

Views of the bones, muscles, viscera, and organs of the senses: copied from the most celebrated authors, together with several additions from nature. The whole consisting of twenty-three folio tables, with concise explanations ... / [Andrew Fyfe].

Contributors

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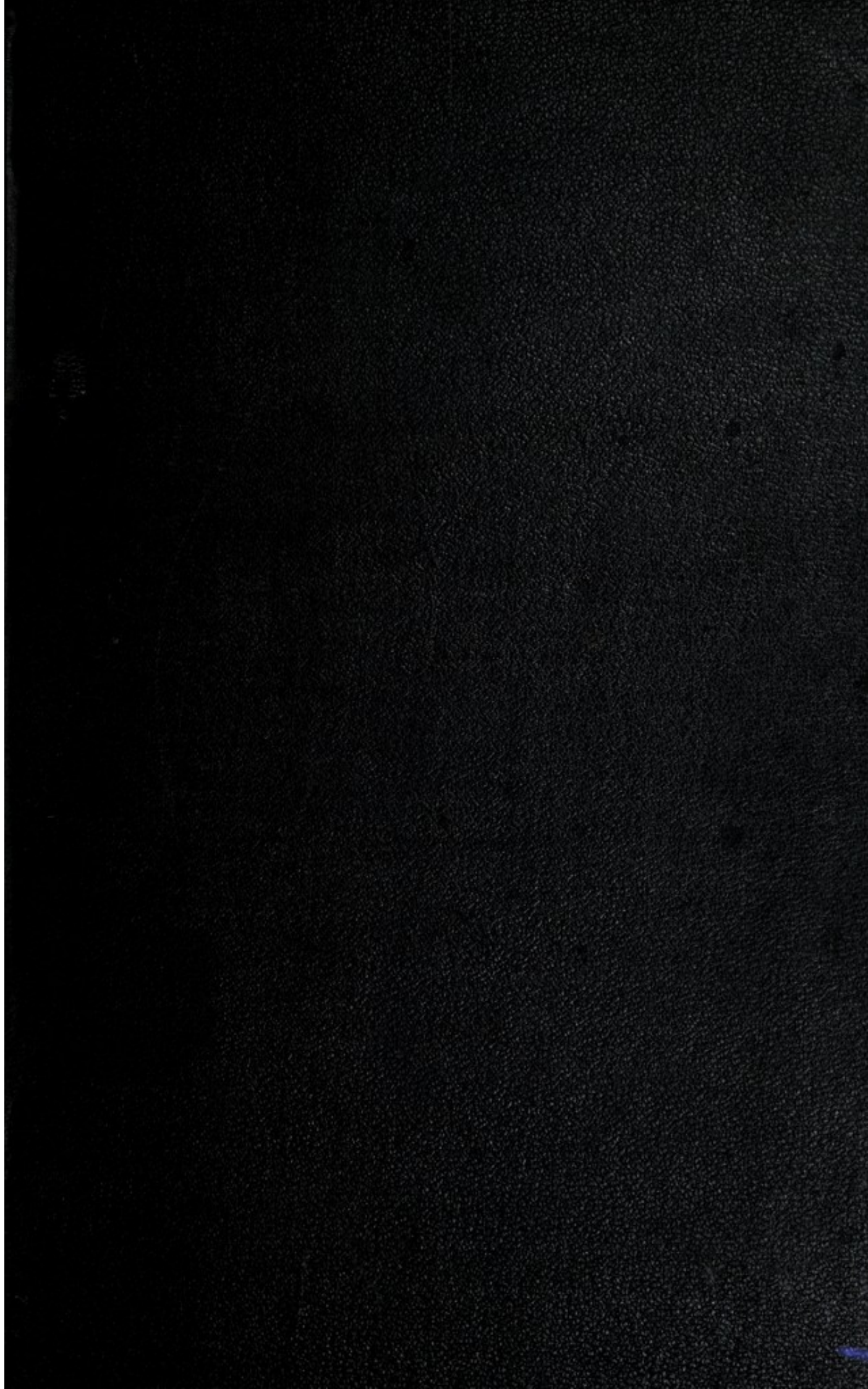
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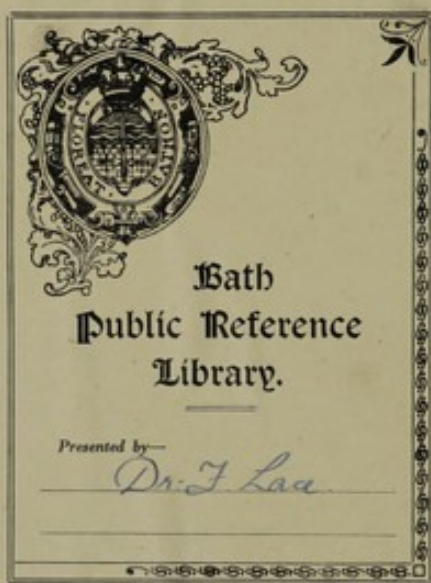


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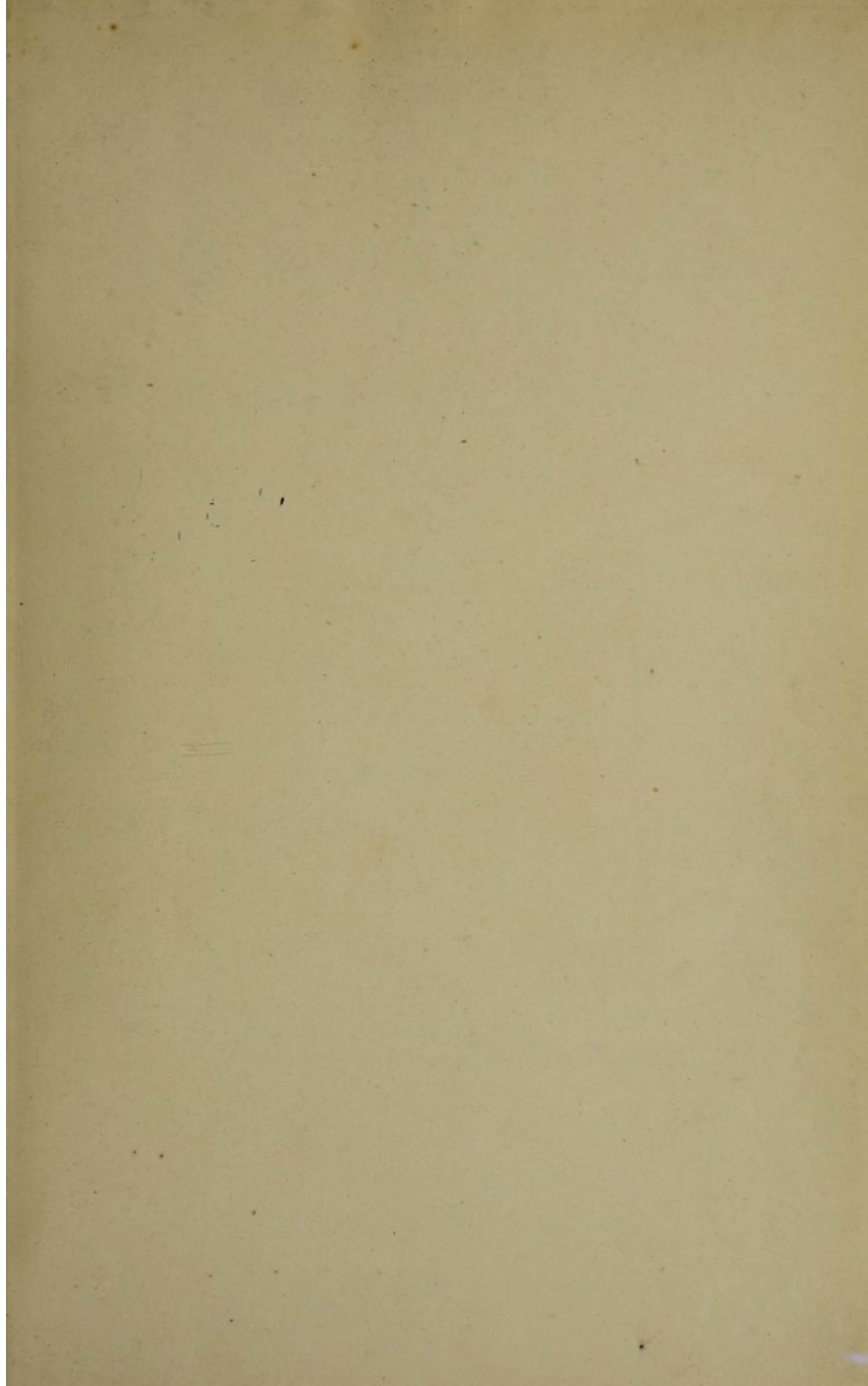


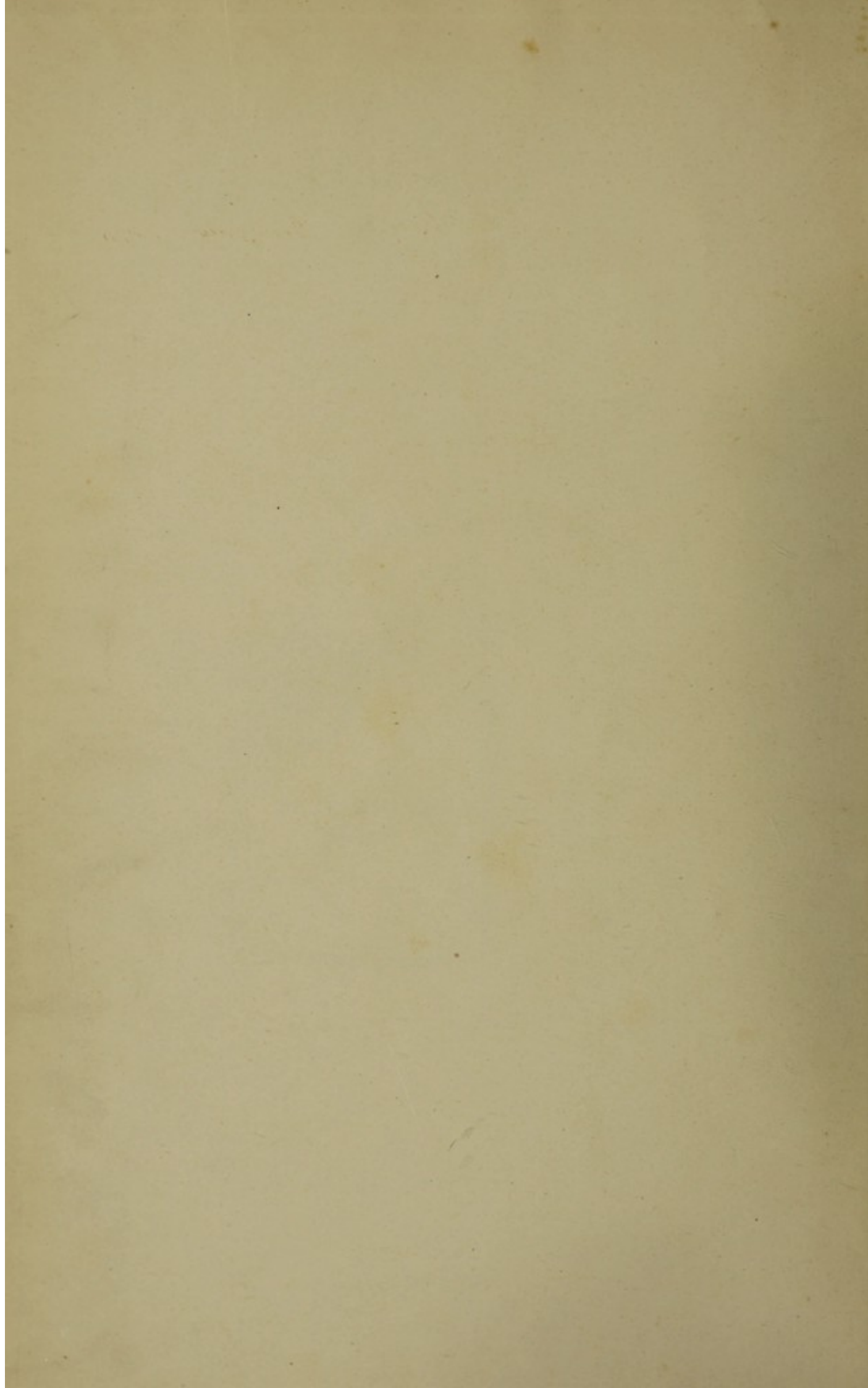
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VIEWS

OF THE

J E Dean - Glasgow 1810

BONES, MUSCLES, VISCERA,

AND

ORGANS OF THE SENSES:

COPIED FROM

THE MOST CELEBRATED AUTHORS,

TOGETHER WITH

SEVERAL ADDITIONS FROM NATURE.

THE WHOLE CONSISTING OF

TWENTY-THREE FOLIO TABLES,

WITH

CONCISE EXPLANATIONS.

BY ANDREW FYFE.

Edinburgh:

PRINTED BY J. PILLANS & SONS,
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TO THE
GENTLEMEN

Attending the MEDICAL CLASSES of the UNIVERSITY of EDINBURGH,

THE FOLLOWING

TABLES,

Which may also be found included in a separate and
more extensive WORK, published at the
same time with this,

Are Dedicated, with the highest respect, by

Their most obedient,

And very humble Servant,

COLLEGE, }
JANUARY 1. 1800. }

ANDREW FYFE.

TO THE

CENTLEMEN

Attending the Medical Classes of the University of Edinburgh

THE FOLLOWING

TABLES,

Which may also be found included in a separate and
more extensive *Work*, published at the
same time with this.

As indicated with the highest respect, by

Thos. Ross, M.D.

And very humble servant,

ANDREW TAYLOR.

Printed by
James Ballantyne.



FIG. 10.

FIG. 1.

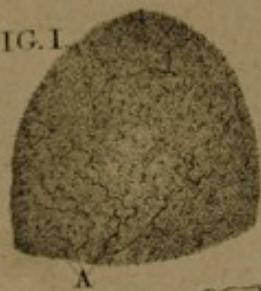


FIG. 2.



FIG. 6.



FIG. 5.



FIG. 4.



FIG. 7.



FIG. 3.

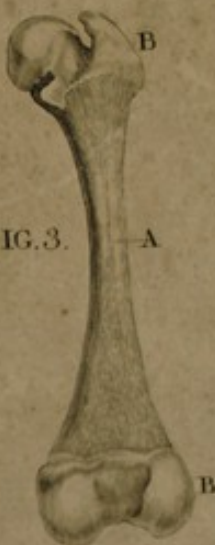


FIG. 8.



FIG. 9.



TABLE I.

REPRESENTS the General Structure of the BONES, and a Front View of the MALE SKELETON.

FIG. 1. From ALBINUS.

Part of the Os Frontis covered with its Periosteum, the Arteries of which are injected.—A, The branches which come from the orbit, the other small trunks of the arteries observed in several places, are sent from the common integuments to the periosteum.

FIG. 2. From ALBINUS.

The Parietal Bone of a Fœtus, to shew the Radiated Fibres of a Flat Bone, proceeding from the First Ossified Point A.

FIG. 3. From NESBIT.

The Thigh-Bone of a Fœtus, to shew the Longitudinal Parallel Fibres of a Cylindrical Bone.—A, The part which first ossifies.—B, B, The two extremities in a cartilaginous state.

FIG. 4. From GAGLIARDI.

Section of Part of the Os Femoris, to shew the Plates and Cancelli of long Bones in general.—A, A, A, A, The plates of the thigh-bone separated.—B, B, The cancelli.

FIG. 5.

Transverse Section of a Bone burnt, to shew the Cavities for containing the Marrow and Vessels.

FIG. 6. From HAVERS.

The appearance of the Marrow, viewed with a Microscope.

FIG. 7. From CHESELDEN.

The THIGH-BONE sawed longitudinally through the middle.

A, A, A, A, The cancelli.—B, B, The union of the bone with its extremities, which are here in a state of epiphysis.—C, C, The reticular substance.—D, D, The sides, or tables, which are thick and strong in the middle of the bone, and thinner towards the extremities.

FIG. 8. From CHESELDEN, but considerably diminished.

The Os Ilium sawed through the middle to shew the cancelli.

FIG. 9. From RUYSCH.

The HIP-JOINT of a CHILD Opened, to shew

A, The head of the thigh-bone.—B, The round ligament connecting it to the acetabulum.—C, The capsular ligament of the joint, with its arteries injected, and—D, The numerous vessels of the fatty glandular-like substance of the joint, also injected.

FIG. 10. From CHESELDEN.

A Front-View of the MALE SKELETON.

A, The frontal bone;—*f*, Its superciliary hole.—*β*, External orbital process.—*γ*, Internal orbital process.—B, The parietal bone. Between A, and B, the coronal suture.—C, The temporal bone.—D, *α*, The occipital bone.—E, The bones of the nose.—F, The os maxillæ.—G, The superior maxillary bone.—H, The lower jaw.—I, The teeth.—K, The seven cervical vertebrae, with their intermediate cartilages.—L, Their transverse processes.—L, L, &c. The twelve dorsal vertebrae.—M, The five lumbar vertebrae.—N, Their intermediate cartilages.—*x*, Their transverse processes.—O, The os sacrum.—P, The os coccygis.—Q, The os ilium;—*λ*, Its spine;—*μ*, Its anterior superior spinous process;—*ν*, Its inferior anterior spinous process.—*ξ*, Venter of the ilium.—*ς*, Brim of the pelvis.—R, The os pubis.—S, The os ischium.—*τ*, The crura of the ossa ischia.—*ι*, Foramen thyroideum.—*ρ*, The acetabulum.—T, The seven true ribs.—U, The five false ribs.—*σ*, *ς*, Joining of the ribs with their cartilages.—*θ*, The cartilages of the 6th, 7th, and 8th ribs united with each other.—*ι*, Cartilaginous points of the 10th, 11th, and 12th ribs.—V, The sternum;—1, Its upper piece;—2, Its middle piece;—3, 4, Its cartilago eniformis.—X, The clavicle.—Y, Concave surface of the scapula of the right side.—*φ*, The superior costa of the scapula, with its semilunar notch.—*τ*, The coracoid process of the left side.—*ν*, The acromion of the left side.—*φ*, The anterior inferior costa of the scapula of the right side.—*χ*, Head of the os humeri under the acromion.—*ψ*, Groove for the tendon of the biceps.—Z, The body of the os humeri.—*a*, The trochlea.—*α*, The external,—*β*, The internal condyle of the os humeri.—*d*, Head of the radius of the left side.—*c*, Olecranon of the ulna of the same side.—*a*, The ulna of the right side.—*b*, The radius.—*c*, The carpus.—*d*, The metacarpus.—*e*, The phalanges of the fingers.—*f*, The right os femoris.—*k*, The internal,—*l*, The external condyle.—*g*, The patella.—*h*, The tibia.—*i*, The fibula.—*k*, The tarsus. 1, The metatarsus.—*m*, The phalanges of the toes.—*r*, The malleolus externus.—*t*, Malleolus internus.—*f*, Ball of the left thigh-bone.—*g*, The great trochanter.—*b*, The cervix.—*i*, The small trochanter.—*p*, Tubercle of the tibia.—*q*, The os calcis.

TABLE I

Summary of the General Principles of the Law of the State

FIG. 1. General Principles of the Law of the State	FIG. 2. General Principles of the Law of the State
The first principle of the law of the state is that the state is a sovereign entity, independent of any other power, and that its laws are binding on all who are subject to its jurisdiction.	The second principle of the law of the state is that the state is a legal entity, capable of entering into legal relations with other states and individuals, and that its actions are subject to legal scrutiny.
The third principle of the law of the state is that the state is a moral entity, bound by the principles of justice and equity, and that its actions are subject to moral scrutiny.	The fourth principle of the law of the state is that the state is a political entity, bound by the principles of democracy and the rule of law, and that its actions are subject to political scrutiny.
The fifth principle of the law of the state is that the state is a social entity, bound by the principles of social justice and the common good, and that its actions are subject to social scrutiny.	The sixth principle of the law of the state is that the state is an economic entity, bound by the principles of economic justice and the free market, and that its actions are subject to economic scrutiny.
The seventh principle of the law of the state is that the state is a cultural entity, bound by the principles of cultural heritage and the promotion of the arts, and that its actions are subject to cultural scrutiny.	The eighth principle of the law of the state is that the state is an environmental entity, bound by the principles of environmental protection and the sustainable use of natural resources, and that its actions are subject to environmental scrutiny.
The ninth principle of the law of the state is that the state is a global entity, bound by the principles of international law and the promotion of world peace, and that its actions are subject to global scrutiny.	The tenth principle of the law of the state is that the state is a local entity, bound by the principles of local governance and the promotion of community development, and that its actions are subject to local scrutiny.



FIG. 15.



FIG. 16.



FIG. 1.

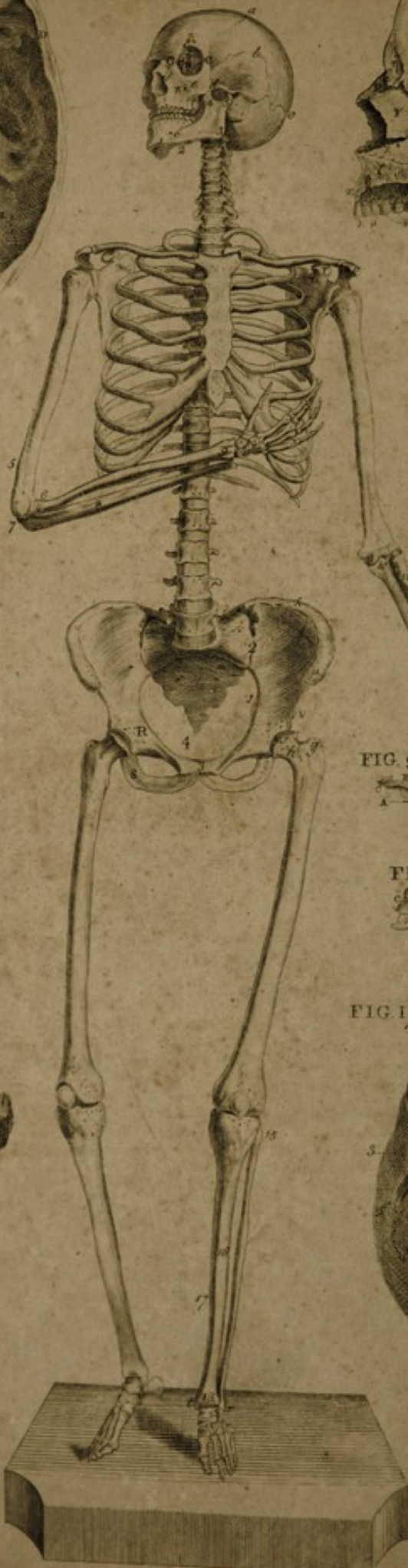


FIG. 2.



FIG. 3.



FIG. 13.



FIG. 4.



FIG. 9.



FIG. 11.



FIG. 12.



FIG. 10.



FIG. 17.

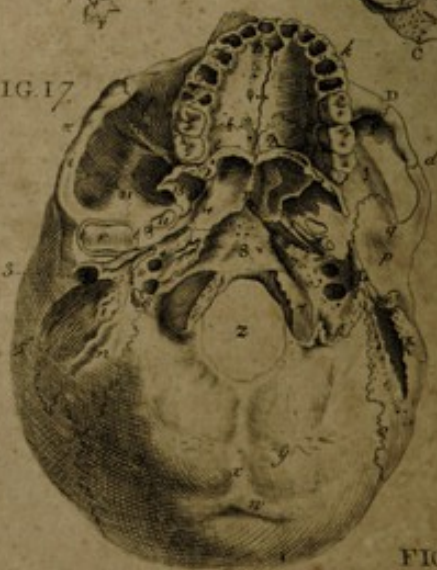


FIG. 6.



FIG. 5.



FIG. 14.



FIG. 7.



FIG. 8.



TABLE II.

REPRESENTS a FRONT-VIEW of the FEMALE SKELETON, with the BONES of the HEAD ;—all the Figures, excepting one, taken from CHESELDEN.

FIG. 1.

BY comparing this Figure with Fig. 10. of TAB. I. the different Proportions of the Bones of the two Sexes, are seen, and the Letters to the several Bones of the MALE SKELETON, explained in Fig. 10. Tab. I. may guide the Eye to the like Bones of the FEMALE SKELETON here represented.

The letters added here to the Bones of the Head, are,—a, The coronal future.—b, The squamous future.—c, The lambdoid future.—d, e, The transverse future.—f, The zygomatic future.—g, The external orbital future.—h, The lateral nasal future.—i, The superciliary hole of the frontal bone.—j, The orbital process of the frontal bone.—k, The os planum of the ethmoid bone.—l, The lacrymal groove of the os unguis.—m, The external orbital hole of the maxillary bone.—n, The tuber of the maxillary bone.—o, The chin.—p, The base of the lower jaw.—q, Its angle.—r, Its coronoid process.—s, Its condyle.—t, The mental hole.

SUPERIOR EXTREMITIES.—5. The right os humeri.—6. Head of the radius.—7. Olecranon.—8. Ulna.—9. Under end of the radius, marked by muscles.—r, The coracoid process of the scapula of the left side.—v, The acromion of the scapula.—p, The semilunar notch on the upper edge of the scapula.—10. Coronoid process of the ulna.—11. Tubercle of the radius.—12. Under end of the radius.—13. Its styloid process.—14. Styloid process of the ulna.—15. The os ilium.—16. Its anterior superior spinous process.—17. Its anterior inferior spinous process.—R, Joining of the os ilium and os pubis.—S, Os ischium.—1. Spinous process of the os ischium.—2. Joining of the os sacrum with the os ilium.—3. Symphysis of the pubis.—4. The pelvis.—f, Ball of the thigh-bone.—g, Trochanter major.—b, Cervix of the thigh-bone.—15. Head of the fibula.—16. The spine, and—17. The inner edge of the tibia.—18. Under end of that bone.—r, Malleolus externus.—t, Malleolus internus.

FIG. 2.

BACK-VIEW of the FRONTAL BONE.

a, The superior serrated edge, assisting to form the coronal future.—b, The external orbital process.—c, The internal orbital process.—d, The nasal process.—e, The orbital process.—f, The frontal sinus.—g, The space between the orbital processes for receiving the ethmoid bone.—h, The sagittal future continued in this bone to the root of the nose.

FIG. 3.

The INNER Side of the LEFT PARIETAL BONE.

x, Its superior edge, which joined with the other parietal bone, forms the sagittal future.—a, The anterior edge, which assists in the formation of the coronal future.—m, The inferior edge for the squamous future.—r, The posterior edge for the lambdoid future.—x, A depression made by the lateral sinus.—f, The prints of the vessels of the dura mater.

FIG. 4.

A Fore-VIEW of the OCCIPITAL BONE.

a, a, The two sides which assist to form the lambdoid future.—r, An os triquetrum.—p, The extremity of the cuneiform process, where it joins the sphenoid bone.—r, The exterior surface of the cuneiform process.—r, r, The condyles.—a, a, The pits made by the posterior lobes of the brain.—p, p, The pits made by the cerebellum.—x, The groove for the superior longitudinal sinus made in a ridge of the bone.—f, f, The grooves of the lateral sinuses in a cross ridge.—a, The ridge to which the 4th process of the dura mater is fixed.—s, Part of the hole common to the occipital bone, and right temporal bone.—g, The hole for the 9th pair of nerves.

FIG. 5.

The INNER Side of the RIGHT TEMPORAL BONE.

b, The edge which forms the squamous future.—c, The prints of the convolutions of the brain.—d, The mastoid part.—e, The ridge of the os petrosus.—f, The internal auditory hole.—g, The extremity of the pars petrosa, where the internal carotid artery enters the skull.

FIG. 6.

INTERNAL VIEW of the SPHENOID BONE.

1. The temporal plates.—2. The transverse spinous process.—3. The anterior clinoid process.—4. The posterior clinoid process.—5. The print of the conjoined optic nerves.—6. The sella turcica.—7. The posterior part which joins the occipital bone.—8. Hole for the optic nerve.—9. The foramen lacerum.—10. Round hole for the 2d branch of the fifth pair of nerves.—11. Oval hole for the 3d branch of that pair of nerves.—12. Hole for the artery of the dura mater.—14. The internal pterygoid process.—15. The external pterygoid process.

FIG. 7.

EXTERIOR VIEW of the ETHMOID BONE.

E, The crista galli.—F, The nasal plate.—G, The right superior os turbinatum.—H, The right os planum.—L, The posterior part which is joined to the sphenoid bone.

FIG. 8.

POSTERIOR VIEW of the two NASAL BONES.

A, Their upper,—B, B, Their outer,—C, Their under edges.

FIG. 9.

The Side of the OS UNGUIS next the NOSE.

A, The orbital part.—B, The lacrymal part.—C, The furrow between these two convex parts.

FIG. 10.

POSTERIOR VIEW of the OS MALÆ.

A, The superior orbital process.—B, The inferior orbital process.—C, The maxillary process.—D, The zygomatic process.—E, The internal orbital process.—F, The hollow made by the temporal muscle.

FIG. 11.

A View of the Lower Part and Side next the Nose of the Left OS MAXILLARE, with the PALATE BONE and OS TURBINATUM INFERIUS.

g, The nasal process.—h, The great tuber.—i, The palate plate.—j, The nasal spine.—k, The orifice of the antrum maxillare.—x, The os spongiosum, or turbinatum inferius.—a, The two dentes incisores.—m, The caninus.—r, The five dentes molares.—A, The palate bone.—i, Its nasal plate.—F, Its orbital process.

FIG. 12.

The LEFT PALATE BONE.

A, The superior side of its palate plate ;—B, Its posterior edge.—c, The anterior edge.—D, The nasal spine.—i, The nasal plate.—H, The ridge on which the os spongiosum inferius rests.—E, The process applied to the sphenoid bone.—F, The orbital process.

FIG.

TABLE II. CONTINUED.

FIG. 13.

A View of the Inner Surface of the Right Side of the
LOWER JAW.

1. Section of the chin.—2. The base of the jaw.—3. The angle.—4. The coronoid process.—5. The condyle.—6. The rough print of the internal pterygoid muscle.—7. The orifice of the passage for the nerve and blood-vessels.—8. The five molars.

FIG. 14. From MALPIGHIUS.

A TOOTH cut perpendicularly; magnified.

A, The fibres of the cortical part.—B, The bony part.—C, The entry for the vessels and nerves.—D, The cavity of the tooth.

FIG. 15.

A View of the Interior Surface of the BASE of the Skull.

D, D, D, The two tables of the skull with the diploe. § 5. The orbital process of the frontal bone.—E, The crista Galli, with the cribriform plate of the ethmoid bone on each side of it.—P, The imperforated part of the ethmoid bone.—1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. Parts of the sphenoid bone, explained already in Figure 6.—13. The hole common to the temporal and sphenoid bones.—14. 21. Parts of the sphenoid sutures.—c, e, f. See explanations in Figure 5.—b, The hole in the fore-side of the os petrosum.—o, The lambdoid suture.—p, q, r. See explanation of Figure 4.—A, The anterior side of the cuneiform process of the occipital bone.—g, The print of the inferior petrosal sinus.—x, The great hole for the spinal marrow.

FIG. 16.

Interior View of the Right Side of the CRANIUM, and
BONES of the UPPER JAW.

