

left lung presented a slight incision or was very partially divided into two lobes.

The tongue, as is usual in the Seals, was terminally split rather than forked. The dorsal papillæ were very numerous and of small size.

The œsophagus had a length of 16 inches. As is the case in the Common Seal, the rather capacious stomach was cylindroid, and with the pyloric bend sharp; its long diameter was 11 inches. The small intestines from the pylorus to the cæcum measured 41 feet 5 inches, with an average diameter of $\frac{1}{2}$ an inch. As in *Phoca* generally, the cæcal diverticulum is simple, short, and wide. Including $\frac{1}{2}$ an inch of cæcum, the great intestines had a length of $18\frac{1}{2}$ inches; their diameter, $\frac{3}{4}$ of an inch at the cæcal end, gradually enlarges towards the vent, and is $1\frac{1}{4}$ inch at the rectum. The entire alimentary tube at this stage of growth is therefore about 45 feet $2\frac{1}{2}$ inches long.

The deeply divided liver precisely corresponds as to disposition, number, and size of the lobes, with those of the Ringed Seal (*P. foetida*, Müll.) and to the Common Seal (*P. vitulina*); namely, there are five large elongate taper-pointed hepatic divisions, and two lobules—in all, seven lobes. The two to the left are the homologues of the left half of human anatomy; and the right half is represented by the three remaining large lobes; of these three the mesial two are equivalent to Professor Owen's cystic lobe. The Spigelian and caudate lobules are relatively small. The common bile-duct, derived from the pyriform gall-bladder, opens into the intestine an inch distant from the pyloric orifice.

The kidneys are compound or acinate; and externally large veins ramify superficially upon the renal capsule, as is the case in the Common Seal.

The generative organs comport to the type of Pinnipedia. The prostate gland is of moderate size; Cowper's glands are absent.

In passing, I may note that the vertebral formula is:—7 cervical, 15 dorsal, 6 lumbar, 4 sacral, and 13 caudal segments, or a total =45 vertebræ. Terminal caudal elements are often lost in museum skeletons; but in this case they were counted whilst attached by intervertebral substance and ligament.

7. On a probably new Species of *Tænia* from the Rhinoceros.

By JAMES MURIE, M.D., F.L.S., F.G.S., &c., late Professor to the Society.

The Cestoida, abundantly numerous among the ruminant section of the Artiodactyla, are by no means so common or well known in the non-ruminant division of that group. Regarding the Perissodactyla, its few families and genera have as yet not yielded many varieties of these Entozoa.

In the very lucid and capitally illustrated 'Introduction to Hel-

minthology,' Dr. Spencer Cobbold says, "The larger Pachyderms and Solidungulates harbour a few adult forms; but only the larvæ appear to be known in Swine; a true *Tænia*, however, has been described as occurring in the aberrant genus *Hyrax*." The same writer, in an examination of 122 different animals, which died in the Society's Gardens (1857-60), only came across two supposed new species of *Cysticerci* and a *Strongylus* among the Perissodactyles*.

Rudolphi in his 'Synopsis,' Diesing in his elaborate 'Systematic Treatise,' and Dujardin in his 'Hist. Nat. Helm.' make no mention of Tapeworm from *Rhinoceros*.

When Dr. Baird published his 'Catalogue of Species of Entozoa' (1853) there were comparatively few species in the series from the Ungulata; many additions have since been made; but still in the British-Museum collection at present there is no representative of *Tæniadæ* from the *Rhinocerotidæ*.

That gentleman, with his usual urbanity on all occasions, readily lends assistance when research in his department is sought; and I take this opportunity of thanking him for his many kindnesses.

A couple of years ago some dozen joints of what I may safely term an enormous Tapeworm were placed in my hands by Mr. Bartlett, they having been passed by the young male *Rhinoceros indicus* in the Gardens. I had drawings made of the most characteristic pieces thereupon, and before shrinkage ensued. These sketches are reproduced in the accompanying sketch (fig. 1). I searched carefully among the fragments, but did not discover a head. The cephalic segment (so essential for the identification of the species) being wanting, I waited, thinking, perchance, more pieces might afterwards be thrown out, and it among them. As not only a reasonable time, but a long period has now elapsed, and nothing further been obtained from the *Rhinocerotes* (for I understand the female when young exhibited symptoms of worms), I have less hesitation in publishing what I know (though imperfect data) than in postponing a notice until the *tænoid* head is forthcoming.

