retained its early embryonic position, and terminates in a funnel shaped ostium tubae anteriorly to the ovary.
F T : Fallopian tube. M V : mesovarium. O T : ostium tubae. O V : ovarium. O V D : oviduct.

FIG. A.

A section of the mesonephros and ovary of an embryo of 1.2 c.m. of elephantulus myurus jamesoni x 60.
M S : mesonephros. O T : ostium tubae. O V : ovarium.

FIG. B.

A section of an ovary of a 2.2 c.m. embryo showing the swollen ostium tubae and the beginning of the development of the uterine lip. x 60.

FIG. C.

A section of an ovary of a young specimen of elephantulus. The infundibulum is greatly enlarged and is lying at the anterior end of the ovary. The ovarian lip of the infundibulum is attached to the mesovarium. x 60.
I N F : infundibulum. O L : ovarian lip. O V : ovarium.

FIG. D. x 60.

A section of the infundibulum tubae of elephantulus. The infundibulum is greatly coiled and folded and is lying at the anterior tip of the ovary. The specimen sectioned was a young animal with ova in the single layered stage of follicular development.

FIG. E and FIG. F. x 60.

Sections of the ovary of a mature specimen of elephantulus. The infundibulum tubae is enveloping the ovary. Fig. E shows the ovarian lip attached to the mesovarium, and Fig. F shows the uterine lip grown down past the ovary.

I N F : infundibulum. M V : mesovarium. O L : ovarian lip. O V : ovarium.

/ FIG. G.

FIG. G. x 57.

A section of the oviduct of an abnormal specimen of elephantulus myurus jamesoni - x 57. Photomicrograph of the section of elephantulus, stained with Hansen's haemotoxylin-eosin stain and photographed through a Wratten No.11 Green Filter. The section shows the tube of elephantulus, coiled in the peritoneal cavity anterior to the ovary.

A T : ampullary part of the tube. M S : mesosalpinx.

FIG. H.

A section of an abnormal ovary of elephantulus. Photomicrograph of the section of the ovary stained with Hansen's haemotoxylin-eosin stain and photographed through a Wratten No.11 Green Filter. x 43. The section shows the ovary lying completely bare in the peritoneal cavity. The oviduct is running in the mesovarium.

F : follicles. O V : ovarium. O V D : oviduct.

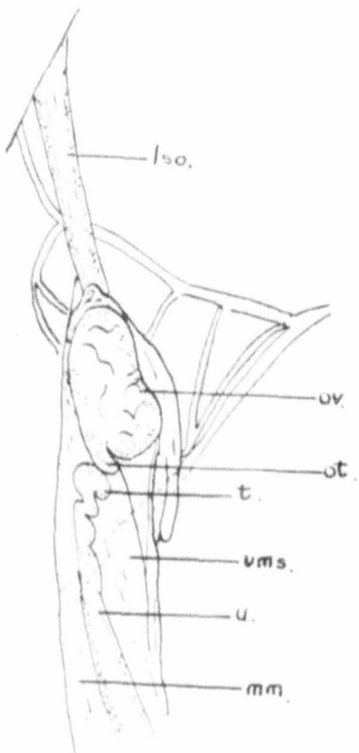
FIG. I. x 30.

A section of a second abnormal ovary of elephantulus. Photomicrograph of the section of the ovary stained with Hansen's haemotoxylin-eosin stain and photographed through a Wratten No.11 Green Filter. The section shows the ovary and infundibulum tubae lying coiled at the anterior end. The lips of the tubae have grown down around the ovary, but the infundibulum has not been pulled around the ovary, leaving the posterior end of the ovary bare in the body cavity.

I N F : infundibulum tubae. O L : ovarian lip.

O V : ovarium. U L : uterine lip.

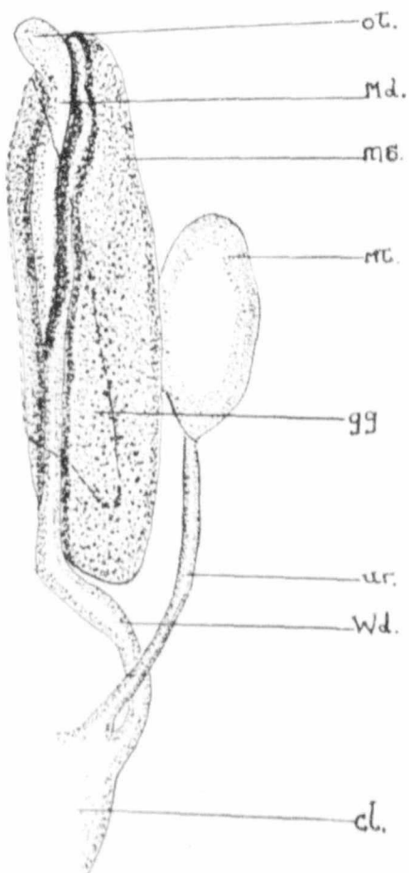
ILLUSTRATED PLATES.