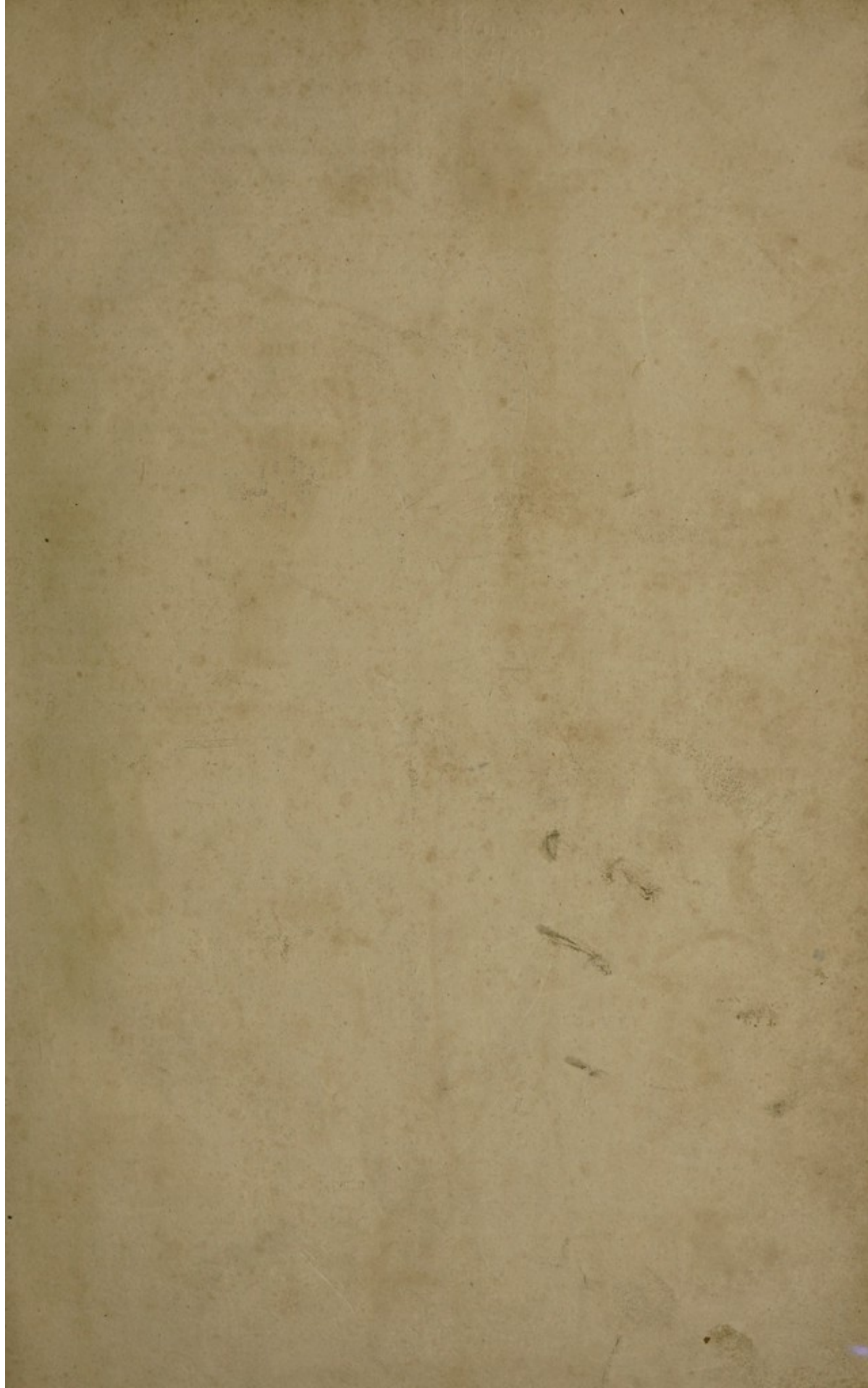
D, D, The two tables and diploe of the frontal and occipital bones.—a, The coronal suture.—x, The serrated edges of the parietal bone for forming the sagittal suture.—o, The lambdoid suture.—b, The squamous suture.—e, The furrows made by the vessels of the dura mater.—r, The frontal sinus.—E, The crista Galli.—F, The nasal lamella of the eth-

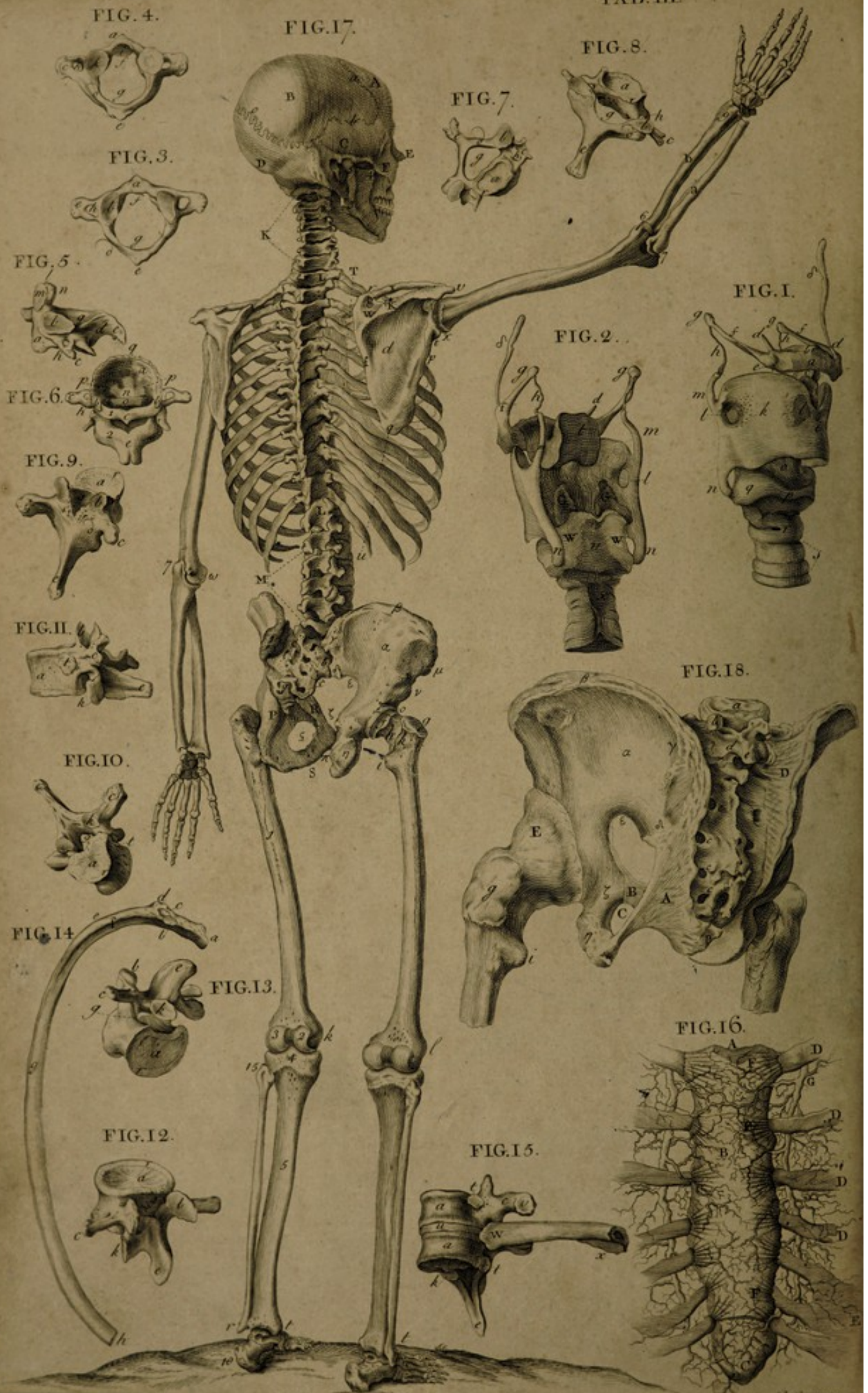
moid bone.—1. The hollow wing of the sphenoid bone.—6. The fella turcica.—19. The sphenoid sinus.—18. The nasal plate of the sphenoid bone.—20. The spongy substance of the sphenoid and occipital bones.—s, The hole for the passage of the 9th pair of nerves.—c, The squamous part of the temporal bone.—e, The ridge of the os petrosum, with the print of a small sinus.—f, The internal meatus auditorius.—x, The dentes incisores.—p, The canine tooth.—r, The molars.—7, The foramen incisivum of the maxillary bone.—z, The rough spine of the superior maxillary bone.—p, The joining of it to the vomer.—7, The broad hollow base of the vomer.—H, The posterior edge of the vomer.—G, The body of the vomer.—7, The conjunction of it with the thin plate of the sphenoid and ethmoid bones.—x, Its hollow anterior part, which receives the middle cartilage of the nose.—P, The anterior edge of the nasal bone.

FIG. 17.

The External Surface of the BASE of the CRANIUM and
UPPER JAW.

o, The lambdoid suture.—w, The superior horizontal ridge of the occipital bone.—x, A perpendicular ridge.—y, The inferior horizontal ridge.—z, The great hole for the spinal marrow.—7, The condyle.—S, The cuneiform process.—6, The hole common to the occipital and temporal bones.—i, The zygomatic process.—K, The mastoid process of the temporal bone.—L, The styloid process.—m, The auditory process.—n, The fossa at the root of the mastoid process.—p, The cavity for the condyle of the jaw.—q, The tubercle of the root of the zygoma.—r, The concave moveable cartilage placed on that tubercle.—t, t, Its ligaments. (This cartilage is copied from a Figure published by MONRO senior).—2, The hole for the portio dura of the 7th pair of nerves.—3, The external meatus auditorius.—4, The hole for the internal carotid artery.—5, The bony part of the Eustachian tube.—1. 11. 12. 14. 15. 21. The same parts of the sphenoid bone, as in explanation of Figures 6. and 15.—7, Passage under the zygoma for the tendon of the temporal muscle.—H, The back-part of the septum narium.—A, The palate bone.—c, Hole for the palate vessels and nerves.—f, The transverse palate suture.—p, The longitudinal palate suture.—k, The spongy sockets for the teeth.—b, Foramen incisivum.—D, The zygomatic process of the os mala.—F, The hollow back-part of the os male.—d, The zygomatic suture.





T A B L E III.

REPRESENTS the LARYNX, the BONES of the TRUNK of the BODY, and a Posterior View of the MALE SKELETON.—All the Figures copied from CHESELDEN, except the 1st, 2d, 6th, and 16th.

FIG. 1. From the LIFE.

Anterior View of the CARTILAGES of the LARYNX, with the Os HYOIDES.

a, THE anterior surface of the base of the os hyoides;—*b*, Its superior surface.—*c*, A ligament connecting the os hyoides, thyroid cartilage, and epiglottis.—*d, d*, The two appendices of the os hyoides.—*i*, The ligament sent out from the appendix of the left side, to the styloid process of the left temporal bone.—*e*, The union of the base with the cornu.—*f, f*, The two cornua.—*g, g*, Tubercles at their extremities.—*b, b*, Ligaments going from the tubercles to the superior cornua of the thyroid cartilage.
i, The anterior middle part of the thyroid cartilage;—*k*, Its right side.—*l, l*, Two unossified cartilaginous pieces on that side.—*m*, The right superior cornu.—*n*, The right inferior cornu connected to the cricoid cartilage.—*o*, A strong ligament.
p, The narrow anterior part of the cricoid cartilage;—*q*, Its right side.—*r*, The first cartilage of the trachea arteria, divided into two at the sides.
s, The 2d, 3d, and 4th cartilages of the trachea.

FIG. 2. From the LIFE.

Back View of the Parts represented in FIG. 1.

d, e, f, g, i, m, n, The same parts pointed out by these letters in FIG. 1.
i, The epiglottis.
G, G, The two arytenoid cartilages.
v, The middle unossified part of the cricoid cartilage;
—*W, W* The bony sides of that broad posterior part.
X, The membranous back-part of the trachea.
N, B These two Figures are as large as Life; whereas the Figures of particular bones in this and the preceding Table, are represented only one half as large as nature.

FIG. 3.

A View of the Upper Part of the first VERTEBRA of the NECK.

a, The body.—*b*, Superior oblique process.—*c*, The transverse process.—*d*, The plate extended to—*e*, The spinal process.—*f*, The hollow for receiving the tooth-like process of the 2d vertebra.—*g*, The passage for the spinal marrow.—*h*, The hole in the transverse process.

FIG. 4.

The Under Part of the same VERTEBRA.

a, c, d, e, f, g, b, Explained in FIG. 3.—*i*, The smooth depression for the anterior part of the tooth-like process of the 2d vertebra.—*k*, The inferior oblique process.

FIG. 5.

A Side View of the 2d VERTEBRA of the NECK.

a, c, d, e, g, b, As in the two preceding Figures.—*l*, The point of the tooth-like process.—*m*, Its anterior smooth surface.—*n*, Its posterior smooth surface.

FIG. 6. From EUSTACHIUS; with Additions from the LIFE.

The 1st and 2d VERTEBRÆ of the NECK, with part of the OCCIPITAL BONE, and the LIGAMENTS of the TOOTH-LIKE PROCESS.

a, Part of the occipital bone;—*b, b*, Its broken extremities.
1, Part of the 1st vertebra.—*2*, Part of the 2d vertebra.—*c, e, b*, As in FIG. 4. & 5.
n, The point of the tooth-like process;—*o*, Its transverse ligament;—*p, p*, Its two oblique, or moderator ligaments;—*q*, Its perpendicular ligament.

FIG. 7.

Upper Part of the 4th Vertebra of the Neck.

FIG. 8.

Upper Part of the 7th Vertebra of the Neck.

FIG. 9.

Upper Part of the 7th Vertebra of the Back.

FIG. 10.

Under Part of the 6th Vertebra of the Back.

FIG. 11.

Side View of the 12th Vertebra of the Back.

FIG. 12.

View of the Upper part of the 4th Vertebra of the Loins.

FIG. 13.

Under Part of the 3d Vertebra of the Loins.

In these Figures, 7. to 13. the same letters are put to the corresponding parts of the several vertebrae, as were employed in Figures 3. & 4. The explanation of which may suffice here, except that in all these, *r*, points the epiphyse round the edges of the bodies of the vertebrae. And in Figure 10. *t*, is the depression for the head of the rib.

FIG. 14.

The 7th true RIB of the LEFT SIDE.

a, Its head;—*b*, Its smooth surface, which was joined to the transverse process of the vertebra.—*c*, Depression.—*d*, Tubercle.—*e*, Angle.—*f*, Furrow at the inferior edge.—*g*, Smooth internal side.—*h*, Anterior extremity.

FIG. 15.

The 6th and 7th VERTEBRA of the BACK, with part of the 7th RIB of the LEFT SIDE.

a, c, e, k, t, As in FIG. 11.—*u*, The cartilage between the vertebrae.—*v*, The depression made by the tubercle of the 6th rib.—*W*, The 7th rib articulated with the vertebra.—*x*, The beginning of the furrow on the under edge.

FIG. 16. From RUYSCH.

The STERNUM, with the CARTILAGE of the RIBS, and the Internal MAMMARY ARTERIES.

A, The 1st, or upper bone of the sternum.—*B*, The 2d.—*C*, The 3d, or cartilago ensiformis.—*D, D, D, D*, The cartilages of the four superior ribs.—*E*, The conjoined cartilages of the 5th, 6th, and 7th ribs.—*F, F, F*, The radiated ligaments connecting the cartilages to the sternum.—*G*, The internal mammary artery.

FIG. 17.

Posterior View of the MALE SKELETON.

a, The coronal suture.—*b*, The squamous.—*c*, The lambdoid.

A, The frontal bone.—*B*, The right parietal bone.—*C*, The right temporal bone.—*D*, The occipital bone.—*E*, The nasal bone.—*F*, The os male.—*3*, The angle of the lower jaw;—*4*, Its right coronoid process;—*5*, Its right condyle.
K, The

TABLE III. CONTINUED.

K, The seven vertebræ of the neck.—L, L, The twelve vertebræ of the back.—M, The five vertebræ of the loins.

b, The transverse processes of the os sacrum.—c, The posterior holes of that bone.—e, Its spinous processes.—g, The open part of the canal for the cauda equina.—P, The os coccygis.

α, The dorsum of the os ilium;—β, Its spine.—γ, The superior posterior spinous process.—δ, The inferior posterior spinous process.—ι, The great notch.—μ, The superior anterior spinous process.—ν, The inferior anterior process.—ς, The brim of the acetabulum.

ζ, The spinous process of the os ischium.—π, The great knob of that bone;—S, Its branch.

R, The os pubis;—τ, Its crus.

ρ, The great thyroid hole.—d, Dorsum of the scapula;—f, Its posterior costa, or base of the bone;—g, Its superior angle.—p, The anterior or inferior costa.—q, The inferior angle.—t, The cervix of the bone.—v, The acromion, to which the outer end of the clavicle is joined.—K, The spine.—W, The fossa above the spine.—φ, The superior costa, with the femilunar notch.—r, The inner end of the clavicle, joined to the sternum.—X, The body of the clavicle.—x, Ball of the os humeri.—w, Inner condyle of the os humeri of the left side.—a, The ulna.—b, The radius.—6, The head and neck of the radius.—7, 7, Olecranon of the ulna.—g, Under end of the radius.

RIGHT INFERIOR EXTREMITY.—f, Ball of the os femoris. g, Trochanter major.—b, Cervix of the bone.—i, Trochanter minor.—k, Upper part of the body of the bone;—l, Its outer condyle.—r, Malleolus externus of the fibula.

LEFT INFERIOR EXTREMITY.—1, Linea aspera on the back-part of the os femoris.—2, k, Inner condyle, and 3, Outer condyle of the os femoris.—4, Head of the tibia.—5, Body of the bone.—r, Malleolus internus of the tibia.—15, Head of the fibula.—r, Malleolus externus of that bone.—10, Os calcis.

FIG. 18.

Posterior View of the BONES and LIGAMENTS of the PELVIS.

a, The 5th lumbar vertebra;—β, Its superior oblique process.—d, The bony plate extended to its spinal process c. c, c, c, The posterior holes of the os sacrum;—e, e, e, Its spinous processes.—g, The channel for the cauda equina.

α, β, γ, δ, ι, ζ, π, as in FIG. 17.

A, The posterior sacro-ischiatic ligament, extended from the tuber of the os ischium to the os ilium, sacrum, and coccygis.—B, The anterior sacro-ischiatic ligament proceeding from the spinous process of the os ischium, to the os sacrum and coccygis.—ι, Notch of the os ilium, for the passage of the posterior crural vessels and nerves, and the pyramiform muscle.—C, Passage of the obturator internus muscle.—D, The fibrous ligamentous substance, connecting the os innominatum and sacrum.

E, The capsular ligament of the joint of the thigh.

g, The greater,—i, The lesser trochanter of the thigh-bone.

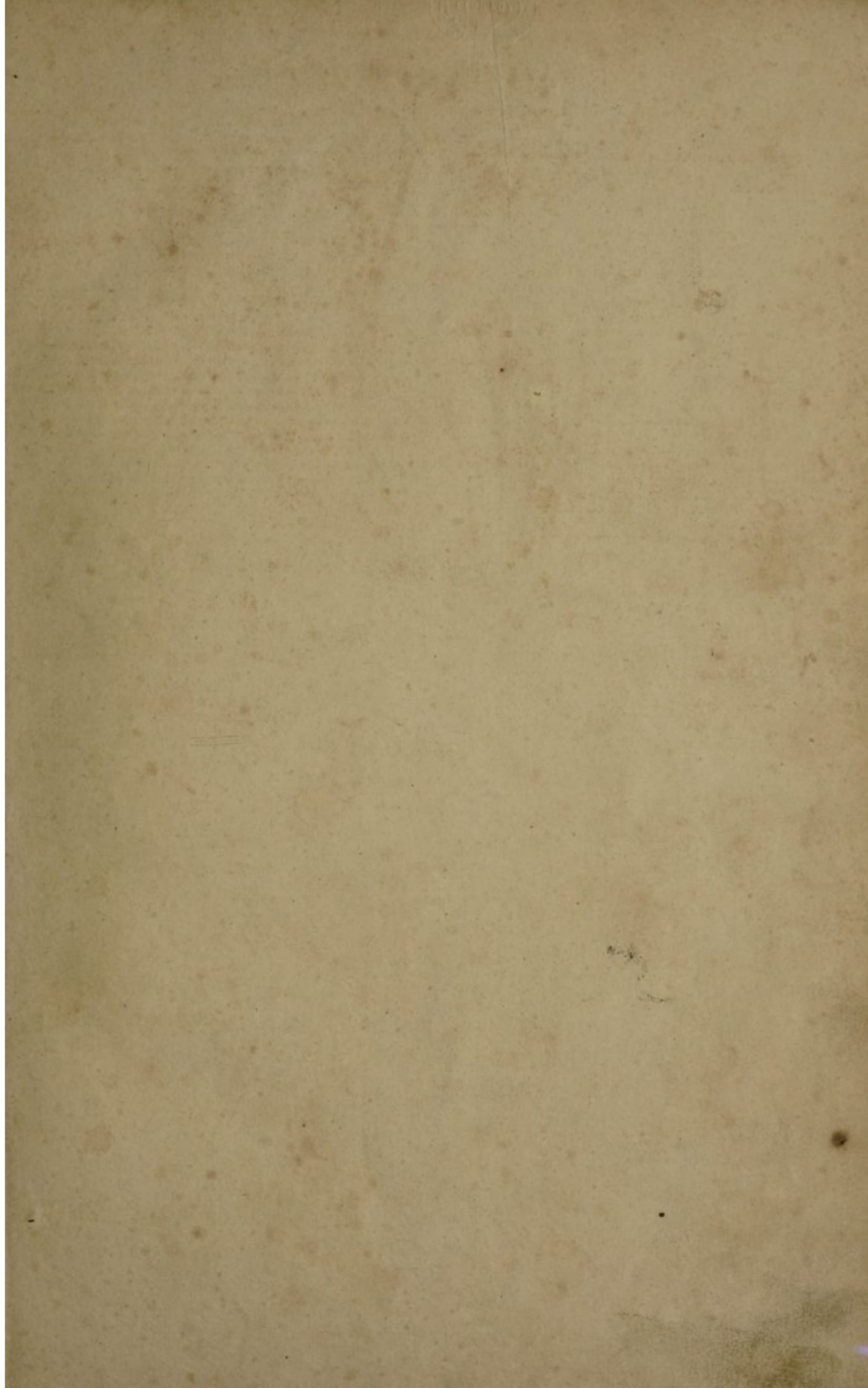




FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.



FIG. 7.



FIG. 8.



FIG. 9.



FIG. 10.

FIG. 11.



FIG. 12.

FIG. 14.



FIG. 13.



FIG. 15.

FIG. 16.



T A B L E IV.

REPRESENTS the BONES of the EXTREMITIES, the FIGURES of which, excepting 1st, 3d, 14th, and 16th, are copied from CHESELDEN.

FIG. 1. From WEITBREICHT.

A Posterior View of Part of the STERNUM and CLAVICLES, with the LIGAMENT connecting the CLAVICLES to each other.

a, The posterior surface of the sternum.—*b, b*, The broken ends of the two clavicles.—*c, c, c, c*, The two tubercles near the extremity of each clavicle.—*d*, The ligament connecting the clavicles.

FIG. 2.

Outer and Fore View of the LEFT SCAPULA, and Part of the CLAVICLE, with their LIGAMENTS.

a, The spine of the scapula.—*b*, The acromion.—*c*, The inferior angle.—*d*, Inferior costa.—*e*, Cervix.—*f*, Glenoid cavity, covered with cartilage for the articulation with the os humeri.—*g, g*, The cut edge of the capsular ligament of the joint of the arm.—*h*, Coracoid process.—*i*, The point of that process.—*k*, The broken end of the clavicle.—*l*, Its extremity joined to the acromion.—*m*, A ligament stretched obliquely from the clavicle to the coracoid process.—*n*, A ligament coming out single from the acromion, and dividing into two, which are fixed to the coracoid process.

FIG. 3. From NATURE.

The JOINT of the ELBOW of the LEFT ARM, with the LIGAMENTS.

a, The os humeri.—*b*, Its internal condyle.—*c, c*, The two prominent parts of its trochlea appearing through the capsular ligament of the joint.—*d*, The ulna.—*e*, The radius.—*f*, The part of the ligament including the head of the radius.—*g*, The end of that ligament, like a ring, surrounding the neck of the radius, but connected very loosely to it.

FIG. 4.

Anterior View of the BONES of the RIGHT HAND.

a, The radius.—*b*, Its flat anterior part.—*c*, Its styloid process.

b, The ulna.—*f*, Its flattened extremity.—*d*, Its styloid process.

g, The scaphoid bone of the carpus.—*h*, Os lunare.—*i*, Os pisiforme.—*k*, Cuneiforme.—*l*, Trapezium.—*m*, Trapezoides.—*n*, Capitulatum.—*o*, Unciforme.—*p*, Its hook-like process.

q, r, s, t, Metacarpal bones of the fingers.—*u*, Their base.—*v*, Their heads.

a, The metacarpal bone of the thumb.—*β*, Its first phalanx.—*γ*, Its second phalanx.—*δ*, The phalanx of the four fingers.—*ζ*, Their second phalanx.—*η*, Their third phalanx.

FIG. 5.

Posterior View of the BONES of the LEFT HAND.

The explanation of FIG. 4. will serve for this Figure, the same letters pointing to the same bones, though in a different view.

z, The ridge of the radius between the grooves made by the tendons of the extensor muscles.

FIG. 6.

PALM of the RIGHT HAND, with its LIGAMENTS.

i, The pisiform bone.—*p*, The hook-like process of the unciform bone.—*q*, The annular ligament, under which the tendons of the flexor muscles pass in the cavity *x*.

q,—*t*, The metacarpal bones.—*y*, Their bases, with the ligaments connecting them to the bones, pointed out by *m, n, o*, in FIG. 4.

a, β, γ, The metacarpal bone, and two phalanges of the thumb, with the ligaments of their articulations.

χ, The fore-finger, with the sheath for the tendons of the flexor muscles entire.—*λ*, The ligament connecting the head of its metacarpal bone to that of the middle finger.—*μ*, The middle finger, with the sheath of the tendons cut open.—*σ*, The ligaments on the back part of the second joint of the ring and little fingers.

FIG. 7.

The Upper Extremity of the TIBIA, with the SEMILUNAR CARTILAGES of the JOINT of the KNEE, and some LIGAMENTS.

a, The strong ligament which connects the patella to the tubercle of the tibia.—*b, b*, The parts of the extremity of the tibia covered with cartilage, which appear within the semilunar cartilages.—*c, c*, The semilunar cartilages.—*d*, Part of the crucial ligaments.

FIG. 8.

Posterior View of the JOINT of the RIGHT KNEE.

a, Section of the os femoris.—*b*, Its internal condyle.—*c*, Its external condyle covered with cartilage.—*d*, The cavity between the condyles.—*e, e*, Back part of the tibia.—*f*, Superior extremity of the fibula.—*g*, Edge of the internal femilunar cartilage.—*h*, An oblique ligament.—*i*, A small perpendicular ligament.—*k*, A larger perpendicular ligament.—*l*, External lateral ligament, connecting the femur and fibula.—*m*, A ligament between the tibia and fibula.

FIG. 9.

Anterior View of the JOINT of the RIGHT KNEE.

b, The internal condyle.—*c*, The external.—*d*, Part of the os femoris on which the patella moves.—*e*, A perpendicular ligament.—*f, f*, The crucial ligaments.—*g, g*, The edges of the two femilunar cartilages.—*h*, The tibia.—*i*, The strong ligament of the patella.—*k*, The back-part of it, where some of the fat of the joint has been dissected away.—*l*, The external depression.—*m*, The internal one on the posterior surface of the patella.—*n*, Section of the tibia.

FIG. 10.

A View of the Inferior Part of the BONES of the RIGHT FOOT.

a, The great knob of the os calcis.—*b*, A prominence on its outside.—*c*, The interior thin process bearing the print of the tendon of the flexor pollicis longus.—*d*, The hollow for the tendons, nerves, and blood-vessels.—*e*, The anterior extremity of the os calcis.

f, Part of the astragalus.—*g*, Its head covered with cartilage.

a, The internal prominence of the os naviculare.—*i*, Its hollow in the sole of the foot.

b, The os cuboides.—*l*, Its hollow for the tendon of the peroneus longus muscle.—*m*, Its anterior extremity.

n, Os cuneiforme internum.—*o*, Medium.—*p*, Externum.

q, r, s, t, The metatarsal bones of the four lesser toes.—*u*, Their bases.—*v*, Their heads.

a, The metatarsal bone of the great toe.—*β*, Its first.—*γ*, Its second bone.—*z*, The depressions on the head of the metatarsal bone for the two sesamoid bones.

δ, The first.—*ζ*, Second, and—*η*, Third phalanx of the four lesser toes.

FIG. 11.

The inferior surface of the two large Sesamoid Bones, at the First Joint of the Great Toe.

FIG. 12.

Upper View of the BONES of the RIGHT FOOT.

a, Posterior knob of the os calcis.—*b*, Its exterior process.—*k*, Its anterior extremity.

c, The

TABLE IV. CONTINUED.

c, The superior head of the astragalus.—*d*, A depression made by the tendon of the flexor pollicis longus.—*f*, The rough hollow part.—*g*, The anterior head.

b, Os naviculare.

i, Os cuboides.—*l*, The hollow for the peroneus longus muscle.—*n*, The internal.—*o*, The middle.—*p*, The external cuneiform bones.—*u*, *v*, *a*, *β*, *γ*, *δ*, *ζ*, *η*, The same as in FIG. 10.

FIG. 13.

View of the SOLE of the FOOT, with its LIGAMENTS.

a, *d*, As in FIG. 10.—*e*, The sheaths of the flexores longi pollicis et digitorum, opened.—*f*, The strong cartilaginous ligament supporting the head of the astragalus.—*g*, *b*, Two ligaments which join into one, to be fixed to the metatarsal bone of the great toe.—*i*, *k*, *l*, *m*, Other ligaments.—*n*, *o*, The ligaments of the joints of the five metatarsal bones.

FIG. 14. FROM NATURE.

The Superior Concave Surface of the SESAMOID BONES at the First JOINT of the GREAT TOE, with their LIGAMENTS.

a, Three sesamoid bones.—*b*, The ligamentous substance in which they are formed.

FIG. 15.

Front View of the SKELETON of a Boy of nine years of age.

* * &c. The most remarkable epiphyfes.—*f*, The joining of the os ilium and pubis; and—*g*, Of the os ischium and pubis.

This Figure is done by a scale only half as large as that by which the Skeleton in TABLE I. is done.

FIG. 16. FROM NATURE.

The SKELETON of a NEW-BORN CHILD, where the shades and shriveling seen in the picture shew the parts which are cartilaginous at birth, and which are contracted in the skeleton.

a, The fontanelle.

This Figure is too small, even in proportion to FIG. 15.



FIG. 8.



FIG. 9.



FIG. 10.



FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.



FIG. 6.



FIG. 5.



FIG. 7.



TABLE V.

REPRESENTS the common INTEGUMENTS; some of the MUSCLES and GLANDS of the HEAD and NECK; with the First and Second LAYERS of MUSCLES on the Anterior Part of the whole BODY.

FIG. 1. From BIDLOO.

A HAIR viewed with a Microscope.

A, THE root.—B, The bearded body.—C, The small extremity.

FIG. 2. From RUYSCH.

The cuticula of the hand, with the nails adhering to it.

FIG. 3. From RUYSCH.

A toe, with the cuticula taken off, to shew the villous appearance of the exterior surface of the skin.

FIG. 4. From RUYSCH.

A piece of skin, according to Ruysch, with the papillae pyramidales, as they appear to the naked eye.

FIG. 5. From RUYSCH.

The piece of skin, FIG. 4. seen with a microscope.

FIG. 6. From RUYSCH.

The corpus reticulare of the skin, seen with the naked eye.

FIG. 7. From RUYSCH.

The corpus reticulare, FIG. 6. viewed with a microscope. Whether, upon comparing FIG. 3. with 4. 5. 6. 7. is there reason to suspect that these four have been taken from the tongue?

FIG. 8. From COWPER.

THE MUSCLES, GLANDS, &c. of the LEFT SIDE of the FACE and NECK, after the common INTEGUMENTS and PLATYSMA MYOIDES have been removed.

a, The frontal muscle.—b, The temporal muscle, on which the larger branches of the temporal artery are seen.—c, c, Musc. orbicularis palpebrarum.—d, Orbicularis labiorum.—e, Levator labii superioris.—f, Levator anguli oris.—g, Zygomaticus major.—h, Depressor anguli oris.—i, Depressor labii inferioris.—k, Buccinator.—l, Masseter.—m, Parotid gland.—n, Its duct.—o, o, The artery of the face.—p, p, The facial vein.—q, Anterior heads of musc. digastrici.—r, Inferior maxillary gland.—s, Musc. sterno-hyoidei.—t, t, Omo-hyoideus.—u, Jugular vein.—v, Musc. sterno-mastoideus.—w, Cucullaris.—x, Levator scapulae.—y, Scalenus medius.—z, Scalenus anticus.—a, One of the nerves of the superior extremity.

FIG. 9. From ALBINUS.

On the right side, the muscles immediately under the common integuments, on the anterior part of the body, are represented; on the left side, the muscles are seen, which come in view when the exterior set have been removed.

RIGHT SIDE.

HEAD.—a, Musc. frontalis.—b, Its aponeurosis.—c, Attollens aurem.—d, Anterior auris.—e, e, Orbicularis palpebrarum.—f, Part of the corrugator.—g, Tendon or ligament of the palpebrae;—the letter is placed upon a fleshy slip, which comes from the musc. frontalis.—h, Compressor naris.—i, Four disgregated muscular slips, composing musc. levator labii superioris aequae nasi.—k, Zygomaticus minor.—l, Zygomaticus major.—m, Orbicularis oris.—n, Levator anguli oris.—o, Depressor anguli oris.—p, Depressor labii inferioris.—q, Levatores labii inferioris.—r, Buccinator.—s, Masseter.—t, Disgregated fibres of the platysma myoides.

NECK.—u, The thickest muscular part of the platysma myoides.—v, Its thin inferior extremity.—w, Part of musc. cucullaris.—x, Sterno cleido-mastoideus.—y, its tendinous extremity rising from the sternum.

TRUNK.—A, Musc. pectoralis.—B, Part of latissimus dorsi.—C, C, C, Serrated extremities of the serratus anticus major.—D, D, Fleshy part of musc. obliquus externus abdominis.—E, Part of the obliquus internus, seen through its aponeurosis; through which also are seen.—F, F, F, The fleshy portions of the rectus.—G, G, G, Its tendinous interfections; and—H, Musc. pyramidalis.—I, I, Linea alba, with the interwoven tendinous fibres.—K, The umbilicus.—L, The spermatic cord, passing through the ring of the external oblique muscle.—M, The fibres of the cremaster spread upon the spermatic cord.—N, The lower edge of the external oblique muscle.

SUPERIOR EXTREMITY.—O, Musc. deltoideus.—P, Belly of the biceps.—Q, The beginning of its tendinous aponeurosis, which was spread over the muscles of the fore-arm.—R, The round tendon of the biceps.—S, Long head of the triceps extensor cubiti.—T, Short head of the triceps, called Brachialis externus.—U, Its tendon.—V, V, Parts of brachialis internus.—W, Supinator radii longus.—X, Its tendon.—Y, Pronator radii teres.—Z, Flexor carpi radialis.—a, Its tendon.—b, Palmaris longus.—c, Its tendon.—d, d, Parts of the flexor digitorum sublimis.—e, Tendon of the flexor carpi ulnaris.—f, Flexor longus pollicis.—g, Its tendon, inserted into the last joint of the thumb.—h, Part of the pronator quadratus radii.—i, Part of the extensor 1mi et 2di internodii pollicis.—k, Their tendons.—l, Their annular ligament.—m, The tendinous aponeurosis of the palm.—n, Transverse ligament of the wrist.—o, Palmaris brevis.—p, Part of flexor 1mi internodii pollicis.—q, Abductor pollicis.—r, Its tendon, forming an aponeurosis, with the extensors.—s, Part of the flexor 2di internodii.—t, Annular sheath of the tendon of the flexor 3tii internodii.—u, Part of the adductor pollicis.—v, Tendons of the adductor indicis, and first lumbricalis.—x, Abductor minimi digiti.—y, Flexor brevis minimi digiti.—1. 2. 3. The annular sheaths of the tendons of the flexors of the forefinger. These ligaments are also represented in the other fingers.—4. Tendons of the lumbricales and interossei, which may also be seen on the sides of the other fingers.

INFERIOR EXTREMITY.—a, Part of the gluteus maximus.—b, Musc. gracilis.—c, c, Parts of the triceps.—d, Pectineus.—e, Psoas magnus.—f, Iliacus internus.—g, Sartorius.—h, Part of gluteus maximus.—i, Tensor vaginae femoris.—k, Vastus externus.—l, Rectus cruris.—m, Vastus internus.—n, Patella seen through the aponeurotic expansion of the extensors of the leg.—o, Ligament connecting the patella to the tibia.—p, Part of the biceps flexor cruris.—q, Tendons of the Sartorius, gracilis, and semi-tendinosus.—r, r, Tibia.—s, Part of the gemellus.—t, s, Parts of the Soleus.—f, Part of the flexor longus digitorum.—u, Tendon of the tibialis posticus.—v, Tendon of plantaris.—w, Part of peroneus longus.—x, Extensor digitorum longus.—y, Its tendons at the ankle.—z, On the superior part of the foot.—A, Extensor pollicis longus.—B, Its tendon.—C, Its aponeurosis, joining with the tendon of the abductor pollicis.—D, Tibialis anticus.—E, Tendon of tibialis anticus.—F, An oblique ligamentous band.—G, A transverse one, for keeping down the tendons.—H, Ligaments of the tendons at the inner ankle.—I, Tendon of the tibialis posticus.—K, Musc. abductor pollicis.—L, Part of the flexor brevis digitorum.—M, Tendon of the flexor longus pollicis.

FIG. 10. From ALBINUS.

The second Layer of MUSCLES of the FACE and NECK, after the First has been removed.

a, Musc. corrugator.—b, Temporalis.—c, Its tendinous part.—d, Zygoma.—e, Tendon of the levator palpebrae superioris.—f, Tendon of the internal angle of the eye-lids.—g, Musc. masseter.—h, Buccinator.—i, Levator anguli oris.—j, Depressor alae nasi, et nasalis labii superioris.—k, Orbicularis oris.—l, Depressor labii inferioris.—m, Levator labii inferioris.—n, Os hyoides.—o, Musc. hyoglossus.—p, Hyo-thyroideus.—q, r, Omo-hyoidei.—s, r, Sterno hyoidei.—t, First bone of the sternum.—u, Tendinous beginning of sterno-mastoideus.—v, Origin from the clavicle.—x, The belly formed by their union.—y, Part of musc. scalenus medius.—a, Part of levator scapulae.

TABLE V. CONTINUED.

LEFT SIDE OF FIG. 9.

NECK. $\phi, \psi, \chi, \psi, \omega$. Point out the same parts as in FIG. 10.

TRUNK.—*a*, Musc. subclavius.—*b*, Pectoralis minor.—*c, c*, Extremities of serratus anticus major.—*d, d*, Part of the internal intercostal muscles, the aponeurosis which covers them at this part being removed.—*e*, Obliquus internus abdominis.—*f, f, f, f, f*, Flethy parts of the rectus abdominis.—*g, g, g, g*, Tendinous interfections of that muscle.—*h*, Pyramidalis.—*i*, Cremaster testis.—*k*, Spermatic cord.—*l*, Cremaster spread over the spermatic cord, and vaginal coat of the testicle.