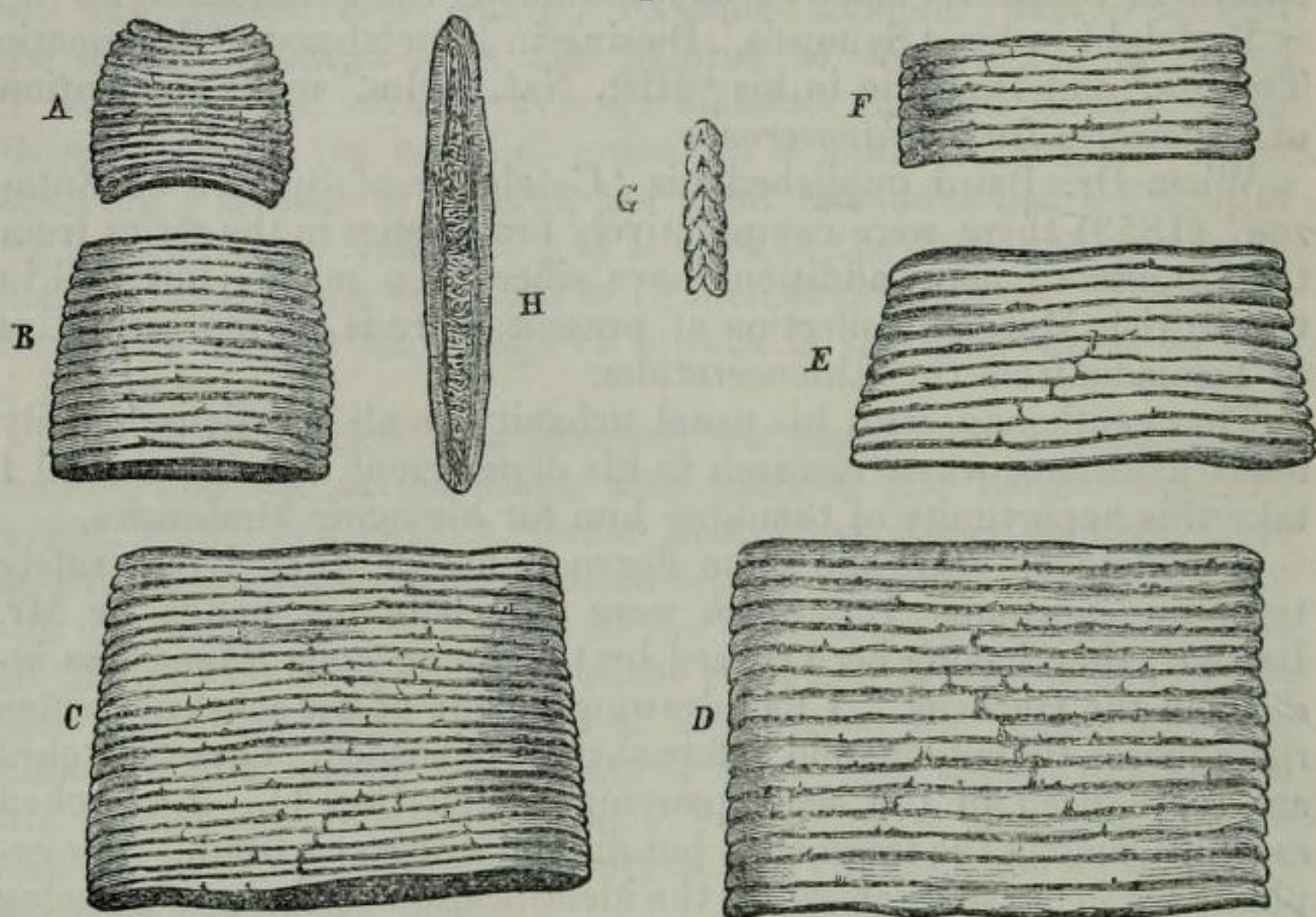
The largest proglottid joint among those obtained is that marked *D* in the woodcut; it is 1.6 inch broad and 1.1 inch long. The smallest of those figured (*A*) measures 0.6 across and 0.5 inch in extreme length. There was still another piece, 0.1 inch less in both dimensions; but this was put in spirits and shrunk before the drawing of the others was finished; so I have not thought proper to include it in the illustrations I now give. Its shape was similar to *A*; and both of these segments possibly were from the front part of the body. The sizes of different species intermediate between what I have mentioned are given in the outlines *B*, *C*, *E*, *F*.

I regard the worm under consideration as belonging to the genus *Tænia*, from the position of the genital apertures being lateral or marginal, and not mesially placed as is the case in *Bothriocephalus*.

* "List of Entozoa," P. Z. S. 1861, p. 117, and also p. 93 ("Cystic Entozoa"); but Cobbold since acknowledges that Leuckart has corrected him on the score of specific difference of one specimen obtained.

When more complete specimens are obtained, the characters, if a new species, may be better defined; but provisionally, until more is known, I propose to designate it *Tænia magna*, on account of its immense size or, rather, breadth.

Fig. 1.



A to F. Segments of *Tænia magna*? G. Serrate overlapping margin. H. Interior structure of a layer from a large joint. All about natural size.

TÆNIA MAGNA, sp. n.?

Segments of body pale-coloured, unequal in size, and large; flat, relatively thick, broader than long, and transversely ribbed or banded. The larger segments measure fully $1\frac{1}{2}$ inch broad and 1 inch long; the smaller segments have a diameter of an inch lengthwise and across; the latter with lateral convex margins, and concave attached surfaces; other pieces are cubical in outline, some parallelo-piped, but the larger chiefly subquadrate. The free borders of the bands are wavy, at some points verging towards subcrenation. Here and there a band presents a partial fold on itself; the outer recurved margins of the one band partially overlap that behind, giving a somewhat lateral serrate character to each segment. Genital outlet apparently on each band, and opening at the lateral border (?).

Head and neck not known. Body supposed to increase from before backwards to middle, or beyond, and thence to diminish.

Habitat. Intestines of Rhinoceros (*R. indicus*).

Specimens deposited in the British Museum.