lso = ligamentum suspensorium ovarii.
OV = ovarium.
T = fallopian tube.
ot = ostium tubae.
vms = ventral mesosalpinx.
u = uterus.
mm = mesometrium.

FIG. I

OVARY AND SURROUNDING MEMBRANES IN SITU X 8.
(VAN DER HORST)



ot = ostium tubae.
Md = Müllerian duct.
ms = mesonephros.
mt = metanephros.
ur = ureter.
Wd = Wolffian duct.
cl = cloaca.
gg = genital gland.

FIG II

EMBRYO 1·2 cms. X 50

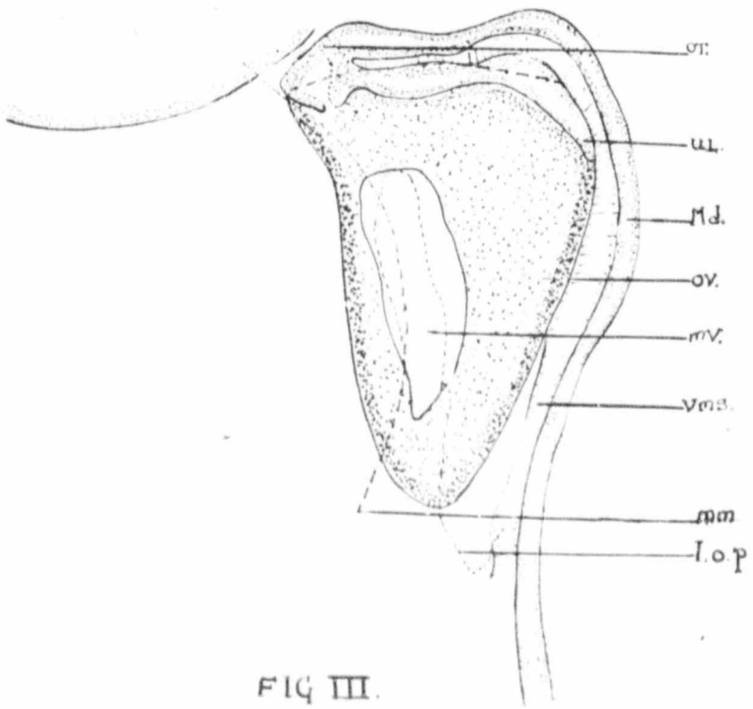


FIG III.

EMBRYO 2·2 cms.

