

John W. D. Smith
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2, 160

15 plates
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V I E W S

OF

THE BONES AND MUSCLES,

WITH

CONCISE EXPLANATIONS.



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*Robt. Bichenwith**1803*

VIEWS

OF THE

BONES AND MUSCLES,

WITH

CONCISE EXPLANATIONS.

*SELECTED*FOR THE USE OF STUDENTS ATTENDING
PRACTICAL ANATOMY.

By ANDREW FYFE.

EDINBURGH:

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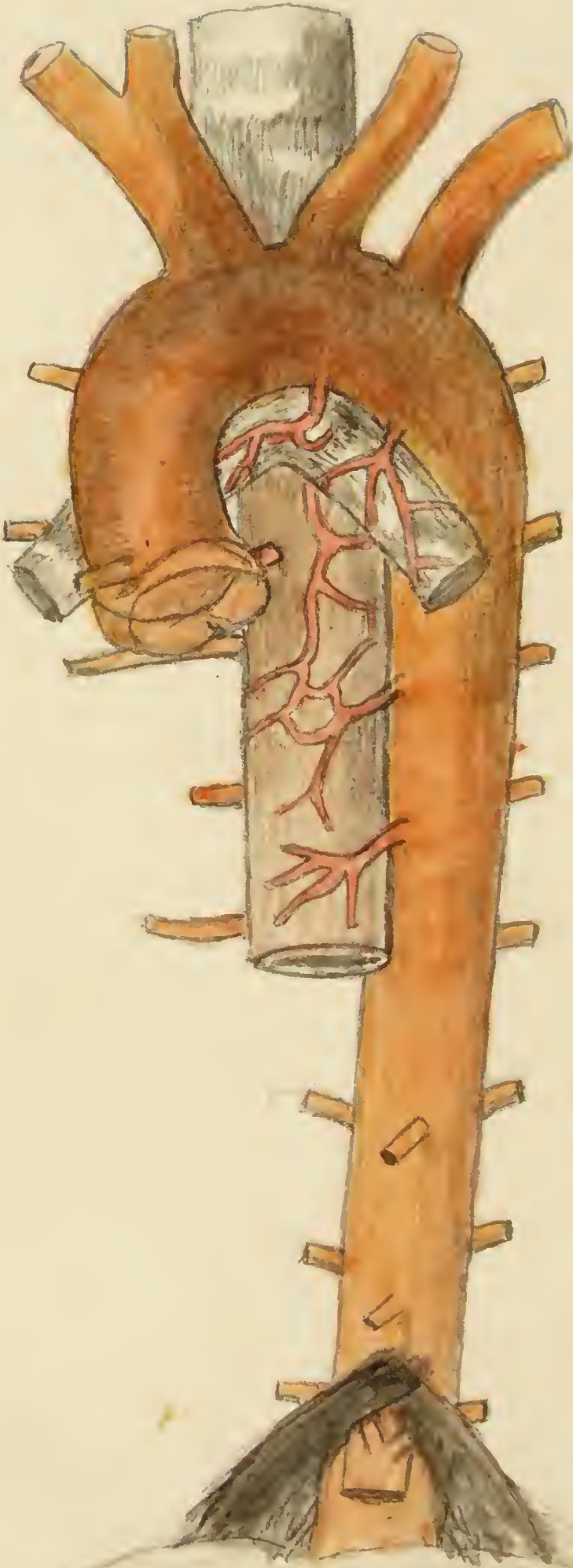
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1803.







- | | |
|---|----------------------------------|
| 1 Common Carotid | 16 Submental artery |
| 2 Internal Carotid | 17 Coronary of the Upper lip |
| 3 External Carotid | 18 Do of the lower lip |
| 4 Superior Thyroid | 19 Superficial labial |
| 5 Superior Laryngeal | + 19 occipital |
| 6 Superficial branch which gives off twigs to the sternohyoid omohyoid & thyrohyoid muscles | 20 posterior auricular |
| 7 Thyroid branches | 21 branch of the parotid gland |
| 8 Lingual artery | 22 Do Do Do |
| 9 Hyoid branch | 23 Transverse artery of the face |
| 10 Branch to the sternomastoid | 24 Muscular branch |
| 11 facial or external maxillary | 25 external maxillary |
| 12 ascending palatine artery | |
| 13 artery of the forehead | |
| 14 artery which to the nose | |

TAB. I.

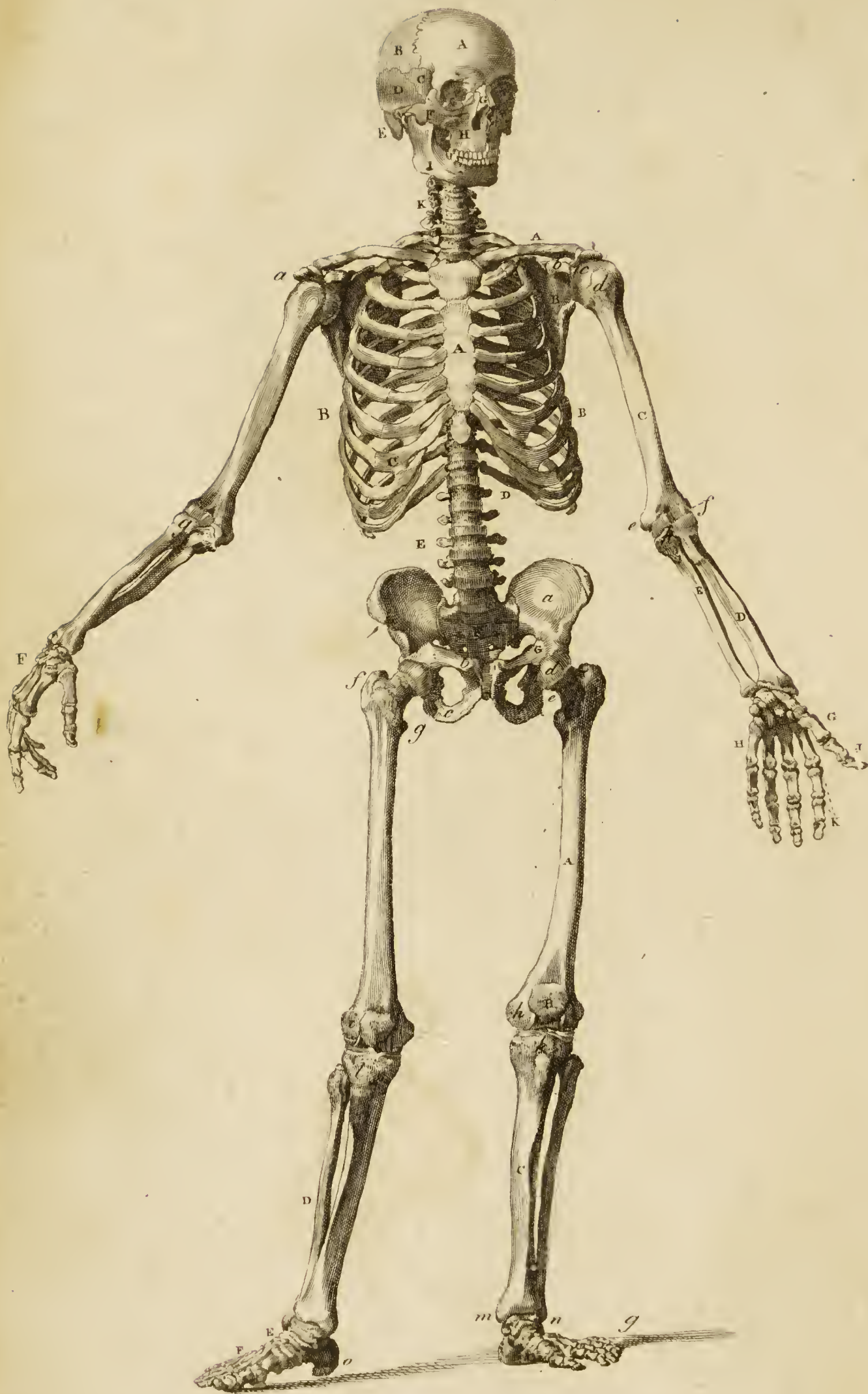


TABLE I.

REPRESENTS a Front View of the MALE SKELETON, with some of the CARTILAGES and LIGAMENTS which connect the BONES to each other.

HEAD and NECK.

- A, The frontal bone.
- B, The parietal bone.
- C, Temporal process of the sphenoid bone.
- D, Squamous part of the temporal bone.
- E, Mastoid process of that bone.
- F, The malar, or cheek-bone.
- G, The nasal bone, behind which is the nasal process of,
- H, The superior maxillary bone.
- I, The lower jaw.
- K, The cervical vertebræ, with their intermediate cartilages and transverse processes.

TRUNK.

- A, The sternum.
- B, The seventh, or last true rib.
- C, The cartilages of the ribs.
- D, The twelfth, or last false rib.
- E, The lumbar vertebræ, with their intervertebral cartilages and transverse processes.
- F, The os sacrum.
- G, The os innominatum, composed of,
 - a, The os ilium,
 - b, The os pubis,
 - c, The os ischium.

UPPER

T A B L E I. CONTINUED.

UPPER EXTREMITY.

- A, The clavicle.
B, Inner surface of the scapula.
a, The acromion of the scapula.
b, The coracoid process of that bone.
C, The os humeri.
c, The head, or ball of the os humeri, articulated with the glenoid cavity of the scapula.
d, Internal tubercle of the os humeri, and farther out, the groove for lodging the tendon of the long head of the biceps muscle.
e, The inner, and,
f, The outer condyle of the os humeri. Between *e* and *f*, the hollow for lodging the coronoid process of the ulna in the flexion of the fore-arm.
D, The radius.
g, The head of the radius.
E, The ulna.
h, The coronoid process of the ulna.
F, The bones of the carpus.
G, The metacarpal bone of the thumb.
H, The metacarpal bones of the fingers.
I, The two bones of the thumb.
K, The three phalanges of the fingers.

UNDER EXTREMITY.

- A, The os femoris.
d, The ball, or head of this bone, lodged in the acetabulum.
e, The cervix of the bone.
f, The large trochanter.
g, The small trochanter,

f, The

TABLE I. CONTINUED.

- h*, The inner condyle.
- i*, The outer condyle.
- B**, The patella, placed upon the trochlea of the os femoris.
- C**, The tibia.
- k*, The head of the tibia, between which and the condyles of the os femoris, the femilunar cartilages appear.
- l*, The tubercle of the tibia.
- m*, The malleolus internus.
- D**, The fibula, the upper end of which is connected with the tibia.
- n*, The malleolus externus.
- E**, The bones of the tarsus.
- o*, The projection of the os calcis.
- F**, The metatarsal bones.
- G**, The phalanges of the toes.



TAB. 11.



T A B L E II.

REPRESENTS a Back View of the MALE SKELETON,
with some of the CARTILAGES and LIGAMENTS
which connect the BONES to each other.

HEAD and TRUNK.

- A, The parietal bone.
- a, The sagittal suture, and parietal hole.
- B, The occipital bone.
- b, b, The lambdoid suture.
- C, The joining of the temporal and parietal bones.
- D, The cheek-bone.
- E, F, The inner or back-part of the jaws, with the teeth.
- G, The first cervical vertebra.
- H, The second cervical vertebra.
- I, The seventh cervical vertebra.
- c, The spinous processes of the cervical vertebræ.
- K, The first dorsal vertebra.
- L, The twelfth dorsal vertebra.
- d, The spinous processes of the dorsal vertebræ.
- e, Their transverse processes.
- M, The first lumbar vertebra.
- N, The fifth lumbar vertebra.
- f, Their spinous, and,
- g, Their transverse processes.
- O, The os sacrum.
- h, The uppermost spinous process. Farther out are seen the superior oblique processes of this bone, joined to the inferior oblique of the last lumbar vertebra.

i, i, The

T A B L E II. CONTINUED.

- i, i*, The lateral parts of the os sacrum, joined to the ossa innominata. Between *i* and *O*, the posterior foramina of the os sacrum.
- k*, An opening in the under and back part of this bone, covered in the subject by a ligamentous membrane.
- P*, The os coccygis, joined by its shoulders to the os sacrum at the lower part of the opening *k*.
- Q* The os ilium.
- R*, The os pubis.
- S*, The os ischium.
- T, U*, The seven true ribs.
- V, V*, The five false ribs.

SUPERIOR EXTREMITY.

- A*, The clavicle.
- B*, The dorsum scapulæ.
- a*, The spine of the scapula.
- b*, The acromion of the scapula.
- c*, A fossa for lodging the supra-spinatus muscle.
- d*, An irregular surface, occupied by the infra-spinatus muscle.
- C*, The os humeri.
- e*, The ball of the os humeri.
- f*, The external tubercle of the bone.
- g*, The external condyle.
- h*, The internal condyle.
- i*, Cavity for lodging the olecranon of the ulna.
- D*, The radius.
- k*, The head of the radius articulated with the trochlea of the os humeri.
- l*, The under end of the radius, grooved by the tendons of muscles.

E, The

T A B L E II. CONTINUED.

- E, The ulna.
- m*, The olecranon of the ulna.
- n*, The under end of the ulna, with its styloid process.
- F, The bones of the carpus.
- G, The metacarpal bone of the thumb.
- H, The metacarpal bones of the fingers.
- I, The two bones of the thumb.
- K, The three phalanges of the fingers.

INFERIOR EXTREMITY.

