

II. *Some Observations made in an Ostrich, dissected by Order of Sir Hans Sloane, Bart. By Mr. John Ranby, Surgeon. F. R. S.*

HAVING separated the Muscles of the *Abdomen*, which in this Subject were only two oblique Pair, we observ'd, between their *Tendons*, which were very strong, and the *Peritoneum*, which was exceeding thin, a thick Layer of serous Fat, whose Office, considering the Smallness of the *Epiploon*, and the few adipose Vesicles of the *Mesentery*, with the Thinness of the *Peritoneum*, might probably be to supply the Part both of *Epiploon* and *Mesentery* in other Animals, as to lubricating the Intestines.

There were, in our Subject, two distinct Ventricles, contrary to the Observation of the *Royal Academy* at *Paris*. The first, and in its natural Situation, the lower, which the Members of the said Academy, call the *Craw*, and suppose to be only a Dilatation of the *Oesophagus*, was considerably larger than the second, and uppermost Muscular One; besides, that it had strong Muscular Fibres, both circular and longitudinal: The *Duodenum* comes immediately out of the second Ventricle.

Both Ventricles were distended beyond their usual Form, and fill'd up with so large a Quantity of Food of different Kinds, as Stones, Bones, Sticks, Grain, and other Food, that it was almost impossible for them to perform their Office of Digestion, which very likely was one of the chief Causes of the Animal's Sickness and Death; and, really, the Contents of both seem'd to have undergone but very little or no Alteration.

The

The *Epiploon* partly cover'd the first Ventricle, but was no Ways proportionable to the Size of the Animal.

The Spleen was fasten'd, by a Membrane, to the right Side of the second Ventricle, and was very small, considering the Size of the Animal.

The Glands of the *Mesentery* were hardly visible, but the Veins and Arteries very conspicuous.

The *Cacums*, in our Subject, were near three Foot in Length, the Diameter one Inch eight Lines; they were fasten'd to the *Ileum*, and not to the *Colon*, as the Gentlemen of the *Royal Academy* assert.

To their Description of the Kidneys, I have nothing to add, except that the two *Ureters* lay upon their Surface, as they do in other Birds, and that their different Branches, coming from all the Parts of the Kidney, of which the superior was very conspicuous, enter'd the Kidney about its Middle; and form'd there a very large *Pelvis*.

The Liver was in one Cavity with the Heart, of which it cover'd near one half; it had no Gall Bladder, and but one *Ductus Biliaris* inserted into the *Duodenum*, about two Inches below the *Pylorus*, which seem'd to have an immediate Communication with the *Vena Portæ*, because, by blowing into it, this latter was also distended. The Heart and Liver were separated from the Intestines, by a membranous *Diaphragm*.

Both Heart and Liver were suspended by one common *Mediastinum*, by the Help of its several Membranes, and eight strong Muscles on each Side, arising from the upper Part of the Ribs, going from thence over the Lungs, and ending in a very strong Tendinous Membrane, which is inserted into the *Spina Dorsæ*.

The

The Liquor, contain'd in the *Pericardium*, was small in Quantity, and perfectly transparent.

The Lungs lay under the *Diaphragm* and its Muscles, in a deep Cavity, form'd by the five true Ribs. They were pretty thick about the middle, and exceeding thin and sharp towards the Extremities.

In viewing the Eye external, it did somewhat resemble the Human Eye, except that it was less Convex, with a free and moveable upper Eye-lid, with Eye-lashes, as most Terrestrial Animals have, besides a *Tunica Nictitans*, as in other Birds. Besides the seven Muscles of the Eye, as they are in Brutes, it had two more, one arising from the fore-part of the *Sclerotica*, which soon form'd a small *Tendon*, obliquely surrounding the Optic Nerve, and then join'd to another Muscle, which arises opposite to the former, from which the *Tendon* continues its Way, and is inserted in the *Tunica Nictitans*. The *Aqueous* Humour we found in greater Quantity, than is common. The *Crystalline* was of an uniform Substance, but less Convex on the inside, than without. The *Vitreous* was small in Quantity, considering the Largeness of the Eye; the *Choroides* was entirely black, without that Variety of Colours at its Bottom, which is common to most Brutes. The fore-part of the *Sclerotica*, where it is annexed to the *Cornea*, was bony, consisting of 15 bony Scales join'd one to another, so as to make one circular Bone round the *Cornea*.

