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Contributors

Johnson, J.

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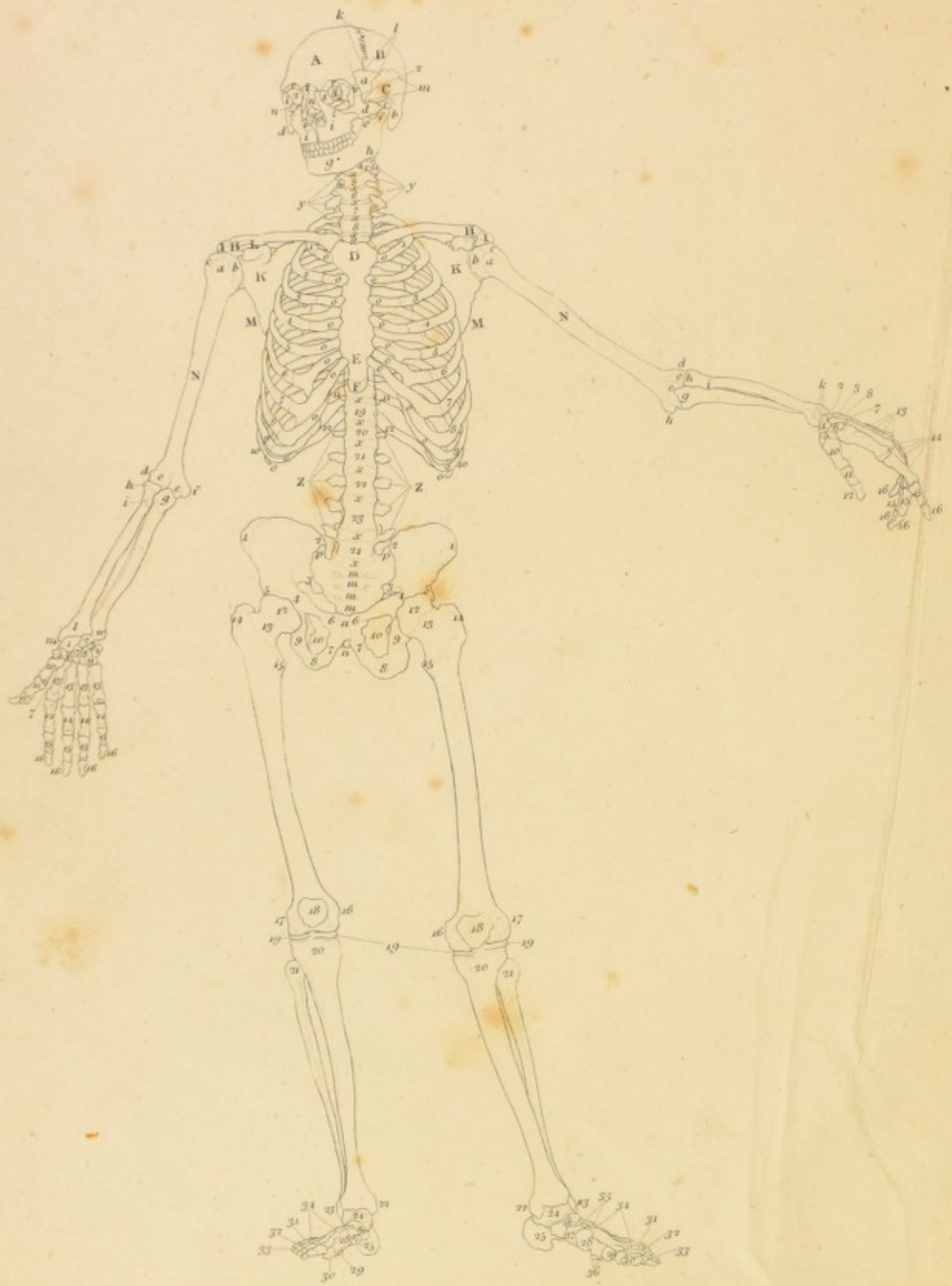
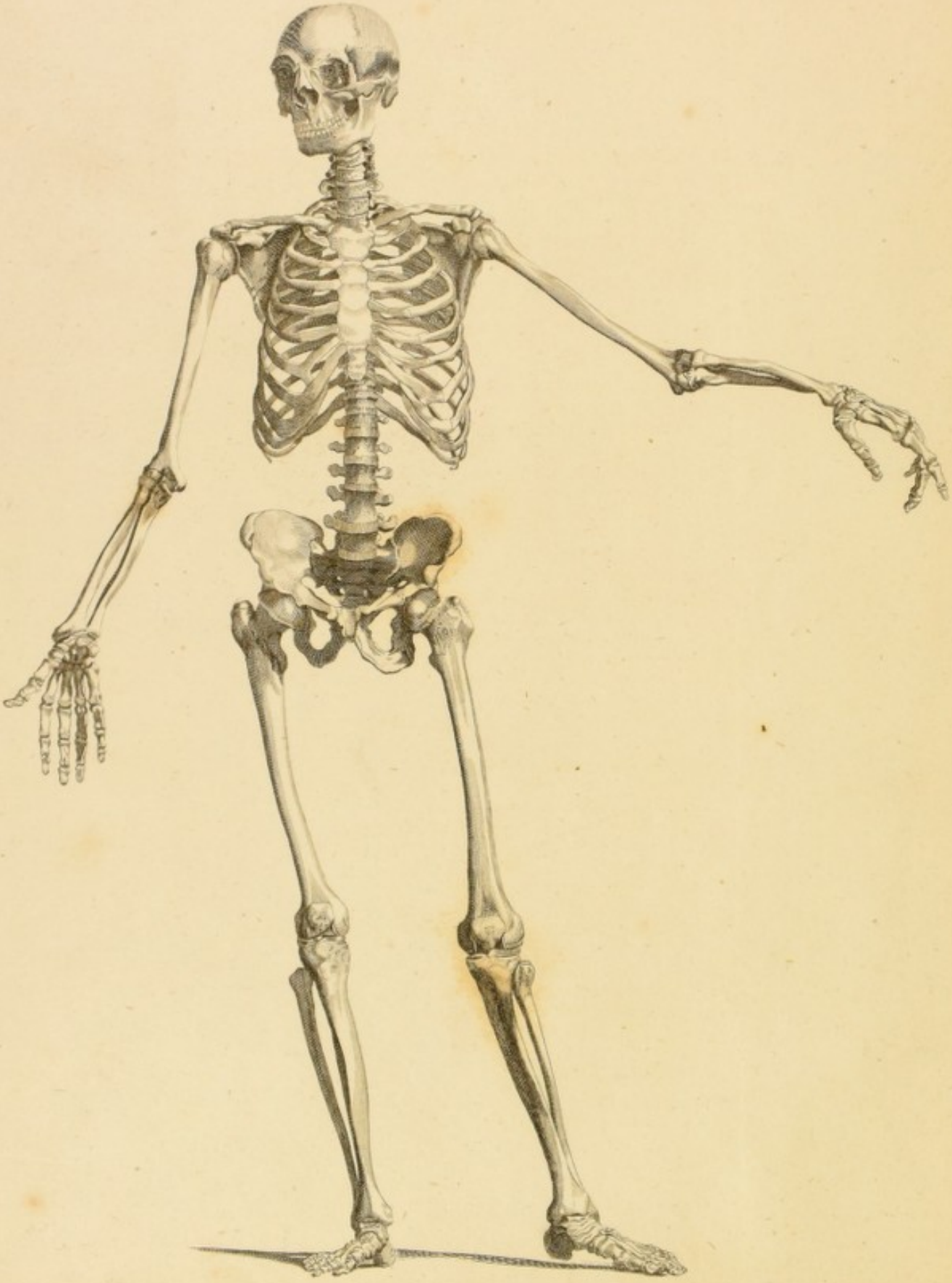
Map &c. of Skeleton, Front View.



London, Published by J. Johnson, St. Paul's Church Yard, Feb. 1. 1806.

Front View.



London Published by J. Johnston St Pauls Church Yard Feb.1.1806.

FRONT VIEW OF THE SKELETON.

HEAD.

A Frontal bone.
B Parietal bone.
C Temple or temporal bone.
a Part of the sphenoidal bone.
b Mastoid process of the temporal bone.
c Zygomatic process.
d d Cheek bones.—*d c* Between these two references is seen the zygomatic suture, joining the temporal and cheek bones, by their processes of that name.
e f g h Lower jaw—(*e*) coronoid process—(*f*) condyloid process—(*h f*) ramus of the jaw—(*h g*) base of the jaw—(*g*) Symphysis of the lower jaw.
i i Upper jaw bones.—Between these, extending from the fore teeth to the entrance of the nostrils, is seen a suture called mystachial: just above this letter of reference the inferior orbitary hole may be seen.
k A portion of the coronal suture joining the frontal and parietal bones.
l A portion of the sphenoidal suture.
m The squamous suture.
n n The two nasal bones joined to each other by the anterior nasal suture.
o The left nostril, in which is seen the vomer, and a small part of the inferior turbinate, or spongy bone projecting within the edge of the upper jaw bone.
p The right nostril, with the inferior turbinate bone seen more plainly.
r r Orbitary processes of the frontal bone.
r t r v A suture passing across the upper part of the face, and sinking to the bottom of the orbits, joining the frontal bone to the bones of the face chiefly.
s Lachrymal bone, or os unguis.
u Orbitary process of the upper jaw bone.
1 1 Orbitary processes of the malar or cheek bone.
2 2 Orbitary processes of the sphenoid bone.
3 Os planum.

RIBS AND STERNUM.

1 2 3 4 5 6 7 The seven true ribs; their cartilages (*o*) are seen to join the sternum.
8 9 10 11 12 The five lower, or false ribs, whose cartilages do not join the sternum.
D E The sternum, or breast bone, articulated above to the collar bones; at its sides to the ribs; and at its lower extremity to the sword-like appendix or cartilage, F.

SPINE.

4 5 6 7 The bodies of the four lower vertebræ of the neck.
8 9 The bodies of the two first vertebræ of the back; to which the two first ribs are attached.
10 The body of the last vertebra of the back; to which the last rib is attached.
20 21 22 23 24 The bodies of the five lumbar vertebræ, being the broadest and thickest in the spine.
x x x This letter is placed on the intervertebral substance; a substance appearing to be a mixture of ligament and cartilage: it is found between the bodies of all the vertebræ; but thickest between the lumbar vertebræ.
y y Transverse processes of the vertebræ of the neck, and the first of the back.
z z Transverse processes of the lumbar vertebræ.
p p m m The sacrum—*p* The part next the hip bone—*m m m m* Four of the bodies of the vertebræ, into which it was separated in the fœtal state: between the letters *m* is seen a line passing in the direction of the intervertebral substance, which formerly united them, but which, in the adult state, is become bone. At each extremity of these lines is seen a hole: these are the anterior sacral holes, through which large nerves pass from the cauda equina.
n The lower extremity of the coccyx.

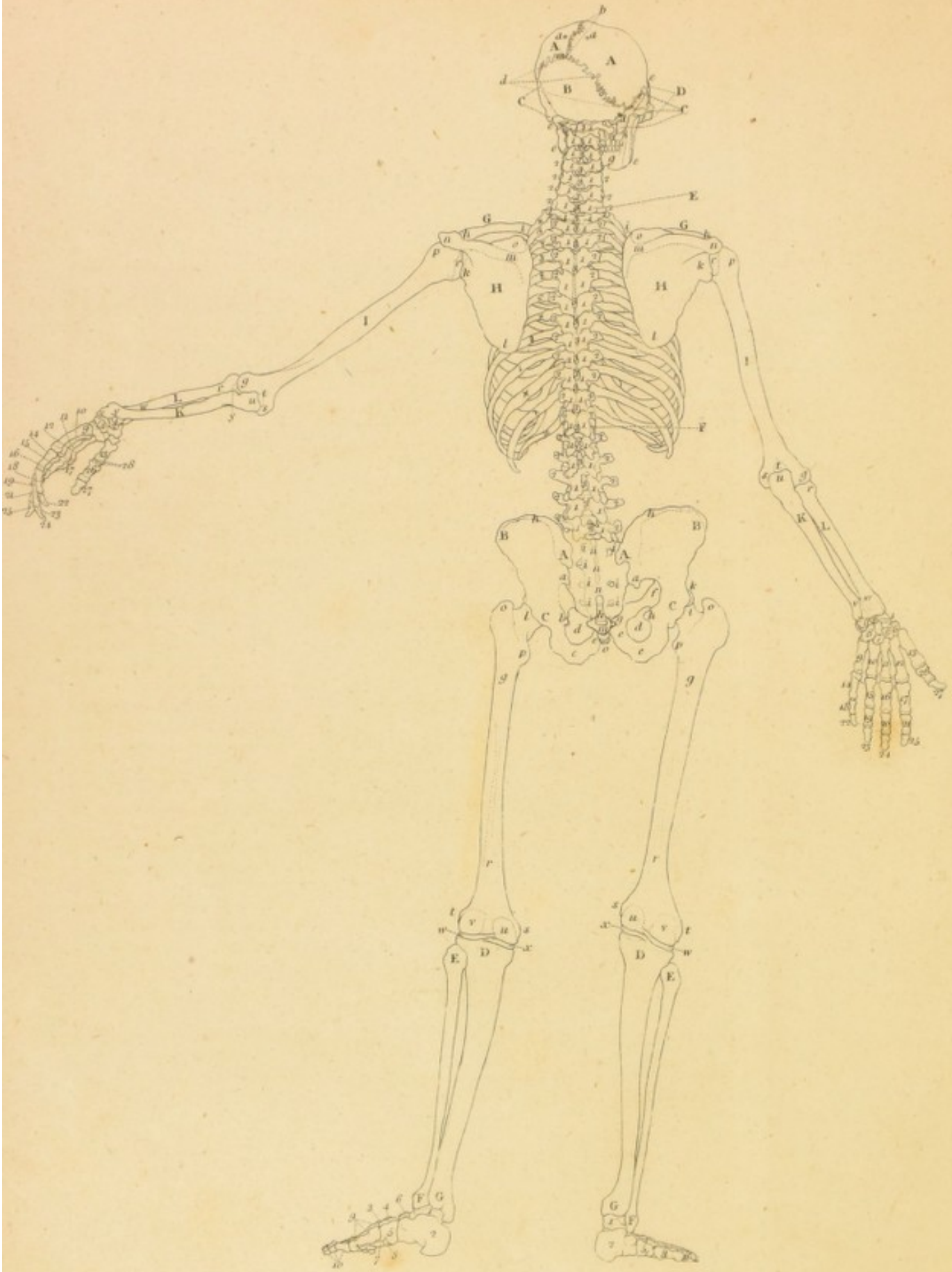
SUPERIOR EXTREMITY.

G H Clavicle, or collar bone—G Sternal extremity—H Acromial extremity.
I K L M Scapula—M Inferior costa—K Cervix—L Coracoid process—I Acromion of the scapula.
N *a b d f* The arm bone, or humerus—(*c*) The great protuberance—(*a*) The lesser protuberance; between these is a groove for lodging the tendon of the long head of the biceps muscle—(*b*) A portion of the articulating surface covered with smooth cartilage—(*f*) The internal condyle—(*d*) The external condyle—(*e e*) Articulating surfaces, forming part of the elbow joint.
g u The ulna, or greater bone of the fore arm—(*g*) The coronoid process—(*u*) The lesser extremity, with its styliform process.
h l n The radius, or lesser bone of the fore-arm—(*h*) The cartilaginous part articulated with the ulna—(*l*) The tubercle into which the tendon of the biceps muscle is inserted—(*l*) The greater extremity, sustaining the first row of carpal bones—(*n*) A projecting point of the bone, which some have called stiliform—(*k*) Grooves through which some of the extensor tendons pass.
1 2 3 4 The first row of carpal bones, or bones of the wrist—(1) The navicular bone—(2) The lunar bone—(3) The cuneiform bone—(4) The pisiform, or pea-like bone.
5 6 7 8 The second row of carpal bones—(5) The trapezial bone—(6) The trapezoid bone—(7) The great bone—(8) The unciform bone—(9) The nail-like process of the unciform bone.
10 Metacarpal, or first bone of the thumb.
11 Second bone of the thumb.
12 Third bone of the thumb.
17 Sesamoid bones of the thumb.
13 13 13 13 Metacarpal bones of the fingers.
14 14 14 14 First phalanx, or row of finger bones.
15 15 15 15 Second phalanx of finger bones.
16 16 16 16 Third phalanx of finger bones.

PELVIS AND LOWER EXTREMITY.

1 2 3 4 5 Ilium, or hip bone—(1) Spine of the ilium; at this end of the spine is a projecting point called superior anterior spinous process—(5) Inferior anterior spinous process—(2 3) Line of union with sacrum: under 3 is seen the opening of the sacro ischiatic notch.
4 6 7 Pubis or share bone—(6 4) Ascending ramus—(6 7) Descending ramus—(6 6) Bodies of the pubes—(11) Symphysis, or junction of the pubes.
7 8 9 Ischium, or hitch bone—(8) Tuberosity of the ischium—(7) Union of the ascending branch of the ischium with the descending branch of the pubis.
10 Thyroid hole; through this hole, formed by the ilium, ischium, and pubis, is seen projecting the point of the spinous process of the ischium.
12 14 15 16 17 Thigh bone, or femur—(12) Head of the bone covered with cartilage, for articulation at the hip joint—(13) Cervix, or neck of the bone—(14) Great trochanter—(15) Lesser trochanter—(16) Internal condyle—(17) External condyle—(18) Patella, or knee-pan: under the patella is seen part of the bone, covered with cartilage, entering into the knee joint.
19 Interarticular cartilages.
20 22 Tibia, or great bone of the leg—(20) Head of the bone—(22) Lower extremity of the bone, forming the inner ancle.
21 23 Fibula, or small bone of the leg—(21) Upper extremity articulated with the tibia—(22) Lower extremity forming the outer ancle.
24 Astragalus: the bone by which the foot is articulated with the leg.
25 The calcaneum, or heel-bone.
26 The navicular bone.
27 The great cuneiform bone.
35 The lesser and middle cuneiform bones.
28 The metatarsal, or first bone of the great toe.
29 The second bone of the great toe.
30 The third bone of the great toe.
34 Metatarsal bones of the other four toes.
31 Bones of the first phalanx, or row of the four lesser toes.
32 Second row of bones of the toes.
33 Third row of bones of the toes.
36 Sesamoid bones of the great toe.

Map &c, of Skeleton, Back View.



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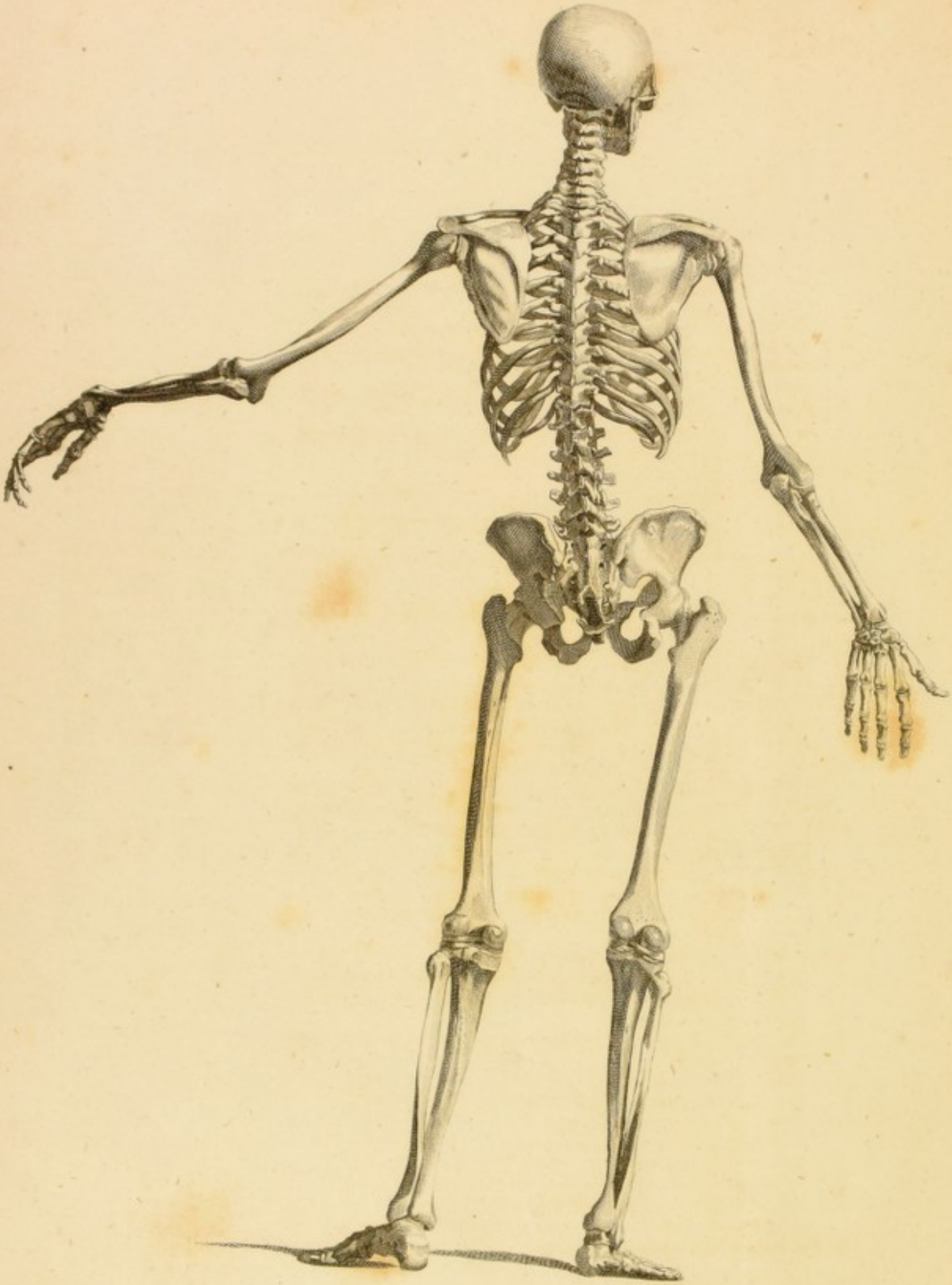
Back View.



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BACK VIEW OF THE SKELETON.

HEAD.

A A Parietal bones.
B Occipital bone.
C Temporal bone—The lowest dotted line points to the mastoid process; the middle one to the zygomatic process, going forward to meet a corresponding process from the cheek bone; and the upper line points out the flat or squamose portion of the bone.
D Cheek bone, with its zygomatic process joined to a process from the temporal bone of the same name, by the zygomatic suture.
a Two holes in the parietal bones, through which veins enter to the longitudinal sinus.
b The sagittal suture.
c The squamous suture.
d Appendage to the lambdoid suture.
e e e e The lower jaw—the two upper e e mark the condyloid processes, or the points of articulation, with the temporal bone.
f That part of the upper jaw, called the alveolar process, which assists in forming the sockets for the teeth, and constitutes the lower fore part of the roof of the mouth: at the end of this dotted line, the point of the styliform process of the temporal bone is seen.
g The inside of the lower jaw, with the alveolar process and its teeth, opposed to the teeth of the upper jaw.

SPINE AND RIBS.

2 1 3 1 2 The twenty-four true vertebræ forming the greater part of the spine, and divided into vertebræ of the neck, vertebræ of the back, and vertebræ of the loins.
1 1 Are placed between the oblique processes of the vertebræ, of which there are two on each side, one above the figure of reference, the other below it; they are covered on one surface by a smooth cartilage, which serves the purpose of articulation with the corresponding oblique processes of the vertebræ above and below, except the first and last vertebra; of these, one is articulated with the condyles of the occipital bone, the other with the oblique processes of the sacrum.
2 The transverse processes standing out laterally; those in the vertebræ of the neck generally project less than the others, are bifurcated, and have each a foramen for the passage of the vertebral artery; the first and second have not, in general, this bifurcation; the transverse processes of the vertebræ of the back are more distinct, and project obliquely backwards; in the loins they are stronger and more directly transverse.
3 The spinous processes of the vertebræ in the neck; except the first, they are in general bifurcated. In the back they are turned more obliquely downwards; but as they approach the loins they become more horizontal and are stronger; in the loins they are larger and nearly horizontal.
E The lowest or seventh vertebra of the neck.
F The lowest or twelfth vertebra of the back—The five vertebræ below this are those of the loins.
i n i } The sacrum or first set of false vertebræ; i i i i i h i } the posterior holes of the sacrum; n n n n spinous processes of the sacrum; near i i i are the remains of the transverse processes; h a deficiency of bone at the lower extremity of the sacrum, supplied, during life, by ligament; part of the bodies of the fourth and fifth vertebræ are seen through this deficiency.
m o Coccyx, tail bone, or second set of false vertebræ—(m) the first bone of the coccyx articulated with the lower extremity of the sacrum; (o) the lower extremity of the coccyx and termination of the spine.
α β γ δ ε ζ η θ ι κ λ μ The twelve ribs—The first seven are called true ribs, from having their cartilages articulated with the sternum; the other five, false ribs, from not having their cartilages so affixed; the posterior extremities are articulated to the bodies of the vertebræ, mostly at the junction of two; at the part where the rib is hid by the end of the transverse process; (2) is a small smooth cartilage, which is articulated with a similar one on the anterior surface of the process.

SUPERIOR EXTREMITY, OR ARM.

G Clavicle or collar-bone.
H k l m n o Scapula or shoulder bone—o superior angle; l inferior angle; k cervix or neck; on this neck is borne a broad superficial cavity, facing outwardly, and covered with a smooth cartilage for receiving the round head of the arm bone; m n the spine of the scapula; n that part of the spine called acromion; the superior edge o k is called the superior costa; k l the inferior costa; and o l the base: the whole triangular surface o k l is sometimes called dorsum.
I p q r s t The arm bone or humerus—p the posterior great tubercle; r a part of the round articulating head covered with cartilage; q the external condyle; s the internal condyle; t a cavity situated between the condyles behind for receiving a portion of the olecranon in extension of the fore arm.
K v u x The ulna or larger bone of the fore arm—u the olecranon or great protuberance, covered on the fore part with cartilage, and principally concerned in the formation of the elbow joint; v the lower or lesser end of the ulna, on which the radius plays; x a projecting process called stiliform.
L r w The radius or lesser bone of the fore arm—r the upper extremity of the bone, furnished with a superficial socket, and covered with cartilage for articulation, with the round head at the external condyle of the humerus; (y) a smooth cartilage at the inner side of the head, by which it is articulated with, and rolls in a corresponding hollow of the ulna; (w) the lower or greater extremity by which it is articulated with, and rolls on the lower extremity of the ulna, and affords articulation to the first row of carpal or wrist bones.
1 2 3 4 The first row of carpal or wrist bones—1 The navicular bone; 2 the lunar bone; 3 the cuneiform bone; 4 the pisiform or pea-like bone: these constitute the first row of carpal bones: the three former are articulated at one extremity with the radius, and roll with it on the ulna; at the other extremity they are articulated with the second row, and laterally with each other.
5 6 7 8 The second row of carpal bones—5 the trapezial bone; 6 the trapezoid bone; 7 the os magnum or great bone; 8 the uneiform bone; these are articulated at the extremity next the arm with the first row of carpal bones, laterally with each other, and at the extremity next the hand, with the metacarpal bones of the hand.
9 10 11 12 The four metacarpal bones of the fingers—9 of the little finger; 10 of the third or ring finger; 11 of the middle finger; 12 of the first finger.
14 15 16 17 The first row or phalanx of finger bones.
18 19 20 21 The second row of finger bones, or second phalanx.
22 23 24 25 The third order of finger bones, or third phalanx.
13 The metacarpal bone or first phalanx of the thumb.
26 The second phalanx of the thumb.
27 The third phalanx of the thumb.
The bones of these phalanges, except the last, are furnished with an articulating cartilage at each extremity.
28 Two sesamoid bones of the thumb.

OSSA INNOMINATA AND LOWER EXTREMITIES.

A a B C Os ilium or hip bone.
A h B Spine of the ilium.
a C b The great or sacro ischiatic notch; b c e ischium or hitch bone; b spinous process; c tuberosity of the ischium; c e ascending ramus of the ischium; e g f the pubis or share bone.
b l s t The femur or thigh bone; k the head of the bone, shewing some of the articulating portion; l the cervix or neck of the bone; o the great trochanter; p the lesser trochanter; q r a rough ridge in the posterior part of the bone; s the internal condyle; t the external condyle; u v portions of the bone covered with cartilage for articulation with the tibia.
x w Interarticular cartilage.
D G Tibia or greater bone of the leg, articulated to the thigh bone, to form the knee joint; G the inner ancle.
E F The fibula or lesser bone of the leg; F the outer ancle.
1 The astragalus.
2 Calcaneum or heel bone.
3 Lesser cuneiform bone.
4 8 Middle cuneiform bone.
5 Cubicular bone.
6 Navicular bone.
7 Metatarsal bone of the great toe.
9 Metatarsal bones of the other toes.
01 Phalanges of the toes.

Map &c. of Skeleton, Side View

London. Published by J. Johnson. St Paul's Church Yard Feb 1. 1806.

Side View

London Published by J. Johnson St. Paul's Church Yard Feb 1.1806

SIDE VIEW OF THE SKELETON.

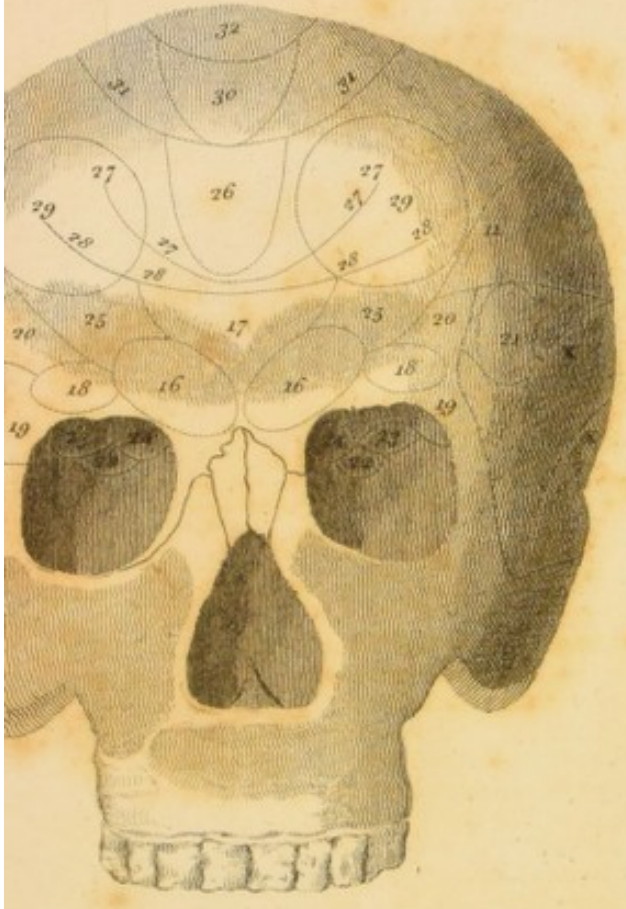
HEAD, TRUNK AND UPPER EXTREMITY.

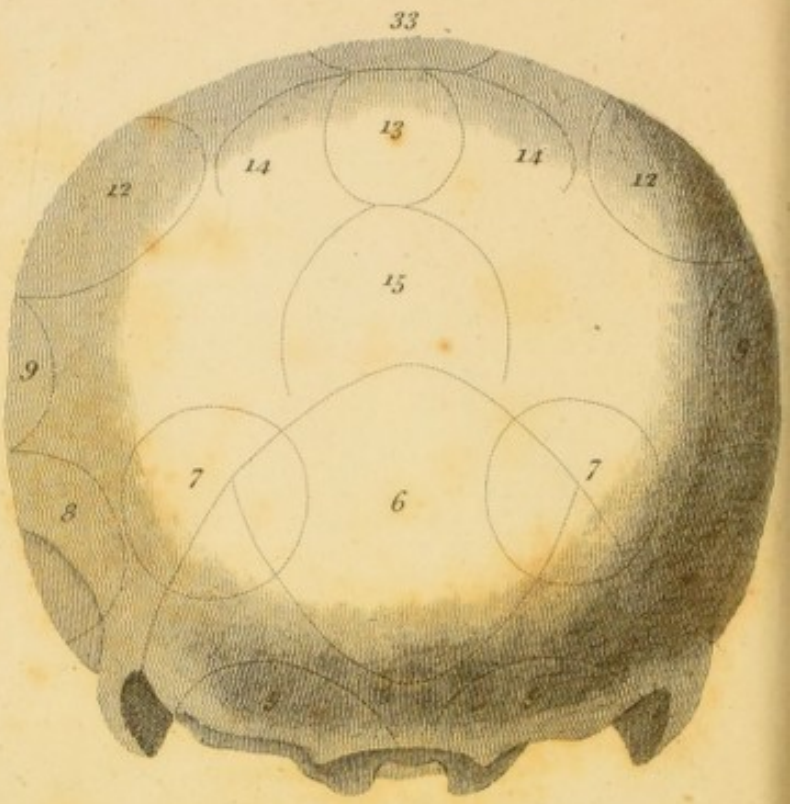
1 Frontal bone.
2 Squamose part of the temporal bone.
3 Part of the sphenoid bone.
4 Part of the cheek bone, forming part of the sinuosity for the passage of the temporal muscle to the coronoid process of the lower jaw—(22) external part of the cheek bone, forming part of the face.
5 Mastoid process of the temporal bone.
6 Zygomatic process of the temporal bone.
7 8 Coronal suture.
7 9 Squamose suture.
9 10 Appendage to the squamose suture.
10 11 12 Lambdoidal suture.
10 5 Appendage to the lambdoidal suture.
11 13 Part of the sagittal suture.
14 Parietal bone on the left side.
15 Parietal bone on the right side.
16 Occipital bone.
17 18 20 Lower jaw—(17) coronoid process of the lower jaw—(18) condyloid, or articulating process of the lower jaw—(20) angles of the lower jaw.
21 Upper jaw.
22 Cheek bone.
23 24 25 26 27 28 29 Spinose processes of the seven vertebræ of the neck.
30 31 Spinous process of the first and second vertebræ of the back.
32 Transverse processes of the vertebræ of the neck.
33 First true rib.
34 Second true rib.
35 Part of the clavicle, or collar bone.
36 Acromion of the scapula.
37 Spine of the scapula.
38 Dorsum of the scapula.
39 Cervix of the scapula.
40 Inferior angle of the scapula.
41 Superior angle of the scapula.
33 34 42 43 44 45 46 The seven true ribs—(54) the cartilages of the six lower true ribs.
47 48 49 50 51 The five false ribs—(52) their cartilages.
53 53 Portions of the sternum.
55 Vertebræ of the back.
56 Vertebræ of the loins.
57 57 Bodies of the third and fourth vertebræ of the loins.
58 58 Transverse processes of those vertebræ.
59 60 61 62 The arm bone—(59) the head of the bone articulated with the scapula; the dotted lines showing a portion of the articulating surface—(60) a superficial spiral channel passing from behind forwards, in which the muscular nerve passes—(62) a ridge above the external condyle—(61) the external condyle.
63 64 65 The radius, or lesser bone of the fore arm—(63) head of the radius.—(64) tubercle of the radius—(65) greater or lower end of the radius, with a pointed termination on the outer side, called by some stiliform process.
66 Olecranon, or great end of the ulna—(67) lower or lesser end of the ulna.
68 69 70 Three bones of the first carpal row—(68) navicular bone—(69) pisiform bone—(70) lunar bone.
71 72 73 74 Second row of carpal bones—(71) trapezial bone—(72) trapezoid bone—(73) great bone—(74) unciform bone.
75 76 77 Thumb—(75) metacarpal, or first bone of the thumb—(76) second bone of the thumb—(77) third bone of the thumb.
81 Metacarpal bones of the fingers.
78 First row, or phalanx of finger bones.
79 Second phalanx of finger bones.
80 Third phalanx of finger bones.
82 Cuneiform bone of the wrist.
83 Sesamoid bones of the thumb.

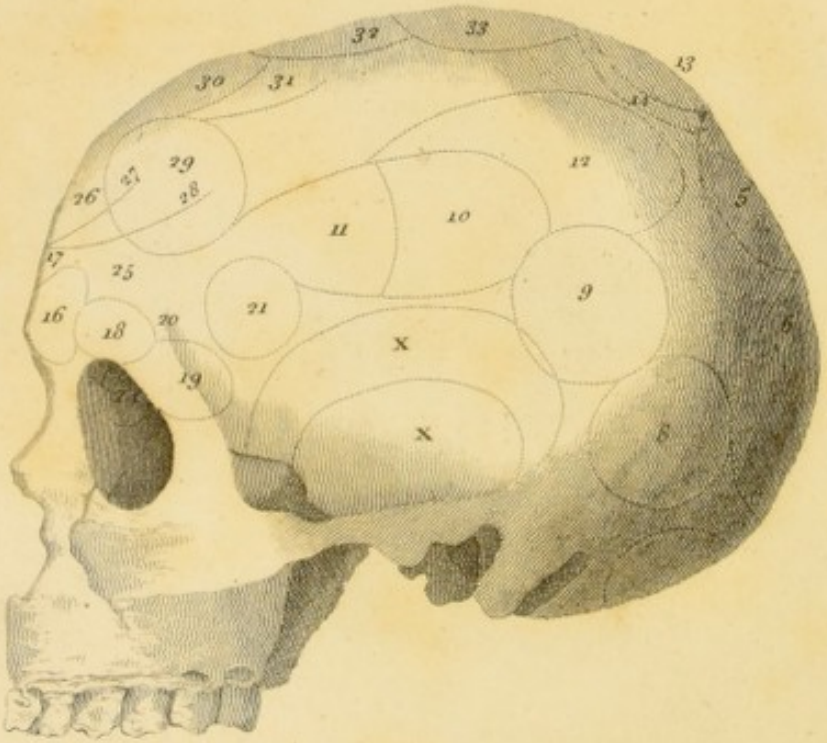
PELVIS AND LOWER EXTREMITY.

1 2 3 4 7 6 The hip bone, or os ilium—(1 2 3) the spine of the ilium—(1) superior anterior spinous process—(6) inferior anterior spinous process—(3) posterior superior spinous process—(4) posterior inferior spinous process—(4 5) sacro ischiatic notch.
7 5 10 9 Os ischium—(5) spinous process of the ischium—(10) tuberosity of the ischium—(9) junction of the ischium and pubis.
9 8 6 Os pubis, or share bone—(8) Symphysis, or junction of the two pubes.
11 The sacrum.
12 The first bone of the coccyx.
13 The second and third bones of the coccyx.
14 Thyroid hole.
15 16 18 19 Thigh bone, or femur—(16) great head of articulation, with the pelvis—(15) great trochanter—(17) cervix, or neck of the bone—(18) the external condyle of the left thigh; the internal condyle of the right thigh.
19 19 Portion of the bone covered with cartilage for articulation.
20 Patella, or knee-pan.
21 21 Interarticular cartilages.
22 23 24 25 Tibia, or great bone of the leg—(22) head of the tibia—(23) tuberosity for the insertion of the strong ligament of the patella—(24) part of the bone called the shin—(25) lower extremity of the bone articulated with the foot—(26) the inner ancle.
27 28 The fibula, or lesser bone of the leg—(27) head of the bone—(28) outer ancle.
29 Astragalus, the bone by which the foot is articulated with the leg.
30 The os calcis, or heel bone.
31 Cubical bones of the foot.
32 Navicular bones.
33 Middle cuneiform bones.
34 Lesser cuneiform bones.
35 Greater cuneiform bone.
36 Metatarsal bones of the toes.
37 First phalanx, or row of toe bones.
38 Second phalanx, or row of toe bones.
39 Third phalanx, consisting of four bones only; the great toe having no third bone.
40 Sesamoid bones of the great toe.

Gall's Craniology.







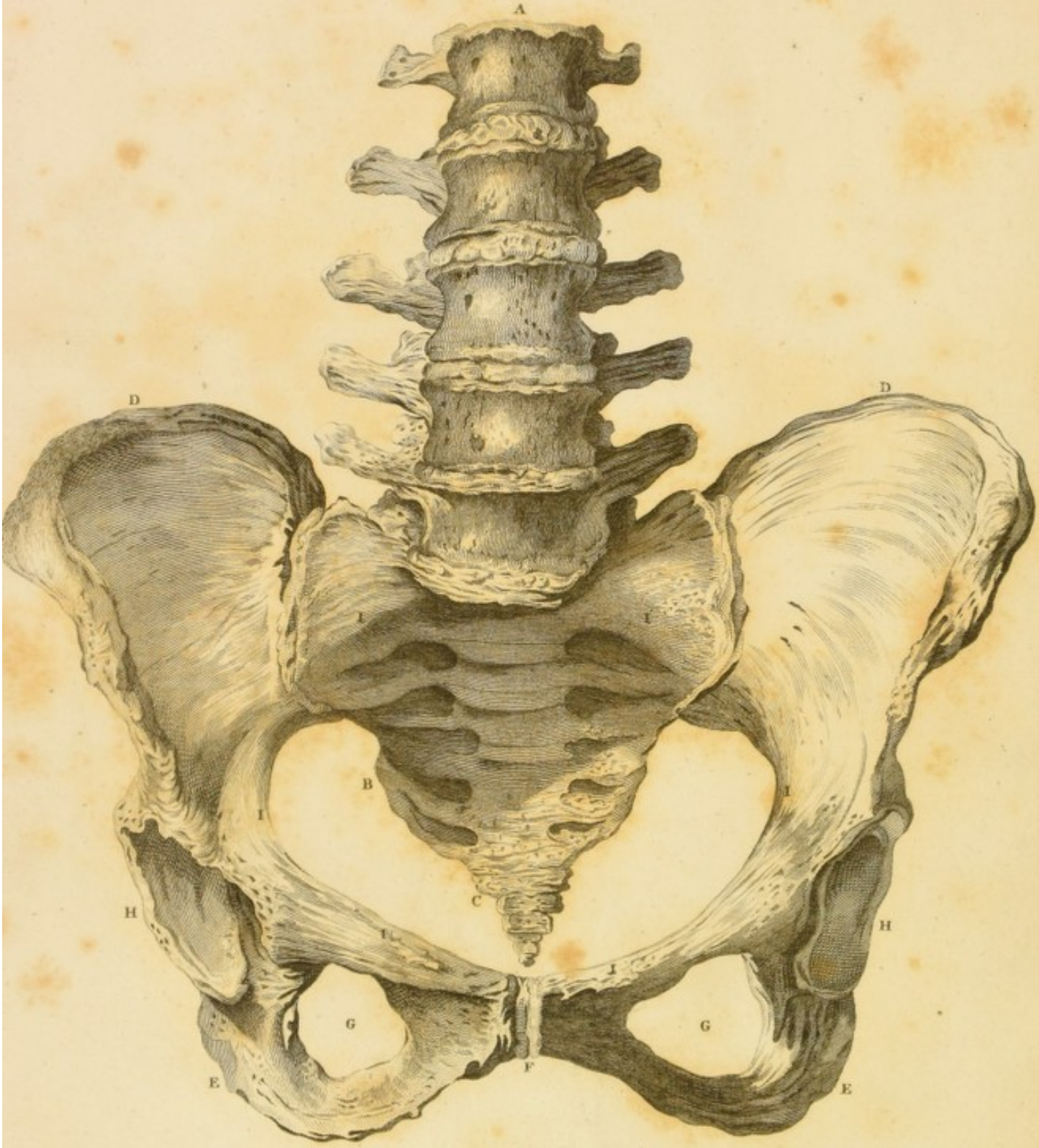
London Published by J. Johnson, St. Paul's Church Yard Nov.1.1806.