- A, The os femoris.
- a*, Part of the ball of the os femoris.
- b*, The cervix of the bone.
- c*, The trochanter major.
- d*, The trochanter minor.
- e*, The cavity for lodging the popliteal vessels and nerves.
- f*, The external condyle.
- g*, The internal condyle.
- h*, The femilunar cartilages.
- B, The tibia.
- i*, The head of the tibia.
- k*, The malleolus internus.
- C, The fibula.
- l*, The head of the fibula.
- m*, The malleolus externus.
- D, The bones of the tarsus.
- n*, The astragalus.
- o*, The os calcis.
- p*, The fore-part of the tarsus.
- E, The bones of the metatarsus.
- F, The phalanges of the toes.

Fig. 1.



Fig. 2.

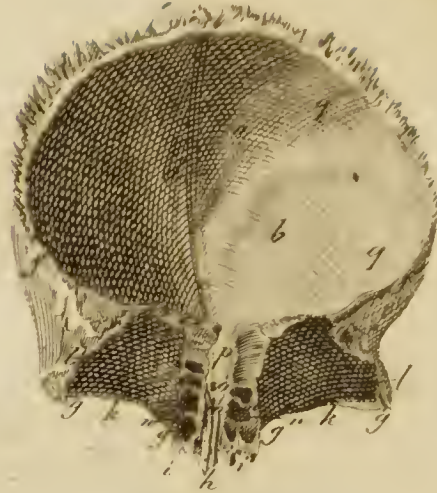


Fig. 3.

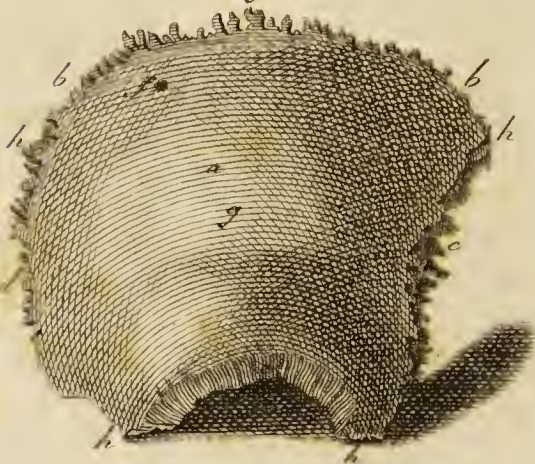


Fig. 4.



Fig. 5.



Fig. 6.

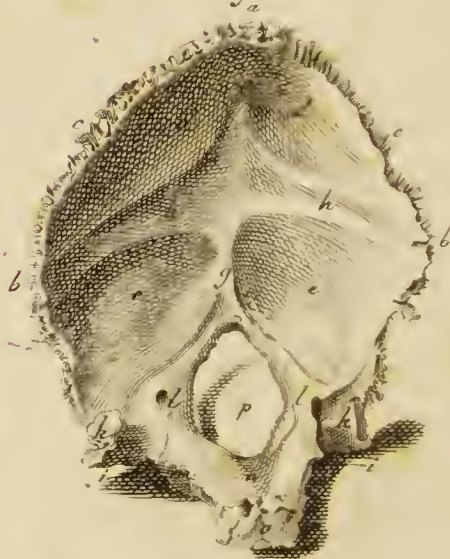


Fig. 7.



Fig. 8.



Fig. 9.



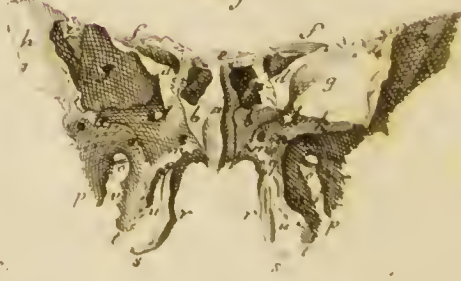
Fig. 10.



Fig. 11.



Fig. 12.



T A B L E III.

VIEWS of the different BONES of the CRANIUM;

FIG. 1.

The Outer Surface of the FRONTAL BONE.

- a*, The middle and convex part of the bone.
- b*, Part of the temporal fossa.
- c, c, c, c*, The angular processes.
- d*, The nasal process.
- e*, Eminences and cavities, to which the nasal and maxillary bones are fixed.
- f, f*, The superciliary arches.
- g, g*, The superciliary holes.
- h, h*, The orbitar plates.
- i, i*, The lacrymal fossæ.
- k, k*, The internal orbitar foramina.
- l, l*, Inequalities which unite this bone to the os sphenoides.

FIG. 2.

The Inner Surface of the FRONTAL BONE.

- a*, The concave part of the bone.
- b*, The cavity which lodges the anterior lobes of the brain.
- c*, The frontal spine.
- d*, Furrow where the falx is fixed, and the superior longitudinal sinus is lodged.
- e*, Ragged edge of the bone, which assists in forming the coronal future.
- f, f*, Other inequalities, which join the frontal to the sphenoid bone.
- g, g, g, g*, Inner surface of the angular processes.
- h*, The posterior surface of the nasal process.
- i, i*, Other inequalities, near the nasal process.
- k, k*, The orbitar plates.

l, l, The

T A B L E III. CONTINUED.

- l, l*, The lacrymal fossæ.
m, m, Cells which correspond with those of the œthmoid bone.
n, n, The passages from the frontal sinuses.
o, The foramen cæcum.
p, The opening which receives the cribriform plate of the œthmoid bone.
q, q, Furrows which lodge the blood-vessels of the dura mater.

F I G. 3.

External Surface of the Right PARIETAL BONE.

- a*, The middle convex part of the bone.
b, b, The upper ragged edge of the bone, which, when joined to its fellow, forms the sagittal future.
c, The anterior edge, which assists in forming the coronal future.
d, The posterior edge, which joins the occipital bone, and forms the lambdoid future.
e, The inferior semilunar edge, which joins the squamous part of the temporal bone.
f, The parietal hole.
g, An arched ridge which gives origin to a large share of the temporal muscle.
h, h, h, h, The angles of the bone.

F I G. 4.

Internal Surface of the same PARIETAL BONE.

- a*, The middle concave part.
b, The inner surface of the upper edge of the bone, where the indentations are more apparent than those of the outer side.
c, The parietal hole.

d, Anterior

T A B L E III. CONTINUED.

- d*, Anterior serrated edge of the bone.
e, Posterior edge, more indented than the anterior one.
f, f, The superior angles.
g, g, The inferior anterior angle, where the beginning of the furrow is seen, which lodges the trunk of the principal artery of the dura mater.
h, h, The ramifications of that furrow.
i, i, Small furrows which lodge other arteries of the dura mater.
k, A depression which lodges part of the lateral sinus.
l, The inferior edge of the bone, considerably thinner than the rest.

FIG. 5.

View of the External Surface of the OCCIPITAL BONE.

- a*, The superior angle of the bone.
b, b, The ragged edge, which assists in forming the lambdoid suture.
c, c, The irregularities at the lateral and inferior parts of the bone, where it is joined to the ossa temporum.
d, d, The large transverse arched ridge, or spine. *occipital protuberance*
e, e, Muscular prints upon the transverse ridge.
f, The perpendicular spine.
g, The smaller arched ridge, crossing the perpendicular spine. *episternion - rectus - obliquus sup*
h, h, Muscular prints above,
i, The foramen magnum.
k, k, The occipital condyles.
l, l, The posterior condyloid foramina.
m, m, The inner side of the left, and outer side of the right anterior condyloid foramen.
n, n, Nitches which assist in forming the holes common to the occipital and temporal bones.
o, The cuneiform process, marked by the attachment of muscles.

FIG.

T A B L E III. CONTINUED.

FIG. 6.

Internal Surface of the OCCIPITAL BONE.

- a*, The superior angle of the bone.
- b, b*, The middle or lateral angles.
- c, c*, Eminences and cavities which assist in forming the lambdoid suture.
- d, d*, The superior occipital fossæ, which lodge a share of the posterior lobes of the brain.
- e, e*, The inferior occipital fossæ, which contain part of the cerebellum.
- f, f*, The upper limb of the perpendicular spine, which receives the superior longitudinal sinus, and has the falx fixed to it.
- g*, The lower limb of that spine, to which the falx minor is fixed.
- h, h*, The fossæ, which contain the lateral sinuses, and have the tentorium fixed to their edges.
- i, i*, The openings which form part of the foramina lacera, common to this bone and the os temporis.
- k, k*, The small processes which assist in forming the foramina lacera.
- l, l*, The posterior condyloid holes.
- m*, The anterior condyloid hole of the right side.
- n*, The concave surface of the cuneiform process.
- o*, The inequalities of the cuneiform process, by which it is united with the sphenoid bone.
- p*, The foramen magnum.

FIG. 7.

The Outer Surface of the TEMPORAL BONE of the Right Side.

- a*, The upper and squamous part of the bone.
- b*, The under part, which lodges a portion of the temporal muscle.

c, That

T A B L E III. CONTINUED.

- c*, That part of the bone which assists in forming the addi-
tamentum of the squamous future.
- d*, The zygomatic process.
- e*, The transverse, or articular process.
- f*, The mastoid process.
- g*, Small holes, for transmitting vessels to the bone, or to
the dura mater.
- h*, Meatus auditorius externus, surrounded by a rough mar-
gin.
- i*, The glenoid, or articular cavity.
- k*, The glenoid fissure, for the attachment of part of the ar-
ticular ligament.
- l*, The vaginal process.
- m*, Part of the mastoid groove.
- n*, The styloid process.
- o*, The foramen mastoideum.
- p*, The base, or upper part of the mastoid process.
- q*, The inferior and anterior part of the bone, which joins
the os sphenoides.
- r*, A small portion of the Eustachian tube.
- s*, The point of the pars petrosa.

FIG. 8.

The Inner Surface of the TEMPORAL BONE.

- a*, The upper edge of the squamous process.
- b*, The middle of that process, marked by the convolutions of
the brain.
- c*, A part of the bone which joins the os sphenoides.
- d*, Nitch which receives the under and back part of the pa-
rietal bone.
- e*, The upper part of the pars petrosa.
- f*, A groove which lodges the superior petrosal sinus.

T A B L E III. CONTINUED.

- g*, Fossa which lodges part of the lateral sinus.
- h*, Meatus auditorius internus.
- i*, Nitch which assists in forming the foramen lacerum.
- k*, Part of the fossa which lodges the beginning of the internal jugular vein.
- l*, The posterior part of the bone which joins the os occipitis.
- m*, The foramen mastoideum.
- n*, A portion of the mastoid process.
- o*, The mastoid groove.
- p*, The styloid process.
- q*, The inner extremity of the pars petrosa divided into two portions.

F I G. 9.

The Upper and Inner Surface of the CETHMOID BONE.

- a*, The anterior extremity of the bone, terminating in a small flat process.
- b*, The crista galli.
- c, c*, The cribriform plate, for the passage of the olfactory nerves.
- d, d*, The posterior cethmoid cells.
- e*, The back-part of the nasal plate, which forms part of the septum narium.
- f, f*, The posterior margin of the bone.
- g*, The os planum of the left side.
- h, h*, The sphenoid cornua, or triangular bones, which join the body of the sphenoid bone; their fore-parts being fixed to the cethmoid one.

F I G. 10.

The Under and Outer Surface of the CETHMOID BONE.

- a*, The nasal plate, which forms the upper part of the septum narium.

b, b, The

T A B L E III. CONTINUED.

b, b, The ossa spongiosa superiora, convex towards the septum of the nose, and concave outwards.

Between the ossa spongiosa and nasal plate deep chinks are seen, which separate these processes from each other.

c, c, Inequalities by which this bone is joined to the frontal one.

d, d, The sphenoid cornua.

F I G. II.

The Inner or Upper Surface of the SPHENOID BONE.

a, The fore-part of the bone, which joins the under and back part of the frontal one.

b, b, The temporal plates or processes.

c, c, The transverse processes.

d, A small anterior process, which unites with the œthmoid bone.

e, The processus olivaris.

f, f, The foramina optica.

g, g, The anterior clinoid processes.

h, h, The posterior clinoid processes.

i, i, Part of the foramina lacera.

k, k, Impressions made by the internal carotid arteries.

l, The sella Turcica.

m, m, The temporal fossæ, which receive the lateral lobes of the brain.

n, n, The foramina rotunda.

o, o, The foramina ovalia.

p, p, The foramina spinalia.

q, q, Ragged edge of the bone which assists in forming the sphenoid future.

r, The back-part of the body of the bone, which joins the cuneiform process of the occipital one.

s, s, Part of the spinous, and,

t, t, Part of the pterygoid processes.