As for a more particular Description, I refer to the Anatomical Account given by the *Royal Academy* at *Paris*, in their *Natural History of Animals*, and to *Vallisneri*, Professor at *Padua*, his *Notomia del Struthio*.

References to the Figures.

Fig. V.

Shews the upper Part of the *Thorax*, the *Sternum* being remov'd, with the Heart and Liver and neighb'ring Parts, in their natural Situation.

A A. The Membranous *Diaphragm*, in which are observ'd several distinct Cavities.

a a a. The Ligament that suspends the *Diaphragm*.

b b. The Ribs.

B. The Heart. CC. The two Lobes of the Liver immediately above the Heart.

c c. The Brachial Artery. *d.* The Vein.

e e. *Vena Cava.*

f. A Gland, on the Brachial Artery.

g g. Part of the *Aspera Arteria.*

h h. Part of the *Oesophagus.*

i i. Two Muscles arising from the *Sternum*, and inserted into the *Aspera Arteria.*

Fig. VI.

The inferior Part of the *Thorax*, the Heart and Liver being remov'd.

A A A. The lower Part of the *Diaphragm*, immediately covering the Lungs.

B B, &c. Eight strong fleshy Muscles arising from the Ribs, and inserted into the *Diaphragm*, forming a Cavity for the Heart and Liver.

c c c. The Ribs. D. The descending Trunk of the *Aorta.*

E E. The left Lobe of the Lungs freed from the *Diaphragm.*

F. Part

F. Part of the *Aspera Arteria*.

Fig. VII.

Part of the Globe of the Eye.

- a*. The *Cornea*. *b b*. The Ciliary Ligament.
c c c. The fore-part of the *Sclerotica*, compos'd of
15 bony Scales.

Fig. VIII.

The back-part of the Globe.

- a a a*. The back-part of the *Sclerotica*.
b b b, &c. The seven Muscles.
c c c. The eighth and ninth; the *Tendon* of which
(*d d*) goes round the Optic Nerve, *f*, and is inserted
into the *Tunica Nictitans*.
e e. *Membrana Nictitans*.

Fig. IX.

The Kidneys with their Vessels.

A A The Kidneys.

B B. *Aorta descendens*.

C C. *Vena Cava*.

D D. The Emulgent Arteries.

E E. The Emulgent Vein with its Ramifications.

F F. The Ureters.

G. The Union of the superior and inferior Ureter.

Fig. 5.