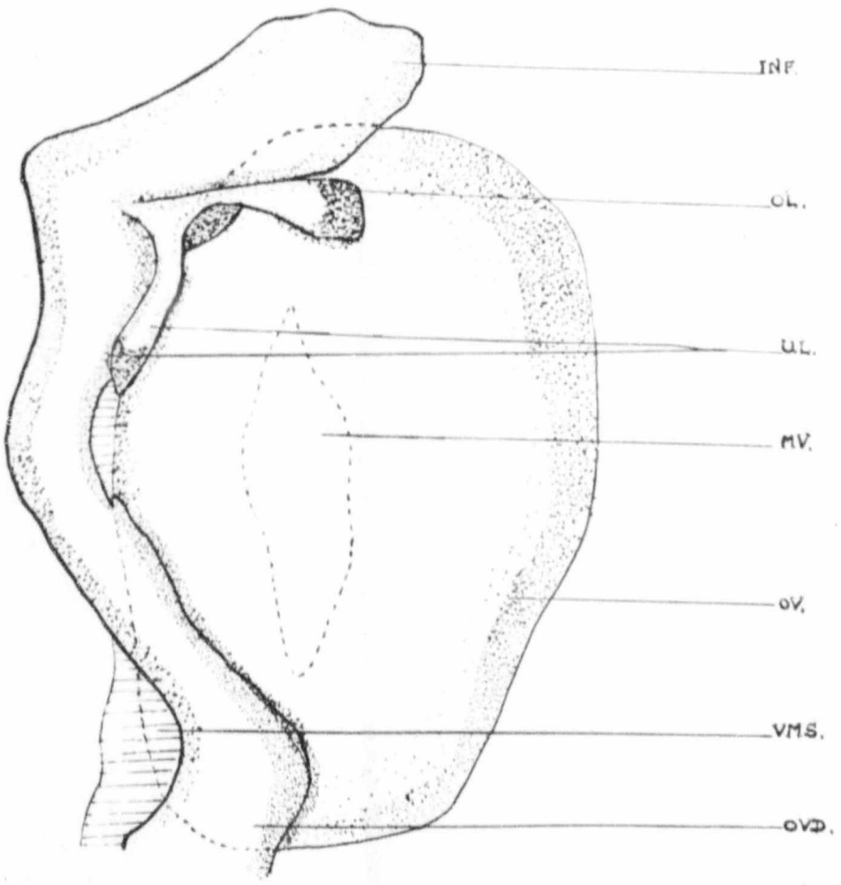


Fig. IV

EMBRYO NEONATUS X 50

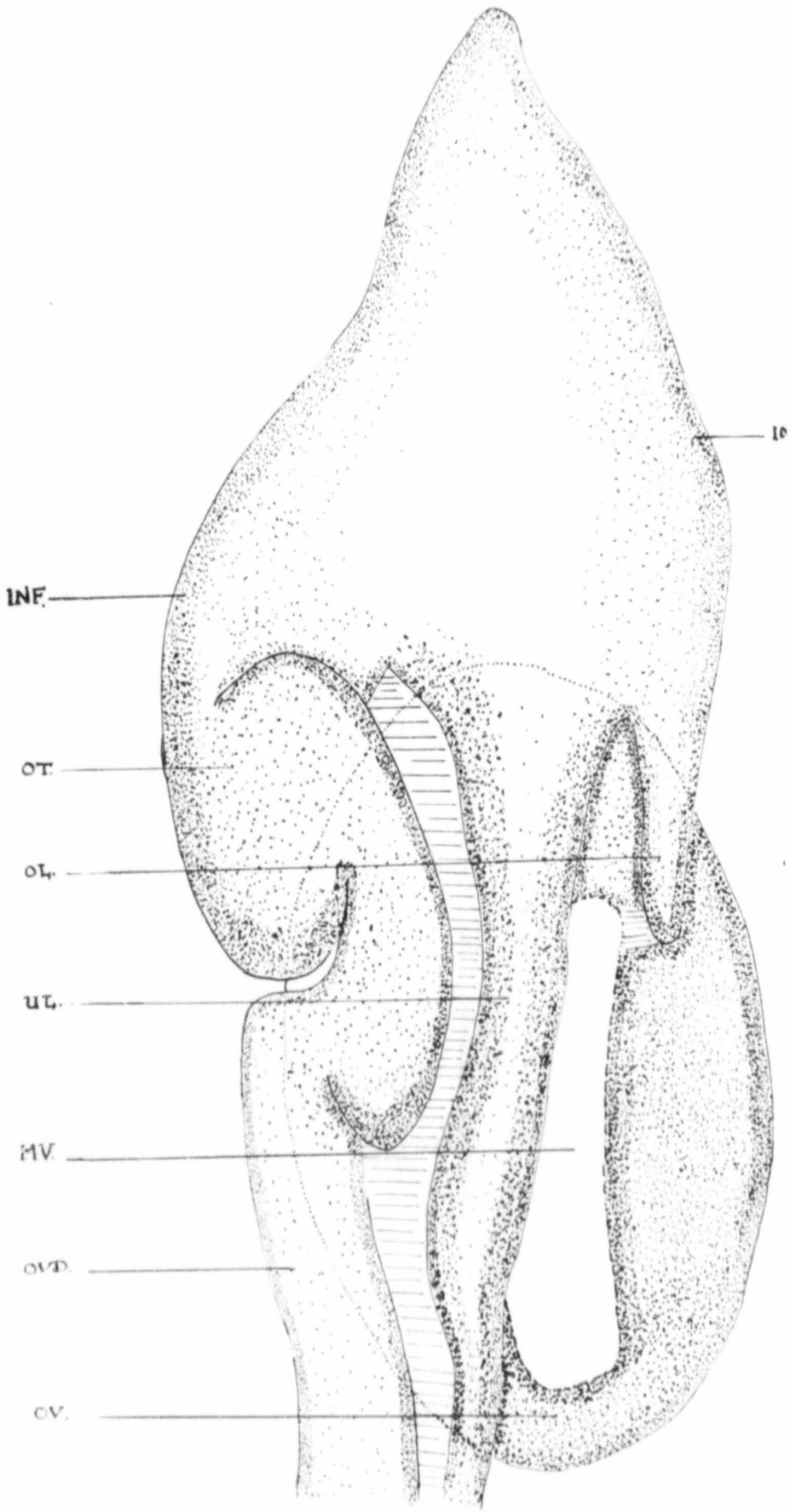