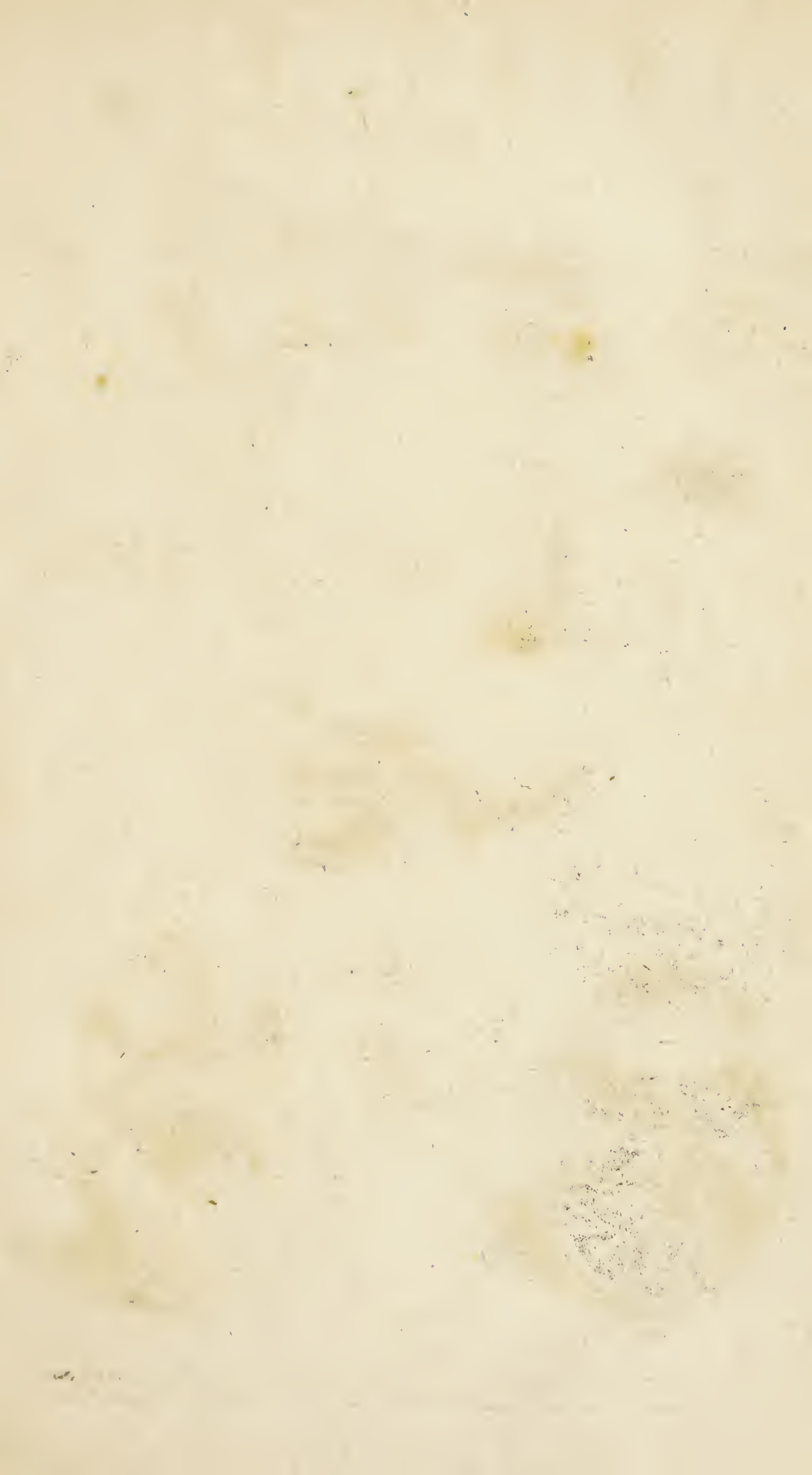
F I G.

T A B L E III. CONTINUED.

FIG. 12.

The Outer or Under Surface of the SPHENOID BONE.

- a*, The processus azygos.
- b, b*, The sphenoid cornua.
- c, c*, The openings of the sphenoid sinuses.
- d, d*, The foramina lacera.
- e*, The fore-part of the body of the bone.
- f, f*, The outer surface of the transverse processes.
- g, g*, The orbitar plates.
- h, h*, The temporal processes.
- i, i*, The asperities, by which this bone is joined to the ossa malarum.
- k, k*, Gutters, which lodge branches of the fifth pair of nerves.
- l, l*, The foramina rotunda.
- m, m*, The foramina pterygoidea.
- n, n*, Anterior openings, which assist in forming the sphenoid fissures.
- o, o*, The foramina ovalia.
- p, p*, The spinous processes.
- q, q*, The roots of the pterygoid processes.
- r, r*, The internal plates of the pterygoid processes.
- s, s*, Hook-like processes at the extremities of the internal plates.
- t, t*, The external plates of the pterygoid processes.
- u, u*, Parts of the bone adapted to the ossa palati.
- v, v*, Posterior openings, common to the occipital and temporal bones, over which the internal carotid arteries pass.



TAB. IV.

Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.

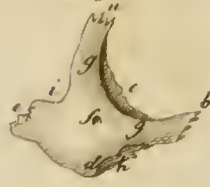


Fig. 6.

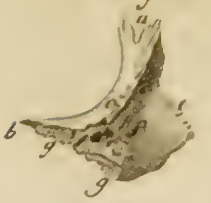


Fig. 7.



Fig. 8.



Fig. 9.



Fig. 10.



Fig. 11.



Fig. 12.



Fig. 13.



Fig. 14.

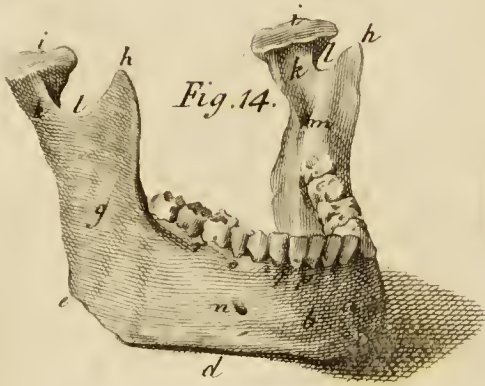


Fig. 15.



Fig. 16.

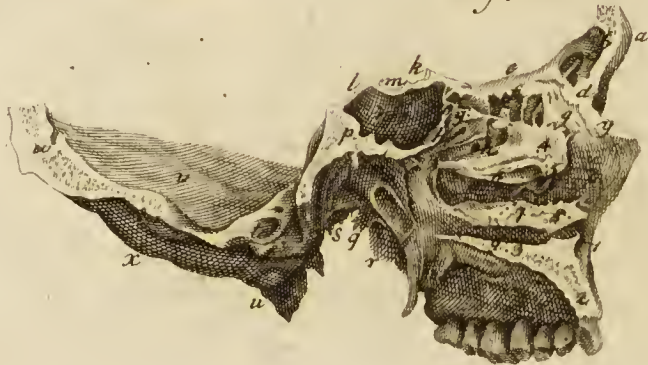


Fig. 17.

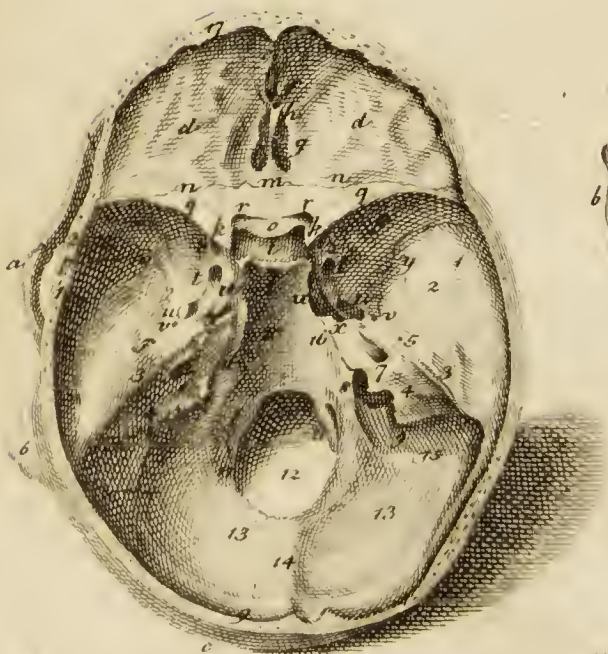
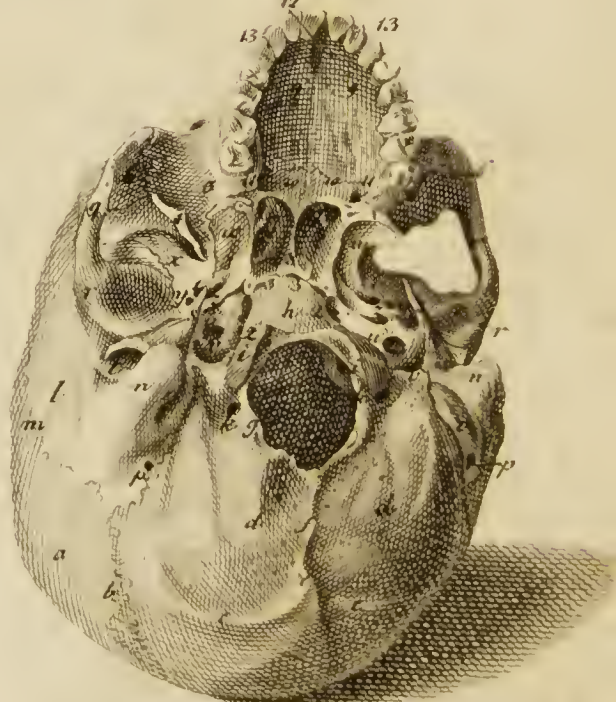


Fig. 19.



Fig. 18.



T A B L E IV.

REPRESENTS the different BONES of the FACE, a Section of the NOSE, the Inner, and Under Sides of the SKULL, with the Small Bone termed Os HYOIDES.

F I G. 1.

The Outer Surface of the OSSA NASI.

- a, a,* The upper part, which is joined to the frontal bone.
b, b, The lower ragged end, to which the cartilage of the nose is fixed.

The black points represent holes penetrating the bones.

F I G. 2.

The Inner Surface of the OSSA NASI.

- a, a,* The inner edge of each, thick and strong, where it joins its fellow, and sends a spine backwards, to be fixed to the partition of the nose.

- b, b,* The cavity which forms part of the arch of the nose.

F I G. 3.

The Outer Surface of the Left Os UNGUIS.

- a,* The lacrymal process, perforated by numerous holes.

- b,* The orbital process.

- c,* The ridge which separates the processes.

F I G. 4.

The Inner Side of the Os UNGUIS, with Eminences and Cavities which belong to the Æthmoid Cells.

C

F I G.

T A B L E IV. CONTINUED.

F I G. 5.

The Outer Surface of the Right OS MALÆ.

- a*, The superior orbitar process.
- b*, The inferior orbitar process.
- c*, The internal orbitar plate.
- d*, The maxillary process.
- e*, The zygomatic process.
- f*, The external orbitar hole.
- g, g*, The under and outer edge of the orbit.
- h*, Part of the inner rough surface of the maxillary process.
- i*, The zygomatic notch.

F I G. 6.

The Inner Surface of the same OS MALÆ.

- a, b, c, d, e*, as in Fig. 5.
- f*, The internal fossa, and situation of the external orbitar hole
- g, g*, Rough edge which joins the os malæ to the superior maxillary bone at the external orbitar future.

F I G. 7.

The Outer Side of the Right Superior MAXILLARY BONE, with a small Portion of the OS PALATI.

- a*, The maxillary fossa.
- b*, The nasal process of the maxillary bone.
- c*, Inequalities, by which it is joined to the os frontis.
- d*, The angle which is joined to the under end of the os nasi, and to the cartilage of the nose.
- e*, The orbitar plate.
- f*, The edge of the orbit.

g, A

T A B L E IV. CONTINUED.

- g*, A groove which belongs to the infra-orbital canal.
- b, b, i, i*, The malar process.
- k, k*, The alveolar process.
- l*, The maxillary tuberosity.
- m*, A small portion of the os palati.
- n, n*, Small holes which penetrate the bone.
- o*, The fore-part of the nostril.
- p*, The nasal spine, forming part of the partition of the nose.
- q*, The palate plate.
- r*, The foramen infra-orbitarium.
- s, s*, The two dentes incisores.
- t*, The dens caninus.
- u, u*, The five dentes molares.

F I G. 8.

*The Inner Surface of the SUPERIOR MAXILLARY, and
of the PALATE BONES.*

- a*, The nasal process, or upper angle.
- b*, The middle angle at the base of the nasal process.
- c*, Inequalities, where the fore-part of the os spongiosum inferius is fixed.
- d*, The palate process.
- e*, The alveolar process.
- f*, The irregular surface of the palate process, which joins its fellow of the opposite side.
- g*, The maxillary sinus.
- h*, Small cells in the upper part of the bone.
- i*, The lacrymal fossa.
- k*, The palate fissure, which assists in forming the foramen incisivum.

T A B L E IV. CONTINUED.

- l*, The future which unites this bone to the os palati.
- m*, The part of the bone which forms the largest share of the nasal fossa.
- n*, The nasal spine.
- o*, Rough surface, where the fore-part of the bone joins its fellow.
- p*, The palate bone.
- q*, The small sinus commonly found in this bone.
- r*, The nasal lamella of the palate bone, forming part of the maxillary sinus, and of the cavity of the nostril.
- s*, An eminence, where this bone is connected to the inferior spongy one.
- t*, The rough surface, where the two palate bones unite.
- u*, The hole proper to this bone.
- v*, The foramen gustativum, or palatinum posterius.
- w*, The pterygoid process.
- x, x*, The teeth.

F I G. 9.

The Posterior, and almost the whole of the External Surface of the Left OS PALATI.

- a*, The palate plate.
- b*, The pterygoid process.
- c*, The nasal plate.
- d*, The orbital process.
- e*, A small sinus, corresponding with those of the œthmoid bone.
- f*, The notch which forms part of the foramen sphenopalatinum.
- g*, A small hole which penetrates the bone.

b, Part

T A B L E IV. CONTINUED.

b, Part of the groove which helps to form the foramen gustativum.

F I G. 10.

The Anterior, and almost all the External Surface of the same PALATE BONE.

a, A notch which assists in forming the foramen gustativum.

b, The orbitar process.

c, The palate plate.

d, The nasal plate.

e, The groove which helps to form the foramen gustativum.

f, The pterygoid process.

F I G. 11.

The External Concave Surface of the OS SPONGIOSUM INFERIUS of the Left Side.

a, The under edge of the bone turning outwards.

b, The upper edge, sending down a hook-like plate, to cover a portion of the maxillary sinus.

c, The broad anterior extremity, where the connection is chiefly made with the superior maxillary bone.

d, The posterior extremity, narrow, and irregular in its surface.

e, The external surface, with numerous small holes, which mark its porosity.

f, The part which joins the os unguis, to form a share of the lacrymal groove.

F I G. 12.

The Inner Convex Surface of the same OS SPONGIOSUM INFERIUS, which, like the External Surface, is also of a spongy texture.