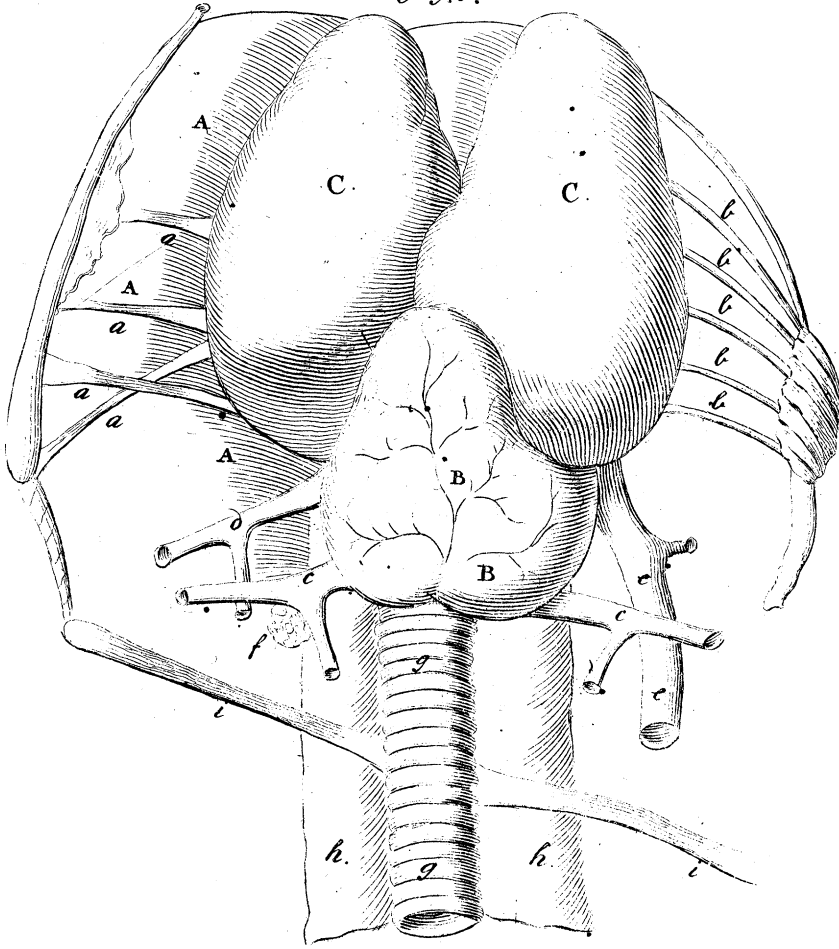


Fig. 7.

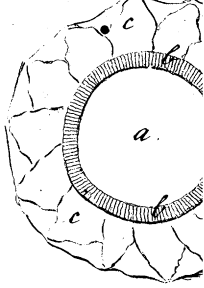


Fig. 6 8.

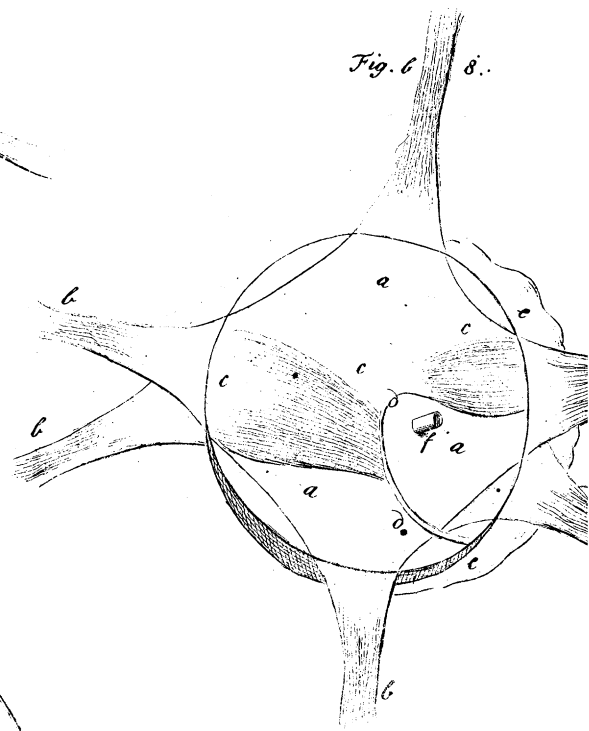


Fig. 6.