SUPERIOR EXTREMITY.—* * The two articulations of the clavicle.—*m*, Musc. subscapularis.—*n*, Teres major.—*o*, Part of the supraspinatus.—*p*, Long head of the biceps;—*q*, Its short head;—*p*, Its belly.—*q*, Aponeurotic tendon.—*r*, Round tendon.—*r*, Coraco-brachialis.—*s*, Long head of the triceps extensor cubiti.—*t*, Brachialis externus.—*u*, Brachialis internus.—*v*, Extensor carpi radialis longior.—*w*, Part of the extensor carpi radialis brevior.—*x*, Supinator radii brevis.—*y*, Cut extremity of pronator radii teres.—*x*, Part of flexor carpi ulnaris;—*y*, Its tendon.—*z*, Flexor digitorum sublimis;—*A*, Its tendon.—*B*, Part of the pronator radii quadratus.—*C*, The extensors of the thumb.—*D*, Flexor pollicis longus;—*E*, Its tendon near its insertion.—*F*, Flexor offis

metacarpi pollicis.—*G*, Flexor brevis pollicis.—*H*, Flexor parvus minimi digiti.—*I*, Abductor minimi digiti.—*K, K*, The 1st and 2d lumbricales; the 3d and 4th are also in view, but unlettered.—*L*, Tendons of lumbricales and interossei, which may also be seen on the sides of the other fingers.—*M*, The tendons of the flexor digitorum sublimis, divided near their insertion, for the passage of the tendons of the flexor profundus, marked N.

INFERIOR EXTREMITY.—*b*, Gracilis.—*c, c*, Adductor longus, and a small part of adductor magnus femoris.—*d*, Pectineus.—*e*, Ploas magnus.—*f*, Iliacus internus.—*M*, Part of gluteus medius.—*N*, Part of gluteus minimus.—*O*, Cut extremity of the rectus.—*k*, Vastus externus.—*l*, Tendon of the rectus.—*m*, Vastus internus.—*n*, Patella seen through the aponeurosis.—*o*, Ligament of the patella.—*p*, Crureus.—*q*, Tendons of the gracilis and semitendinosus.—*R, R*, Edges of the moveable cartilages.—*S, p*, Part of biceps flexor cruris.—*+* *+* *+* Tibia.—*S, S*, Part of soleus.—*T*, Part of peroneus longus.—*U*, Part of peroneus brevis.—*V*, Extensor longus digitorum;—*W*, Its tendons.—*X*, Extensor proprius pollicis.—*Y*, Its tendon.—*Z*, Tibialis posticus.—*a*, Part of flexor longus digitorum.—*\beta*, Tendon of plantaris.—*\gamma*, Tendons of tibialis posticus, and of flexor longus digitorum.—*\delta*, Part of the tendo Achillis.—*\epsilon*, Flexor digitorum accessorius.—*\zeta*, Flexor brevis digitorum.



FIG. 1.

TAB. VI.

FIG. 3.

FIG. 2.

FIG. 4.

FIG. 8.

FIG. 5.

FIG. 6.

FIG. 7.

FIG. 9.

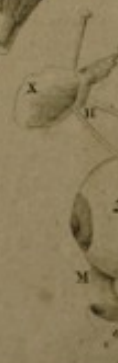


TABLE VI.

REPRESENTS the Parts situated under those shewn in FIG. 9. TABLE V. together with the EYE-LIDS, LACRYMAL GLAND and DUCTS, and MUSCLES of the EYE.

All the Figures in this Plate, except the first, are as large as the Life.

FIG. I. Principally from ALBINUS.

HEAD and NECK.

a, The tendon of the musc. trochlearis of the eye passing through the pulley.—*b*, Musc. attollens oculum.—*c*, Abductor oculi.—*d*, Obliquus minor.—*e*, Adductor.—*f, f*, Depressor labii superioris aequae nasi.—*g, g*, Orbicularis oris.—*h*, Buccinator.—*i*, Levator labii inferioris.—*k*, The pterygoideus externus.—*l*, Complexus.—*m*, Trachelo-mastoideus.—*n, n*, Anterior and middle scapuli.—*o*, Os hyoides.—*p*, Thyroid cartilage.—*q*, Cricoid cartilage, with the two crico-thyroid muscles rising from it.—*r*, The trachea arteria.—*s*, Part of the constrictor-pharyngis inferior muscle.—*t, t*, The two thyro-hyoid muscles.—*u, u*, The two sterno-thyroid muscles.—*w*, Part of the rectus internus major capitis.—*x*, Part of the longus colli.—*y*, Part of the pleura.

LEFT SIDE of the TRUNK.

A, A, External intercostal muscles.—*B, B*, Internal intercostal muscles.—*C*, Transverse muscle of the abdomen.—*D*, Its tendon.—*E, F*, The edges of this muscle and its tendon, where that part of the tendon is cut away which, joining with the tendons of the oblique muscles, passes before the rectus.—*G*, The spermatic vessels, and vas deferens, coming out below the edge of the transverse muscle.—*H, H*, The vestiges of the two umbilical arteries; and—*I*, The print of the urachus on the peritoneum.—*K*, The remains of the tendons of the oblique muscles forming the linea alba.—*z*, Corpora cavernosa penis.—*β*, Corpus cavernosum urethrae, cut transversely.

LEFT ARM.

L, Musc. subscapularis.—*M*, Its tendon.—*N*, Teres major;—*O*, Its tendon.—*P*, Coraco-brachialis.—*Q*, Brachialis internus.—*R*, Brachialis externus.—*S*, Extensor carpi radialis longior.—*T*, Part of the extensor carpi radialis brevior.—*U*, Supinator radii brevis.—*V*, Flexor digitorum profundus.—*W*, dividing into its tendons.—*X, X*, Their insertions into the last joint of each of the fingers.—*Z*, The transverse ligament of the wrist.—*y, y, y, y*, The four musc. lumbrales.—*z*, Flexor longus pollicis.—*β*, Its tendon inserted into the last joint of the thumb.—*γ*, Flexor brevis pollicis.—*δ*, Adductor ossis metacarpi minimi digiti.—*ε*, Os pisiforme.

LEFT INFERIOR EXTREMITY.

a, Gluteus minimus.—*b*, Iliacus internus.—*c*, Psoas magnus.—*d*, Obturator externus.—*e*, Adductor brevis.—*f, g*, Part of adductor magnus.—*h, h*, Gracilis.—*i, i*, Part of the Semimembranosus.—*k*, Part of the biceps flexor curis.—*l*, The tibia.—*m*, The fibula.—*n*, Peroneus longus.—*o*, Peroneus brevis.—*p*, Tibialis posticus, seen obscurely between the two bones.—*q*, The tendon of the tibialis posticus.—*r*, Part of the flexor longus digitorum.—*s*, Its tendon.—*t*, Massa carnea, or flexor digitorum accessorius.—*u*, Tendon of flexor longus pollicis.—*v*, Extensor brevis digitorum.

RIGHT SIDE of the TRUNK.

A, A, External intercostals.—*B, B*, Internal intercostals.—*c*, The mammary artery and vein, added from the life.—*d, d, d, d*, The triangular, or sterno-costalis.—*e, e*, The surface of the

lungs appearing through the pleura.—*f, f, f*, The peritoneum, through which the bowels appear obscurely, copied from the life.—*g*, The spermatic cord coming out behind the peritoneum.

RIGHT ARM.

a, Musc. subscapularis;—*b*, Its tendon.—*c*, Supinator radii brevis.—*d*, Pronator radii quadratus.—*e*, Flexor brevis pollicis.—*f*, The sesamoid bones into which it is inserted.—*g*, Adductor pollicis.—*h, i, k, l*, Seven interossei.

RIGHT INFERIOR EXTREMITY.

A, Musc. iliacus internus.—*B*, Psoas magnus.—*C*, Obturator externus.—*D, E*, Adductor magnus.—*F*, Tibialis posticus;—*G*, Its tendon.—*H*, Peroneus brevis.—*I*, Interossei.

FIG. 2. From LE CAT.

Shews the LACRYMAL CANALS, the Teguments and Bones being cut away.

A, The lacrymal gland.—*B*, The two puncta lacrymalia, from which the two lacrymal canals proceed to—*C*, The lacrymal sac.—*D*, A contraction forming the beginning of—*E*, The lacrymal duct.—*F*, Its opening into the nose.—*G*, The caruncula lacrymalis.—*Z*, The eye.

FIG. 3. From MORGAGNI.

The PALPEBRÆ inverted, to shew the LACRYMAL CANALS.

a, a, a, a, The interior membrane of the eye-lids.—*b*, The ciliary cartilages.—*c, d*, The sebaceous glands, the extremities of the excretory ducts of which open near the edges of the palpebræ.—*e, e*, The two puncta lacrymalia.—*f*, The caruncula lacrymalis, from which small hairs stand out.—*g*, The lacrymal sac.—*h*, The opening of the lacrymal ducts into the nose.—*i, i*, Part of the membrane of the nose.

FIG. 4. From RUYSCH.

The two EYE-LIDS cut from each other, at the exterior CANTHUS.

A, A, The interior membrane of the eye-lids.—*B*, The caruncula lacrymalis.—*C, D*, The edges of the eye-lids, with the small orifices of the excretory ducts of the sebaceous glands.—*E*, The puncta lacrymalia.—*F, F*, The eye-lashes.

FIG. 5. 6. 7. 8. From EUSTACHIUS.
And FIG. 9. From COWPER.

Shew the MUSCLES of the EYE.

A, A, The two optic nerves before they meet.—*B*, These nerves conjoined.—*C*, The nerve of the right-eye.—*D*, Musc. attollens palpebram;—*e*, Its tendon.—*E*, Attollens oculum.—*F*, Abductor.—*G*, Obliquus superior, or trochlearis;—*H, I*, Its Tendon.—*K*, Adductor.—*L*, Depressor.—*M*, Obliquus minor.—*Z*, The ball of the eye.—*X*, Part of the frontal bone.—*y*, Part of the maxillary bone.

TABLE VI

The following table shows the results of the experiments conducted by the author, and the results of the experiments conducted by other authors, in the study of the effect of the temperature of the water on the rate of the reaction between the hydrogen peroxide and the potassium iodide.

No. of Experiment	Temperature of Water (°C.)	Time (min.)	Volume of Gas (cc.)	Rate of Reaction (cc./min.)
1	10	10	10	1.0
2	20	10	20	2.0
3	30	10	30	3.0
4	40	10	40	4.0
5	50	10	50	5.0
6	60	10	60	6.0
7	70	10	70	7.0
8	80	10	80	8.0
9	90	10	90	9.0
10	100	10	100	10.0

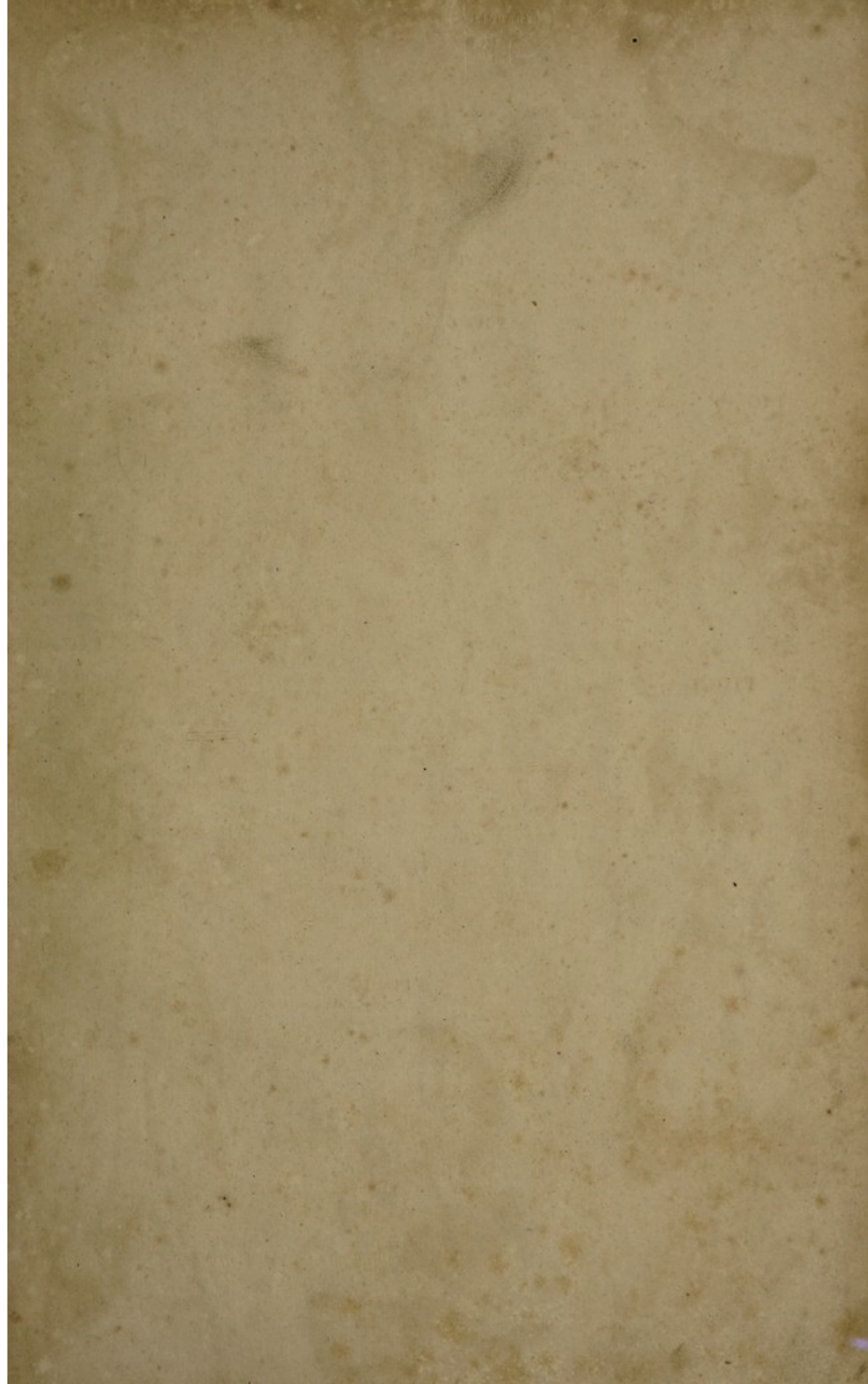


FIG. 1.



FIG. 2.



TAB. VII. FIG. 3.



FIG. 6.



FIG. 5.



FIG. 7.



FIG. 4.



FIG. 8.



FIG. 9.



FIG. 10.



T A B L E VII.

REPRESENTS the SALIVARY GLANDS, PARTS about the THROAT, and certain Deep-seated
MUSCLES, in the INTERIOR PART of the BODY, not shewn in the former FIGURES.

FIG. 1. From the LIFE.

Part of the MUSCLES of the Os HYOIDES, and
SUBMAXILLARY GLAND.

a, Part of the masseter muscle.—*b*, Posterior head of the digastric muscle;—*c*, Its anterior head.—*d*, Stylo-hyoideus, through which the tendon of the digastric passes.—*e*, Sterno-hyoideus.—*f*, Omo-hyoideus.—*g*, The pharynx.—*h*, Submaxillary gland.

FIG. 2. From the LIFE.

MUSCLES deeper seated than the former, and the
SUBMAXILLARY GLAND raised.

a, a, Mylo-hyoidei.—*b*, Hyo-glossus.—*c*, Sterno-thyroideus.—*d*, Hyo-thyroideus.—*e*, The submaxillary gland raised from its place, behind the angle of the lower jaw.—*f*, Stylo-glossus.—*g*, Stylo-pharyngeus.—*h*, The pharynx.

FIG. 3. From the LIFE.

MUSCLES deeper seated than the former.

a, Genio-hyoideus.—*b*, Genio-hyoglossus.—*c*, Stylo-glossus.—*d*, Stylo-pharyngeus.—*e*, The submaxillary gland raised, by which its duct is seen in its passage under the tongue, to its termination at the side of the frenum lingue.—*f*, The sublingual gland.—*g*, The os hyoides.—*h*, The thyroid cartilage.—*i*, The cricoid cartilage, with the crico-thyroid muscles.—*k*, The thyroid gland.—*l*, The trachea.—*m*, The pharynx.

FIG. 4. From COWPER.

The Inferior Surface of the TONGUE, with its MUSCLES
Dissected.

a, a, Genio-hyo-glossus.—*b*, Its origin cut from the inner part of the lower jaw.—*c, c, c*, Hyo-glossus.—*d*, Stylo-glossus.—*e*, The tip of the tongue pinned out, at each side of which its papillae appear.—*f, f*, The basis or root of the tongue.—*g*, The membrane, with its salivary miliary glands, continued from the tongue to the epiglottis.

FIG. 5. From COWPER; with Additions from
NATURE.

Shews the TONGUE, Os HYOIDES, and LARYNX, separated from the Left Side of the Head, and turned over upon the Right;—the Head being inverted.

a, The inner side of the lower jaw.—*b*, Part of the glandulae palatinae.—*c*, The uvula with its muscle, hanging over the openings into the back-part of the nose.—*d*, The right side of the pharynx remaining entire.—*e*, The tongue, at the anterior edges of which some of its papillae are seen.—*f*, The salivary glands of the tongue.—*g*, One of the amygdalae.—*h*, The os hyoides, with its left cornu joined to the left superior cornu of the thyroid cartilage.—*i*, The thyroid cartilage.—*k*, The back-part of the cricoid cartilage.—*l, l*, The arytenoid cartilages.—*m*, The epiglottis.—*n*, The cartilages of the trachea.—*o*, The membranous part of the trachea.

FIG. 6. From COWPER.

The Back Part of the PHARYNX, and its Connections with
the LARYNX.

A, Cartilages of the trachea.—*B*, The membranous back-part of the trachea.—*C, C*, That part of the pharynx which arises from the pterygoid processes, levatores palati, and os occipitis.—*D, D*, Parts of the pharynx which arise from the lower jaw.—*E, E*, Fibres of the pharynx from the root of the tongue;—*F*, From the os hyoides;—*G*, From the thyroid cartilage; and—*H*, From the cricoid cartilage.—*I*, Os hyoides.—*K*, The thyroid cartilage.—*L, L*, The styloid processes.—*M, M*, Ligaments from the styloid processes, fixed to the appendices of the os hyoides.—*N, N*, Stylo-hyoidei.—*O, O*, Stylo-pharyngei.—*P*, Back-part of the œsophagus.—*Q, Q*,
D

External surface of the œsophagus.—*R*, Sterno-thyroideus;—*S*, Hyo-thyroideus.

FIG. 7. From COWPER.

View of the Right and Back Part of the LARYNX.

a, The cricoid cartilage.—*b*, The epiglottis;—*c*, Its root cut from the base of the tongue, where many small glands appear.—*d*, The tips of the arytenoid cartilages freed from their membrane.—*e*, The concave surface of the thyroid cartilage, and its superior cornua; the right half of the cartilage is turned back.—*f*, The inferior cornu of the thyroid cartilage, cut from—*g*, Its connection to the cricoid.—*h*, The crico-arytenoideus posticus.—*i*, Crico-arytenoideus lateralis.—*k*, Thyro-arytenoideus.—*l*, Arytenoideus.—*m*, The trachea;—*n*, Its membranous part.

FIG. 8. From EUSTACHIUS.

A View, principally, of the MUSCLES in the Interior Part of
the BODY, next the SPINE.

A, Rectus capitis lateralis.—*B*, Rectus capitis internus minor.—*C*, Rectus capitis internus major.—*D, E*, Longus colli.—*F*, Scalenus anticus.—*G*, Scalenus medius.—*H*, Trachelo-mastoideus.—*I*, Intercostales externi.—*K*, Intercostales interni.—*L*, Portions of the internal intercostals, called Depressores Proprii Cowperii.—*M*, Transversus abdominis.—*N*, Quadratus lumborum.—*O*, Psoas parvus.—*P*, Psoas magnus.—*Q*, A portion of the psoas magnus; the upper part which lay over the quadratus lumborum is cut off.—*R*, Iliacus internus.—*S*, Pyriformis.—*T*, Obturator externus.—*U*, Adductor brevis femoris.

FIG. 9. From ALBINUS.

A View of the Fourth Order of MUSCLES on the HEAD & NECK.

MUSCLES on the HEAD and NECK.—*a*, Levator palpebrae.—*b*, Rectus attollens.—*c*, Obliquus superior, or trochlearis.—*d*, Rectus adducens.—*e*, Rectus abducens.—*f*, Rectus depressans.—*g*, Obliquus inferior.—*h*, Pterygoideus internus.—*i*, Obliquus superior capitis.—*k, k*, Longus colli.—*l, l*, Scalenus medius.—*m, m*, Intertransversales colli priores.

On the TRUNK.—*n, n*, &c. Intercostales externi.—*o, o*, &c. Intercostales interni.—*p, p, p*, The first heads, or crura of the inferior muscle of the diaphragm, between which the aorta passes at *r*.—*s*, The fourth head; the second and third heads of the inferior muscle of the diaphragm are situated between the upper ends of its crura and the psoæ muscles, but are not here represented.—*t*, Another head sometimes found; connected with the quadratus lumborum.—*u, u*, The fleshy part formed by the joining of these heads.—*v*, Fibres crossing under—*w*, The passage for the œsophagus.—*x*, The middle tendon, on the right side, with its fibres decussating.—*y*, Part where the diaphragm is fixed to the twelfth rib.—*z*, The anterior part of the middle tendon.—*A*, Part where the diaphragm is fixed to the cartilago enfiformis;—*B*, to the peritoneum; and—*C, C, D, D, E, E, F, F*, to the 7th, 8th, 9th, 10th, and 11th ribs.—*G, G*, The convex part of the diaphragm towards the thorax.—*H, H*, Quadratus lumborum.—*I*, Psoas parvus.—*K, L, M*, Psoas magnus.—*N*, Iliacus internus.—*O*, Obturator externus.—*P*, Part of the adductor femoris.

FIG. 10. From the LIFE.

The ABDOMEN opened, and its contents removed, to shew
the DIAPHRAGM and MUSCLES of the LOINS.

A, A, The containing parts of the abdomen cut and turned back.—*B, B*, The cut ends of the ribs.—*C*, The origin of the superior or greater muscle of the diaphragm from the cartilago enfiformis.—*D, D*, That from the ribs.—*E, E, E*, The cordiform tendon of the diaphragm.—*F*, Perforation in that tendon for the passage of the vena cava inferior.—*G, G*, The long crura of the inferior or lesser muscle of the diaphragm.—*H*, The passage of the aorta between the long crura.—*I, I*, Shorter heads.—*K, K*, The fleshy columns from the joining of these heads.—*L*, Fibres crossing under—*M*, The passage of the œsophagus.—*N*, Quadratus lumborum.—*O*, Psoas parvus.—*P, P*, The large psoæ, the right of which is turned outward at its lower end.

T A B L E VII.

Illustrates the Salivary Glands, Parts about the Throat, and certain Deep-seated Muscles, in the Interior Part of the Body, not shown in the former Plates.

FIG. 1. From the Life.

FIG. 2. From the Life.

View of the Right and Left Testes of the Female. The right testis is shown in the upper part of the figure, and the left in the lower part. The epididymis is seen on the upper part of the testis, and the vas deferens is seen on the lower part. The ureter is also shown. The figure is labeled with letters A through Z.

FIG. 3. From the Life.

A view of the female pelvis, showing the uterus, ovaries, and associated structures. The figure is labeled with letters A through Z.

FIG. 4. From the Life.

A view of the female pelvis, showing the uterus, ovaries, and associated structures. The figure is labeled with letters A through Z.

FIG. 5. From the Life.

A view of the female pelvis, showing the uterus, ovaries, and associated structures. The figure is labeled with letters A through Z.

FIG. 1. From the Life.

FIG. 2. From the Life.

A view of the male pelvis, showing the testes, epididymis, and associated structures. The figure is labeled with letters A through Z.

FIG. 3. From the Life.

A view of the male pelvis, showing the testes, epididymis, and associated structures. The figure is labeled with letters A through Z.

FIG. 4. From the Life.

A view of the male pelvis, showing the testes, epididymis, and associated structures. The figure is labeled with letters A through Z.

FIG. 5. From the Life.

A view of the male pelvis, showing the testes, epididymis, and associated structures. The figure is labeled with letters A through Z.

FIG. 6. From the Life.

A view of the male pelvis, showing the testes, epididymis, and associated structures. The figure is labeled with letters A through Z.

FIG. 7. From the Life.

A view of the male pelvis, showing the testes, epididymis, and associated structures. The figure is labeled with letters A through Z.

LIBRARY
OF THE
MUSEUM OF
ARTS AND
CRAFTS

FIG. 1.



FIG. 2.



FIG. 18.

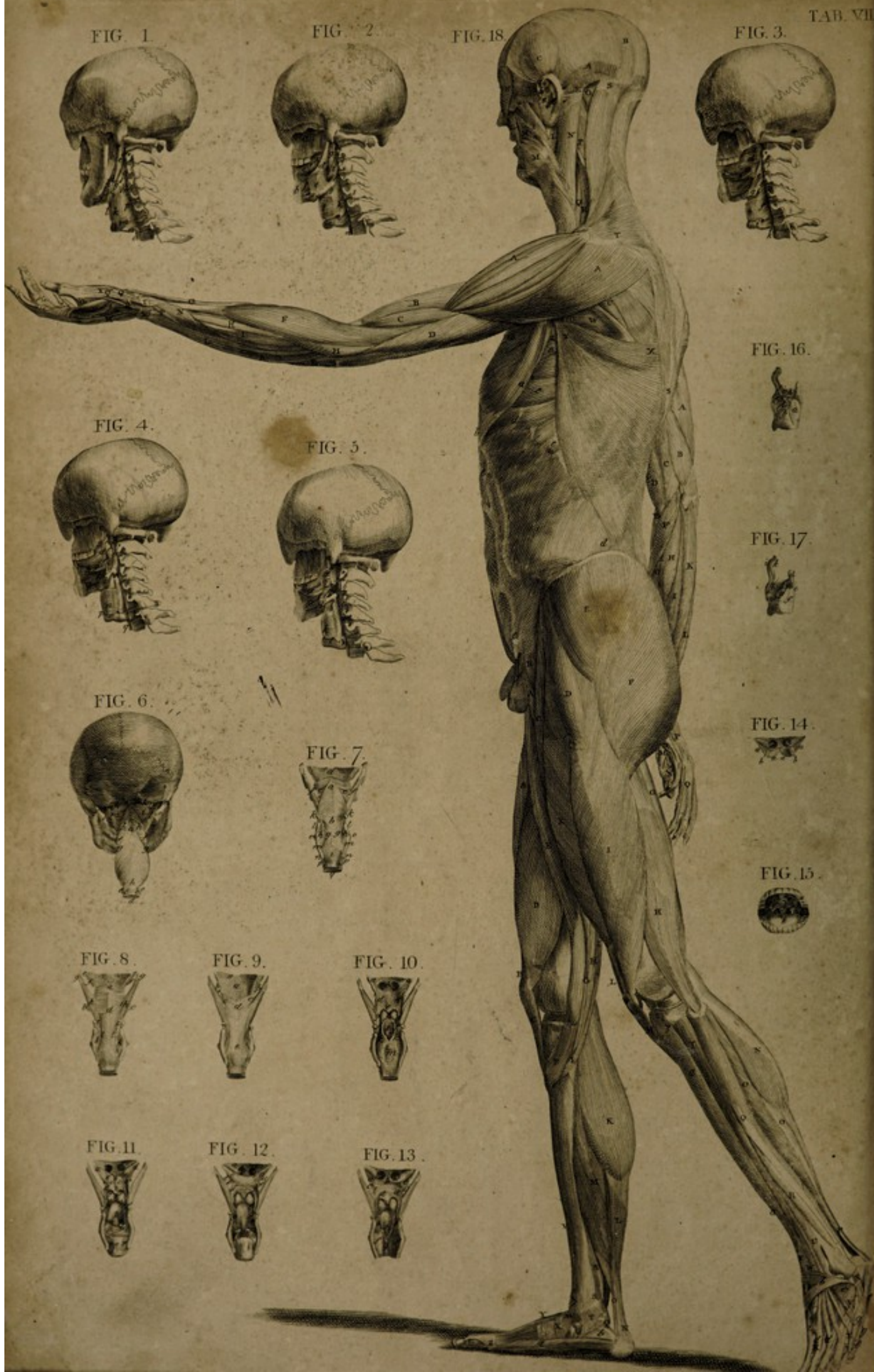


FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.



FIG. 7.



FIG. 8.



FIG. 9.



FIG. 10.



FIG. 11.



FIG. 12.



FIG. 13.



FIG. 16.



FIG. 17.



FIG. 14.



FIG. 15.



T A B L E VIII.

THE MUSCLES seated about the THROAT; with a View of the FIRST LAYER of MUSCLES upon the LATERAL PARTS of the BODY.

All the Figures are copied from ALBINUS, but, as well as the other Figures in this Work taken from that Author, they are upon a somewhat smaller Scale.

FIG. 1.

REPRESENTS the MUSCLES seated under the HEAD, and before the VERTEBRÆ of the NECK.

a, Pterygoideus externus.—*b*, Pterygoideus internus.—*c*, Mylo-hyoideus.—*d*, Stylo-hyoideus.—*e*, Digastricus.—*f*, Anterior belly of the digastric muscle.—*g*, *h*, Hyo-glossus.—*i*, Os hyoides.—*k*, Thyreo-hyoideus.—*l*, Thyroid cartilage.—*m*, Crico-thyroideus.—*n*, Cricoid cartilage.—*o*, Section of the œsophagus.—*p*, Constrictor pharyngis inferior.—*q*, Constrictor pharyngis medius.—*r*, Constrictor pharyngis superior.

FIG. 2.

THE OUTER MUSCLES of the former Figure, and half of the LOWER JAW removed, to shew the MUSCLES and other Parts deeper seated.

a, The upper jaw.—*b*, A section of the lower jaw.—*c*, The tongue.—*d*, Stylo-glossus.—*e*, Hyo-glossus.—*f*, Genio-hyo-glossus.—*g*, Stylo-pharyngeus.—*h*, Constrictor pharyngis superior.—*i*, Constrictor pharyngis medius.—*k*, Constrictor pharyngis inferior.—*l*, Thyroid cartilage.—*m*, Cricoid cartilage.—*n*, Section of the œsophagus.

FIG. 3.

VIEW of the MUSCLES deeper seated than those represented in the preceding Figure.

a, Stylo-glossus.—*b*, Lingualis.—*c*, Genio-glossus.—*d*, Constrictor pharyngis superior.—*e*, Constrictor pharyngis medius.—*f*, Constrictor pharyngis inferior.—*g*, Os hyoides.—*h*, Thyroid cartilage.—*i*, Cricoid cartilage.—*k*, Section of the œsophagus.

FIG. 4.

REPRESENTS the NEXT ORDER of MUSCLES, after the outermost of the third Figure are removed.

a, The circumflexus palati. Immediately behind it, is the levator palati.—*b*, The stylo-pharyngeus.—*c*, *e*, The membrane of the pharynx naked.—*d*, The constrictor isthmi faucium.—*e*, The tonsil.—*f*, The stylo-glossus, where it joins the tongue.—*g*, Section of the hyo-glossus.—*h*, Lingualis.—*i*, *k*, Genio-hyo-glossus.—*j*, Its origin from the lower jaw.—*l*, The os hyoides.—*m*, The ligament which joins the cornu of the os hyoides, and thyroid cartilage.—*n*, The body of the thyroid cartilage.—*o*, The cricoid cartilage.—*p*, The ligament by which the thyroid and cricoid cartilage are joined together.—*q*, Section of the œsophagus.

FIG. 5.

IN this Figure some of the OUTER MUSCLES, shown in the Fourth, are removed;—the PHARYNX laid open longitudinally, and the Left Part of it cut off, to shew its Cavity, with the MOVEABLE PALATE, ROOT of the TONGUE, and EPIGLOTTIS.

a, The circumflexus palati.—*b*, The levator palati.—*c*, The tonsil.—*d*, Constrictor isthmi faucium.—*e*, The tongue.—*f*, Lingualis.—*g*, Genio-hyo-glossus.—*h*, Epiglottis.—*i*, Os hyoides.—*k*, Thyroid cartilage.—*l*, Cricoid cartilage.—*m*, The pharynx laid open.—*n*, The beginning of the œsophagus.

FIG. 6.

REPRESENTS a POSTERIOR VIEW of the PHARYNX, and the Under Part of the CRANIUM to which it is fixed.

a, The upper end of the lower constrictors of the pharynx.—*b*, The under end of the pharynx;—the letter points all at the inner transverse fibres of the œsophagus, which are laid bare.—*c*, *c*, The outer fibres of the œsophagus, descending obliquely backwards on each side.—*d*, Section of the œsophagus.—*e*, *e*, Section of the trachea.—*f*, *f*, The ends of the cornua of the os hyoides.—*g*, *g*, The ligaments which join the upper processes of the thyroid cartilage, to the ends of the cornua of the os hyoides.—*h*, *h*, The middle constrictors of the pharynx.—*i*, *i*, The upper constrictors of the pharynx.—*k*, *k*, The naked membrane of the pharynx.—*l*, *l*, The stylo-pharyngei muscles.—*m*, *m*, The styloid processes of the temporal bones.—*n*, *n*, The Pterygoid processes of the sphenoid bone.—*o*, *o*, The backmost tooth of the upper and under jaw.

FIG. 7.

Presents the next View, after the removal of the lower Constrictor of the Pharynx. The Bones of the Head are not added, but the Styloid Processes are left, to shew the Origin of the Stylo-pharyngei.

a, The upper point of the middle constrictors of the pharynx.—*b*, Their under point.—*c*, *c*, The upper constrictors of the pharynx, cut off from the buccinator.—*d*, The naked membrane of the pharynx.—*e*, *e*, The styloid processes of the temporal bones, cut off at their roots.—*f*, *f*, The stylo-pharyngei, arising tendinous from the styloid process.—*g*, *g*, The common ends of the stylo-pharyngei and palato-pharyngei muscles, joined to each other on the back of the pharynx.—*h*, *h*, Part of these same muscles fixed to the edges of the thyroid cartilage.—*i*, The naked membrane of the lower part of the pharynx, continued to the œsophagus.—*k*, *k*, The cornua of the os hyoides.—*l*, *l*, The superior cornua of the thyroid cartilage.—*m*, *m*, The posterior edges of the thyroid cartilage.—*n*, *n*, Its inferior cornua.—*o*, *o*, The tubercles on the outer sides, at the roots of the superior cornua.—*p*, *p*, The annular cartilage.—*q*, Section of the trachea.

FIG. 8.

THE next View of the MUSCLES, after the middle Constrictors of the Pharynx are removed.

a, *b*, *c*, *d*, The upper constrictors of the pharynx.—*e*, *e*, The levatores palati.—*f*, *f*, Circumflex muscles of the palate.—*g*, *g*, The tendinous origin of the stylo-pharyngei, where they are cut off from the styloid processes.—*h*, *h*, That part of the stylo-pharyngei which forms two fasciculi, which pass separately under the fibres of the upper constrictor.—*i*, *i*, The under and larger part.—*k*, *k*, Parts of the common ends of the stylo-pharyngei and palato-pharyngei, fixed to the thyroid cartilage.—*l*, *l*, Parts of their common ends, joined together on the back of the pharynx.

FIG. 9.