FIG V

YOUNG ANIMAL X50

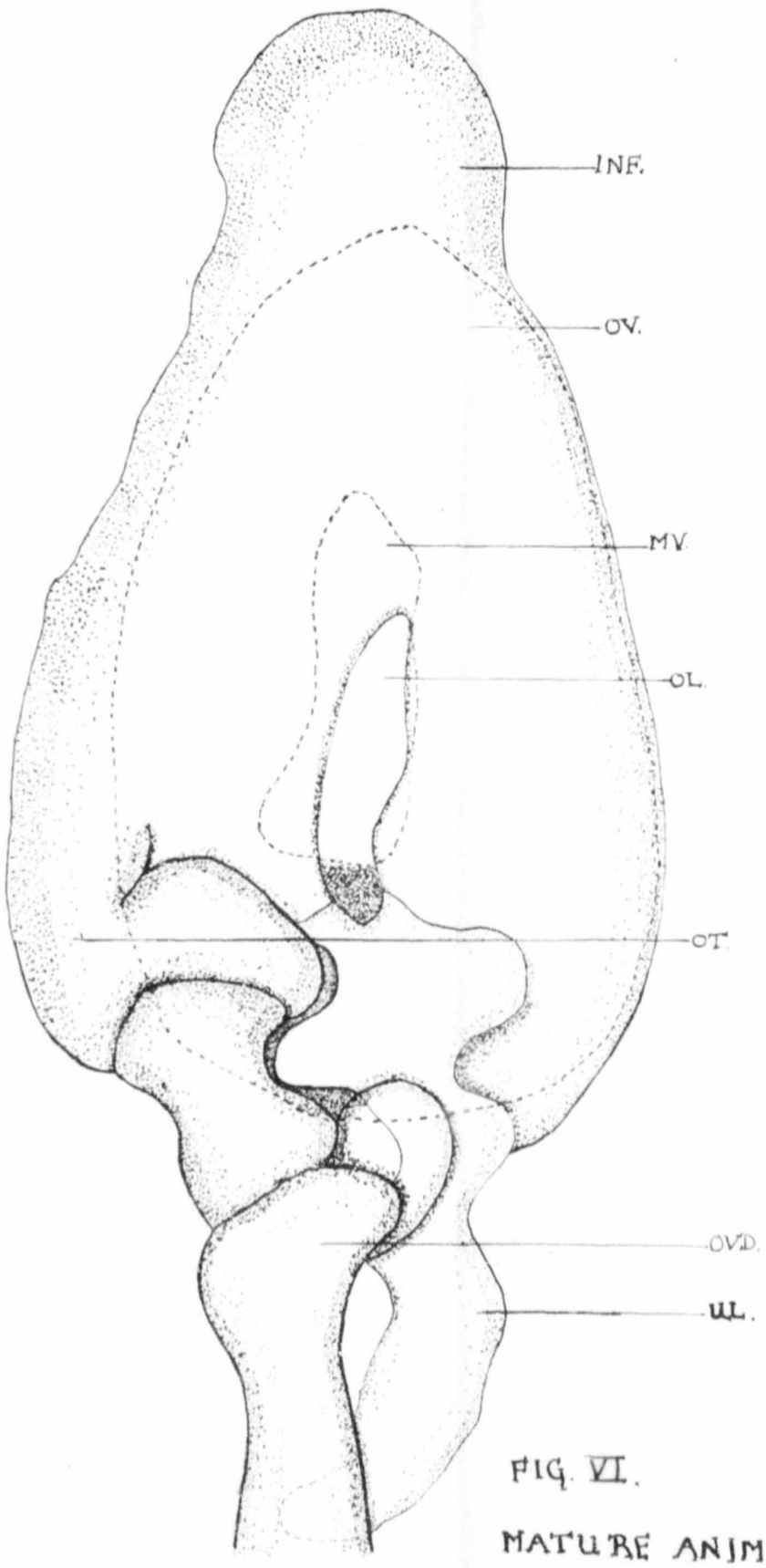


FIG. VI.