Joseph Byrne sculp.

EXPLANATION OF THE PLATE OF GALL'S CRANIOLOGY.

1. Organ of the tenacity of life.
2. Organ of the instinct of self preservation.
3. Organ of the choice of nourishment.
4. Cerebral organs of the external senses.
5. Organ of sexual gratification.
6. Organ of the reciprocal love of parents and children.
7. Organ of attachment and friendship.
8. Organ of courage.
9. Organ of the instinct to assassination.
10. Unknown organs.
11. Organ of cunning.
12. Organ of circumspection.
13. Organ of the instinct of rising in rank or estimation.
14. Organ of the love of glory.
15. Organ of the love of truth.
16. Organ of the sense of locality.
17. Organ of the sense for collecting and retaining facts.
18. Organ of painting and the perception of colours.
19. Organ of the arithmetical sense.
20. Organ of the musical sense.
21. Organ of the mechanical sense.
22. Organ of verbal memory.
23. Organ of the disposition for learning languages.
24. Organ of the memory for distinguishing and recollecting persons.
25. Organ of liberality.
26. Organ of the genius for comparison.
27. Organ of the metaphysical genius.
28. Organ of the spirit of observation.
29. Organ of wit.
30. Organ of goodness.
31. Organ of music or theatrical talents.
32. Organ of holiness.
33. Organ of perseverance.

Front View of the Bones of a well formed Pelvis.



London, Published by J. Johnson, St. Paul's Church Yard, Nov.1 1806.

FRONT VIEW, THE BONES OF A WELL-FORMED PELVIS.

A The five vertebræ of the loins.
B The os sacrum.
C The os coccygis.
D D The ossa ilia.
E E The ossa ischia.
F The ossa pubis.
G The foramina magna.
H H The acetabula.
I I I I I I The brim of the pelvis, or that circumference of its cavity, which is described at the sides by the inferior part of the ossa ilia, and at the back and fore parts by the superior parts of the ossa pubis and the os sacrum.

In this Table, besides the general structure and figure of the several bones, the dimensions of the brim of the pelvis, and the distance between the under part of the ossa ischia, are particularly to be attended to; from which it will appear that the cavity of the brim is commonly wider from side to side than from the back to the fore-part, but that the sides below are in the contrary proportion. The reader, however, ought not from this to conclude, that every pelvis is similar in figure and dimensions, since even well-formed ones differ in some degree from each other. In general, the brim of the pelvis measures about five inches and a quarter from side to side, and four inches and a quarter from the back to the fore-part; there being likewise the same distance between the inferior parts of the ossa ischia. All these measures, however, must be understood as taken from the skeleton; for, in the subject, the cavity of the pelvis is considerably diminished by soft parts. Corresponding also to this diminution, the usual dimensions of the head of the full-grown fœtus are but three inches and a half from ear to ear, and four inches and a quarter from the fore to the hind head.

Fig. I.

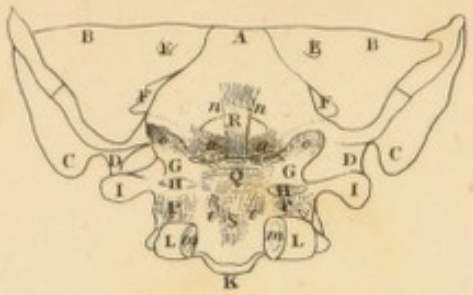


Fig II.

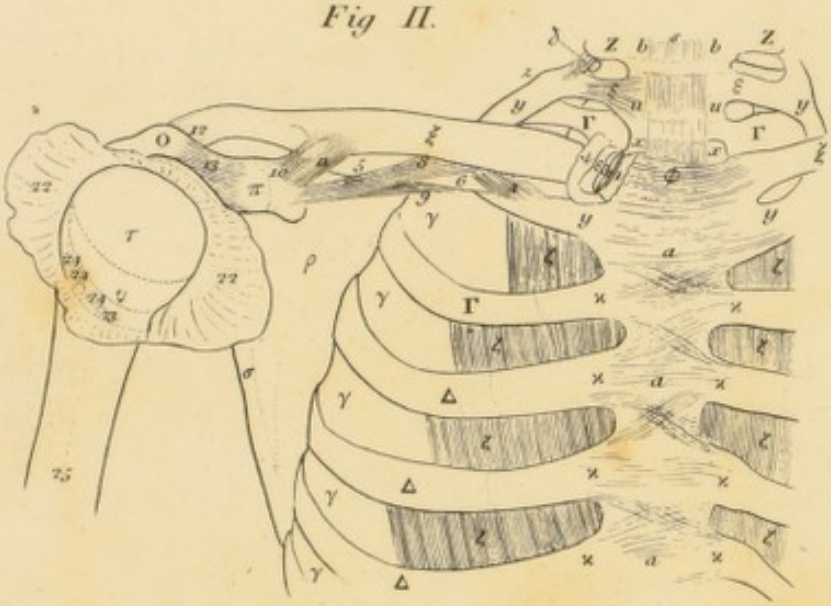
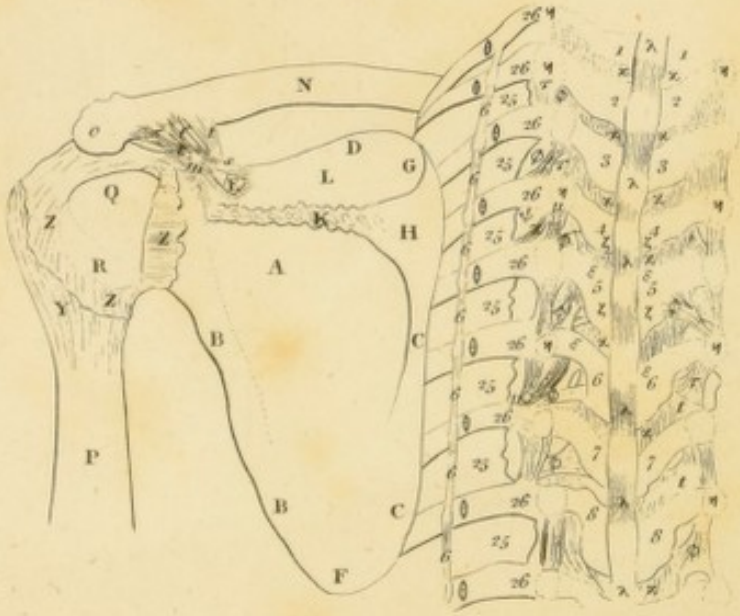


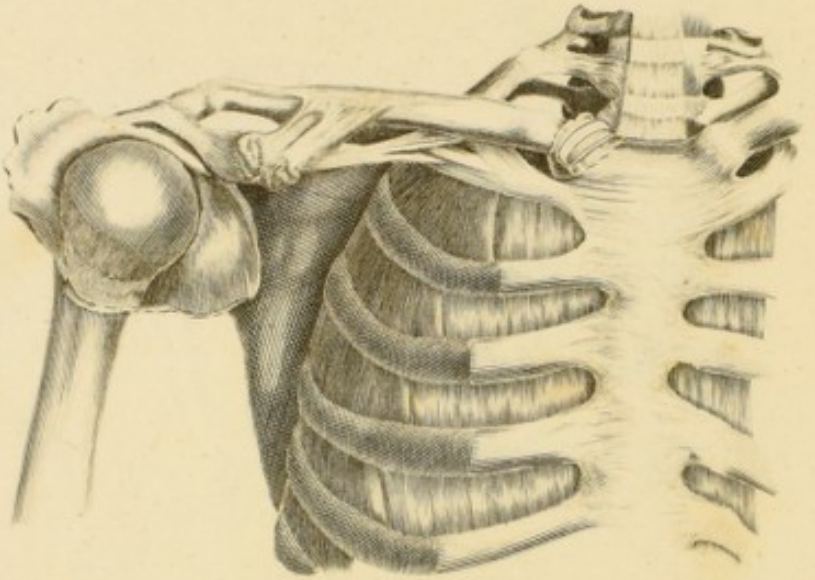
Fig. III.



Ligaments of the Neck, the Trunk, & the upper Extremity.

Fig. I.

Fig. II.



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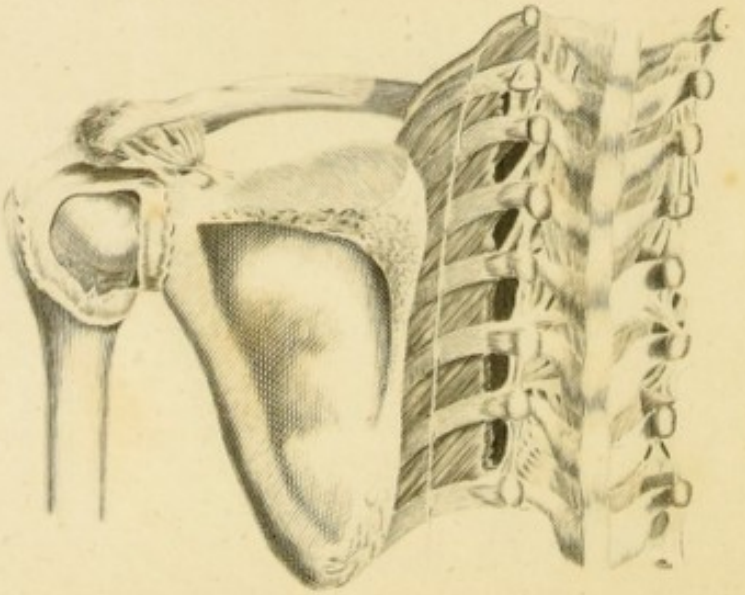

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LIGAMENTS OF THE NECK AND THE UPPER EXTREMITY.

FIG. 1.

The basis of the posterior part of the skull, with the atlas and epistrophæum, seen from behind.

A The basilar part of the occipital bone.
B B The apophyses petrosæ of the temporal bones.
C C and D D The mastoid and styloid processes, seen from behind.
E E The holes, through which the facial and acoustic nerves pass.
F F The fissure for the passage of the jugular vein and par vagum.
G G The sides of the first vertebra.
H H The part, from whence the posterior arch of the first vertebra has been cut.
I I The transverse processes of the vertebra.
K The inferior and posterior surface of the second vertebra.
L A portion of the posterior arches of the vertebra, which meet in the spinous process.
m m Where the arches themselves are cut off, together with the spinous process.
n n The anterior margin of the foramen occipitale.
o o The articular ligaments, which surround the articulation of the condyles of the occiput, with the superior sinus, both on the right and left of the atlas.
P P Ligaments between the oblique or articular processes of the vertebræ.
Q The transverse ligament of the atlas, rising on the right side from a small tubercle of the atlas, itself (which lies under and within the articular sinus of the same side), then running across, behind the tooth of the second vertebra, surrounds its neck, and passes to a similar tubercle on the left side, where it is strongly inserted.
R The superior appendix of the transverse ligament, which arising from the superior margin of that ligament, passes over the tooth, and is firmly fixed to the anterior and internal edge of the occipital foramen.
S Its inferior appendix, which descends from the inferior margin of the transverse ligament, and is fixed to the posterior superficies of the body of the epistrophæum, in which it terminates by slightly converging fibres. Mauchart calls the whole transverse ligament, with its appendices, the cruciform ligament.
t t The bands which pass from the posterior and superior margin of the body of the epistrophæum to the inferior and posterior margin of the anterior arch of the atlas.

FIG. 2.

Z The transverse process of the seventh vertebra.
ϑ The ligament, which descending from the transverse process of the seventh vertebra of the neck, a little outward, is inserted into the neck of the first rib.
ι The ligament of the little head of the first rib, by which the rib itself is connected to the first vertebra adjacent.
u The first vertebra of the back covered with the anterior longitudinal fascia of the vertebræ.
y The first rib.
z The tubercle of the rib.
Γ The second rib.
Δ Δ &c. The other ribs in their order.
κ The ligaments of the cartilages of the ribs, which not only connect the cartilages of the superior ribs with the sternum, but are dispersed in radii over the sternum itself.
χ The second vertebra of the back.
ψ ω 1 2 3 The interior capsular membrane of the articulation of the sternum and clavicle dissected and separated to show ψ the ligament arising from the extremity of the clavicle ω. 1 A portion of the ligament inserted in the sternum.—2 The margin of the glenoid cavity of the joint hollowed from the sternum where it receives the clavicle.—3 The border of the interarticular cartilage.
ξ The clavicle.
4 The rhomboid ligament, which extends at no great distance from the neck of the clavicle, and, proceeding obliquely from above and behind to the lower and anterior parts, adheres to the cartilage of the first rib. The fibres which run from the cartilage and sternum are united with the ligaments which proceed from the little head of the clavicle.
5 and 6 The subclavian muscle and its tendon.
7 8 9 The ligamentum bicorne, which, arising within from the coracoid process of the scapula, is obliquely unfolded from the external and inferior parts to the superior, and divided into two bands. The superior cornu is inserted into the lower surface of the clavicle, near the rhomboid ligament. The inferior cornu passes to the rib, immediately below, under the tendon of the subclavian muscle, which is confined and strengthened by these bands. Some fibres from the superior cornu mix with the rhomboid ligament.
10 11 Two ligaments fixed on the tuber of the coracoid process of the scapula, between which is a bursa mucosa. They pass obliquely to the superior parts, and are inserted into the external surface of the clavicle.
12 Very strong tendinous fibres which surround the union of the acromion with the end of the clavicle, and are fixed from this process into the clavicle.
13 The proper anterior scapular ligament, which arises from the external margin of the coracoid process, and terminates in the anterior face of the acromion. This strong ligament covers the two processes like a bridge. At the acromion it is narrow, but gradually dilates.
ω The acromion of the scapula.
π Its coracoid process.
ϒ The head of the right humerus.
υ Its neck.
22 The capsular ligament dissected, to show the head of the humerus covered with its cartilage.
23 The termination of the ligament on the neck of the humerus.
24 Mucous glands.
25 The os humeri.
γ The external intercostals.
ζ A thin but strong ligamentous membrane passing between the cartilages of the rib and covering the intercostal muscles.
χ External ligamentous bands, which cover and strengthen the union of the clavicle with the sternum.
φ The interclavicular ligament, which runs between the clavicles on the sternum.

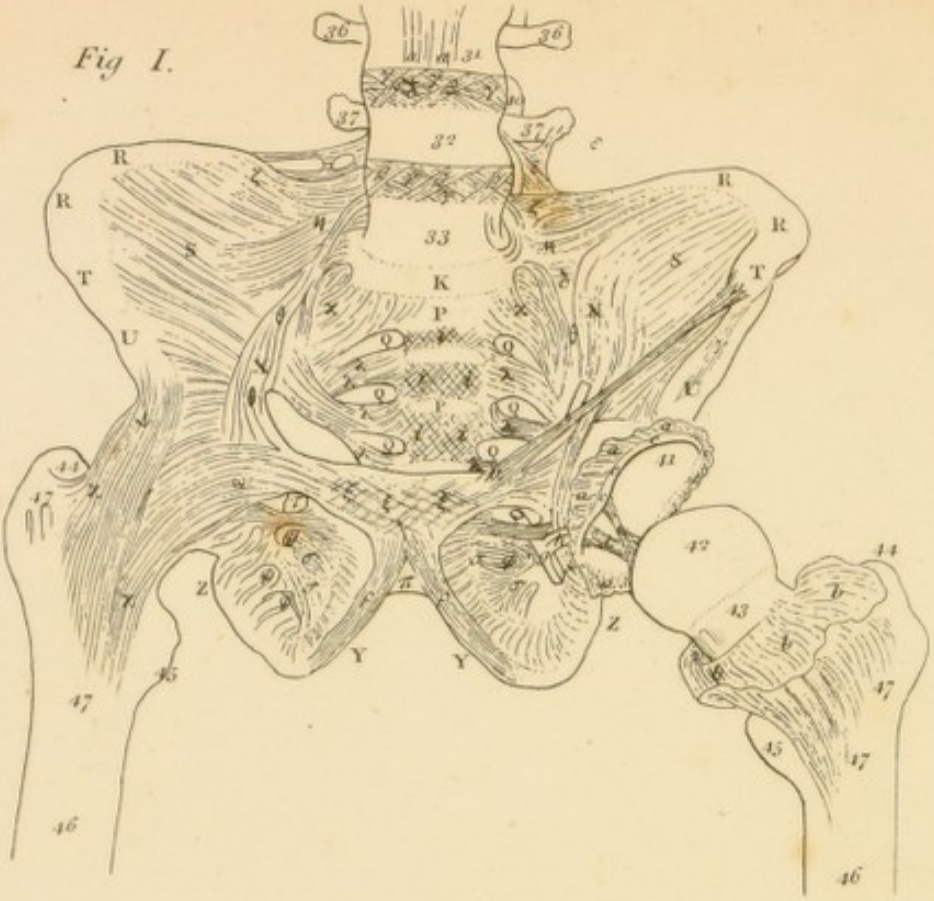
FIG. 3.

A A back view of the scapula.
B Its external margin.
C Its base.
D Its superior margin or costa.
E The division in this margin hollowed out for the reception of the vessels and nerves.
F The inferior angle of the scapula.
G Its superior and internal angle.
H The beginning of the spine.
K The spine cut off.
m The root of the coracoid process.
N The clavicle.
O Its extremity.
P Q R The os humeri, its head and neck.
s The posterior proper ligament of the scapula, running from the acute and internal angle of the division E obliquely, and externally to the superior parts, is fixed to the external angle of the same division, or to the posterior protuberances of the root of the coracoid process. It is sometimes double, subtending and inclosing the division.
t t t The common conoid ligament of the scapular, partly from the back of the proper ligament *s*, partly from the root of the coracoid process *m*: near the divison it is united by thick strong fibres to the posterior end of the clavicle.
X Y The capsular ligament connected with the shoulder, separated to show the head of the bone and cavity of the joint. It proceeds from the neck of the scapula and covers the whole joint.

FIG 4.

1—8 Vertebræ.
ι The superior margin of the posterior arch in each vertebra.
ζ The inferior margin of the same arch.
η The little head of the transverse process of each vertebra.
ϑ The ribs.
κ κ κ The yellowish ligaments, which from the upper margin of the lower vertebra pass to the lower margin of the upper.
λ λ λ The ligamentous cord which connects the spinous processes of the vertebra.
μ μ μ The ligaments of the transverse processes.
25 The external intercostal muscles.
σ Fragments of the tendons of the longissimus dorsi.
26 The transversal external ligaments of the ribs. A singular short ligament arises from the posterior and external margin of the transverse process of each vertebra, terminated in the rough tubercle of the adjoining rib.
τ The ligaments between the neck of the ribs and the transverse processes of the vertebræ. Weitbrecht calls these ligaments transversaria interna. From the neck of the third left rib, the fifth, sixth, seventh, and ninth rib on the right side, a ligament ascends outwardly, terminating in the inferior and extreme surface of the transverse process of the vertebra above.
φ The external ligaments of the neck of the ribs. Each of them rising from the superior margin of the neck of the rib, ascends obliquely to the internal parts behind the internal transverse ligament, and is fixed to the inferior edge of the oblique process of the vertebra immediately above. Its figure is often triangular.

Fig I.



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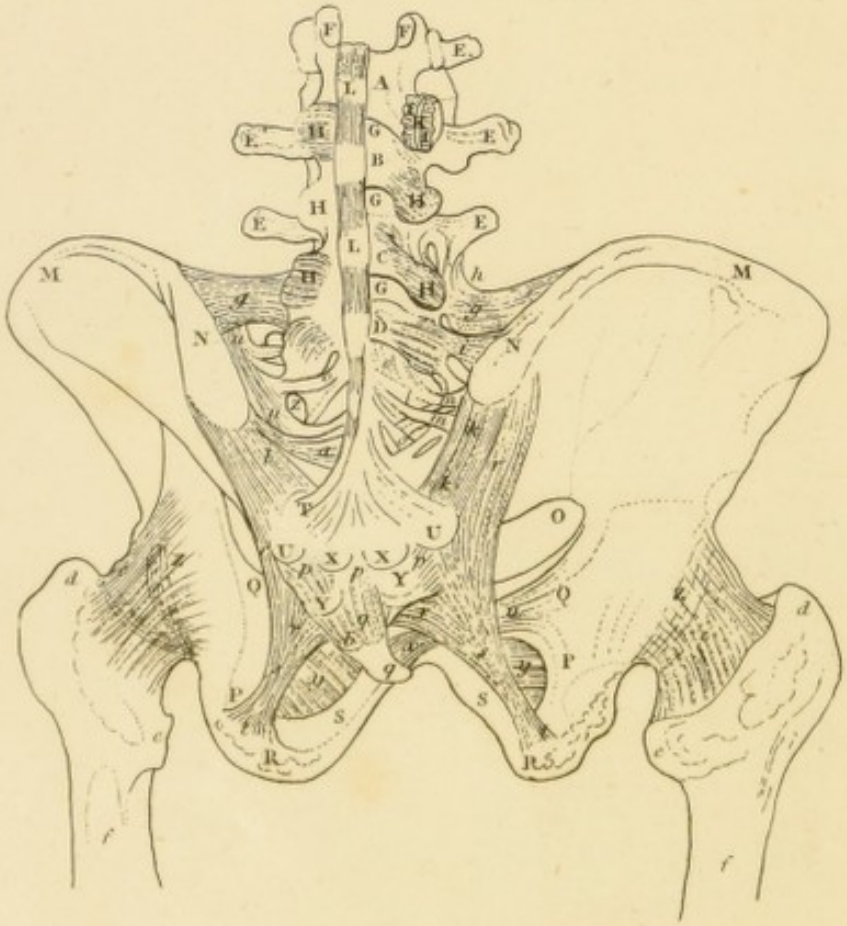
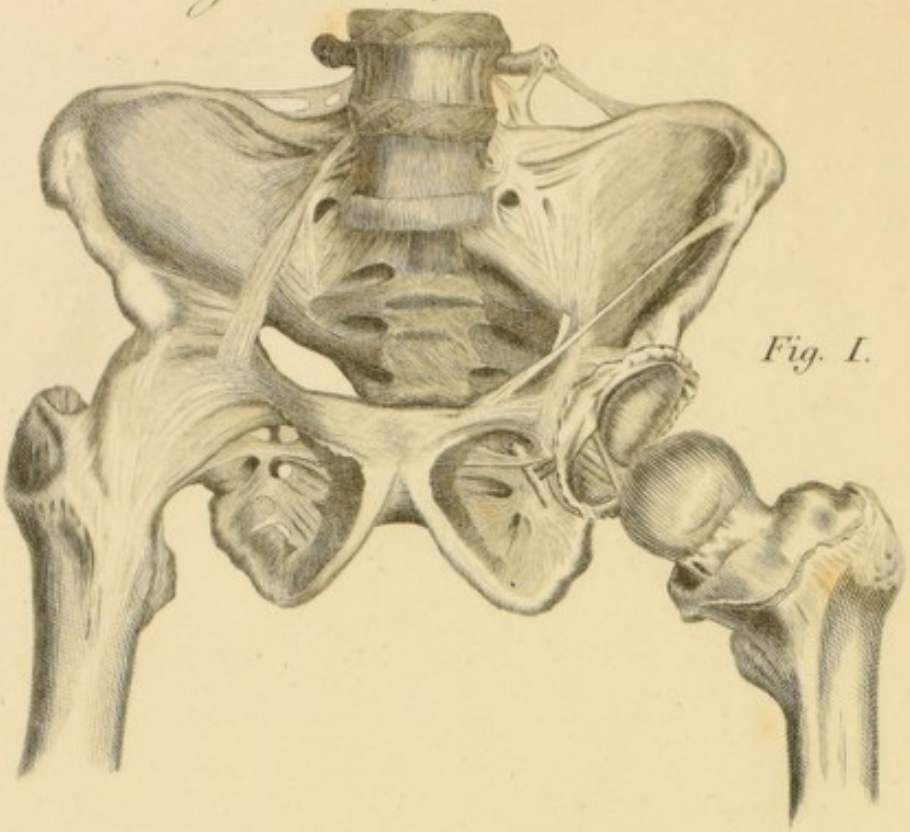


Ligaments of the Pelvis.



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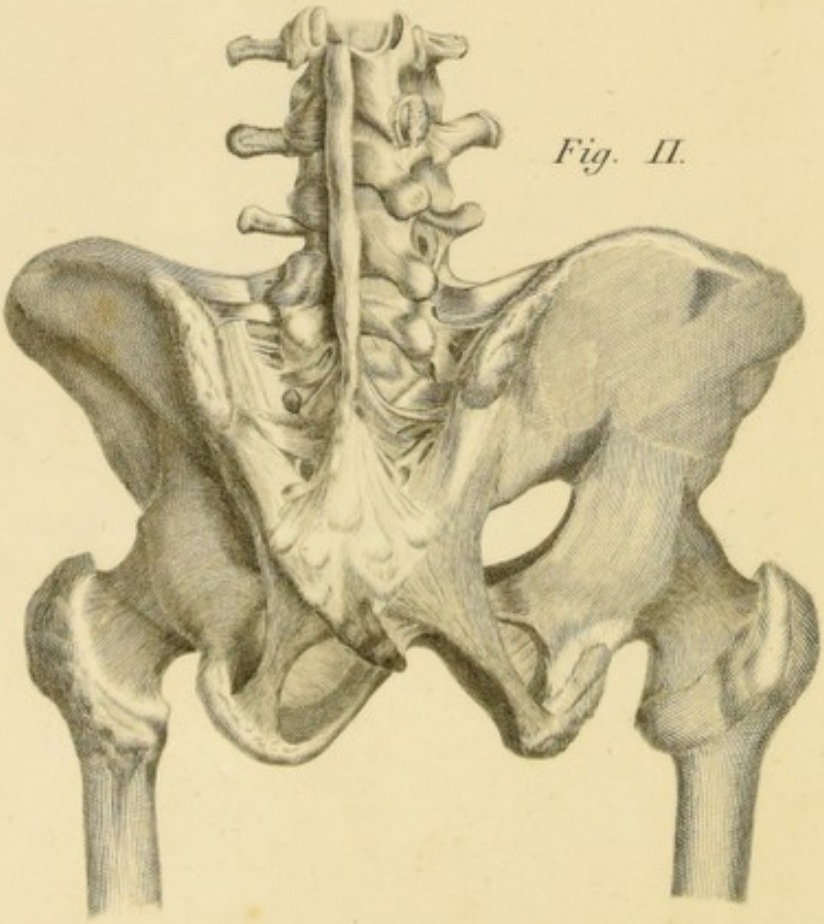

Fig. II.

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Joseph Shelton

LIGAMENTS OF THE PELVIS.

Fig. 1.

A front view.

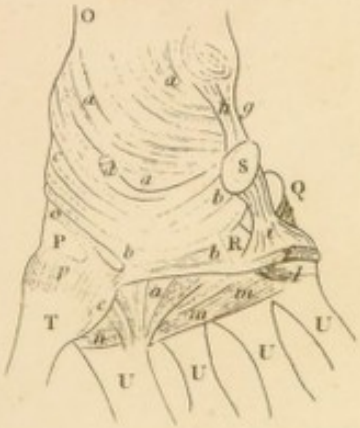
P P The os sacrum on its fore part.
Q Q The anterior foramina of the os sacrum.
R R The crests of the ilia.
S S The superior surfaces of the ilia.
T T The anterior and inferior apophyses of the ilia.
U U The anterior and inferior apophyses.
X X The brims of the pelvis.
Y Y The inferior crus of each pubes.
Z Z The descending leg, or the tubercles of each ischium.
41 The acetabulum, or the ischiadic cavity.
42 The head of the left thigh bone covered with its cartilage.
43 The neck.
44 44 The great trochanter.
45 45 The less trochanter.
46 The body of the bone.
47 The line of insertion of the ligament containing the joint.
$\alpha\ \alpha$ Where the anterior longitudinal fascia of the vertebræ is dissected off.
$\beta\ \gamma\ \delta$ The cartilaginous intervertebral ligaments.
$\beta\ \beta$ The external fascicula of the intervertebral ligaments, which pass obliquely from the right to the left, and proceed from the inferior margin of the lower vertebra to be inserted into the lower edge of the superincumbent vertebra.
$\gamma\ \gamma$ The interior fibres, which lie under the exterior, and run in an opposite direction.
$\delta\ \delta$ The minute fasciculi of the whole which are disposed nearly transversely.
$\varepsilon\ \varepsilon$ The tendinous bands between the transverse processes of the fourth vertebra of the loins, and the crest of each os ilium.
$\zeta\ \zeta$ Very strong ligaments by which the ossa inominata are connected to the transverse processes of the fifth vertebra of the loins. A ligament of this kind proceeds from the crest of the ilium on each side, and surrounds the before-mentioned process. Weitbrecht promised to describe these ligamentous bands, but has unaccountably omitted them.
$\eta\ \eta\ \eta$ Ligamentous bands, proceeding from the same process, and expanded over the os ilium, leaving in their interstices a passage for the lumbar nerves.
$\theta\ \theta$ A ligamentous membrane covering the interior edge of the pelvis.
$\iota\ \iota\ \iota$ A ligamentous membrane, formed of fibres, crossing each other, occupying that part of the sacrum which in the fœtus was filled by the cartilaginous ligaments $\beta\ \gamma\ \delta$.
$\varkappa\ \varkappa$ The ligaments which connect the sacrum with the ilia.
$\lambda\ \lambda$ Those which surround the anterior foramina of the sacrum.
$\mu\ \mu\ \mu$ The ligament of Vesalius, Fallopius, or Poupart, which, from the anterior and superior apophysis, in which the anterior crest of the os ilium is terminated, passes to the synchondrosis of the pubis.
ν Some ligamentous fibres which fill the space between the superior and inferior apophysis of the os ilium in front.
$\xi\ \xi$ The ligaments by which the synchondrosis of the pubis is confined and strengthened.
π The lower ligament of the pubes.
$\rho\ \rho$ Two strong round ligaments which rise from the internal margin of the inferior leg of the os pubis to the synchondrosis.
$\sigma\ \sigma\ \sigma$ The membrane which closes the foramen ovale, sometimes called obturatorium.
τ A hole for the passage of the arteria obturatoria and its accompanying nerve.
$\phi\ \phi\ \phi$ Lesser holes for the smaller branches of this artery and nerve to pass, from within, outwardly.
χ The capsular ligament, containing the joint of the right thigh bone, with the sciatic cavity.
ψ Branches which pass from under the anterior and inferior apophysis of the os ilium to the ligament χ.
ω Other branches from the os pubis.
a b The left capsular ligament dissected. *a* The portion which arises from the edge of the acetabulum. *b* The inferior portion obliterated under the neck of the thigh bone.
c The cartilaginous cilium of the cavity, which enlarges the acetabulum. The margin is styled its lip, or mouth.
d The ligamentum teres, which arises from the sinus at the bottom of the cotyloid cavity, and descends to the head of the thigh bone.
e Its thinner and membranous portion.
f A portion of the ligament which arises internally on the outside of the sciatic cavity, and surrounds the neck of the cavity, so far as where its bony cilium is interrupted. At that place under the lip, or under the cartilaginous ligament, it passes to the acetabulum.
g h The arteries. *g* A branch of the obturatoria. *h* Two little arteries, which, with the ligament *f*, penetrate the styloid cavity, to mix with the round ligament.
i The retinacula of the capsular ligament.

Fig. 2.

A back view of the ligaments of the pelvis.

A B C D The posterior arch of the lumbar vertebræ, viz. 2d, 3d, 4th, and 5th.
E E E The transverse processes of the same vertebræ in the same order.
F F The superior oblique processes of the second vertebra.
G G G The yellowish ligaments. See Fig. 3, Pl. 1.
H H The ligaments which surround the articulation of the oblique processes.
I K A ligament which strengthens the articulation of the oblique processes of the vertebræ separated, that the oblique apophysis of the vertebra may be seen.
L L See $\lambda\lambda$, Fig. 3, Pl. 1.
M M The crest of the ilium.
N N Its posterior tuber.
O The sciatic division.
P P Q Q R R The descending leg, spine, and tuber of the ischium.
S S A back view of the ossa pubes.
T The left transverse process of the third vertebra of the sacrum.
U Transverse processes of the fourth vertebra.
X X Tubercles of the same vertebra, with which the cornua of the first bones of the coccyx are articulated.
Y Y The tubercles of the fifth vertebra of the sacrum.
Z The superior and posterior foramina of the same bone.
a a The second pair of foramina.
b The second vertebra of the coccyx.
c c The neck of the thigh bone.
d d e e The greater and less trochanters.
f f The body of each thigh bone.

Fig. I.



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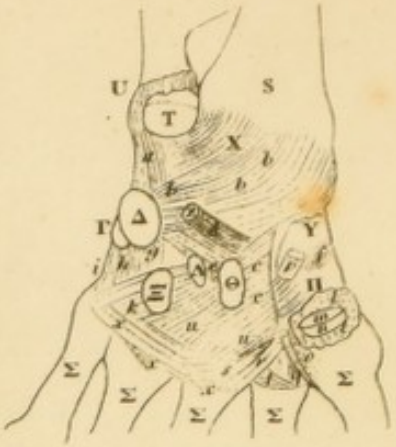

Fig. V

Fig III

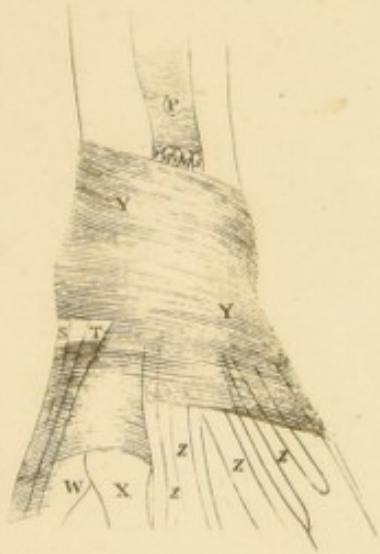

Fig. IV

Ligaments of the Wrist & Elbow.

Fig. I.

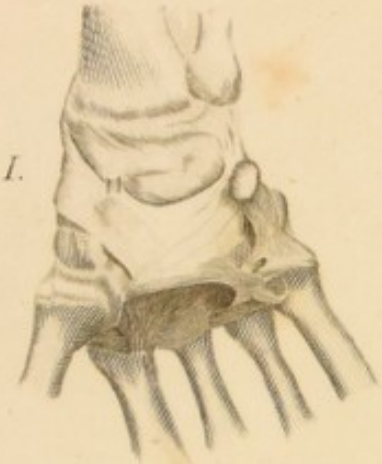

Fig. II.

Fig. V.

Fig. III.

Fig. IV.

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LIGAMENTS OF THE WRIST AND ELBOW.

FIG. 1.

Superficial anterior ligaments of the right hand.

N O The inferior extremities of the ulna and radius.
P Q The greater multangular and triangular bones.
R The processus unciformis of the os hamatum.
S The pisiform bone.
T U Bones of the thumb and fingers.
a a a The capsular membrane which embraces loosely the joint of the wrist.
b b c The proper internal membrane of the carpus, which, proceeding from R and S, is inserted like a bridge into the greater multangular bone P, and the os naviculare, which it covers at *c*.
d The tendon of the internal radial muscle.
e The ligament going from the metacarpal bone of the thumb to the internal proper ligament of the wrist.
f Another accessory ligament, which embraces the extremity of the fifth metacarpal bone, by which it is articulated to the wrist.
g Ligamentous fibres descending from the styloid process of the ulna to the pisiform bone.
h Fibres extending from the inferior margin of the ulna to the pisiform bone itself.
i The strait external ligament between the fifth metacarpal and the pisiform bone.
k The ligament which connects the external margin of the triangular bone with the fifth metacarpal.
l A similar ligament between the os hamatum and the same metacarpal.
m m The ligament of the palm, resembling a narrow ribband, which, arising from the base of the fifth metacarpal, is spread over the other bones of the metacarpus.
n A bundel of fibres confining at its insertion the tendon of the radialis internus, and connecting the second with the first metacarpal.
o The capsular membrane confining the joint of the navicular and greater multangular bones.
p A similar membrane between the greater multangular bone and the metacarpus of the thumb.

FIG. 2.

Ligaments under the superficial coverings in the left hand.

S The lower extremity of the radius.
T The lower head of the ulna covered with its cartilage.
U The capsular membrane, which connected the ulna with the carpus, cut off and turned back.
X The same membrane inclosing the joint of the carpus.
Y Z Γ Δ Θ Λ The navicular, the lunated, the triangular, the orbicular, the capitated, and the hooked bones respectively.
Ξ The unciform process of the hooked bone.
Π The larger multangular bone.
Σ Σ, &c. The bones of the metacarpus.
a The ligamentous fibres from the styloid process of the ulna to the orbicular bone.
b b b The fibres which proceed from the margin of the glenoid cavity of the radius to the orbicular and lunated bones.
c c The fibres from the navicular (Y) and greater multangular (Π) bones to the capitated bones.
d e f g h The various bands between the small bones of the carpus.
i The ligament which connects the external margin of the triangular bone with the fifth metacarpal.
k The ligament between the hooked bone and the base of the fifth metacarpal.
l l The capsular membrane which confines the joint of the greater multangular bone with the base of the first metacarpal.
m The margin of the great multangular bone covered with its cartilage, where it joins with the first metacarpal.
n The base of the first metacarpal bone covered with cartilage, where it answers the greater multangular bone.
o The internal lateral accessory ligament of the capsular membrane (*l l*).
p q The tendon of the internal radial muscle running under the little ligamentous canal (*q*), where it is fixed to the base of the second metacarpal.
r s The ligamentum sublime majus and minus of the third metacarpal.
t The volar ligament between the base of the second and third metacarpal.
u u The ligament between the os capitatum and the base of the third and fourth metacarpal.
x x x The volar ligament arising from the fifth metacarpal bone, adhering to the fourth, and terminating in the third.

FIG. 3.

Ligaments of the carpus and hand.

D and G The ulna and radius.
O The interosseous membrane.
P The passage for the vessels.
q q The tendons of the extensor digitorum communis.
r The tendon of the indicator muscle.
s Tendon of the extensor minimi digiti proprius.
S The tendon of the obductor longus pollicis.
W X The first and second bone of the metacarpus.
Y Y The common dorsal tendon of the carpus, descending obliquely from the radius to the ulna, sometimes called transversal or armillary. It confines the extensors of the fingers and the hand, and forms peculiar sheaths for the passage of some tendons, particularly the obductor longus pollicis vel extensor.
z z z z The tendons of the extensor communis running on the metacarpus.

FIG. 4.

Ligaments under the tendons and under the armillary ligament.

U U U Openings for the passage of the vessels.
X X X Hollows formed in the inferior extremity of the radius, covered with the strong ligamentous coat, through which the tendons of some of the muscles run.
Y The membranous ligament which unites the extremity of the ulna to the radius.
Z The ligamentum rhomboides of Weitbrecht, or stronger fibres passing from the edge of the cavity of the radius to the os triquetrum.
β Fibres from the styloid process to the greater multangular bone.
γ The ligamentous membrane which unites the bones of the carpus externally.
δ—η The ligamentous fibres which unite the bones of the carpus to each other.
θ The ligament which covers the os multangulum majus and its connection with the metacarpus of the thumb.
κ λ μ The fibres from the os capitatum to the second, third, and fourth bones of the metacarpus.
ξ The dorsal ligament which runs from the base of the first metacarpal to the base of the second.
π ρ Dorsal ligaments which lie between the second and third, and the third and fourth metacarpal.
σ Dorsal ligaments which lie between the basis of the fourth and fifth metacarpal.

FIG. 5.

An external view of the inferior part of the right humerus, with the superior part of the fore arm.

A The lower portion of the humerus seen externally.
B Its external condyle, whose extremity is covered with a thin cartilage.
C The ulna.
D Its posterior and superior process, styled the olecranon.
E The radius.
F The round head of the radius covered with a cartilaginous lamina.
f The glenoid cavity hollowed on the top of its head, with which the lower and gibbous superficies of the condyle (B) is articulated.
G The capsular ligaments dissected. It arises from the os humeri, and is inserted into the olecranon of the ulna.
H The orbicular ligament of the radius.
I The part where this ligament arises, viz. from the posterior margin of the sinus lateralis, which is hollowed in the ulna for the reception of the radius.
K The extreme lateral ligament, which arising from the external condyle of the humerus, descends, is firmly fixed in the orbicular ligament (H), and disappears in the annular ligament.
L The membrane which loosely surrounds the radius, and binds the ulna, dissected and turned back.
M The opening for the external interosseous artery.
N The interosseous membrane.
O The posterior transversal chord of the fore arm, which, proceeding from the exterior margin of the ulna, descends obliquely, and is connected to the inner side of the radius. It runs in a direction so as to decussate the fibres of the interosseous membrane. This is called the posterior transverse chord, because some authors have described an anterior one; but the latter is very often wanting.

Fig. I.