REPRESENTS the next ORDER of MUSCLES, after the Upper Constrictor of the Pharynx is removed.

a, The naked membrane of the pharynx.—*b*, *b*, The small hooks of the pterygoid processes.—*c*, *c*, Palato-pharyngei.—*d*, *e*, Parts of the common ends of the stylo-pharyngei and palato-pharyngei, the fibres of which converge.—From *e*, outwards, they vanish in the back part of the membrane of the pharynx.

FIG. 10.

REPRESENTS the INNER and Fore-part of the PHARYNX, or the back-part of the LARYNX,—the whole of the posterior part of the Pharynx and Œsophagus being removed.

a, *a*, The Eustachian tubes, their orifices opening laterally into the posterior foramina of the nostrils.—*b*, The septum narium.—*c*, *c*, The cavity of the nostrils, with the lower ossa spongiosa, covered with the mucous membrane.—*d*, *d*, The palatum molle.—*e*, The uvula.—*f*, *f*, The posterior arches which descend laterally from the soft palate through the sides of the pharynx.—*g*, *g*, The tonsils.—*h*, The tongue.—*i*, The epiglottis.—*k*, *k*, The membranous sides of the glottis.—*l*, The rima, or slit of the glottis.—*m*, The back-part of the tube of the larynx, projecting within the pharynx.

FIG.

TABLE VIII CONTINUED.

FIG. 11.

Represents the MUSCLES lying immediately under the Membrane which covers the Parts expressed in the former Figure; the Membrane itself with the Oesophagus and Trachea being removed.

a, a, The levatores palati.—*b*, The azygos uvulae.—*c, c*, Palato-pharyngei.—*d*, The part which afterwards passes under the levator palati.—*e, e*, The parts of the palato-pharyngei, called by Albinus The *Salpingo-pharyngei*, joining with the palato-pharyngei.—*f, f*, Parts of the common ends of the palato-pharyngei, salpingo-pharyngei, and stylo-pharyngei.—*g, g*, Posterior edge of the velum palati.—*b*, The uvula.—*i, i*, The tonsils which are protuberant before the palato-pharyngei muscles.—*k*, The tongue.—*l*, The epiglottis.—*m, m*, The points of the arytenoid cartilages.—*n, n*, The oblique arytenoid muscles.—*o, o*, The arytenoideus transversus.—*p, p*, The crico-arytenoidei posici, arising from—*q*, The cricoid cartilage.

FIG. 12.

MUSCLES deeper seated than those shewn in the former Figure.

a, a, The Eustachian tubes opening laterally into the posterior foramina of the nostrils.—*b, b*, Ossa spongiosa superiora, covered with the mucous membrane.—*c, c*, The levatores palati.—*d, d*, The circumflexi palati.—*e, e*, The small hooks of the pterygoid processes.—*f, f*, Parts of the palato-pharyngei which pass through the soft palate, under the ends of the levatores.—*g, g*, Parts of the common ends of the stylo-pharyngei and palato-pharyngei, produced from the stylo-pharyngei.—*b, b*, The arytenoid cartilages.

FIG. 13.

Represents the MUSCLES which appear upon the removal of the Levatores Palati, the Annular and Arytenoid Cartilages, and their Appendages.

a, a, The circumflexi palati.—*b*, The aponeurosis of the circumflex muscles.—*c, c*, The hook-like processes of the pterygoid plates.—*d, d*, Parts of the palato-pharyngei, which pass through the soft palate under the ends of the levatores.—*e, e*, Part of the stylo-pharyngei inserted into the thyroid cartilage.—*f, f*, The thyroid cartilage.—*g*, Prominence upon the inner side of the thyroid cartilage.—*b*, The under end of the epiglottis, fixed to the thyroid cartilage.

FIG. 14.

Follows after the Upper Part of the preceding Figure.

a a, a a, The circumflexi palati.—*b, b*, The hooks of the pterygoid processes.

FIG. 15.

The MUSCLES of the FAUCES, seen when the Jaws are widely opened.

a, a, The posterior arches of the palate.—*b, b*, The anterior arches. Between *a* and *b*, is the seat of the amygdalæ.—*c, c*, The edge of the soft palate.—*d*, The uvula.—*e*, The tongue.—*f, f*, The fauces.—*g, g*, Constrictores isthmi faucium.—*b, b*, Palato-pharyngei.

FIG. 16.

A Lateral View of the LARYNX, with the MUSCLES which lie under the THYROID CARTILAGE, the right side of which is removed.

a, Crico-arytenoideus posicius.—*b*, Crico-arytenoideus lateralis.—*c, c, f*, Thyreo-epiglottideus.—*d, g*, Thyreo-arytenoidei.—*b*, Arytenoideus transversus.—*i*, Arytenoideus obliquus, with its continuation to the epiglottis.

FIG. 17.

The same View with the preceding, of the CARTILAGES of the LARYNX, but freed from the Muscles and Membranes.

a, b, c, d, The inside of the left half of the thyroid cartilage;—*d*, The superior cornu.—*f*, The cricoid cartilage.—*g*, The right, and—*b*, The left arytenoid cartilage.—*i, k*, The epiglottis;—*k*, Its concave part.

FIG. 18.

A Side-view of the FIRST LAYER of MUSCLES.

HEAD and TRUNK.—*A*, Occipito-frontalis.—*B*, The aponeurosis joining the two sides of this muscle.—*C*, Attollens aurem.—*D*, Anterior auris.—*E*, Retrahentes auris.—*a*, Helicis major.—*b*, Helicis minor.—*c*, Tragicus.—*d*, Antitragicus.—*F*, Orbicularis palpebrarum.—*G*, Zygomaticus major.—*H*, Buccinator.—*I*, Masseter.—*K*, Depressor anguli oris.—*L*, Pterygoideus internus.—*M, M*, Platysma myoides.—*N*, Sterno-cleido-mastoideus.—*O*, Complexus.—*P*, Splenius.—*Q*, Scalenus medius.—*R*, Levator scapulae.—*S, S, T*, Cucullaris.—*U*, Teres minor.—*W*, Teres major.—*X, X, Y*, Latissimus dorsi.—*Z*, Pectoralis minor.—*a, a, b*, Pectoralis major.—*c, c, c*, Serratus anticus major.—*d, d, c, c*, Obliquus externus abdominis; *d, d*, The fleshy, *c, c*, The tendinous parts.—*f*, The cremaster muscle.

LEFT SUPERIOR EXTREMITY.—*A, A*, Deltoides.—*B*, Biceps flexor cubiti.—*C*, Brachialis internus.—*D*, Triceps extensor cubiti.—*E*, Flexor carpi ulnaris.—*F*, Supinator radii longus.—*G*, Flexor carpi radialis.—*H, H*, Extensor carpi radialis longior.—*I*, Extensor carpi radialis brevior.—*K*, Extensor carpi ulnaris.—*L*, Extensor digitorum communis.—*M*, Its tendons.—*N*, Extensor ossis metacarpi pollicis;—*O*, Its tendon.—*P*, Extensor primi internodii pollicis;—*Q*, Its tendon.—*R*, Tendo secundi internodii.—*S*, Ligamentum carpi annulare posterius.—*T*, Ligament confining the tendons of the extensor ossis metacarpi, and extensor primi internodii pollicis.—*W*, Adductor pollicis.

RIGHT SUPERIOR EXTREMITY.—*A, B*, Triceps extensor cubiti; *A*, The part called Extensor Longus; *B*, The part called Extensor Brevis.—*C*, Brachialis internus.—*D*, Biceps flexor cubiti.—*E*, Supinator longus.—*F*, Pronator teres.—*G*, Flexor carpi radialis.—*H*, Palmaris longus.—*I*, Flexor sublimis perforatus.—*K*, Flexor carpi ulnaris.—*L*, Extensor carpi ulnaris.—*M*, Flexor brevis pollicis.—*N*, The tendon of the long flexor, with its retaining ligaments.—*O*, Pronator radii quadratus, and on the outside of it, the abductor minimi digiti.—*P*, The tendons of the extensor digitorum communis.—*Q*, The aponeuroses of these tendons, stretched over the backs of the four fingers.

LEFT INFERIOR EXTREMITY.—*A*, Adductor longus femoris.—*B*, Pectineus and psoas magnus.—*C*, Sartorius.—*D*, Tensor vaginae femoris.—*E*, Gluteus medius.—*F*, Gluteus maximus.—*G*, Semitendinosus.—*H*, Biceps flexor cruris.—*I*, Vastus externus.—*K*, Rectus.—*L*, Vastus internus.—*M*, Ligament connecting the patella to the tibia.—*N*, Outer head of the gemellus.—*O, O*, Soleus.—*P*, Tendo Achillis.—*Q*, Peroneus longus.—*R*, Peroneus brevis.—*S*, Ligaments binding the tendons of the peronei muscles.—*T*, Extensor longus digitorum, inseparably connected with—*U*, the peroneus tertius;—*V*, Its tendon inserted into the metatarsal bone of the little toe.—*W*, The tendon of the extensor longus, splitting into four smaller tendons;—*X, X*, Their insertions into the toes.—*Y*, Extensor proprius pollicis;—*Z*, Its tendon.—*a, a*, Tibialis anticus.—*b*, Upper and under portions of the ligamentum tarsi annulare.—*c*, Extensor brevis digitorum pedis; its tendons are inserted into all the toes, excepting the smallest.—*d, d*, Part of the interossei pedis externi.—*e*, Abductor minimi digiti pedis;—*f*, Its tendon.—*g, g*, Flexor brevis minimi digiti pedis.

RIGHT INFERIOR EXTREMITY.—*A*, The rectus;—*B*, Its insertion into the patella.—*C*, The ligament which fixes the patella to the tibia.—*D*, Vastus internus.—*E*, Sartorius;—*F*, Its tendon fixed to the tibia.—*G*, Gracilis.—*H*, Semimembranosus.—*I, I*, Semitendinosus.—*K*, Gemellus;—*L*, Its tendon.—*M*, Soleus.—*N*, Tendo Achillis.—*O*, Tendon of the plantaris.—*P*, Flexor longus pollicis pedis.—*Q*, Ligament binding the tendon of the flexor longus.—*R*, flexor longus digitorum pedis.—*S*, Tendon of the tibialis posticus.—*T*, Ligament covering the tendon of the flexor longus digitorum pedis, and tibialis posticus.—*U*, Ligament which retains the tibialis posticus.—*V*, Tibialis anticus;—*W*, Its tendon.—*X, X*, The upper and under portions of the ligamentum tarsi annulare.—*Y*, Tendon of the extensor proprius pollicis pedis.—*Z*, An aponeurosis joining this tendon.—*a*, Abductor pollicis pedis.—*b*, Massa carnea Jacobi Sylvii.

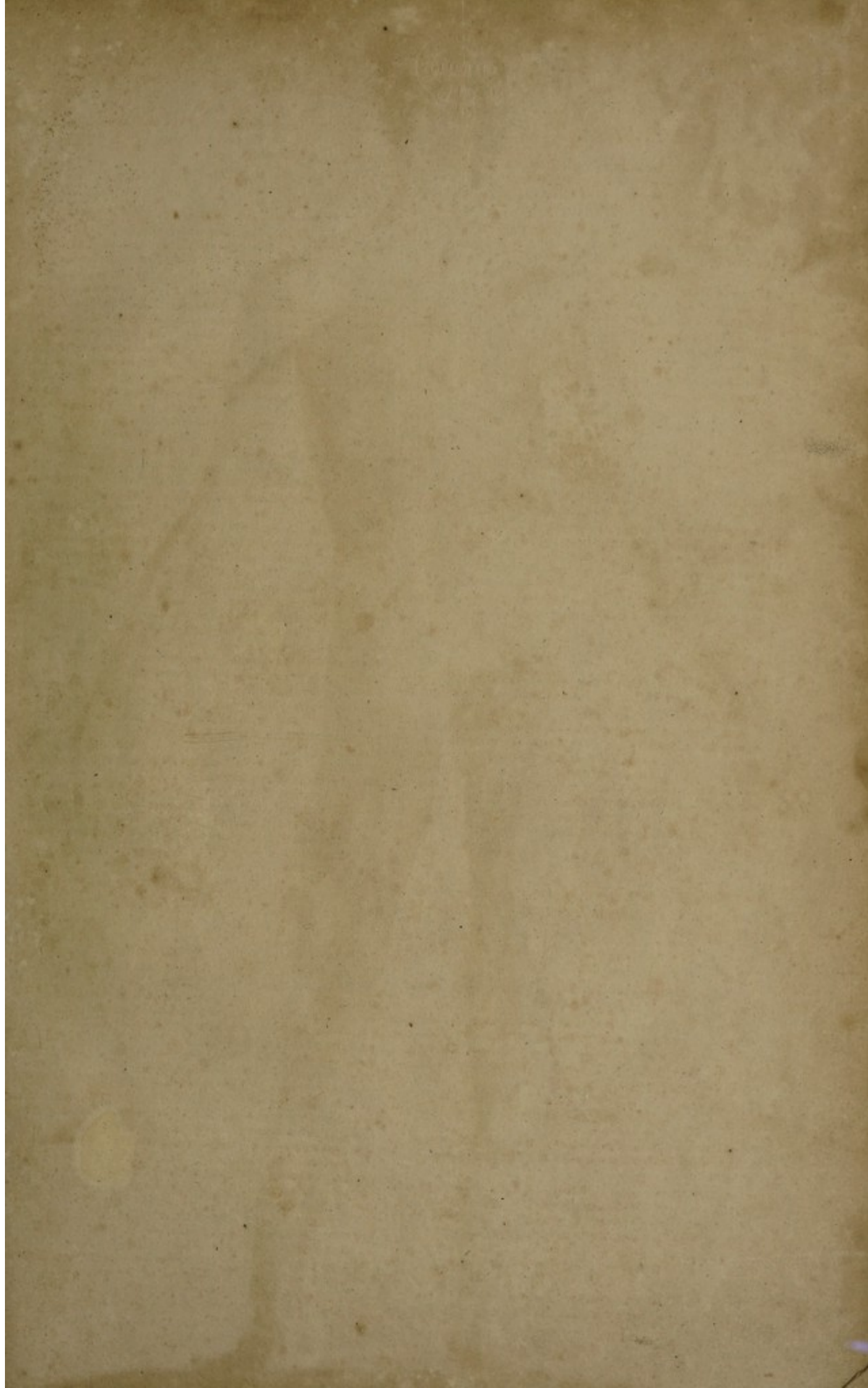


FIG. 2.



FIG. 3.



TABLE IX.

REPRESENTS the First and Second LAYERS of MUSCLES on the Posterior Part of the Body, and the MUSCLES of the External Parts of GENERATION.

FIG. 1. From ALBINUS.

ON the Left Side of the Head, and Right Side of the Posterior Part of the Trunk and Extremities, the MUSCLES immediately under the common Integuments are shewn; on the Left Side of the Posterior Part of the Trunk and Extremities, are seen the MUSCLES which come in view when the exterior set has been removed.

HEAD.—*a b, a b*, Occipito-frontalis.—*a, a*, The fleshy.—*b, b*, The tendinous parts.—*c*, A membrane joining them.—*d*, Attollens aurem.—*e*, Part of the occipito-frontalis.—*f*, Orbicularis palpebrarum.—*g*, Anterior auris.—*b*, Retrahentes auris.—*i*, Masseter.—*k*, Zygomaticus major.—*l*, Pterygoideus internus.—*m*, Platysma myoides.—*n*, Mylo-hyoideus.

RIGHT SIDE; NECK and TRUNK.—*o*, Sterno-cleido-mastoideus.—*p, q, r, s*, Trapezius, seu cucullaris.—*t, u*, Infra-spinatus.—*v*, Part of the rhomboides.—*w*, Part of the sacro-lumbalis.—*x*, Part of the teres minor.—*y*, Teres major.—*A, B, C, D*, Latissimus dorsi.—*E*, Fleshy part of the obliquus externus descendens.

INFERIOR EXTREMITY.—*F*, Part of the Gluteus medius.—*G*, Gluteus maximus.—*H*, Part of the adductor magnus femoris.—*J, J*, Gracilis.—*K*, Part of the sartorius.—*L*, Part of the vastus internus.—*M, N*, Semimembranosus.—*N*, Its tendon.—*O*, Semitendinosus.—*P, Q, R*, Biceps flexor cruris.—*P*, Its long head.—*Q*, Its short head.—*R*, The tendon common to the two heads.—*S*, Vastus externus.—*T, V*, Plantaris.—*V*, Its tendon.—*W, W*, Gastrocnemius, seu gemellus.—*X, X*, Soleus.—*Y*, Tendo Achillis.—*Z*, Tendon of the tibialis posticus.—*a*, Ligaments at the malleolus internus.—*b*, Flexor longus pollicis.—*c, d*, Peroneus brevis.—*e, f*, Peroneus longus.—*g, h, i*, The ligaments which tie the tendons at the outer ankle.—*k*, The tendons of the extensor longus digitorum pedis.—*l*, Tendon of the peroneus tertius.—*m*, Extensor brevis digitorum pedis.—*n, o*, Abductor minimi digiti pedis.—*p*, Flexor brevis minimi digiti pedis.

SUPERIOR EXTREMITY.—*A, B*, Deltoides.—*C, D, E, F*, Triceps extensor cubiti.—*C*, Its short head.—*D*, Its long head.—*E*, Its third head, called Brachialis Externus.—*F*, The tendon common to the three heads.—*G*, Brachialis internus.—*H*, Supinator radii longus.—*I*, Extensor carpi radialis longior.—*K*, Extensor carpi radialis brevior.—*L*, Part of the anconeus.—*M*, Part of the flexor profundus, which comes from the ulna.—*N*, Part of the palmaris longus.—*O*, Part of the flexor sublimis.—*P*, Flexor carpi ulnaris.—*Q*, Extensor carpi ulnaris.—*R*, Tendons of the extensor digitorum communis, belonging to the little finger.—*S*, Extensor digitorum communis.—*T*, Tendons of the extensor digitorum communis, going to the other fingers.—*U, U*, Their joinings by cross tendons.—*V*, The tendon of the indicator, going to join with the tendon of the extensor.—*W, W*, The tendons of the extensor communis, joined with those of the lumbricales and interossei.—*X, X*, Extremities of these tendons, joined to the bones of the second phalanx.—*Y*, Abductor minimi digiti manus.—*Z, Z, Z*, Interossei externi.—*a, a*, Tendons of the anterior interossei, joining with the lumbricales.—*b, b, b*, Tendons of the posterior interossei.—*c*, Abductor indicis.—*d*, Tendon of the extensor secundi internodii pollicis.—*e*, Capsular ligament of the wrist.—*f*, Ligament of the extensor carpi ulnaris.—*g*, A ligament for the extensor ossis metacarpi, et primi internodii pollicis.—*h*, Extensor primi internodii pollicis.—*i*, Extensor ossis metacarpi pollicis.—*k*, Tendons of the three extensors of the thumb.—*l*, Adductor pollicis.—*m, m*, Tendons of the interossei and lumbricales, after joining with the tendons of the extensor digitorum communis, and receiving additions from it, fixed to the third phalanx.

LEFT SIDE; NECK and TRUNK.—*A*, The complexus.—*B*, The splenius capitis.—*C*, Levator scapulae.—*D*, Rhomboides

minor.—*E*, Rhomboides major.—*F, F*, Spinalis dorsi.—*G*, Longissimus dorsi.—*H*, Sacrolumbalis.—*I, I*, Part of the external intercostal muscles.—*K*, The eleventh of the internal intercostals.—*L*, Part of the serratus anticus major.—*M, N*, Serratus posticus inferior.—*O, P*, The back-part of the internal oblique muscle of the abdomen.—*Q, Q*, The broad tendinous beginning of the latissimus dorsi.—*R*, Part of the multifidus spinæ.—*S*, Coccygeus.—*T*, Levator ani.—*U*, Transversalis alteri perinei.—*V*, Transversalis perinei.

INFERIOR EXTREMITY.—*A*, Gluteus medius.—*B*, Piriformis.—*C*, Geminus superior.—*D*, Geminus inferior.—*E*, Part of the obturator externus.—*F*, Obturator internus.—*G*, Quadratus femoris.—*H, H*, Vastus externus.—*I, I*, Adductor magnus femoris.—*K, L, M*, Biceps cruris.—*N, N*, Semitendinosus.—*O*, Gracilis.—*P*, Part of the vastus internus.—*Q, Q, Q*, Semimembranosus.—*R, R*, The heads of the gemellus.—*S, S*, Popliteus.—*T, T*, Plantaris.—*U, U, U*, Soleus.—*V*, The cut tendon of the gemellus.—*W*, The tendo Achillis, fixed to the os calcis.—*X*, Tendon of the flexor longus digitorum pedis.—*Y*, Tendon of the tibialis posticus.—*Z*, Flexor longus pollicis.—*a, a*, Peroneus brevis.—*b, b*, Peroneus longus.—*c*, Tendons of the long extensors of the toes.—*d*, Tendon of the peroneus tertius.—*e*, Extensor digitorum brevis.—*f*, Flexor brevis digitorum.—*g*, Flexor parvus minimi digiti pedis.

SUPERIOR EXTREMITY.—*A*, Origin of the omo-hyoideus.—*B*, Supraspinatus.—*C, C*, Infraspinatus.—*D, D*, Teres minor.—*E*, Teres major.—*F, G, H, I*, Triceps extensor cubiti.—*F*, The short head.—*G*, The long head of the triceps.—*H*, Brachialis externus, or third head.—*I*, Tendon common to the three heads.—*K*, Brachialis internus.—*L, L*, Extensor carpi radialis longior.—*M, M*, Extensor carpi radialis brevior.—*N*, Anconeus.—*O*, Supinator radii brevis.—*P*, Extensor ossis metacarpi pollicis.—*Q*, Extensor primi internodii pollicis.—*R*, Extensor secundi internodii pollicis.—*S*, The conjoined tendons of the extensors, fixed to the last bone of the thumb.—*T*, Indicator.—*U*, Flexor profundus perforans.—*V*, Flexor carpi ulnaris.—*W, W*, The tendons of the extensor communis cut off where they are about to join with those of the lumbricales and interossei.—*X, X*, The tendons of the extensor communis fixed to the second phalanx.—*Y*, Abductor digiti minimi.—*Z, Z*, Tendons of the anterior interossei, joining with those of the lumbricales.—*a*, Tendon of the first lumbricalis.—*b, b, b*, Tendons of the posterior interossei.—*c, c, c*, The interossei muscles.—*d*, Prior indicis.—*e*, Abductor indicis.—*f*, Adductor pollicis.—*g, g*, The tendons of the interossei and lumbricales, after joining with the tendons of the extensor communis, fixed to the third phalanx. These tendons on the back of the fingers are tied down by ligaments, or rather aponeuroses, the upper part of which comes from the articulation of the fingers with the metacarpus, the under part from the tendons of the interossei and lumbricales.

FIG. 2. From the LIFE.

MUSCLES about the Root of the PENIS, and Under End of the INTESTINUM RECTUM, of a CHILD.

a, The sphincter ani.—*b*, Levator ani.—*c*, Transversalis perinei.—*d*, Erector penis.—*e*, Accelerator urine.—*f*, Corpus cavernosum penis.—*g*, Corpus cavernosum urethrae.—*h*, The scrotum.—*i*, Part of the thigh.

FIG. 3. From EUSTACHIUS.

MUSCLES of the EXTERNAL PARTS of GENERATION, &c. in the FEMALE.

a, a, A section of the thighs.—*b*, The clitoris.—*c, c*, The crura clitoridis.—*d, d*, The erectores clitoridis.—*e, e*, The sphincter vaginae.—*f*, The sphincter ani connected with the sphincter vaginae.



FIG. 1.



FIG. 2.

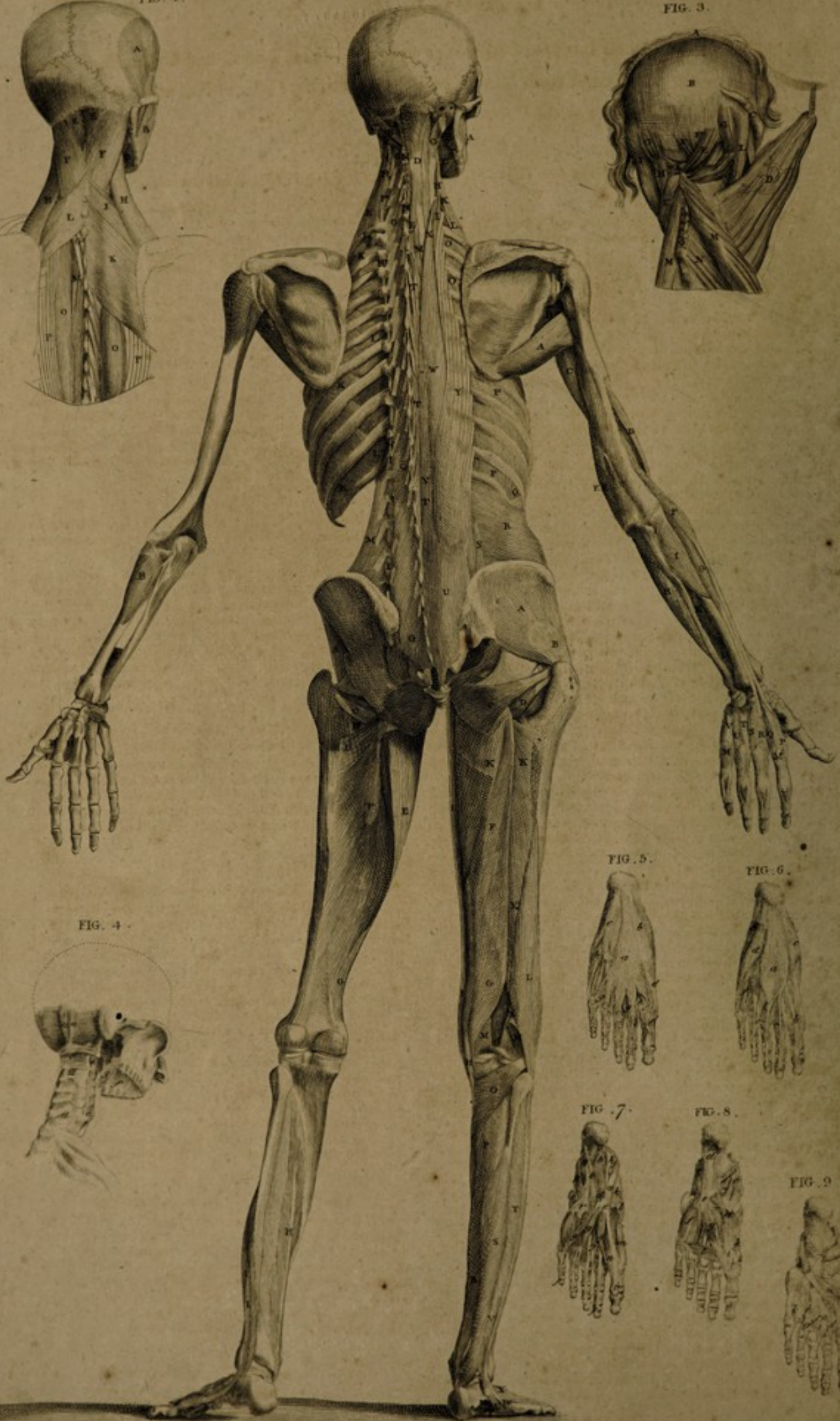


FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.



FIG. 7.



FIG. 8.



TABLE X.

REPRESENTS the Second LAYER of MUSCLES upon the HEAD, NECK, and Upper Part of the TRUNK;—the Third and Fourth LAYERS of MUSCLES on the Posterior Part of the BODY, with the MUSCLES on the SOLE of the FOOT.

The Figures of this Table are copied from ALBINUS, excepting the Third and Fourth, which are taken from COWPER.

FIG. 1.

MUSCLES upon the HEAD and NECK, and Upper Part of the TRUNK, deeper seated than those represented in Figure 1. of the former Table.

A, Temporalis.—B, Masseter.—C, Pterygoideus internus.—D, Mylo-hyoideus.—E, E, Complexi.—F, F, Splenii.—G, The origins of the left splenius.—H, H, Levatores scapulae.—I, Rhomboides minor of the right side.—K, Rhomboides major of that side.—L, Serratus pecticus superior of the left side.—M, Semispinalis dorsi of the same side.—N, N, Spinales dorsi.—O, O, Longissimi dorsi.—P, P, Sacro-lumbales.

FIG. 2.

The Third LAYER of MUSCLES on the Right, and Fourth LAYER of MUSCLES on the Left Side of the Posterior Part of the BODY.

RIGHT SIDE; HEAD and TRUNK.—A, Back-part of the buccinator.—B, Pterygoideus internus.—C, Mylo-hyoideus.—D, E, Complexus.—E, A fleshy portion from the spinous process of the first dorsal vertebra.—F, Obliquus capitis superior, and immediately below it, the obliquus capitis inferior.—G, Trapezius.—H, Transversalis colli.—I, Cerviculis descendens.—K, Scalenus medius.—L, Scalenus pecticus.—M, Semi-spinalis colli.—N, N, Interspinales colli.—O, O, Portions of the intercostales externi, called by Albinus, Levatores Costarum.—P, P, P, Intercostales externi.—Q, Lowest of the intercostales interni.—R, Transversalis abdominis.—S, The inner layer of the aponeurosis, common to the serratus pecticus inferior, and obliquus internus abdominis.—T, T, T, Spinalis dorsi. Between the spinous processes of the vertebrae of the back, and likewise between those of the loins, the interspinales dorsi, et lumborum, appear.—U, Tendon covering, and partly giving origin to the common head of the longissimus dorsi and sacro-lumbalis.—V, Part of that tendon running along the longissimus dorsi.—W, Longissimus dorsi.—X, A portion of that muscle which joins the cervicalis descendens.—Y, Sacro-lumbalis.

SUPERIOR EXTREMITY.—A, Teres major.—B, Part of the subscapularis.—C, Coraco-brachialis.—D, Part of the brachialis internus.—E, Brachialis externus, or third head of the triceps extensor cubiti.—F, Extensor carpi radialis longior.—G, Extensor carpi radialis brevior.—H, Flexor profundus perforans.—I, Supinator radii brevis.—K, Flexor longus pollicis.—L, Pronator radii quadratus.—M, M, Tendons of the extensors cut off.—N, Flexor brevis pollicis.—O, Adductor pollicis.—P, Prior indicis.—Q, Posterior indicis.—R, Prior medii digiti.—S, Posterior medii digiti.—T, Prior annularis.—U, Posterior annularis.—V, Prior auricularis.

INFERIOR EXTREMITY.—A, B, Gluteus minimus;—B, Its tendon.—C, Obturator internus.—D, Obturator externus.—E, Tendon common to the iliacus internus, and psoas magnus.—F, G, H, Semi-membranosus;—F, Its tendinous origin;—G, Its fleshy belly;—H, Its tendinous insertion into the tibia.—I, I, Gracilis.—K, K, K, Adductor magnus femoris.—L, Short head of the biceps flexor cruris.—M, M, Origins of the gemelli.—N, Origin of the plantaris.—O, Popliteus.—P, Tibialis pecticus.—Q, Its tendon passing behind the inner ankle.—R, Flexor longus digitorum.—S, Flexor longus pollicis.—T, Peroneus longus.—U, Its tendon passing to the sole.—V, Peroneus brevis;—W, Its tendon.—X, Extensor brevis digitorum.—Y, Part of the flexor longus digitorum.

LEFT SIDE; HEAD and TRUNK.—A, Rectus capitis pecticus minor.—B, Rectus capitis pecticus major.—C, Obliquus capitis superior.—D, Obliquus capitis inferior.—E, Scalenus medius.—F, F, Intertransversales colli.—G, G, G, Multifidus spinæ.—H, H, Intertransversales dorsi.—I, I, Intertransversales lumborum.—K, K, Intercostales interni.—L, L, L, The pleura.

SUPERIOR EXTREMITY.—A, Subscapularis.—B, Supinator brevis.—C, Pronator radii quadratus.—D, Flexor brevis pollicis.—E, E, Adductor pollicis.

INFERIOR EXTREMITY.—A, Iliacus internus.—B, Insertion of the psoas magnus and iliacus internus.—C, Obturator externus.—D, E, F, G, Adductor magnus femoris.—F, Tendon; the shaded part around it is an impression made by the femimembranosus.—H, Tendon of the tibialis pecticus passing behind the inner ankle.—I, Peroneus brevis.

FIG. 3.

View of the MUSCLES upon the Under and Back Part of the HEAD, and Back-Part of the NECK.

A, The cut edge of the integuments.—B, Os occipitis.—C, Insertion of the splenius.—D, The complexus turned aside.—E, E, Recti majores, the left one turned down.—F, F, Recti minores.—G, G, Obliqui superiores.—H, Obliqui inferiores.—I, The Mastoid process of the left side.—K, The atlas, or first vertebra of the neck.—L, Part of the complexus.—M, M, Semispinales colli.—N, Upper part of the multifidus spinæ.—O, O, Interspinales colli.

FIG. 4.

MUSCLES on the Side and Back Part of the HEAD and NECK, not sufficiently shewn in the former Figure.

a, Rectus capitis pecticus minor.—b, Rectus capitis lateralis.—c, Ligament between the first and second cervical vertebra.—d, d, Interspinales colli.—e, e, Intertransversales colli.—f, The palate, covered with its glandular membrane.—g, The glands appearing after the uvula is cut off.—b, The septum narium next the fauces.

FIG. 5.

The APONEUROSIS, and part of the First LAYER of MUSCLES and LIGAMENTS on the SOLE, after removing the common Integuments.

a, b, c, Aponeurosis plantaris.—d, Abductor pollicis.—e, The common tendinous end of the flexor brevis and abductor pollicis.—f, Ligaments binding the tendon of the flexor longus pollicis. Between the roots of the toes, the insertions of the lumbricales and internal interossei appear.—g, g, Transversalis pedis.—b, Abductor minimi digiti. Upon the four small toes are seen the retaining ligaments and tendons of the flexor sublimis and profundus, as in the hand.

FIG. 6.

The First Order of MUSCLES on the SOLE, after the Aponeurosis Plantaris has been removed.

a, Flexor brevis digitorum pedis, sending off four tendons which are split by the tendons of the flexor longus.—b, Tendon of the flexor longus pollicis.—c, Abductor pollicis.—d, e, Abductor minimi digiti.—f, Flexor parvus minimi digiti. At the roots of the toes are seen, part of the lumbricales, interossei, and transversalis pedis.

FIG. 7.

Represents the Second Order of MUSCLES on the SOLE.

a, The tendon of the flexor longus digitorum.—b, c, d, Flexor digitorum accessorius;—b, c, Its two heads arising from the os calcis;—d, Its insertion into the tendon of the flexor longus digitorum.—e, Connection between the tendon of the flexor longus digitorum, and flexor longus pollicis.—f, f, The insertion of the tendons of the flexor longus digitorum into the last bone of the small toes.—g, g, g, g, Lumbricales.—b, Flexor longus pollicis;—i, Its insertion into the last joint of the great toe.—k, Insertion of the tibialis pecticus.—l, Insertion of the tibialis anticus.—m, n, The two parts of the flexor brevis pollicis.—m, The part from which the abductor pollicis has been cut away.—o, Insertion of the peroneus brevis.—p, Tendon of the peroneus longus passing to the sole.—q, r, Ligaments connecting the bones of this part of the foot, and giving origin to muscles.

Part of the lumbricales, interossei, and transversales pedis, are seen at the roots of the toes, as in the former Figure.

FIG. 8.