MATURE ANIMAL X50

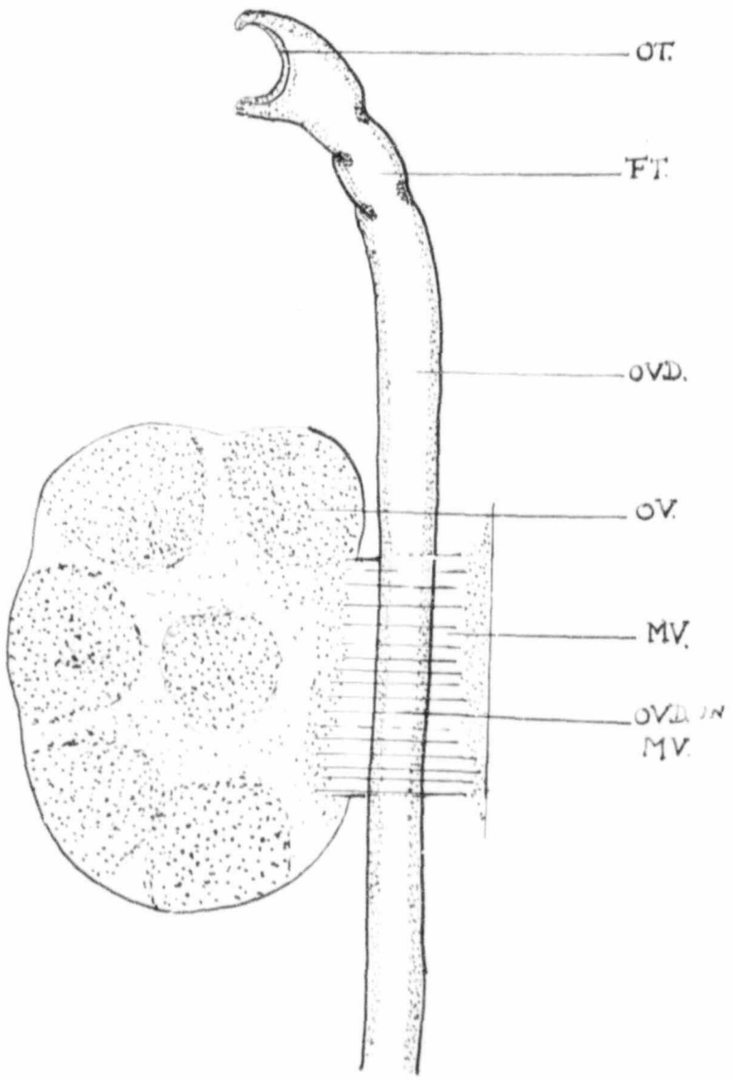


FIG VII - (DIAGRAMMATIC)

ABNORMAL MATURE OVARY

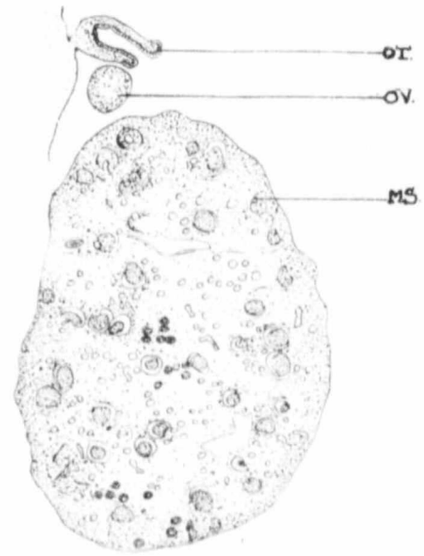


FIG. A.

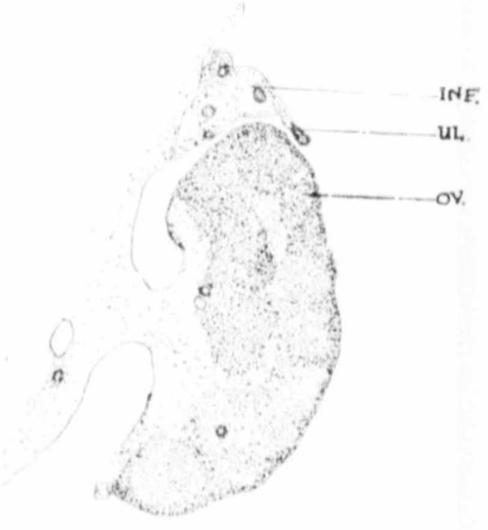


FIG. B.