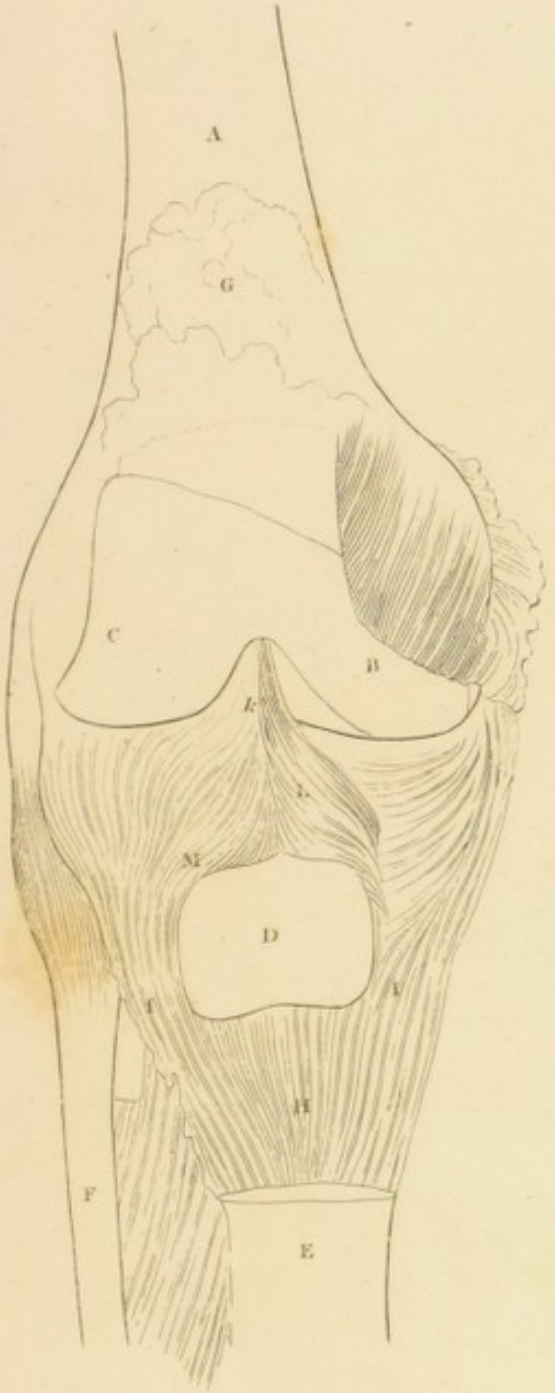
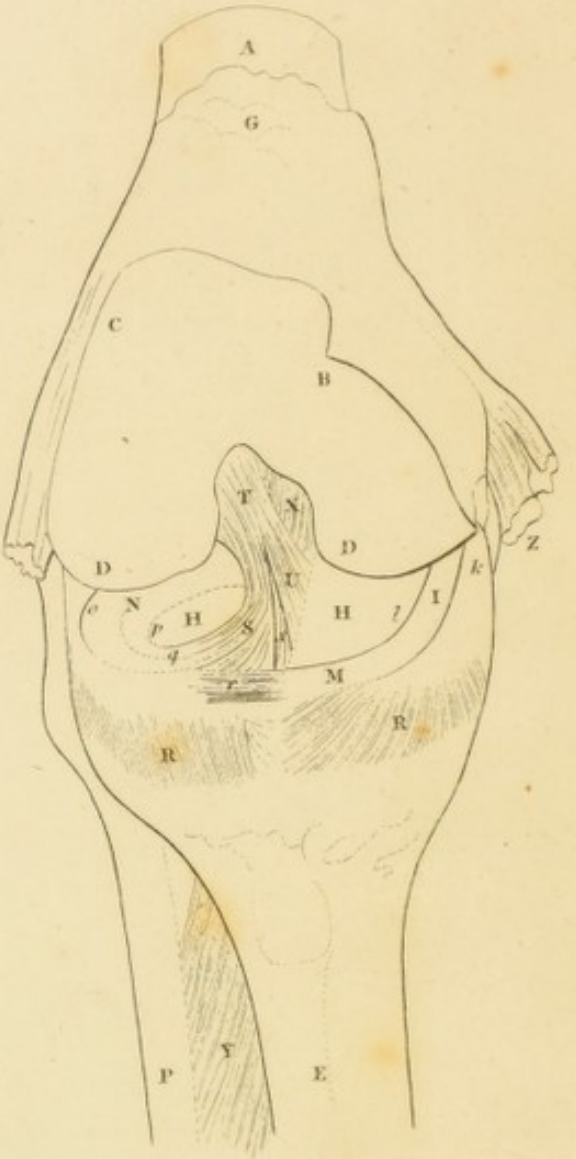
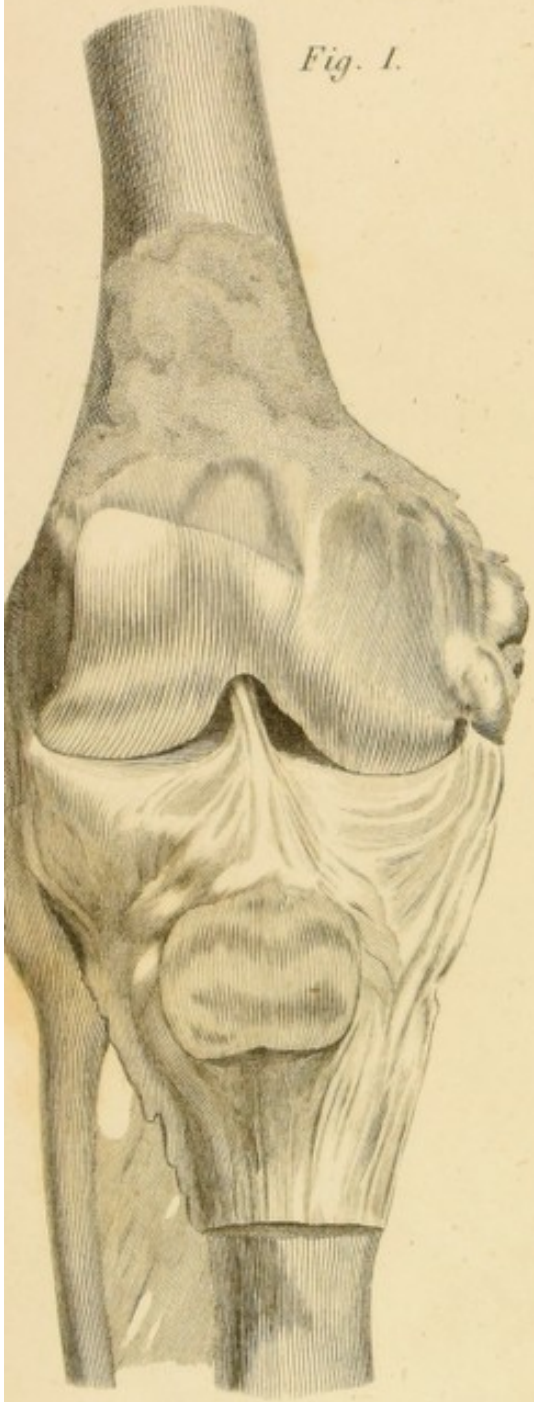


Fig. II.



Ligaments of the Knee in Front.

Fig. I.



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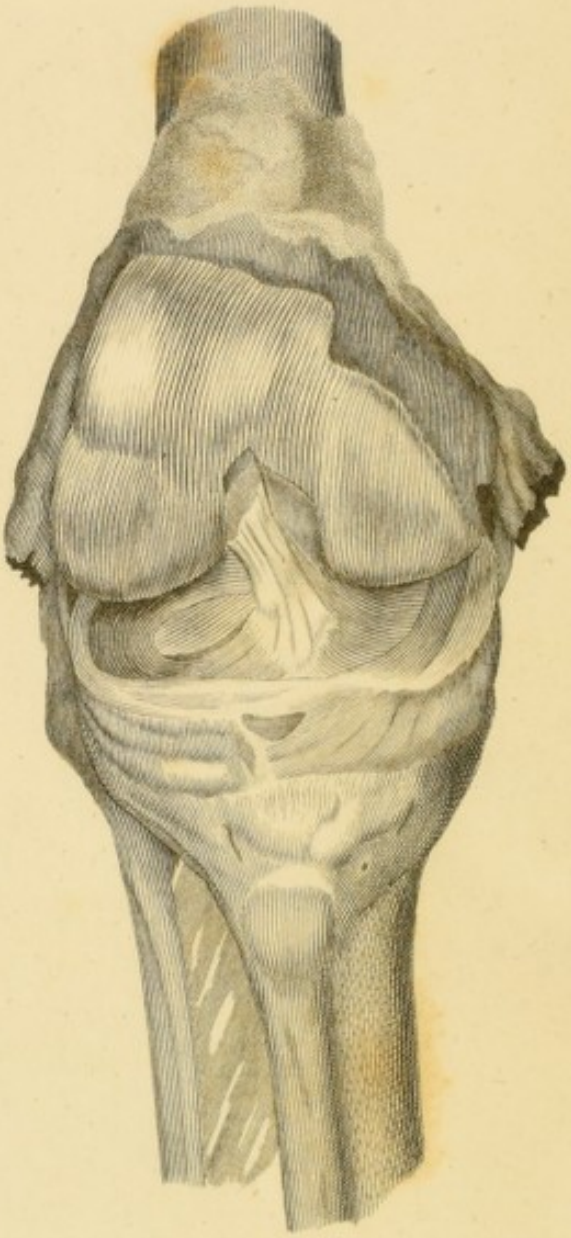

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LIGAMENTS OF THE KNEE IN FRONT.

FIG. 1.

The right knee, the capsular membrane dissected from above, and the patella turned back.

A The thigh bone.
B The internal condyle covered with a thin cartilage.
C The external condyle.
D The posterior surface of the patella covered with a thin cartilage.
E F The tibia and fibula.
G Fat.
H The tendon of the musculus rectus cruris turned back, over which there is a thin membrane, which is properly the capsular membrane.
I I The interior surface of the same capsular membrane very smooth.
K The mucous ligament of the knee.
L M The greater and less ligamentum alare.

FIG. 2.

The same, but the patella removed and the thigh turned a little backward.

A B C As in fig. 1.
D D The articular surface of the condyles.
E F G As in fig. 1.
H H The glenoid cavities hollowed in the upper surface of the tibia, answering to the condyles. A cartilaginous lamina is spread over the hollows.
I The internal semilunar cartilage.
k Its external margin a little thicker.
l Its internal margin falcated and thin.
M The anterior horn of the same cartilage.
N The external semilunar cartilage.
o p Its internal and external margin.
q The anterior horn of this cartilage.
R R The membrane which descends from the external margin of the semilunar cartilages, and is lost in the border of each glenoid cavity.
r The common transverse ligaments, which proceed from the external border of the semilunar cartilage N, beyond the anterior seat of the tibia, and terminates in the anterior horn of the cartilage I.
S The ligament by which the anterior horn of the external semilunar cartilage adheres to the anterior crucial ligament. Weitbrecht calls it the first adhesion of the external cartilage.
T U The anterior crucial ligament, descending from the sinus, which divides the condyles, and particularly from the interior side of the external condyle: running obliquely, it is fixed to the internal margin of the interior glenoid cavity.
X The upper part of the posterior crucial arising from the external side of the internal condyle.
x The fibres which strengthen the transverse ligament r, and are mixed with the ligament proceeding from the anterior horn of the external cartilage, and with the anterior crucial ligament.
Z The internal lateral ligament cut off.

Fig. I.

Fig. II.

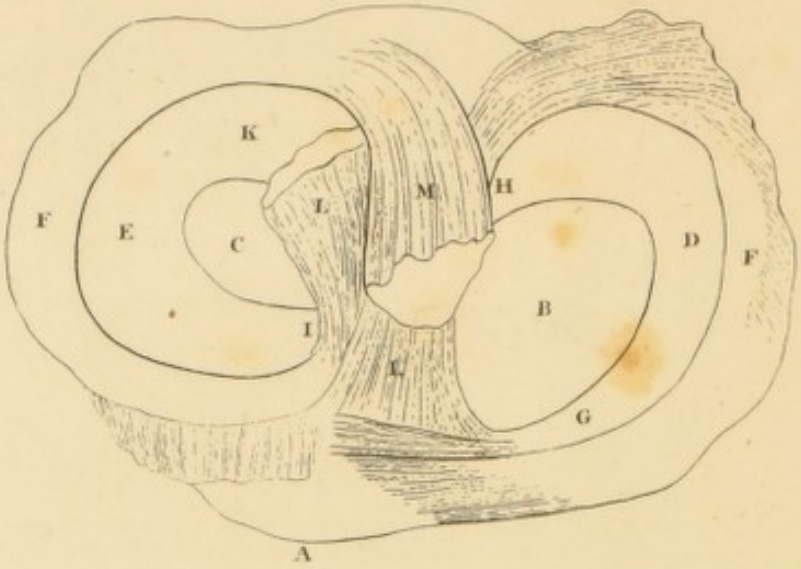
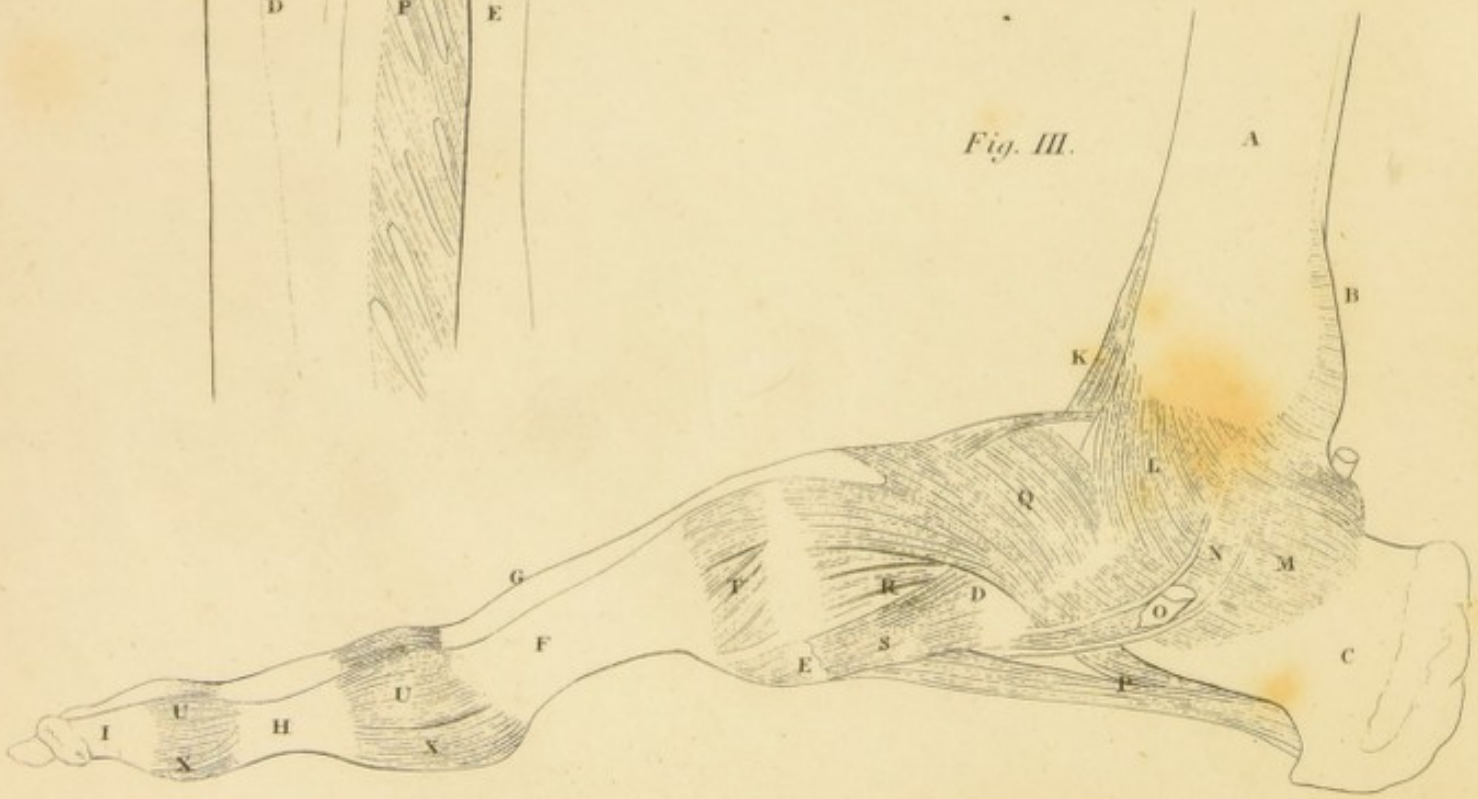


Fig. III.



Views of the Joint of the Knee from behind, the Semilunar Cartilages, & the Ligaments of the Foot.

Fig. I.

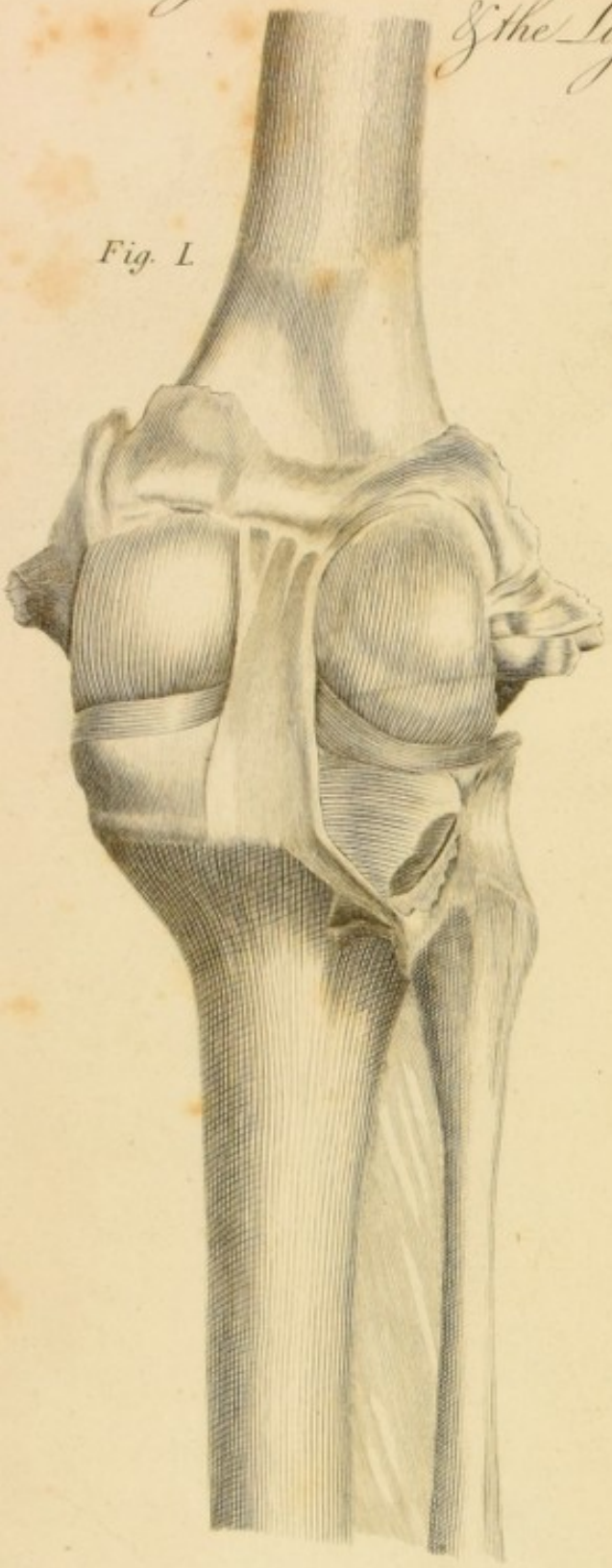


Fig. II.

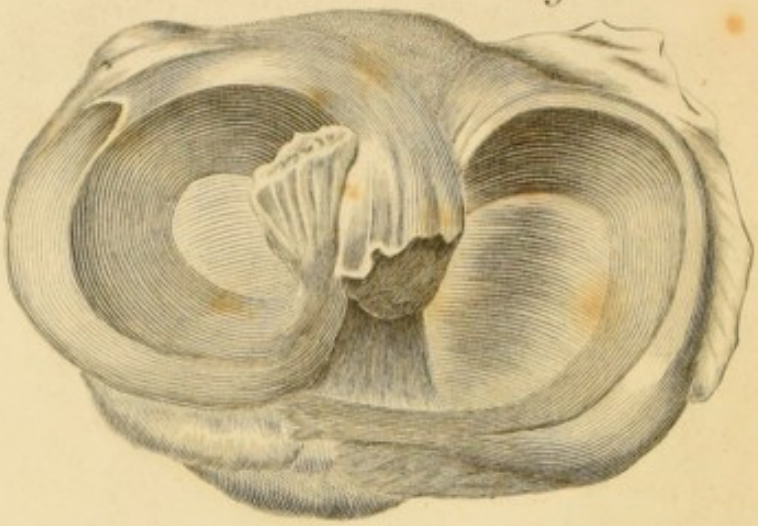
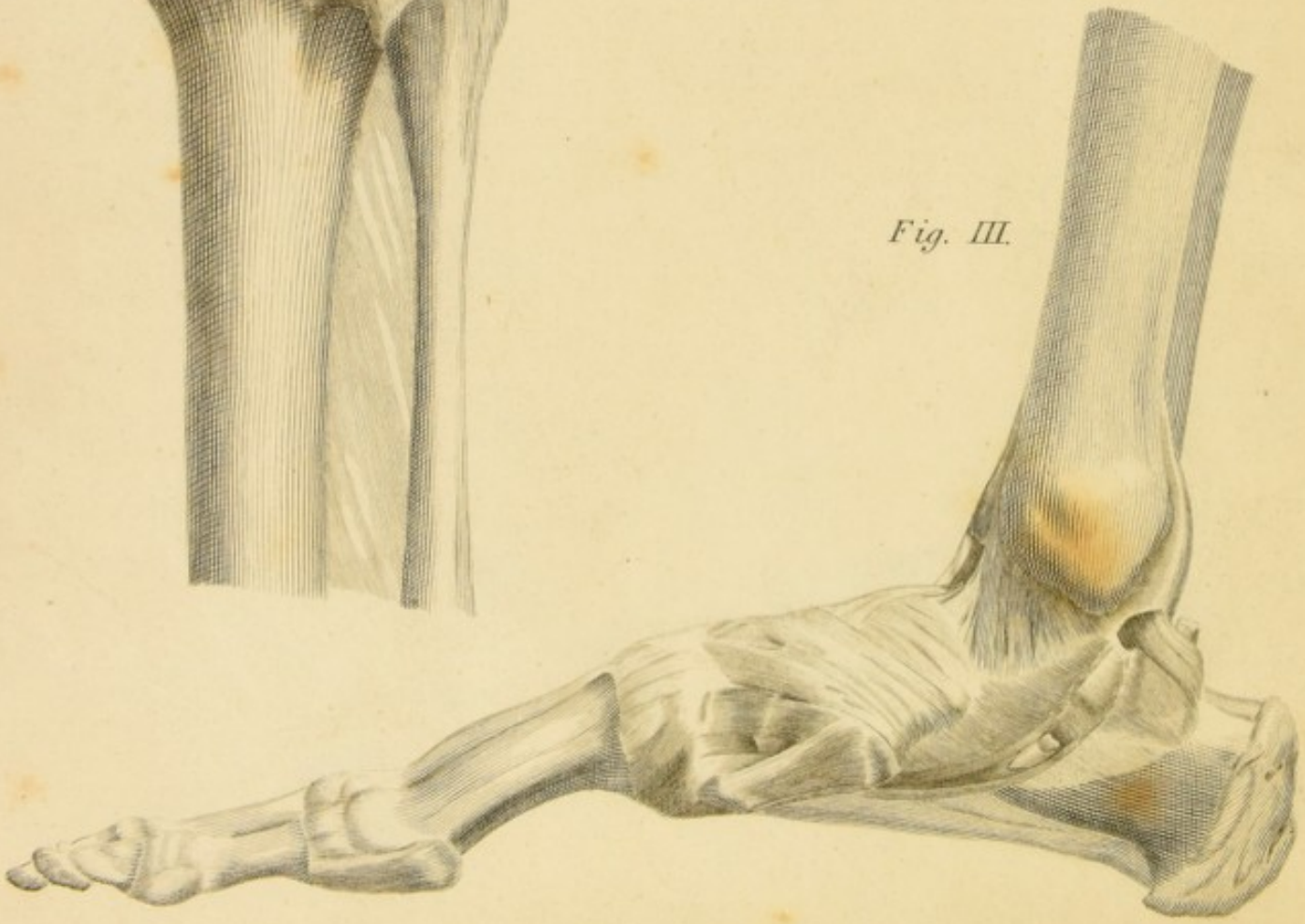


Fig. III.



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Joseph Skelton

VIEWS OF THE KNEE JOINT FROM BEHIND; OF THE SEMILUNAR CARTILAGES AND OF THE LIGAMENTS OF THE FOOT.

FIG. 1.

The deeper seated ligaments of the knee on the posterior part.

A A back view of the femur.
B The internal condyle incrusted with a cartilaginous lamella.
C The external condyle.
D E The tibia and fibula.
F F F The capsular membrane cut off.
G The sinus in the external side of the head of the tibia, with which the fibula is articulated.
H The internal semilunar cartilage.
I The ligamentous membrane by which the cartilage is connected with the tibia.
K The external semilunar cartilage.
L The capsular membrane which strengthens the head of the fibula, and which, in its ascent, unites with the border of the external semilunar cartilage.
M The rope, or a very strong ligamentous fascia, rising from the sinus of the femur, dividing the condyles behind, which, running under the capsular membrane, turns downward and adheres to the head of the tibia. This chord has been overlooked by former syndesmologists.
N A part of the external lateral ligament cut off.
O The fibres which connect the tibia with the fibula behind.
P The interosseous membrane.

FIG. 2.

Semilunar cartilages, with the head of the tibia.

A The anterior tuber of the tibia.
B The internal glenoid cavity incrusted with cartilage.
C The external glenoid cavity.
D The internal semilunar or falcated cartilage.
E The external semilunar or falcated cartilage.
F F The thickness of the cartilages.
f f The thinner border.
G The anterior horn of the internal cartilage.
H The posterior horn of the internal cartilage.
h The transverse common ligament.
I The anterior horn of the external cartilage.
K The posterior horn of the external cartilage.
L L and M The anterior and posterior crucial ligaments.

FIG. 3.

An internal view of the back of the foot, with the ligaments.

A The tibia.
B A hollow behind the malleolus internus.
C Os calcanei.
D Os naviculare.
E The first cuneiform bone.
F G The first and second metatarsal.
H I The first and second bone of the great toe.
K The capsular membrane of the joint of the tarsus.
L The deltoid ligament.
M Oblique fibres between the talus and calcaneus internally.
N The sheath through which the tendon of the tibialis posticus (O) runs.
P The aponeurosis plantaris.
Q The ligamentous apparatus between the naviculare, and the first and second cuneiform bone.
R The dorsal ligament between the os naviculare and the first cuneiform bone.
T The capsular membrane of the first cuneiform and the metatarsal bone of the great toe.
U U A similar membrane connecting the bones of the great toe with each other.
X X The oblique and lateral ligaments of the same joints.

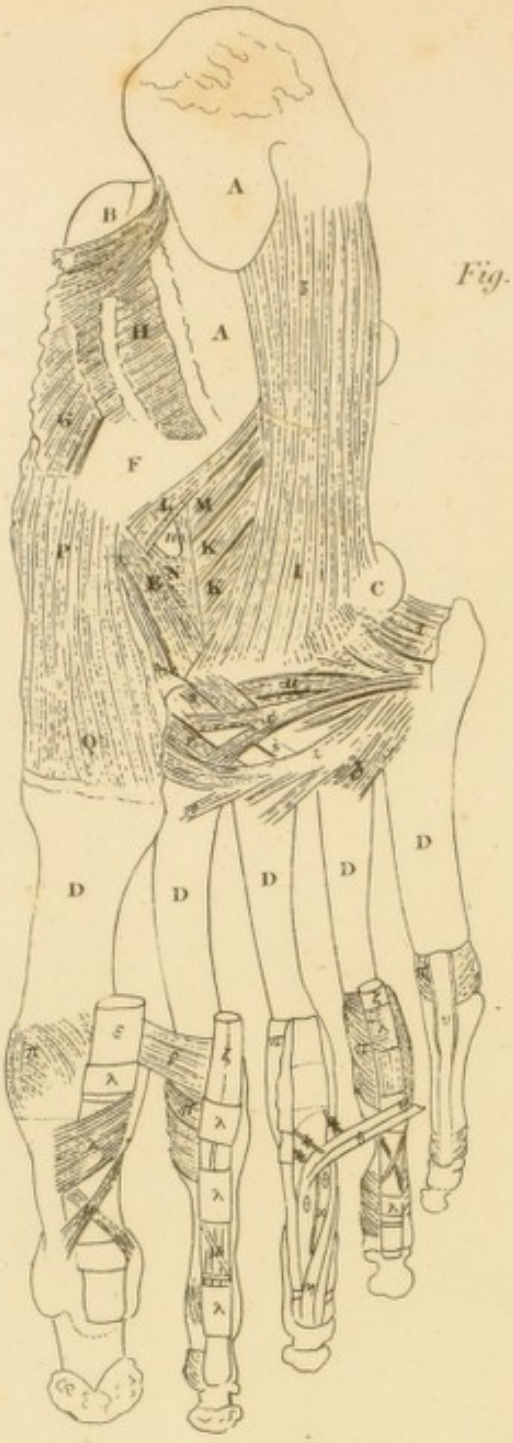
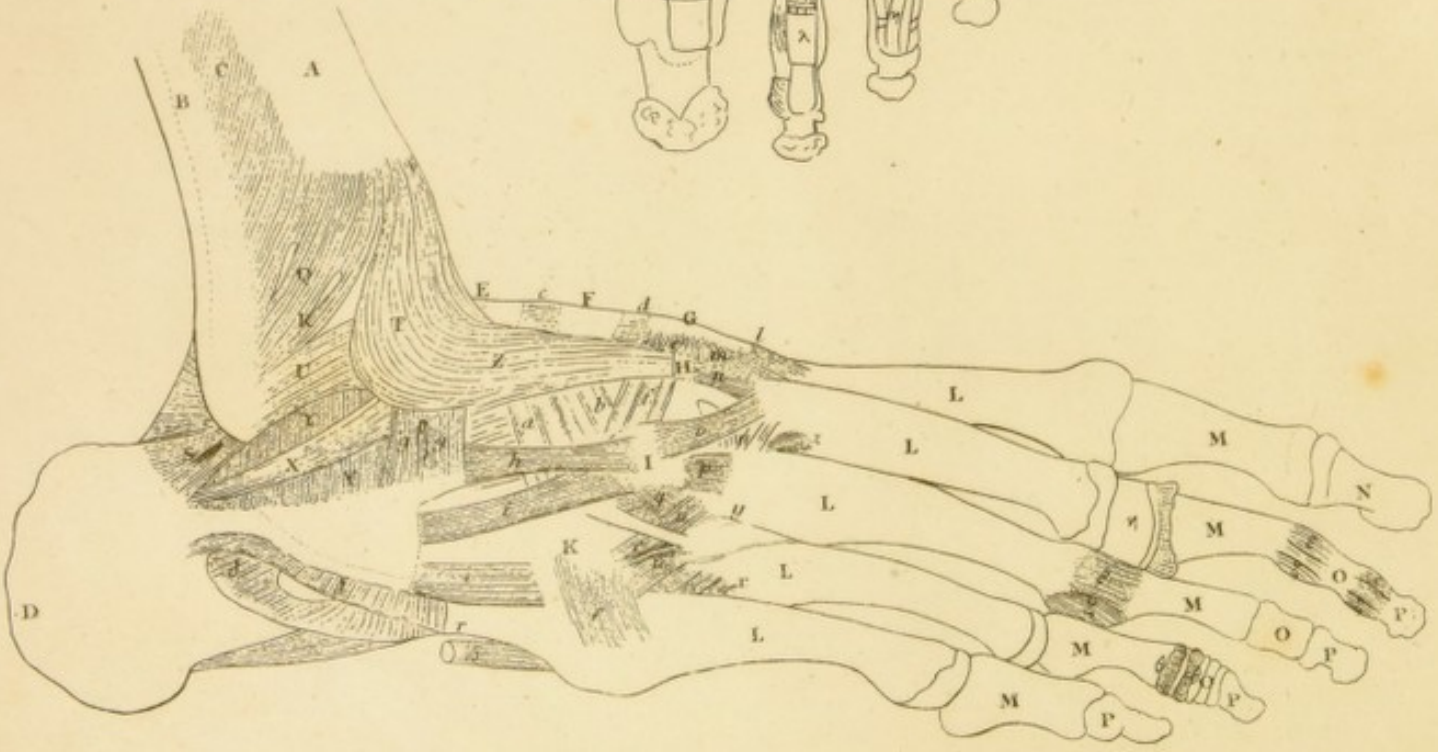


Fig. I.

Fig. II.



Ligaments of the Foot.

Fig. I.

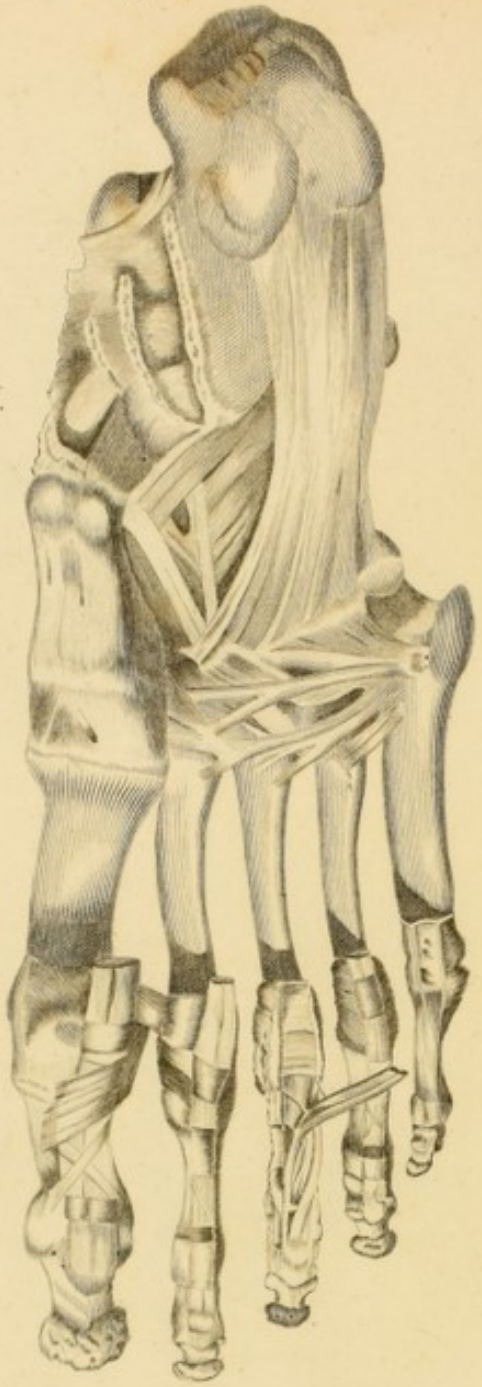
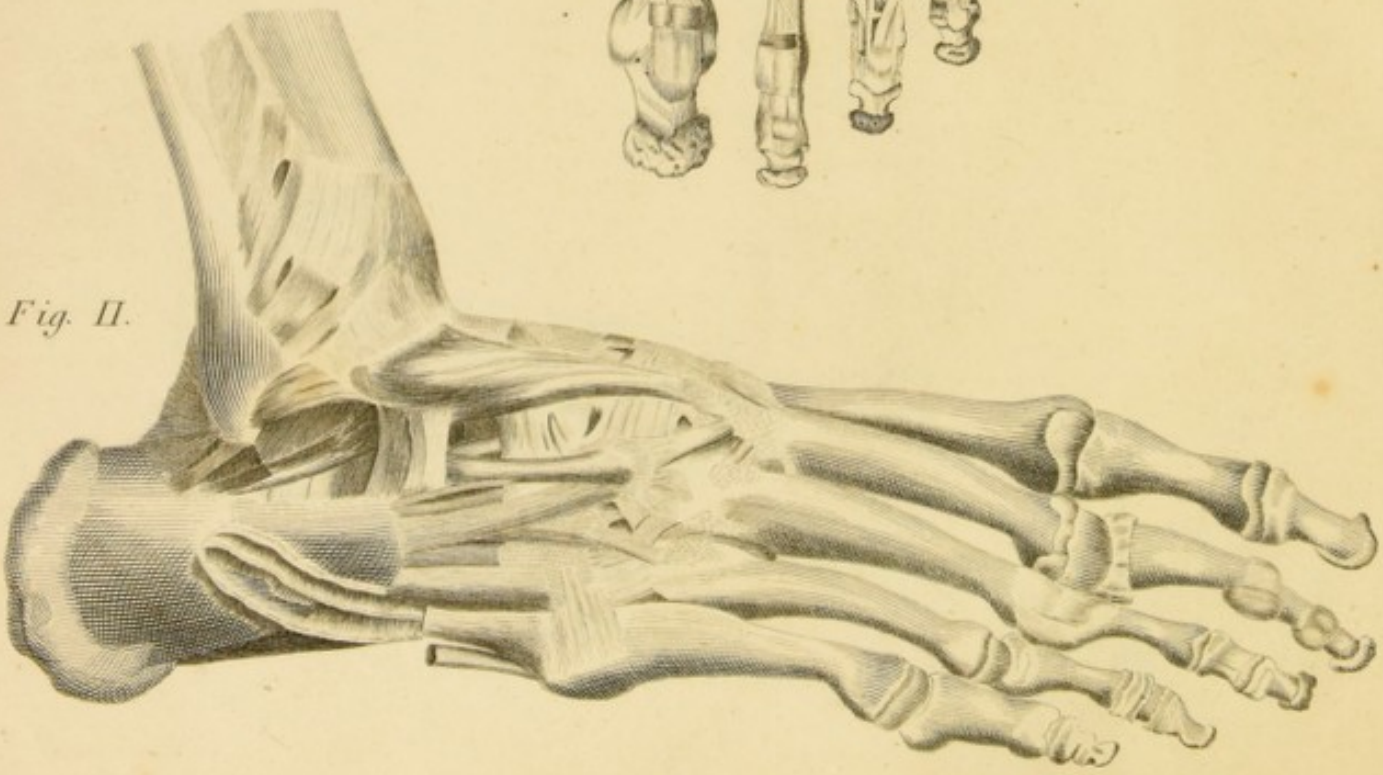


Fig. II.



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Joseph Shelton

LIGAMENTS OF THE FOOT.

FIG. 1.

The sole of the foot with its ligaments.

A A Calcaneus.
B Os tali.
C Os cuboideum.
D D D Metatarsal bones.
E The tendon of the tibialis posticus.
F The ligamentous sheath for the passage of the tendon.
G The furrow through which the tendon runs.
H The portion of the sheath which belongs to the flexor longus of the great toe.
I I The ligamentum plantare proceeding from the anterior face of the tuber in the heel-bone, and straight to the os cuboideum.
K K and L The oblique ligament between the calcaneum and cuboideum, and between the former and the os naviculare.
M The round ligament between the calcaneum and naviculare.
N The transverse ligament from the os naviculare to the cuboideum.
n The band carried straight from the posterior portion of the cuboid to the third os cuneiforme.
o The *plantar ligament* between the naviculare and second cuneiform bones.
p The plantar *transverse* ligament between the first and third cuneiform.
P The ligamentous capsular ligament connecting the os naviculare with the first cuneiform.
Q A similar membrane between the first cuneiform and the metatarsus of the great toe.
r The ligament between the first cuneiform bone and the third metatarsal bone.
s s The ligament between the third cuneiform and the fourth metatarsal.
t t The capsular membrane between the fifth metatarsal and the cuboid bone.
u The band which passes transversely from the fifth metatarsal to the third cuneiform.
x The transversal ligament of the fifth metatarsal.
z The common *plantar* ligament of the metatarsal bones.
$\beta\ \gamma\ \delta$ The *plantar* ligaments between the different metatarsal bones.
ε The tendon of the flexor proprius of the great toe.
$\zeta\ \zeta$ The tendons of the flexor communis in the second and fourth toe.
$\eta\ \eta$ The tendon of the *perforans* in the third toe.
$\theta\ \theta$ The tendon of the *perforatus* of the same toe.
$\varkappa\ \varkappa\ \varkappa$ Ligamentous bands of the tendons.
λ The sheaths which confine the tendons of the flexors.
$\mu\ \mu\ \mu$ The *crucial* ligaments.
ν The opened sheath, which contained the tendons of the flexors.
$\pi\ \pi$ Capsular membranes connecting the bones of the toes with the metatarsal bones.
ρ The ligamentous membrane between the heads of the first and second metatarsal; the same in the other toes.

FIG. 3.

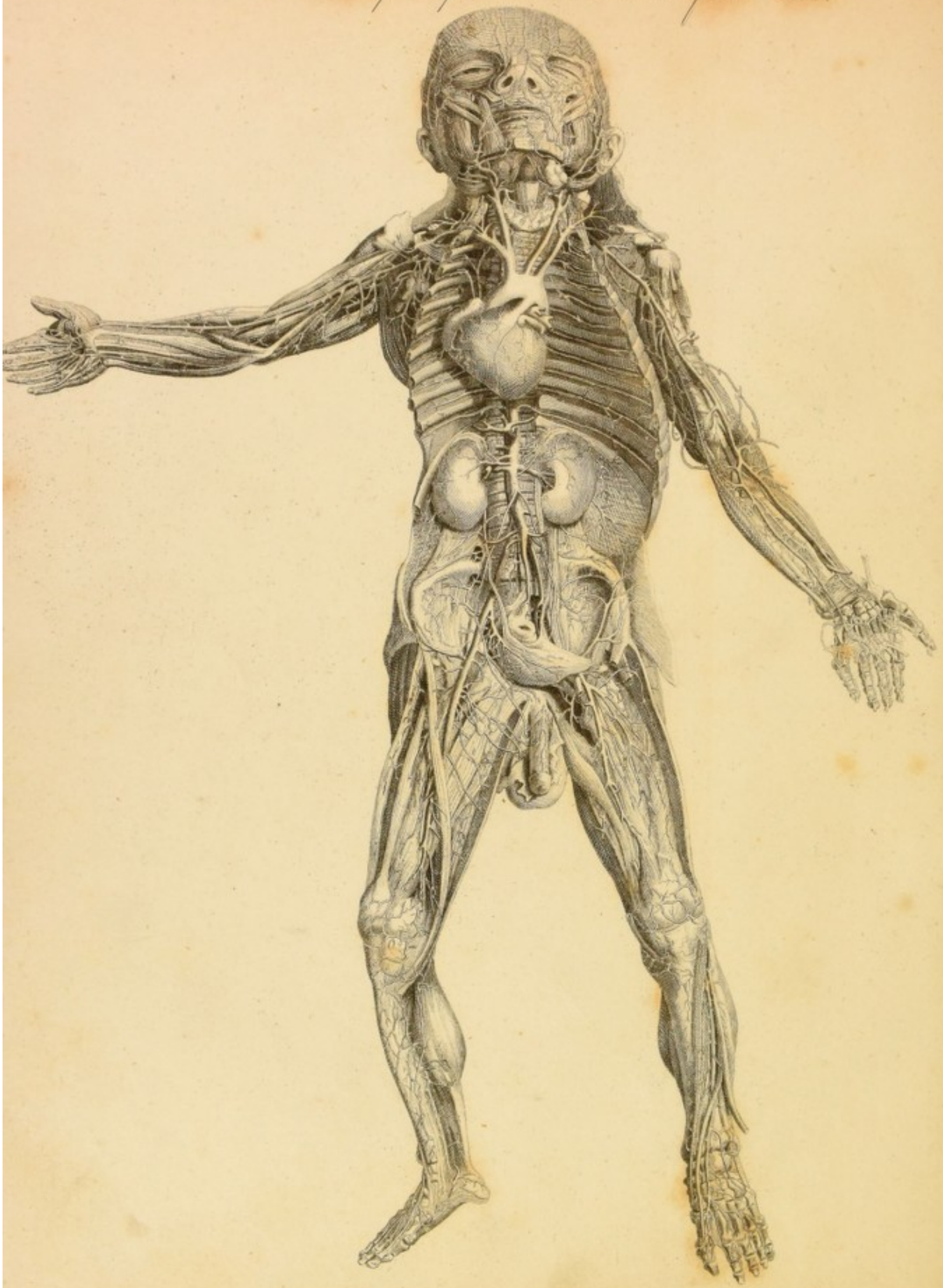
An external view of the back of the foot with the ligaments.

A Tibia.
B Fibula.
C The interosseous membrane of the leg.
D Calcaneus.
E Talus.
F Os naviculare.
G H I The first, second, and third cuneiform bones.
K Os cuboideum.
L L L Metatarsal bones.
M M M O O O The first and second bones of the toes.
N The second bone of the great toe.
P P P The extreme bones of the toes.
Q R The superior and inferior, anterior, ligament of the external malleolus.
S The middle perpendicular ligament of the fibula.
T The capsular ligament connecting the joint of the leg with the tarsus.
U The anterior ligament between the fibula and the talus.
X The internal lateral ligamentous band between the talus and calcaneus.
Y Y A strong ligamentous membrane between the calcaneus and the talus.
Z A ligamentous fascia carried from the talus to the os naviculare F and cuneiforme H.
a b c d Ligaments between the talus and cuboid; the naviculare and third cuneiform; the talus and naviculare; the naviculare and first cuneiform.
e f Ligamentous fibres between the cuneiform bones.
g g Anterior and lateral perpendicular ligaments descending from the talus to the calcaneus, in a sinuous cavity.
h The ligament between the calcaneus and the third cuneiform
i i Ligaments between the calcaneus and os cuboides.
l Capsular ligament strengthening the connection between the first metatarsal and the cuneiform.
m—q Ligaments between the different cuneiform and the metatarsal bones.
r s Ligaments between the os cuboides and the fourth and fifth metatarsals.
t Fibres passing directly from the cuboid bone to the fourth metatarsal.
u u u Dorsal ligaments of the base of the metatarsal bones.
x y z Lateral ligaments between the different metatarsal bones.
$\beta\ \gamma$ Tendons of the peronæus longus and brevis.
$\delta\ \delta$ The channels through which the tendons of the peronæi run.
$\varepsilon\ \varepsilon\ \varepsilon$ The capsular ligament which confines the toes to each other.
$\zeta\ \zeta\ \zeta$ The lateral ligaments.
η The joint opened.
θ The capsular ligament turned back.