The Third Order of MUSCLES on the SOLE.

a, Insertion of the peroneus brevis.—b, Course of the tendon of the peroneus longus.—c, Insertion of the tibialis pecticus.—d, e, Ligament binding the os cuboides to the os calcis, and giving origin to muscles.—f, Flexor brevis minimi digiti.—g, Adductor pollicis.—b, i, k, Flexor brevis pollicis;—b, Its tendinous origin;—i, Its connection with the adductor pollicis;—k, Its connection with that part from which the abductor was cut.—l, Transversalis pedis.

FIG. 9.

The Fourth Order of MUSCLES on the SOLE.

a, Insertion of the peroneus brevis.—b, The tendon of the peroneus longus.—c, Insertion of the tibialis anticus.—d, Abductor, and—e, Adductor indicis pedis.—f, Abductor, and—g, Adductor medii digiti.—b, Abductor, and—i, Adductor tertii digiti.—k, Adductor minimi digiti pedis.

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TAB. II.



T A B L E X I.

REPRESENTS the APONEUROSES or TENDINOUS MEMBRANES, which appear upon removing the
COMMON INTEGUMENTS, and which cover the MUSCLES of the EXTREMITIES.

*The Figures of this Table are copied from NATURE.—The Outlines correspond with those of Table I. and V. of
ALBINUS.*

FIG. 1.

Gives a View of the APONEUROSIS, which covers the MUSCLES on the Fore-part of the SUPERIOR EXTREMITY.

A, The deltoid muscle.—B, The aponeurosis, sent off from the tendons of the muscles on the shoulder to cover the flexor muscles of the fore-arm.—C, Aponeurosis continued from the fore-side of the arm, joined to a thicker and stronger one sent off from the tendon of the biceps flexor cubiti, to cover the muscles on the anterior part of the fore-arm.—D, The continuation of this aponeurosis, covering the tendons of the flexor muscles of the hand and fingers, which, on account of its thinness, are seen shining through it.—E, Aponeurosis palmaris. Above, it is connected chiefly to the tendon of the palmaris longus, and to the anterior transverse ligament of the wrist; below, it is fixed to the roots of the four fingers by an equal number of double slips.—F, The musculus abductor pollicis.—G, Palmaris brevis.

FIG. 2.

Shews the APONEUROSIS upon the Back-part of the SUPERIOR EXTREMITY.

A, The deltoid muscle.—B, Aponeurosis covering the infra-spinatus muscle, similar to one which covers the supra-spinatus.—C, The aponeurosis which covers the back-part of the arm, sent down from the tendons of the muscles on the shoulder, and with the aponeurosis on the fore-side of the arm, forming a sheath, which incloses the muscles on the upper part of the arm.—D, The aponeurosis of the back-part of the fore-arm, continued from that which covers the back-part of the upper arm, and likewise from the tendon of the triceps extensor cubiti muscle, many of the fibres intermixing with, and decussating each other, at the opposite sides of the fore-arm.—E, A thick and strong portion of the aponeurosis on

the back-part of the fore-arm, forming the ligamentum carpi annulare posterius.

FIG. 3.

Represents the APONEUROSIS upon the Fore-part of the INFERIOR EXTREMITY.

A, The thick and strong aponeurosis at the fore and outer part of the thigh, sent down from the muscles about the pelvis, and from the under end of the external oblique muscles of the abdomen.—B, An aponeurosis covering the muscles upon the fore and inner part of the thigh, much thinner and weaker than that farther out.—C, An attachment of the aponeurosis of the thigh to the head of the tibia.—D, Aponeurosis of the inside of the thigh, fixed to the corresponding side of the tibia.—E, F, Aponeurosis sent from the fascia of the thigh, and from the extensor muscles of the leg, to cover the muscles on the fore-part of the leg. This aponeurosis, like that on the thigh, is thick and strong at the outer, and becomes gradually thinner towards the inner part of the leg.—G, H, Parts of this aponeurosis thicker and stronger than the rest, forming the superior and inferior ligaments of the tarsus.

FIG. 4.

APONEUROSIS on the Back-part of the INFERIOR EXTREMITY.

* A, The large gluteus muscle.—B, Aponeurosis of the back-part of the thigh, arising from the tendons of the glutei muscles, and from those of the loins, fixed to the linea aspera of the os femoris.—C, Continuation of this aponeurosis covering the muscles, vessels, nerves, &c. of the ham.—D, That part of the aponeurosis which covers the gemelli muscles. From this part, the aponeurosis is continued down, and lost upon the foot.

TABLE XI.

RELATIONS OF THE APONEUROSIS OF THE TRUNK TO THE MUSCLES OF THE TRUNK, WHICH COVER THE MUSCLES OF THE TRUNK.

THE TRUNK OF THE BODY AS SEEN FROM THE FRONT. THE APONEUROSIS OF THE TRUNK IS SHOWN IN THE COLOR OF THE MUSCLES OF THE TRUNK.

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THE APONEUROSIS OF THE TRUNK IS SHOWN IN THE COLOR OF THE MUSCLES OF THE TRUNK.



FIG. 1.



FIG. 2.



The two following TABLES, copied from DR MONRO'S Work on the BURSÆ MUCOSÆ, represent all the BURSÆ hitherto discovered.

TABLE XII.

REPRESENTS the BURSÆ MUCOSÆ of the SUPERIOR EXTREMITY.

FIG. 1.

The BURSÆ MUCOSÆ on the Fore-part of the SUPERIOR EXTREMITY.

A, The clavicle.—B, The acromion scapulae.—C, The fore-part of the scapula.—D, Ligament of the femilunar notch of the scapula.—E, The coracoid process of the scapula.—F, F, Two ligaments which tie the clavicle to the coracoid process.—G, The head of the os humeri.—H, The body of that bone.—I, A bursa interposed where the clavicle plays on the coracoid process.—J, A strong ligament which joins the acromion to the coracoid process.—K, A large bursa between the acromion and ligament J, and the capsular ligament of the humerus.—L, A small bursa, which is sometimes wanting, between the point of the coracoid process and capsular ligament of the humerus.—M, Tendon of the subscapularis muscle.—N, A bursa between it and the capsular ligament of the humerus, which frequently communicates with the cavity of that joint.—O, A bursa, which is sometimes wanting, between the origin of the coraco-brachialis and short head of the biceps muscle, and capsular ligament of the humerus.—P, Tendon of the teres major, turned outwards.—Q, A bursa between the tendon of the teres major and the os humeri, and upper part of the tendon of the latissimus dorsi.—R, The tendon of the latissimus dorsi, turned outwards.—S, A small bursa between the tendon of the latissimus dorsi and os humeri.—T, A bursa between the tendon of the biceps flexor cubiti and the humerus.—U, The radius.—V, The ulna.—W, The tendon of the biceps flexor cubiti, turned inwards.—X, A bursa, with a *peloton* of fat, between the tendon of the biceps and tubercle of the radius.—Y, The origin of the extensor carpi radialis longior.—Z, A small bursa between the tendon common to the extensor carpi radialis brevis, and extensor digitorum communis, and the round head of the radius.—a, The sheath of the flexor longus pollicis, slit open.—b, The sheath of the flexors of the fore-finger, entire.—c, The thick part of the sheath of the tendons of the flexors of the middle-finger.—d, The sheath of the tendons of the flexors of the ring-finger, slit open.—e, The sheath of the tendons of the flexors of the little-finger, slit open, and the tendons drawn forwards to shew them fully.—f, A very large bursa for the tendon of

the flexor pollicis longus.—g, b, i, k, Four short bursæ on the fore-part of the tendons of the flexor sublimis of the fingers.—l, A probe introduced into a large bursa between the tendon of the flexor pollicis longus, and the fore-part of the radius, and capsular ligament of the os trapezium.—m, A probe put into a large bursa behind the tendons of the flexor digitorum profundus, and on the fore-parts of the end of the radius, and capsular ligament of the wrist. In some instances the two last-mentioned bursæ are found to communicate with each other.—n, A bursa between the tendon of the flexor carpi radialis and os trapezium.—o, A bursa between the tendon of the flexor carpi ulnaris and os pisiforme.

FIG. 2.

The BURSÆ MUCOSÆ on the Back-part of the SUPERIOR EXTREMITY.

A, The dorsum of the scapula.—B, The cervix of the scapula.—C, The acromion.—D, The capsular ligament of the humerus.—E, The tendon of the infra-spinatus, turned outwards.—F, The tendon of the teres minor, turned outwards.—I, The os humeri.—J, The external condyle of the humerus.—K, The internal condyle of the humerus.—L, The radius.—M, The ulna.—N, The olecranon.—O, The tendon of the triceps extensor cubiti, turned down.—P, A small bursa between it and the olecranon.—Q, A bursa between the tendon of the extensor ossis metacarpi pollicis and the radius.—R, R, A large bursa common to the extensores carpi radiales.—S, S, Another bursa common to the extensores carpi radiales.—T, A third bursa at the insertion of the tendon of the extensor carpi radialis brevior.—U, A bursa for the tendon of the extensor secundi internodii pollicis, which communicates with the bursa S, S.—V, Another bursa between the tendon of the extensor secundi internodii pollicis and metacarpal bone of the thumb.—W, Tendons of the extensor of the fore, mid, and ring-fingers.—X, A bursa between these tendons and the ligament of the wrist.—Y, Another bursa for the extensor of the little-finger.—Z, A bursa between the tendon of the extensor carpi ulnaris and ligament of the wrist.

T A B L E XIII.

REPRESENTS the BURSÆ MUCOSÆ of the INFERIOR EXTREMITY.

FIG. 1.

The BURSÆ MUCOSÆ on the Fore-Part of the INFERIOR EXTREMITY.

A, The spine of the os ilium.—B, The inner side of the os ilium.—C, The os pubis.—D, The neck of the thigh-bone.—E, The root of the great trochanter.—F, The thigh-bone.—G, The iliacus internus muscle.—H, The psoas magnus muscle.—I, The insertion of the iliacus internus and psoas magnus into the trochanter minor.—K, A very large bursa mucosa between these two muscles and the capsular ligament of the thigh-bone.—L, The pectineus muscle.—M, A bursa between the tendon of the pectineus and thigh-bone.—N, The adductor brevis femoris.—O, Gluteus minimus.—P, The tendinous part of the Gluteus medius.—Q, A small bursa between the gluteus medius and trochanter major. Behind it the tendon of the pyriformis is inserted.—R, A bursa between the tendon of the gluteus minimus and trochanter major.—S, Part of the gluteus maximus, which is joined to the gluteus medius.—T, Part of the vastus externus.—U, A bursa between the gluteus maximus and vastus externus.—V, The patella.—W, The capsular ligament of the knee.—X, The tendon of the extensors of the leg, cut and turned up.—Y, A large bursa behind the tendon of the extensors of the leg.—Z, A communication frequently found between this bursa and the cavity of the knee-joint.—a, a, The ligament which joins the patella to the tibia, cut and turned outwards.—b, A bursa behind it.—c, A fatty *peloton* hanging down into the cavity of the bursa.—d, The tibia.—e, The fibula.—f, The back-part of the insertion of the sartorius muscle, turned forward.—g, The tendon of the gracilis muscle.—h, The tendon of the semitendinosus muscle.—i, A large bursa between the tendons of the sartorius, gracilis, semitendinosus, and tibia.—k, The internal lateral ligament of the knee.—l, A bursa between the tendon of the tibialis anticus, and under part of the tibia and ligament of the ankle.—m, A bursa between the tendon of the extensor proprius pollicis pedis, and the tibia and capsular ligament of the ankle.—n, A bursa between the tendons of the extensor digitorum longus, and ligament of the ankle.

FIG. 2.

The BURSÆ MUCOSÆ on the Back-part of the INFERIOR EXTREMITY.

A, The dorsum of the os ilium.—B, The os sacrum.—C, The os coccygis.—D, The tuber of the os ischium.—E, The large trochanter.—F, The middle of the thigh-bone.—G, The gluteus minimus.—H, The pyriformis.—I, A bursa mucosa between the gluteus medius and pyriformis.—K, K, The obturator internus, cut across.—L, L, The gemini muscles.—M, A bursa between the obturator internus and os ischium.—N, A probe put into a bursa, which is continued to a dotted

line between the obturator internus, gemini, and capsular ligament of the thigh-bone.—O, The quadratus femoris.—P, The origin of the semimembranosus, and long head of the biceps flexor cruris.—Q, A small bursa mucosa.—R, The origin of the semitendinosus, turned back.—S, A small bursa mucosa.—T, The tendon of the gluteus maximus.—U, A large bursa between the tendon of the gluteus maximus and root of the trochanter major.—V, V, Two small bursæ between the tendon of the gluteus maximus and thigh-bone.—W, The back-part of a large bursa between the tendinous part of the gluteus maximus and vastus externus.—X, The internal condyle of the thigh-bone.—Y, The external condyle of the thigh-bone.—Z, The tibia.—a, The fibula.—b, The biceps flexor cruris, turned downwards.—c, The inner head of the gemellus muscle, turned up.—e, The semimembranosus muscle, turned down.—f, A bursa between the tendons of the semimembranosus and gemellus, and the ligament of the knee.—g, A probe passed into a small bursa within the bursa f, from which there is a passage into the cavity of the joint of the knee.—h, A probe passed into a bursa between the tendon of the semimembranosus and the lateral internal ligament of the knee, from which there is a passage communicating with the joint of the knee.—i, A small portion of the popliteus muscle.—l, A bursa under it, communicating with the cavity of the joint of the knee.—n, The tendon of the peroneus longus.—o, The tendon of the peroneus brevis.—p, A large bursa common to the tendons of the peronei muscles.—q, A bursa proper to the tendon of the peroneus brevis.—r, A ligament which ties the fibula to the os calcis.—s, The tendo Achillis, turned down.—t, A bursa between the tendo Achillis and os calcis.—u, A *peloton*, or mass of fat, which projects into the cavity of that bursa.—v, The tendon of the musculus plantaris.—w, A bursa between the os calcis and flexor pollicis longus.—x, Flexor digitorum longus.—y, A bursa between that flexor and the tibia and os calcis.—z, The tendon of the tibialis posticus.—e, A bursa between this tendon and the tibia and astragalus.

FIG. 3.

View of the BURSÆ MUCOSÆ in the SOLE of the FOOT.

A, The os calcis.—B, The tendo Achillis.—C, C, Abductor digiti minimi, cut across.—D, The tendon of the peroneus longus.—E, A second bursa for that tendon.—F, An oblong *peloton* of fat within this bursa.—G, The fleshy.—H, The tendinous part of the flexor pollicis pedis longus.—I, A bursa common to this tendon, and the tendon of the flexor digitorum profundus.—K, A fatty *peloton* at the upper end of this bursa.—L, An imperfect septum between the two last-named tendons, containing some fat.—M, The tendon of the tibialis posticus in its bursa.—N, The place at which the flexor digitorum sublimis is cut off.—O, The massa carnea Jacobi Sylvii, or flexor tertius.—P, The abductor pollicis pedis, cut off from the os calcis.—Q, R, S, T, U, Bursæ mucosæ of the flexor tendons, slit open nearly their whole length.

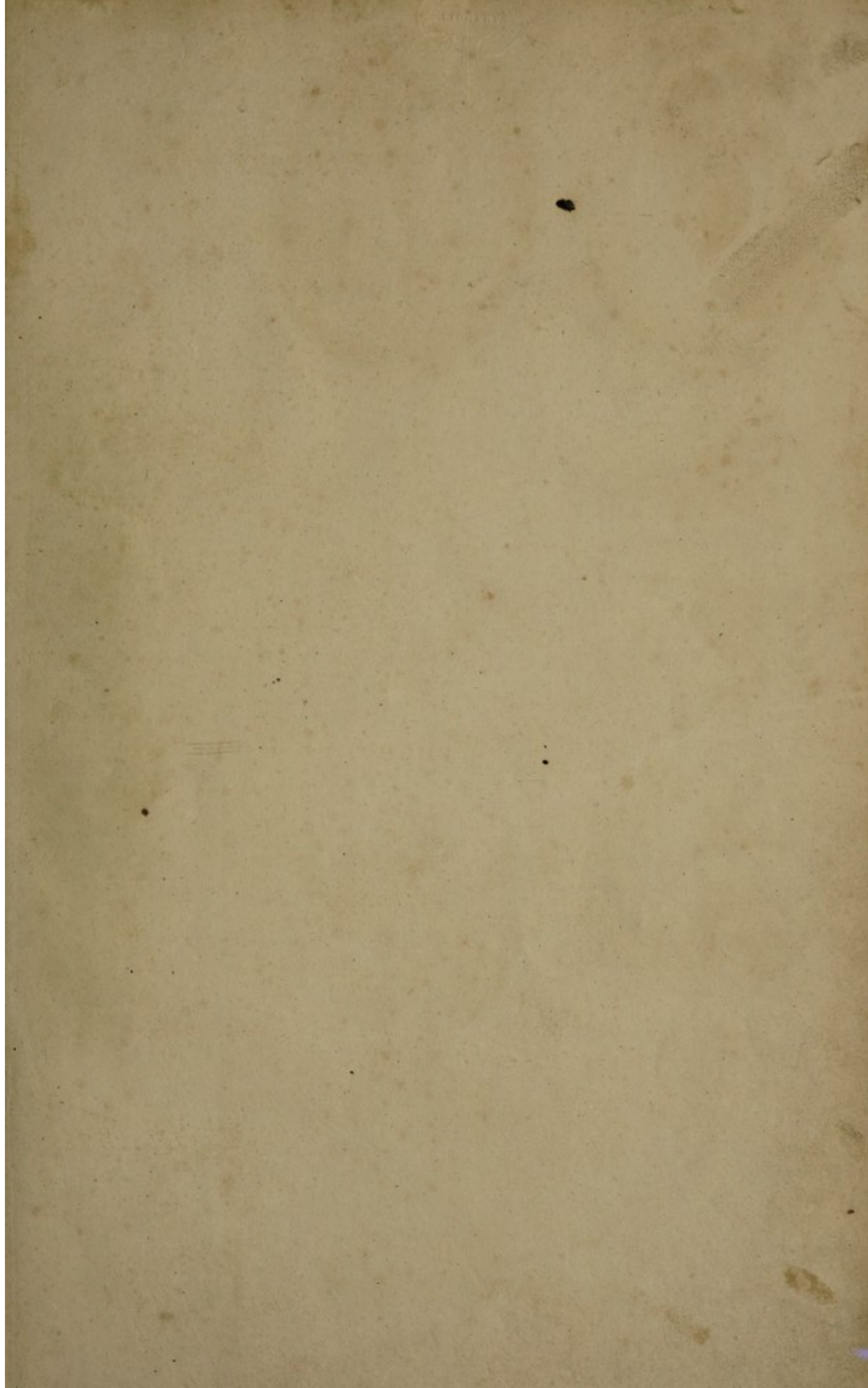


FIG. 1.

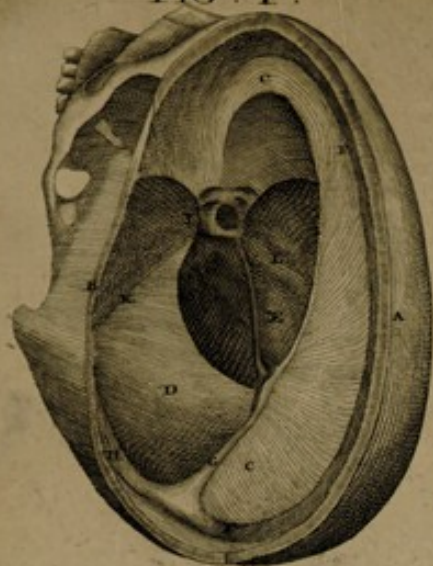
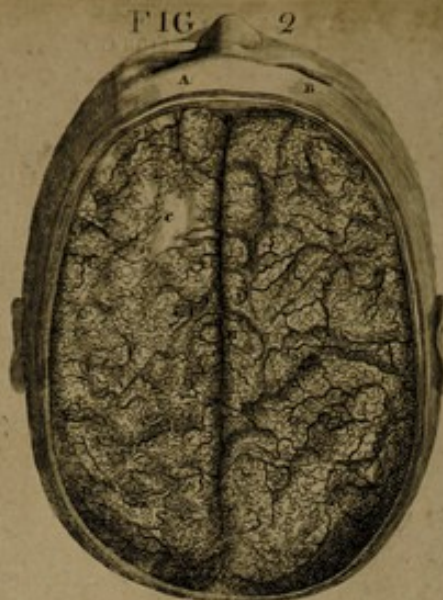


FIG. 2



TAB. XIV.

FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6

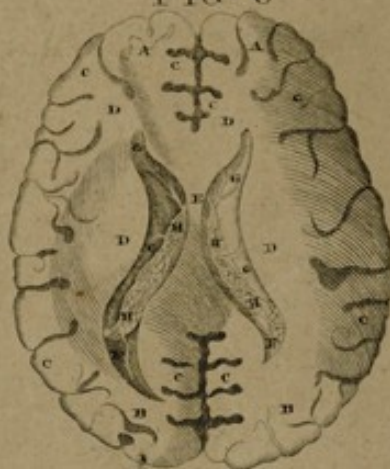


FIG. 7.

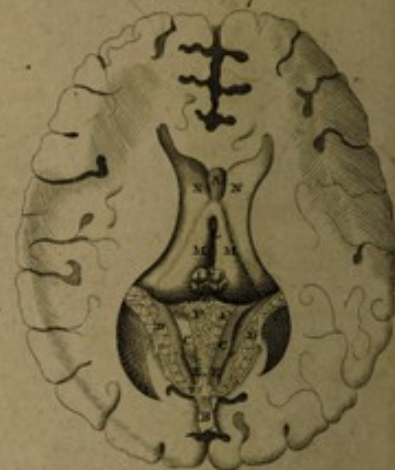


FIG. 8.



FIG. 9.



FIG. 13.

FIG. 12.



FIG. 14



FIG. 10.



FIG. 11.



T A B L E XIV.

VIEWS of the BRAIN and SPINAL MARROW.

FIG. 1. From the LIFE.

SHews the DURA MATER, with its Processes and Sinuses.

A, Section of the upper part of the skull.—B, Horizontal section of the skull.—C, C, Falx of the dura mater.—D, Left side of the tentorium.—E, Right side of the tentorium.—F, F, Superior longitudinal sinus.—G, Torcular Herophili.—H, Left lateral sinus.—I, Left cavernous sinus.—K, Left petrosal sinus.—L, Right petrosal sinus.

FIG. 2. From RUYSCH.

A View of the Upper Part of the BRAIN of a YOUNG PERSON, with the VESSELS minutely injected.

A, B, The under part of the forehead.—C, A portion of the tunica arachnoidea, raised by inflation.—D, Spinous part of the frontal bone, infinuating itself between the hemispheres of the brain.—E, Groove between the two hemispheres of the brain, from which very numerous arteries emerge, and are connected by anastomoses, in an infinite number of places, with —F, The lateral arteries of the brain.—G, G, G, The furrows or circumvolutions of the brain, covered by the pia mater and tunica arachnoidea, by which their depth is concealed.

FIG. 3. From RUYSCH.

Shews a Portion of the Pia Mater A, A, covering the brain with its processes B, B, B, infinuating themselves within the circumvolutions of the brain, and winding along in a serpentine direction.—Numberless arteries, C, C, &c. are seen dispersed over it, which in the subject itself are still more numerous.

FIG. 4. From RUYSCH.

Shews the Pia Mater A, covering the cerebellum,—from a young subject.—The same number of falciform processes, B, are found in it, as there are circumvolutions in the cerebellum.—Only a few lateral branches of arteries are added; for, had the whole been represented, the falciform processes would have been obliterated.—C, Shews the very short, delicate, and numerous small arteries, coming from the inner surface of the pia mater, and resembling a species of moss, which the author of this Figure says,—he was the first to discover.

FIG. 5. From EUSTACHIUS.

The BRAIN viewed on the Right Side, with the DURA MATER.

A A, B B, Left hemisphere of the brain.—B B, That part which is opposed to the falx.—C C, D D, Transverse section of the right hemisphere, a little above the corpus callosum.—C, C, The cortical part, and intervening medullary portions.—D, D, The medullary part.—E, Corpus callosum.—F, F, F, F, Section of the dura mater into four parts, with its depending angles.—G, Medulla oblongata.—H, Cerebellum.

FIG. 6. From EUSTACHIUS.

Transverse Section of the BRAIN, upon a level with the LATERAL VENTRICLES, which are laid open.

A, A, Anterior lobes of the brain.—B, B, The posterior lobes.—C, C, C, Section of the cortical part of the brain, and of the medullary portions which are intermixed with it.—D, D, D, D, The medullary part.—E, Part from which the corpus callosum is dissected.—F, G, G, H, H, F, G, G, H, H, Left ventricles of the brain.—G, G, G, G, Corpora striata.—H, H, H, H, Choroid plexuses, composed chiefly of blood-vessels which arise from the lateral ventricles.

FIG. 7. From EUSTACHIUS.

Is nearly similar to the preceding; but differs in this,—that

the Fornix and Choroid Plexus are dissected from the anterior parts, and turned back.

A, Section of the anterior crus of the fornix.—B, The other section of the fornix, turned back.—C, C, Inferior part of the fornix, turned back.—D, D, Inferior part of the choroid plexus, also turned back with the fornix.—E, E, Trunks formed by the veins of the choroid plexus.—F, F, Continuation of the veins of the choroid plexus, passing under the fornix to the fourth sinus of the dura mater.—G, A small portion of the cerebellum.—H, H, The testes.—I, I, The nates.—K, The pineal gland.—L, The third ventricle.—M, M, The thalami nervorum opticomum.—N, N, Corpora striata.—In the grooves between the corpora striata, and thalami nervorum opticomum, is placed the centrum semicirculare geminum.

FIG. 8. From RIDLEY.

Gives a VIEW of a SECTION of the BRAIN, nearly of the same Depth with that of Fig. 7.—It also represents a portion of the CEREBELLUM covered by the DURA MATER, with Part of the Large BLOOD-VESSELS which are injected,—and of the SPINAL MARROW.

a, The fornix cut at its anterior crus, and turned back;—b, Its anterior crus dividing into two.—c, c, Thalami nervorum opticomum.—d, d, The thick prominent part of the crura fornix, called Pedes Hypocampi.—e, e, The choroid plexus.—f, The part where the two plexus meet under the fornix.—g, g, Other parts of the choroid plexus, lying under the posterior crura of the fornix.—h, h, Large veins of the choroid plexus, supported by a probe, in their passage backwards to the fourth sinus of the dura mater.—i, i, The corpora striata.—k, The rim of the third ventricle, concealed by the large veins of the choroid plexus.—l, l, Centrum semicirculare geminum.—m m, m m, Centrum ovale Vieussens.—n, The fourth sinus of the dura mater.—o, The termination of the superior longitudinal sinus.—p, p, The lateral sinuses.—q, A large vein entering one of the lateral sinuses.—r, r, The cerebellum covered by the tentorium.—s, s, The under and back part of the cerebellum, covered by a continuation of the dura mater.—t, The spinal marrow.

FIG. 9. From LIEUTAUD.

Section of the BRAIN, the Fornix and Choroid Plexus being removed, to shew the Connection of the THALAMI NERVORUM OPTICORUM; the Anterior and Posterior COMMISSURES; the PINEAL GLAND; the TUBERCULA QUADRIGEMINA; the VALVULA VIEUSSENSII, &c.

a, a, a, a, The cortical, or cineritious substance of the brain, which surrounds the whole of—b, b, b, b, The medullary, or white substance of the brain.—c, c, The corpora striata, of an ashy colour.—d, d, The thalami nervorum opticomum, of a white colour.—e, The anterior pillar, separated from the rest of the fornix, and turned forward, to shew the two short columns which support it, and the anterior commissure which unites them.—f, The anterior opening common to the two lateral ventricles, and to the third ventricle.—g, The posterior opening, which is shut up by a vascular membrane and choroid plexus.—h, The pineal gland.—i, i, i, i, Tubercula quadrigena, or nates and testes.—l, The large valve of Vieussens.—m, m, The fourth pair of nerves.—n, n, The cerebellum, with blood-vessels running upon its surface.—o, o, Processus vermiformis.

FIG. 10. From LIEUTAUD.

Represents a Deeper Section than Figure 9. of the BRAIN of another Subject. The Thalami Nervorum Opticomum are separated, so as to bring the third Ventricle into view; and by a Vertical Section of the Cerebellum, the Arbor Vitæ and fourth Ventricle are seen.

a, a, Corpora striata.—b, b, Thalami nervorum opticomum.—c, Anterior pillar of the fornix.—d, The third ventricle, at the anterior part of which is seen the beginning of the infundibulum.—e, Pineal gland.—f, f, Tubercula quadrigena.

TABLE XIV. CONTINUED.

mina.—*g, g, g, g*. The two portions of the cerebellum.—*b, b*, The medullary substance of the cerebellum, commonly called the Arbor Vitæ.—*i i, k k*, The fourth ventricle.—*k, k*, The groove in the ventricle, called Calamus Scriptorius.—*l*, Extremity of the medulla oblongata.

FIG. 11. From RIDLEY.

Exhibits the BASE of the BRAIN, with part of the SPINAL MARROW, and the BLOOD-VESSELS which are injected with Wax.

A, A, The anterior lobes of the Brain.—B, B, The lateral lobes.—C, C, The posterior lobes.—D, D, The cerebellum.—E, E, The vertebral arteries, where they pass between the first cervical vertebra and occipital bone.—F, F, The lateral sinuses.—G, The vertebral sinus of this side.—H, The dura mater of the right side, cut and turned back from the spinal marrow; on the left side, it remains in situ.—1, 2, 3, &c. The ten pair of nerves belonging to the brain, with seven belonging to the spinal marrow.—*a*, The cut end of the infundibulum.—*b, b*, Corpora albicantia, behind the infundibulum.—*c, c*, The internal carotid arteries.—*d, d*, Communicating branches between the internal carotid and vertebral arteries.—*e, e, e, e*, Four principal branches of the vertebral arteries, which run to the back-part of the brain, and to the cerebellum.—*f*, Branches running off from the carotid artery.—*g*, The basilar artery formed by the two vertebral arteries.—*b, b*, The trunks of the vertebral arteries.—*i, i*, The anterior spinal artery.—*k, k*, The crura cerebri.—*l, l*, Crura cerebelli.—*m, m*, The tuber annulare, or Pons Varolii.—*n*, The corpus pyramidale of the right side.—*o*, The corpus olivare of that side.—*p, p*, The nervi accessorii arising from the spinal marrow.

FIG. 12. From HALLER.

Presents a Posterior View of the DURA MATER covering the Spinal Marrow and its Nerves; together with the direction, situation, and proportional size, of the Vertebral Nerves in the SPACUS of the SPINE.

A, A portion of the first vertebra, and the processus dentatus of the second.—B, B, Covering of the spinal marrow produced from the dura mater, continued from the foramen magnum of the occipital bone to the middle of the os sacrum.—C, A ligament continued from the spinal marrow to

the os coccygis.—D, Section of the spinal marrow at its origin. On each side of the spinal marrow are seen, the thirty pair of spinal nerves with their ganglia, also covered with the dura mater.

FIG. 13. From HALLER.

Gives a Posterior View of part of the MEDULLA OBLONGATA, and the whole of the SPINAL MARROW produced from it, lying in its natural situation within the sheath of the Vertebræ, which is concealed by the Dura Mater being laid open longitudinally and pinned back.

A, A, Portions of the os petrosum and os occipitis, covered with the dura mater.—B, Vermiform process of the cerebellum.—C, C, Part of the medulla oblongata.—D, Calamus scriptorius in the bottom of the fourth ventricle.—E, The spinal marrow;—F, Its under end terminating in two little eminences, which send off no nerves.—G, A ligament running from the under end of the spinal marrow, through the dura mater, to be fixed to the os coccygis. It is raised upon pins, and is that which has been considered by many authors as the *Fortieth pair of nerves*.—H, H, H, The dura mater cut and pinned back.—I, I, The seventh pair of nerves.—K, K, The eighth pair.—L, L, The nervus accessorius, arising by different roots from the upper end of the spinal marrow.—M, M, The ninth pair of nerves.—N, Upper end of the ligamentum denticulatum of this side, adhering to the dura mater.—In the interstices of the spinal nerves, the teeth of this ligament are seen inserted into the dura mater, as far as the under end of the spinal marrow.—O, The under part of the spinal marrow, sending off the nerves, which form the Cauda Equina.—P, P, P, P, P, Posterior origins of the thirty pair of spinal nerves, and their situation within the dura mater, together with the appearance of the filaments which form them.

FIG. 14. From HALLER.

Represents a Portion of the SPINAL MARROW, taken from the Upper Part of the BACK,—viewed anteriorly.

A, Ligament produced from the pia mater, inserted into the medullary substance.—B, B, The anterior origins of the spinal nerves, formed of bundles of filaments.—C, Section of the spinal marrow, shewing the medullary circumference, and crucial figure of the cineritious centre.

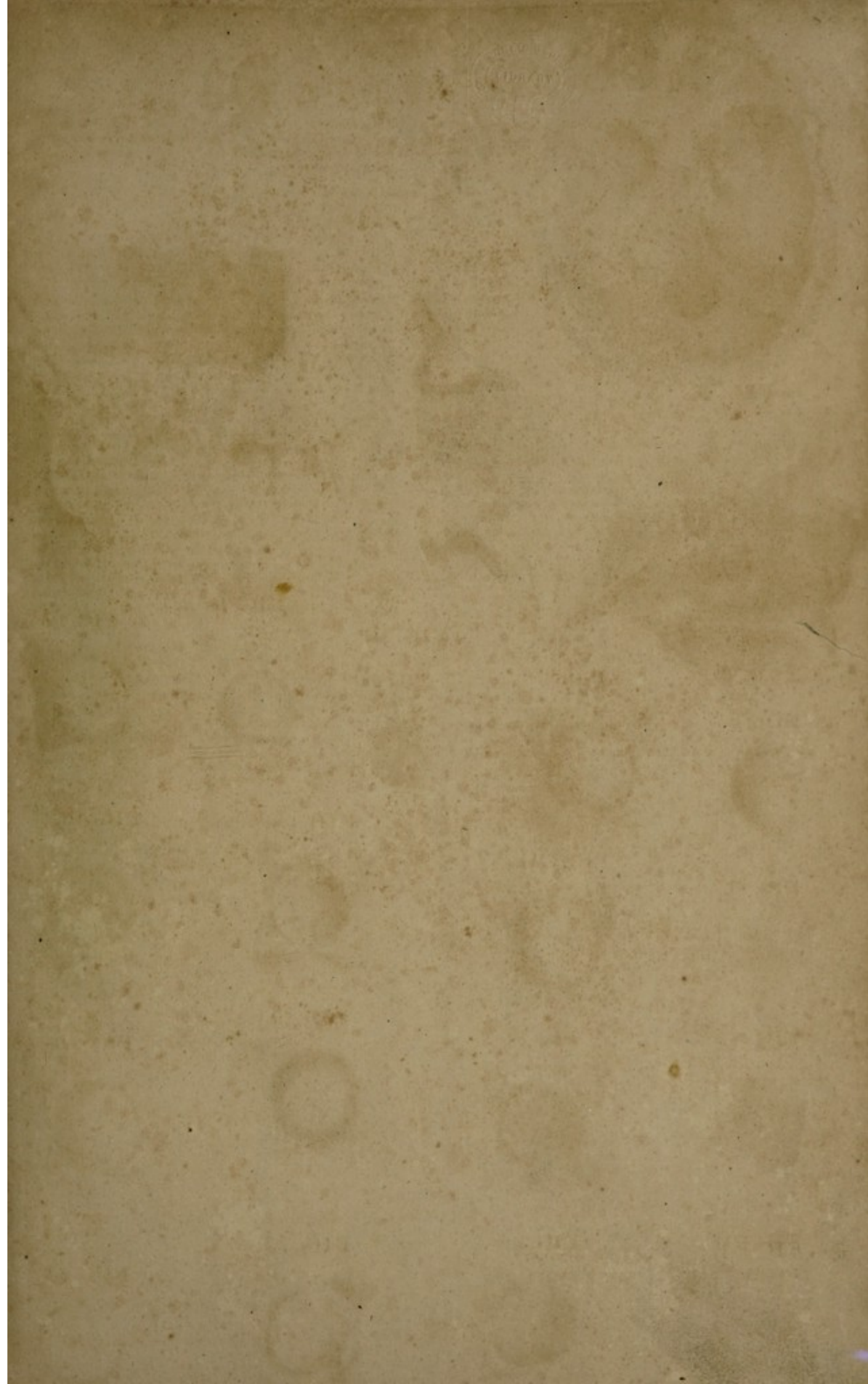


FIG. 1.