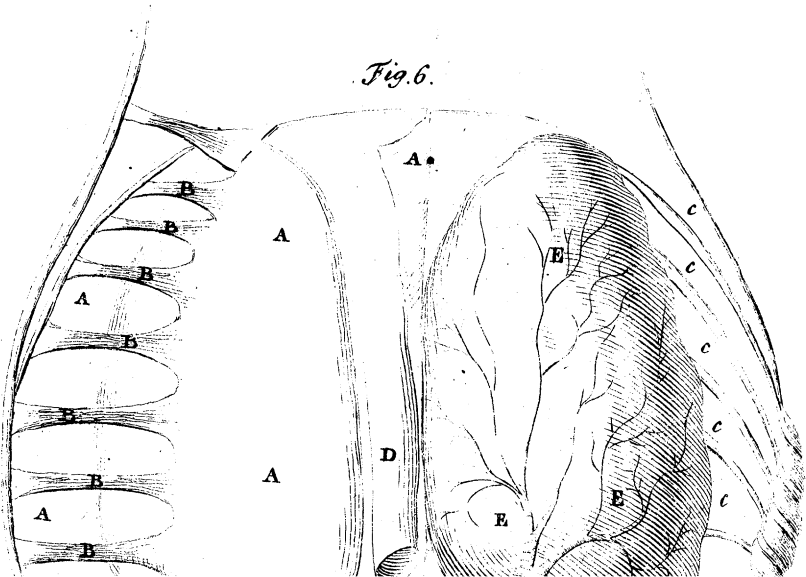


Fig. 9.

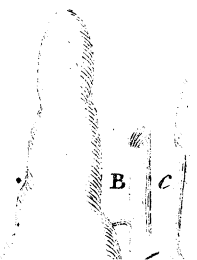


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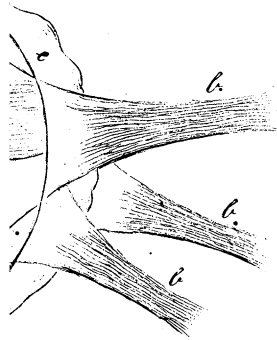
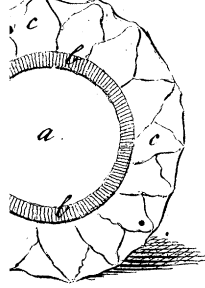
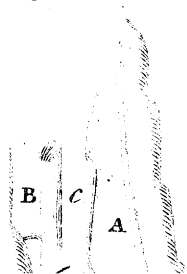
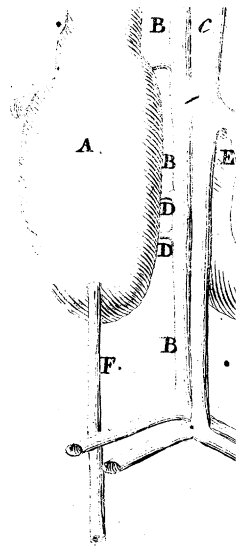
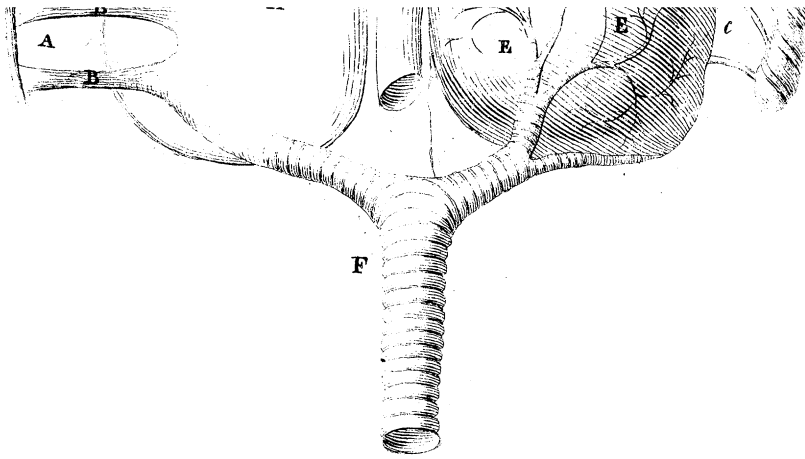


Fig. 8.





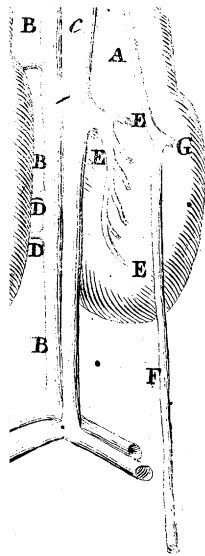


Fig. 5.