Map &c. of the Arteries on the front Part.

Published by J. Johnson, St. Paul's Church Yard, Feb.y 1.1806.

Arteries and principal Muscles on the front Part.



Published by I. Johnson St. Pauls Church Yard Feb.y 7.1806.

Wm. Skelton sculp.

DESCRIPTION OF THE MAP, &c. OF THE ARTERIES ON THE FRONT PART.

FIRST REGION.

The Heart.

A The heart in its situation, but a little drawn down, from its weight, so that the roots of the great vessels are opposite the third rib, which should have been opposite the second. The coronary arteries are seen branching on it.
B C The right and left auricle full.
D Trunk of the pulmonary artery.
E Ductus arteriosus.
F The left branch of the pulmonary artery.
G H The aorta and its great arch.
L The common root of the right subclavian and carotid which are seen branching off above to the arm and head.
O P The left carotid and subclavian.
1 to 9 The intercostal arteries on the left side. Those on the right are seen opposite.
A Aorta descendens.

SECOND REGION.

The Neck.

A Aspera arteria.
b c The thyroid gland and its cartilage.
h Maxillary glands.
o o The trapezii muscles turned back.
p The left cerebral carotid.
q The left external carotid.
r r Left and right superior thyroid artery.
y The submental artery.
z The labial artery.
α The temporal artery.
β The left vertebral artery.
γ The greater inferior thyroid artery.
ξ The jugular vein.
ρ The occipital artery.

THIRD REGION.

The Face.

A Triangularis muscle.
B Masseter.
C Parotid gland.
E F Zygomaticus, inferior and superior.
G Levator labiorum communis.
H Levator of the upper lip.
I Orbicularis palpebræ.
K Temporal muscle.
L M Frontalis and procerus.
N Nasalis labii superioris.
O P Orbicularis oris.
Q Quadratus menti.
S T The naked jaw and cheek-bone.
X Ciliaris muscle.

Vessels.

t and *u* The coronary artery of the upper lip, and the nasalis arising from it.
n and *o* The interior and exterior anastomoses of the labial with the interior ophthalmic.
p The temporal artery passing through the parotid.
q q The sincipital branches.
ϕ The superior branch of the ophthalmic artery.
ω and *ν* The superior and inferior arch in the forehead.
B to G Auricular arteries.
O The external superciliary joined with *ν*.
P The frontal artery joined with *ω*.

FOURTH REGION.

The Right Arm.

A Clavicle broken off.
B The coracoid process of the scapula.
C Serratus minor.
D Part of the deltoid moved from its situation.
E Teres major.
F Its conjunction with the latissimus dorsi.
H The deltoid in its proper situation.
I and K The extensor longus and brevis cubiti.
L Brachialis externus.
M and N Biceps and brachialis internus.
O Coraco brachialis.
P The flexor condyle of the humerus.
Q Flexor carpi ulnaris.
R Flexor digitorum sublimis.
S Palmaris.
T Flexor carpi radialis.
X Teres pronator.
Y Supinator longus.
Z Flexor digitorum profundus.
5 Annular ligament of the wrist.

Vessels.

a Subclavian artery.
c Acromialis.
d Branches to the ribs.
g Arteria scapularis.
o The deep branch of the humerus.
d The trunk going to the back of the humerus.
β The first anastomotic branch = anastomoticus major.
δ Anastomotic branch, with the recurrent ulnar.
μ and *ν* The truncus radialis and ulnaris.
ω A branch from the radial artery, making the superficial palmar arch.
Γ The ulnar artery emerging from under the flexors.
d A branch from the ulnar artery perfecting the palmar arch, from whence the arteries of the fingers are derived.

N.B. The branches from the palmar arch to the different parts of the finger may be seen by inspection. The plate would be confused by fingers.

FIFTH REGION.

Vessels and deep Muscles of the Left Arm.

C The head of the humerus.
D Infrascapularis.
G G The two heads of the biceps.
M The short extensor of the cubitus.
O Extensor longus moved from its situation.
P Brachialis externus removed on the other side.
Q The tendon of the biceps.
R Supinator.
T The ulnar flexor of the carpus.
V The naked ulnar.
X The interosseous ligament.
Γ Pronator quadratus.
Δ Supinator longus.
ω The little bones of the carpus and fingers.

Vessels.

1 The acromial artery cut back.
2 Internal scapulary.
3 The trunk turned towards the back.
4 Anterior circumflexa.
5 The continuation of the circumflex.
6 Profunda humeri.
7 Posterior circumflex.
8 The first anastomotic artery.
9 The recurrent radial.
A The radial artery.
C The dorsal branch of the hand.
D The recurrent ulnar.
E The interosseal artery.
F The ulnar branch of the interosseal artery anastomosing with a branch of the cubital artery.
G The ulnar artery going to the hand.

SIXTH REGION.

Abdomen and Pelvis.

A and B The right and left kidney.
C and D The right and left renal capsule.
E E Each transverse muscle of the abdomen.
Γ Internal obliquus.
F G The right and left quadratus.
H The left psoas.
Δ A Right and left ureter.
I Intestinum rectum.
K Vesica urinaria turned back.
L M The right and left internal iliac muscle.
P The part of the os pubis to which the ligament of the penis is affixed.
Q The skin of the scrotum partly denudated.

Vessels.

1 Abdominal aorta.
2 Trunk of the coeliac.
3 and 4 The hepatic and splenic arteries.
5 The coronary artery of the stomach.
6 The superior mesenteric.
7 The left renal artery.
8 The posterior renalis.
9 and 10 The right and left spermatic.
11 The inferior mesenteric.
12 A branch of the intestinum rectum.
13 The middle sacral artery.
14 A branch of the middle sacral to the rectum.
15 and 16 The right and left iliac arteries.
17 Right ilio lumbalis.
18 Obturatoria.
19 Posterior iliac.
20 Hæmorrhoidea and ischiadica.
21 Umbilicalis.
22 The two vesical arteries.
23 The right abdominal.
24 The right epigastric artery.
25 The artery of the penis.
26 The left abdominal.

SEVENTH REGION.

Right Thigh.

Muscles to the Knee.

A Glutæus medius.
B Fascia lata.
C Sartorius.
D Rectus.
E Vastus externus.
F Vastus internus.
G Pectineus.
H Biceps anterior.
I K Triceps medius and longus.
L Gracilis.
M Semimembranosus.
N Patella.
O Internal condyle of the femur.

Vessels.

a Femoral artery.
b The branch to the iliacus and pectineus.
c Another to the inguinal gland and vastus muscle.
d Another to the pectineus and ileum, inosculating with *b*.
e Superior external podenda.
f Branches to the scrotum.
i A branch to the penis inserted into its artery.
k The external circumflex.
m The second external podenda.
n o Great branch to the vastus externus.

The direction of the other branches are obvious from inspection.

EIGHTH REGION.

The Left Thigh.

Muscles.

B Sartorius cut off.
C Rectus superior.
D Triceps magnus.
E Semimembranosus.
F and G Vastus internus and externus.
I Inferior part of the rectus.
K Fascia lata.
L Glutæus medius.

Vessels.

a Femoral artery cut off.
b Profunda femoris.
c Circumflexa externa.
d The upper trunk of the circumflexa externa.
e The pudenda cut off.
f Circumflexa interna.
g Nutritia femoris.
h The trunk of the femoral artery cut off.

NINTH REGION.

The Right Tibia on the internal Side with the Foot.

C Part of the solaris.
D The gastrocnemii.
E Tendo achillis.
F Pollicis flexor longus.
G Flexor longus digitorum pedis.
I Tendo flexoris longi.
P Tibialis anticus.
Q and R The extensors of the toes.

Vessels.

1 A branch of the inferior internal circumflexa.
2 A branch from the posterior tibialis.
3 A long anastomosis, with the subcutaneous branch of the popliteal artery.
a The posterior tibial artery.
5 The anterior tibial artery.
6 A branch communicating with the inferior plantaris.
7 Continuation of the trunk of the tibial artery.
8 Trunk of the peronea antica.

TENTH REGION.

The Left Leg and Foot; the superior Muscles removed.

Muscles.

A The ligament of the patella.
B Extensor longus pollicis.
C The common extensor of the toes cut off.
D Interosseous ligament.
E Tibialis anticus.

Vessels.

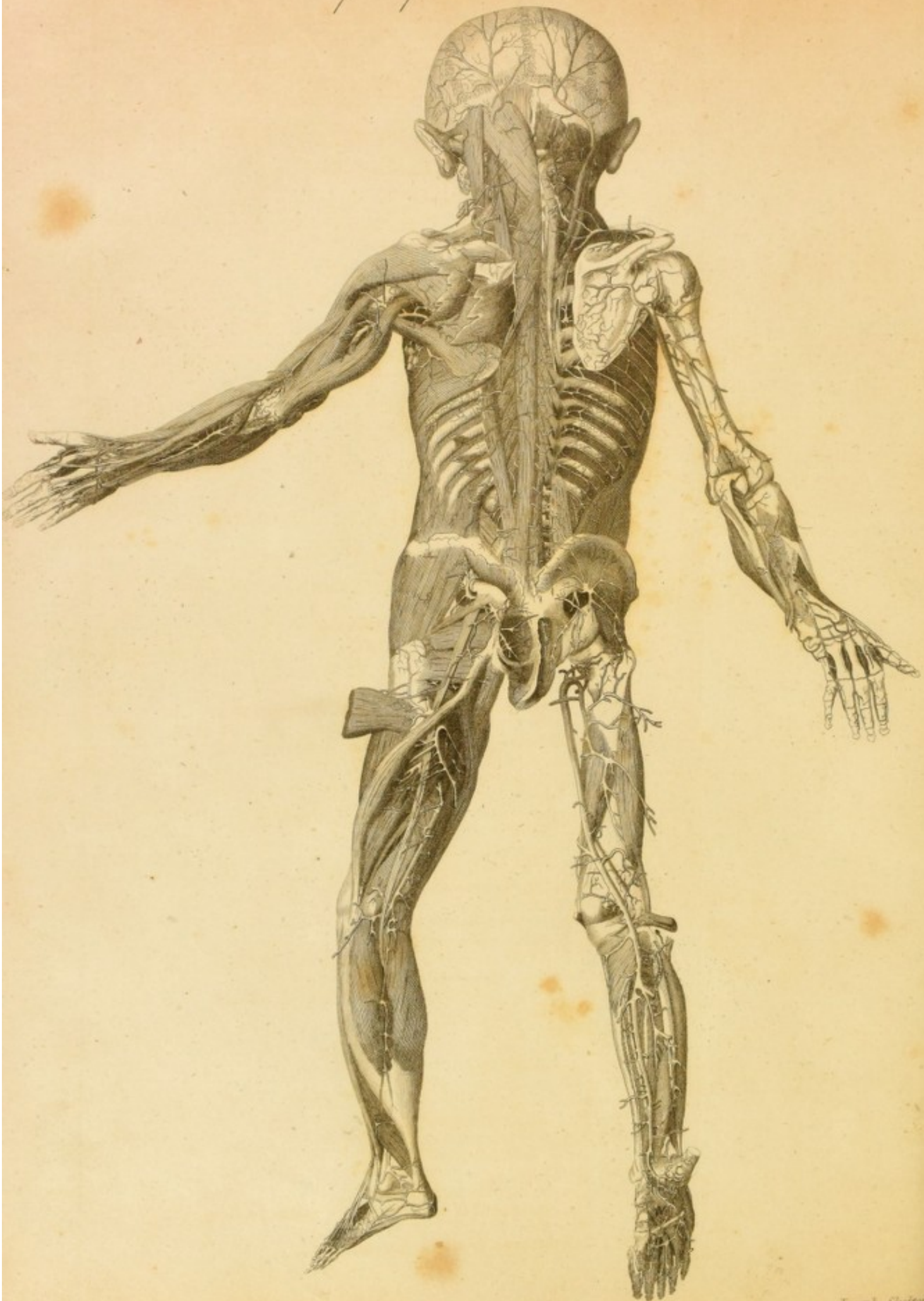
1 Tibialis antica.
2 The lower internal circumflex of the knee.
3 An artery of the external malleolus.
4 A circumflex branch meeting the peronea.
5 Branches to the malleolus internus.
6 The arch at the termination of the metatarsus.
7 The metatarseal arch.
8 The three perforating arteries.
9 The accompanying artery of the sartorius, going to the internal condyle and the ligament of the patella.

Map IVe of the Arteries on the back Part.

Joseph Skelton sculp.

Published by J. Johnson, St. Paul's Church Yard, Feb.y 1.st 1806.

Arteries and principal Muscles on the back Part.



Joseph Skelton sculp.

Publish'd by J. Johnson, St. Pauls Church Yard, Feb.y 1.st 1806.

DESCRIPTION OF THE MAP, &c. OF THE ARTERIES ON THE BACK PART.

FIRST REGION.

THE NECK, FROM THE HEAD TO THE SCAPULÆ *.

Muscles about the Head and Neck.

1 Splenius capitis.
2 Sterno cleido-mastoideus.
3. 4 Posteriores auris.
5 Rectus capitis posticus minor.
7 Rectus capitis posticus major.
6 Complexus.
8 Obliquus superior.
9 Obliquus inferior.
10 Trachelo mastoideus.
11 Splenius colli.
12 Levator scapulæ.
13 Parotid gland.

§ 1. *The Branches of the Neck on the Left Side.*

a a Occipital arteries.
b Branch of the posterior temporal artery.
e Auricular branch of the same.
f Branch of the cervical thyroid artery.
g Arteria dorsalis suprema.

§ 2. *The Branches of the Neck on the Right Side.*

α Occipital artery.
β The ascending thyroid artery.
γ The deep cervical artery from the subclavian.
δ A branch of the thyroid artery to the neck.
ε The dorsal artery of the scapula.

SECOND REGION.

THE BACK AND SCAPULA.

Muscles.

A Supraspinatus.
B The origin of the trapezius turned back from the spine of the scapula.
C The rhomboideus muscle removed.
D Infra spinatus.
E Teres major.
F Serratus anticus major.
G Longissimus dorsi.
H Sacrolumbalis.
K and L The ascending and descending oblique.
A The seat of the kidneys.
N The levators of the ribs.
O Spinalis colli.
R Multifidis spinæ.
S Quadratus lumborum.
T T The oblique ligament of the ribs.
V Perpendicular ligament of the ribs.
X The clavicle.
Y Glandulæ alares.

Vessels.

Left side. 1 1 The higher dorsal.
Right side. 1 2 3 4, &c. Intercostals.

* The left side has most of the muscles under the skin, except the nates, from which the glutæus major is removed.
The right side has the deeper muscles, and occasionally the naked bones.

REGION THIRD.

LEFT ARM.

A Deltoid.
C Brevis extensor humeri.
D Extensor longus.
E Brachialis internus.
F Supinator longus.
I Bicornis.
M The seat of the interosseous ligament.
N Extensor communis digitorum.
S Extensor minimi digiti.
X Ulnaris extensor.
Y Ulnaris Flexor.
Z Abductor pollicis longus.
a Indicator.
b Adductor pollicis.
c Abductor minimi digiti.
d Anconæus remotus.

Vessels.

1 Trunk of the axillary artery.
2 Inferior scapulary artery.
3 The posterior circumflex.
4 Trunk of the humeral artery.
5 Profunda humeri.
6 The posterior superior interosseal artery.
7 The ulnar, or the large branch of the interosseal, going to the carpus.
8 Part of the radial artery.
9 The carpal arch.
10 The radial branch, passing to the palm.

FOURTH REGION.

THE RIGHT ARM CHIEFLY DEPRIVED OF ITS MUSCLES.

A Anconæus removed.
B Supinator brevis.
C Ulnar flexor of the carpus.
D Interosseous ligament.
E Abductor pollicis longus cut off from its origin.
F The other abductor of the thumb cut from its insertion.
G Indicator.
H Abductor pollicis.
I Semi-interosseus of the fore finger.

Vessels.

1 The superior dorsal artery of the scapula rising from the thyroid.
2 Nutritia scapulæ arising from it.
3 The branch of the scapular artery following the lower rib of the scapulæ.
4 Trunk of the axillary artery.
5 The posterior circumflex.
6 Anastomosis with the profunda humeri.
7 Profunda humeri.
8 The superior nutritia of the humerus.
9 Anastomosing branch of the cubital.
10 The great dorsal interosseal artery.
11 The lowest interosseal of the fore arm.
12 The middle branch of the lowest interosseal
13 The radial branch.
14 The carpal arch.
15 The radial artery.
16 The perforating branches.

FIFTH REGION.

THE NATES AND THE FOOT OF THE LEFT SIDE.

Muscles.

A The glutæus major cut off at its origin.
B Glutæus medius.
G The pyramidal muscle.
I Ischiadic nerve.
M Obturator internus.
N Quadratus.
P Termination of the great glutæus.
R The common head of the seminervosus and biceps.
S Semimembranosus.
T Seminervosus a little drawn aside, to show the parts below.
V The biceps longus drawn aside.
X Biceps brevis.
Y and Z Vastus externus and internus.
Γ Triceps magnus.
Δ and Θ Gastrocnemius internus and externus.
Λ Tendo achillis.
Ξ Flexor longus pollicis pedis.
Π and Σ Peronæus longus and brevis.
Φ Extensor communis digitorum.

Vessels.

1 Posterior iliac.
2 Ischiadic artery.
3 Anastomosis with a branch of the obturatoria.
4 Hæmorrhoides interna.
5 Circumflexa interna.
6 Arteria perforans prima.
7 Its descending trunk.
8 Perforans secunda.
9 Nutritia femoris.
10 Trunk of the crural artery laid bare.
11 and 12 The internal and external superior articular artery.
13 Anastomosis with the branch of the anterior tibial.
14 The place where the popliteal artery hides itself.
15. Peronea anterior.
16 Part of the tarseal artery.

SIXTH REGION.

THE RIGHT THIGH AND FOOT.

All the former Muscles removed, that the deeper Vessels may be seen. The Tricipites are also removed.

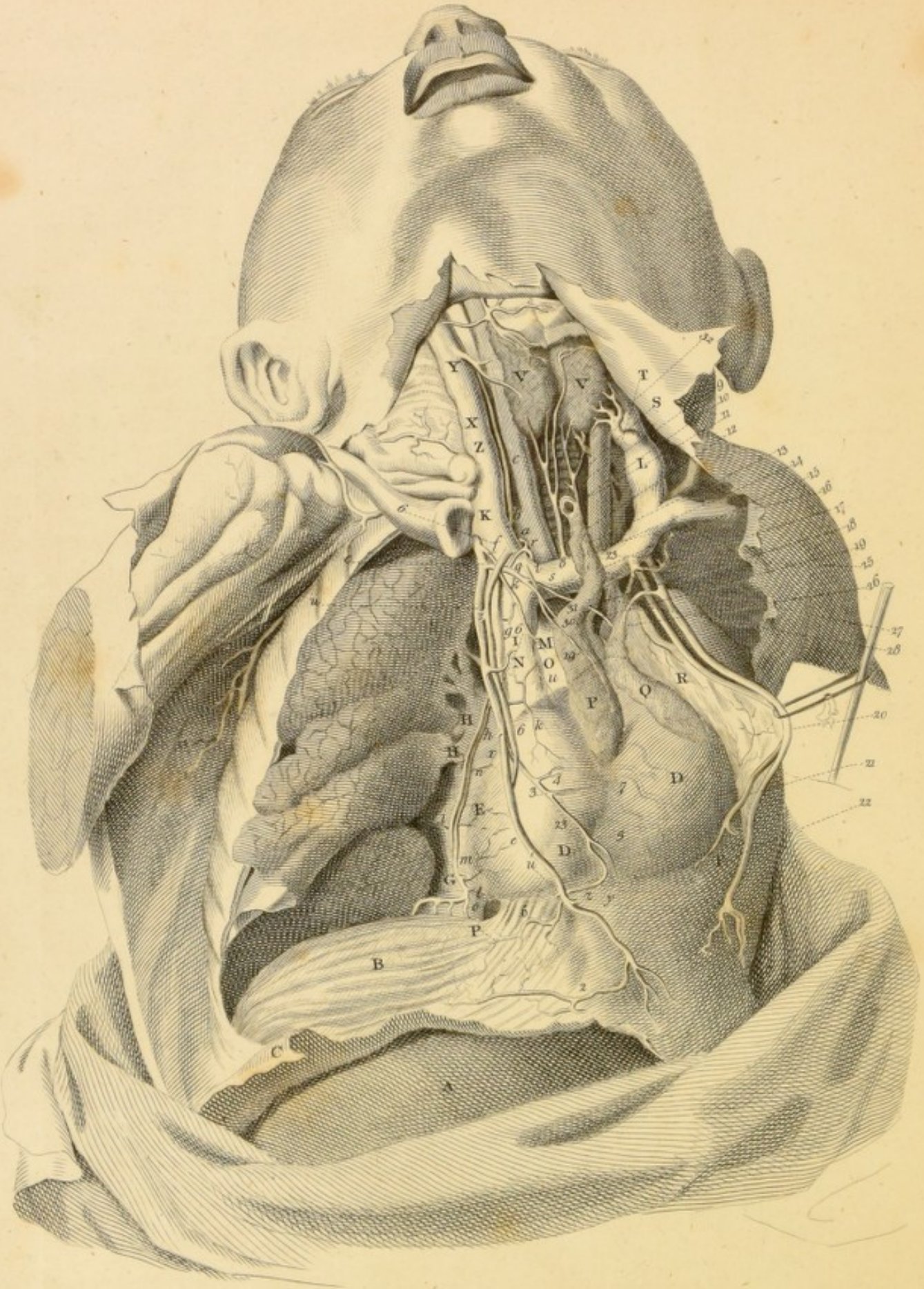
Muscles.

A Glutæus minimus.
B Sacro-sciatic ligament.
C and D Part of the rectum and vagina.
E and F Vastus externus and internus.
G Part of the external gastrocnemius.
H Capsule of the articulation of the knee.
I Popliteus.
K The tendon of the biceps.
L and M Peronæus longus and brevis.
N Flexor pollicis longus.
O Tibialis posterior.
P Flexor of the toes.
Q Tendo achillis.
R The ligament from the heel to the fifth metatarsal bone.
S The great square ligament of the bottom of the foot.
T Tendon of the peronæus longus.
V The ligament from the os navicularis to the third metatarsal bone.
X Tendon of the flexor of the great toe.

Vessels.

1 Posterior iliac artery.
2 The branch anastomosing with the internal circumflex.
3 Superficial branch of the hæmorrhoidea
4 An artery from the internal mesenteric to the rectum.
5 The trunk of the femoral artery.
6 A deep branch.
7 Circumflexa interna.
8 Anastomosis with a branch of the profunda and posterior iliac.
9 Arteria profunda femoris.
10 and 11 The first and second perforans.
12 Trunk of the profunda.
13 Nutritia.
14 Trunk of the femoral artery.
15 Articularis superior externa.
16 The internal superior articular artery of the knee.
17 The azygos of the articulation of the knee.
18 and 19 The internal and external inferior articular artery of the knee.
20 Tibialis anterior.
21 Nutritia tibiæ.
22 Peronæa postica.
23 Nutritia fibulæ.
24 Posterior tibial.
25 The internal plantaris.
26 The trunk of the internal plantaris.
27 The external plantaris.
28 The plantar arch.
29 The trunk of the anterior tibialis.
30 The anastomosis of the internal and external arteria hallucis.
31 The first superior arteria perforans.

Anterior Arteries of the Breast.



Published by J. Johnson, St. Paul's Church Yard Feb.1 1806.

TABLE

OF

ANTERIOR ARTERIES OF THE BREAST.

A The liver.
B Right side of the diaphragm.
C Some part of the muscles of the abdomen.
D The pericardium, through which the heart is occasionally seen.
E The right auricle, expressed by dots.
F The apex of the heart.
G The vena cava inferior.
H The right pulmonary veins.
I The vena cava superior.
K Its continuation in the right jugular.
L The left jugular vein.
M Part of the aorta.
N The line terminating the pericardium in the vena cava.
O The line at which it adheres to the aorta.
P and Q The right and left sides of the thymus.
R The left lamina of the mediastinum joined to the pericardium.
S Aspera arteria.
T Œsophagus.
V Thyroid gland.
X The internal jugular vein.
Y The superior thyroid vein.
Z The right nerve of the eighth pair.
a The common trunk of the right subclavian and carotid.
b The right subclavian.
c The right carotid.
d and *e* the right mammary vein and artery.
f The pericardiaco-diaphragmatic branch of the mammary artery.
g The branches that go to the pericardium, and the glands that lie on the vena cava.
h The branch that accompanies the diaphragmatic nerve.
i k The superficial branches that go to the lungs and pericardium.
l The branch of the right phrenic artery.
m The ascending branch, with the diaphragmatic nerve.
n The anastomosis of each artery accompanying the nerve.
o The branches of the right phrenic artery to the diaphragm.
p Anastomosis of the phrenic, with the mammary artery.
q The right thymic artery.
y. z The external or epigastric branch, with the smaller branches to the external teguments of the breast.
1. 2 The interior and exterior abdominal branches; viz. epigastricus interior, and musculo phrenica.
3 The internal branch of the mammary, or the phrenico-pericardiacus.
4. 5 Branches to the mediastinum and pericardium.
6 Trunk going out to the diaphragm.
7 The anterior coronary arteries.
8. 9 and 10 The inferior, right, and left thyroid veins, with the branches to the trachea.
11 and 12 Branches to the œsophagus, and right horn of the thymus.
13 and 14 Left carotid and subclavian.
15 Two branches of the inferior thyroid artery.
16 and 17 Left vertebral and mammary arteries.
18 The mediastine branch of the mammary which accompanies the phrenic nerve.
19 The left thymic branch.
20 Division of the left mammary.
21 The left phrenico-pericardiac branch.
22 The epigastric branch.
23 The left subclavian vein.
24 The left jugular vein.
25 The left mammary artery.
26 The left thymic branch.
27 A superficial branch.
28 The left bronchial vein.
29 The thymic branch.
30 The mediastin branch.
31 The bronchial branch.
32 The middle thyroid vein on the left.

Mesenteric Arteries.

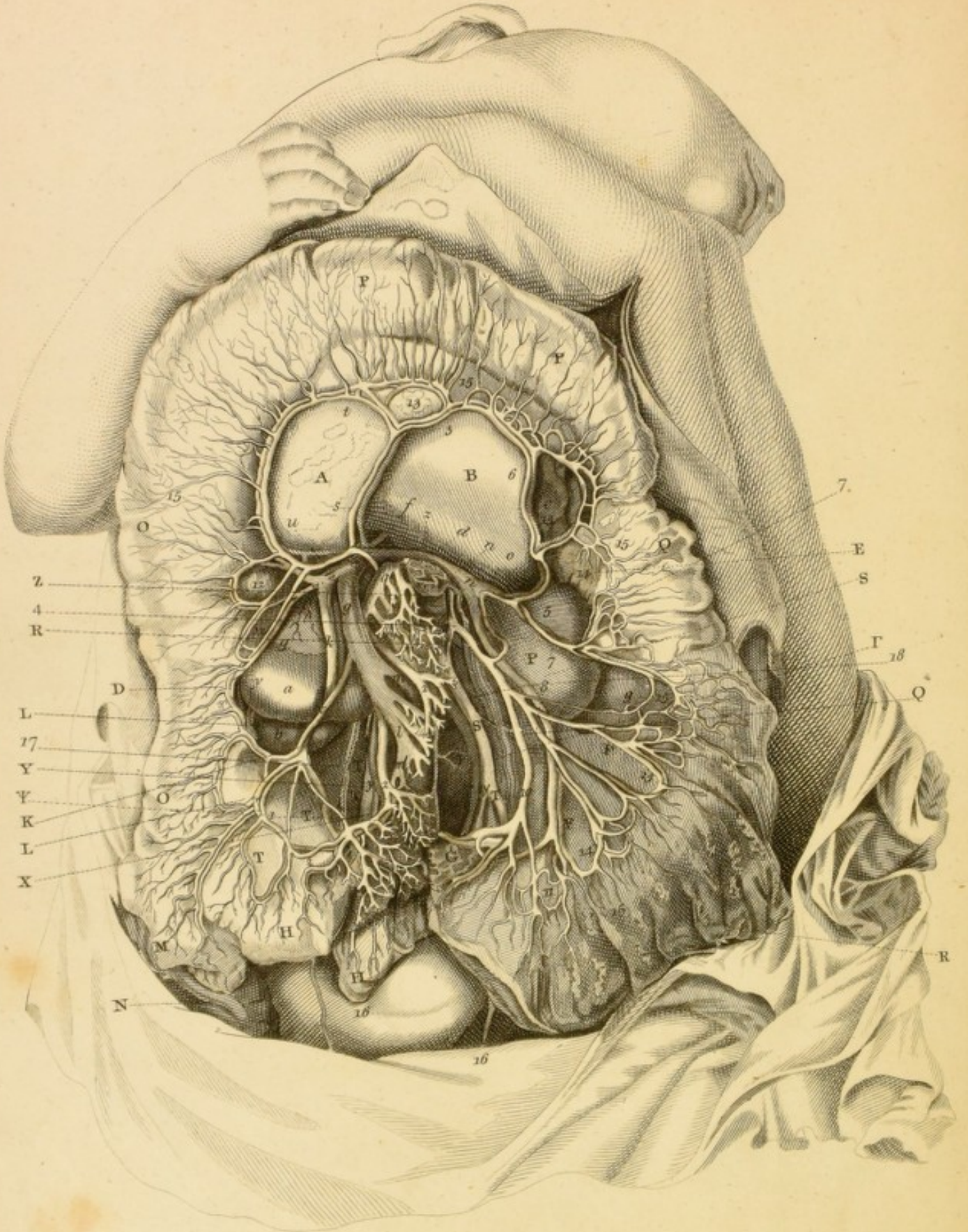


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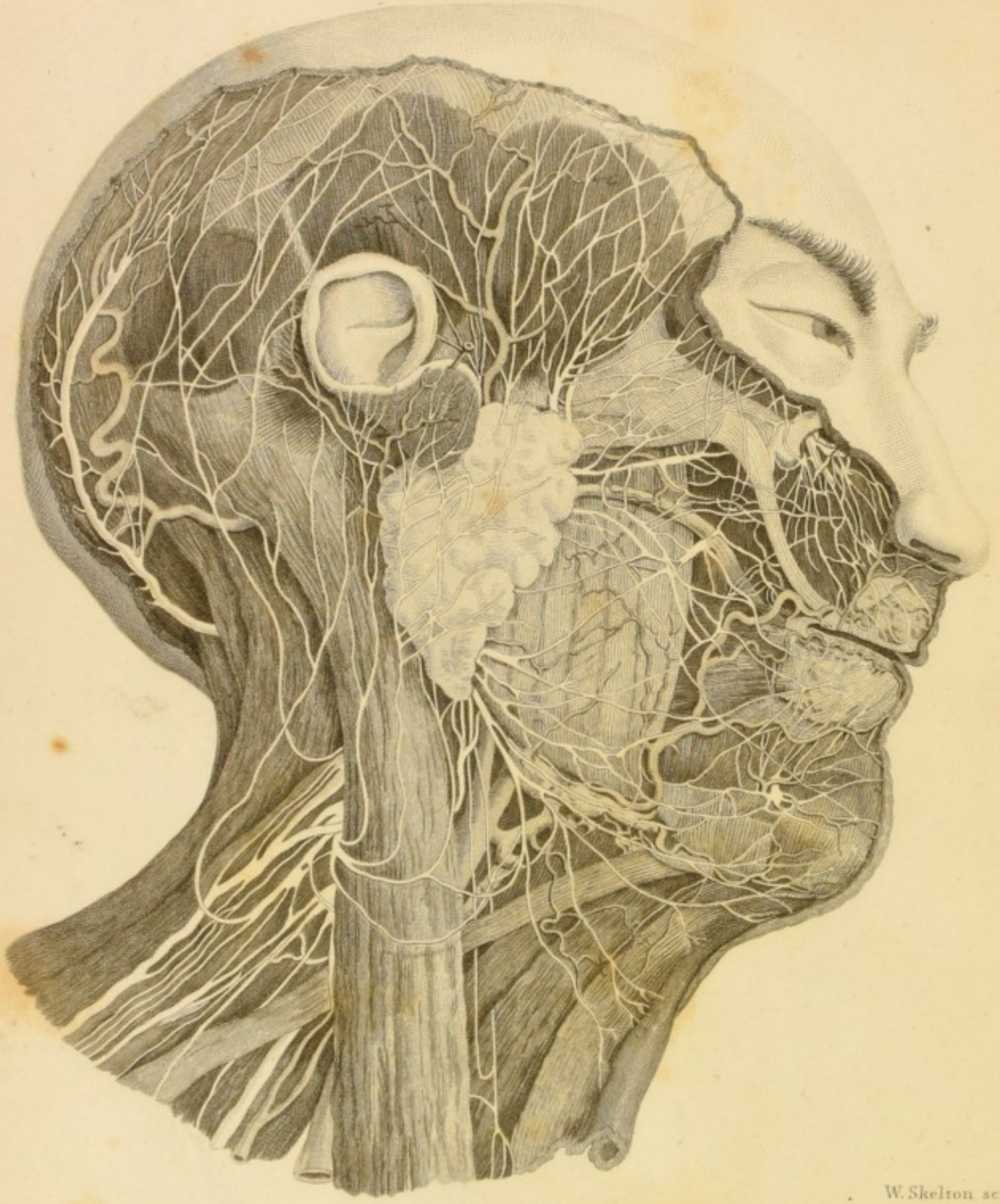
TABLE

OF THE

MESENTERIC ARTERIES.

A B C The mesocolon entire, bent back to show its root.
A B C D The situation answering to the liver, stomach, and spleen, respectively.
D The left side of the mesocolon.
E Part of the left mesocolon between the spleen and the kidney,
F The left flexus iliacus of the mesocolon: the membranes between the trunks are destroyed, to show the viscera which it covers.
G That part of it which descends to the rectum.
H Part of the ileum.
I The termination of the mesentery, where it is continued, with the right mesocolon.
K K The right part of the mesentery; the under vessels between the large ones exposed, that their connection may be understood.
L L The right mesocolon, treated in the same way.
M and N The cæcum and appendicula.
O P Q The right, the transverse, and the left colon.
R The left flexus iliacus of the colon.
S The left kidney.
Θ and Λ The vasa spermatica and vasa adiposa from them.
R and S *bis*, on the upper part of the plate. The trunk of the aorta, and the iliaca arteria communis.
T The iliaca arteria externa.
Φ The last cartilage of the loins.
V The internal iliac.
X The vena socia.
Y Arteria sacra.
Z The first part of the jejunum, which emerges from under the transverse mesocolon.
a The inferior transverse part of the duodenum.
b Part of the right kidney.
c The right portion, or the head of the pancreas.
d The transverse part of the pancreas, lying behind the transverse mesocolon.
e The trunk of the vena portæ.
f The left coronary vein.
g The mesenteric vein.
h. *i* and *k* The gastrocolic, the right colic, and the ileo colic veins, respectively.
l The mesenteric vein, arched.
m The mesenteric branches cut off.
n The internal hæmorrhoidal vein, or the left colic vein.
o and *p* The ascending and descending branches.
q The superior mesenteric artery.
r The middle colic.
s The branch which passes into the middle of the transverse mesocolon.
t Its right branch which unites with the right colic.
u The right colic, making an arch with the former.
x and *y* The ileo-colic artery, and the arch which it makes with the right colic.
z The ramus cæcalis.
1 Its arch and anastomosis, with the mesenteric artery.
2 The branches of the superior mesenteric artery, and the small intestines.
3 The left branch of the middle colic.
4 The left colic, or inferior mesenteric artery, with (5) its ascending branch.
6 Its union with the middle colic, or the great mesenteric arch.
7 Its branches to the left colon.
8 The middle trunk of the left colic artery.
9 The arch with the ascending branch of the mesocolic.
10 The lower branch of the left colic, or the hæmorrhoidalis interna, with the arch (11) which it forms with the former.
12. 13 and 14 The secondary or double arches with the right, the middle, and the left, colic arteries.
15 Strait branches passing to the intestines from the secondary arches.
16 Epigastric arteries.
17 and 18 Spermatic vessels and psoas muscle.

View of the Salivary Glands, their Ducts, Blood Vessels, & Nerves.

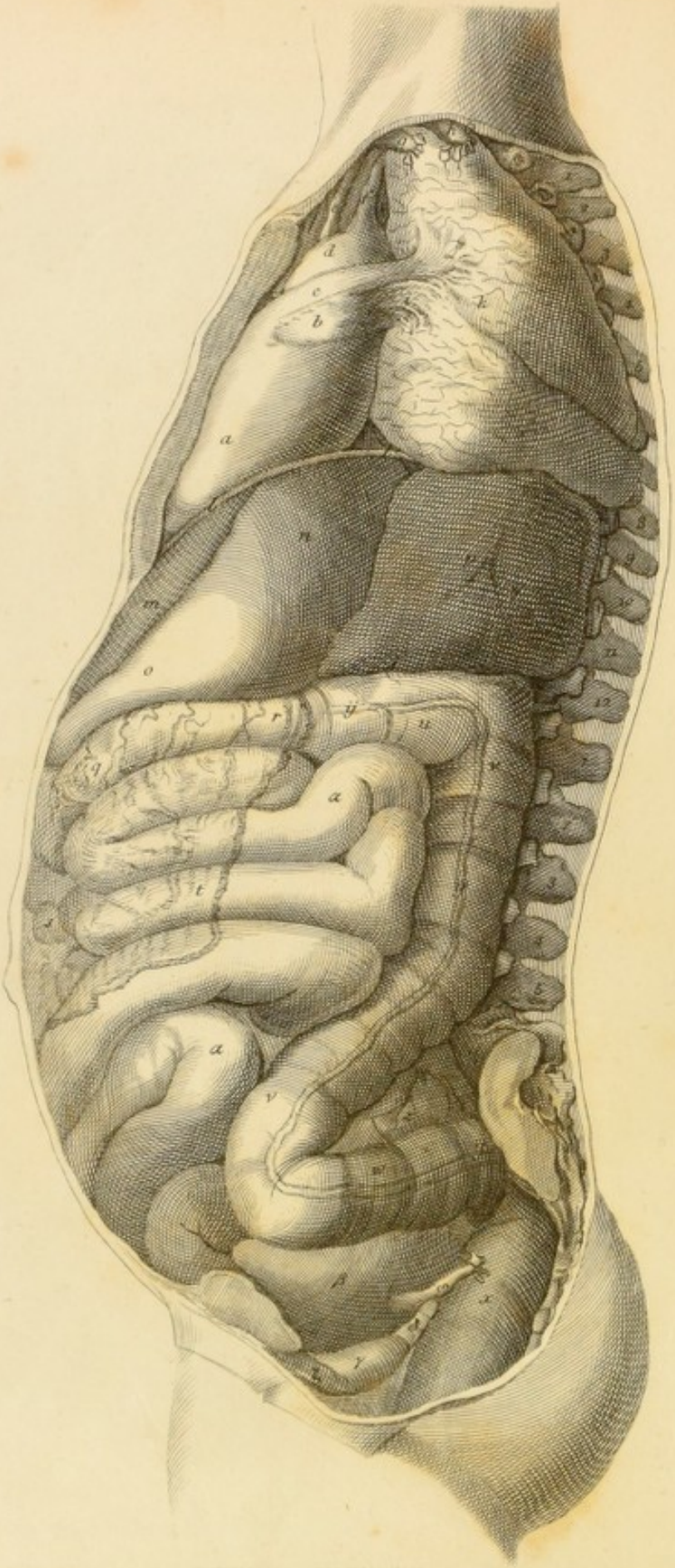


W. Skelton sculp.

The different parts are here so clearly distinguished by the Engraver, that any minute reference would disfigure the plate and scarcely assist the Anatomist.

London, Published by J. Johnson, March 1.1808.

Lateral View of the Thoracic, Abdominal, and Pelvic Viscera.



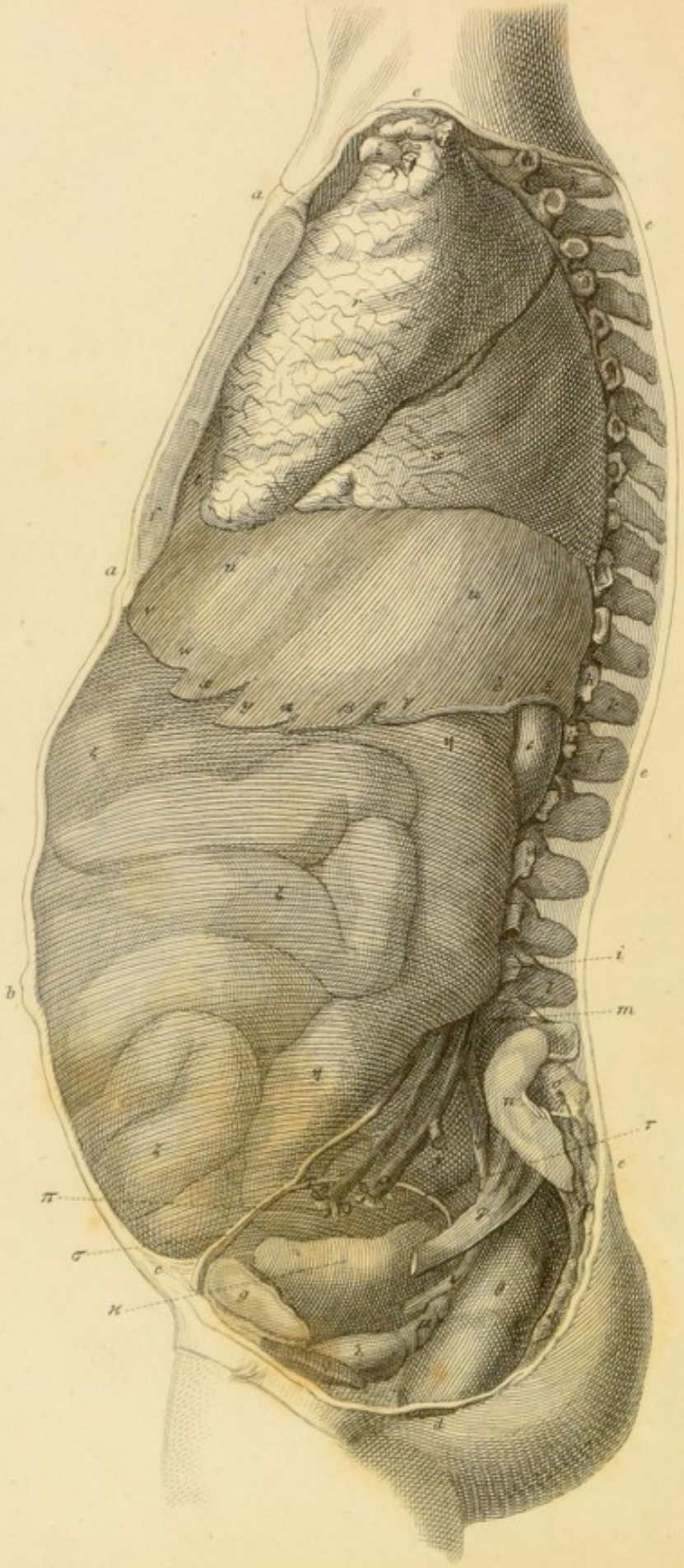
J. Dadley Sculp.