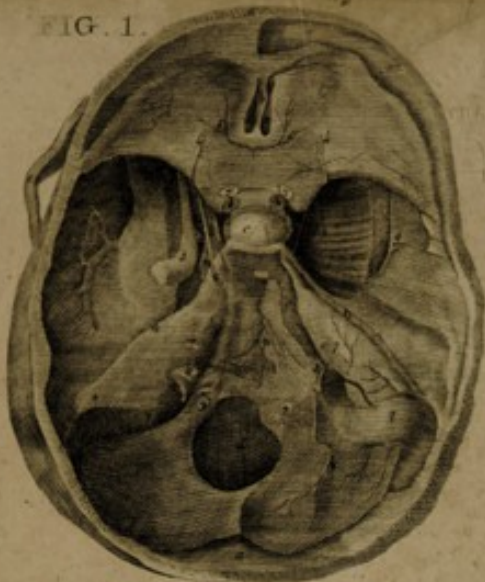


FIG. 2.



FIG. 3.



FIG. 4.



FIG. 7.

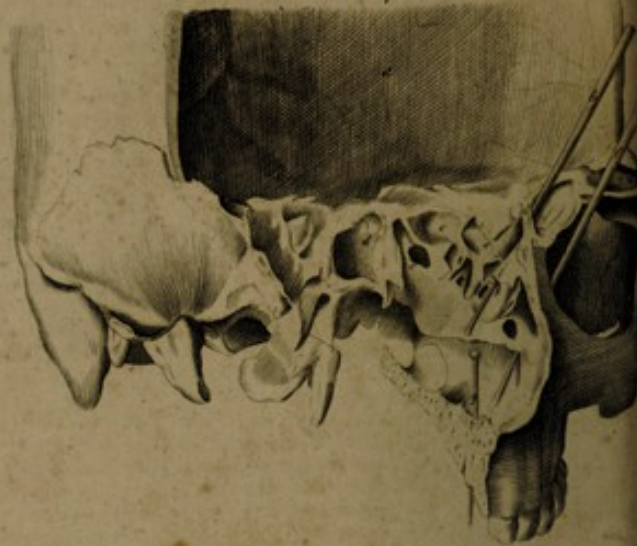


FIG. 6.



FIG. 5.



FIG. 11.



FIG. 12.



FIG. 10.



FIG. 9.



FIG. 8.



FIG. 15.



FIG. 16.



FIG. 14.



FIG. 13.



FIG. 19.



FIG. 20.



FIG. 18.



FIG. 17.



FIG. 23.



FIG. 24.



FIG. 22.



FIG. 21.



T A B L E X V.

REPRESENTS the COURSE of the VESSELS and NERVES in the BASE of the CRANIUM; with different Views of the Principal Parts of the Nose, and of the EYE.

FIG. 1. From RIDLEY.

REPRESENTS the Inside of the BASE of the CRANIUM, lined with the DURA MATER, and the COURSE of the ARTERIES, VEINS, and NERVES;—the Sinuses are injected.

a, a, The cut edge of the skull.—*b*, The crista Galli.—*c*, The infundibulum inserted into the glandula pituitaria.—*d*, Foramen magnum of the occipital bone.—*e*, The zygoma.—*f*, The anterior arteries of the dura mater.—*g, g*, The middle and principal arteries of the dura mater.—*h*, One of the posterior arteries of the dura mater.—*i, i*, The trunks of the internal carotid arteries.—*k, k*, A section of the internal carotid arteries, where they go to the brain.—*l, l*, The circular sinus of Ridley.—*m*, The left cavernous sinus, laid open.—*n, n*, The superior petrosal sinuses.—*o, o*, The inferior petrosal sinuses.—*p*, Veins passing into the inferior petrosal sinuses.—*q, q*, The lateral sinuses.—1. 1. The passage of the first pair of nerves.—2. 2. A section of the optic nerves.—3. The left part of the third pair of nerves.—4. 4. The fourth pair, turned forwards.—5. 5. The fifth pair, in its natural situation on one side, and turned outwards on the other.—6. 6. The sixth pair.—*r*, The upper end of the great sympathetic nerve, connected in this Figure with the fifth and sixth pairs.—7. 7. The seventh pair.—8. 8. The eighth.—9. 9. The ninth pair.

FIG. 2. From DRAKE.

A View of the Left Side of the Nose, with the Musculus Levator Labii Superioris Alaeque Nasi, one part of which is turned down.

FIG. 3. From DRAKE.

Shews the Cartilages of the Nose, viewed on the Left Side. Part of the Muscles connected with the Cartilages of the Nose are pinned out.

FIG. 4. From RUYSCH.

A View from the Left Side, of the CARTILAGES which form the Under Part of the Nose.

a, The first or upper cartilage.—*b*, The second.—*c*, The third.—*d*, The fourth cartilage.—*e*, The membranous part of one of the alae nasi.

FIG. 5. From DRAKE.

Right Portion of the UPPER JAW, and Fore-part of the BASE of the CRANIUM, divided from the Septum Narium, and viewed from the Left Side.

a, The os frontis.—*b*, The os nasi.—*c*, The osseous palate.—*d*, The cuneiform process of the occipital bone, united with the back-part of the os sphenoides.—*e*, The fella turcica.—*f*, The sphenoidal sinus.—*g, g, g*, Æthmoid cells, which, with the other parts of the nostril, are lined with the mucous membrane.—*h*, The fore-part of the nostril.—*i*, The os spongiosum superius.—*k*, The os spongiosum inferius.—*l*, A glandular body resembling the uvula.

FIG. 6. From RUYSCH.

The Left Side of the SEPTUM NARIUM, with its Mucous Covering, and small Arteries, which are much more numerous than could here be represented.

A, Part of the os frontis.—*B*, The septum, with its numberless arteries.

FIG. 7.

A Section of the CRANIUM and UPPER JAW, to shew some of the PASSAGES which terminate in the Nose.

a, The cavity of the cranium.—*b*, A probe introduced from the cavity of the left frontal sinus, into the corresponding nostril.—*c, c, c*, The æthmoidal cells.—*d*, The sphenoidal sinus of the right side.—*e*, A passage by which this sinus opens into the right nostril.—*f*, A probe passed from the left lacrymal groove into the cavity of the left nostril.—*g*, A probe passed through the foramen incisivum into the mouth.

FIG. 8. From EUSTACHIUS.

Represents the BALL of the RIGHT EYE, seen on the Upper Part.

a, The cornea.—*b*, The tunica adnata, with its vessels.—*c*, The tunica adnata, cut from the eye-lids, which are lined on the inner side by this coat reflected from the ball.—*d*, The tunica sclerotica.—*e*, The optic nerve.

FIG. 9. From EUSTACHIUS.

Posterior View of the GLOBE of the EYE.

a, a, a, a, The tunica sclerotica dissected round the optic nerve, and then cut into four parts, as far as the middle of the ball, and the angles turned aside.—*b*, The optic nerve, cut off.—*c, c*, The choroid coat and its vessels, which, as well as the vessels in the other Figures taken from this Author, are rudely expressed.

FIG. 10. From RUYSCH.

Shews the TUNICA CHOROIDES, the Tunica Adnata and Sclerotica being removed, from a BOY of six or seven years of Age.

a, The ocular arteries, various branches of which go to the bottom of the tunica choroides, and various others to the middle of it.—*b*, The ciliary ligament.—*c*, The iris.—*d*, The pupil.

FIG. 11. From RUYSCH.

The CHOROID COAT, the Sclerotic being removed, and the Arteries left out to shew the CILIARY NERVES.

a, The ciliary nerves.—*b*, Their continuation upon the choroid coat.—*c*, The iris, upon which the ciliary nerves terminate.

FIG. 12. From EUSTACHIUS.

The same BALL with that represented in Figure 9. also viewed posteriorly. The Sclerotic and Choroid Coats are cut, and turned back.

a, a, a, a, The sclerotic coat, turned back.—*b, b, b, b*, The choroid coat, also cut and turned back.—*c*, Section of the optic nerve near the ball.—*d, d*, The retina, with its blood-vessels.

FIG. 13. From RUYSCH.

Shews the TUNICA RUYSCHIANA, or Inner Layer of the CHOROID COAT, from the Centre of which a portion of the Retina depends.

a, A large portion of the tunica Ruyschiana.—*b*, Depending portion of the retina, going from the bottom of the eye.—*c*, Myriads of small arteries dispersed over the tunica Ruyschiana, emerging from the bottom of the eye, and running in a direction different from those of the tunica choroides.

FIG. 14. From EUSTACHIUS.

Another Posterior View of the same BALL. (Figure 9.), the Tunica Sclerotica, Choroides, and also the Retina of which are dissected, and turned back in the same manner.

a, b, c, The reclined angles of the tunica sclerotica, choroides,

TABLE XV. CONTINUED.

roides, and retina; the other angles are turned back in the same manner.—*d*, The extremity of the optic nerve adhering to one of the angles of the retina.—*f*, The vitreous humour.

FIG. 15. From EUSTACHIUS.

The same part of the same BALL, the same Coats dissected, and turned back, but the Vitreous Humour removed.

a, b, c, d, As in the preceding Figure.—*e, e*, The anterior part of the retina entire, extending to—*f*, The crystalline lens.

FIG. 16. From EUSTACHIUS.

The same BALL, dissected and opened as above; but besides the Vitreous Humour, the Crystalline Lens and Retina are also removed.

a, b, As above.—*c, c*, Anterior part of the choroid coat.—*d, d*, The ciliary processes.—*e, e*, The iris.—*f*, The pupil.

FIG. 17. From RUYSCH.

The Anterior Surface of the TUNICA RUYSCHIANA expanded, with the LIGAMENTUM CILIARE, and its PROCESSES.

a, Posterior surface of the tunica Ruyschiana, covered with small arteries.—*b*, Ciliary processes.—*c*, The iris.—*d*, The pupil.

FIG. 18. From EUSTACHIUS.

The same BALL with Figure 16. dissected in the same part and manner, and laid open; but consisting only of the Sclerotica and Cornea; the Humours being entirely removed.

a, a, a, a, The sclerotic coat dissected, and its angles turned back.—*b, b*, The anterior part of the sclerotica, entire.—*c*, The cornea.

FIG. 19. From EUSTACHIUS.

The same BALL, viewed anteriorly. The Cornea, with the sclerotica, are dissected into four parts, from the middle of the Cornea to the middle of the Ball, and the Angles turned back.

a, a, a, a, The reflected angles of the cornea and sclerotica.—*b, b*, The tunica choroides, and its blood-vessels.—*c*, The ciliary circle.—*d*, The iris.—*e*, The pupil.

FIG. 20. From EUSTACHIUS.

The same BALL opened on the Anterior Part, in a similar manner, but the Sclerotica and Choroides also dissected, and turned back.

a, a, b, c, The reflected angles of the sclerotica and choroides.—*d, d*, The retina, with its vessels.—*e, e*, Vestiges of the ciliary processes.—*f*, The crystalline lens.

FIG. 21. From EUSTACHIUS.

The same as the former, but along with the Sclerotica and Choroides, the Retina also is dissected, and turned back, and the Crystalline Lens and Vitreous Humour removed, to shew,

a a, The posterior part of the retina, with its vessels.

FIG. 22. From EUSTACHIUS.

The same as the former, but the Retina also removed, to shew
a a, The choroides, with its blood-vessels, rudely expressed.—*b*, The entry of the optic nerve.

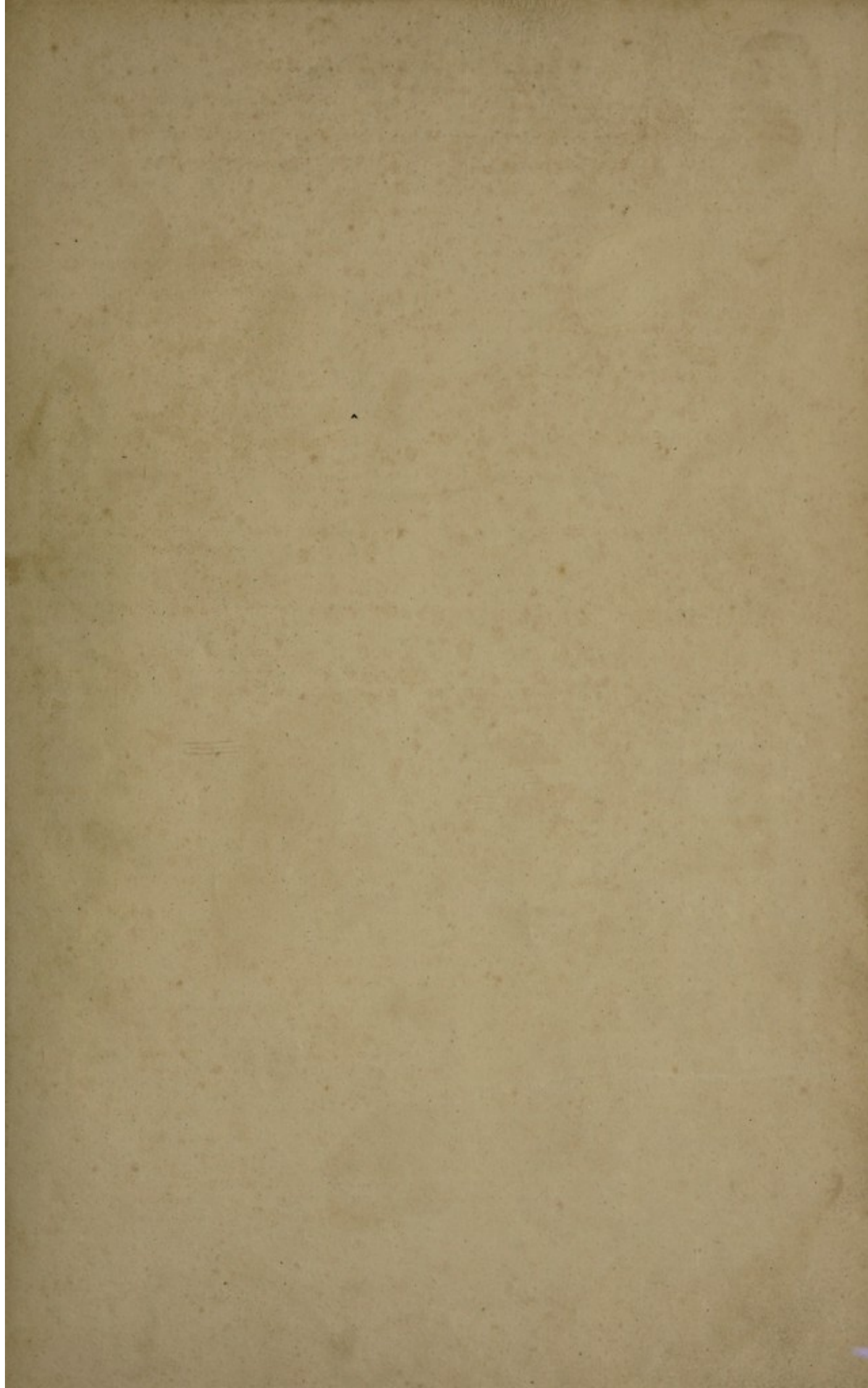
FIG. 23. From EUSTACHIUS.

The same BALL. It consists of the Sclerotica and Cornea only, the other parts being removed.

FIG. 24.

An Horizontal Section of the EYE-BALL, shewing the situation of its Coats and Humours.

a, The cornea.—*b*, The sclerotic coat.—*c*, The choroid coat.—*d*, The iris.—*e*, The pupil.—*f*, The optic nerve.—*g*, The retina.—*b, b*, The anterior, and—*i, i*, The posterior chambers in which the aqueous humour is lodged.—*h*, The crystalline lens.—*l*, The vitreous humour.



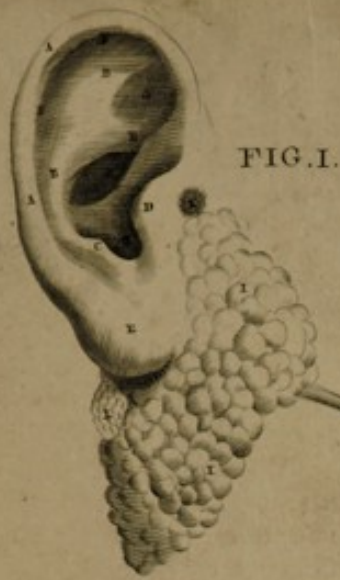


FIG. 1.



FIG. 2.



FIG. 3.

FIG. 6.



FIG. 7.



FIG. 4.



FIG. 5.



FIG. 8.



FIG. 9.



FIG. 10. FIG. 11. FIG. 12. FIG. 13. FIG. 14. FIG. 15. FIG. 16. FIG. 17. FIG. 18.



FIG. 19.

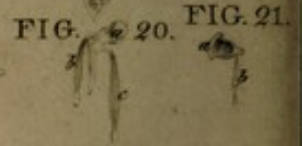


FIG. 22.



FIG. 23.



FIG. 24.



FIG. 25.



FIG. 26.



FIG. 27.



FIG. 28.



FIG. 29.



FIG. 30.



FIG. 31.



FIG. 32.



FIG. 33.



FIG. 34.



TABLE XVI.

SHEWS the different Parts of the ORGAN of HEARING.

FIG. 1. From VALSALVA.

Represents the EXTERNAL EAR, with the PAROTID GLAND and its DUCT.

A, A, The helix.—B, B, B, Anthelix.—C, Antitragus.—D, Tragus.—E, Lobe of the ear.—F, F, Cavitas innominata.—G, Scapha.—H, H, The concha, divided into two cavities by an intermediate projection.—I, I, Parotid gland.—K, L, Lymphatic glands.—M, Duct of the parotid gland.—N, Orifice of the duct, opening into the cavity of the mouth.

FIG. 2. From VALSALVA.

Gives a View of the Posterior part of the EXTERNAL EAR, the MEATUS EXTERNUS, the TYMPANUM, with its small BONES, and the EUSTACHIAN TUBE of the Right Side.

A, Glands of the meatus auditorius, with its reticular substance.—B, The incus.—C, The malleus.—D, The ossific portion of the wall of the mastoid sinus, to which the short process of the incus is joined.—E, The chorda tympani.—F, Membrana tympani.—G, The cavity of the Eustachian tube.—H, Origin of the tube;—I, Its termination.

FIG. 3. From DU VERNEY.

The CARTILAGE of the EAR, and the CARTILAGINOUS part of the MEATUS EXTERNUS stripped of their coverings.

A, The cartilages of the ear, with its windings.—B, The cartilaginous passage, somewhat flattened.—C, That part of the cartilage which forms the beginning of the meatus.—1. 2. 3. The three fissures of the cartilaginous passage.

FIG. 4. From DU VERNEY.

The Back-part of the EAR, and the Upper-part of the CARTILAGINOUS PASSAGE, with the LIGAMENT which ties the Concha to the Temporal Bone.

A, A, The back-part of the ear.—B, B, The back-part of the concha, divested of the skin.—C, C, The appendices which terminate the cartilage in the upper part.—D, The superior part of the passage, which is formed of a glandular membrane.—E, The ligament of the ear reversed.

FIG. 5. EPHEMERID. GERM.

Represents the Back-part of the EAR, the Parts which connect it to the Head, and the Membrane which lines the Meatus Externus.

FIG. 6.

The Connection between the MEATUS EXTERNUS and TEMPORAL BONE, after the Outer Ear has been removed.

A, The temporal bone.—B, The styloid process.—C, The meatus externus.

FIG. 7. From DU VERNEY.

A Section of the TEMPORAL BONE, to shew the TYMPANUM and the EUSTACHIAN TUBE.

A, The tympanum.—B, The fenestra ovalis, and—C, The fenestra rotunda, leading from the tympanum to the labyrinth.—D, The osseous part of the Eustachian Tube;—E, Its cartilaginous extremity;—F, Its membranous part, turned back.

FIG. 8. From CASSEBOHM.

Represents the Outer part of the TEMPORAL BONE of a Fœtus

A, The squamous part.—B, The zygomatic process.—C, The pars petrosa.—D, D, The bony ring which receives the membrana tympani.—E, Fenestra ovalis.—F, Fenestra rotunda.

FIG. 9. From DU VERNEY.

Represents the TEMPORAL BONE, cut perpendicularly downwards, in such a way as to shew the depth of the Tympanum, and the Vessels spread out upon the Membrane which lines it, together with the Cells of the Mastoid Process.

A, B, The tympanum.—C, The posterior extremity of the Eustachian tube.—D, An opening from the cells of the mastoid process.

FIG. 10. From DU VERNEY.

The MALLEUS, with the EMINENCES and CAVITY which serve for its Articulation.

a, Its head;—b, Its handle;—c, Its large process;—1. Its first eminence;—2. Its second eminence;—3. The cavity between the two eminences.

FIG. 11. From DU VERNEY.

A View of the opposite side of the same Malleus with that of Figure 10.

FIG. 12. From DU VERNEY.

The INCUS, viewed on the side by which it is articulated with the Malleus.

a, The body of the incus, with the eminences and cavity for articulation.—b, The short branch, fore-shortened.—c, The long branch.

FIG. 13. From DU VERNEY.

A Lateral View of the INCUS.

a, The short.—b, The long process.—c, The os orbiculare adhering to the long process.—d, The cavity for articulation with the malleus.

FIG. 14. From DU VERNEY.

The Under End of the INCUS, with the OS ORBICULARE and HEAD of the STAPES.

a, The long process of the incus.—b, Os orbiculare.—c, Head of the stapes.

FIG. 15. From DU VERNEY.

Shews the Base, Crura, and Head of the Stapes.

FIG. 16. From DU VERNEY.

Base of the stapes, inverted to shew its hollow cavity.

FIG. 17. From DU VERNEY.

Small BONES of the EAR, articulated with each other, and viewed Posteriorly.

a, The body of the incus;—b, Its short branch, seen in front;—c, Its long branch, articulated with the stapes, by the intervention of the os orbiculare.—d, Handle of the malleus.—e, The base of the stapes.

FIG. 18. From DU VERNEY.

The Small BONES of the EAR, viewed Anteriorly.

a, The head of the malleus;—b, its handle.—c, The long branch of the incus.—d, The base of the stapes.

FIG. 19. From DU VERNEY.

A View of the Fore-part of the MALLEUS and its MUSCLES.

a, The head of the malleus;—b, its handle.—c, The external muscle of the malleus;—d, Its insertion.—e, The internal muscle, with its sheath opened.—f, The curvature of the internal muscle, before its insertion into the handle of the malleus.—g, The large process of the malleus.—h, The small process, into which the external muscle is fixed.

FIG. 20. From DU VERNEY.

The MALLEUS, with its two MUSCLES, the Eye being supposed to be placed in the Eustachian Tube.

a, The malleus.—b, The external muscle of the malleus.—c, The internal muscle.

FIG. 21. From DU VERNEY.

The STAPES, with its MUSCLE.

a, The stapes;—b, Its muscle.

FIG. 22. From DU VERNEY.

Represents the Fore-part of the TEMPORAL BONE of a Fœtus.

A, The squamous process, the small bony fibres of which are easily distinguished.—2. 3. The sides of its circumference, which are yet cartilaginous.—B, The zygomatic process.—C, The membrana tympani.—D, The bony ring which receives the membrana tympani.—E, The styloid process, as yet cartilaginous.—F, The mastoid process, very small.—4. The foramen, through which the portio dura passes out.—G, This letter marks an obscure line, which is the part where the squamous, is separated from the mastoid process. These two bony parts are firmly united in adults.—H, The canal which incloses the internal carotid.—I, The foramen where the tube which goes from the ear to the palate is connected.

FIG. 23. From DU VERNEY.

Represents the TEMPORAL BONE, from which the Squamous parts and Membrana Tympani are cut off, and as much of the Body of the Bone as is necessary to give a view of the Tympanum and Small Bones of the Ear.

a, The

TABLE XVI. CONTINUED.

a, The malleus.—*b*, The incus.—*c*, The stapes fore-shortened, with its base filling up the fenestra ovalis.—*d*, The bottom of the tympanum, formed by the pars petrosa.—*e*, The fenestra rotunda.—*f*, The semi-canal which incloses the internal muscle of the malleus.—*g*, The Eustachian tube.—*h*, Section of the meatus externus.—*i*, The mastoid process.—*k*, The styloid process.

FIG. 24. From DU VERNEY.

Represents the Inner Side of the TEMPORAL BONE, with as much of it cut off as was necessary to shew the Membrana Tympani, upon which the Malleus and Incus are seen, with the nerve called Chorda Tympani, and the Tendon of the External Muscle of the Malleus;—all of them in situ.

A, The squamous plate of the temporal bone.—*B*, The mastoid process.—*C, C*, A section of the os petrosum.—*D*, Membrana tympani.—*E*, The incus, with its short branch resting upon the entrance of the passage into the cells of the mastoid process.—*G*, Meatus auditorius internus.—*I*, Tendon of the external muscle of the malleus.—*2, 3*, The chorda Tympani.

FIG. 25. From DU VERNEY.

The TEMPORAL BONE, prepared so as to shew the Cochlea, Vestibles, and Semicircular Canals in situ.

a, The vault of the vestibule.—*b*, The fenestra ovalis.—*c*, The fenestra rotunda.—*d*, The lamina spiralis, divested of the spiral canal which covers it, and of the membrane which connects it to the surface of that canal.—*1*, The superior.—*2*, The middle, and—*3*, The inferior semicircular canals in situ. The middle and inferior are cut open to shew their cavities.

FIG. 26. From DU VERNEY.

The Covering of the Cochlea taken off, to shew its semi-oval Spiral Canal.

FIG. 27. From CASSEBOHM.

A SECTION of the MASTOID and PETROSAL PROCESSES, to shew several parts belonging to the Tympanum.

a, Canal for one of the muscles of the malleus.—*b*, Section of the Eustachian tube.—*c*, Section of the Aqueduct of Fallopius.—*d*, The foramen ovale.—*e*, The foramen rotundum.—*f*, The canal for the muscle of the stapes.—*g*, The styloid process.—*h*, Foramen stylo-mastoideum; the dotted lines running from it mark the *Portio dura* of the seventh pair of nerves.—*i*, Cells of the mastoid process.—*k*, Mastoid sinus.

FIG. 28. From CASSEBOHM.

The Internal EAR opened transversely.

a, Part of the meatus externus.—*b*, Part of the membrana tympani.—*c*, External muscle of the malleus.—*d*, Chorda tympani.—*e*, The incus.—*f*, The incus.—*g*, The articulation of the incus with the os orbiculare, and of the os orbiculare with the stapes.—*h*, The base of the stapes, fixed in the foramen ovale.—*i*, The muscle of the stapes.—*k*, Orifice proper to the superior semicircular canal.—*l*, Orifice of the interior canal.—*m*, Orifice common to the superior and inferior canals.—*n*, Superior orifice of the external canal.—*o*, Inferior orifice of that canal.—*p*, Section of the Aqueduct of Fallopius.

FIG. 29. From CASSEBOHM.

The VESTIBULE and COCHLEA of a CHILD, laid open on the side next the Cavity of the Cranium.

a, The orifice of the superior semicircular canal.—*b*, The orifice of the inferior canal.—*c*, Orifice common to the superior and inferior canals.—*d*, Orifice of the superior external canal.—*e*, Inferior orifice of that canal.—*f*, Foramen ovale.—*g*, Orifice of the scala vestibuli.—*h*, Lamina spiralis.—*i*, Membranaceous part of the lamina spiralis.—*k*, The perforated part of the cochlea for the passage of nerves.

FIG. 30. From CASSEBOHM.

Represents a Section of the COCHLEA, to shew its Spiral Process.

a, The beginning of the scala tympani.—*b, c*, The first

and second turns of the scala tympani.—*d, e*, The first and second turns of the scala vestibuli.—*f, g*, The first and second turns of the osseous part of the lamina spiralis, the membranaceous part being removed.—*h*, The extremity, or hamulus, of the lamina spiralis.—*i*, The part of the os petrosum which covers the cochlea.

FIG. 31. From CASSEBOHM.

The COCHLEA cut from its Base to its Centre.

a, a, The bone which incloses the cochlea.—*b, b*, The modiolus, or nucleus.—*c*, The cavity of the modiolus.—*d, d, d, d*, Scala tympani;—*e*, Its extremity.—*f, f, f, f*, Scala vestibuli.—*g, g*, Lamina spiralis of the first turn, and the same is seen in the other turns of the cochlea.—*h*, Meatus auditorius internus.—*i*, Aqueduct of Fallopius.

FIG. 32. From CASSEBOHM.

The TEMPORAL BONE of a Fœtus of four months, with the SMALL BONE of the TYMPANUM, in their natural situation.

a, The malleus.—*b*, The incus.—*c*, The os orbiculare.—*d*, The stapes.—*e*, The muscle of the stapes.—*f*, The foramen rotundum.—*g*, The base of the muscle of the malleus.—*h*, The ring of the bone to which the membrana tympani is fixed.

FIG. 33. From DU VERNEY.

Back-view of the TEMPORAL BONE of a Fœtus.

A, Pars squamosa.—*B, B*, The part where it is separated from the os petrosum.—*C*, Superior semicircular canal, seen without any preparation.—*D*, The inferior.—*E*, The point of their communication.—*F*, A considerable fossa, which is situated under the superior canal, and which is filled up and effaced as the fœtus grow older.—*G*, Foramen in the passage of the portio dura.—*H*, Foramen of the auditory nerve.

FIG. 34. From VALSALVA.

A view of the Anterior part of the EAR, but turned a little towards the Occiput, to obtain a more distinct view of the four OSSICULÆ.

a, Extremity of the Fallopian Aqueduct, from which the portio dura of the auditory nerve arises.—*b*, The osseous portion from the wall of the mastoid process, to which the short process of the incus is fixed.—*c*, Muscle of the processus minimus of the malleus. The muscle of the processus minor opposite to this is not seen, being wholly covered by the incus, and meatus auditorius.—*d*, Muscle of the processus major, which extends the whole length of the Eustachian tube, freed from its osseous canal.—*e*, Anterior side of the cartilage of the Eustachian tube, into which the fleshy fibres of the preceding muscles are inserted.—*f, f*, The new muscle of the Eustachian tube.—*g*, Muscle of the stapes, freed from its osseous canal.—*1*, Canalis semicircularis major.—*2*, Canalis semicircularis minor.—*3*, Minimus.—*4*, The vestibulum, in the arch of which, according to this view, only two of those foramina are seen, which transmit nervous twigs into the cavity of the vestibule. The three remaining foramina are seen in the following Figure.—*5*, Canal of the cochlea.—*6*, Portio mollis of the auditory nerves, one part of which goes to the cochlea, and the other, which is divided into five twigs, to the vestibule; of these twigs two are cut off, to obtain a view of the two above-mentioned foramina, through which they passed.

FIG. 35. From VALSALVA.

The EAR viewed Posteriorly, but turned forward to obtain a view of the FENESTRA ROTUNDA, MEMBRANA TYMPANI, and part of the OSSICULÆ.

a, The Fallopian Aqueduct.—*b*, Origin of the Eustachian tube.—*c*, Posterior side of the cartilage of the same.—*d*, End of the tube.—*1*, Canalis semicircularis major.—*2*, Minor.—*3*, Minimus.—*4*, The vestibulum, in the arch of which are seen three of these small lobes, which transmit nervous twigs into the vestibule. Under these the fenestra rotunda is seen.—*5*, Canal of the cochlea, within the windings of which is left, that sinuosity which is perforated with very minute holes, for the passage of the portio mollis. For the sake of greater perspicuity, the holes are shewn somewhat larger than nature. The other parts are evident from the explanation of the preceding Figure.



FIG. I

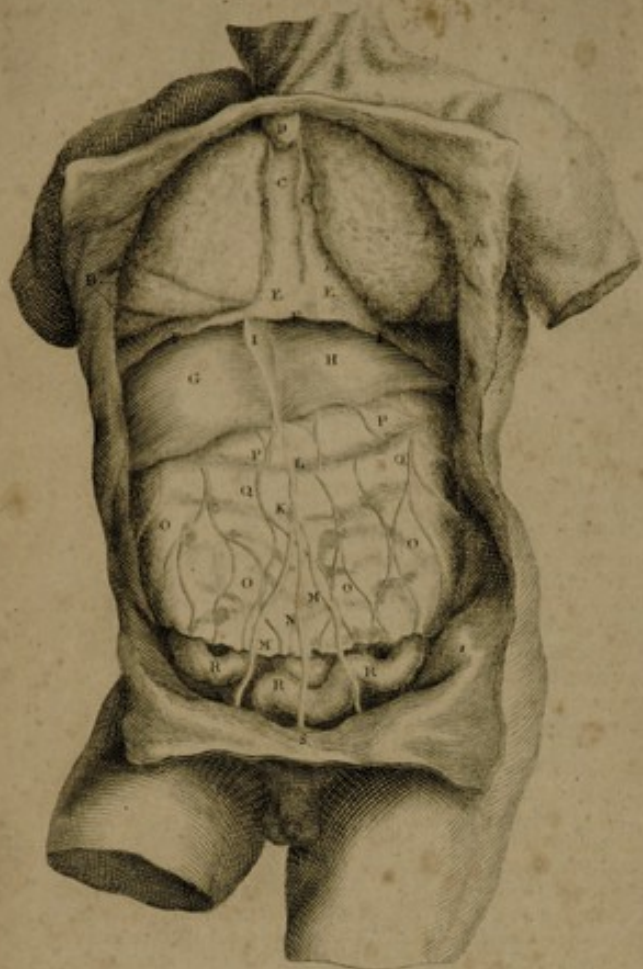


FIG. II

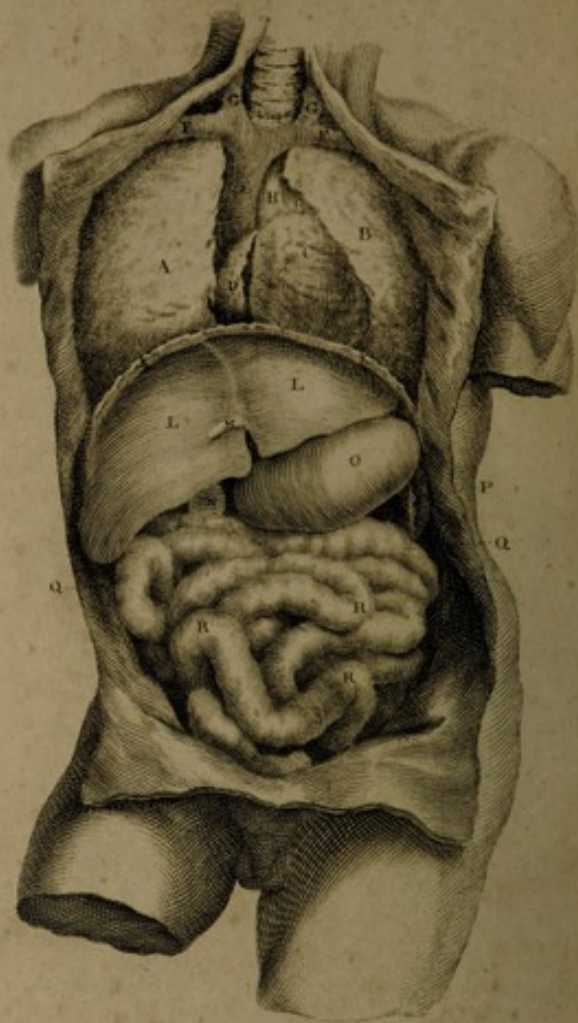


FIG. III



FIG. IV



T A B L E XVII.