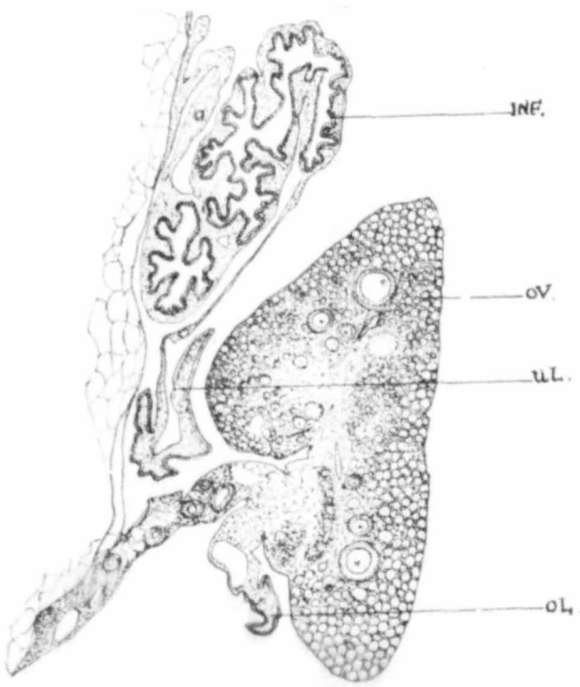


FIG. C.

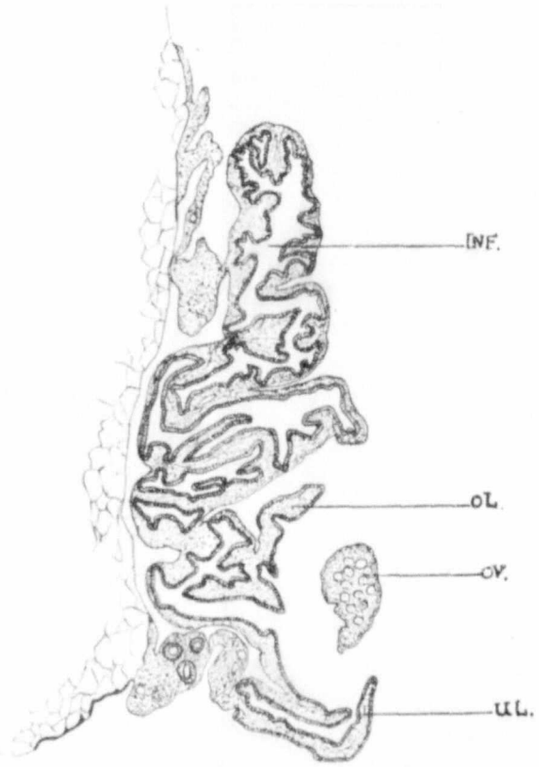


FIG D.