London, Published by J. Johnson March 1st 1868.

LATERAL VIEW OF THE THORACIC, ABDOMINAL, AND PELVIC VISCERA.—PLATE I.

a a b c d e e e e Common integuments.
f f Sternum.
g Right os pubis.
h h h Transverse processes of the dorsal vertebræ.
i i Transverse processes of the lumbar vertebræ.
k k Spinose processes of the dorsal vertebræ.
l l Spinose processes of the lumbar vertebræ.
m n o p Os sacrum.
q Os coccygis.
s s The left lung.
t The lower and anterior part of the pericardium.
u v w x y z α β γ δ ε The diaphragm.
ζ ζ ζ Small intestines.
η η η Colon.
θ Rectum.
ι Left kidney.
λ Prostate gland.
μ Vesicula seminalis.
ν Corpus cavernosum penis.
ξ Vena subclavia.
ο Arteria subclavia.
π π Arteria iliaca sinistra.
ρ ρ Vena iliaca sinistra.
σ σ Vasa spermatica.
τ τ Vas deferens.
υ υ Ureter.
φ Ischiatic nerve.

Lateral View of the Thoracic, Abdominal, and Pelvic Viscera.



Dadley. Sculp

London, Published by J. Johnson March 1.1805.

LATERAL VIEW OF THE THORACIC, ABDOMINAL, AND PELVIC VISCERA.—PLATE II.

a b c Pericardium.
d Arch of the aorta.
e Common trunk of the right carotid and subclavian.
f Left carotid.
g h Subclavian artery and vein.
i One of the pulmonary veins.
k Left lung.
l l Diaphragm.
m Liver on the left side.
n o Stomach.
p Spleen.
q r s t Great omentum.
q r u v v w x Great intestine.
y y y y One of the ligamenta lata.
z Part of the mesocolon.
s t α α Small intestines.
β Bladder.
γ Prostate gland.
δ Vesicula seminalis.
ε Ureter.
ζ Corpus cavernosum.

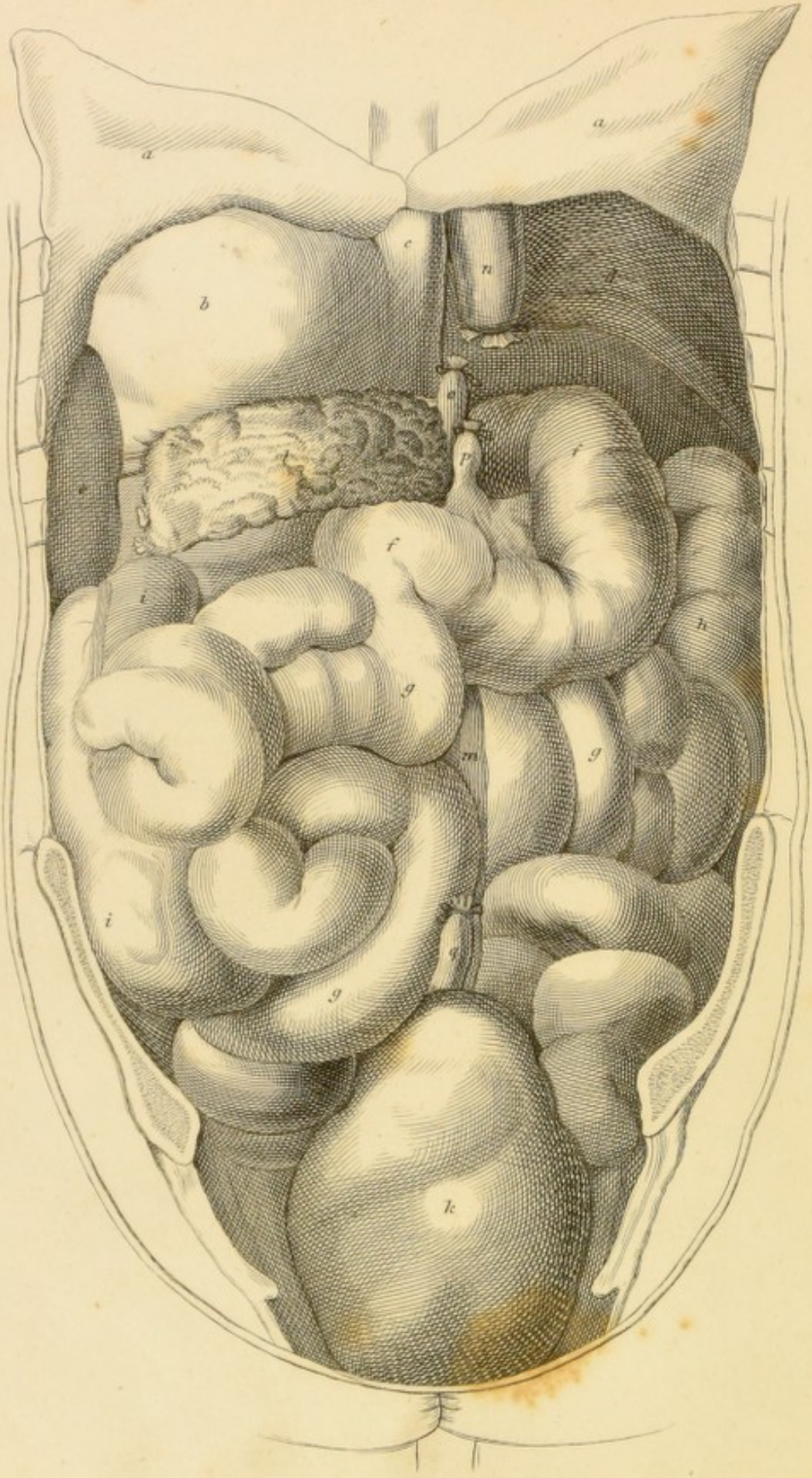
View of the Abdominal Viscera

London Published by J. Johnson March 1 1808.

VIEW OF THE ABDOMINAL VISCERA.

A A B B The omentum.
C C The bottom of the stomach.
D D The liver.
E The suspensory ligament of the liver.
F The fissure made by the umbilical ligament.
G G The colon near its beginning.
H H H I I I The small intestines.
K K The cartilaginous ends of the false ribs cut from their bony parts and turned upwards.
L Inferior coronary vessels of the stomach.
M M Vessels running over the surface of the omentum derived from the inferior coronary vessels of the stomach.

Posterior View of the Abdominal Viscera.



Dadley, Sculp.

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POSTERIOR VIEW OF THE ABDOMINAL VISCERA.

a a Posterior part of the diaphragm reflected upward.
b Œsophagus.
c c Stomach.
d Liver.
e Spleen.
f f Duodenum.
g g g Small intestines
h i i k Large intestines.
l Pancreas.
m Part of the mesentery.
n Vena cava inferior.
o Arteria cœliaca.
p Arteria mesenteria superior.
q Branch of the inferior mesenteric artery.

View of the Omentum & the Intestines in their natural State.

London. Pub. by J. Johnson March 1 1808.

Joseph Skelton

A VIEW OF THE OMENTUM AND THE INTESTINES IN THEIR NATURAL STATE.

A A The hollow part of the liver turned back, so that the inferior part is now the anterior; and the anterior margin the superior.

B The gall bladder shorter than the liver, as in boys.

C The umbilical vein and fossa.

D The lobule of Spigelius, whose projection is visible through the omentum.

E The anterior curvature of the stomach seen through the vesicles of the inflated omentum.

F The right gastro epiploic artery and vein.

G The situation of the annulus of the pylorus.

H The top of the spleen, projecting forward in the cavity of the omentum situated between the stomach and the colon.

I The ligament which supports the spleen, different from that usually described, not closely attached to the spleen, but moving freely; generally at the upper part of the left, or rather of the transverse, mesocolon; connected with the peritonæum between the tenth and twelfth rib. The omentum is lost in this ligament.

K The OMENTUM MAJUS or GASTROCOLICUM, terminated anteriorly, and above by the whole curvature of the stomach; posteriorly and below by the greater portion of the transverse colon. In boys it descends only the umbilicus; in adults lower, and in fat persons sometimes to the pubes. It is terminated on the left by the middle of the spleen, which receives the vessels, and by the ligament I; on the right at the line L.

L The line of separation of the omentum from the mesocolon.

M The origin of the omentum gastrocolicum from the anterior curvature of the stomach, from which the anterior lamina proceeds.

N The conglobate glands adjacent to the origin of the omentum.

O The posterior lamina, or the origin of the great omentum from the colon.

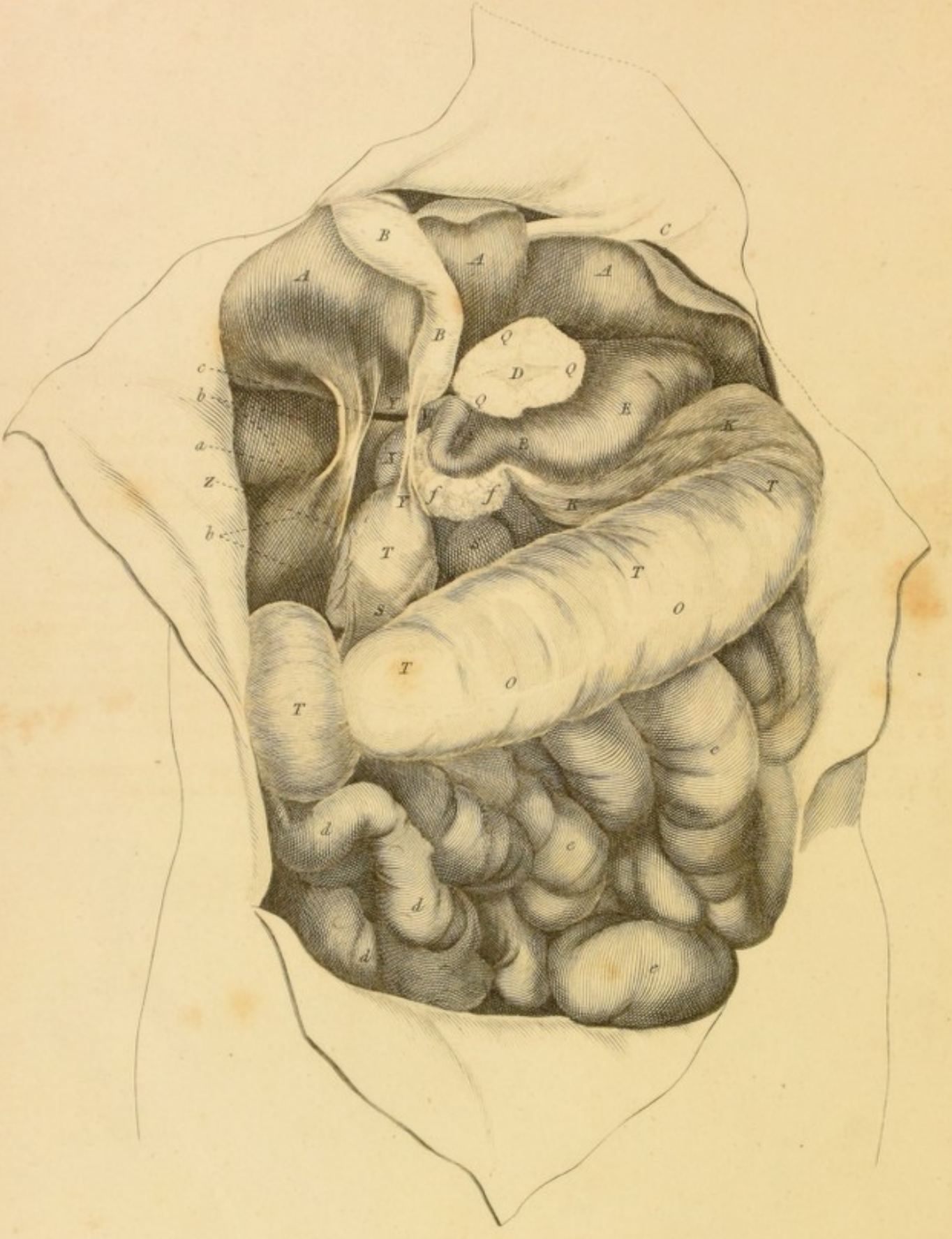
P The blind termination of the omentum on the right side.

Q Q Q Q The OMENTUM MINUS of Winslow.

R OMENTUM COLICUM, a constant appendix of the omentum magnum, which from the termination of the line L to the termination of the transverse mesocolon, and sometimes farther, proceeds in a double line from the colon only without touching the stomach. It resembles the omentum magnum, equally floating on the intestines, and elegantly terminated by a small lobule.

S Part of the mesocolon between the right termination of the omentum magnum and the connection of the colon with the duodenum.

Omentum. N.o 2



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Joseph Skelton

OMENTUM.—No. 2.

General appearances as in N° 1.; but each omentum collapsed, and the colon drawn down, so that the celebrated passage of the omentum is conspicuous.

A A The hollow part of the liver turned back, so that the anterior parts are now above.

B B The gall-bladder.

C The umbilical vein.

D The lobule of Spigelius, seen through the omentum minus.

E E The stomach, almost empty, whose lesser curvature the lobulus of Spigelius enters. Its anterior plane surface covers the left lobe of the liver.

G The pylorus, from which the first flexure of the duodenum rises, turning a little backward.

K K The gastro-colic omentum collapsed.

O O The line in the colon, from whence the gastro-colicum and colicum proceed.

Q Q Q The lesser omentum.

S S Parts of the mesocolon. At the left (S) part of the second transverse duodenum shines through.

T T T Different parts of the colon.

V The second flexure of the duodenum almost transverse, on which the gall-bladder rests.

X The third flexure, or the descending portion, which receives the ductus choledochus.

Y The ligament, or membranes, which pass to the colon, beyond the duodenum, and which serve for its external membrane, adhering to it in some parts.

Z *a* The hepatic renal ligament, or the duplicature of the peritonæum ascending from the kidney to the liver.

Z Its left termination.

a Its right.

b b The right kidney, covered by the peritonæum.

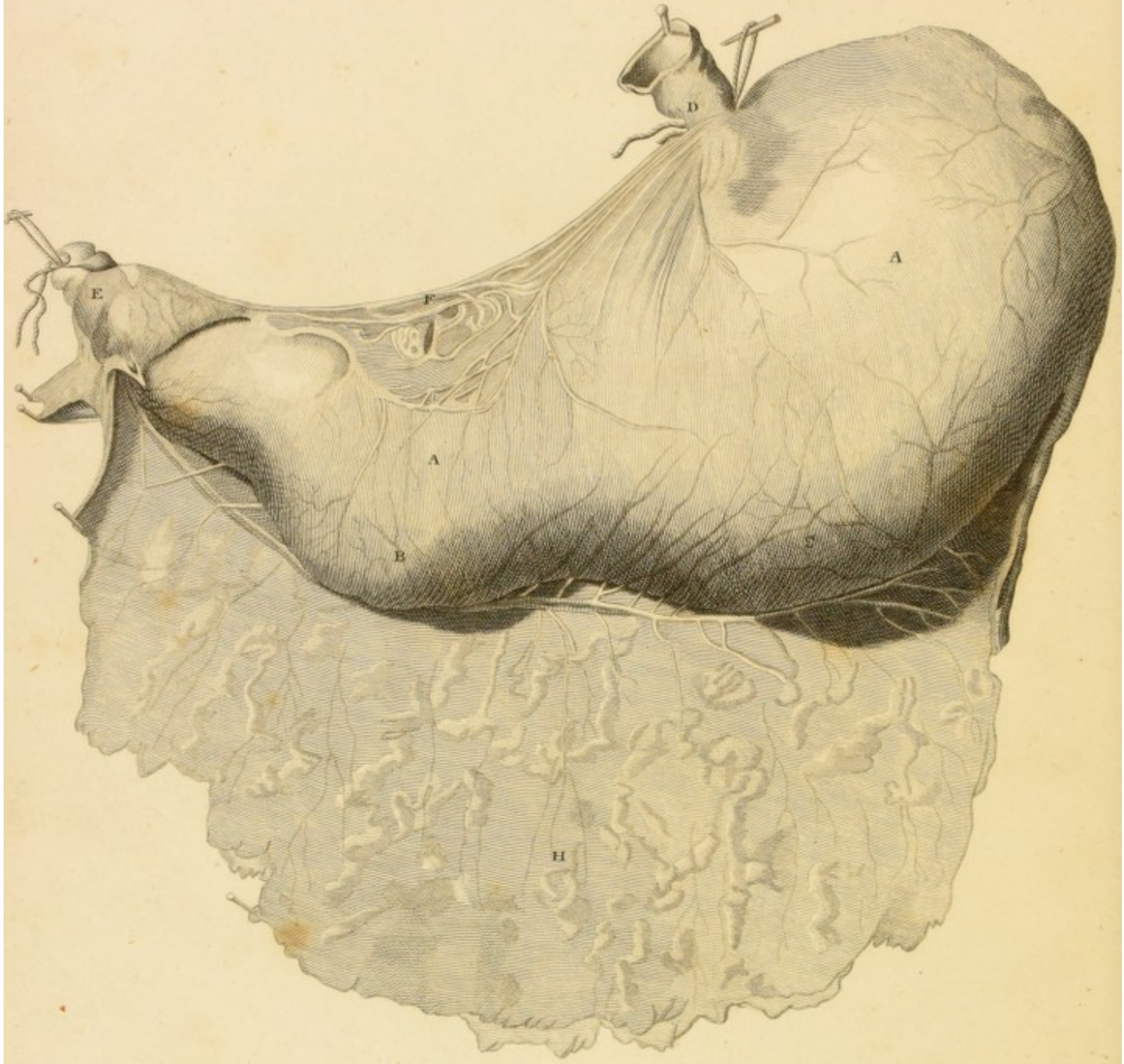
c The celebrated passage of Winslow, between the hepato-colic and the hepato-renal ligaments, then between the lobe of the liver, and the nearest side of the duodenum. The pancreas, drawn aside, renders it lunated, and gives it the appearance of being bent round the liver.

d d The colon with its fatty appendices.

e e The small intestines.

f f Part of the pancreas, which insinuates itself between the flexure of the duodenum.

View of the Stomach.



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VIEW OF THE STOMACH.

A Anterior surface of the stomach.
B Enlargements in the lower part.
D Part of the gula at the upper orifice.
E Part of the duodenum arising from the lower orifice of the stomach or pylorus.
F Superior coronary blood-vessels and branches of the eighth pair of nerves.
G Inferior coronary vessels.
H Omentum.

Plate I.

Lymphatics of the Lower Extremities.

Fig. I.

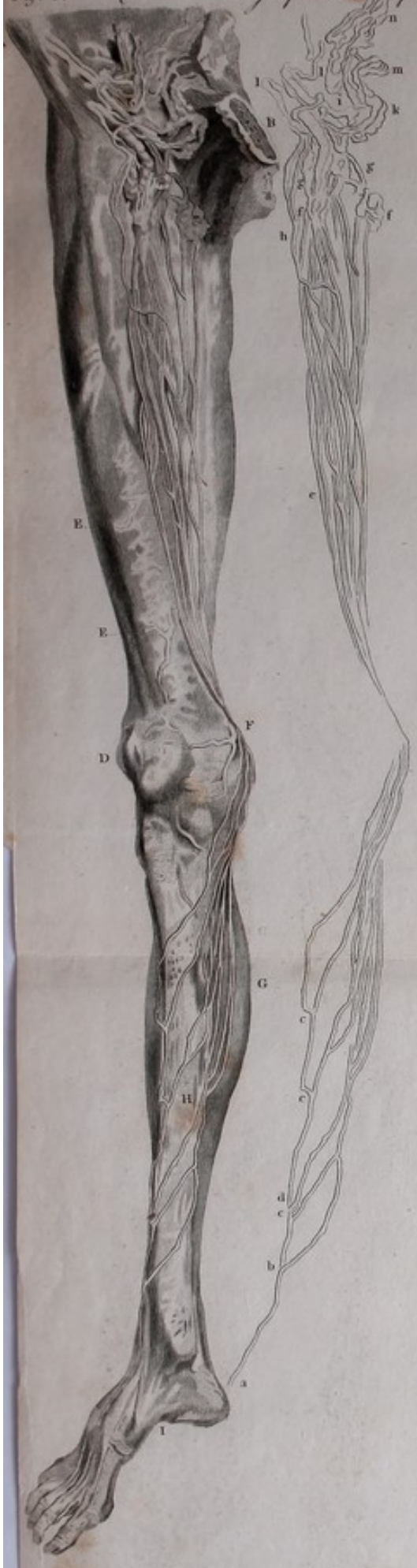


Fig. II.

Published Feb.ry 1st 1818, by J. Johnson, St. Pauls Church Yard.

LYMPHATICS OF THE LOWER EXTREMITIES.

FIG. 1.

Exhibits the more superficial Lymphatic Vessels of the lower Extremity.

A The spine of the *os ilium*.
B The *os pubis*.
C The iliac artery.
D The knee.
E.E.F Branches of the crural artery.
G The *musculus gastrocnemius*.
H The *tibia*.
I The tendon of the *musculus tibialis anticus*.

On the Out-lines.

a A lymphatic vessel belonging to the top of the foot.
b Its first division into branches.
c.c.c Other divisions of the same lymphatic vessel.
d A small lymphatic gland.
e The lymphatic vessels which lie between the skin and the muscles of the thigh.
f.f Two lymphatic glands at the upper part of the thigh below the groin.
g g Other glands.
h A lymphatic vessel which passes by the side of those glands without communicating with them; and, bending towards the inside of the groin at (i), opens into the lymphatic gland (k).
l.l Lymphatic glands in the groin, which are common to the lymphatic vessels of the genitals and those of the lower extremity.
m.n A plexus of lymphatic vessels passing on the inside of the illiac artery.

N.B. The lymphatic vessels appear in these plates more regularly cylindrical than they are represented by *Nuck*, *Ruysch*, and others, in whose plates such vessels are painted more like chains of vesicles than I have ever seen them.

FIG. 2.

Exhibits a back View of the lower Extremity, dissected so as to shew the deeper seated Lymphatic Vessels which accompany the Arteries.

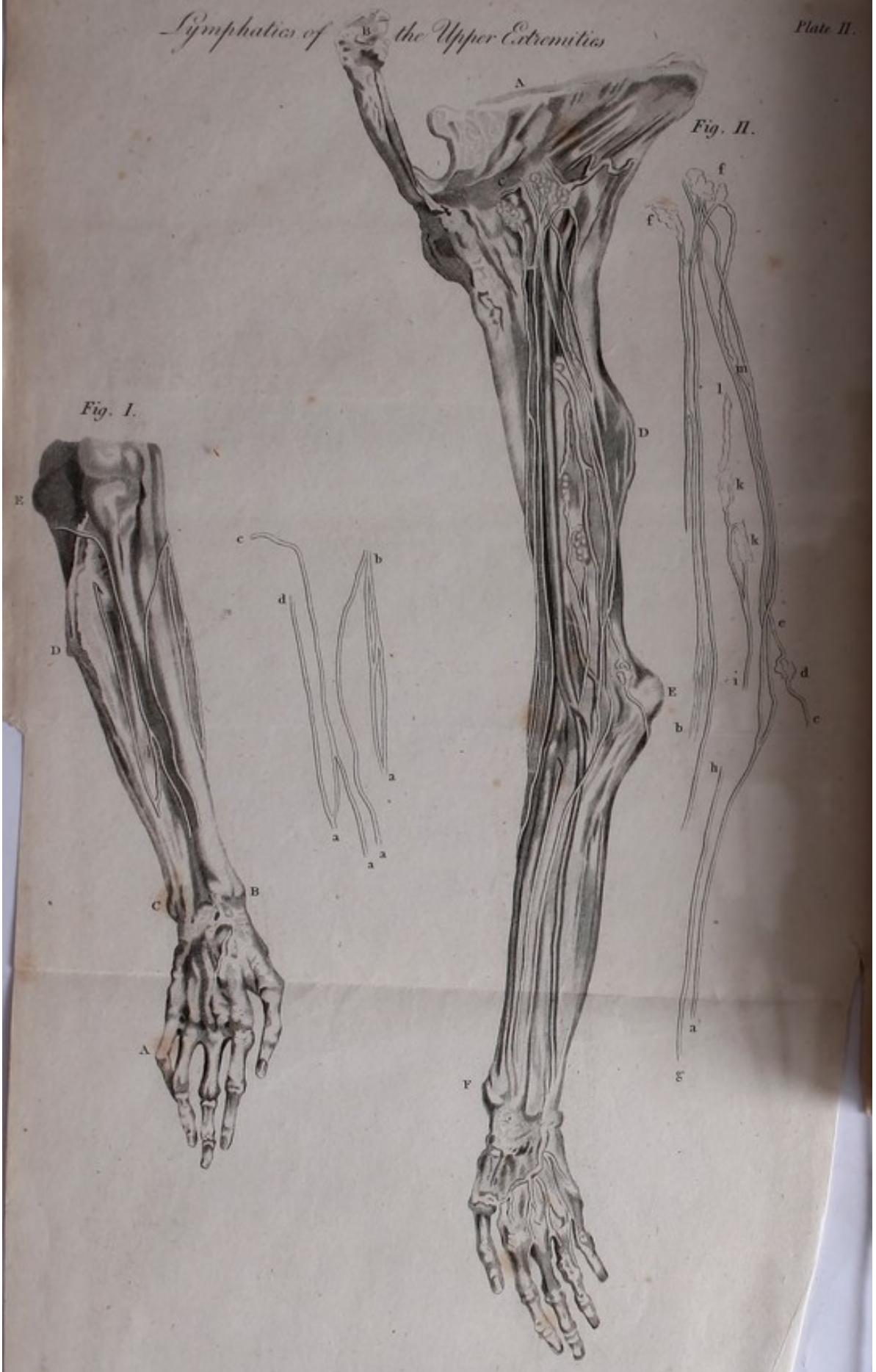
N.B. This extremity was dried before the plate was made from it, and the muscles are therefore much shrunk.

A The *os pubis*.
B The tuberosity of the *ischium*.
C That part of the *os ilium* which was articulated with the *os sacrum*.
D The extremity of the iliac artery appearing above the groin.
E The knee.
F.F The two cut surfaces of the *triceps* muscle, which was divided to show the lymphatic vessels that pass through its perforation along with the crural artery.
G The edge of the *musculus gracilis*.
H The *gastrocnemius* and *soleus*, much shrunk by being dried, and by the *soleus* being separated from the *tibia* to expose the vessels.
I The heel.
K The sole of the foot.
L The superficial lymphatic vessels passing over the knee, to get to the thigh.

On the Out-lines.

M The posterior tibial artery.
a A lymphatic vessel accompanying the posterior tibial artery.
b The same vessel crossing the artery.
c A small lymphatic gland, through which this deep seated lymphatic vessel passes.
d The lymphatic vessel passing under a small part of the *soleus* which is left attached to the bone, the rest being removed.
e The lymphatic vessel crossing the popliteal artery.
f.g.h Lymphatic glands in the ham, through which the lymphatic vessel passes.
i The lymphatic vessel passing with the crural artery through the perforation of the *triceps* muscle.
k The lymphatic vessel, after it has passed the perforation of the *triceps*, dividing into branches which embrace the artery (l).
m A lymphatic gland belonging to the deep-seated lymphatic vessel. At this place those vessels pass to the fore part of the groin, where they communicate with the superficial lymphatic vessels.
n A part of the superficial lymphatic vessels appearing on the brim of the *pelvis*.

Lymphatics of the Upper Extremities



Published Feb.1st 1816, by J. Johnson, St. Pauls Church Yard.

James Basire engr.

LYMPHATICS OF THE UPPER EXTREMITIES.

Fig. 1.

Exhibits a back View of the fore Arm and Hand. The Preparation from which this View was taken having been previously dried, the Muscles appear very slender.

A The hand.
B The lower extremity of the *radius*.
C The lower extremity of the *ulna*.
D The muscles on the back of the fore arm turned aside to exhibit a deep-seated lymphatic vessel, which perforates the interosseous ligament to get to the fore part.
E The *olecranon*.

On the Out-lines.

a.a.a Lymphatics appearing on the back of the fore arm immediately under the skin.
b Some of the lymphatics bending over the upper extremity of the *radius* to get to the fore part of the arm.
c A lymphatic passing over the *ulna*, immediately under the *olecranon*, and under the inner condile of the *os humeri*, to get to the fore part of the arm.
d A lymphatic which has penetrated the muscles, perforates the interosseous ligament, and passes to the fore part of the arm near the radial artery.

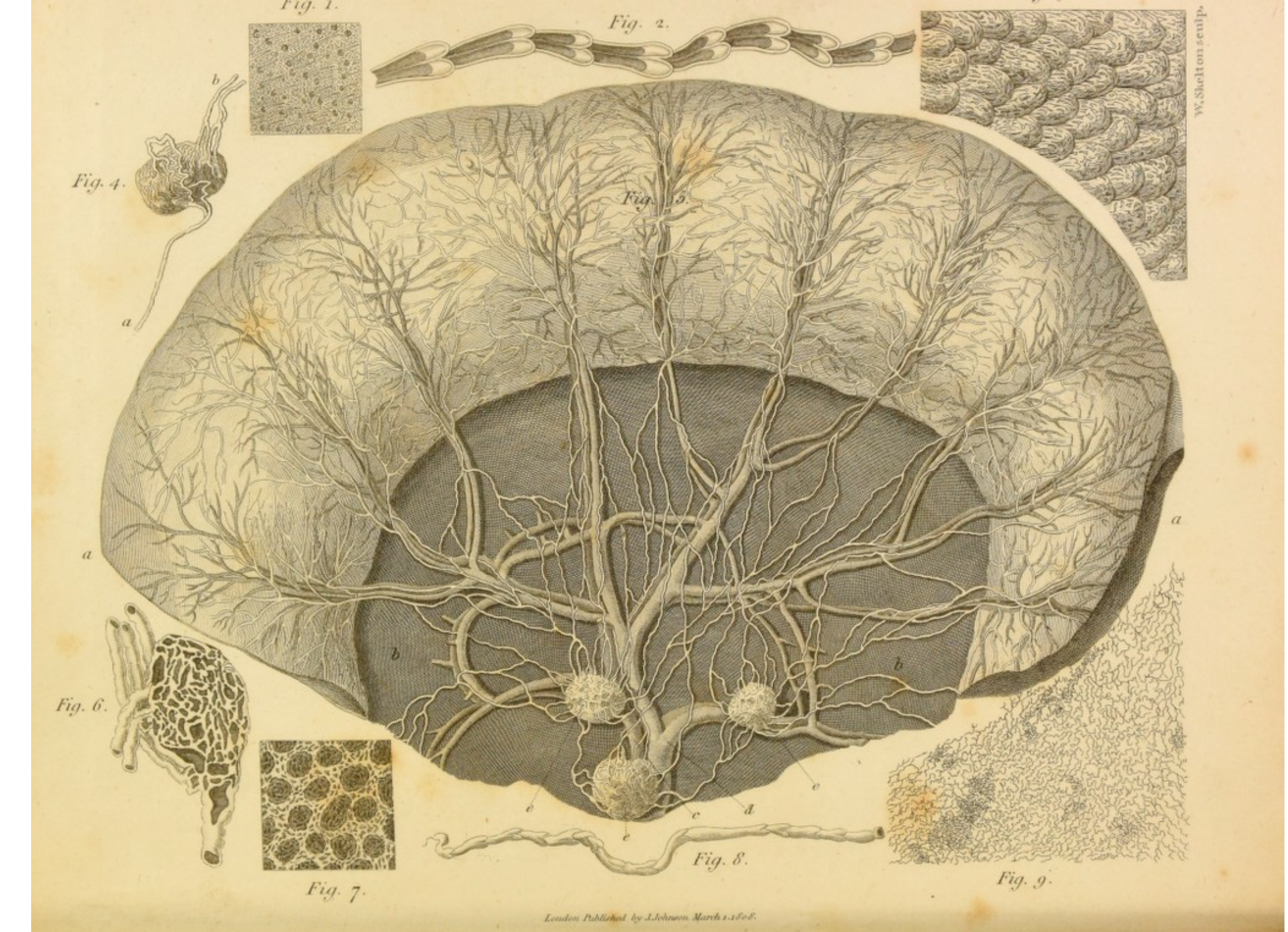
Fig. 2.

Exhibits a fore View of the upper Extremity. This Plate was likewise made from a dried Preparation, and the Muscles therefore appear very small. It has a Peculiarity in the ulnar Artery running over the Muscles instead of under them.

A The *scapula*.
B The clavicle.
C The extremity of the brachial artery.
D The muscles lying on the inside of the arm.
E The inner condyle of the *os humeri*.
F The lower extremity of the *radius*.

On the Out-lines.

a A lymphatic vessel which lies in the cellular membrane immediately under the skin, and passes up on the inside of the arm to the axillary glands.
b Superficial lymphatic vessels passing over the muscles from the back of the fore arm, and likewise over the *biceps* to the glands in the *axilla*.
c A superficial lymphatic from the back of the fore arm.
d A gland through which it passes.
e The lymphatics from the anterior and the posterior part of the fore arm uniting.
f.f Lymphatic glands in the *axilla*.
g A deeper seated lymphatic vessel lying close to the radial artery which it accompanies all the way to (h).
h The deep seated lymphatic vessel passing under the interosseous and ulnar arteries, and appearing again on the arm at (i).
i The deep seated lymphatic vessel lying close to the brachial artery.
k.k Two small lymphatic glands through which it passes.
l The same vessels now become much larger, and passing under a branch of the artery and some cellular membrane, appearing at (m).
m The trunk of the deep seated lymphatic vessels passing upwards to the *axilla*, where it enters the glands, f.f.
f.f Three axillary glands, which are common both to the superficial and the deep seated lymphatic vessels.



London Published by J. Johnson March 1 1808.

ABSORBENTS.

PLATE I.

FIG. 1.

A portion of skin where it is covered with hair. The sanguineous vessels surrounding each hair, where it passes out of the skin, and forming, as it were, a little elevated circle.

FIG. 2.

Large lymphatic vessel laid open longitudinally to show its valves.

FIG. 3.

Magnified view of the internal surface of the jejunum after a successful injection.

FIG. 4.

External view of a lymphatic gland.
a A lymphatic vessel entering the gland.
b Two lymphatic vessels passing out.

FIG. 5.

Portion of jejunum, with its mesentery, from a person who died shortly after eating, and whose lacteals were filled with chyle.
a a Portion of jejunum
b b Mesentery.
c Trunk of the superior mesenteric artery.
d Trunk of the mesenteric vein.
e e e Three mesenteric glands.

FIG. 6.

Internal appearance of a lymphatic gland.

FIG. 7.

Internal surface of the colon magnified.

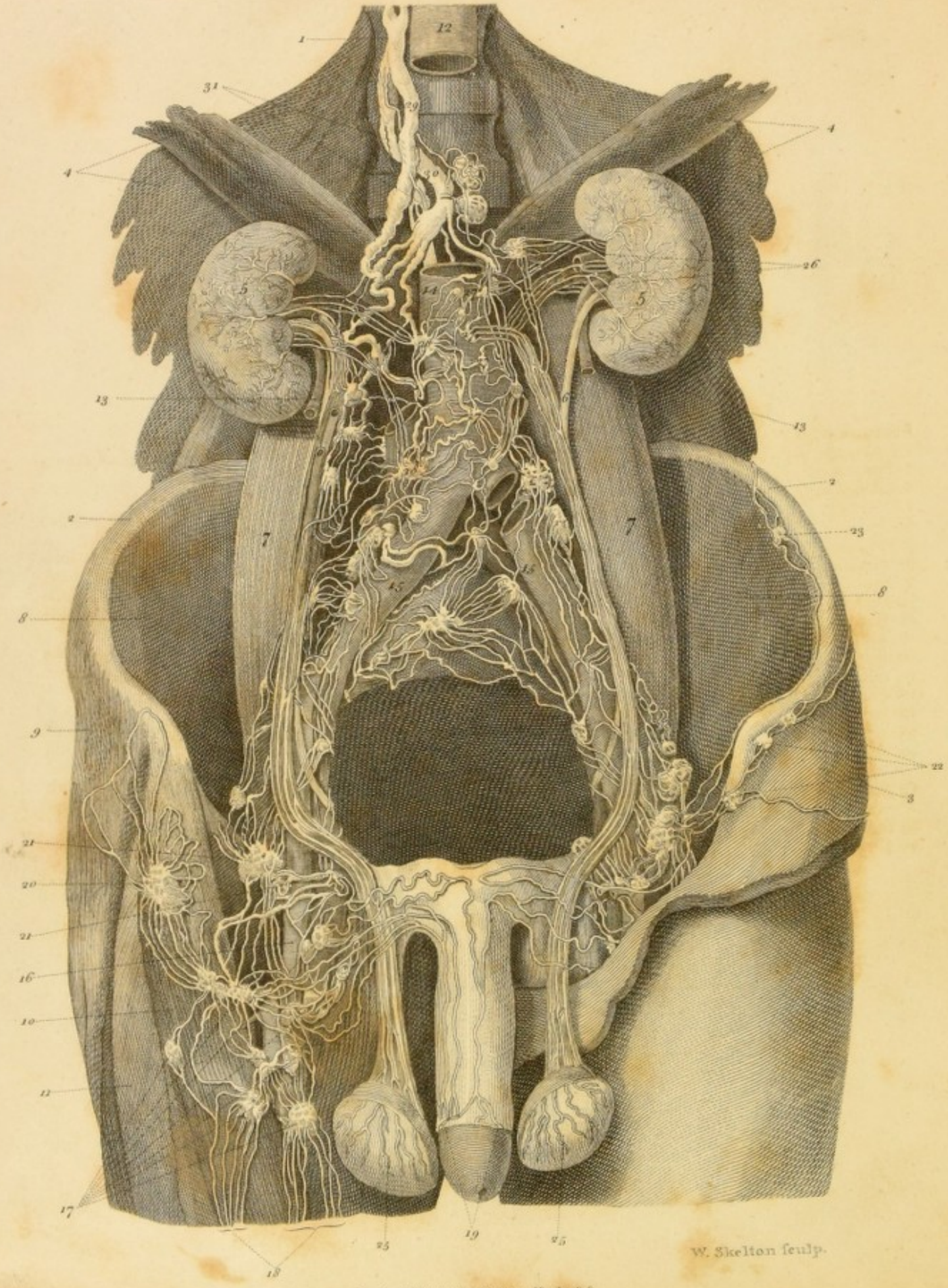
FIG. 8.

The external appearance of a lymphatic trunk.

FIG. 9.

Part of the peritoneum of a man into whose abdominal cavity a black liquid had been injected, when the peritoneum appeared to be every where covered with black spots, from which vessels of rather a large size proceeded, forming a net-work; the black spots themselves, viewed in a microscope, plainly consisted of the smallest vessels filled with a black injection.

Absorbents.—View of the Deep seated Sympathics of the Abdomen, &c.



W. Skelton sculp.

London Published by J. Johnson March 1st 1794.

ABSORBENTS.

DEEP-SEATED LYMPHATICS OF THE ABDOMEN.

PLATE II.

1 Last vertebra of the back.
2 2 Crista of the ilium.
3 Integuments and abdominal muscles turned back.
4 4 Diaphragm turned back.
5 5 Kidneys.
6 Ureters.
7 Psoas muscle on each side.
8 Internal iliac muscles.
9 Tensor vaginæ femoris.
10 Sartorius.
11 Rectus cruris.
12 Aorta cut off.
13 Emulgent arteries.
14 Lower portion of the aorta.
15 Common iliac trunks.
16 External iliac.
17 Inguinal glands.
18 Superficial lymphatic trunks from the lower limb, terminating in the inferior inguinal glands.
19 Branches on the dorsum of the penis terminating in the inguinal glands.
20 Superior inguinal glands.
21 Glands lying under Poupart's ligament.
22 Three glands which receive the lymphatics from the peritoneum and abdominal muscles.
23 Gland lying upon the crista of the ilium.
24 Glands lying between the trunk of the common iliac and the psoas muscle.
25 25 The testicles: the lymphatics are seen on their surface, afterwards passing up the spermatic cord, and terminating on the left side chiefly in the glands marked 27, on the right side chiefly in the glands marked 28.
26 Glands lying on the outside of the aorta near the left kidney.
27 Glands lying upon the aorta.
28 Glands lying between the aorta and vena cava.
29 A great trunk formed by the junction of several of the larger trunks coming from the glands behind the cava and the glands between the cava and aorta; this trunk uniting with another large trunk above the last vertebra of the back, forms the commencement of the thoracic duct.
30 The other great trunk which, uniting with the preceding one, forms the thoracic duct.
31 A third great trunk coming from the glands behind the aorta.

Absorbents

Fig. 1.