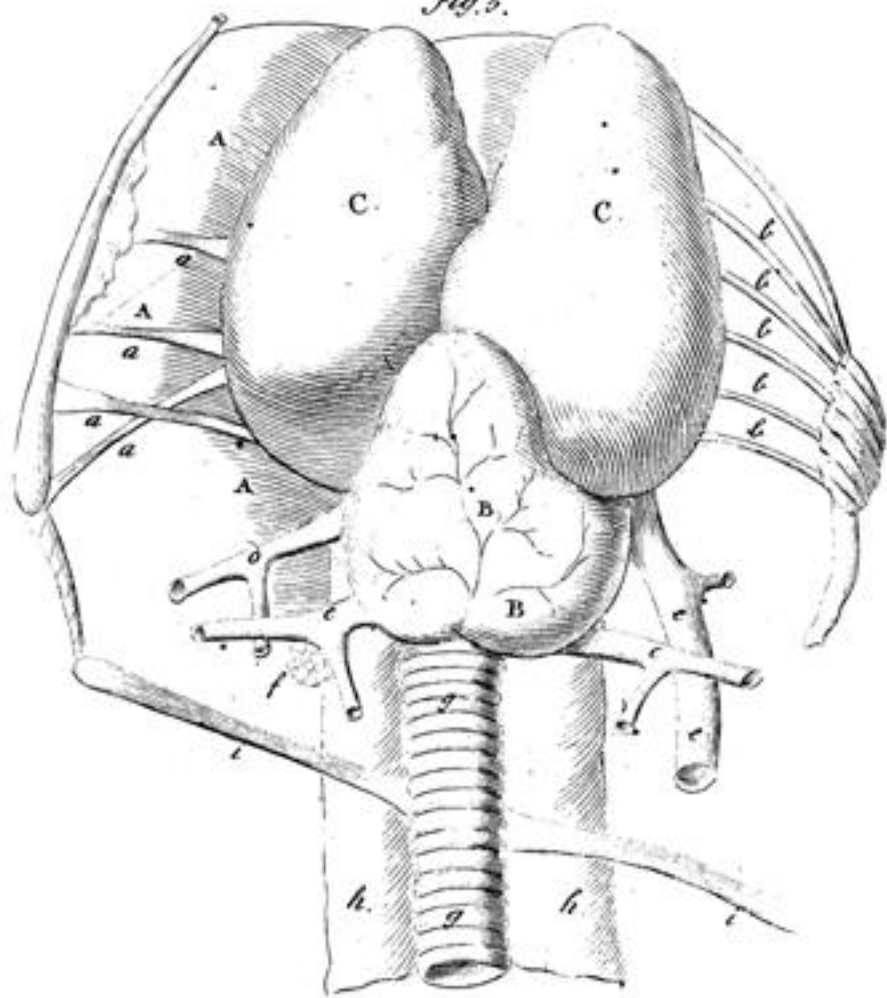


Fig. 7.

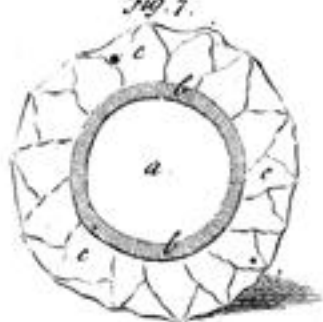


Fig. 6.