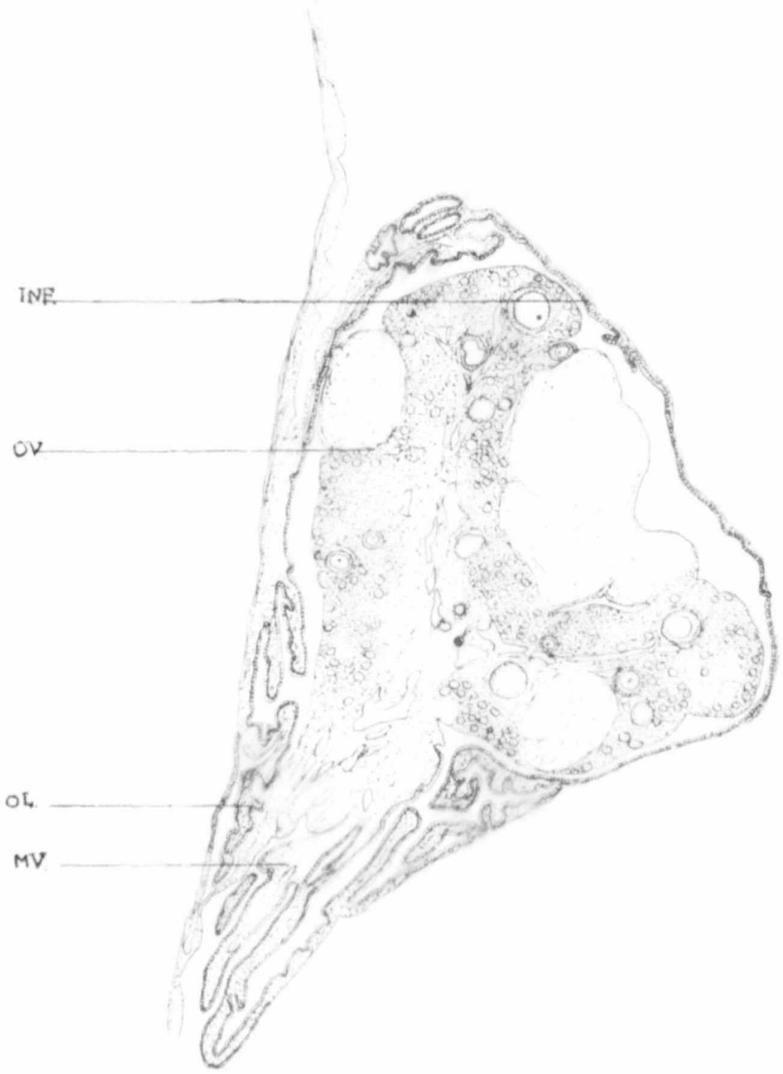


FIG E



FIG F

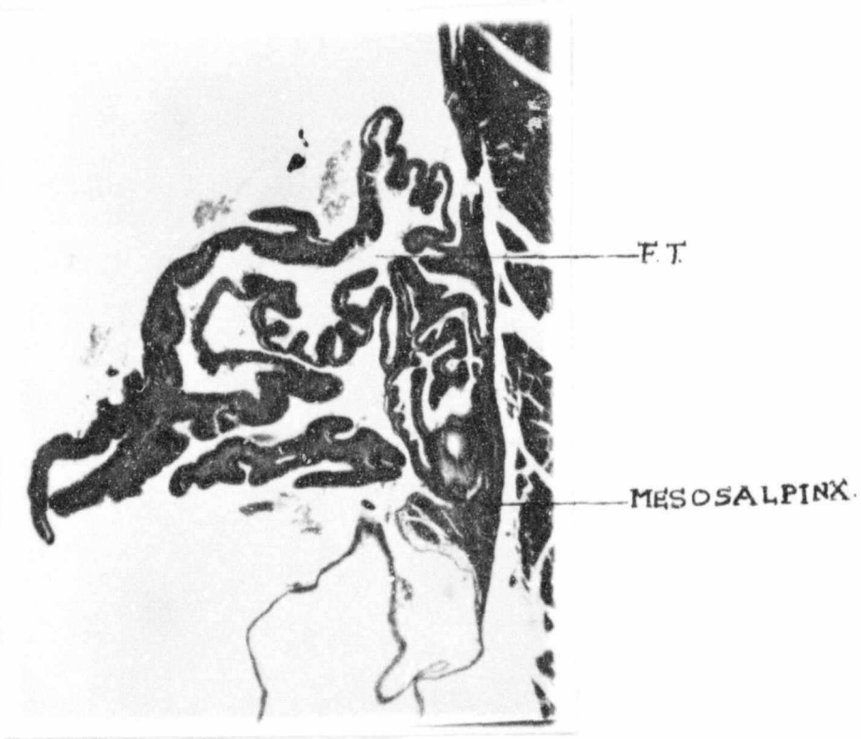


FIG. G X50.