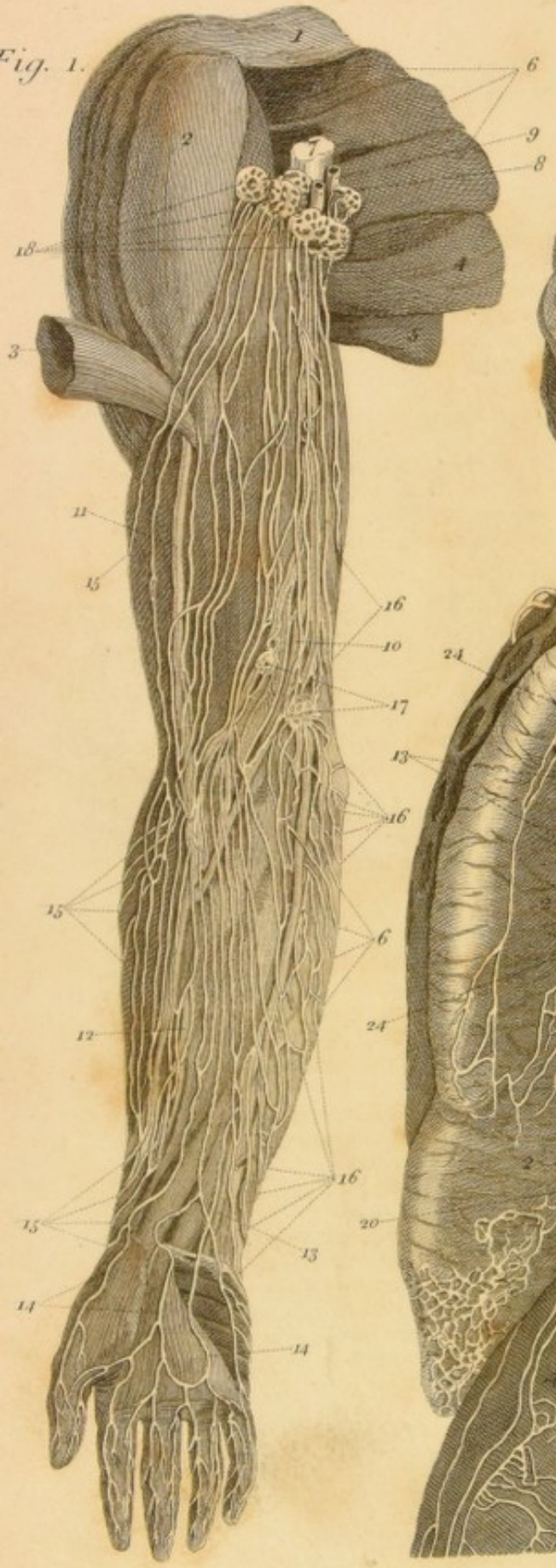
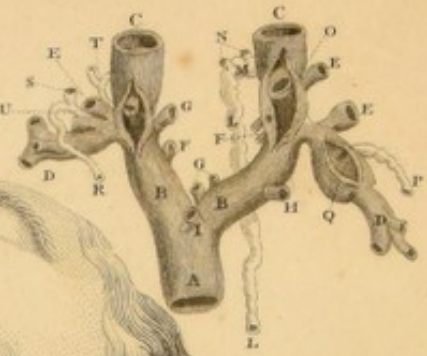
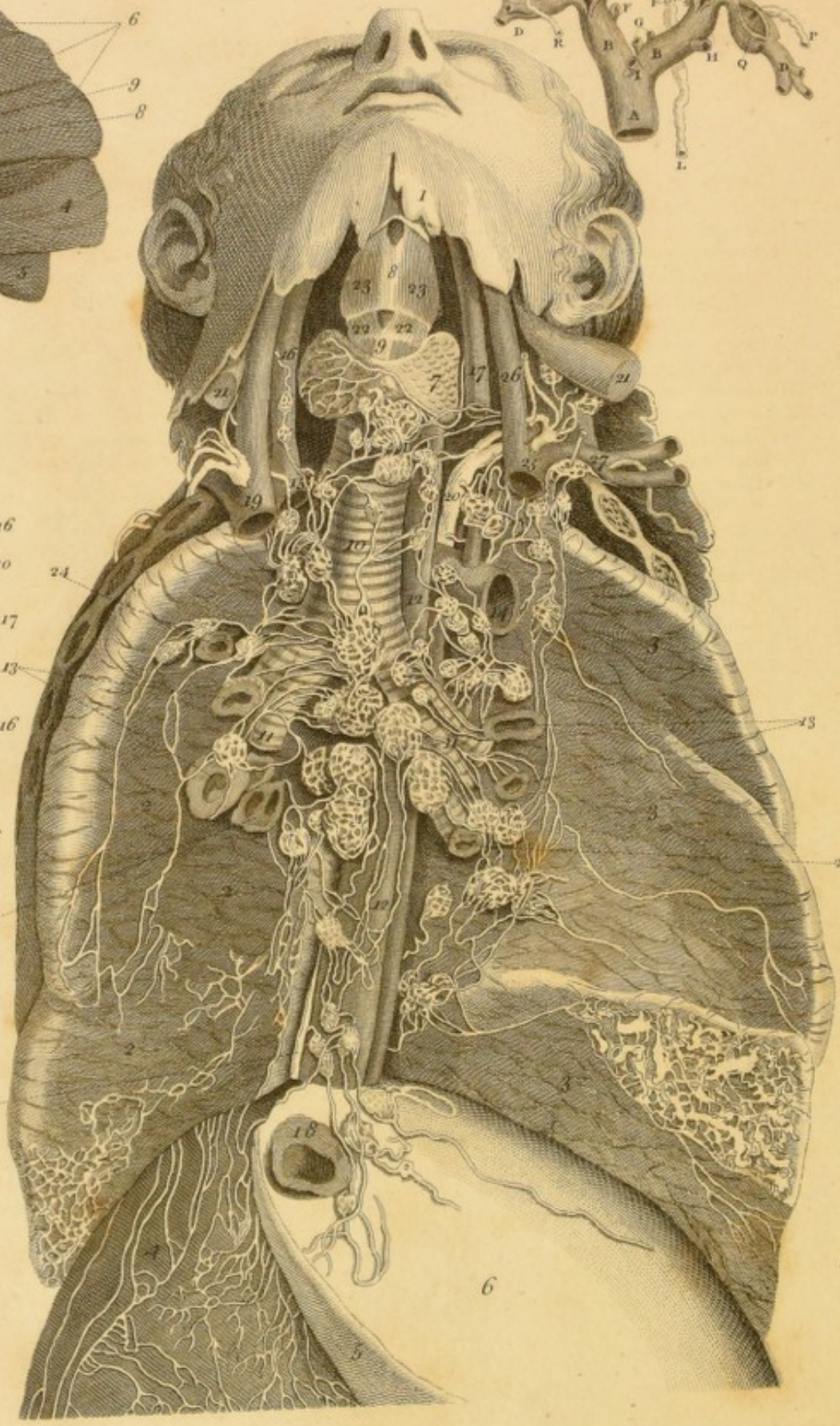


Fig. 2.





W. Skelton fculp.

London. Published by J. Johnson. March 1. 1808.

LYMPHATIC VESSELS AND GLANDS ON THE PALMAR SIDE OF THE UPPER EXTREMITY.—PLATE III.

FIG. 1.

1 Clavicle.
2 Deltoid muscle.
3 Pectoralis major.
4 Latissimus dorsi
5 Teres major.
6 Subscapularis.
7 Brachial nerve.
8 Brachial artery.
9 Axillary vein.
10 Basilic vein.
11 Cephalic vein.
12 Radial artery.
13 Ulnar artery.
14 14 Lymphatic trunks, with their branches proceeding from the fingers.
15 15 Lymphatic branches from the external surface of the arm, coming round its radial side.
16 Lymphatic branches coming from the external surface of the arm, but passing round on the ulnar side.
17 Two glands laying near the bend of the elbow.
18 Axillary glands; into which the trunks coming from the fingers and arms enter.

FIG. 2.

Lymphatic Vessels and Glands of the Thorax.

1 Integuments.
2 Concave surface of the right lung.
3 Concave surface of the left lung.
4 Right lobe of the liver.
5 Portion of the right side of the diaphragm turned back.
6 Left side of the diaphragm covered by pleura.
7 Thyroid gland.
8 Thyroid cartilage.
9 Crycoid cartilage.
10 Trachea.
11 11 Right and left bronchia.
12 12 Œsophagus.
13 13 Pulmonary arteries cut off where they enter the lungs.
14 Aorta cut off.
15 Right subclavian.
16 Right carotid.
17 Left carotid.
18 Vena cava inferior cut off.
19 Right subclavian.
20 20 Thoracic duct.
21 Sterno-cleido-mastoidei muscles.
22 22 Anterior aico-thyroidei muscles.
23 23 Hyo-thyroidei muscles.
24 24 24 Pulmonary veins.
25 Left subclavian.
26 Internal jugular vein.
27 External jugular vein.

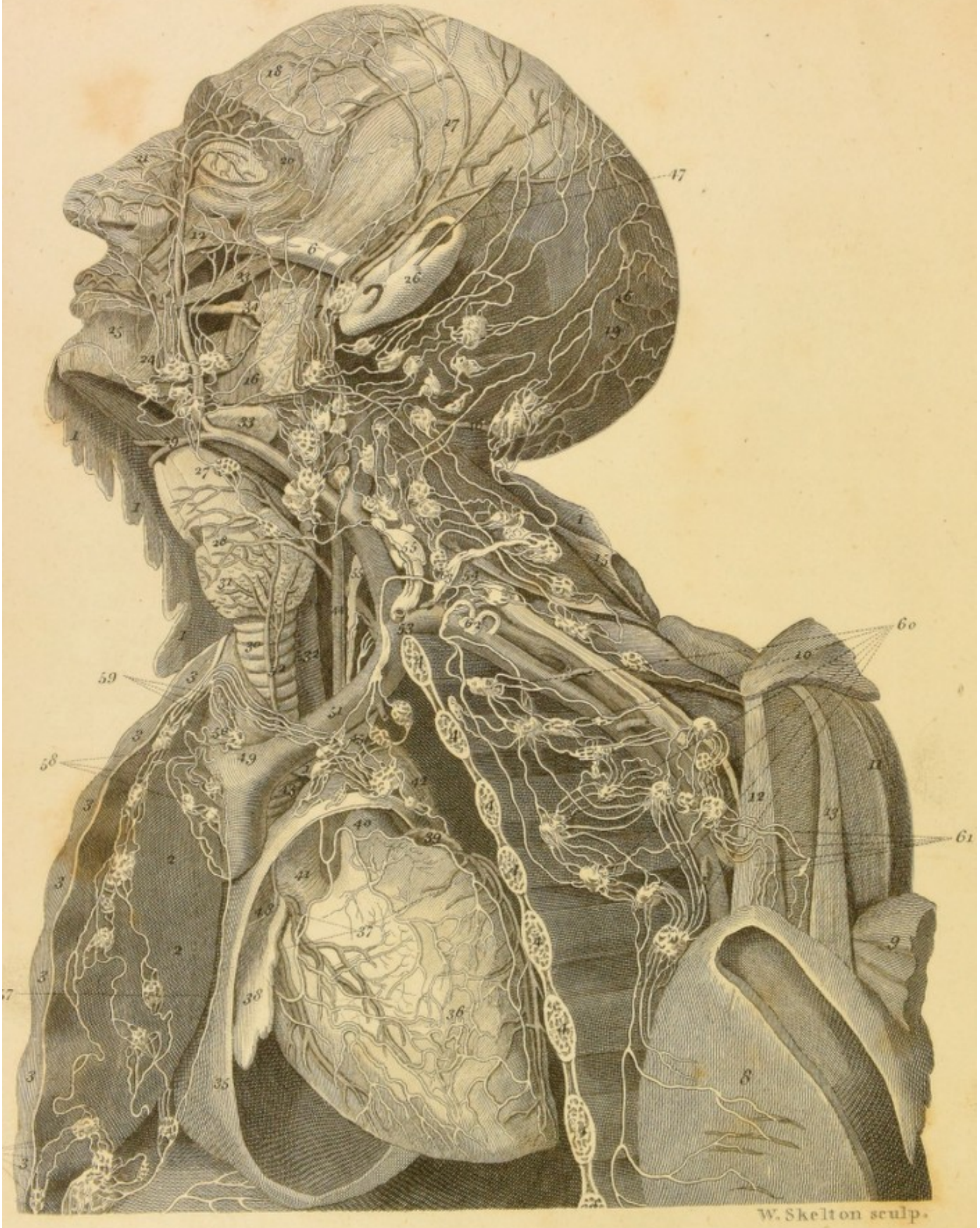
In this plate the lymphatic vessels and their glands are so accurately laid down, and their connections and relative situations so instantly seen on inspection, as to render references to them unnecessary.

FIG. 3.

Termination of the Lymphatic System in the great Veins of the Neck.

A Vena cava superior cut off.
B B Subclavian veins.
C C Internal jugular veins.
D D Axillary veins.
E E E External jugulars.
F F Vertebral veins.
G G Inferior thyroid veins.
H A trunk common to the left mammary and appendix of the azygos vein.
I Right mammary vein.
L L Thoracic duct.
M Enlargement of the thoracic duct near its termination.
N Lymphatic trunks which proceed from the inferior gland of the neck cut off.
O Opening of the thoracic duct furnished with a double valve.
P A trunk opening into the left subclavian vein, which collects lymphatics from the glands, lying about the axillary vessels of the left side.
Q The opening of this trunk furnished with a single valve.
R A trunk formed by a conflux of vessels from the glands, lying about the right axillary vessels, which is joined by the trunk S coming from the inferior glands of the neck, and after that by another trunk T also coming from the inferior glands of the neck; these forming a common trunk open into the angle of the right jugular and subclavian veins.
V The opening of this trunk furnished with one valve.

Absorbents of the upper part of the Body.



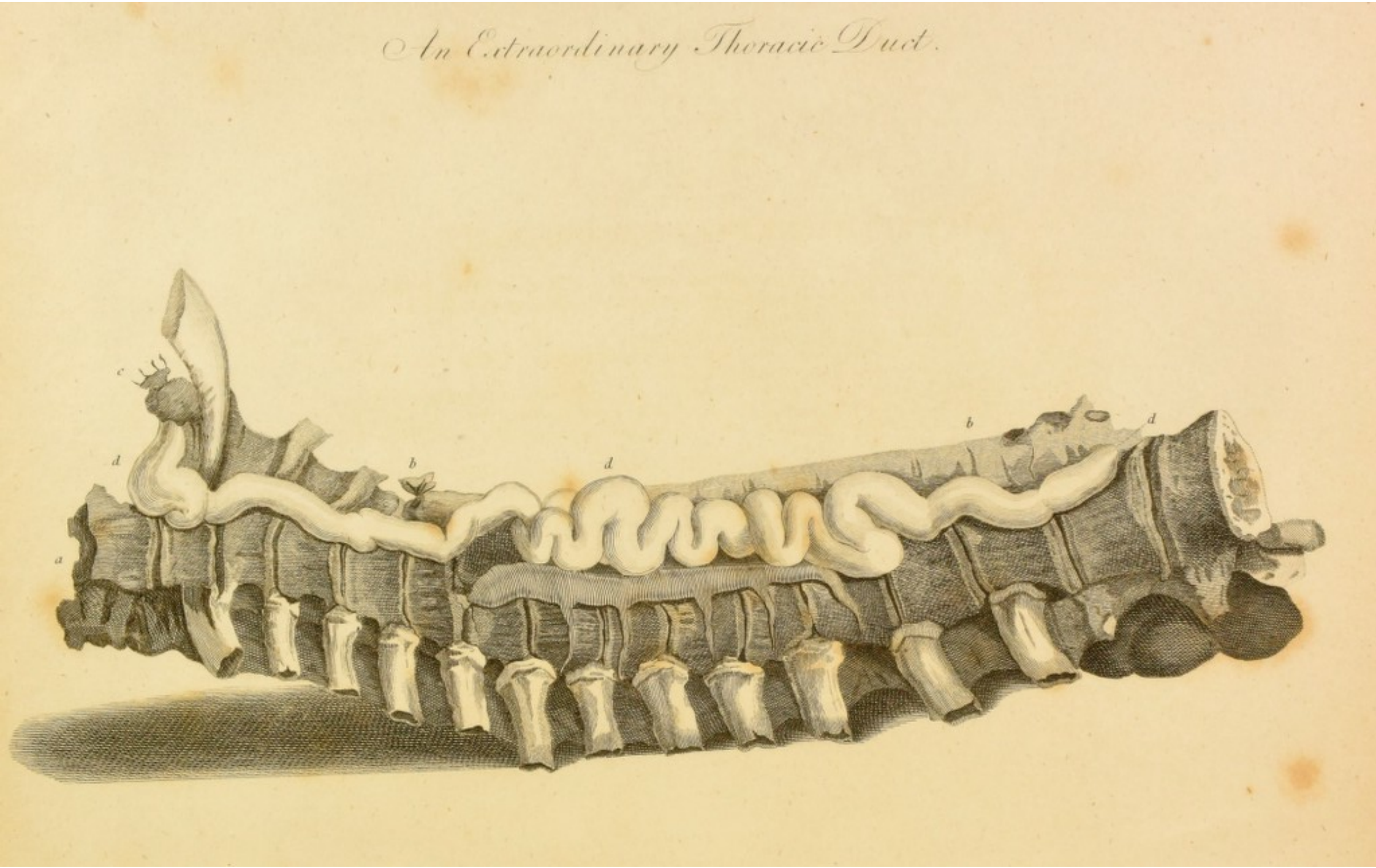
W. Skelton sculp.

London Published by J. Johnson March 1.1806.

ABSORBENTS OF THE UPPER PART OF THE BODY.

1 Integuments dissected and thrown back.
2 2 The sternum with the cartilages of the ribs of the left side turned towards the right side.
3 3 3 Cartilages of the left ribs attached to the sternum.
4 4 The cut surfaces of the cartilages of the left ribs attached to the ribs.
5 Coracoid process.
6 Zygomatic process.
7 The condyle of the lower jaw.
8 The left breast dissected from the pectoral muscle, and turned back.
9 Pectoralis major.
10 Pectoralis minor.
11 Deltoides.
12 Short head of the biceps.
13 Long head of the same muscle.
14 Subscapularis.
15 Trapezius.
16 Masseter.
17 Temporal muscle.
18 Frontalis.
19 Occipitalis.
20 Orbicularis palpebrarum.
21 Compressor narium.
22 Levator labii superioris alæque nasi.
23 Zygomaticus major.
24 Depressor anguli oris.
25 Depressor labii inferioris.
26 The ear turned forward.
27 Thyroid cartilage.
28 Cricoid cartilage.
29 Base of the os hyoides.
30 Trachea.
31 Thyroid gland.
32 Œsophagus.
33 Submaxillary gland.
34 Parotid gland and duct going to the mouth.
35 Pericardium.
36 Heart.
37 Branches of the coronary arteries and veins.
38 Right auricle.
39 Left auricle.
40 Pulmonary artery running behind the aorta.
41 Aorta.
42 Arch of the aorta.
43 Right subclavian artery.
44 Left carotid artery.
45 Left subclavian artery.
46 Occipital artery.
47 Temporal artery.
48 Part of the vena cava superior contained within the pericardium.
49 Division of the superior cava.
50 The right subclavian vein.
51 The left subclavian vein.
52 Inferior thyroid vein.
53 Junction of the left subclavian and internal jugular veins.
54 Part of the plexus of brachial nerves.
55 Thoracic duct.
56 Lymphatic glands situated in the lower part of the anterior mediastinum, of which the lowermost receive the lymphatic vessels coming from the diaphragm, from which first glands the vessels are again seen passing to the next glands: one of these glands lies close to the pericardium.
57 A lymphatic vessel arising from the forementioned glands, and going to glands lying about the superior cava. This trunk receives branches from the pericardium and mediastinum.
59 Trunks coming from the *glands*, N° 58, which, running along the right subclavian vein, enter the inferior glands of the neck.
60 Axillary glands.
61 Lymphatic vessels from the superior part of the arm going to the axillary glands.
62 Two lymphatic trunks from the superior axillary glands, which empty themselves into the subclavian vein, just before its junction with the internal jugular.
63 A large lymphatic trunk, receiving chiefly the trunks from the glands about the superior and posterior part of the neck, and terminating in the thoracic duct just before its entrance into the veins.

An Extraordinary Thoracic Duct.



AN EXTRAORDINARY THORACIC DUCT,

Introduced in this place to show its situation, and the size discovered in this subject. It differs only from the duct in its usual state by the size, and the serpentine form; an appearance found in the arteries, during the systole of the heart, which it also represents.

It is seen in situ, with the more immediately surrounding parts.

The spine is cleaned by dissection, and dried; in consequence of which the intervertebral substances are shrunk, perhaps to one-twelfth of their original thickness.

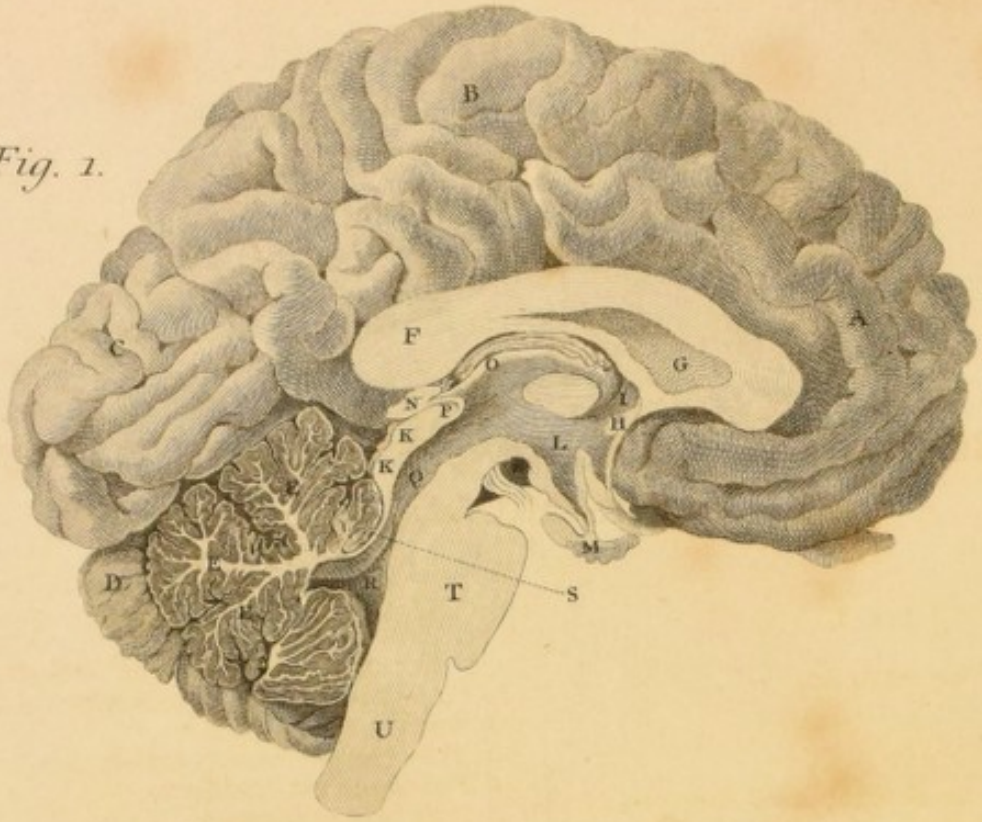
The aorta, vena azygos, and lower portion of the left internal jugular vein, with that portion of the left subclavian vein which forms a right angle with it, are seen as half distended with coarse injection, and dried. The property of coarse injection is, that it loses little or nothing of its original fluid bulk by becoming solid, or even by drying.

The thoracic duct is seen under the same circumstances as the last-mentioned vessels, particularly as little more than half distended with the injection; but we were so long in doubting and examining, that, by the time we began to inject this vessel, it could not bear force, and we were fearful of losing it by bursting it.

a The spine, as above described.
b.b The aorta, as above described.
c The jugular vein, forming an angle with the subclavian, under the circumstances above described.
d.d.d The thoracic duct, as above described.

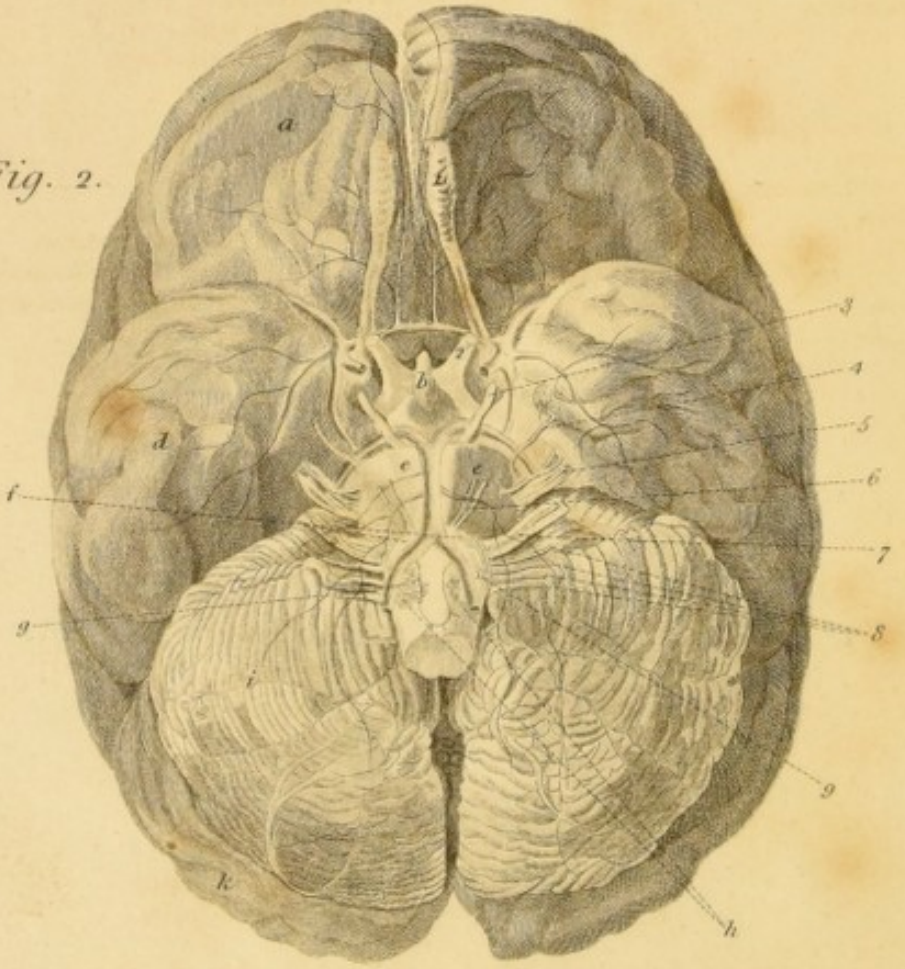
Vertical Section of the Brain.

Fig. 1.



Base of the Brain.

Fig. 2.



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VERTICAL SECTION OF THE BRAIN MADE THROUGH ITS MIDDLE.

FIG. 1.

A Anterior lobe of the cerebrum.
B Middle lobe.
C Posterior lobe.
D Cerebellum.
E E E An appearance which the medullary part of the cerebellum in this section makes, called cerebri vita.
F Corpus callosum.
G Septum lucidum.
H Anterior commissure.
I Foramen commune anterius.
K Tubercula quadrigemina.
L Iter ad infundibulum.
M Pituitary gland.
N Pineal gland.
O Pedunculi of the pineal gland.
P Commissura posterior.
Q Iter ad quartum ventriculum.
R Quartus ventriculus.
S Valvula vieussenii.
T Tuber annulare.
U Medulla oblongata.

FIG. 2.

View of the base of the brain.

1 First pair of nerves, or olfactory.
2 Second pair, or optic.
3 Third pair, or motores oculorum.
4 Fourth pair, or trochleares.
5 Fifth pair, or trigemini.
6 Sixth pair of nerves.
7 Seventh pair, or auditory nerves.
8 Eighth pair.
9 Ninth pair, or laryngeal nerve.
a Anterior lobe of the brain.
b Infundibulum.
c Corpora albicantia.
d Middle lobe of the brain.
e Pons varolii.
f Corpora pyramidalia.
g Corpora olivaria.
h Medulla oblongata.
i Cerebellum.
k Posterior lobe of the cerebrum.
The arteries at the base of the brain are obvious on inspection, and only introduced to show their situation and connection.

Views of the Eye. N.o 1.

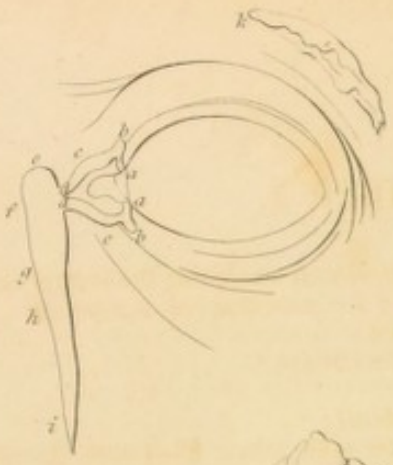
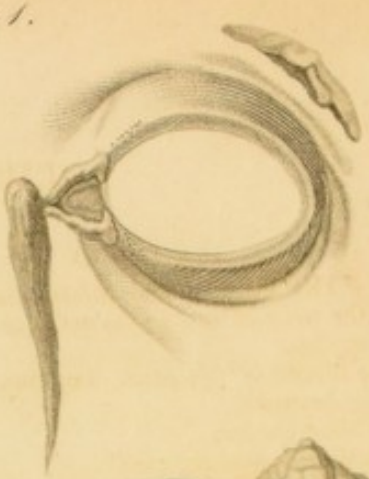


Fig. 1.



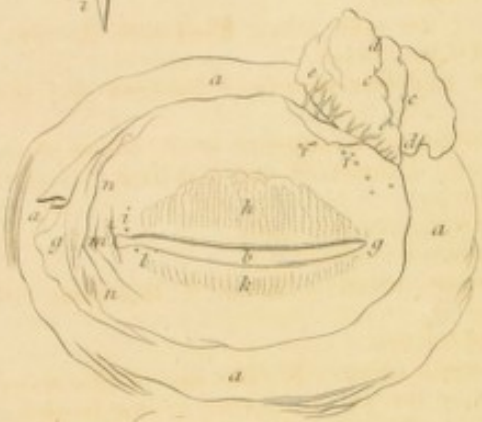


Fig. 2.

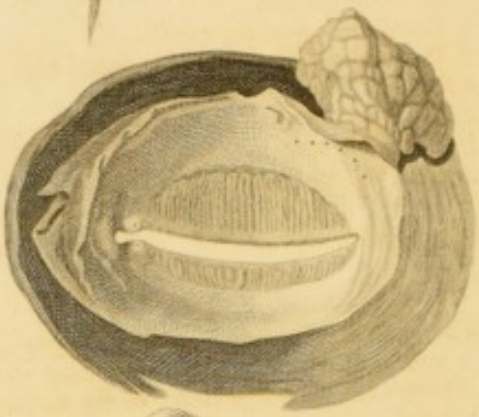


Fig. 3.

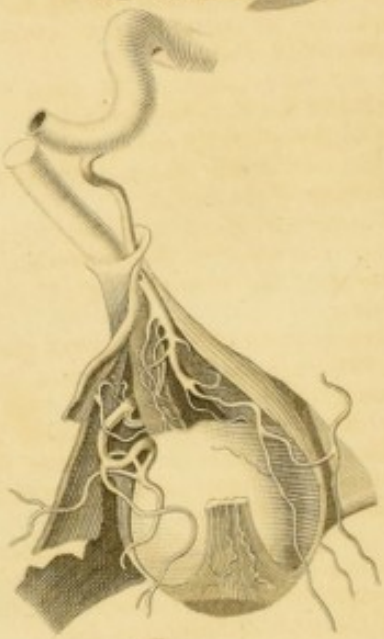


Fig. 4.

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VIEWS OF THE EYE.—NUMBER I.

FIGURE 1.

a b c d The superior and inferior lachrymal canal, or the parts of the lachrymal duct belonging to the eyelids.

a The mouth of this canal, beginning at the punctum lachrymale.

b Its blind portion.

c Continuation of the canal.

d Its termination in the lachrymal sac.

e f g The lachrymal sac.

e The blind portion of the sac.

f Its middle part.

g It termination.

h i The nasal portion of the lachrymal duct.

i The lower mouth, or termination of the lachrymal duct.

FIG. 2.

The eyelids of an adult on the right side separated, and their posterior surface exposed to view, also the lachrymal gland, which, being turned a little forwards, has its anterior point covered by the membrana conjunctiva.

In the natural situation of the parts this is the lower surface of the lachrymal glands.

a Part of the sphincter muscle of the eyelids on the inside, or that side which is turned towards the bone.

b The chink of the eyelids.

c The lachrymal gland from below, so that its small part is covered by the membrana conjunctiva.

d Division of the lachrymal gland into two principal lobes.

e Excretory ducts of the lachrymal gland.

f The little mouths of these ducts in the membrana conjunctiva.

g The membrana conjunctiva which lines the eyelids. That part which is remarkable for its loose and folded appearance is the lap which has been separated from the bulb.

h The sebaceous glands of the upper eyelid shining through the membrana conjunctiva.

i The superior punctum lachrymale, that is, the mouth of the superior lachrymal duct.

k Sebaceous glands of the lower eyelid shining through the membrana conjunctiva.

l The inferior punctum lachrymale, viz. the mouth of the inferior lachrymal duct.

m The caruncle.

n The semilunar fold which was turned back with the membrana conjunctiva separated from the bulb.

FIG. 3.

Shows the distribution of the left ophthalmic artery as it occurs when the muscles, together with the bulb, are kept in their places, excepting the levator of the upper eyelid, and the musculus rectus superior.

A B C D The orbit.

A The inside of the left orbit.

B Its outside.

C C Its lower margin.

D The canal of the optic nerve filled with the nerve and cellular membrane.

E The levator palpebræ superioris dissected and laid back.

F G The musculus rectus superior oculi, whose posterior part, F, is dissected and laid back; G is its anterior part.

H Musculus rectus internus oculi.

K Musculus rectus externus oculi.

L The optic nerve, which is shown in this plate entirely bare.

M The bulb of the eye.

N O P The carotid artery. N, The part of this artery contained in the petrous portion of the temporal bone. N O, Part of it in the cellular sinus. P, Part which properly belongs to the brain.

Q The opqthalmic artery arising from the carotid.

Q R Its curvature, which is always found just after its commencement.

R The place where it goes to the outside of the optic nerve. It principal branches are,

a The first long ciliary artery.

b Two other ciliary arteries.

c The artery of the lachrymal gland. This is divided into

d the ciliary branch, which goes off from the inside of this artery

e into the muscular branch, more delicate for the musculus rectus externus, and into

f a branch which goes below the bulb to the musculus obliquus inferior.

ff A larger muscular branch for the musculus rectus externus.

g h The division of the little trunk of the artery of the lachrymal gland into the branch (*h*), which anastomoses with a twig of the internal maxillary artery (*x*): also into

i the branch which is distributed over the lachrymal gland and upper eyelid.

k The continuation of the ophthalmic artery, which comes out transversely under the optic nerve.

l The branch which is divided into the twig for the musculus obliquus superior, as appears from the following figure (*m*), and into the branch for the levator palpebræ superioris.

o p A branch of the same artery, which divides into a twig for the musculus rectus superior, and into

q the ciliary twig.

r A double branch for the musculus rectus inferior. The trunk of the ophthalmic artery while it bends round in a serpentine manner, sends out.
s Arteria frontalis.
t t The artery for the musculus rectus internus, which for the most part surrounds its flesh.
u The anterior artery of the nose, or the arteria anterior ethmoidea.
v The arteria trochlearis inferior.
w The anterior branch of the artery dissected (*p*), which runs out into the musculus rectus superior.
x A twig of the arteria temporalis profunda, arising from the internal maxillary artery.

FIG. 4.

A continuation of the former figure, so as to expose at one view the whole distribution of the branches of the ophthalmic artery, the bulb of the eye being removed.
A The inner wall of the left orbit.
B Its outer wall.
C C Its lower edge.
D The canal of the optic nerve, round which are found the remains of the levator palpebræ superioris, and of the rectus superior, cut off and bent inwards.
E The musculus obliquus superior oculi, which, with its tendon (F), passes through the trochlea, or pulley (F), and is seen without the orbit, removed a little on one side.
G The musculus rectus oculi inferior.
H The musculus rectus oculi internus.
K The musculus rectus oculi externus.
L L The musculus obliquus oculi inferior.
a b c d e f ff g h i k o r s t u v x The same branches which these letters mark in the former figure, the following remain to be marked.
a b b are cut off, to preserve perspicuity, after the removal of the optic nerve.
c The arteria lachrymalis is separated a little inwards, that
d the relations of the branch (*d*), which is here seen cut off, and (*e*) may more easily be viewed, since both
e in the first figure were partly covered by the trunk of the lachrymal artery (*c*).
f The branch for the inferior oblique muscle comes entirely into view.
f 2 The branch continued on for the inferior oblique muscle entering the lower lid.
k The trunk of the ophthalmic artery appears here very plain, the optic nerve being removed.
l m A branch going to the superior oblique muscle.
n The branch going on towards the superior oblique muscle.
o is here cut off, hence *p q* of the last figure are here wanting.
t t The branch scattered through the internal strait muscle; it can be seen much better after the branch (*r*) is removed a little higher up.
x The origin of this branch from the internal maxillary artery (*y*) is here more plainly seen.
y The trunk of the internal maxillary artery.
z The infra-orbital artery, a constant twig of this internal maxillary artery.

Views of the Eye. N°2

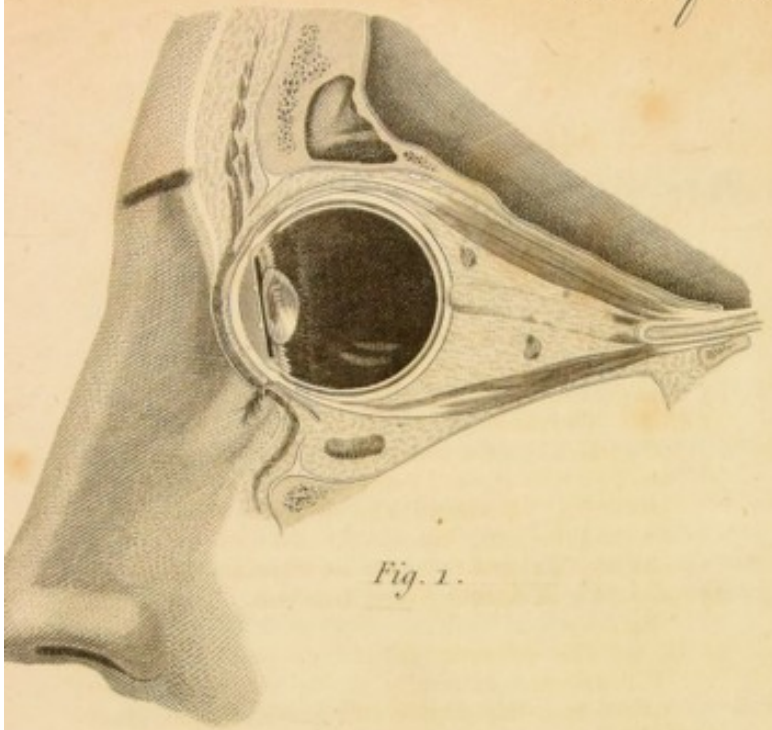


Fig. 1.

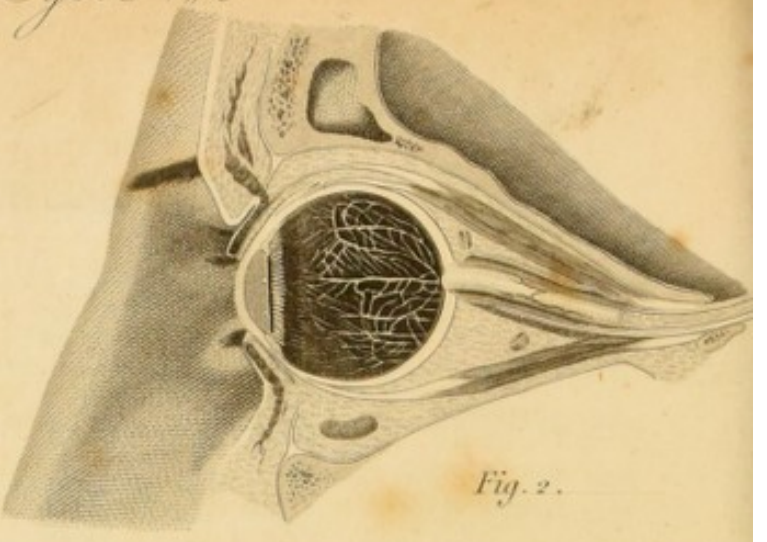
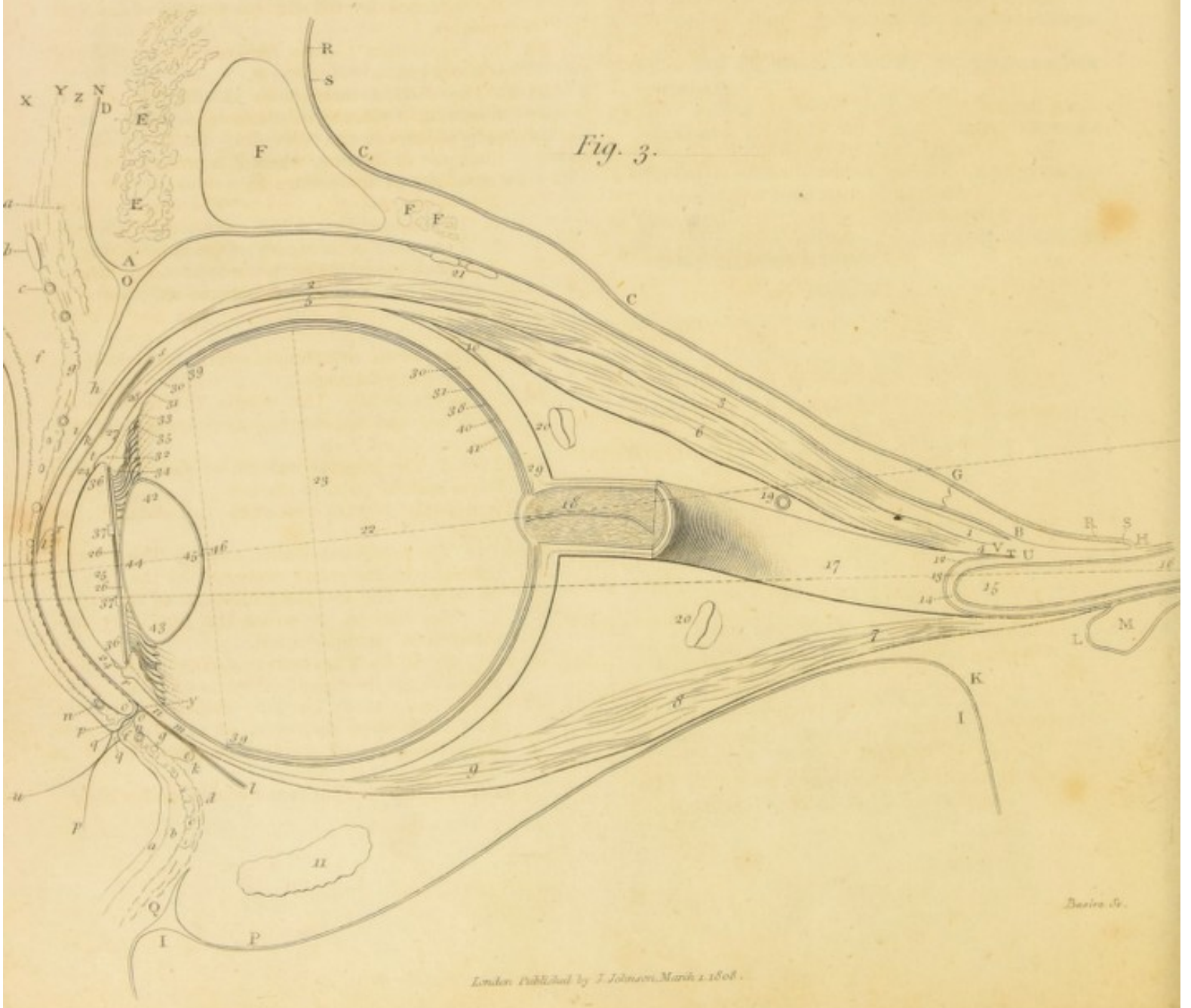


Fig. 2.

Fig. 3.



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VIEWS OF THE EYE.—NUMBER II.

l Where it is doubled on itself;
m m Where it invests the membrana sclerotica of the bulb.
y l The inferior bursa of the membrana conjunctiva.
(*k*) The space between its two laminæ, of which one covers the bulb, the other the lower eyelid. This space is marked by a thickish black line, because these two laminæ touch each other.
p The lower eyelash.
q A little space of a rhomboid figure between the eyelashes and the edges of the lids.
1 11 Muscles of the eye.
1 2 3 Elevator palpebræ superioris.
1 Its posterior extremity, immoveable and tendinous, which adheres to the periorbita.
2 Its anterior extremity, moveable and tendinous, which is extended over the cartilage of the upper eyelid, and disappears in its edge.
3 Its flesh.
4 5 6 The musculus rectus superior of the bulb.
4 Its posterior extremity, immoveable, tendinous, which adheres to the sheath of the optic nerve.
5 Its anterior extremity, moveable, tendinous, which ends in the sclerotic membrane of the bulb (28).
6 Its flesh.
7 8 9 The musculus rectus inferior of the bulb.
7 Its posterior extremity, immoveable, tendinous, which adheres to the sheath of the optic nerve more backwards than the extremity of the rectus superior.
8 The flesh of this muscle.
9 Its anterior extremity moveable, tendinous, which terminates near *m* in the sclerotic membrane of the bulb.
10 The tendon of the musculus obliquus superior of the bulb.
11 The flesh of the musculus obliquus inferior of the bulb.
12 18 The optic nerve bent in the form of an s, and partly covered with fat.
12 13 The sheath of the optic nerve, arising from the membrane of the brain. 12 The inner lamina of this sheath; 13 its external lamina.
14 The choroid membrane of the optic nerve.
15 The fibrous substance of the optic nerve exposed.
16 A part of the optic nerve passing through the bony canal where it appears as if depressed from above to below.
17 The cylindric part of the optic nerve.
18 The extremity of the optic nerve contracted, and lost in the sclerotica.