F I G.

T A B L E IV. CONTINUED.

F I G. 13.

The Left Side of the VOMER.

- a*, The hollow surface, which receives the processus azygos of the sphenoid bone.
- b*, The anterior and upper edge, which is connected to the nasal plate of the œthmoid bone, and middle cartilage of the nose.
- c*, The inferior edge, which is connected to the palate plates of the superior maxillary and palate bones.
- d*, A ridge upon the side of the vomer.

F I G. 14.

The LOWER JAW, viewed from the Right Side.

- a*, The symphysis of the jaw.
- b, b*, Muscular prints.
- c*, Another depression, which marks the middle of the chin.
- d*, The base of the jaw.
- e*, The angle of the right side.
- f*, The inner surface of the angle of the left side.
- g*, The ascending plate, with muscular prints.
- h, h*, The coronoid, and,
- i, i*, The condyloid processes.
- k, k*, The cervix on each side.
- l, l*, Semilunar notches between the processes.
- m*, The posterior maxillary foramen.
- n*, The anterior maxillary foramen.
- o*, The alveoli of the teeth.
- p*, The two dentes incisores of the right side.
- q*, The dens caninus.
- r*, The five dentes molares.

F I G.

T A B L E IV. CONTINUED.

F I G. 15.

The TEETH.

- a*, 1. The base or body of the tooth, covered with enamel.
 2. The root, or fang, destitute of enamel.
 3. The neck, or collar.
- b*, Sections of two teeth, to shew the extent of the enamel, with the direction of its fibres—The fibrous and lamellated structure of the osseous part—The internal cavity for containing the pulp.
- a*, A fore and back view of the incisores of the under jaw.
- b*, The similar teeth of the upper jaw.
- c*, A fore and back view of the dentes canini.
- d*, The two small molares.
- e*, The three large molares.

F I G. 16.

The Left Portion of the Base of the SKULL, divided from the Septum Narium, by a perpendicular Section, proceeding in a straight line from before backwards.

- a*, Part of the frontal bone.
- b*, The posterior lamina, called vitrea.
- c*, The frontal sinus.
- d*, Part of the transverse suture, dividing the frontal from the superior maxillary bone.
- e*, Part of the frontal bone, contiguous to the os œthmoides.
- f*, The upper part of the œthmoid bone.
- g, g*, The cells of the œthmoid bone, the anterior of which are entire, the rest laid open.
- h, h*, Openings of the œthmoid cells into the nose.
- i*, The uppermost passage of the nostril.

k, The

T A B L E IV. CONTINUED.

- k*, The left anterior clinoid process of the sphenoid bone.
l, The posterior clinoid process.
m, The sella Turcica.
n, The left sphenoid sinus.
o, The part where the sinus opens into the upper and back part of the nose.
p, A section of the body of the sphenoid, and of the cuneiform process of the occipital bone.
q, Spinous process of the sphenoid bone.
r, The internal pterygoid plate.
s, The fore-part of the meatus auditorius.
t, The superior condyloid foramen.
u, The mastoid process of the temporal bone.
v, The inner side of the occipital bone.
w, The cut edge of that bone.
x, The under and outer part of that bone.
y, The nasal process of the superior maxillary bone.
z, The inner side of that bone, forming the middle passage of the nostril.
1, Part of the same bone, which forms the beginning of the lower passage of the nostril.
2, A section of the alveolar process.
3, A section of the osseous palate.
4, The os spongiosum superius.
5, The middle passage of the nostril.
6, The opening of the antrum maxillare.
7, The os spongiosum inferius.
8, That part of the inferior spongy bone which lies over the opening of the lacrymal duct.
9, The lowest passage of the nostril.

FIG.

T A B L E IV. CONTINUED.

F I G. 17.

A View of the Inner Surface of the Base of the CRANIUM.

- a*, The zygoma.
- b*, The mastoid process of the temporal bone.
- c*, The external surface of the occipital bone.
- d, d*, The frontal fossæ marked by the brain.
- e*, Part of the frontal spine.
- f*, The foramen cæcum, placed at the bottom of the frontal spine.
- g*, The cribriform plate of the œthmoid bone.
- h*, The crista Galli of this bone.
- i*, The sella Turcica of the sphenoid bone.
- k, k*, The anterior clinoid processes.
- l*, The posterior clinoid process.
- m*, Small process of the sphenoid bone, fixed to the œthmoid one.
- n, n*, Part of the sphenoid suture.
- o*, The processus semi-olivaris.
- p, p*, The temporal fossæ.
- q, q*, The transverse spinous processes.
- r, r*, The foramina optica.
- s, s*, A small portion of the foramina lacera.
- t, t*, The foramina rotunda.
- u, u*, The foramina ovalia.
- v, v*, The foramina spinalia.
- w, w*, Impressions made by the internal carotid arteries.
- x, x*, Points of the partes petrosæ of the temporal bones, and, before these, irregular openings, which in the subject are filled, partly by bone, and partly by a ligamentous substance.

D

y, y, Suture

T A B L E IV. CONTINUED.

- y, y, Suture common to the sphenoid and temporal bones.
 1, 1, Squamous parts of the temporal bones, which complete,
 2, 2, The temporal fossæ for the lateral lobes of the brain.
 3, 3, Ridge of the pars petrosa on each side, to which the tentorium is fixed.
 4, 4, Posterior surface of the pars petrosa on each side, which is opposed to the cerebellum.
 5, The foramen innominatum.
 6, The groove which lodges the superior petrosal sinus.
 7, 7, The meatus auditorii interni.
 8, 8, The foramina lacera common to the temporal and occipital bones.
 9, 9, The fossæ for lodging the lateral sinuses.
 10, The cuneiform process of the occipital bone.
 11, 11, The anterior condyloid foramina of that bone.
 12, The foramen magnum.
 13, 13, The inferior occipital fossæ, which lodge the corresponding lobes of the cerebellum.
 14, The inferior limb of the cruciform spine, to which the falx minor is fixed.
 15, Part of the lambdoid suture.
 16, 16, The fossæ for the inferior petrosal sinuses.
 17, 17, The cut edge of the skull.

F I G. 18.

Represents the Outer and Under Surface of the SKULL, turned a little to the Left Side.

- a*, The parietal bone.
b, The lambdoid suture.
c, *c*, The large transverse arched ridge of the occipital bone.
d, *d*, The

T A B L E IV. CONTINUED.

- d, d*, The smaller transverse ridge, with muscular prints on each side of it.
- e*, Spinous tuberosity, seen in some skulls only.
- f*, The perpendicular spine.
- g*, The foramen magnum.
- h*, The cuneiform process.
- i, i*, The articular or condyloid processes.
- k, k*, The posterior condyloid foramina.
- l*, The squamous portion of the temporal bone.
- m*, The squamous suture.
- n, n*, The mastoid processes.
- o, o*, The mastoid fissures.
- p*, The foramen mastoideum.
- q*, The zygoma and zygomatic suture.
- r*, The glenoid cavity at the root of the zygoma, for the articulation of the lower jaw.
- s, s*, The styloid processes, behind the roots of which the foramina stylo-mastoidea are concealed.
- t*, The meatus auditorius externus.
- u, u*, The foramina carotica.
- v, v*, The jugular fossæ.
- w, w*, The pterygoid fossæ, at the sides of which are the pterygoid plates.
- x*, The temporal process of the sphenoid bone.
- y*, The spinous process and spinous hole of that bone.
- z, z*, The osseous mouths of the Eustachian tubes.
- 1, 1, The foramina ovalia.
- 2, 2, Passages common to the occipital, temporal, and sphenoid bones.
- 3, 3, Foramina pterygoidea.
- 4, The inferior orbital fissure.

T A B L E IV. CONTINUED.

- 5, The under part of the tuber or bulge of the superior maxillary bone.
- 6, 6, The inner sides of the ossa malarum.
- 7, 7, The superior and inferior spongy bones, with a view of the back-part of the nostrils.
- 8, The posterior edge of the vomer.
- 9, 9, The palate plates of the superior maxillary bones, with the longitudinal palate future.
- 10, 10, The palate plates of the palate bones, with the transverse, and continuation of the longitudinal palate futures.
- 11, 11, The foramina gustativa; or posterior palate holes.
- 12, The foramen incisivum, or anterior palate hole.
- 13, 13, The teeth, divided into two incisores, one caninus, two small molares, and three large molares on each side.

FIG. 19.

The OS HYOIDES, seen from the Upper and Fore Part.

- a, The body of the os hyoides.
- b, b, Its cornua.
- c, c, Its appendices.

Tab. V

Occipito-Frontalis ^{Fig. 1} arises from the transverse ridge of occipital bone as far as the mastoid process, the fibres ascend, and form a broad thin tendon is inserted on each side, into the skin of the forehead and eyebrows, intermingling with the fibres of the orbicularis palpebrarum and corrugator superciliaris, sending down a slip on each side of the nose called often the *pyramidalis nasi*. Use to pull the skin of the head backwards raise the eyebrows, and corrugate the skin of the forehead -

Muscles moving the External ear -

Mollus Aurium arises from the tendon of the *occipito-frontalis*, and from the aponeurosis of the temporal muscle. Inserted into the upper part of the cartilage of the ~~ear~~ of the ear opposite the *antihelix* - Use To draw the ear upwards -

Anterior Auris arises thin and membranous, from

... into a ... U ... on the ...
... the ...

Fig. 1.



Fig. 2.

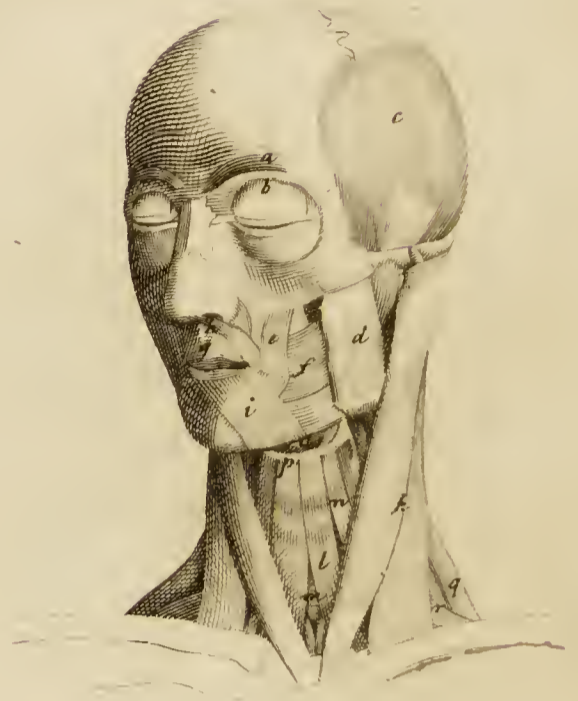


Fig. 3.

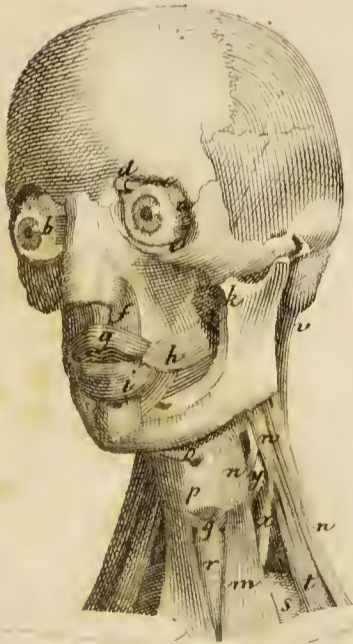


Fig. 4.



points into a small eminence on the back of the
orbita, opposite to the canaliculus. Use to draw the crus
a little forwards and upwards.

T A B L E V.

REPRESENTS the MUSCLES situated on the Fore-
part of the HEAD and NECK.

F I G. 1.

*The First Order of MUSCLES on the Fore-part of the HEAD
and NECK, after the Integuments have been removed.*

- a*, The frontal part of the occipito-frontalis.
- b*, The tendon of that muscle.
- c*, A fleshy slip descending from the occipito-frontalis over
the root of the nose.
- d*, The attollens aurem.
- e*, The anterior auris.
- f*, The orbicularis palpebrarum.
- g*, The ciliary part of the orbicularis.
- h*, The compressor naris.
- i*, The levator labii superioris aëque nasi.
- k*, The zygomaticus minor.
- l*, The zygomaticus major.
- m*, The levator anguli oris.
- n*, The cartilage of the nose.
- o*, The depressor anguli oris.
- p*, The depressor labii inferioris.
- q*, The buccinator.
- r*, The orbicularis oris.
- s*, The masseter.
- t*, The platysma myoides, its upper end passing over the jaw.
- u*, The sterno-cleido-mastoideus.

F I G.

T A B L E V. CONTINUED.

F I G. 2.

*The Second Order of MUSCLES on the Fore-part of the HEAD
and NECK.*

- a*, The corrugator supercilii.
- b*, The levator palpebræ superioris.
- c*, The temporalis, the tendon of which is seen passing under the zygoma.
- d*, The masseter.
- e*, The levator anguli oris.
- f*, The buccinator.
- g*, The orbicularis oris.
- h*, The nasalis labii superioris, at the upper side of which is a portion of the depressor labii superioris alæque nasi.
- i*, The depressor labii inferioris.
- k*, The sterno-cleido-mastoideus.
- l*, The sterno-hyoideus.
- m*, Part of the trachea.
- n*, The omo-hyoideus.
- c*, The hyo-thyroideus.
- p*, The os hyoides.
- q*, The levator scapulæ.
- r*, The scalenus medius.

F I G. 3.

*The Third Order of MUSCLES on the Fore-part of the HEAD
and NECK.*

- a*, The insertion of the abductor oculi.
- b*, The adductor oculi of the right side.
- c*, The insertion of the levator oculi.

d, The

T A B L E V. CONTINUED.