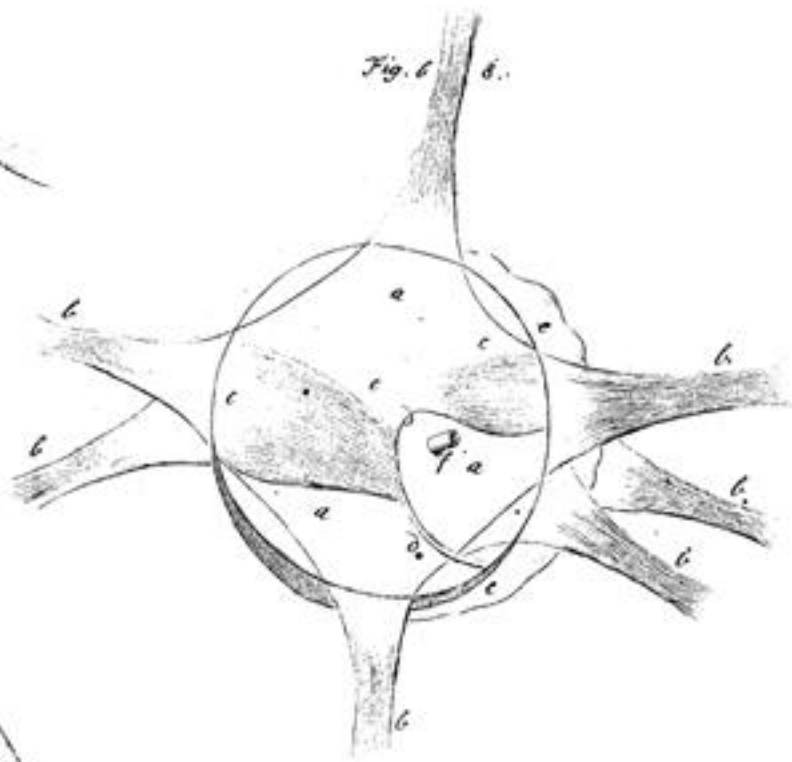


Fig. 6.

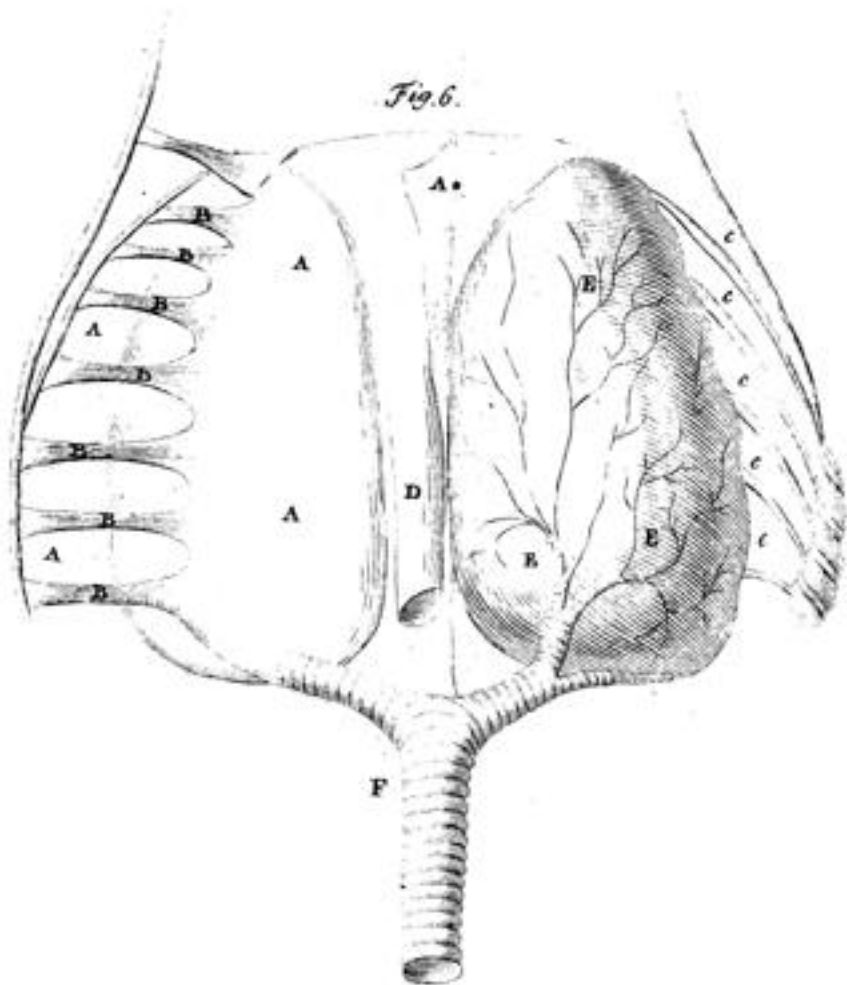


Fig. 9.