The fibrous structure of the optic nerve, the passage of the central artery and the manner in which the membranes of the optic nerve adhere to the bulb, is also shewn in this figure.

19 20 The blood-vessels and nerves of the eye.
19 The principal trunk of the ophthalmic artery.
20 The principal trunk of the ophthalmic vein which surrounds the bulb.
21 The first twigs of the branch of the fifth pair of nerves.
22 43 The bulb of the eye.
22 22 The axis of the bulb.
23 The greatest transverse diameter of the bulb.
24 25 26. The membrana cornea. 24 24 The dissected surface of the cornea which shews its true thickness, convexity, and manner of cohesion with the sclerotica. 25 26, 26 The space between the cornea and the lens, which is divided into the anterior chamber 25, and the posterior chamber 26 26.
24 *t* and 24 *r* A double groove between the cornea and sclerotica.
27 28 29 The sclerotic membrane of the bulb. 27 The anterior extremity of the sclerotica, which passes into the cornea and has a double groove within, on which the gangliform ring of the choroid coat rests firmly; 28 a very thin portion of the sclerotica covered with the tendons of the recti muscles.
30 The pigmentum nigrum between the choroid and sclerotic coats.
31 37 The choroid membrane. 32 33 The gangliform ring of the choroid membrane, which principally adheres to the sclerotica. 32 The basis, or thick part of the ring, which is terminated towards the cavity of the cornea by a round ending. 33 The top of the ring. 34 35 The corpus ciliare. 34 The anterior or thickish extremity of the fold. 35 The posterior extremity of the same fold, gradually becoming thinner towards its termination.
34 39 39 Part of the choroid membrane not covered by the retina, which shines through the vitreous humour.
39 46 39 A part of the choroid which in adults is generally more shining.
36 37 The iris 36 36. The margin to which the iris is affixed and appears like a continuation of the ring and ciliary body.
37 26 26 37 The pupillary margin of the iris, which forms half the pupil of the iris.
38 Pigmentum nigrum between the choroid and retina.
39 40 41 The membrana retina. 39 39 The anterior extremity of the retina expressed by the line 39 46 39 40 The medullary substance of the retina. 41 The choroid, in which the medullary substance is in a manner inlaid.
39 41 23 22 46 39 The internal surface of the retina which shines through the vitreous humour.
42 46 The lens. 43 43 The long diameter of the lens. 44 45 The short diameter. 42 44 43 The anterior convexity. 42 45 43 The posterior. 46 26 The capsule of the lens.
34 42 The distance of the lens from the ciliary body.

VIEWS OF THE EYE.—NUMBER II.

Fig. 3.

The left organ of sight, being a side view taken from a perpendicular section, the eyelids being shut.

A Q The bony orbit.

A H The superior wall of the orbit.

A B The left surface of this wall which looks towards the orbit.

C C G H The convex surface of it, opposite to the brain, whose depressions and eminences answer to the convolutions of the anterior lobe of the brain lodged upon it.

A D E F The frontal part of the os frontis.

C C G The orbital part of the same bone.

E E Medullary cells of the frontal part.

F The left frontal sinus.

F F Medullary cells of the orbital part.

G The suture between the os frontis, and the greater wing of the sphenoid bone.

G B H The part of the superior or lesser wing of the sphenoid bone which forms the roof of the canal for the optic nerve.

Q M The lower wall of the orbit.

I I The maxilla superior.

K L The orbital fissure, or foramen lacerum in basi cranii filled with tendinous fibres, fat, vessels, and nerves.

M The part of the superior or lesser wing of the sphenoid bone which forms the floor of the canal for the optic nerve.

L The periosteum.

B H M The canal in the lesser wing of the sphenoid bone, for the optic nerve.

N The periosteum of the os frontis.

O Continuation of the periosteum of this bone, towards the upper eyelid into an arch almost tendinous.

P The periosteum of the maxillary bone.

Q Continuation of the periosteum of this superior maxillary bone, towards the lower eyelid, into an arch almost tendinous.

* * The axis of the cone of the orbit.

R V The membrana dura of the brain, which lines the insides of the os frontis and sphenoid bone.

R The external lamina of the dura mater.

S The internal lamina of the dura mater.

T U V The place where the dura mater adheres;

T Partly with the periorbita;

U Partly with the sheath of the optic nerve;

V Partly with the cellular membrane of the tendon of the levator palpebræ superioris (1), and of the musculus rectus superior (4).

W Z The forehead.

W The thickness of the skin in the forehead.

X The fat between the skin and occipito-frontalis muscle.

Y The frontal muscle.

Z The fat between the frontal muscle, and the periosteum.

a d The eyebrow.

a The corrugator supercilii.

b The mouth of the frontal vein.

c The mouth of the frontal artery.

d The hairs of the eyebrow.

e w The upper eyelid.

e The thin skin of the forehead.

f The fat before the sphincter palpebrarum which gradually disappears towards the margin.

g The sphincter palpebrarum.

h The fat behind the sphincter palpebrarum, which also gradually disappears towards the margin.

i The tendon of the levator palpebræ superioris.

k A thin cellular texture between this tendon and the membrana conjunctiva.

l The cartilage of the upper eyelid.

m Vestiges of the sebaceous follicles.

r r s t The membrana conjunctiva of the upper eyelid,

r r where it lines the cartilage and sebaceous glands;

r s where it is affixed to the tendon by a thin cellular web;

r k s t where it is reflected on itself;

s s t where it lines the sclerotic membrane of the bulb.

y r 24 *s* The superior bursa of the membrana conjunctiva, (*k*), the space between its two laminæ, of which one covers the bulb, the other the upper eyelid: thiss pace is represented by a thickish black line, because the laminæ themselves touch each other.

o p q The edge of the upper lid.

o The internal thinner lip of this edge.

p The external thicker lip of it.

q The place where the cuticle of the face passes into the membrana conjunctiva of the upper lid.

u The upper eyelash.

n The mouth of the coronary artery of the upper lid.

a q The lower eyelid.

a The thickness of the skin of the cheek which passes into the tender skin of the lower lid.

b The fat before the sphincter palpebrarum.

c The sphincter palpebrarum.

d The fat behind the sphincter palpebrarum.

g e The cartilage of the lower lid. A rough line shews the remains of the fatty glands.

The outer margin of the lower lid.

f The external and thicker lip of this margin.

g The internal and thinner lip of the same.

h The furrow between these lips.

f g The place where the cuticle of the face passes into the conjunctiva of the upper lid.

y A triangular furrow between each lid and the conjunctiva.

k l m n The membrana conjunctiva of the lower lid,

g k where it lines the cartilage and sebaceous glands;

k l Where it adheres to the lower part of the sphincter palpebrarum by means of cellular membrane;

Views of the internal Parts of the Ear.

Fig. 1.

Fig. 2.

Fig. 3.

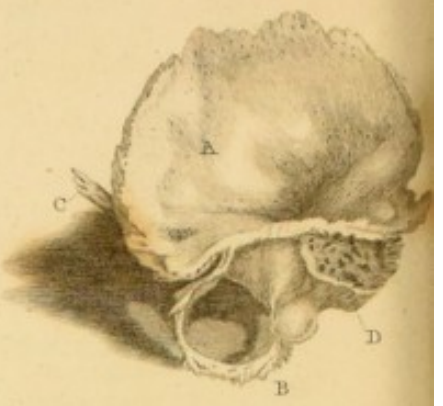
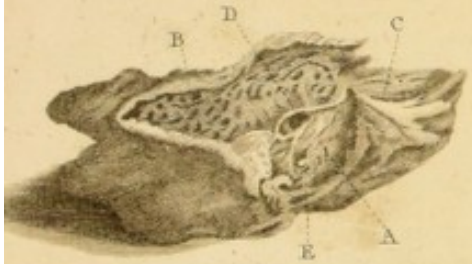


Fig. 4.



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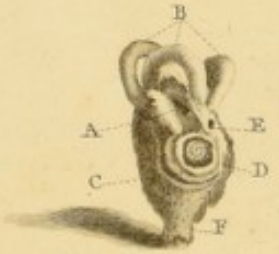


Fig. 6.

Fig. 7.

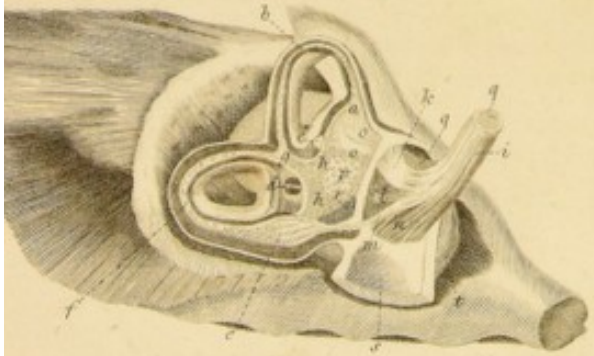
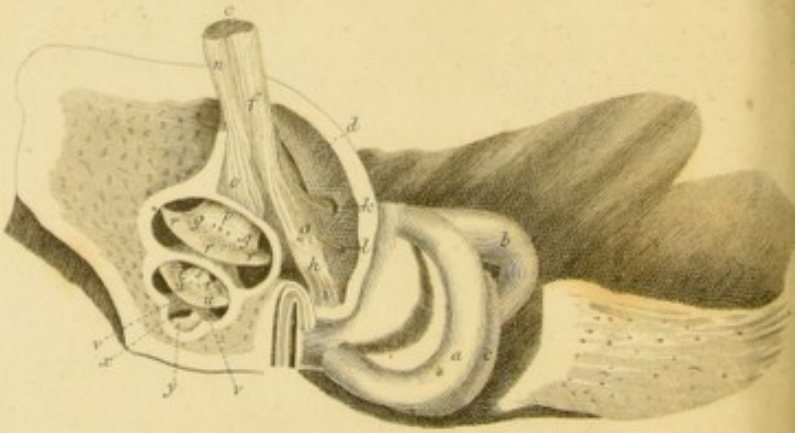


Fig. 8.



Published for Longman & Rees. Feb.ry 1.1803.

Joseph Shelton

DESCRIPTION OF THE INTERNAL PARTS OF THE EAR.

In this Plate the Anatomy of the Bones of the Human Ear is explained.

FIG. 1.

We have here the bones which form the chain betwixt the membrane of the tympanum and the membrane of the foramen ovale.

A The malleus.
B The incus.
C The stapes.
D The os orbiculare which forms the articulation betwixt the incus and stapes.

FIG. 2.

In this figure we have a view of the inside of the temporal bone, the petrous portion being broken away: we see the cavity of the tympanum, the membrane of the tympanum, and the chain of bones.

A The groove for the lodgement of the lateral sinus.
B The hole in the sphenoid bone for the passage of the artery of the dura mater.
C The petrous portion of the temporal bone.
D The irregular cavity of the tympanum laid open, by the breaking off of the petrous part of the temporal bone.
E The membrane of the tympanum closing the bottom of the meatus auditorius externus.
F The malleus, the long handle of which is seen to be attached to the membrane of the tympanum E.
G The incus, united to the great head of the malleus F.
H The stapes, which is seen to be articulated with the long extremity of the incus through the intervention of the os orbiculare.

FIG. 3 and 4.

Show the division of the temporal bone into the squamous and petrous portions.

FIG. 3.

A The squamous part of the temporal bone.
B The circular ring, which forms the meatus auditorius externus in the child.
C The zigomatic process.
D Cells, which afterwards enlarge into those of the mastoid process.

FIG. 4.

The petrous portion of the bone, with a view of the tympanum.

A The cavity of the tympanum.
B Mastoid cells.
C Eustachian tube.
D The foramen ovale, into which the stapes (see fig. 1. C. and fig. 2. H.) is lodged.
E The more irregular opening of the foramen rotundum.

FIG. 5.

Represents the labyrinth of the human ear, with the solid bone which surrounds it cut away.

A The foramen ovale.
B The three semicircular canals.
C The scala vestibuli.
D The cochlea.
E The tube, which conducts the portio dura of the seventh pair through the temporal bone.
F The anterior part of the petrous portion of the temporal bone.

FIG. 6.

Explains the manner in which the lamina spiralis divides the cochlea into two scalæ, and the opening of the one scala into the common cavity of the vestibule, and the termination of the other in the foramen rotundum.

A The bone broken, so as to show the cavity of the tympanum.
B The foramen ovale.
C Cellular structure of the bone.
D The foramen rotundum.
E One of the scalæ of the cochlea, which is seen to terminate in the foramen rotundum.
F The other scala, which is seen to communicate with the vestibule.

These two figures are taken from the beautiful plates of Professor Scarpa, and illustrate the soft parts contained within the osseous labyrinth, and the distribution of the nerves.

FIG. 7.

There is seen the membranous semicircular canals, their common belly, and the distribution of the acustic or auditory nerve.

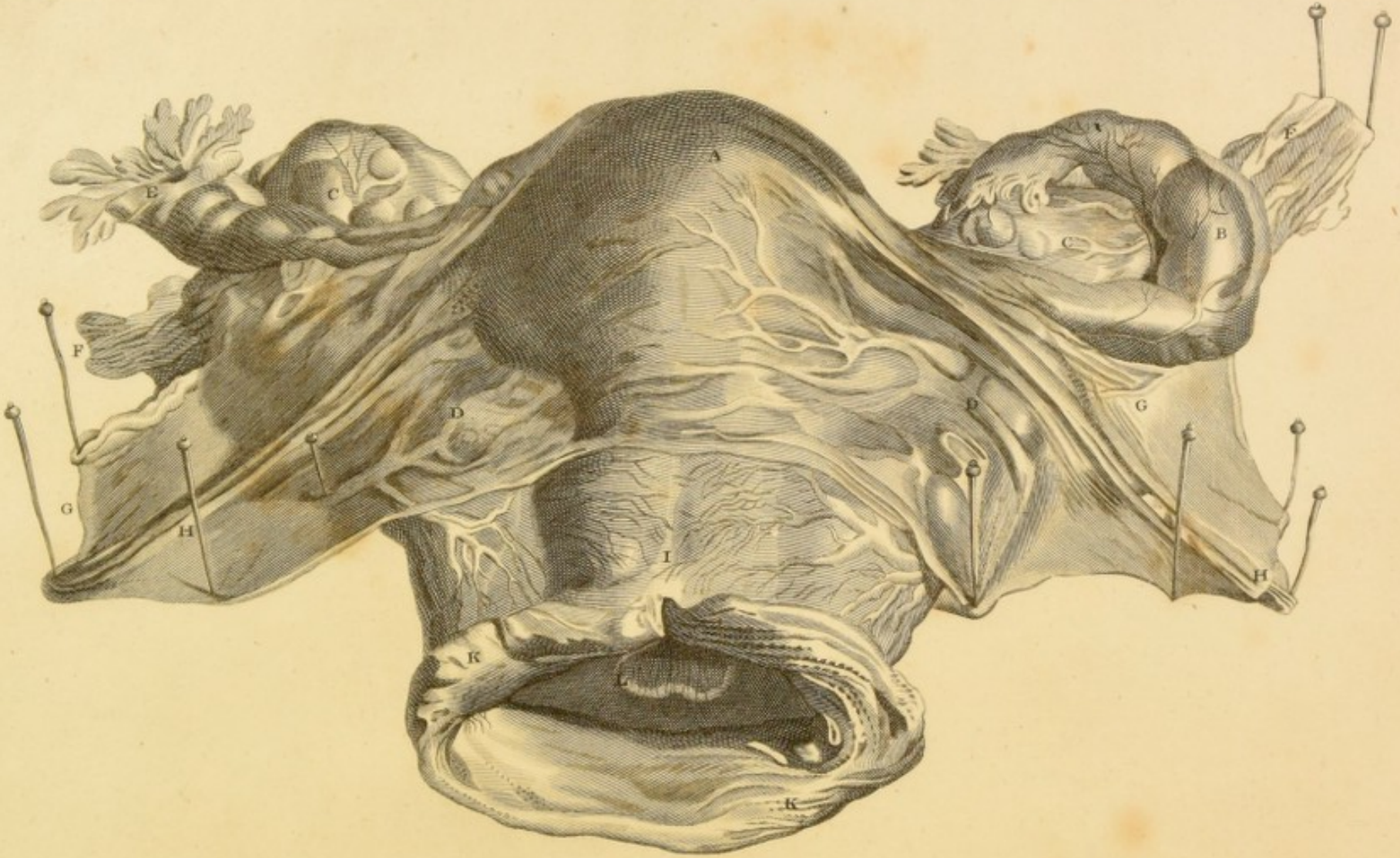
a The ampulla of the superior membranous semicircular canal.
b The superior membranous semicircular canal.
c The ampulla of the external membranous canal.
d The other extremity of the external canal.
e The ampulla of the posterior membranous semicircular canal.
f The posterior semicircular canal.
g The common canal of the superior and posterior canal.
h.h The sac common to the membranous semicircular canals, viz. the alveus communis.
i The body or trunk of the acustic nerve.
k The larger branch of the nerve.
l A filament of the nerve to the sacculus vestibuli.
m The lesser branch of the acustic nerve.
n A filament of the cochlea.
o.o Filaments of the larger branch of the acustic nerve to the ampullæ of the superior and exterior semicircular canals.
p The expansion of the nerve on the common alveus.
q.q Nervus communicans faciei. or portio dura.
r The beginning of the spiral lamina of the cochlea.
s The osseous canal of the nerve, which forms part of the foramen auditorius internus.
t The cochlea.

FIG. 8.

The distribution of the nerve in the cochlea seen by a section of the internal auditory canal and cochlea.

a The superior osseous semicircular canal.
b The posterior osseous semicircular canal.
c The external osseous semicircular canal.
d The bottom of the great foramen auditorius internus.
e The trunk of the great acustic nerve.
f The anterior fasciculus of the acustic nerve.
g A plexiform twisting in the anterior fasciculus of the nerve.
h A gangliform swelling of the nerve.
i The greater branch of the anterior fasciculus.
k The lesser branch.
l A filament of the anterior fasciculus to the hemispherical vesicle of the vestibule.
m A branch to the beginning of the lamina spiralis.
n The posterior fasciculus of the acustic nerve.
o The filaments about to enter the tractus spiralis foraminulosus.
p These nerves seen upon the modiolus.
q.q The filaments of the nerve passing forward betwixt the two planes of the lamina spiralis.
r.r Their termination on the soft part of the lamina spiralis.
s The nerves expanded on the second gyrus of the modiolus.
t.t.u.u Their further distribution on the lamina spiralis.
v.v The infundibulum.
x.y The last turn and termination of the lamina spiralis in the infundibulum.

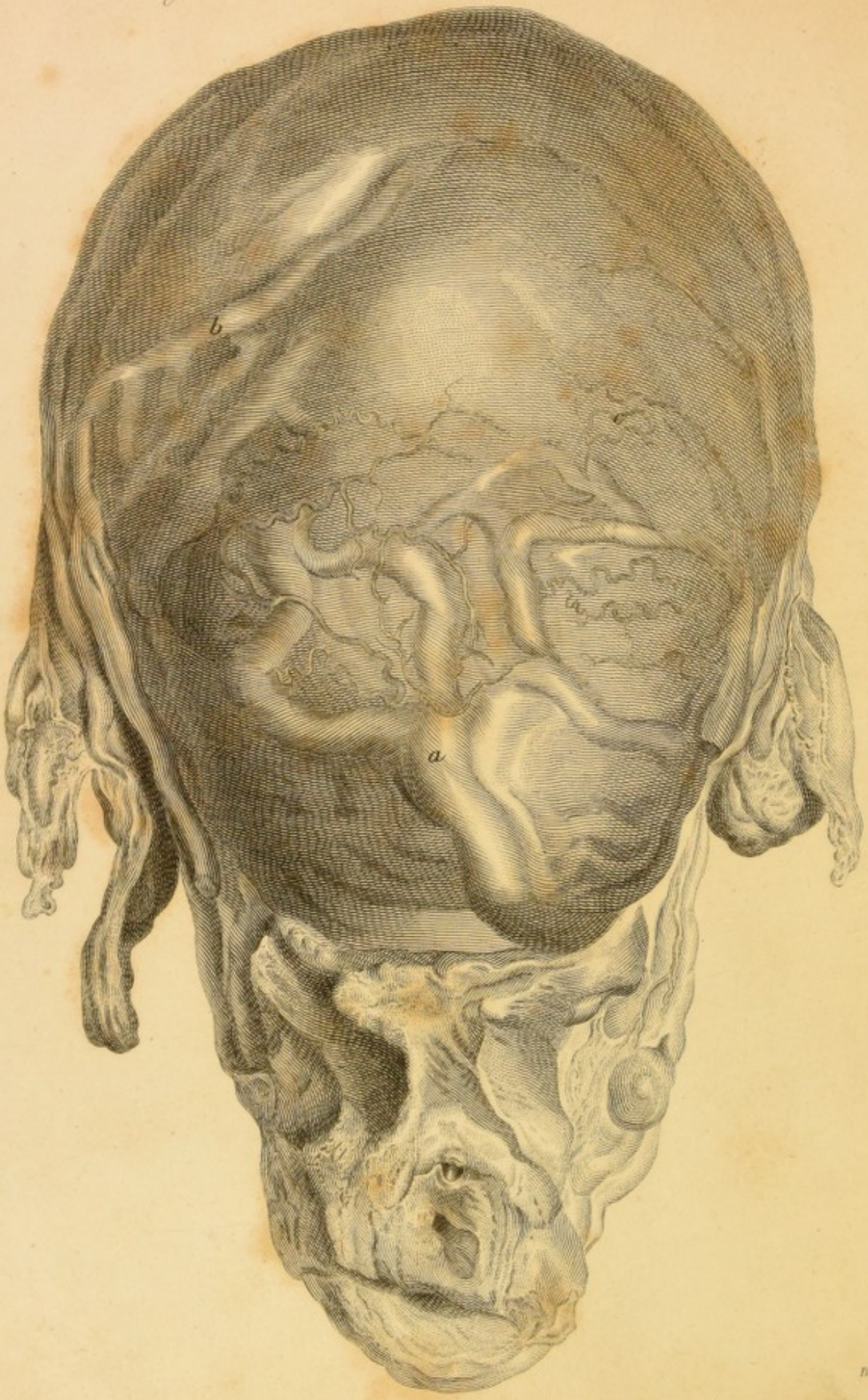
View of the Uterus.



VIEW OF THE UTERUS.

A Fundus uteri.
B Left Fallopian tube with its foliated expansion.
C The ovaria.
D Blood-vessels.
E Right Fallopian tube.
F Blood-vessels of the ovaria.
G The broad ligaments of the uterus.
H The round ligaments.
I The neck of the uterus.
K The vagina.
L The mouth of the uterus.

Gravid uterus at the full period



Basire Sc.

London. Published by J. Johnson March 1 1788

GRAVID UTERUS AT THE FULL PERIOD.

a The great veins of the womb, to which, internally, the placenta was attached.

b Other large veins leading to the same part.

c Uterine arteries, to the left of which, in the centre of the tumour, is the part opposite the navel of the mother.

The os pubis, on each side, is cut through, near its union with the os ilium, and a small branch of each ischium divided, near its conjunction with the os pubis. By this means, the whole contents of the pelvis are seen. The meatus urinarius is very conspicuous. Immediately below it is the beginning of the vagina, and below the transverse shaded line is the inner stratum of the sphincter ani. The round ligaments, the ovaria, the Fallopian tubes, and the group of spermatic vessels approaching, on each side, the womb, need not be particularly pointed out.

The Situation of the Fœtus in utero

Basire Sc.

London. Published by J. Johnson. March 1. 1806.

THE SITUATION OF THE FŒTUS IN UTERO.

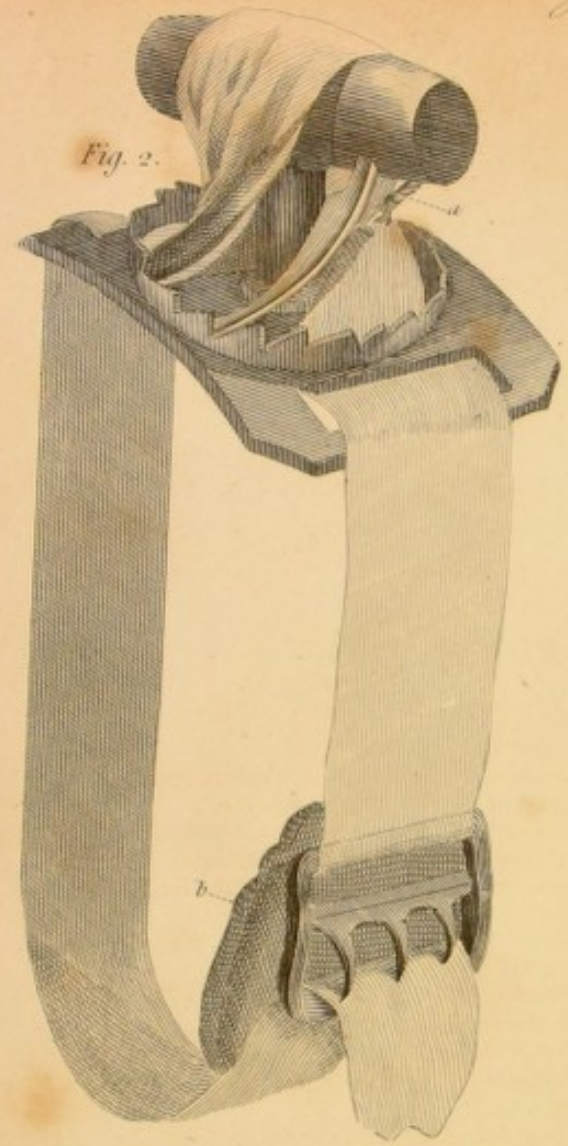
a The fundus uteri.
b The membranes cut through.
c The intestines pushed by the distending uterus, on one side.

On each side of the uterus, at the greatest distance from it, are the Fallopian tubes. The projecting body nearest the uterus, on the left side, is the lef ovary, and the tumour, on its lower part, the corpu luteum. Between *b* and *d* the lobulated appearance of the placenta may be observed. The letters were omitted to prevent disfiguring the plate.

Surgical Instruments.

Tourniquets.

Fig. 2.



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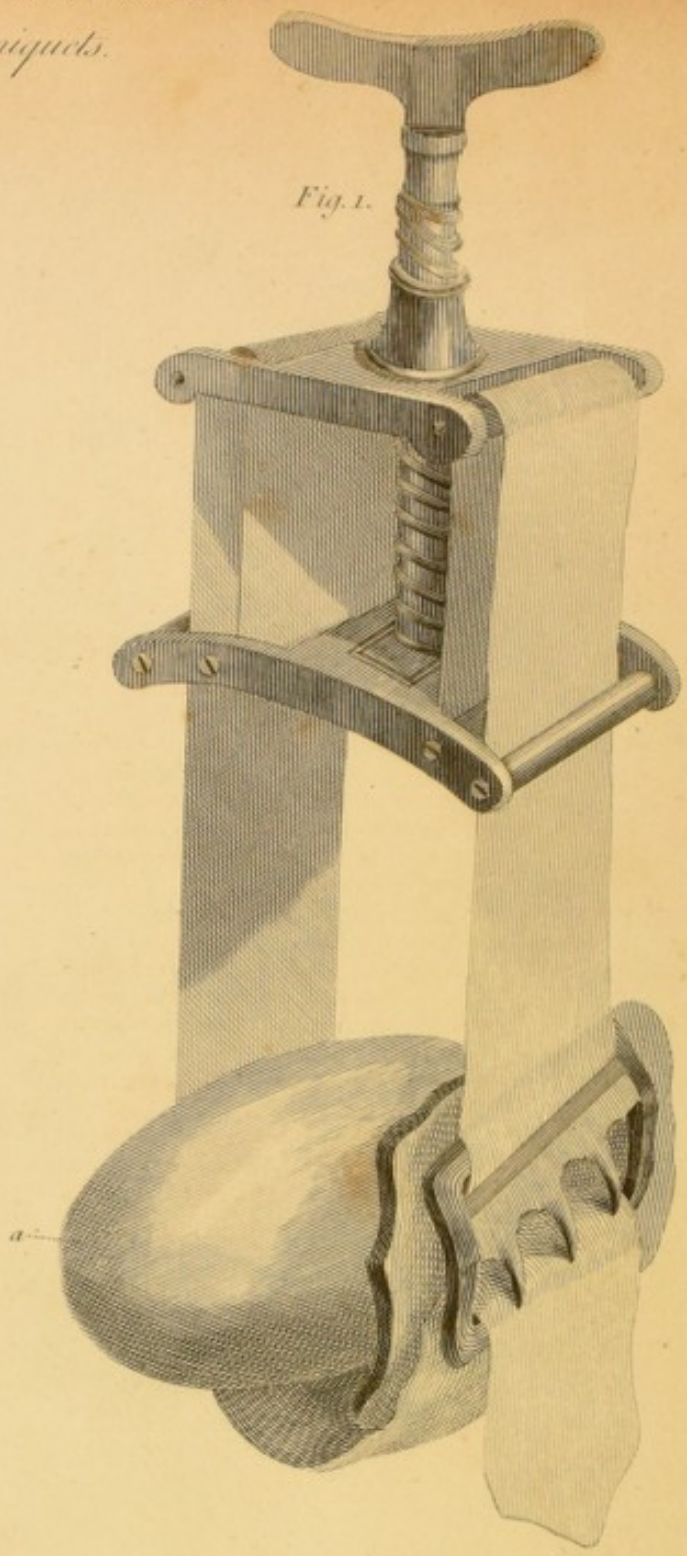

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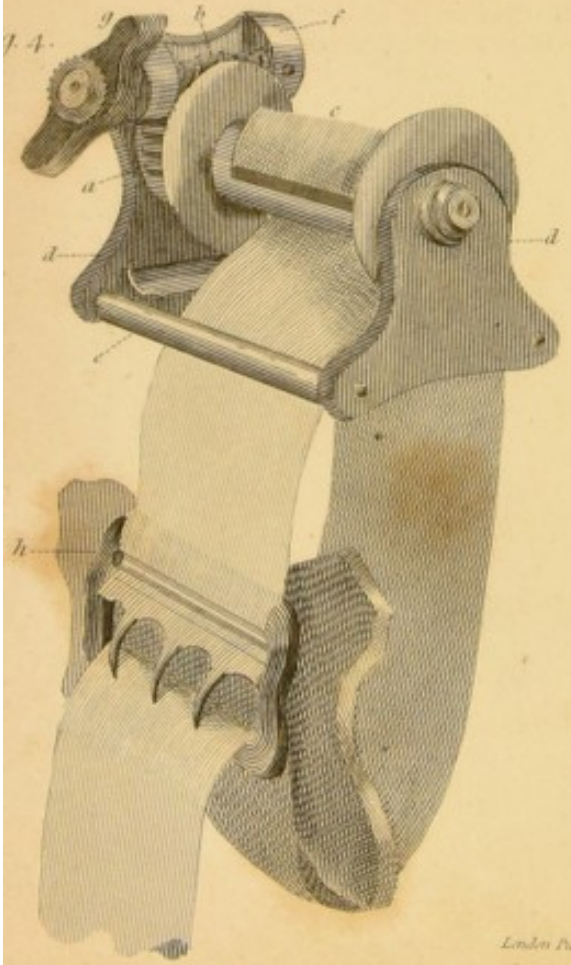
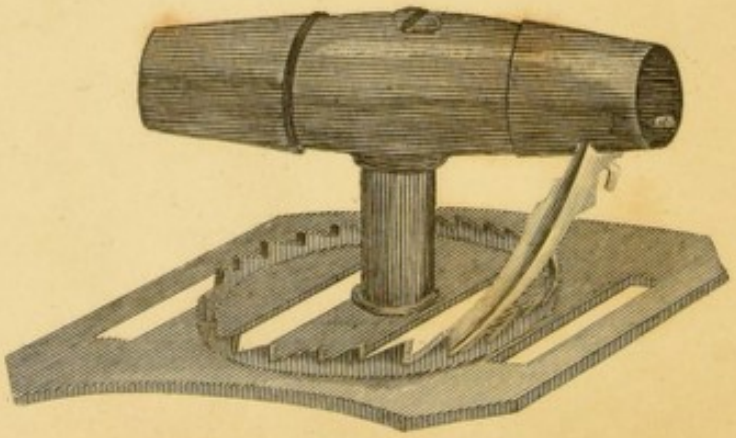


Fig. 3.



London Published by J. Johnson March 1.1803.

SURGICAL INSTRUMENTS.—PLATE I.

Fig. 1. The tourniquet, originally invented by Petit, and improved by Freake. It has wholly superseded the use of the old instrument, which requires constantly the hand of an assistant. The pressure, in this, is secured by the screw, and it is made of brass.

a The cushion which presses on the artery.

2. Savigny's field tourniquet.

a A small spiral spring, fixed to one extremity of the handle, connected, at the other, to the catch, which it keeps constantly on a circular ratch, on the top of a flat piece of brass, to be applied immediately on the limb, retaining the bandage to any given stricture.

b The compress, which is made of cork covered with leather. This instrument differs only from the old one in the ratch, which supplies the necessity of an assistant.

3. The upper part separate.

Fig. 4, *Rymer's* sea tourniquet.

a A dented wheel, attached to the roller, receiving motion from the endless screw *b*.

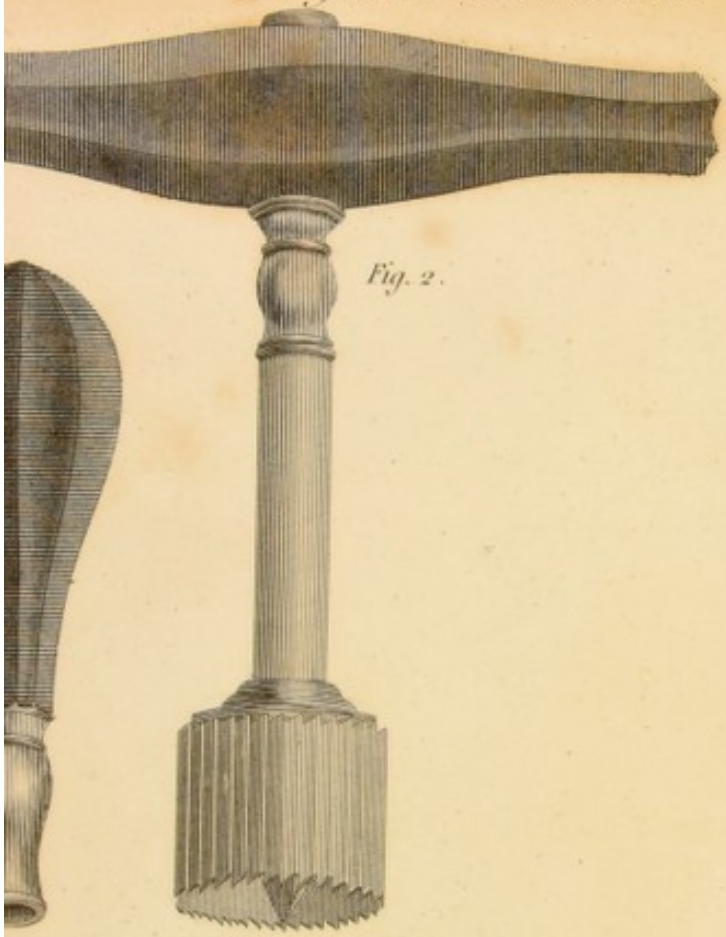
c The roller, to which the bandage is attached by passing through an opening in its centre, and by whose motion the stricture on the limb is increased as the bandage passes round it.

d d The frame of the instrument, with a strong bottom cast together in brass.

e A small roller, between which and the bottom of the frame the bandage passes. There is another on the opposite side, and these add to the power of the instrument by acting as pulleys.

f g Two strong cheeks, fixed to the inside of the frame, to receive the two ends of the screw.

h A piece of leather sewed on the bandage, under the buckle, to prevent laceration.



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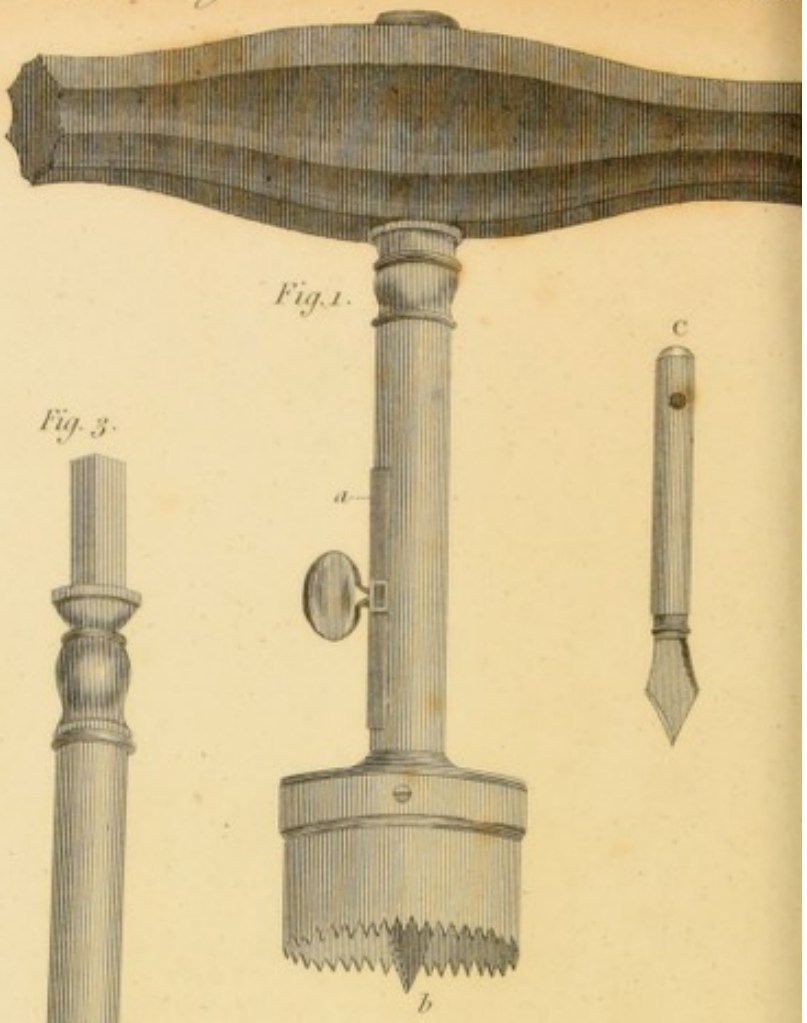


Fig. 1.

Fig. 3.

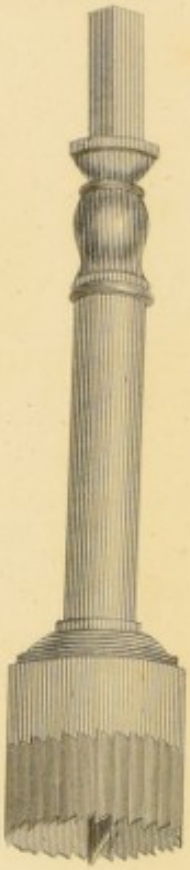
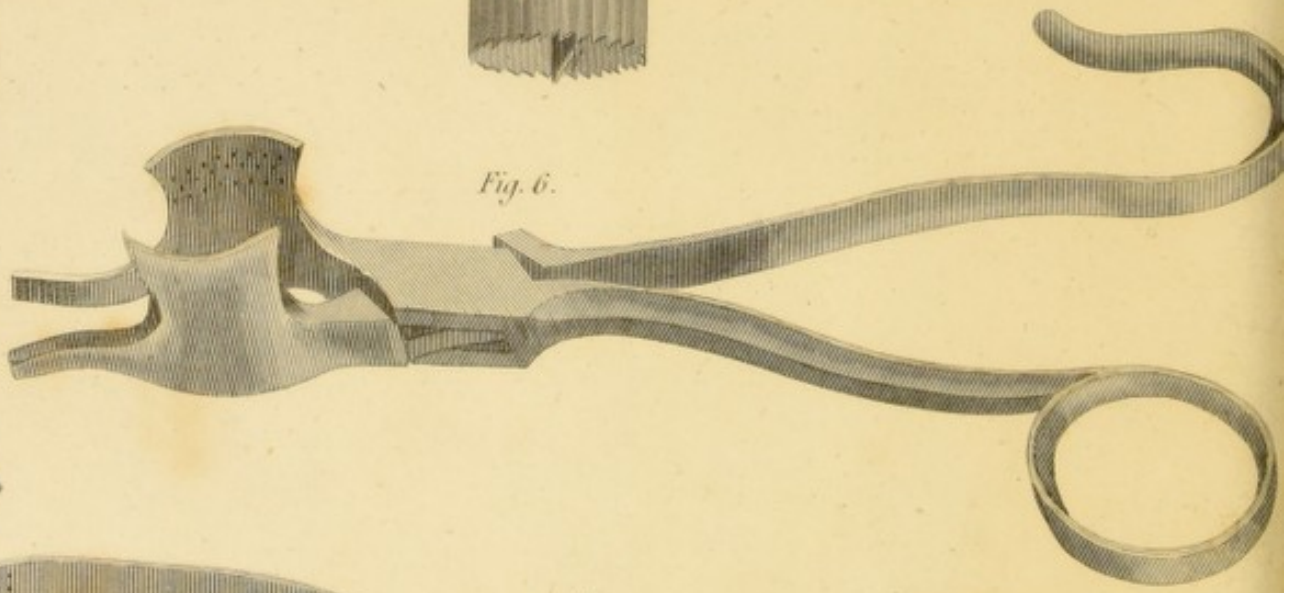


Fig. 4.



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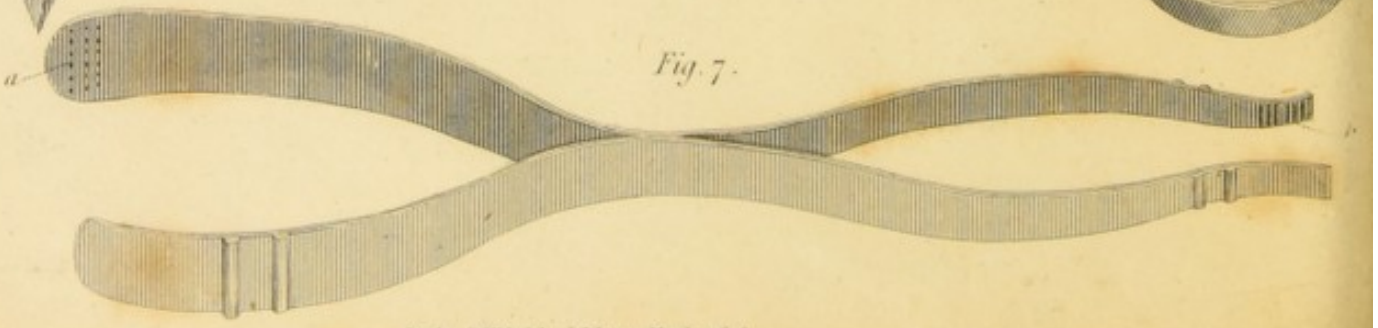


Fig. 7.

London Published by J. Johnson. March 1.1808.

SURGICAL INSTRUMENTS.—PLATE II.

Fig. 1. The trephine, the modern instrument, which has superseded the trepan. It is divested of its lateral teeth, by which it works more easily and expeditiously; and from the perpendicular situation of the teeth, they act whether it moves forward or backward.

a A spring plate of steel confining or regulating the centre pin, which may be removed when the instrument is fixed.

b The point of the centre pin, at its extreme projection.

c The centre pin separate, the form of its point precluding the use of a perforator.