- d*, The trochlea, and part of the tendon of the obliquus superior.
e, The obliquus inferior.
f, The depressor labii superioris et alæ nasi.
g, The orbicularis oris.
h, The buccinator.
i, The levator labii inferioris.
k, Part of the pterygoideus externus.
l, Part of the pterygoideus internus.
m, The sterno-thyroideus.
n, The thyro-hyoides.
o, The os hyoides.
p, The thyroid cartilage.
q, The cricoid cartilage, with the two crico-thyroid muscles arising from it.
r, The trachea.
s, Part of the pleura.
t, The scalenus anticus.
u, The scalenus medius.
v, A portion of the trachelo-mastoideus.
w, The rectus capitis anterior major.
x, The longus colli.
y, The constrictor pharyngis inferior.

F I G. 4.

The Fourth Order of MUSCLES on the Fore-part of the HEAD and NECK.

- a*, The levator palpebræ superioris.
b, The levator oculi.
c, The adductor oculi.

d, The

T A B L E V. CONTINUED.

- d*, The abductor oculi.
- e*, The depressor oculi.
- f*, The obliquus superior.
- g*, The obliquus inferior.
- h*, The pterygoideus internus.
- i*, The obliquus superior capitis.
- k*, The scalenus medius.
- l*, The longus colli.
- m, m*, The intertransversales colli.

Fig. 1.

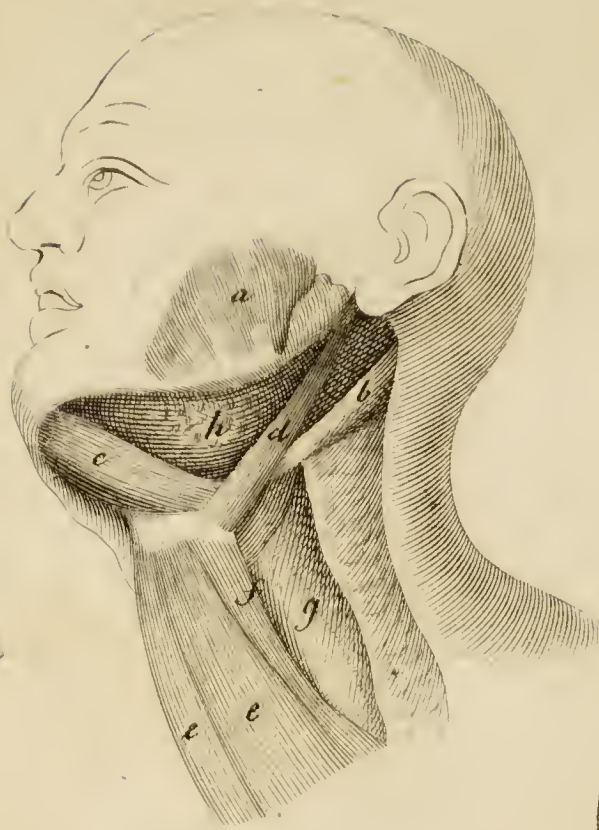


Fig. 2.



Fig. 3.

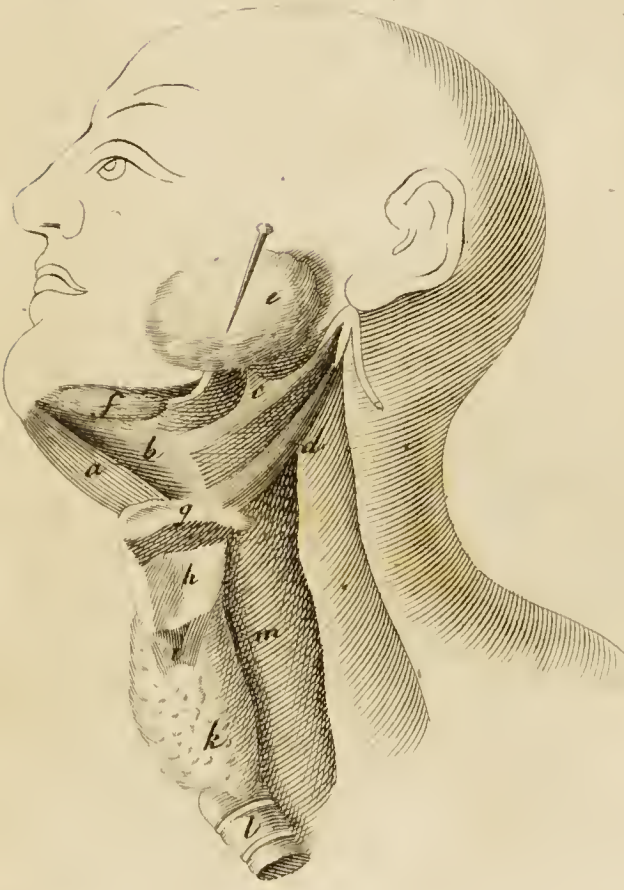


Fig. 4.

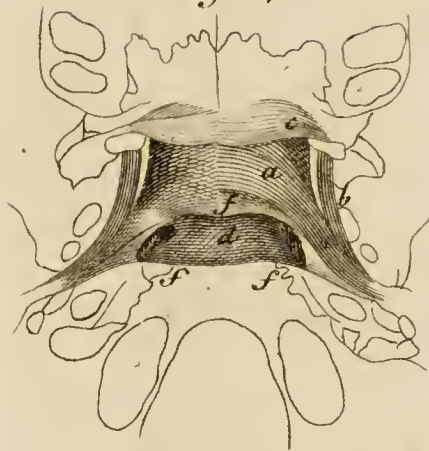


Fig. 5.

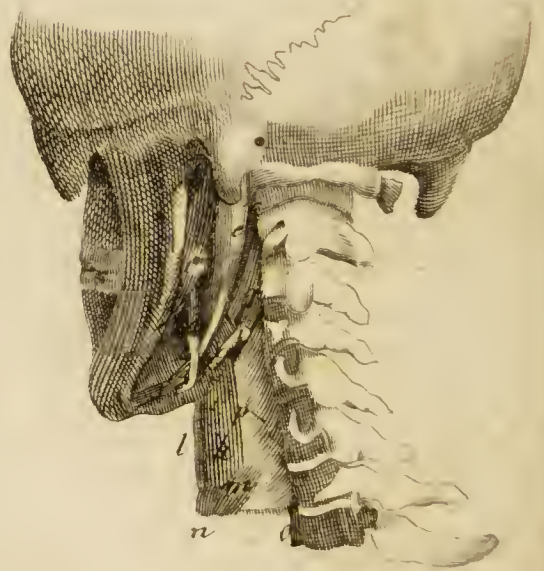


Fig. 6.



Fig. 7.



T A B L E VI.

REPRESENTS the MUSCLES situated about the
THROAT.

FIG. 1.

Part of the Muscles of the Os HYOIDES.

- a*, Part of the maffeter.
- b*, The posterior head of the digastric.
- c*, Its anterior head.
- d*, The stylo-hyoideus, with the tendon of the digastric passing through it.
- e, e*, The sterno-hyoidei.
- f*, The omo-hyoideus.
- g*, The pharynx.
- h*, The submaxillary gland.

FIG. 2.

MUSCLES deeper seated than the former.

- a, a*, The mylo-hyoidei.
- b*, The hyo-glossus.
- c*, The sterno-thyroideus.
- d*, The thyro-hyoideus.
- e*, The submaxillary gland, raised from its place behind the angle of the lower jaw.
- f*, The stylo-glossus, supported by a ligament.
- g*, The stylo-pharyngeus.
- h*, The pharynx.

E

FIG.

T A B L E VI. CONTINUED.

F I G. 3.

MUSCLES deeper seated than the former.

- a*, The genio-hyoideus.
- b*, The genio-hyo-glossus.
- c*, The stylo-glossus, with its supporting ligament.
- d*, The stylo-pharyngeus.
- e*, The submaxillary gland, raised, by which its duct is seen advancing towards its termination at the side of the frænum linguæ.
- f*, The sublingual gland.
- g*, The os hyoides.
- h*, The thyroid cartilage.
- i*, The cricoid cartilage, with the crico-thyroid muscles.
- k*, The thyroid gland.
- l*, The trachea.
- m*, The pharynx.

F I G. 4.

Muscles of the PALATE, viewed on the Under Side.

- a*, The levator palati.
- b, c*, The circumflexus palati; *c*, Its tendon passing over the hook-like process of the pterygoid plate.
- d*, The membrane of the palate.
- e, e*, The mouths of the Eustachian tubes.
- f, f, f*, The circumference from which the membrane of the palate is cut off.

F I G. 5.

A Lateral View of the MUSCLES, seated under the HEAD, and before the Vertebrae of the NECK.

- a*, The pterygoideus externus.

b, The

T A B L E IV. CONTINUED.

- b*, The pterygoideus internus.
- c*, The mylo-hoideus.
- d*, The stylo-hyoideus.
- e, f*, The digastricus.
- g, h*, The hyo-glossus.
- i*, The os hyoides.
- k*, The thyro-hyoideus.
- l*, The thyroid cartilage.
- m*, The crico-thyroideus.
- n*, The cricoid cartilage.
- o*, A section of the œsophagus.
- p*, The constrictor pharyngis inferior.
- q*, The constrictor pharyngis medius.
- r*, The constrictor pharyngis superior.

FIG. 6.

A Back-View of the PHARYNX, with the Under Part of the BONES of the HEAD, to which the Pharynx is fixed.

- a*, The upper point of the constrictor pharyngis inferior.
- b*, The under end of the pharynx, and inner transverse fibres of the œsophagus.
- c, c*, The outer fibres of the œsophagus, descending obliquely backwards on each side.
- d*, A section of the œsophagus.
- e, e*, A section of the trachea.
- f*, The extremities of the cornua of the os hyoides, with the ligaments which join them to the superior cornua of the thyroid cartilage.
- g, g*, The constrictor pharyngis medius, on each side.
- h, h*, The constrictor pharyngis superior, on each side.

T A B L E VI. CONTINUED.

- i*, The naked membrane of the pharynx.
- k, k*, The stylo-pharyngeus, on each side.
- l, l*, The styloid processes of the temporal bones.
- m, m*, The pterygoid processes of the sphenoid bone.
- n, n*, The backmost tooth of the upper and under jaws, on each side.

FIG. 7.

The MUSCLES lying immediately under the MEMBRANE of the PHARYNX, which, with the ŒSOPHAGUS and TRACHEA, are removed.

- a*, The levator palati.
- b*, The azygos uvulæ.
- c*, The palato-pharyngeus.
- d*, The part of it which passes under the levator palati.
- e*, That part of it, called by ALBINUS *Salpingo Pharyngeus*.
- f*, Part of the common end of the palato-pharyngeus and stylo-pharyngeus.
- g*, The posterior edge of the velum palati.
- h*, The uvula.
- i*, The tonsil, projecting before the palato-pharyngeus muscle.
- k*, The tongue.
- l*, The epiglottis.
- m, m*, The points of the arytenoid cartilages.
- n*, The arytenoideus obliquus.
- o, o*, The arytenoideus transversus.
- p*, The crico-arytenoideus posticus.
- q*, The cricoid cartilage.
- r*, The posterior edge of the thyroid cartilage, which conceals the two small muscles termed *Crico-arytenoideus Lateralis* and *Thyro-arytenoideus*.

Fig. 1.

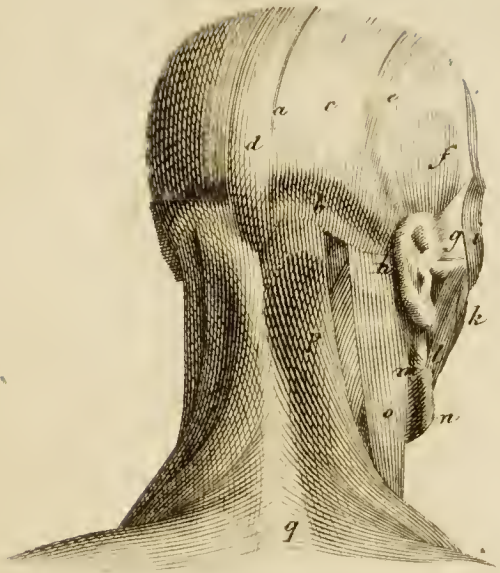


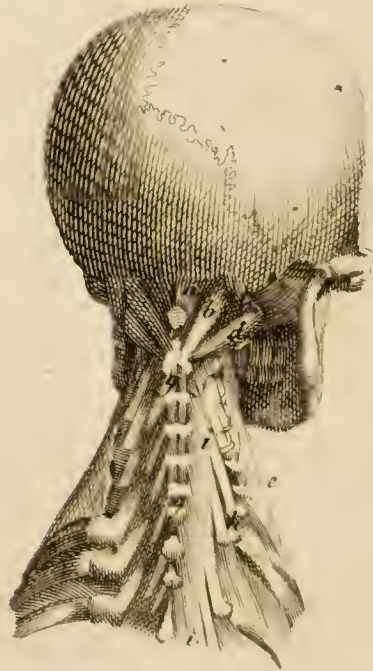
Fig. 2.



Fig. 3.



Fig. 4.



T A B L E VII.

REPRESENTS the MUSCLES situated on the BACK-PART of the HEAD and NECK.

FIG. I.

The First Order of MUSCLES on the Back-part of the HEAD and NECK, after the Integuments have been removed.