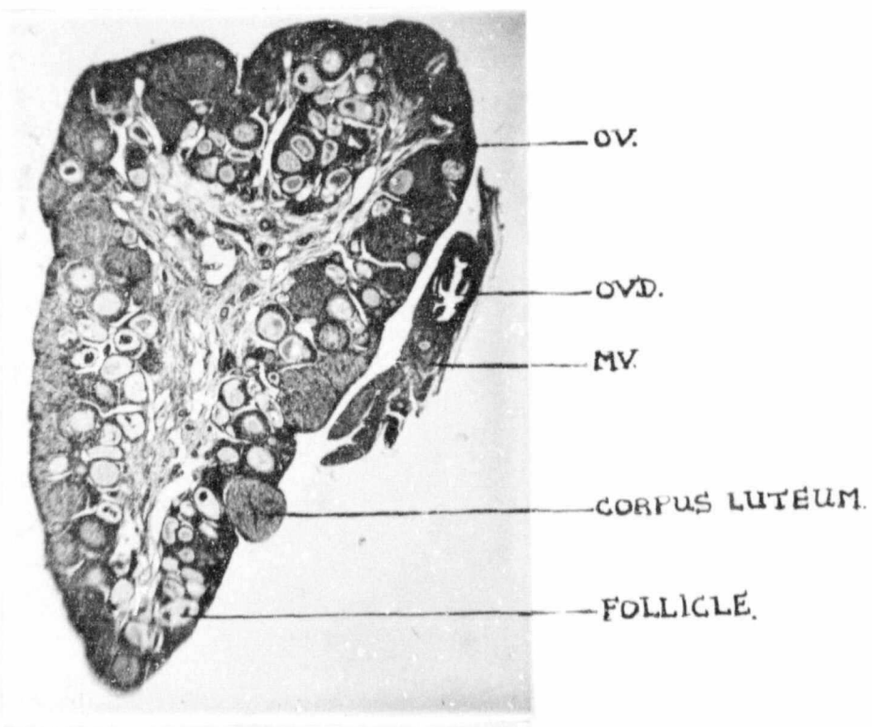


FIG. H X50.



FIG. G. X50.

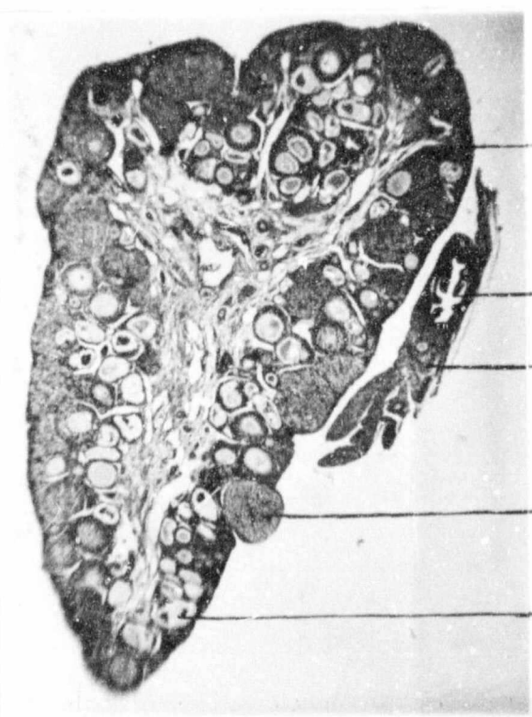


FIG. H. X50.

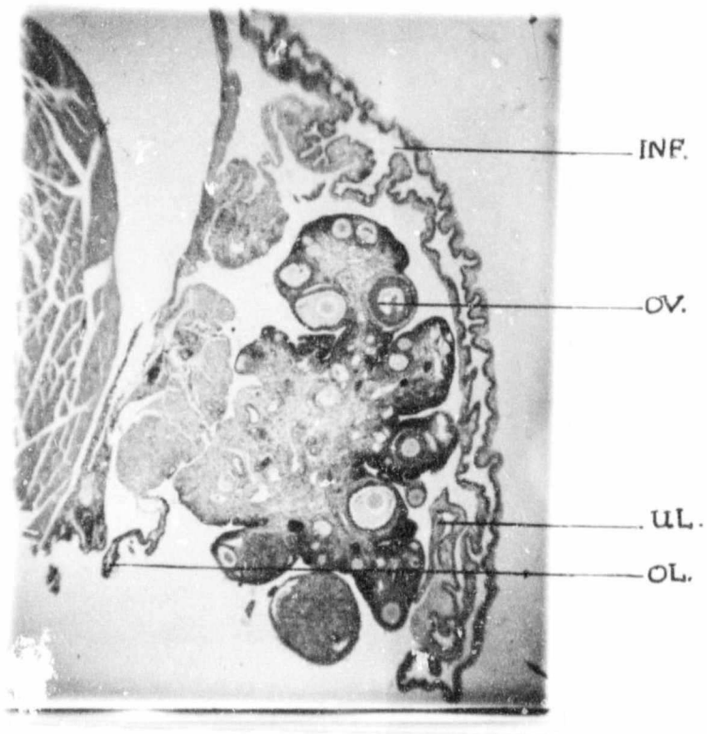


FIG. I X30.

Author Austoker J (Joyce)
Name of thesis On The Structure And Development Of The Bursa Ovarica And Infundibulum Tubae In Elephantulus Myurus Jamesoni: With Special Reference To The Ovarial Bursa In Mammals, And To Its ... 1950

PUBLISHER:
University of the Witwatersrand, Johannesburg
©2013

LEGAL NOTICES:

Copyright Notice: All materials on the University of the Witwatersrand, Johannesburg Library website are protected by South African copyright law and may not be distributed, transmitted, displayed, or otherwise published in any format, without the prior written permission of the copyright owner.

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page) for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.