REPRESENTS the Situation of the THORACIC and ABDOMINAL VISCERA:

FIG. 1. From EUSTACHIUS.—With Improvements.

THE Sternum, Parts of the Ribs, and Abdominal Muscles, removed, and the Integuments turned back, to shew the VISCERA situated in the Fore-part of the THORAX and ABDOMEN.

A, The two lobes of the left side of the lungs.—B, The three lobes of the right side of the lungs.—C, C, C, The pleura, going to form the anterior part of the mediastinum.—D, The thymus.—E, E, The pericardium.—F, F, F, A section of the diaphragm.—G, H, The right and left lobes of the liver.—I, The ligamentum latum of the liver.—K, The umbilicus.—L, The umbilical vein, changed into the ligamentum rotundum.—M, M, The umbilical arteries, changed into ligaments.—N, The urachus, ascending from the fundus of the bladder, to be fixed to the umbilicus.—O, O, O, O, Q, Q, The omentum majus, with its blood-vessels.—P, P, The stomach.—Q, Q, The large arch of the colon, shining through the omentum.—R, R, R, The under part of the small intestines: The upper part is seen obscurely through the omentum.—S, The fundus of the bladder.

FIG. 2. From CHESelden.

Represents the CONTENTS of the THORAX and ABDOMEN, after removing the Thymus, Mediastinum and Pericardium from the Thorax, and the Omentum, Urachus and Umbilical Arteries from the Abdomen.

A, The right lung, part of which is cut off, to shew the large blood-vessels.—B, The left lung.—C, The right ventricle of the heart.—D, The right auricle of the heart.—E, The vena cava superior.—F, F, The subclavian veins.—G, G, The internal jugular veins.—H, The aorta ascendens.—I, The pulmonary artery.—K, K, The diaphragm.—L, L, The right and left lobes of the liver, with the vestige of the ligamentum latum between.—M, The ligamentum rotundum.—N, The fundus of the gall-bladder.—O, The stomach, pressed by the liver towards the left side.—P, The spleen.—Q, Q, The kidneys, hid by the intestines.—R, R, The convolutions of the small intestines.

FIG. 3. From MONRO Senior,

Is intended to shew the Course of the DUODENUM, with the Insertion of the BILIARY and PANCREATIC DUCTS, in a CHILD.

A, The liver, larger proportionally than in the adult, and raised to shew its under side.—B, The umbilical vein.—C, The gall-bladder, full of bile, and more pyriform than in the adult.—D, The stomach, distended with air.—E, The seat of the pylorus, and beginning of the duodenum.—F, The duodenum making a turn to go across the spine.—G, The termination of the ductus communis choledochus in the duodenum.—H, The pancreatic duct terminating in the duodenum, at the side of the common biliary duct.—I, The duct of the pancreas minus, ending in the pancreatic duct.—K, The mesenteric artery and vein, cut as they pass in the notch between the pancreas and pancreas minus.—L, The remains of the omentum.—M, The continuation of the duodenum, drawn considerably down, along with the other intestines, so as to have a full view of its other parts.—N, N, The cut ends of the great arch of the colon, turned aside.—O, O, The turns of the jejunum and ilium.—P, The right kidney.

FIG. 4. From CHESelden.

Situation of the ASSISTANT CHYLOPOETIC VISCERA, and of the ORGANS of URINE and GENERATION in the MALE.

A, A, The hollow, or under surface of the liver, turned upwards and to the right side.—B, The lobule of Spigelius.—Between B, C, The sides of the porta.—D, The round ligament of the liver.—E, F, The gall-bladder;—F, Its cervix sending off the cystic duct.—G, The pancreas.—H, The spleen.—I, The ribs.—K, K, The kidneys.—L, L, The renal veins.—M, M, The ureter.—N, The aorta descendens.—O, The spermatic arteries.—P, Inferior mesenteric artery.—Q, Q, The common iliac arteries.—R, The inferior vena cava.—S, S, The spermatic veins, the right terminating in the vena cava, and the left in the renal vein of that side.—T, T, The spermatic arteries and veins, closely embracing each other in their way to the testes.—U, U, The common iliac veins.—V, The end of the colon.—X, The beginning of the rectum.—Y, y, y, z, The bladder of urine.—Y, The part which is covered only by cellular substance.—y, y, z, Shews how far the peritoneum reaches down upon the fore-part of the bladder.—z, The urachus.

T A B L E X VII

Reference to the Contents of the Manuscript

The first part of the manuscript is devoted to a description of the various parts of the human body, and the manner in which they are connected together. It begins with a general account of the structure of the body, and then proceeds to a more detailed description of the various organs and systems. The author has been very careful to describe the structure of the body in a clear and concise manner, and has given a great deal of information about the various parts of the body. The second part of the manuscript is devoted to a description of the various diseases of the human body, and the manner in which they are treated. It begins with a general account of the nature of disease, and then proceeds to a more detailed description of the various diseases and their treatment. The author has been very careful to describe the nature of disease in a clear and concise manner, and has given a great deal of information about the various diseases and their treatment.

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FIG. 1.

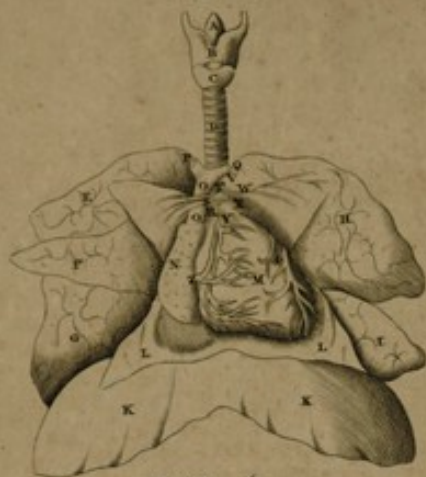


FIG. 2.

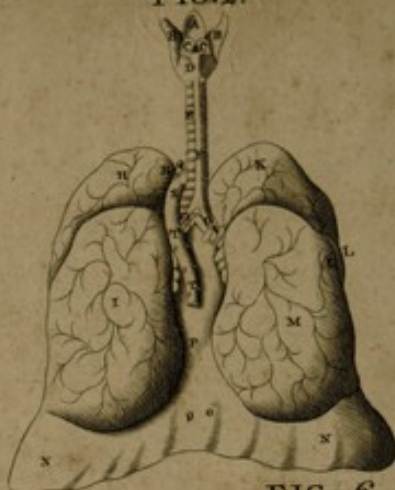


FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.



FIG. 7.



FIG. 8.



FIG. 9.



FIG. 10.



FIG. 11.



FIG. 12.



FIG. 13.



FIG. 14.



FIG. 15.



FIG. 16.



FIG. 17.



FIG. 18.



FIG. 19.



T A B L E XVIII.

GIVES different Views of the LARYNX, TRACHEA, and THORACIC VISCERA.

FIG. 1. FROM EUSTACHIUS.

THE LARYNX, TRACHEA, LUNGS, PERICARDIUM, HEART, Large BLOOD-VESSELS, and DIAPHRAGM, removed from the Body, and viewed anteriorly.

A, B, C, The larynx.—A, The epiglottis.—B, The thyroid cartilage.—C, The cricoid cartilage.—D, The trachea.—E, F, G, H, I, The lungs turned back.—E, F, G, The three lobes of the right side.—H, I, The two lobes of the left side.—K, K, The diaphragm cut from the thorax.—L, L, The pericardium cut in a crucial direction, and the angles turned back.—M, The right ventricle of the heart.—N, The right auricle.—O, The vena cava superior.—P, Q, The subclavian veins.—R, The aorta.—S, The pericardium adhering to the aorta.—T, Trunk common to the right subclavian and right carotid arteries.—V, Left carotid artery.—W, Left subclavian artery.—X, The pulmonary artery.—Y, The right coronary artery.—Z, One of the coronary veins.—&, Left coronary artery and vein: The coronary vessels in this, as well as in the following Figures from Eustachius, are beyond the proportional size.

FIG. 2. FROM EUSTACHIUS.

A Posterior View of the PARTS represented in the former Figure.

A, B, B, C, C, D, The larynx.—A, The epiglottis.—B, B, Thyroid cartilage.—C, C, Arytenoid cartilages.—D, Cricoid cartilage.—E, The trachea;—F, Its membranous part.—G, G, The bronchi, also membranous behind.—H, I, The lobes of the left, and—K, L, M, The lobes of the right lung.—N, N, The diaphragm.—O, The foramen through which the œsophagus passes to the stomach.—P, Pericardium containing the heart.—Q, The left carotid artery.—R, Left subclavian artery.—S, The aorta, which turns over the left branch of the trachea, and sends off.—T, T, The intercostal arteries.—V, Vena azygos, which bends over the right branch of the trachea.

FIG. 3. FROM EUSTACHIUS.

Anterior View of the HEART and Large VESSELS.

A, The right ventricle of the heart.—B, The right auricle.—C, Vena cava inferior, cut across, close to the right auricle.—D, Vena cava superior.—E, F, The subclavian veins.—G, H, Internal mammary veins.—I, K, The aorta;—K, Its arch.—L, Root of the artery common to the right subclavian and right carotid.—M, Right subclavian artery.—N, Right carotid artery.—O, Left carotid artery.—P, Left subclavian artery.—Q, Pulmonary artery.—R, Right, or small coronary artery, arising from the aorta, and passing between the right auricle and pulmonary artery.—S, Right, or small coronary vein, terminating in the right auricle. The right and left coronary vessels are seen running chiefly upon the right ventricle, and below, turning round towards the posterior surface of the heart.—T, The left coronary vessels.

FIG. 4. FROM EUSTACHIUS.

The same HEART, seen from its Posterior Part.

A, The left ventricle.—B, Left auricle.—C, Right auricle.—D, Vena cava inferior, divided near the right auricle.—E, F, The cava superior.—G, Vena azygos.—H, H, Venæ subclaviæ.—K, L, M, Aorta;—L, Its arch.—N, Common root of the right subclavian and right carotid.—O, Right subclavian.—P, Right carotid.—Q, Left subclavian.—R, Left carotid.—S, Trunk of the pulmonary artery.—T, V, Two great branches of the pulmonary artery.—W, Section of the left, or pulmonary sinus.—X, Left, or great coronary artery, arising from the aorta, and running between the pulmonary artery and left auricle.—Y, Great coronary vein, represented in this Figure, terminating in the inferior cava. Upon the surface of the heart in general are seen, the princi-

pal branches of the coronary artery and vein, which, after supplying this side of the heart, turn round to communicate with the vessels represented in Figure 3.

FIG. 5. FROM COWPER.

Anterior View of the HEART, to shew the MUSCULAR STRUCTURE, and the Obliquity of the MUSCULAR FIBRES.

A, The vena cava.—B, A section of the pulmonary artery.—C, C, C, The pulmonary veins tied.—D, Section of the aorta.—E, Ductus arteriosus in the fœtus, now changed into ligament.—F, Right auricle, distended to shew the series of its muscular fibres.—G, The left auricle.—H, The oblique descending progress of the right ventricle.—I, The oblique ascending progress of the fleshy fibres of the left ventricle.—K, K, The tendinous union of the two sets of fibres in the septum of the heart.

FIG. 6. FROM COWPER.

View of the POSTERIOR SURFACE of the HEART.

A, The termination of the inferior cava in the right auricle.—B, Part of the superior cava.—a, The vena coronaria.—C, The vena azygos, tied at its termination in the superior cava.—D, D, The right auricle, representing the various dispositions of its fibres.—E, The muscular fibres of the left sinus venosus.—F, The fibres of the right ventricle.—G, Those of the left ventricle.—H, Their tendinous union in the septum.

FIG. 7. FROM COWPER.

The Series of FIBRES under those represented in Figure 5.

A, Part of the pulmonary artery.—B, Part of the aorta.—C, The fibres of the right.—D, Those of the left ventricle.—E, The tendinous union of the fibres of both ventricles.

FIG. 8. FROM COWPER.

The MUSCULAR FIBRES, as they appear under those of Figure 6.

A, Part of the aorta.—B, The tendinous union of the fibres of both ventricles.

FIG. 9. FROM COWPER.

The Double Spiral Order of the FIBRES at the Apex of the HEART, which may partly be seen in Figure 7.

A, Part of the arteria pulmonalis.—B, The contortion of the fibres at the apex of the heart.—C, C, The tendinous union of both ventricles.

FIG. 10. FROM COWPER.

View of the INNER SURFACE of the CONE of the HEART, seen in the last Figure.

A, The point of the right ventricle.—B, That of the left.—C, The thickness of the sides of the right ventricle.—D, That of the left.—E, A thread supporting the tendinous fibres which pass from one side of the left ventricle to the other.—F, The trunks of the coronary artery and vein divided.—G, The tendinous union of both ventricles.

FIG. 11. FROM EUSTACHIUS.

Right AURICLE and VENTRICLE, cut longitudinally, to shew their INTERNAL SURFACE.

A, The outer, and—B, The inner surface of the right auricle.—C, C, Cut edge of the right auricle and superior vena cava.—D, D, Inner surface of the right sinus venosus without columnæ.—E, The orifice of the superior cava.—F, Valve of Eustachius, reticular in this Figure.—G, Orifice of the vena coronaria major, with its femilunar valve.—H, Ventricle

TABLE XVIII. CONTINUED.

tige of the foramen ovale.—I, I, Cut edge of the right ventricle.—K, K, Opening between the right auricle and ventricle.—L, L, M, M, Valvula tricuspidis, of which one, M, M, is split down the middle.—N, N, Tendinous cords, continued from the valvula tricuspidis, and forming plexus.—O, O, Columnae carneae of the right ventricle, forming plexules, and running in various directions.—P, Outer surface of the right ventricle.—Q, Pulmonary artery.—R, Aorta.—S, Principal branch of the vena coronaria major.

FIG. 12. From COWPER.

The Right AURICLE and VENTRICLE laid open.

A, The left side of the heart, with its blood-vessels filled with wax;—a, Its apex.—B, B, The inferior, and—C, C, The superior cava laid open.—d, The right sinus venosus.—D, The right auricle, with its columnae carneae.—E, Semi-lunar valve at the mouth of the inferior cava.—F, F, The sides of the right ventricle, divided.—G, One of the columnae carneae, to which the tricuspid valve is fixed.—H, The valvula tricuspidis.—I, Valve at the orifice of the great coronary vein.—K, Probe passed through the foramen ovale, which in this, an adult subject, was open. The probe leads into,—L, The left sinus venosus.—M, Probe supporting the tricuspid valve, and passing out at,—N, The right branch of the pulmonary artery.—O, The left branch of that artery.—P, Fleishy fibres passing between the septum cordis, and opposite side of the right ventricle.

FIG. 13. From EUSTACHIUS.

The HEART, with the Pulmonary Artery and Right Ventricle, cut longitudinally near the Left Ventricle, and spread out.

A, A, Cut edges of the pulmonary artery.—B, B, Cut edges of the right ventricle.—C, C, Inside of the ventricle, in which there is a faint appearance of the columnae carneae.—D, Inside of the pulmonary artery.—E, E, E, The three semilunar valves placed at the mouth of the artery, with their bases fixed to the heart, and their cornua to the artery.—F, Aorta.—G, Ramus major of the great coronary artery.—H, I, Exterior surface of the heart.

FIG. 14. From EUSTACHIUS.

Left SINUS VENOSUS and VENTRICLE laid open by a Longitudinal Incision.

A, Left auricle.—B, Cut edge of the left sinus.—C, Inner surface of the sinus.—D, Sinulus lunatus, formed by the vestige of the foramen ovale.—E, E, Cut edge of the left ventricle.—F, F, Passage between the auricle and ventricle.—G, G, G, Valvulae mitrales.—H, That part of the valve which is before the mouth of the aorta.—I, I, Columnae carneae, from which the tendons arise which are fixed to the edges of the valvula tricuspidis.—K, Other columnae carneae within the ventricle.—L, L, Outer surface of the ventricle.

FIG. 15. From EUSTACHIUS.

Left VENTRICLE, and beginning of the AORTA, laid open by a Longitudinal Incision.

A, A, Cut edge of the aorta.—B, B, Cut edge of the ventricle.—C, C, Inner surface of the ventricle, with traces of the columnae carneae.—D, Inside of the aorta.—E, Orifice of the right, and—F, Orifice of the left coronary artery.—G, G, G, The three semilunar valves in the mouth of the aorta, with their bases fixed to the heart, the cornua to the aorta.—H, The valvulae mitrales.—I, I, Columnae carneae,

from which tendons run to the edges of these valves.—K, K, Outer surface of the ventricle.

FIG. 16. From MORGAGNI.

Back-view of the LARYNX, TRACHEA, and some of the MUSCLES of the LARYNX.

A, A, Thyroid cartilage.—B, B, Left prominence, and right superior cornu of the thyroid cartilage.—C, Cricoid cartilage.—D, D, Arytenoid cartilages.—E, E, Arytenoid glands.—F, Epiglottis.—G, Os hyoides.—H, One of the thyro-arytenoid muscles, occupying the lower region of the ventricle of the larynx of this side.—I, I, Posterior crico-arytenoid muscles.—K, Arytenoid muscles, as found in this subject.—L, L, Sterno-hyoides.—M, M, Tendinous interruptions of these muscles.—N, The soft or fleshy part of the trachea, stripped of its external coat, to shew the mucous glands situated there; the excretory ducts of which open into the trachea between the muscular fibres seen in the next Figure.

FIG. 17. From MORGAGNI.

Exhibits the TONGUE, LARYNX, Part of the ŒSOPHAGUS, and SCAPULA.

A, A, The thyroid cartilage.—B, B, The side of the epiglottis.—C, Ligament connecting it to the tongue.—D, One of its lateral ligaments.—E, The cartilages of the trachea.—F, The trachea and part of the bronchi, cut longitudinally, to shew the internal longitudinal bands of muscular fibres, between which are the orifices of the excretory ducts of the mucous glands seen (Figure 16. N.).—G, G, The bronchi.—H, The Œsophagus.—I, The pharynx.—K, One of the cornua of the os hyoides.—L, The tongue, upon which are seen the papillae minores and mediae.—M, The foramen cæcum, surrounded by the third class of papillae, called Majores.—N, Thyroid gland.—O, The isthmus of this gland.—P, An appendix sent up from it.—R, R, Sterno-thyroid muscles.—S, Omo-hyoid.—T, Sterno-hyoid muscle.—U, Hyo-thyroid.—V, Coracoid process of the scapula.—W, Upper part of the scapula.

FIG. 18. From MORGAGNI.

The LARYNX, cut longitudinally behind, and stretched back, to shew,

A, A, The thyroid cartilage.—B, B, The cricoid cartilage.—C, The epiglottis.—D, D, Arytenoid cartilages.—E, E, Long crura of the arytenoid glands.—F, F, Superior, and—G, G, Inferior ligaments of the glottis, by which the arytenoid and thyroid cartilages are connected to each other.—H, H, Ventricles of the larynx.—I, I, The first cartilages of the trachea.

FIG. 19. From MORGAGNI.

Represents the ARTICULATION of the ARYTENOID with the CRICOID CARTILAGE, also one of the ARYTENOID GLANDS, &c.

a, Right longitudinal section of the cricoid cartilage, viewed anteriorly.—b, Right arytenoid cartilage, inclined outwards and backwards;—c, d, Its articulation with the cricoid cartilage.—e, The superior, and—f, The inferior processes.—g, Cavity in the anterior surface of the arytenoid cartilage, in which is situated,—b, The arytenoid gland, which is here represented detached.

k, Represents the shape and size of the left ventricle of the larynx.

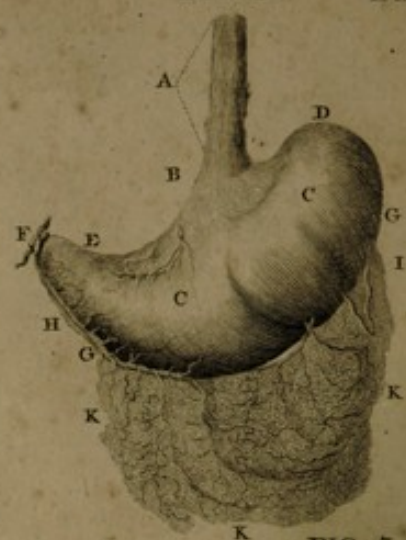
FIG. I.



FIG. 2.



FIG. 3.



TAB. XIX.

FIG. 6.



FIG. 7.



FIG. 8.



FIG. 4.

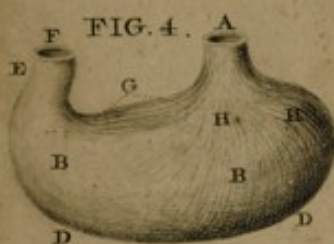


FIG. 5.



FIG. 9.



FIG. 10.



FIG. 11.

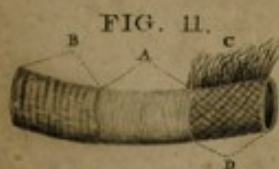


FIG. 12.



FIG. 13.



FIG. 14.



FIG. 20.



FIG. 18.



FIG. 15.



FIG. 19.



FIG. 17.

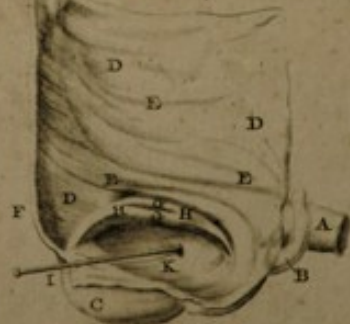


FIG. 16.



T A B L E XIX.

REPRESENTS the Situation of the CHYLOPOETIC, and ASSISTANT-CHYLOPOETIC VISCERA;
with the STRUCTURE of the ALIMENTARY CANAL.

FIG. 1. From EUSTACHIUS.

SHews the CHYLOPOETIC, and ASSISTANT-CHYLOPOETIC VISCERA,
taken out of the Body.

A, A, A, The concave part of the liver, turned up.—B, Ligamentum rotundum.—C, C, Passage of the ligamentum rotundum under.—D, The isthmus of the liver.—E, Vena Portæ.—F, Arteria hepatica.—G, Ductus hepaticus.—H, The gall-bladder.—I, Ductus cysticus.—K, Ductus communis chole-
dochus. The rest of the viscera are placed in the same man-
ner as when in the body.—L, The great, or left extremity of
the stomach.—M, M, M, The great curvature, and gaitro-
epiploic vessels, the branches of which are represented too
large.—N, N, The small curvature.—O, The small extre-
mity of the stomach, and feat of the pylorus.—P, The duo-
denum.—Q, The spleen.—R, S, S, The convolutions of the
jejunum and ilium.—T, The intestinum cæcum.—U, U, U, U,
The colon, along which one of its muscular ligaments runs.—
V, V, V, Meco-colon, with its blood-vessels and glands.—
W, X, Sigmoid flexure of the colon, with the ligament con-
tinued.—Y, Y, The intestinum rectum.—y, y, y, The three liga-
ments of the colon expanding upon the rectum.—Z, Z, Leva-
tores ani.—&, The anus, surrounded by the sphincter ani.—
a, The feat of the prostate gland.

FIG. 2. From EUSTACHIUS;—With ADDITIONS.

View of the Fore-part of the ŒSOPHAGUS, and Upper and
Fore part of the STOMACH.

A, F, The Œsophagus.—A, A section immediately below
the pharynx.—B, Cellular coat.—C, The inner transverse
muscular fibres.—D, The outer longitudinal muscular fibres.
—F, The cardia.—G, The stomach;—H, Its great, or left ex-
tremity;—I, I, I, Its great, or anterior curvature;—K, K, Its
small or posterior curvature.—L, The small, or right extre-
mity. The letter also points out the situation of the pylorus,
and beginning of the duodenum.—M, Part of the external,
or peritoneal coat, separated and turned back, to shew,—
N, Part of the second, or muscular coat.—O, P, Continua-
tion of the external membrane of the stomach, forming the
omentum minus, &c.

FIG. 3. From RUYSCH.

View of the STOMACH, with part of the ŒSOPHAGUS, and the
OMENTUM of a CHILD.

A, A portion of the Œsophagus, with its external longitu-
dinal muscular fibres.—B, The cardia.—C, C, The superior
anterior surface of the stomach.—D, The great, or left ex-
tremity.—E, The small extremity.—F, The stomach, tied at
the pylorus.—G, G, Great, or anterior curvature.—E, B, The
small, or posterior curvature, upon which are seen the branches
of the superior coronary artery.—H, The right epiploic gastric
artery, sending off principal branches which plunge imme-
diately into the substance of the stomach, and others which
take a long course, and divide into innumerable branches
upon the omentum majus.—I, Branches of the splenic ar-
tery, termed Arteriæ Breves, supplying this part of the stomach
and the omentum.—K, K, K, Omentum majus.

FIG. 4. MEM. DE L'ACAD. &c. à Paris.

Represents the EXTERNAL MUSCULAR FIBRES of the STOMACH,
after the Peritoneal Coat has been removed.

A, The cardia.—B, B, The superior anterior surface of the
stomach.—C, The left extremity.—D, D, The great arch.—
E, The pylorus.—F, The beginning of the duodenum.—G, G,
A bundle of muscular fibres continued from the Œsophagus,
along the small curvature of the stomach, towards the duo-

denum.—H, H, Muscular fibres from the Œsophagus, which
spread out upon the anterior surface of the stomach, and run
to its right extremity.

FIG. 5. MEM. DE L'ACAD. &c. à Paris.

Muscular Fibres of the Stomach, deeper seated than those in
the former Figure. They are seen collected into bundles,
which run in different directions. The letters referring
only to the direction of these Fibres, need no explanation.

FIG. 6. From RUYSCH.

A portion of the Stomach inverted, to shew its Plicæ. In
this Figure innumerable pores are likewise represented.

FIG. 7. From RUYSCH.

A portion of the Stomach inverted, cut off above the pylorus.
In the upper part of the Figure, instead of Plicæ, little
prominences appear; in the under part, the Interstitial
Cells are shewn.

FIG. 8. From RUYSCH.

A portion of the Stomach, with the Interstitial Cells mag-
nified, the Peritoneum having been removed.

FIG. 9. From HEISTER.

Right Side of the Stomach, distended and dried, to shew
the PYLORUS.

A, The right side of the stomach.—B, B, Section of the
beginning of the duodenum.—C, The pylorus, placed some-
what obliquely, surrounding the passage from the stomach to
the duodenum.

FIG. 10. From the LIFE.

Represents the Pylorus in the natural state, in which it is
more contracted than when distended and dried.

FIG. 11. From the LIFE.

A portion of the Small INTESTINE, to shew its COATS.

A, The peritoneal coat.—B, The muscular coat, com-
posed of longitudinal and transverse fibres, the peritoneal coat
being supposed to be removed.—C, The muscular coat, raised
to shew,—D, The cellular coat, which is here represented too
uniformly checkered.

FIG. 12. MEM. DE L'ACAD. &c. à Paris.

Gives another View of the Muscular and Cellular Coats of
the Intestines, but upon a larger scale than Figure 11.

FIG. 13. From CHESLSEN.

A Portion of the INTESTINUM JEJUNUM.

A, The valvæ conniventes, as they appear in a dried
preparation.

FIG. 14. From RUYSCH.

Inner Surface of a Portion of the INTESTINUM JEJUNUM
of an ADULT.

A, A, The tunica villosa, lining the valvæ conniventes.
—B, A portion of the villous coat, raised to shew the ner-
vous or cellular coat.—C, C, The cellular coat, in which
after

TABLE XIX. CONTINUED.

after the villous has been removed, nothing but the vestiges of the valvula conniventes appear.

FIG. 15. From RUYSCH.

A Portion of the Intestinum Jejunum of a CHILD, inverted and inflated, to shew the Mucous Glands, which are placed partly on, and partly between the Valvulae Conniventes.

FIG. 16. From MORGAGNI.

Represents the INTESTINUM CÆCUM, and part of the COLON, slit open along the right side, then spread out, and viewed Exteriously, to shew the Rise of the three LIGAMENTS of the COLON.

A, The termination of the intestinum ilium in the cæcum.—B, That part of the intestines which was considered as the true cæcum by the ancients.—C, The appendix vermiformis, drawn upwards, to shew.—E, E, E, &c. The three ligaments of the colon beginning from it.—D, D, The outer surface of the intestine.

FIG. 17. From MORGAGNI.

Inner View of the same Part of the INTESTINE as that seen in the former Figure.

A, The ilium, cut across near its termination in the cæcum.—B, Appendix vermiformis brought into view.—C, Beginning of the cæcum entire.—D, D, D, Inner surface of the cæcum, and part of the colon.—E, E, E, The cells of this part of the gut;—F, Its cut edge.—G, G, The end of the ilium projecting into the cæcum, and forming the valve of the colon.—H, H, Fræna, or retinacula of the valve.—I, A probe put into the orifice of the appendix vermiformis.—K, Cavity of the cæcum of the ancients.

FIG. 18. From HEISTER.

Represents a portion of the INTESTINUM ILIUM, the CÆCUM, and part of the COLON, with the VALVULA COLI.

A, The ilium ascending obliquely, and passing into the left side of the cæcum.—B, Part of the intestinum cæcum entire.—C, The appendix vermiformis, turned upwards.—B, F, D, H, G, The cæcum, and part of the colon laid open.—E, Aperture of the valve of the colon or of the ilium, into the cæcum.—F, G, Membranes supporting the valve, called its Retinacula, Ligaments, or Frænula.—I, I, I, The cells of the colon.

FIG. 19. From EUSTACHIUS.

Shews the MESENTERY, with the ARTERIES, VEINS, MESENTERIC GLANDS, and INTESTINES, turned aside in the course of the MESENTERY.

A, A, The intestinum jejunum and ilium, spread out.—B, B, The colon turned up, one of the ligaments of which is seen.—D, E, F, G, The mesentery expanded.—D, E, The superior mesenteric vein and artery; upon the mesentery are seen, little dark-coloured spots, which represent its glands.—H, Sigmoid flexure of the colon.—I, One of its ligaments.—K, The rectum.

FIG. 20. From HEISTER.

A Portion of the Small INTESTINE and MESENTERY, with the LACTEAL VESSELS.

A, A, Part of the jejunum, through which its rugæ slightly appear.—B, B, The lacteals, which the author of the Figure says he found much more numerous than are here represented.





FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.



FIG. 7.

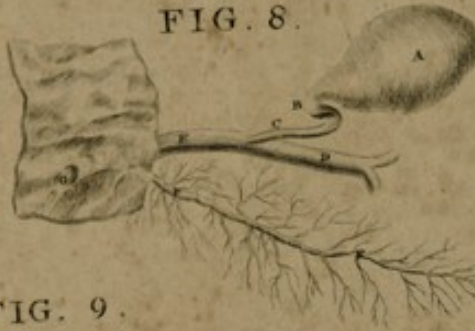


FIG. 8.



FIG. 9.

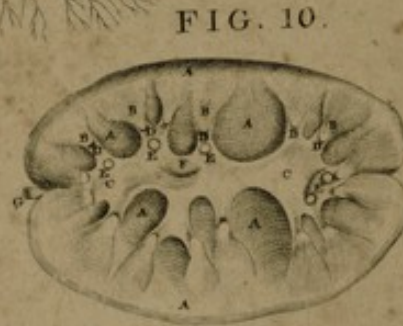


FIG. 10.



FIG. 11.



FIG. 12.

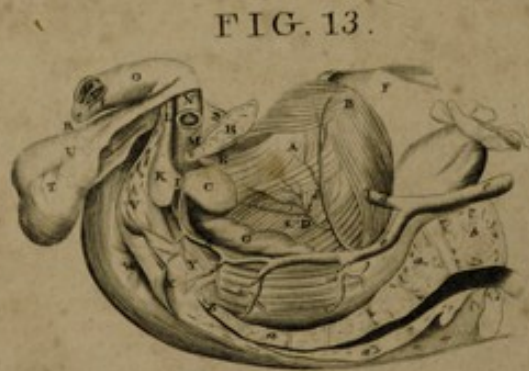


FIG. 13.



FIG. 14.



FIG. 15.



FIG. 16.



FIG. 17.

TABLE XX.

THE Situation and Structure of the ASSISTANT-CHYLOPOETIC VISCERA, with different Views of the VESICA URINARIA, and ORGANS of GENERATION.

FIG. 1. From BIDLOO.

A View of the SPLEEN, with its Blood-vessels injected.

A, A, The internal concave part of the spleen next the stomach and pancreas.—B, B, The arteries.—C, C, The veins, which, like the arteries, form various contortions before they enter the spleen.

FIG. 2. From RUYSCH.

Portion of the SPLEEN, with its VESSELS, some of which are unfolded.

A, The extremities of the blood-vessels completely unfolded, resembling wool or cotton; before they were unfolded, they resembled the form of glands.—B, The extremities of these vessels, partly unfolded.—C, A portion of the surface of the spleen, not unfolded.—D, Splenic artery.—E, Splenic vein.

FIG. 3. From the LIFE.

The common Cellular Texture of the Spleen, which has been mistaken for Cells peculiar to that Organ.

FIG. 4. From EUSTACHIUS.

View of the CONCAVE, or Under SURFACE of the LIVER.

A, The left.—B, The right lobe of the liver.—C, The left lateral ligament.—D, D, The surface by which the liver adhered to the diaphragm.—E, Ligamentum dextrum.—F, G, Vena cava inferior.—H, Portion of the liver which furrounds the vena cava.—I, The sinus where the ductus venosus of the foetus runs.—K, Sinus, where blood and biliary-vessels penetrate, which belong chiefly to the left lobe of the liver.—L, M, Eminences between which the vena portae N, enters.—G, I, L, M, H, The lobulus Spigelii.—O, Hepatic duct.—P, Ductus choledochus.—Q, Ductus cysticus.—R, The gall-bladder, projecting beyond the edge of the liver.—S, Isthmus, under which a portion of the vena portae joins the umbilical vein.—T, Sinus where the round ligament enters.—U, Ligamentum latum, in the edge of which the ligamentum rotundum is inclosed.

FIG. 5. From RUYSCH.

Section of the GALL-BLADDER and BILIARY DUCTS.

A, The inner surface of the gall-bladder, to shew its reticulated appearance.—B, A portion of the hepatic duct.—C, The common duct.—D, The cystic duct. In the cystic duct the cells, and in the gall-bladder and biliary ducts, in general, the orifices of the mucous ducts are represented, though not very distinctly.

FIG. 6. From HEISTER.

A View of the TORTUOUS COURSE and CELLS of the BILIARY CYSTIC DUCT, with part of the GALL-BLADDER.

A, The neck of the gall-bladder.—B, B, The cystic duct, having within various cells, communicating with each other, but preventing the two quick passage of the bile.

FIG. 7. From DE GRAAF.

View of the PANCREAS, and of the Insertion of the PANCREATIC and BILIARY DUCTS in the DUODENUM.