- a*, The occipital part of the occipito-frontalis muscle.
- b*, The fleshy, and,
- c*, The tendinous part of this muscle.
- d*, A tendinous membrane, joining the opposite sides of the muscle.
- e*, Part of the tendinous membrane, covering the upper part of the temporal muscle.
- f*, The attollens aurem.
- g*, The anterior auris.
- h*, A small portion of the retrahentes auris.
- i*, The back-part of the orbicularis palpebrarum.
- k*, The zygomaticus major.
- l*, The masseter.
- m*, The pterygoideus internus.
- n*, The platysma myoides.
- o*, The sterno-cleido-mastoideus.
- p*, The upper end of the trapezius.
- q*, The tendinous portion of that muscle, in the nape of the neck, called *Ligamentum Nuchæ*.

FIG.

T A B L E VII. CONTINUED.

F I G. 2.

The Second Order of MUSCLES on the Back-part of the HEAD and NECK.

- a*, The temporalis, its aponeurosis being removed.
- b*, The tendon of the temporal muscle, passing under the zygoma.
- c*, The pterygoideus internus.
- d*, The masseter.
- e*, The mylo-hyoideus.
- f*, The levator scapulæ.
- g*, The splenius.
- h*, The upper end of the complexus.
- i*, A portion of the rhomboides major.
- k*, Part of the rhomboides minor.
- l*, The upper end of the serratus posticus superior.

F I G. 3.

The Third Order of MUSCLES on the Back-part of the HEAD and NECK.

- a*, The back-part of the buccinator.
- b*, The pterygoideus internus.
- c*, The mylo-hyoideus.
- d, e, f*, The complexus; *f*, A fleshy slip from the spinous process of the first dorsal vertebra.
- g*, The trachelo-mastoideus.
- h*, The scalenus medius.
- i*, The scalenus posticus.
- k*, The semi-spinalis colli.
- l*, Interspinales colli.

m, Obliquus

T A B L E VII. CONTINUED.

- m*, Obliquus capitis superior.
- n*, Transversalis colli.
- o*, The upper end of the longissimus dorsi, joining the trachelo-mastoideus and cervicalis descendens.
- p*, The fleshy slip from the sacro-lumbalis, called *Cervicalis Descendens*.

F I G. 4.

*The Fourth Order of MUSCLES on the Back-part of the
HEAD and NECK.*

- a*, The rectus capitis posterior minor.
- b*, The rectus capitis posterior major.
- c*, The obliquus capitis superior.
- d*, The obliquus capitis inferior.
- e*, The scalenus medius.
- f*, The upper end of the multifidus spinæ.
- g, g*, The interspinales colli.
- h, h*, The intertransversales colli.
- i, i*, The semispinalis colli.



TAB. VIII.



T A B L E VIII.

REPRESENTS MUSCLES on the Fore-part of the TRUNK of the BODY.—On the Right Side, the MUSCLES are exposed which lie immediately under the Common Integuments.—On the Left Side, the MUSCLES are seen which are placed under the former.

THORAX.

- a*, The under end of the platysma myoides.
- b*, The pectoralis major, with the deltoides at the outer side of it.
- c, c*, Part of the serratus magnus.
- d*, The edge of the latissimus dorsi.
- e*, The subclavius.
- f*, The pectoralis minor.
- g, g*, The serratus magnus. Farther out, the subscapularis is seen.
- h, h*, The intercostales interni, the tendinous fascia being removed.

ABDOMEN.

- i, i*, The obliquus descendens externus.
- k*, The beginning of the tendon of that muscle.
- l*, The obliquus internus, shining through the tendon of the obliquus externus.
- m, m*, The linea semilunaris.
- p, n*, The rectus abdominis, also shining through the tendon of the obliquus externus.

F

e, e, The

T A B L E VIII. CONTINUED.

- e, e*, The tendinous interfections of the rectus.
p, p, The linea alba.
q, The umbilicus.
r, The pyramidales.
s, The ring of the external oblique muscle, transmitting the spermatic cord.
t, The cremaster muscle, covering the spermatic cord.
u, The lower edge of the external oblique muscle, termed *Ligament of POUPART*.
v, The obliquus internus ascendens.
w, w, The tendon of the obliquus internus, part of which is left covering the outer edge of the rectus muscle. Between *v* and *w* the tendon splits into two layers, which inclose the rectus. From *w* to the pubis the whole of the tendon goes before the rectus.
x, x, The rectus abdominis.
y, y, y, The tendinous interfections of the rectus.
z, The cremaster testis.

Fig. 1.



Fig. 2.

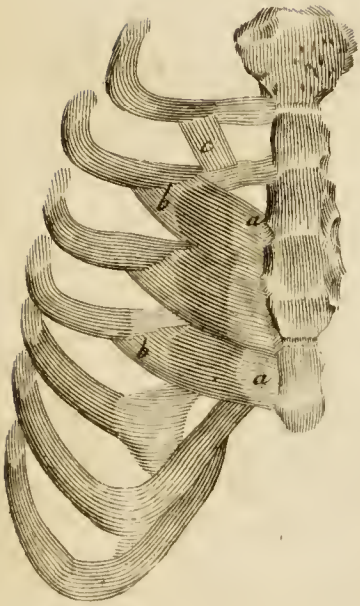


Fig. 3.



TABLE IX.

REPRESENTS the Third Layer of MUSCLES on the Right, and the Fourth Layer of MUSCLES on the Left Side of the Anterior Part of the TRUNK of the BODY.

FIG. 1.

THORAX.

- a*, The intercostales externi.
- b, b, b, b*, The intercostales interni.
- c, c*, The convex or thoracic side of the diaphragm.
- d*, Its middle tendon.
- e, f, g, h*, The fleshy origins of the diaphragm, separated from the inferior margin of the thorax.

ABDOMEN.

- i*, The transversalis abdominis.
- k*, That portion of the tendons of the internal oblique and transverse muscles, which lie behind the rectus.
- l*, The remains of the tendons of the oblique and transverse muscles, forming the linea alba.
- m*, The spermatic vessels, passing under the edge of the transverse muscle.
- n*, The peritoneum, marked by one of the umbilical arteries and the urachus.
- o*, The tendinous crura of the inferior muscle of the diaphragm.
- p*, The passage for the aorta, between the crura.
- q, q*, The fleshy heads of the small muscle of the diaphragm.
- r*, The part where the fibres of the fleshy heads of the opposite sides cross each other, to form,

T A B L E IX. CONTINUED.

- s*, A passage for the œsophagus.
- t*, The origin of the diaphragm from the twelfth rib.
- u*, The psoas parvus.
- v, v*, The psoas magnus.
- w*, The iliacus internus.
- x*, A section of the penis, in which the corpora cavernosa appear.

F I G. 2.

A View of the Inner Surface of the STERNO-COSTALIS MUSCLE.

- a, a*, The tendinous origin, from the cartilago ensiformis and under half of the middle bone of the sternum.
- b, b*, The tendinous insertion into the third, fourth, and fifth ribs.
- c*, Part of the sterno-costalis, passing between the second and third ribs, and which is found in some subjects only.

F I G. 3.

MUSCLES about the Root of the PENIS, and Under End of the INTESTINUM RECTUM,—in a Child.

- a, a*. The sphincter ani.
- b*, The levator ani.
- c*, The transversalis perinei.
- d*, The erector penis.
- e*, The accelerator urinæ.
- f*, The corpus cavernosum penis.
- g*, The corpus spongiosum urethræ.
- h*, The scrotum turned up.
- i*, Part of the thigh.
- k*, The cut edge of the integuments.



T A B L E X.

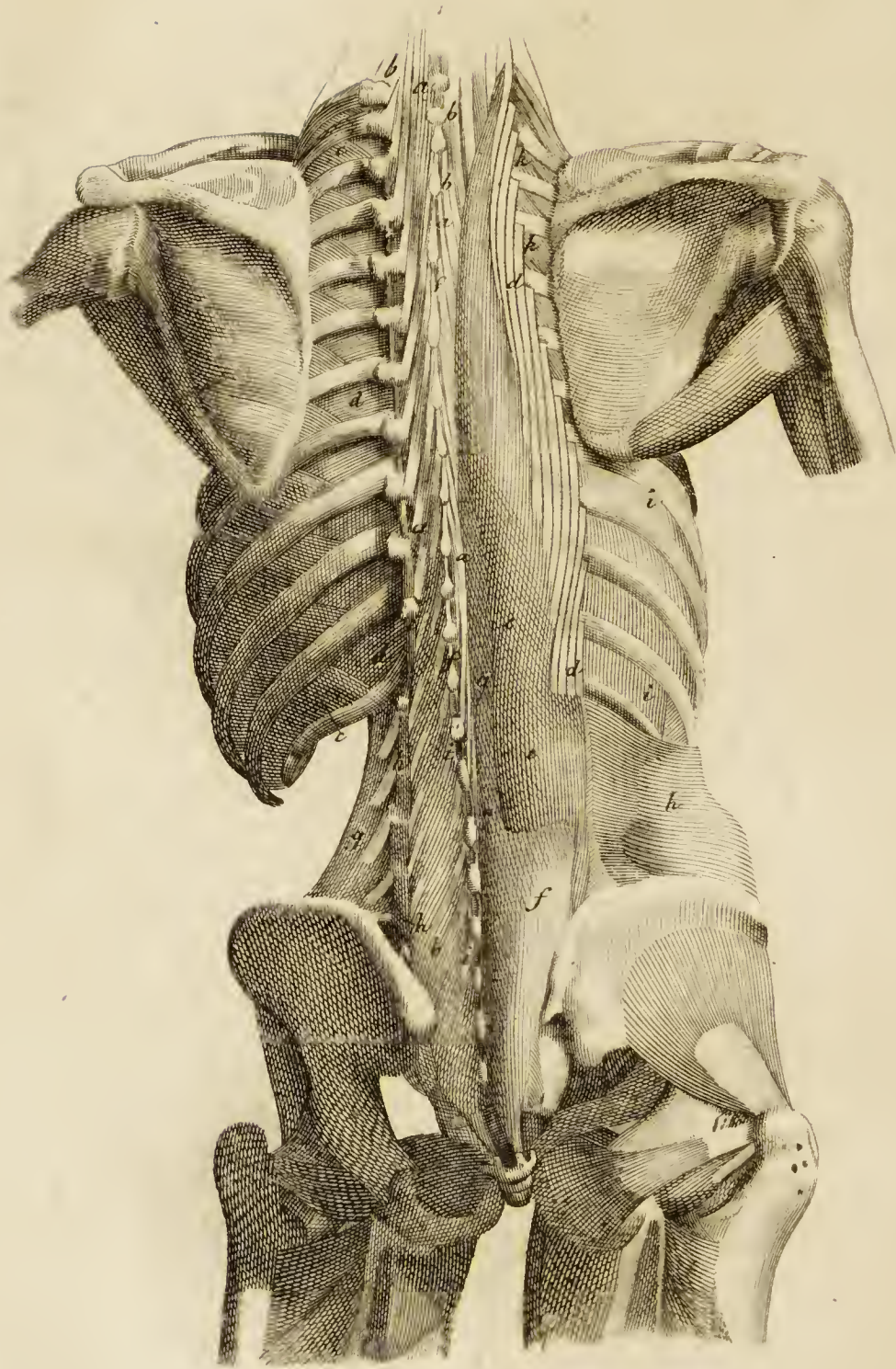
REPRESENTS the First Layer of MUSCLES on the Right, and Second Layer of MUSCLES on the Left Side of the Back-Part of the TRUNK of the BODY.

RIGHT SIDE.

- a, a,* The thoracic portion of the trapezius.
- b, b,* Its insertion into the spine of the scapula.
- c,* The ligamentum Nuchæ.
- d, d,* The latissimus dorsi.
- e,* Its tendinous origin.
- f,* Part of the obliquus externus abdominis.
- g,* Part of the rhomboideus.

LEFT SIDE.

- b,* The rhomboides major, and,
- i,* The rhomboides minor, covering the serratus posticus superior.
- k,* The serratus posticus inferior.
- l,* The part from which the latissimus dorsi was cut.
- m,* The under part of the serratus magnus.
- n,* The tendons of the sacro-lumbalis.
- o,* A portion of the longissimus dorsi.
- p,* Part of the semi-spinalis dorsi.
- q,* The spinalis dorsi.
- r,* The broad tendon common to the latissimus dorsi and serratus posticus inferior.
- s,* The back-part of the obliquus internus abdominis.
- t, t,* The intercostales externi.
- u,* The coccygeus.
- v,* The levator ani.
- w,* The sphincter ani.



T A B L E X I.

REPRESENTS the Third Layer of MUSCLES on the Right, and Fourth Layer of MUSCLES on the Left Side of the Back-part of the TRUNK of the Body.

RIGHT SIDE.

- a, a, a,* The spinalis dorsi.
- b, b,* Part of the semi-spinalis dorsi.
- c,* The longissimus dorsi.
- d, d,* The tendons of the sacro-lumbalis.
- e,* The common fleshy head of the longissimus dorsi and sacro-lumbalis.
- f,* Tendon covering and partly giving origin to this fleshy head.
- g,* Part of this tendon upon the longissimus dorsi.
- h,* The transversalis abdominis.
- i, i,* The intercostales externi.
- k, k,* Portions of the intercostales externi, called by ALBINUS, *Levatores Costarum.*

LEFT SIDE.

- a, a,* The semi-spinalis dorsi.
- b, b,* The multifidus spinæ.
- c, c,* The intercostales interni.
- d, d,* The pleura.
- e, e,* The intertransversales dorsi.
- f, f,* Interspinales dorsi.
- g,* Quadratus lumborum.
- h, h,* Intertransversales lumborum.
- i, i,* Interspinales lumborum.

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1. The first part of the report is devoted to a general description of the country, its position, extent, and population. It also contains a list of the principal towns and cities, and a description of the principal rivers and lakes.

2. The second part of the report is devoted to a description of the principal occupations of the country, and to a list of the principal articles of commerce. It also contains a list of the principal manufactures, and a description of the principal mines.