Fig. 2. A trephine of the old construction.

3. A smaller trephine, with the lateral teeth differently formed.

4. The perforator, necessary in the old trephine, which is sometimes preferred.

5. The key.

6. Forceps for extracting the circular piece of bone or any ragged edges.

7. Spring forceps for the same purpose.

a The larger extremity.

b The smaller extremity.

Surgical Instruments. Trepanning continued, with Hawkins' Cutting Gorget.

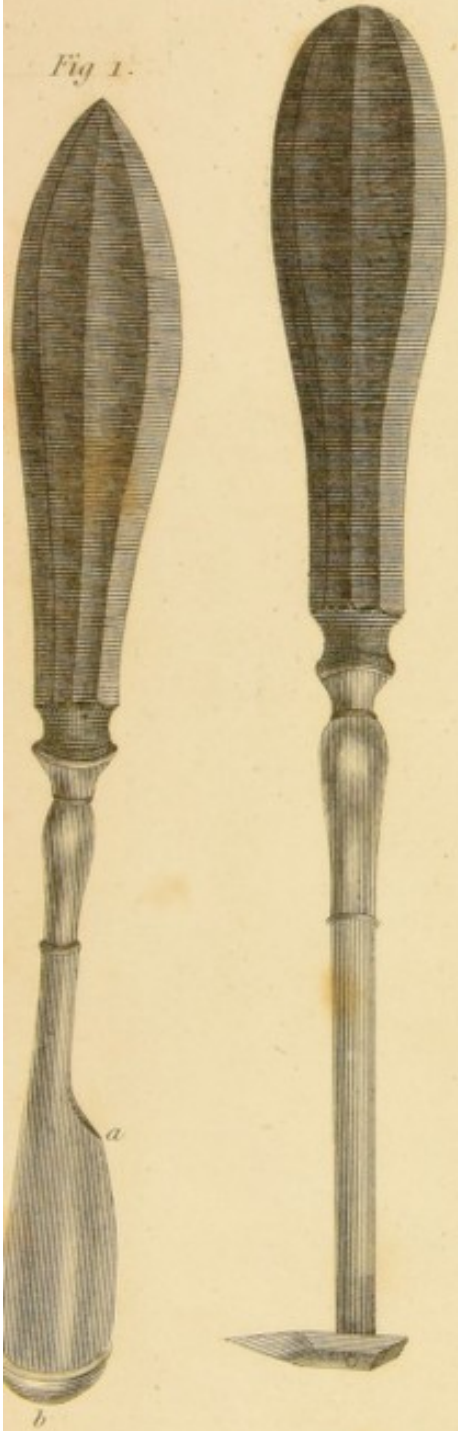
Fig. 3.

Fig. 5.

Fig. 6.

Fig 2.

Fig 1.



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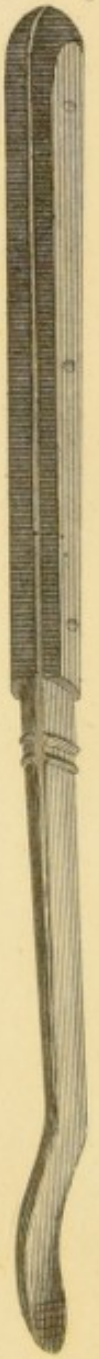

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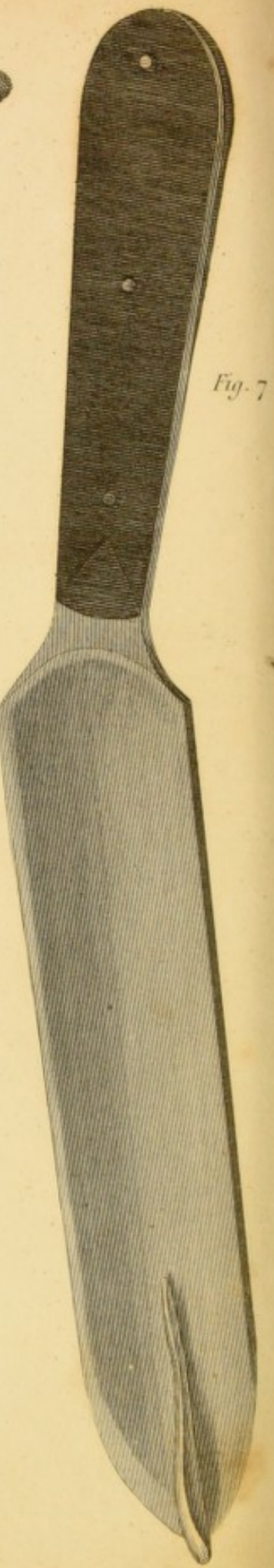
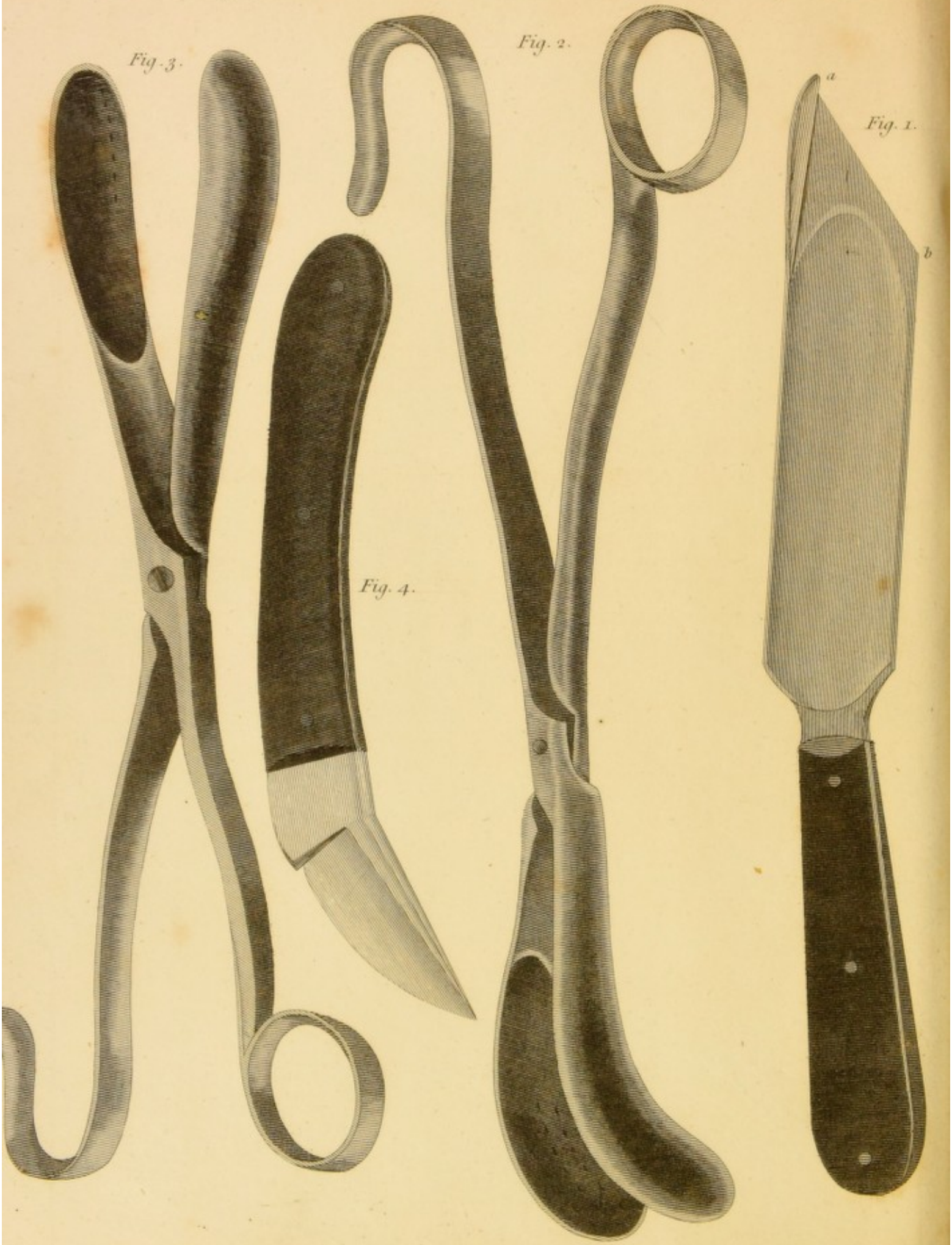


London, Published by J. Johnson, March 1.1788.

SURGICAL INSTRUMENTS.—PLATE III.

ig. 1. The LENTICULAR, to remove the ragged edges left by the trephine.
a The edge.
b The shallow cup, intended to receive the scrapings.
2. The RASPATORY, used for the same purpose, and sometimes employed to promote exfoliation.
3. A front view of the head of the same instrument.
Fig. 4. An elevator.
5. A stand for the ELEVATOR, which acts as the fulcrum of a lever.
6. An improved elevator, whose circular groove enables the operator to vary the power.
7. HAWKINS' CUTTING GORGET. The concavity of this instrument is diminished, its right and cutting side broader and flatter, to render the incision more lateral.

Surgical Instruments. Lithotomy.



Cooper Sc.

London Published by J. Johnson, March 1.1805.

SURGICAL INSTRUMENTS.—PLATE IV.

Fig. 1. M. CLINES' CUTTING GORGET, very generally used.

a The beak forming an elliptical arch to prevent the necessity of the operator lowering his hand.

b The cutting edge forming an angle with the beak.

Fig. 2. *Curved forceps.*

3. *Strait forceps.*

4. Mr. John Hunter's *scalpel.*

Surgical Instruments.

London Published by J. Johnson Manchester.

PLATE V.—*(The number omitted on the Plate.)*

SURGICAL INSTRUMENTS.—BELLOWS, &c.

Fig. 1. The bellows, with the flexible tube annexed, for throwing up the smoke of tobacco into the rectum, chiefly employed in resuscitation, but which may be useful in cases of hernia.

a The brass box containing the lighted tobacco, the smoke of which is impelled by the bellows.

b The nozzle of the bellows, with a grating to prevent the sparks from passing into the rectum.

2. An instrument for inflating the lungs.

a The extremity, to receive the wooden mouth-piece (*b*), if the breath of a healthy person be employed. To the other extremity (*c*) may be applied the pipe (*d*), which fills up one nostril, or the extremity (*a*) of the silver tube (Fig. 3.), which passes beyond the glottis.

Fig. 4. A larger tube for the same purpose, supposed to be more convenient.

5. and 6. Two ivory pipes for the rectum, to be attached to the extremity of Fig. 1.

Surgical Instruments.

Fig. 1.

Fig. 3.

Fig. 4.

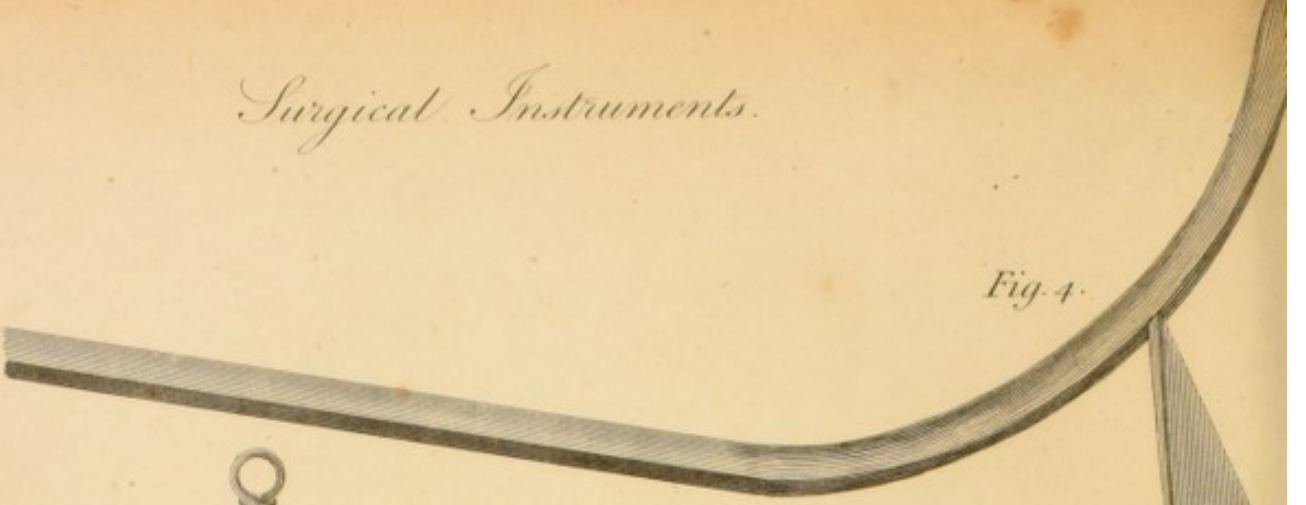
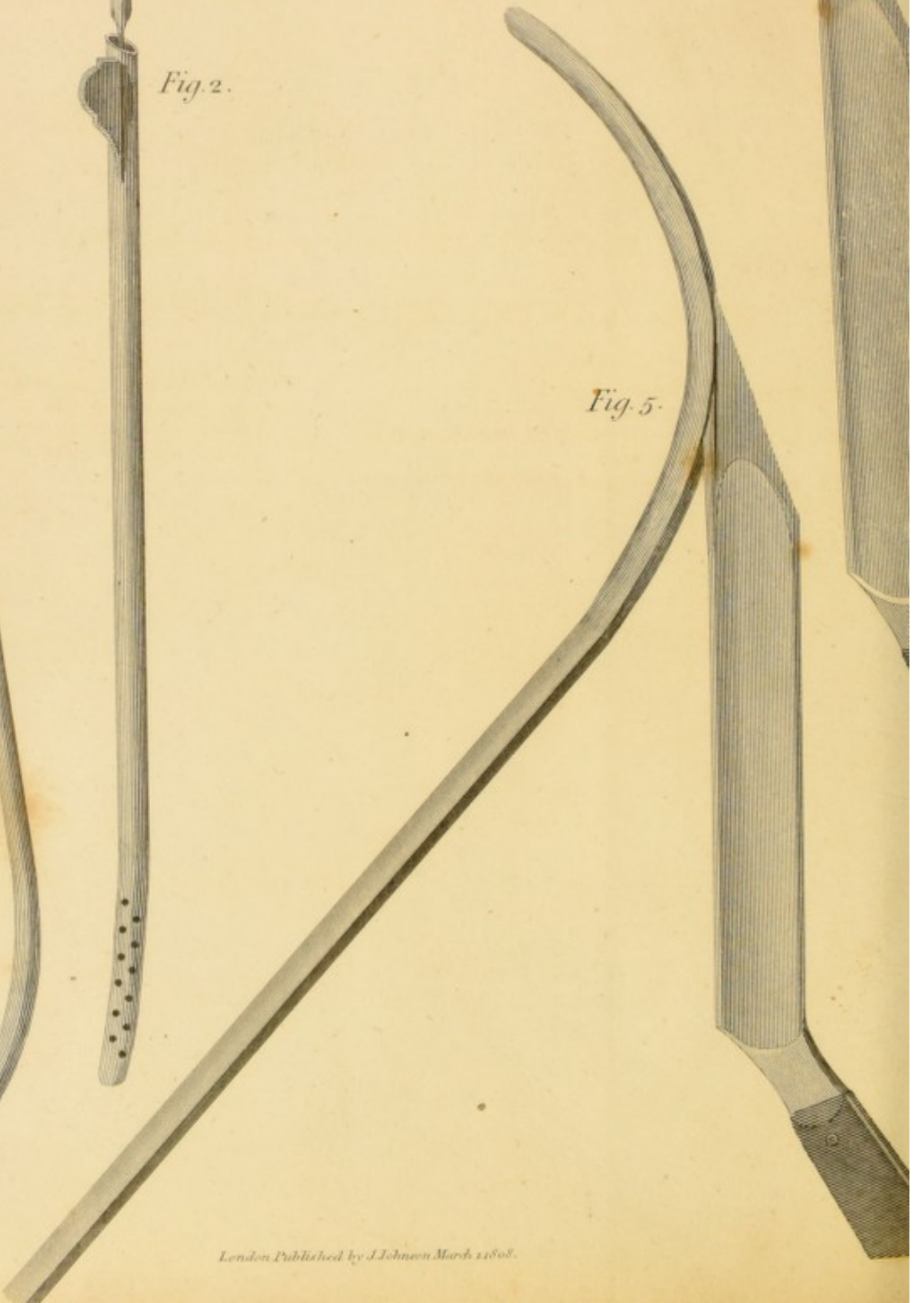


Fig. 2.

Fig. 5.



London Published by J. Johnson March 1808.

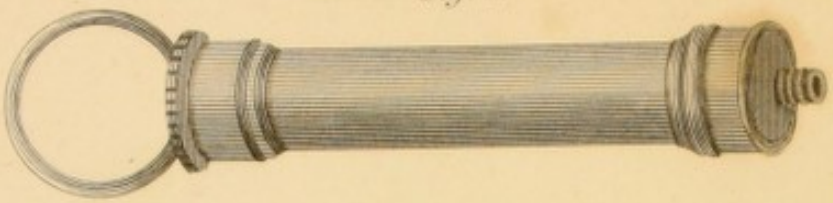
PLATE VI.—*(The number omitted on the Plate.)*

SURGICAL INSTRUMENTS.—CUTTING GORGETS, &c.

Fig. 1. Canula for males.
2. Canula for females.
3. Mr. Hunter's instrument for introducing caustic into the urethra.
4. and 5. The cutting gorgets on the old and new construction. In the former, it appears that the flat side is opposed to the part to be divided rather than its edge, and the wound is very often a lacerated one.

Surgical Instruments.

Fig. 1.



ig. 2.

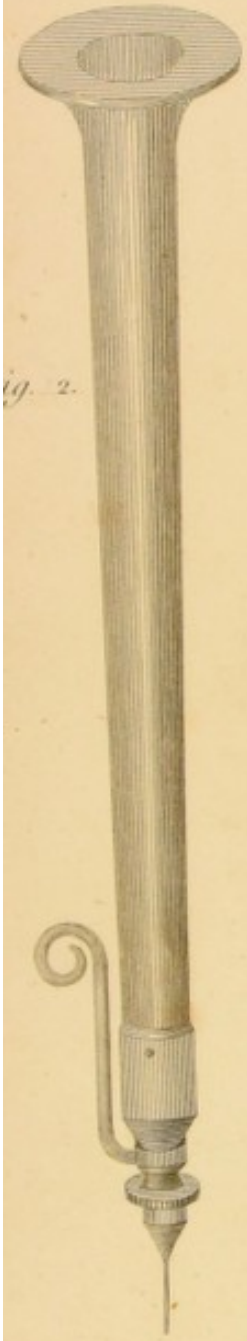


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PLATE VII.—*(The number omitted on the Plate.)*

SURGICAL INSTRUMENTS.—SYRINGE, &c.

Instruments for the Fistula, Lachrymali, &c.

Fig. 1. A silver syringe (Anell's) for injecting fluids through the puncta into the sac.

a A very fine strait gold tube screwed to the inferior extremity.

b A curved tube, which is often more convenient.

c A conical end to be fixed to the syringe, for the injection of pure water through the lead tubes after their introduction into the duct, to ascertain the propriety of their situation.

2. A glass tube with a stop cock and a very fine steel pipe for injecting quicksilver.

3. 4. 5. The lead tubes of Mr. Wathen, introduced to form an artificial channel for the tears. They have a longitudinal opening on one side of the thickest extremity, and on the opposite (fig. 4.) a small hole through which the thread passes which fixes them to the styles. The superior extremity of the head should be concave, somewhat like a funnel.

6. 7. 8. Three silver probes, whose bulbous ends are of the same diameter as the heads of the respective tubes, so that by introducing one of these into the duct, the proper size of the tube may be determined.

9. The screw style with one of the tubes attached to it.

10. The style separated from the tube, to show its construction. The portion, formed as a screw, is furnished with a nut, which adjusts its length exactly to that of the tube, and which, resting on the head of the tube, resists its introduction. When this is accomplished, the style and tube are separated, by cutting the thread, withdrawing the style, and leaving the tube in its place.

11. A small blunt hook for extracting the tube.

Surgical Instruments.

Fig. 1.

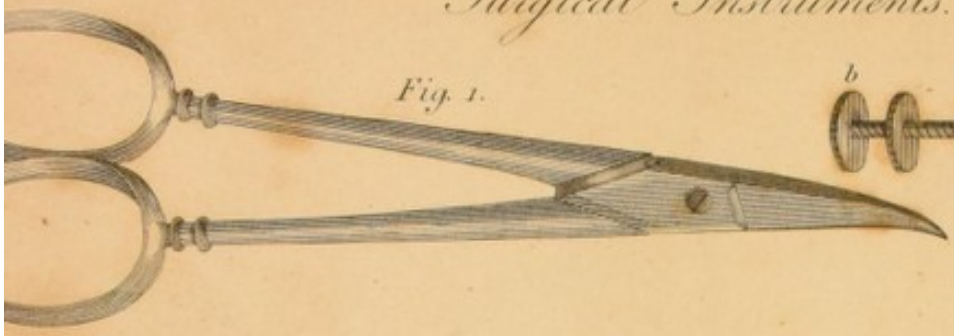
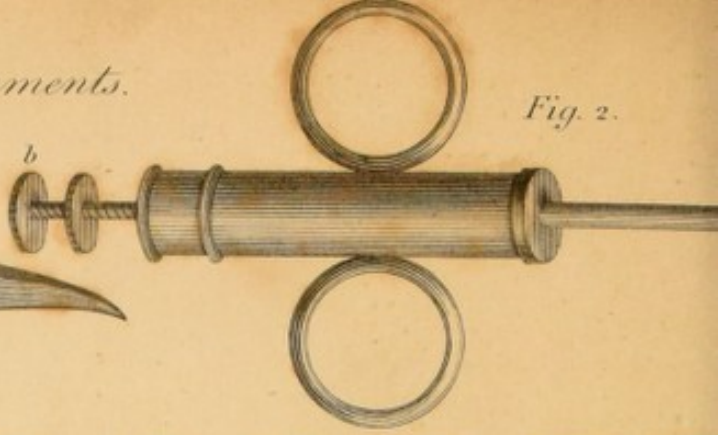


Fig. 2.



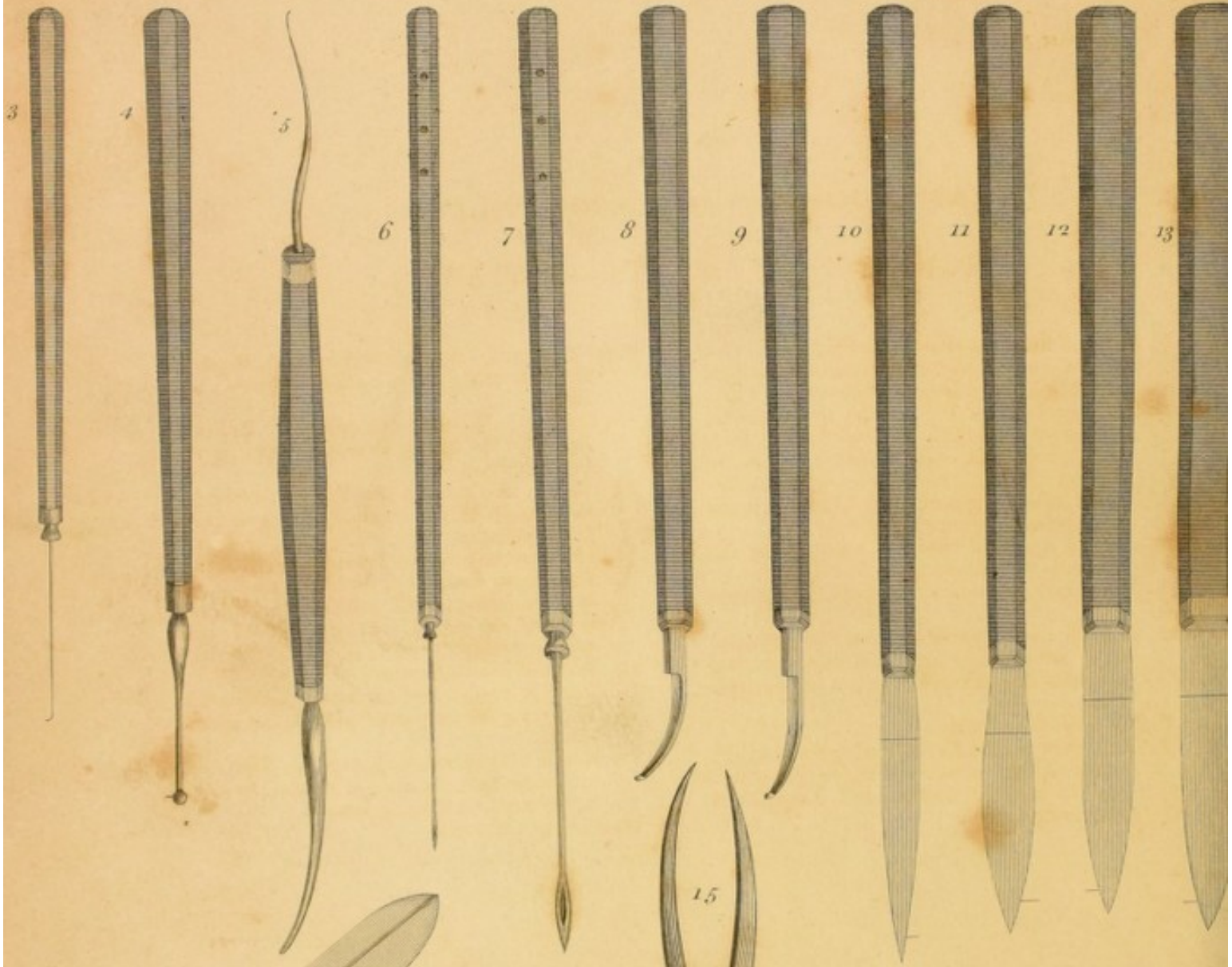


Fig. 16.

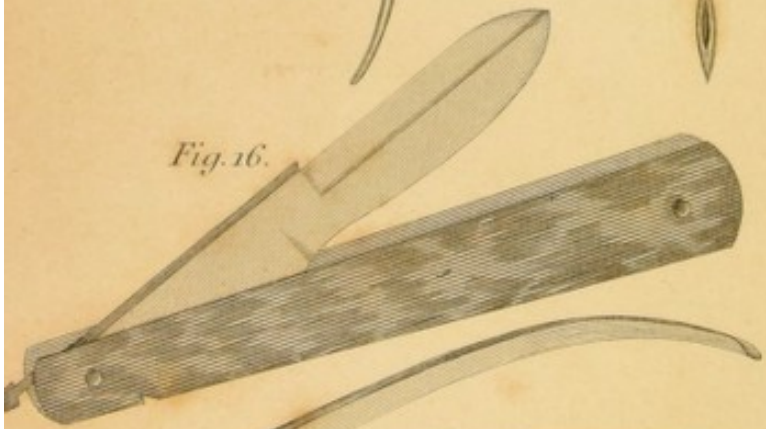


Fig. 14.

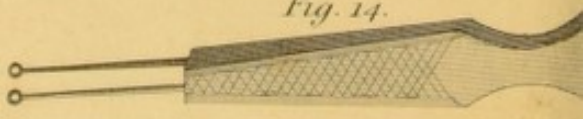


Fig. 17.

Fig. 18.

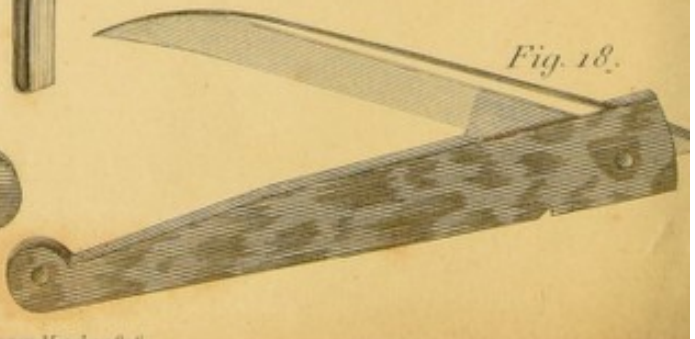


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PLATE VIII.—*(The number omitted on the Plate.)*

SURGICAL INSTRUMENTS.—SCISSARS, &c.

Fig. 1. A pair of thin scissars with short blades, rounded points, curved slightly on their flat surfaces for enlarging the section of the cornea, &c.

2. The cystotome of La Fayette, for wounding the capsule, which is very convenient, since, from its concealment, it cannot injure the adjacent parts. The lancet *a* is pressed forward by pressing the button *b*, and retracted by means of a spiral spring.

3. A small fine steel hook for assisting the extraction of the capsule.

4. Mr. Cline's instrument for scratching the capsule.

5. A small curved needle for scratching the capsule, and at the other end the silver curette for extracting the small remains of the crystaline.

6. Mr. Pearson's needle.

7. Mr. Earl's needle for depressing the cataract, convex on one surface and flat on the other: on the latter it has a small longitudinal roughish groove.

8. 9. Two small curved knives with blunt points for occasionally enlarging the section of the cornea.

10. 11. Baron Wenzel and professor Richter's knives. The marks show the extent of the cutting edges.

12. 13. Mr. Wathen and Mr. Phipp's knives for the section of the cornea in the extraction of the cataract.

14. Mr. Wathen's forceps for extracting the capsule of the lens. The rings are convex externally and concave within: the internal edges of the circles should unite in the most perfect contact.

15. Baron Wenzel's forceps.

16. The full-pointed bistoury with a double edge, answering the purpose of a knife and abscess lancet.

17. A curved bistoury with a probe point, invented by Pott, for the operation of the fistula, but used for opening sinuses.

18. The strait bistoury.

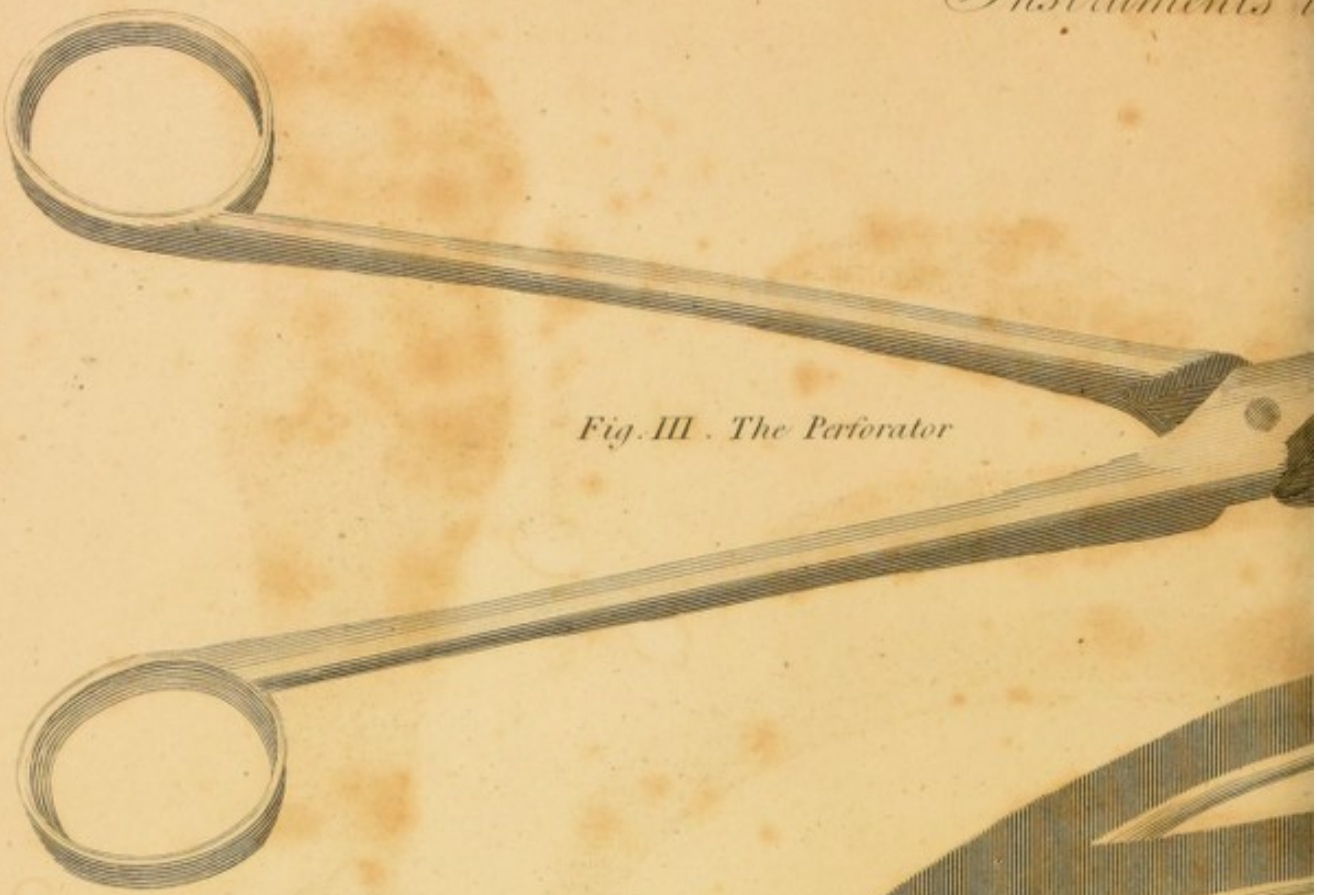

Fig. III. The Perforator

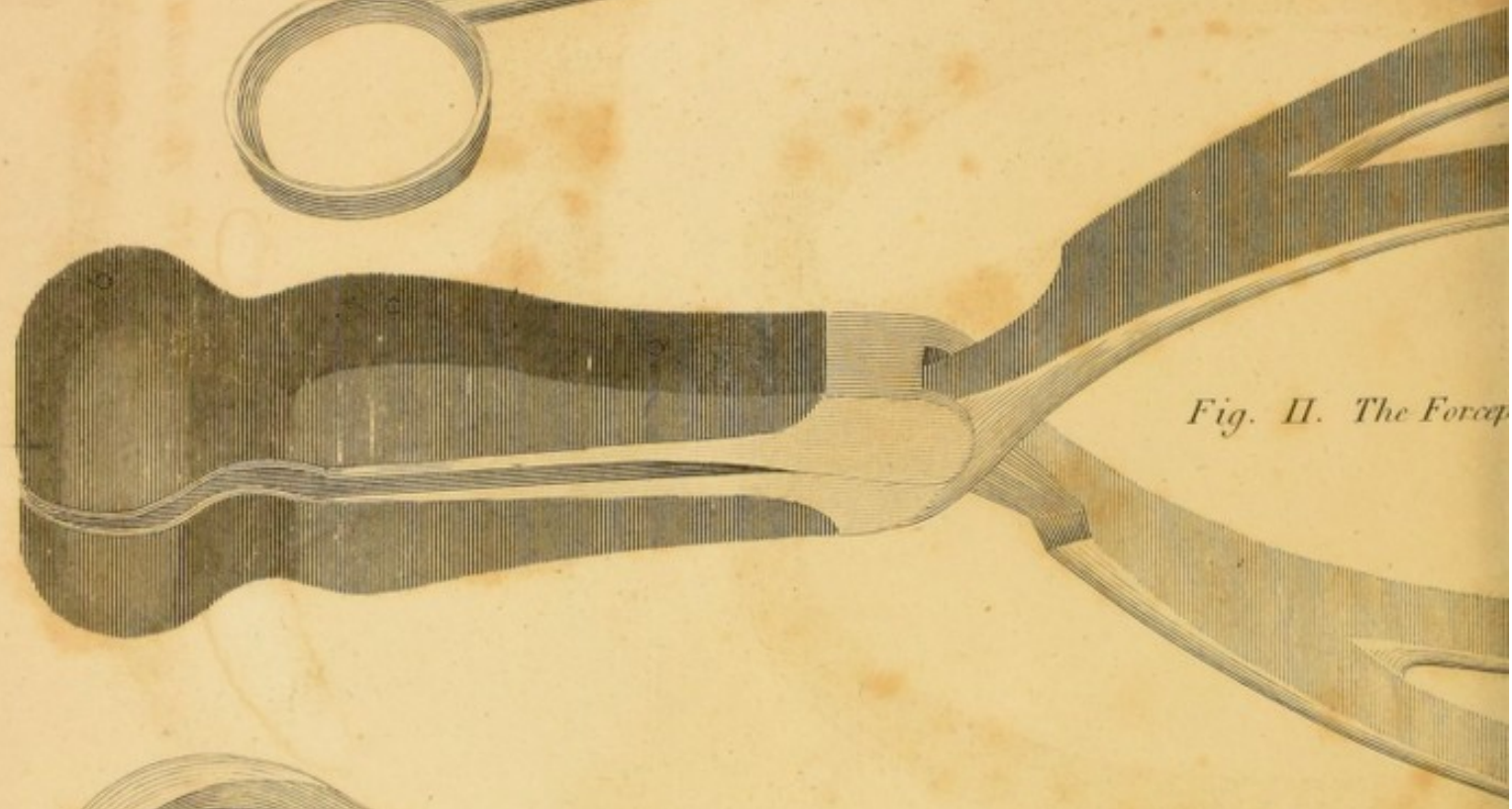

Fig. II. The Forceps

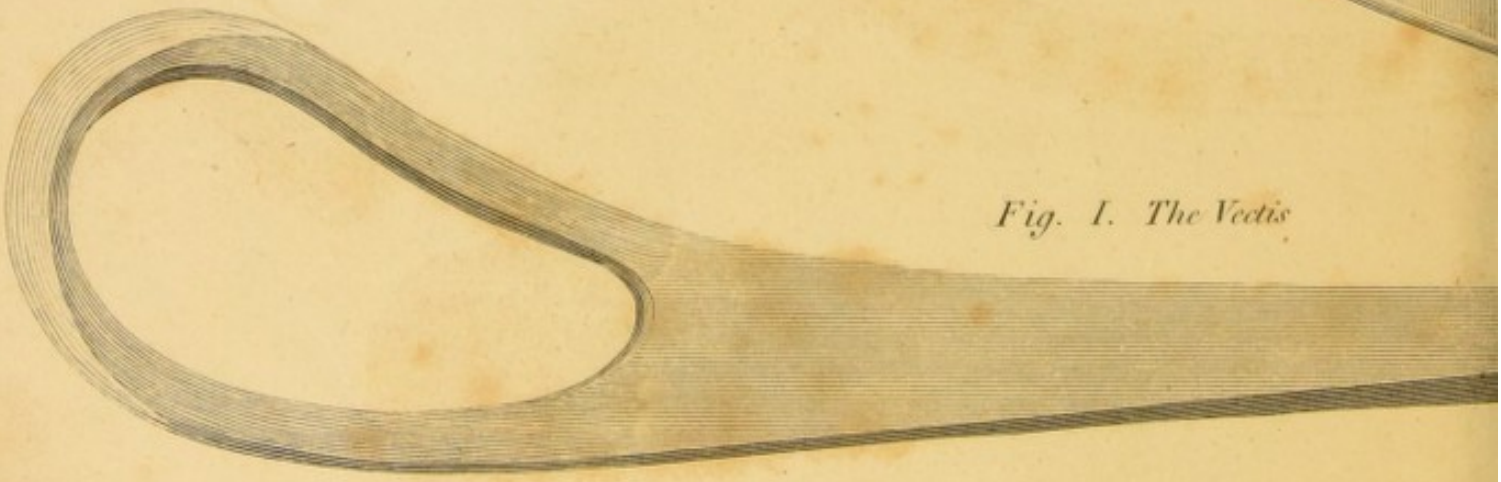

Fig. I. The Vectis

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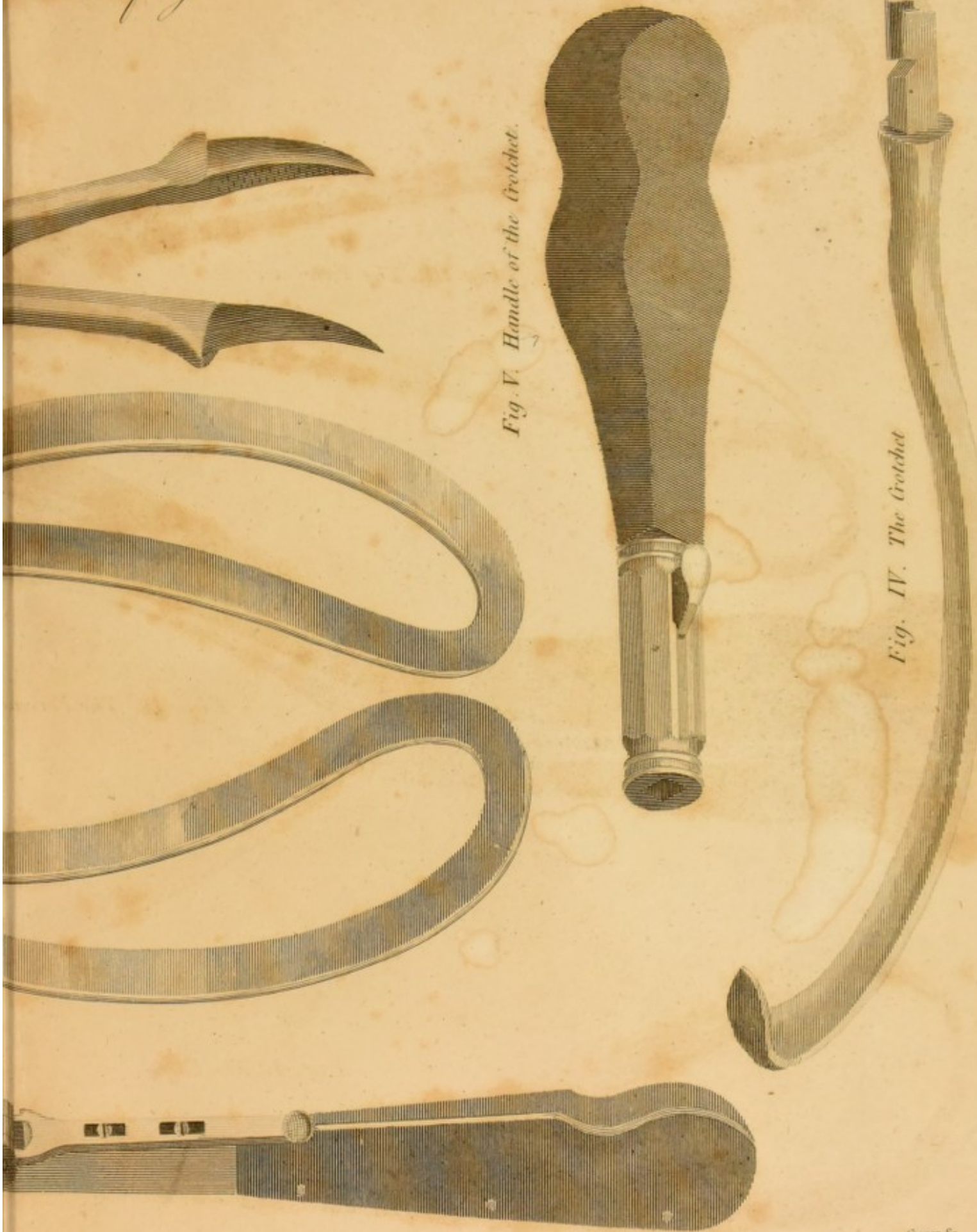

Fig. V. Handle of the Crotchet.

Fig. IV. The Crotchet

Cooper Sc.

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