A, A, &c. The pancreas.—B, The pancreas minus of Winflow.—C, C, C, Pancreatic duct, running through the whole length of, and receiving many branches from the substance of the pancreas.—D, Pancreatic duct joining the common biliary duct, and ending in the duodenum, part of which is slit open.—E, E, Ductus communis choledochus.—F, Ductus cysticus.—G, Ductus hepaticus.

—H, Part of the pancreas, cut from the ductus communis which it covers.—I, Right extremity of the stomach.—K, Pylorus.—L, The duodenum.—M, The duodenum passing behind the mesentery.—N, The same intestine emerging upward in the left hypochondrium, where it obtains the name of Jejunum.—O, O, The mesentery.—P, Vena mesenterica.—Q, Arteria mesenterica.

FIG. 8. From CHESELDEN.

View of the GALL-BLADDER, BILIARY and PANCREATIC DUCTS, with their Termination in the Duodenum.

A, The gall-bladder.—B, Natural curvature of the neck of the gall-bladder.—C, Ductus cysticus.—D, Ductus hepaticus, composed of two principal branches.—E, Ductus communis choledochus.—F, F, Ductus pancreaticus, with its branches.—G, The termination of the biliary and pancreatic ducts in the duodenum, which is slit open.

FIG. 9. From EUSTACHIUS.

Represents the KIDNEYS, with their BLOOD-VESSELS.

A, A, The kidneys, the right one appearing larger and lower than the left.—B, B, The renal glands, the right also represented larger than the left.—C, The aorta.—D, The inferior cava.—E, E, Renal arteries, the right longer, lower, and more oblique than the left.—F, F, Renal veins of the right side, shorter, lower, and more oblique than the left.—G, G, Veins belonging to the kidney and renal glands.—H, Spermatic arteries.—I, I, Spermatic veins, the right ending in the vena cava, the left in the renal vein.—K, The inferior mesenteric artery, a great deal too small.—L, L, The ureters.

FIG. 10. From EUSTACHIUS.

Shews the KIDNEY and its PELVIS, divided through the middle from the Outer Edge to the URETER.

A, A, Cut surface of the cortical substance.—B, B, Section of the uriniferous substance, with radiated fibres ending in papillae.—C, C, Section of the pelvis of the kidney.—D, D, &c. Section of the branches of the pelvis, called Infundibula, which receive the urine from the papillae.—E, E, E, Some of the papillae entire.—F, The beginning of the ureter.—G, The continuation of the ureter.

FIG. 11. From EUSTACHIUS.

The Distribution of the Large BLOOD, and URINIFEROUS VESSELS in the Substance of the KIDNEY.

a, The renal, or emulgent artery, divided into branches in the substance of the kidney.—b, The corresponding vein.—c, c, c, The beginnings of the infundibula, uniting into trunks, which form.—d, The pelvis.—e, The ureter continued from the pelvis.

FIG. 12. From RUYSCH.

Section of the KIDNEY, to obtain a view of the MINUTE VESSELS.

A, The minute branches of the renal artery, running in a serpentine course, and many of them degenerating into uriniferous tubes.—B, A portion of the external surface of the kidney.—c, c, &c. The uriniferous ducts.—d, d, &c. Papillae.—E, E, Section of the pelvis.—F, The ureter.

FIG. 13. From LE DRAN.

CONTENTS of the MALE PELVIS, seen on the Left Side.

A, Vesica urinaria, shewing the different orders of its fleshy fibres, after removing the outer coverings.—B, The fundus

TABLE XX. CONTINUED.

fundus vesicæ.—C, The prostate gland surrounding the neck of the bladder.—D, The entrance of the ureter into the bladder.—E, Tendinous ligaments of the bladder.—F, The peritoneal coat reflected.—G, Vesicula seminalis.—H, Section of the left os pubis, near its symphysis.—I, The membranous part of the urethra.—K, Bulb of the urethra.—L, The urethra.—M, Corpus cavernosum penis of the right side.—N, Section of the left corpus cavernosum penis.—O, Portion of the penis entire.—P, Q, Right and left corpora cavernosa penis.—R, Corpus cavernosum urethrae, surrounding the urethra.—S, Ligamentum suspensorium penis.—T, The scrotum.—U, The raphe, which extends from the anus to the extremity of the penis.—V, Section of the integuments.—W, The anus.—X, Sphincter ani.—Y, Levator ani.—Z, Os coccygis.—a, a, a, Os sacrum.—b, b, Last lumbar vertebra.—c, Trunk of the common iliac artery.—d, Beginning of the external iliac artery.—e, Internal iliac artery.—f, f, Branches which go through the great notch of the os ilium to the muscles.—g, External hæmorrhoidal branches.—h, Arteria pudenda communis.—i, Branch from this artery to the bulb of the urethra.—k, Umbilical artery.—l, Branches of this artery, to the vesica urinaria, vesiculæ seminales, and prostate gland.

FIG. 14. From PARSONS.

View of the Anterior Part of the MALE BLADDER of URINE, inflated; the Peritoneal Coat, and Cellular Substance being removed.

A, The urachus.—B, Muscular coat of the bladder, called Detrusor Urinæ, running down upon the prostate gland.—C, C, The ureters.—D, D, The under and lateral parts of the bladder, thinner and more dilated than the upper part.—E, E, The prostate gland.

FIG. 15. From PARSONS.

Posterior View of the same BLADDER of URINE.

A, B, C, D, As in Figure 14.—E, E, The vesiculæ seminales, and—F, F, The vasa deferentia, turned down, to shew the posterior part of the detrusor urinæ.—G, The tough ligamentous substance between the vasa deferentia.

FIG. 16. From PARSONS.

Anterior View of the FEMALE BLADDER of URINE, divested of Fat and Membranes, to shew its Situation upon the VAGINA.

A, The orifice of the bladder, close to.—B, B, The circular muscular fibres, or sphincter, from which part of the detrusor arises.—C, C, The circular fibres, or sphincter of the vagina.—D, Inside of the vagina, upon which the rugæ appear.

FIG. 17. From COWPER.

The Under Part of the BLADDER, and beginning of the URETHRA, slit open, and viewed Anteriorly.

A, The bladder.—B, A probe in the termination of the left ureter.—C, the ureter running obliquely between the coats of the bladder.—D, The termination of the right ureter, slit open.—E, E, The vasa deferentia.—F, F, The vesiculæ seminales.—H, H, The neck of the bladder, surrounded by.—I, I, The prostate gland.—K, A projection in the beginning of the urethra, forming the caput Gallinaginis.—L, The termination of the seminal ducts.—M, M, The termination of the ducts of the prostate gland.—N, One of Cowper's glands.—O, The bulb of the urethra.—P, P, P, Probes put into some of the ducts of the urethra.

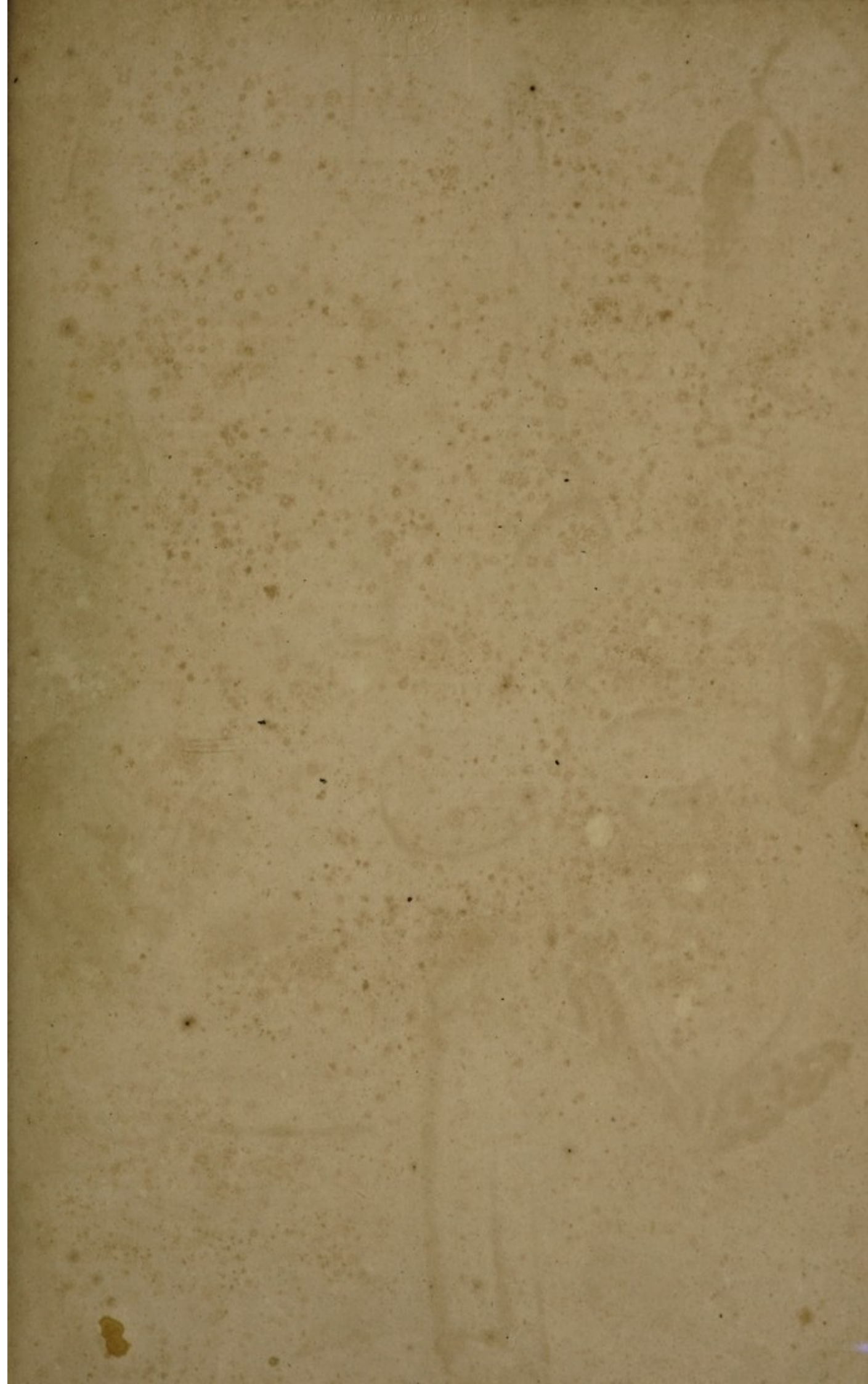




FIG. 1.



FIG. 2.

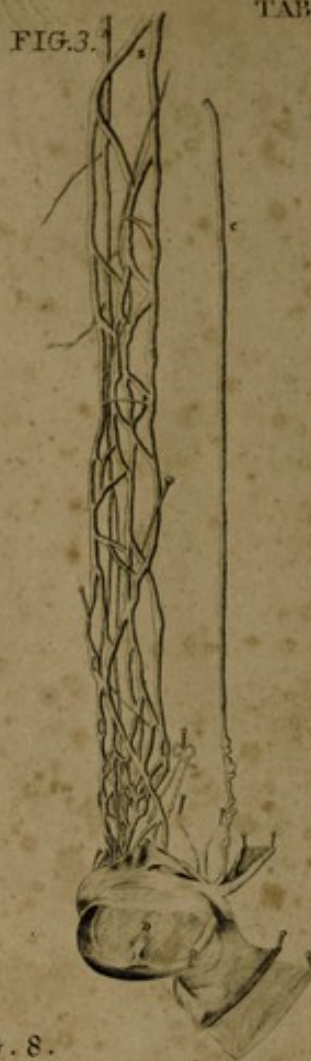


FIG. 3.



FIG. 4.

FIG. 5.



FIG. 6.



FIG. 7.



FIG. 8.



FIG. 9.



FIG. 10.



FIG. 11.



FIG. 12.



FIG. 13.



T A B L E XXI.

VIEWS of the MALE PARTS of GENERATION.

FIG. 1.

GIVES a View of the SPERMATIC PROCESS of the TESTICLE distended, to shew that there is no immediate communication between the Cellular Substance of this Process and the Coats of the Testicle.

A, B, The spermatic process distended.—B, Partition formed by condensed cellular substance between the spermatic process and testicle.—C, The testicle inclosed in its coats.

FIG. 2. From DE GRAAF.

A View of the SPERMATIC CORD, and TESTICLE of the LEFT SIDE.

A, The vasa preparantia.—B, Vessels of the testicle running in the spermatic cord, freed from their membranes.—C, C, The arteries of the testicle.—D, D, The corresponding veins.—E, The tunica albuginea of the testicle.—F, Part of the tunica vaginalis, turned back.—G, H, I, The epididymis;—G, Its globus major;—I, Its globus minor.—K, End of the epididymis, or beginning of the vas deferens.—L, Section of the vas deferens.

FIG. 3. From DE GRAAF.

Represents the BLOOD-VESSELS and SEMINAL DUCTS of the TESTICLE.

A, The spermatic artery.—B, The spermatic vein.—C, The vas deferens.—D, The testicle, with its coats cut and pinned back.

FIG. 4. From EUSTACHIUS.

The RIGHT TESTICLE, viewed from the fore-part.

a, The testicle.—b, The vas deferens.—c, The epididymis.—d, d, d, Blood-vessels.

FIG. 5. From EUSTACHIUS.

The same Testicle, and same letters as represented in the former Figure, but viewed from behind.

FIG. 6. From DR MONRO's *Tbefs.*

Shews the SPERMATIC DUCTS of the TESTICLE, filled with Quick-silver.

a, The vas deferens;—b, Its beginning, which forms the posterior part of the epididymis.—c, The middle of the epididymis, composed of serpentine ducts.—d, The head, or anterior part of the epididymis.—e, e, The coni vasculosi which compose the head of the epididymis, separated a little from each other.—f, f, Vasa efferentia.—g, g, Rete testis.—h, b, Vasa recta.—i, i, The substance of the testicle.

FIG. 7. From EUSTACHIUS.

Represents the BODY of the TESTICLE, and TUNICA ALBUGINEA.

A, The naked pulpy-like substance of the testicle. The lines running across seem to indicate the septula, which divide the ducts of the testicle into bundles.—B, The outer, and.—C, The inner concave part of the tunica albuginea, which contains, and adheres to the pulp of the testicle.

FIG. 8. From DE GRAAF.

The TESTICLE cut longitudinally, from before backwards, to shew its INTERNAL STRUCTURE.

A, A, The seminal tubes collected into bundles between

their membranous septula.—B, B, The seminal tubes, running through the membranous substance.—C, C, A portion of the seminal tubes, cut across, where they perforate the tunica albuginea.—D, D, D, D, The tunica albuginea, cut at the fore-part of the testicle, and turned back.

FIG. 9. From CHESelden.

A View of the Under and Back Part of the BLADDER, and of the Back Part of the VESICULÆ SEMINALES, and PROSTATE GLAND.

A, The under and back part of the bladder.—B, B, The termination of the ureters in the bladder.—C, C, The vasa deferentia.—D, D, The vesiculæ seminales.—E, The prostate gland.—F, The urethra.

FIG. 10. From DE GRAAF.

Represents the COMMUNICATION of the VASA DEFERENTIA, with the VESICULÆ SEMINALES, their CAVITIES being laid open.

A, A, Parts of the vasa deferentia, with thick sides and small cavities.—B, B, The vasa deferentia, with thin sides and large cavities, where they approach the vesiculæ.—C, C, The vasa deferentia, again contracted where they communicate with the vesiculæ.—D, D, The vesiculæ seminales expanded, to shew their contractions and dilatations.—E, E, The duct common to each vas deferens and vesicula seminalis of the same side.—F, F, The two common seminal ducts, adhering together without any communication between their cavities.—G, G, The part where the seminal ducts open into the urethra.—H, H, Vessels running to the vesiculæ seminales.—I, Membrane which connects the vesiculæ seminales and vasa deferentia to each other.

FIG. 11. From MORGAGNI.

A Section of the Anterior Part of the PENIS, with the URETHRA laid open.

A, A, Corpus spongiosum urethrae and urethra, cut longitudinally at their under side, and spread out.—Between B, and C, The orifices of the mucous follicles are seen, placed chiefly in the upper part of the urethra.—D, One of the mucous follicles, larger than the rest, distended.—E, Ligamentum suspensorium, which fixes the penis to the ossa pubis.—F, F, A membrane continued from the ligamentum suspensorium, surrounding the penis.—G, Part of the coat separated from the body of the penis, and turned back.—H, Part of the prepuce, turned back.—I, The frænum.—K, Corona glandis, beset with many sebaceous glands, called Odoriferæ. A few of these are likewise seen upon the frænum and inside of the prepuce.

FIG. 12. From CHESelden.

A Lateral and Longitudinal Section of the Fore Part of the PENIS.

A, A, The corpora cavernosa penis.—B, B, The septum penis.—C, The corpus cavernosum glandis.—D, Outer surface of one of the corpora cavernosa.

FIG. 13. From CHESelden.

A Transverse Section of the PENIS.

A, A, Corpora cavernosa penis.—B, Septum penis.—C, Corpus cavernosum urethrae.—D, The urethra.—E, E, Partition between the corpora cavernosa penis and corpus cavernosum urethrae.



FIG. 1.



FIG. 2.



FIG. 3.



FIG. 5.



FIG. 6.



FIG. 4.



FIG. 12.



FIG. 7.



FIG. 8.



FIG. 9.



FIG. 10.



FIG. 11.



FIG. 13.



FIG. 14.



FIG. 15.



FIG. 16.



FIG. 17.



FIG. 18.



T A B L E XXII.

VIEWS of the FEMALE PARTS of GENERATION, and of the Fœtus in Embryo.

FIG. 1. From PARSONS.

View of the Natural Situation of the FEMALE PARTS of GENERATION.

A, A, The upper part of the os sacrum.—B, B, The cavities of the ossa ilia.—C, C, The connection of the ossa ilia with the os sacrum.—D, D, The ossa pubis.—E, E, The symphysis of the ossa pubis.—F, F, The tuberosities of the ossa ischia.—G, G, The foramina thyroidea.—H, H, The acetabula for the articulation of the thigh-bones.—I, I, I, Brim of the pelvis.—K, K, The intestinum rectum.—L, L, The uterus.—M, M, The Fallopian tubes.—N, N, The fimbriae of these tubes.—O, O, The ovaria, concealed by the ligamenta lata of the uterus.—P, P, The ligamenta rotunda uteri.—Q, Q, The insertion of the round ligaments into the pubis.—R, R, The upper part of the bladder of urine.—S, S, The vagina.

FIG. 2. From RUYSCH.

A View of the UTERUS, a few days Pregnant.

a, a, The body of the uterus cut open, by which its thickness and cavity appear.—b, The os tincæ.—c, The cavity of the uterus.—d, d, The uterine tubes.—e, e, The cavities of the tubes laid open.—f, f, The fimbriae of the tubes.—g, g, The parts where the tubes open into the uterus.—h, h, The ovaria, one of which is cut open.—i, An ovum fecundated.—k, k, The ligaments of the ovaria.—l, l, Portions of the ligamenta lata.—m, m, Portions of the ligamenta rotunda.

FIG. 3. From MORGAGNI.

View of the FEMALE PARTS of GENERATION, where the UTERUS and VAGINA are laid open behind.

A, A, The labia pudendi, stretched downward.—B, Glans clitoridis.—C, Its prepuce.—D, The superior part of the ligamentum suspensorium of the clitoris.—E, E, The nymphae, with their sebaceous glands.—F, The urinary passage, near which are situated the orifices of the mucous follicles, or lacunæ, which belong to the glandular body with which the urethra is surrounded.—G, G, The hymen.—g, g, The extremities of the ducts of the lacunæ, placed before the hymen, which are called Prostatæ Bartholini.—H, H, The vagina, in which are rugæ, not completely circular, but ceasing in some places.—K, K, Neck of the uterus with its mucous follicles and rugæ.—L, L, L, Bottom of the uterus, in which are spots, such as Morgagni observed in a virgin who was killed, during her menstrual period, by a blow on the head.—M, M, Extremities of the Fallopian tubes, by which they open into the superior angles of the uterus.—N, N, Ligaments of the ovaria, by which these parts of the tubes next the uterus are necessarily covered in this Figure.—O, O, The testes, or ovaria.—P, P, The tubes delineated in that position in which the author of this Figure most frequently found them.—Q, Q, Small portions of the ligamenta lata.—R, R, Ligamenta rotunda.

FIG. 4. From DE GRAAF.

The UTERUS, distended in such a manner as to shew the Passage of the TUBES into its CAVITY.

A, A, Longitudinal section of the uterus.—B, B, The fundus of the uterus divided, to shew the entrance of the tubes into its cavity.—C, Origin of the tube.—D, D, The progress of the tubes gradually dilating.—E, E, Ligaments of the ovaria cut off.—F, F, Ligamenta uteri rotunda.—G, G, Cavity of the bottom of the uterus.—H, H, Cavity of the cervix, and its fibrous substance.—I, I, The proper membrane of the uterus.—K, K, Mouth of the uterus.—L, L, Contraction of the cervix uteri.

FIG. 5. From DE GRAAF.

Shews the OVARIUM, with the annexed Extremity of the TUBE.

a, The ovary, opened longitudinally in the under part.—b, b, &c. Ova of different magnitudes, contained in the membranous substance of the ovary.—c, c, Numerous blood-vessels going to the ova.—d, Ligament of the ovary.—e, Section of the Fallopian tube.—f, Cavity of the tube.—g, Orifice in the extremity of the tube.—h, h, The foliaceous part of the tube, which is attached to the ovaria.

FIG. 6. From PARSONS.

View of the UTERUS, some months Pregnant, to shew the Proportional Size with respect to the PELVIS, and the height to which it rises above the PUBIS.

A, The uterus.—B, B, The uterine tubes.—C, C, The ligamenta lata.—D, D, The ligamenta rotunda.—E, E, The bladder of urine.

FIG. 7. From RUYSCH.

Ova of different sizes.

FIG. 8. From RUYSCH.

AN OVUM Fœcundated, excluded from the uterus, entire.

A, The rudiment of the membranes.—B, The rudiment of the blood-vessels forming the elements of the placenta.

FIG. 9. From RUYSCH.

A Fœcundated OVUM, of nearly the same magnitude with that of Figure 8. opened: No solid substance was found in its Cavity.

A, The outer vascular part of the ovum.—B, Its cavity.

FIG. 10. From RUYSCH.

RUDIMENT of a PLACENTULA of the Minute Human Embryo.

A, Crude element of the vessels.—B, Coagulated blood adhering firmly to this crudity.

FIG. 11. From RUYSCH.

RUDIMENT of the PLACENTA, to which the Embryo adheres by means of the Umbilical Cord.

A, Rudiment of the placenta.—B, Rudiment of the embryo, of the size of a lettuce-seed.

FIG. 12. From RUYSCH.

Shews the HUMAN EMBRYO, of the size of a Grain of Barley, adhering to the Placentula by means of the Umbilical Cord.

A, The head of the embryo.—B, The body not yet furnished with extremities.—C, The umbilical cord.—D, The placentula.

FIG. 13. From RUYSCH.

Shews the HUMAN EMBRYO, somewhat larger than the preceding, the Head of which is already distinct from the Body, and the beginnings of the Extremities are observable, in the form of very small Tuberosities.

A, The

TABLE XXII. CONTINUED.

A, The outer surface of the placenta.—B, Its inner surface.—C, The head of the embryo.—D, The body.

FIG. 14. From RUYSCH.

Represents the Embryo of the size of an inch, the Head of which is not only distinguishable from the Body, but the Rudiments of the Extremities also appear like large Tubercles; and, which is particularly to be noticed, the Umbilical Cord is nearly equal in thickness to the Embryo itself, which the Author of the Figure reports he has seen oftner than once.—“Does this proceed,” he asks, “from a morbid state of the Cord?”

FIG. 15. From HEISTER.

Is an ABORTIVE Fœtus of the third month, still beautifully inclosed within its Membranes, as in an egg, and floating in its own Liquor;—all of their natural size.

A, The fœtus, with a large head and black eyes, as is generally the case in this state, appearing transparent through

the liquor and membranes.—B, B, B, B, The exterior layers of the chorion, full of vessels depending like small roots, which the author of this Figure thinks were first delineated by him.—C, C, C, C, The transparent coats of the fœtus, from which the vascular part has been separated, to shew the fœtus surrounded by its fluid.—D, D, The umbilical cord.

FIG. 16. From RUYSCH.

A Fœtus, with a remarkably thick Umbilical Cord.

FIG. 17. From RUYSCH.

A Fœtus somewhat larger than the preceding. In this Fœtus, both the fingers and toes are visible, and the Umbilical Cord is much thinner; so that this again is to be considered as a *lusus naturæ*.

FIG. 18. From RUYSCH.

A Fœtus hanging by a hair; it is larger than the former, but the Umbilical Cord very little thicker.



FIG. 1.



FIG. 2.



FIG. 3.

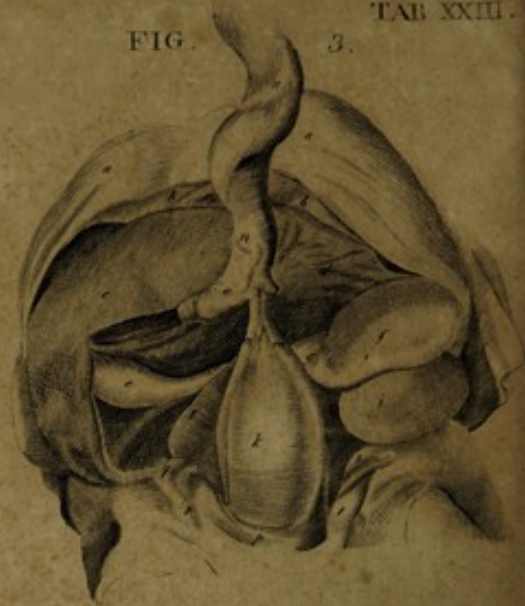


FIG. 4.



FIG. 5.



FIG. 6.



FIG. 7.

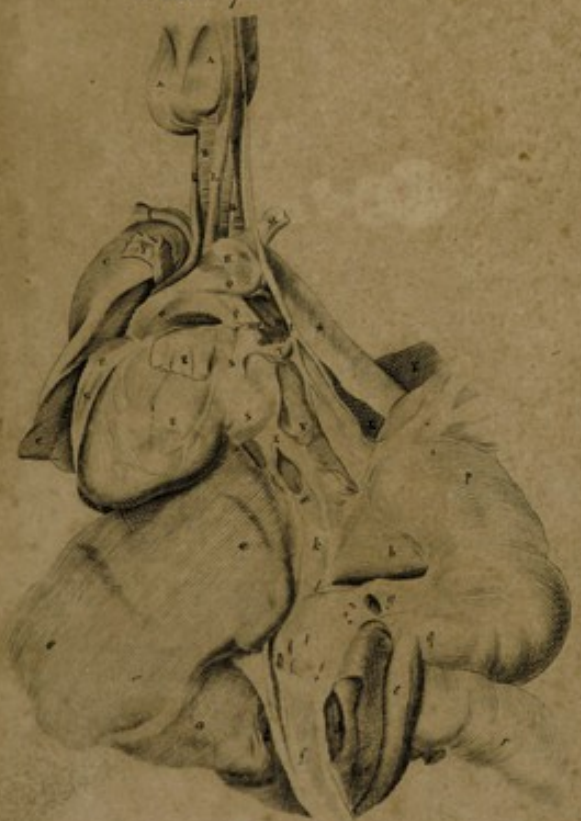


FIG. 8.



FIG. 9.



FIG. 11.



FIG. 10.



FIG. 13.



FIG. 14.



FIG. 12.



TABLE XXIII.

FIGURES I. and II. of this TABLE represent the PLACENTA. From Figure III. to Figure XI. the Peculiarities of the Fœtus are shewn. Figures XII. XIII. and XIV. give Views of the DUCTS of the MAMMA.

FIG. 1. From BIDLOO.

VIEW of the PLACENTA and MEMBRANES.

A, B, C, The external convex surface of the placenta, with its fissures and tubercles, corresponding to the inequalities of that part of the uterus to which it adhered.—D, D, E, The chorion, or external membrane which involved the fœtus.—F, Part of the amnios, or internal membrane which involved the fœtus.—G, A portion of the umbilical cord tied.

FIG. 2. From BIDLOO.

A View of that Side of the PLACENTA and MEMBRANES next the Fœtus.

A, A, The amnios, separated from the chorion.—B, B, A portion of the umbilical cord fixed to the inner side of the placenta, some way from its middle.—C, C, The chorion adhering firmly to the inner concave part of the placenta.—D, D, Branches of the umbilical arteries distended, and running upon the inner, or concave surface of the placenta.—E, E, The branches of the umbilical vein distended, also running upon the inner surface of the placenta.

FIG. 3. From TREW.

FRONT VIEW of the CONTENTS of the ABDOMEN, after removing the Intestines.

a, a, The thorax.—b, b, The diaphragm.—c, The large lobe of the liver;—d, Its small lobe.—e, The gall-bladder.—f, The stomach.—g, The pylorus.—h, A Section of the duodenum.—i, i, The kidneys.—k, The bladder of urine ascending almost to the umbilicus.—l, The production of the fundus vesicæ, called Urachus.—m, m, Umbilical arteries running along.—n, n, The umbilical cord.—o, The umbilical vein passing from the cord to the liver.—p, Symphysis of the os pubis.—q, r, s, t, The testicles, in their descent from the abdomen to the scrotum, inclosed in their vaginal coats.

FIG. 4. From TREW.

VIEW of the CONTENTS of the ABDOMEN from the Left Side, after removing the Intestines.

a, a, The ribs.—b, b, The cartilago ensiformis.—c, The stomach.—d, The pylorus.—e, A section of the duodenum.—f, f, The convex surface of the small lobe of the liver, drawn a little up, to shew—g, The concave surface.—h, Concave surface of the large lobe.—i, A portion of the gall-bladder.—k, The umbilical vein entering the liver.—l, The left, and—m, Part of the right kidney.—n, The right ureter.—o, The vena cava inferior.—p, Under end of the aorta.—q, q, The common iliac arteries.—r, The external iliac artery.—s, The internal iliac artery, the continuation of which forms—t, The umbilical artery, ascending by the side of—u, The bladder of urine.—v, The umbilicus.—w, Part of the umbilical cord.—x, Symphysis of the ossa pubis.

FIG. 5. From TREW.

The End of the Small, and Beginning of the Great INTESTINES, viewed from the Left Side.

a, a, Portion of the intestinum ilium.—b, b, Intestinum cæcum;—c, c, Its vermiform process.—d, d, Beginning of the intestinum colon.

FIG. 6. From TREW.

Shews the Form and Size of the Stomach of a New-born Child, moderately distended.

FIG. 7. From TREW.

Shews the following Parts from a Fœtus born at the full time, and which died immediately after Birth.

A, A, The two lobes of the thyroid gland.—B, The trachea.—C, C, The right lobe of the lungs.—D, Bronchia of the left lobe cut off.—E, Left ventricle of the heart.—F, Part of the right ventricle.—G, A division between the two ventricles, very distinct in the fœtus.—H, Arch of the aorta.—I, Right subclavian artery.—K, Right carotid.—L, Left carotid.—M, Left subclavian.—N, Aorta descendens.—O, Trunk of the pulmonary artery;—P, Its left pulmonary branch.—Q, Ductus arteriosus.—R, Left auricle.—S, S, Left sinus venosus.—T, Branches of the left pulmonary vein.—V, A small portion of the right lobe of the lung.—X, X, X, Portion of the diaphragm.—Y, Trunk of the superior vena cava.—Z, Trunk of the inferior vena cava.—a, a, a, Inferior surface of the small lobe of the liver.—b, Lobulus Spigelii.—c, c, Eminence called Porta.—d, d, Part of the liver, which surrounded the umbilical vein, dissected.—e, The gall-bladder.—f, The umbilical vein laid open.—g, The vena portæ, also laid open.—h, Orifice of the right branch of the vena portæ, going to the large lobe of the liver.—i, The left branch, which goes to the small lobe, slit open.—k, The ductus venosus, opened longitudinally, in which l, and m, point out its obliquities, which the author of this Figure considered as the vestiges of valves.—n, Part of the pharynx.—o, The œsophagus.—p, The bottom of the stomach.—q, The pylorus.—r, Part of the colon.—s, Part of the small intestines.—t, t, The left part of the eighth pair of nerves.—u, u, The recurrent branch of the eighth pair of nerves ascending to the larynx.

FIG. 8. From TREW.

The HEART, with the Right AURICLE opened and drawn aside, so that the FORAMEN OVALE is brought into view.

a, a, The anterior part of the septum of the auricles.—b, b, The posterior part of the septum.—c, The valve of—d, The foramen ovale.

FIG. 9. From TREW.

The HEART, with the left AURICLE opened.

a, a, The pulmonary artery.—b, b, b, Cut edge of the auricle opened.—c, c, A probe passed from the left auricle through the foramen ovale, into—d, d, The inferior vena cava.—e, e, Anterior part of the septum, the margin of which terminates in the right auricle.—f, f, The valve of the foramen ovale, which extends from the posterior part of the septum to the left auricle, where it is seen raised above the probe.—g, Orifice of the left ventricle.—h, The left ventricle.—i, The right ventricle.—k, k, The division between the ventricles.

FIG. 10. From TREW.

Shews the HEART of the Fœtus resting upon the Right Ventricle, to bring into view the Connection of the DUCTUS ARTERIOSUS, with the PULMONARY ARTERY and AORTA, on the Anterior Surface.

a, The left ventricle;—b, The right.—c, Apex of the right auricle.—d, The left auricle.—e, e, Branches of the left pulmonary vein.—f, The pulmonary artery.—g, g, Left branch of the same, with its divisions.—h, Ductus arteriosus.—i, i, Arch of the aorta.—k, k, Aorta descendens.—l, Left subclavian artery.—m, Left carotid.—n, Right carotid, and

TABLE XXIII. CONTINUED.

and—*o*, Right subclavian;—*p*, Their common origin.—*q*, Trunk of the vena cava superior.—*r*, The right, and—*s*, The left jugular vein.

FIG. 11. From TREW.

Shews the HEART, with some of the adjacent Parts, from the same Subject, in an inverted situation.

a, Apex of the heart.—*b*, Vena cava inferior, or descendens.—*c*, Valvular production at the mouth of the venous canal.—*d, d*, The œsophagus.—*e, e*, The trachea.—*f*, The recurrent nerve.—*g, g*, The lungs.—*h*, The right subclavian artery.—*i, i*, The right carotid.—*k, k*, The left carotid.—*l*, The left subclavian artery.—*m*, Arch of the aorta.—*n*, The aorta descendens opened and expanded.—*o*, The mouth of the ductus arteriosus opening into the aorta.—*p*, Obliquity of this opening, acting as a valve upon the termination of this duct.

FIG. 12. From MORGAGNI.

Represents a Perpendicular Section of the MAMMA, through the Centre of the PAPILLA.

A, The papilla.—*B, B*, Boundaries of the areola.—*c, c*, Section of three of the sebaceous glands, where likewise a few lactiferous ducts sometimes terminate.—*d, d*, Integuments of the mamma.—*e, e, e, e*, Superior, or exterior stratum of fat.—*f, f, f*, Inferior, or interior stratum of fat.—*G*, Glandular part of the mamma, situated between the two strata of fat; of an irregular figure, compacted into one large body, in the inner parts of which we see no remarkable intervals filled with fat.—*b, b, b*, Large lactiferous ducts, as they appeared in this section, going from the glandular part to the papillæ.

FIG. 13. and 14. EPHEMERID. GERM. ACT.

Give Views of the Trunks and Branches of two LACTIFEROUS DUCTS, dilated.