3. The third part of the report is devoted to a description of the principal religions and customs of the country, and to a list of the principal sects and denominations. It also contains a list of the principal festivals and holidays, and a description of the principal manners and customs.

4. The fourth part of the report is devoted to a description of the principal languages and dialects of the country, and to a list of the principal words and phrases. It also contains a list of the principal idioms and proverbs, and a description of the principal modes of address.

5. The fifth part of the report is devoted to a description of the principal laws and regulations of the country, and to a list of the principal crimes and punishments. It also contains a list of the principal courts and tribunals, and a description of the principal modes of trial.

6. The sixth part of the report is devoted to a description of the principal institutions and societies of the country, and to a list of the principal schools and colleges. It also contains a list of the principal hospitals and dispensaries, and a description of the principal modes of education.

7. The seventh part of the report is devoted to a description of the principal arts and sciences of the country, and to a list of the principal authors and works. It also contains a list of the principal inventions and discoveries, and a description of the principal modes of industry.

8. The eighth part of the report is devoted to a description of the principal military and naval forces of the country, and to a list of the principal battles and sieges. It also contains a list of the principal forts and castles, and a description of the principal modes of warfare.

9. The ninth part of the report is devoted to a description of the principal political and social institutions of the country, and to a list of the principal laws and regulations. It also contains a list of the principal forms of government, and a description of the principal modes of administration.

10. The tenth part of the report is devoted to a description of the principal historical events of the country, and to a list of the principal reigns and dynasties. It also contains a list of the principal wars and revolutions, and a description of the principal modes of succession.

Fig. 3.

Fig. 1.

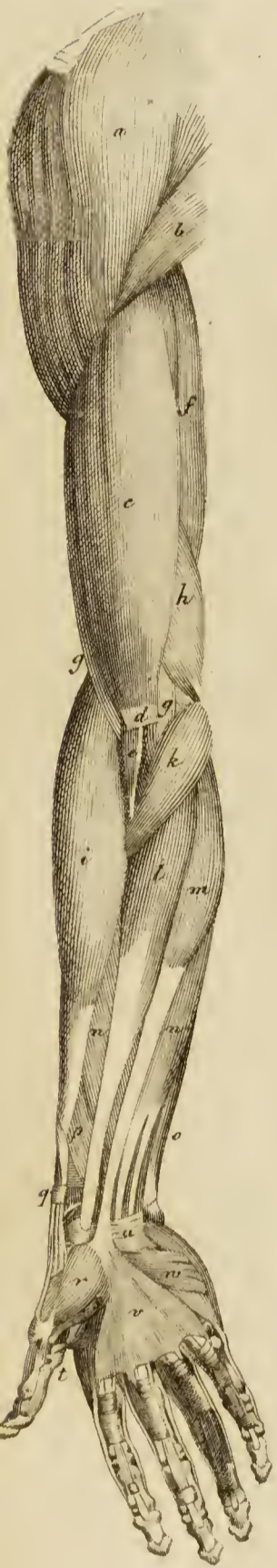


Fig. 2.



Fig. 4.



T A B L E XII.

REPRESENTS the MUSCLES situated on the FORE-PART of the SUPERIOR EXTREMITY.

FIG. I.

A View of the First Layer of MUSCLES on the Fore-part of the SUPERIOR EXTREMITY, the Integuments and Aponeurosis being removed.

- a*, The deltoides.
- b*, The insertion of the pectoralis major.
- c*, The biceps flexor cubiti.
- d*, The aponeurosis of the biceps cut off.
- e*, The round tendon of the biceps.
- f*, The long head of the triceps extensor cubiti.
- g, g*, The brachialis internus.
- h*, The third head of the triceps, called *Brachialis Externus*.
- i*, The supinator radii longus.
- k*, The pronator radii teres.
- l*, The flexor carpi radialis.
- m*, Palmaris longus.
- n, n*, Part of the flexor digitorum sublimis.
- o*, The under end of the flexor carpi ulnaris.
- p*, Part of the flexor longus pollicis.
- q*, The tendons of the extensores ossis metacarpi et primi internodii pollicis, with their annular ligament.
- r*, Abductor pollicis, at the outer edge of which is a small portion of the flexor ossis metacarpi pollicis.
- s*, That portion of the abductor pollicis, called by ALBINUS *Abductor Brevis Alter*.
- t*, Tendon of the flexor longus pollicis, bound by a ligament.
- G* *u*, The

T A B L E XII. CONTINUED.

- u*, The ligamentum carpi annulare anterius.
- v*, The aponeurosis palmaris, extending from the annular ligament of the wrist to the transverse ligaments at the roots of the fingers, and the adjacent edges of the metacarpal bones.
- w*, The palmaris brevis, covering part of the abductor, and flexor parvus minimi digiti.

Upon the fingers are seen the annular ligaments retaining the tendons of the flexor sublimis, and flexor profundus, in their places.

FIG. 2.

The Second Layer of MUSCLES on the Fore-part of the SUPERIOR EXTREMITY.

- a*, The biceps flexor cubiti.
- b*, Its long head.
- c*, Its short head.
- d*, A section of the aponeurotic tendon of the biceps.
- e*, The round tendon of the biceps.
- f*, Part of the coraco-brachialis.
- g*, The subscapularis.
- h*, The teres major.
- i*, The long head of the triceps extensor cubiti.
- k*, Its short head.
- l*, The brachialis externus of the triceps.
- m, m*, The brachialis internus.
- n*, The extensor carpi radialis longior.
- o*, The extensor carpi radialis brevior.
- p*, The supinator radii brevis.
- q*, Insertion of the flexor carpi ulnaris.

r, The

T A B L E XII. CONTINUED.

- r, The flexor digitorum sublimis ; its tendons dividing near their insertion in the second phalanx of the bones of the fingers, for the passage of the tendons of the flexor profundus.
- s, The extensor ossis metacarpi and extensor primi internodii pollicis.
- t, Part of the flexor pollicis longus.
- u, Its tendon.
- v, The ligamentum carpi annulare.
- w, The flexor ossis metacarpi pollicis.
- x, The abductor pollicis brevis alter of ALBINUS.
- y, Part of the flexor brevis pollicis.
- z, Part of the adductor pollicis.
- 1, The abductor indicis.
- 2, The abductor minimi digiti.
- 3, The flexor parvus minimi digiti.
- 4, 4, The four lumbricales.

F I G. 3.

The Third Layer of MUSCLES on the Fore-Part of the SUPERIOR EXTREMITY.

- a, The subscapularis ;
- b, Its tendon.
- c, The teres major ;
- d, Its tendon.
- e, The coraco-brachialis.
- f, The brachialis internus.
- g, The brachialis externus of the triceps.
- h, The extensor carpi radialis longior.

T A B L E XII. CONTINUED.

- i*, Part of the extensor carpi radialis brevior.
- k*, The supinator radii brevis.
- l*, The flexor digitorum profundus.
- m*, The tendons of that muscle passing under the ligamentum carpi annulare, to be inserted into the third phalanx of the fingers.
- n*, The ligamentum carpi annulare.
- o, o*, The four lumbricales.
- p*, The flexor longus pollicis.
- q*, A slip which it sometimes receives from the inner condyle of the os humeri.
- r*, The tendon of the flexor longus pollicis inserted into the last joint of the thumb.
- s*, The flexor brevis pollicis.
- t*, The first interosseous muscle of the fore-finger.
- u*, The adductor minimi digiti.

F I G. 4.

The Fourth Layer of MUSCLES on the Fore-part of the SUPERIOR EXTREMITY.

- a*, The subscapularis.
- b*, The supinator radii brevis.
- c*, The pronator radii quadratus.
- d*, The flexor brevis pollicis, with its insertion into the ossa sesamoidea.
- e*, The adductor pollicis.
- f, f*, The seven interossei,—the first placed at the outer side of the metacarpal bone of the fore-finger,—the rest of them between the metacarpal bones.

Fig. 1.

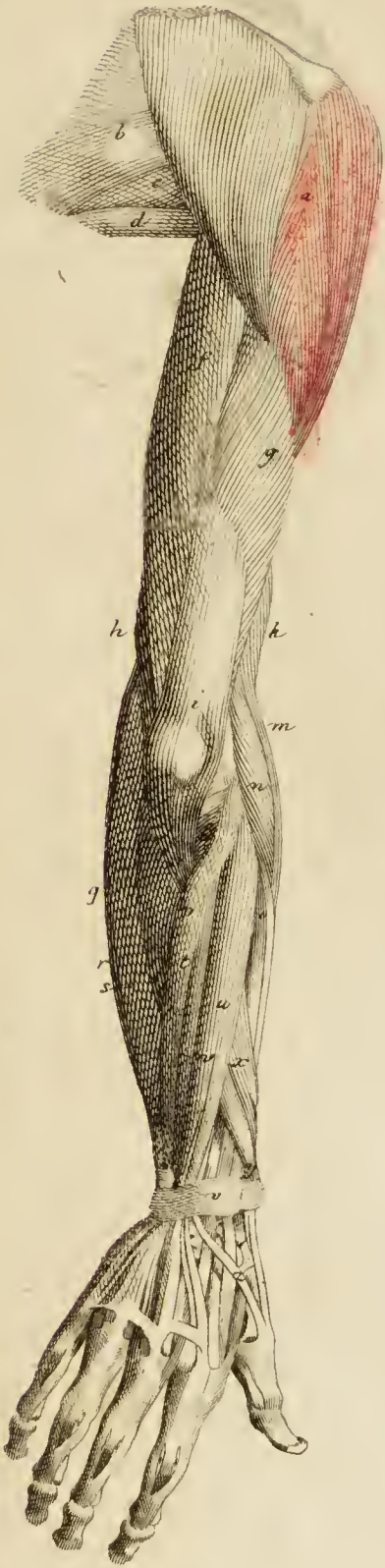


Fig. 3.



Fig. 2.

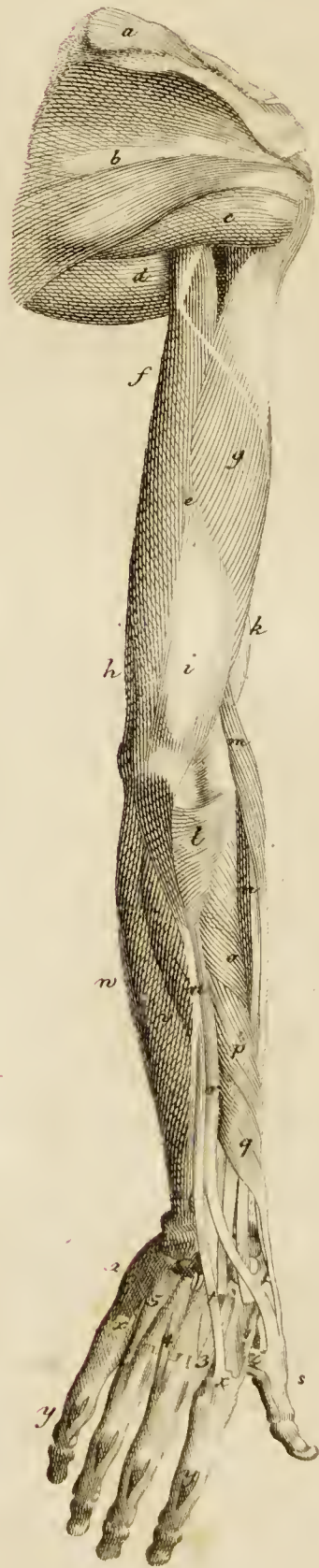


Fig. 4.



T A B L E XIII.

REPRESENTS the MUSCLES on the Back-Part of
the SUPERIOR EXTREMITY.

FIG. I.

*A View of the First Layer of MUSCLES on the Back-Part of the
SUPERIOR EXTREMITY.*

- a*, The deltoides, with its insertion into the os humeri.
- b*, The infra-spinatus.
- c*, The teres minor.
- d*, The teres major.
- e*, The triceps extensor cubiti.
- f*, The long, and,
- g*, The short head of the triceps.
- h*, The third head, called *brachialis externus*.
- i*, The common tendon of the three heads.
- k*, Part of the *brachialis internus*.
- l*, Part of the *anconeus*.
- m*, The *supinator radii longus*.
- n*, The *extensor carpi radialis longior*.
- o*, The *extensor carpi radialis brevior*.
- p*, Part of the *flexor profundus*, which comes from the ulna.
- q*, Part of the *palmaris longus*.
- r*, Part of the *flexor digitorum sublimis*.
- s*, The *flexor carpi ulnaris*.
- t*, The *extensor carpi ulnaris*.
- u*, *Extensor digitorum communis*, in which are seen,
Its passage under *v*, the *ligamentum carpi annulare posterius* ;
The portion *w*, which it sends to the little finger ;
Its flat tendons, running along the metacarpal bones ;
The aponeurotic slips, which join these tendons together
near the first joint of the fingers ;
The tendons upon the back of the fingers, forming broad ex-
panfions

T A B L E XIII. CONTINUED.

panfions which cover and adhere to the first and fecond, and are inferted into the bafe of the third, phalanges ;
The fplitting and rejoining of the tendons, between the first and fecond phalanges, for facilitating the motion of the joints.

x, The extenfor offis metacarpi, and, *y*, The extenfor primi internodii pollicis, with their annular ligament.

z, The tendon of the extenfor fecondi internodii pollicis.

F I G. 2.

The Second Layer of MUSCLES on the Back-Part of the SUPERIOR EXTREMITY.

a, The supra-spinatus.

b, The infra-spinatus.

c, The teres minor.

d, The teres major.

e, The triceps extenfor cubiti.

f, Its long head.

g, Its fhort head.

h, Part of the third head, named *brachialis externus*.

i, The common tendon of the triceps inferted into the olecranon.

k, Part of the brachialis internus.

l, The anconeus.

m, The extenfor carpi radialis longior.

n, The extenfor carpi radialis brevior.

o, The fupinator radii brevis.

p, The extenfor offis metacarpi pollicis.

q, The extenfor primi internodii pollicis.

r, The extenfor fecondi internodii pollicis.

s, The conjoined tendons of the three extenfors of the thumb.

t, The indicator.

u, The flexor digitorum profundus.

v, The

T A B L E XIII. CONTINUED.

- v, The flexor carpi ulnaris.
w, A small portion of the flexor sublimis.
x, x, The cut tendons of the extensor digitorum communis.
y, y, Tendinous slips of the extensor communis, fixed to the second phalanx.
z, The adductor pollicis.
1, The abductor indicis.
2, The abductor minimi digiti.
The posterior interossei, consisting of, 3, The prior medii digiti, 4, Posterior medii digiti, and, 5, Posterior annularis.

F I G. 3.

The Third Layer of MUSCLES upon the Back-Part of the SUPERIOR EXTREMITY.

- a, The teres major.
b, Part of the subscapularis.
c, Part of the coraco-brachialis.
d, Part of the brachialis internus.
e, The brachialis externus.
f, The extensor carpi radialis longior.
g, The extensor carpi radialis brevior.
h, The flexor profundus perforans.
i, The supinator radii brevis.
k, Part of the flexor longus pollicis.
l, The pronator radii quadratus.
m, m, Cut tendons of the extensor digitorum.
n, Flexor brevis pollicis.
o, Adductor pollicis.
p, p, The interossei interni, with portions of the interossei externi, the rest of the interossei externi being cut off.
At the lateral parts of the roots of the fingers, in this and the

T A B L E XIII. CONTINUED.

two former figures, are seen the joining of the tendons of the extensor digitorum, and of the lumbricales and interossei.

FIG. 4.

A Posterior View of the Fourth Layer of MUSCLES on the SUPERIOR EXTREMITY.

- a*, The subscapularis.
- b*, The supinator radii brevis.
- c*, The pronator radii quadratus.
- d*, The flexor brevis pollicis.
- e*, The adductor pollicis.

Fig. 1.

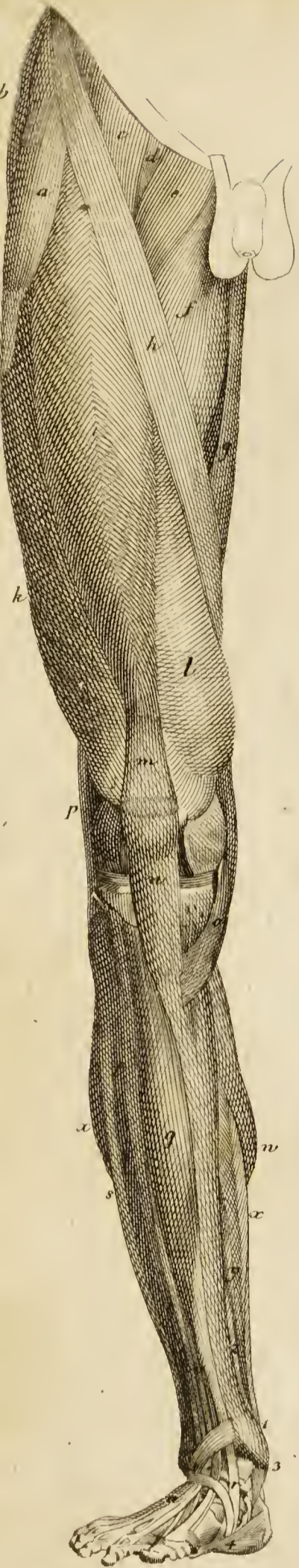


Fig. 2.

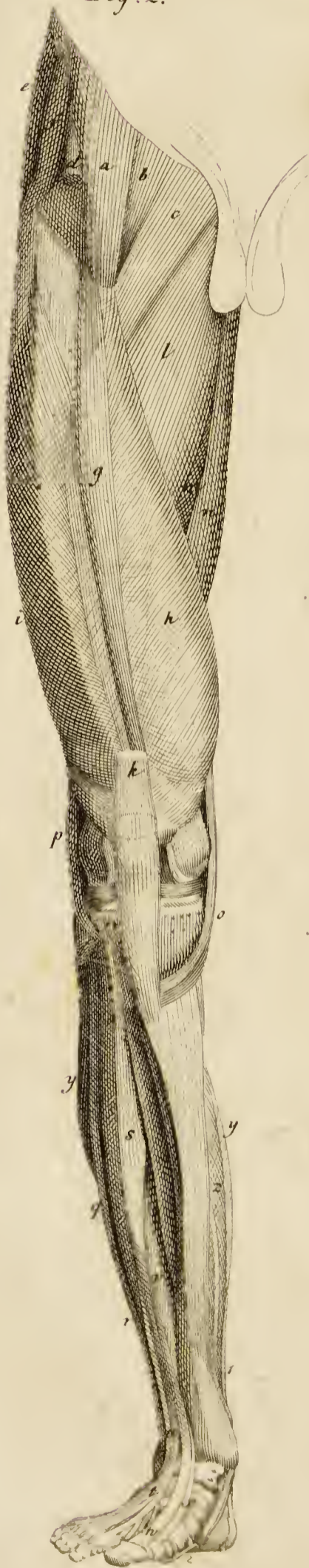


Fig. 3.

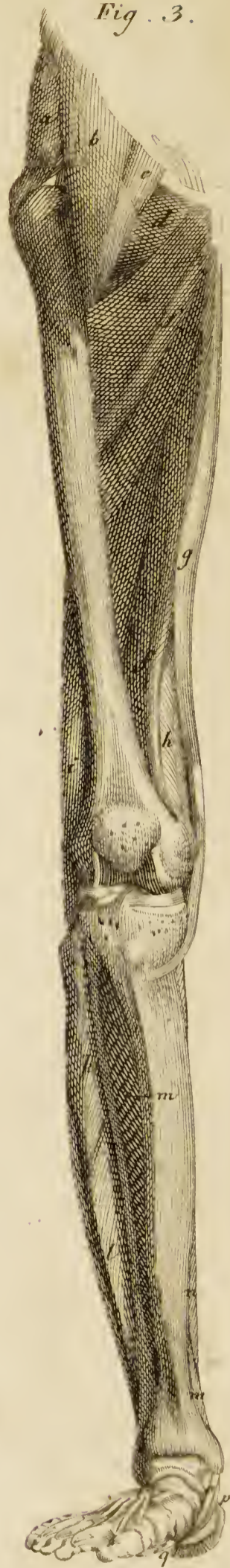


Fig. 4.



T A B L E XIV.

REPRESENTS the MUSCLES on the Fore-Part of the
INFERIOR EXTREMITY.

FIG. I.

The First Layer of MUSCLES on the Fore-Part of the INFERIOR EXTREMITY.

- a*, The tenor vaginæ femoris.
- b*, The anterior edge of the gluteus medius.
- c*, The under end of the iliacus internus, and of,
- d*, The psoas magnus.
- e*, The pectinalis.
- f*, The adductor longus femoris.
- g*, The gracilis.
- h*, The sartorius.
- i*, The rectus femoris.
- k*, The vastus externus.
- l*, The vastus internus.
- m*, The ligament common to the extensors of the leg, fixed to the patella.
- n*, Ligament fixing the patella to the tibia.
- o*, The tendons of the sartorius, gracilis, and semi-membranosus.
- p*, The under end of the biceps flexor cruris.
- q*, The tibialis anticus;
- r*, Its tendon.
- s*, The peroneus longus.
- t*, The extensor longus digitorum pedis.
- u*, The tendons of the extensor longus.

H

v, The

T A B L E XIV. CONTINUED.

- v, The extensor proprius pollicis.
- w, The gastrocnemius externus.
- x, x, The gastrocnemius internus.
- y, The flexor longus digitorum pedis.
- z, The tibialis posticus.
- 1, The tendo Achillis, and tendon of the plantaris.
- 2, The upper and under portions of the ligamentum tarfi annulare.
- 3, Ligaments retaining the tendons at the inner ankle.
- 4, The abductor pollicis.

F I G. 2.

*The Second Layer of MUSCLES on the Fore-Part of the
SUPERIOR EXTREMITY.*

- a, The under end of the iliacus internus.
- b, The under end of the psoas magnus.
- c, The pectinalis.
- d, The cut end of the rectus femoris.
- e, The anterior edge of the gluteus medius.
- f, The gluteus minimus.
- g, The cruralis, with its tendinous fascia.
- h, The vastus internus.
- i, The vastus externus.
- k, The cut end of the rectus fixed to the patella.
- l, The adductor longus femoris.
- m, A small portion of the adductor magnus.
- n, The gracilis.
- o, The tendons of the gracilis and semi-tendinosus.
- p, The tendon of the biceps flexor cruris.
- q, The peroneus longus.
- r, The

T A B L E XIV. CONTINUED.

- r, The peroneus brevis.
- s, The extensor longus digitorum pedis ;
- t, The tendons of that muscle.
- u, The peroneus tertius.
- v, The extensor proprius pollicis ;
- w, Its tendon ;
- x, A branch of that tendon not constant.
- y, y, The edges of the gastrocnemius internus.
- z, The edge of the flexor longus digitorum pedis.
- 1, The tendons of the tibialis posticus and flexor longus digitorum.
- 2, Part of the flexor brevis digitorum.

F I G. 3.

The Third Layer of MUSCLES on the Fore-part of the INFERIOR EXTREMITY.

- a, The gluteus minimus.
- b, The iliacus internus.
- c, The psoas magnus.
- d, The obturator externus.
- e, The adductor brevis.
- f, f, The adductor magnus.
- g, The gracilis.
- h, The semi-membranosus, with its insertion in the tibia.
- i, The short head of the biceps flexor cruris.
- k, The peroneus longus.
- l, The peroneus brevis.
- m, m, The tibialis posticus, the interosseous ligament being removed.
- n, The flexor longus digitorum pedis.
- o, The tendon of the tibialis posticus.
- p, The tendon of the flexor longus digitorum.

T A B L E XIV. CONTINUED.

q, The tendon of the flexor longus pollicis pedis.

r, The extensor brevis digitorum pedis.

F I G. 4.

*An Anterior View of the Fourth Layer of MUSCLES on the
INFERIOR EXTREMITY.*

a, The psoas magnus.

b, The iliacus internus.

c, The obturator externus.

d, d, The adductor magnus.

e, The tibialis posticus ;

f, Its tendon.

g, The peroneus brevis.

h, The interossei externi.



Fig. 1.

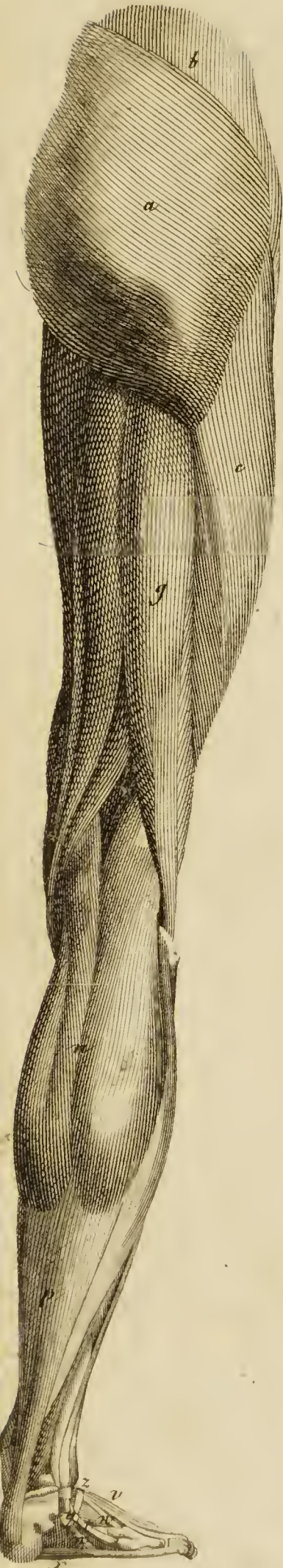


Fig. 2.

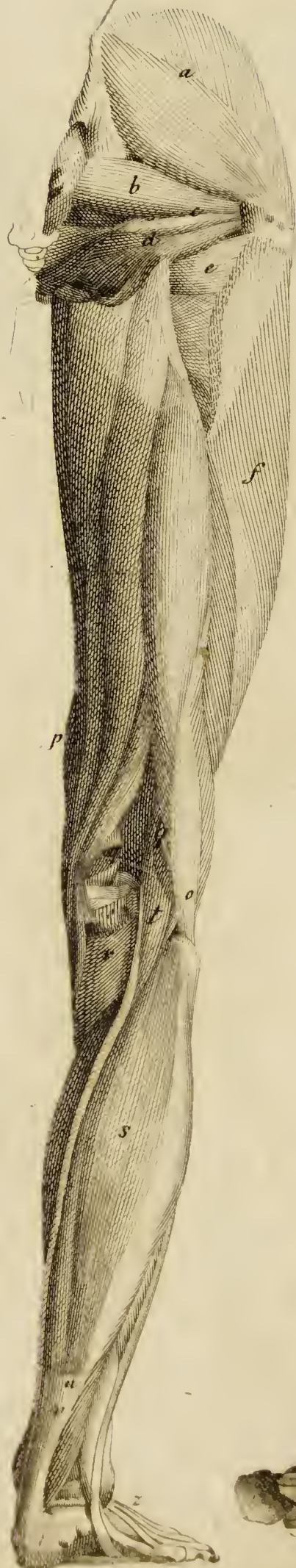


Fig. 3.

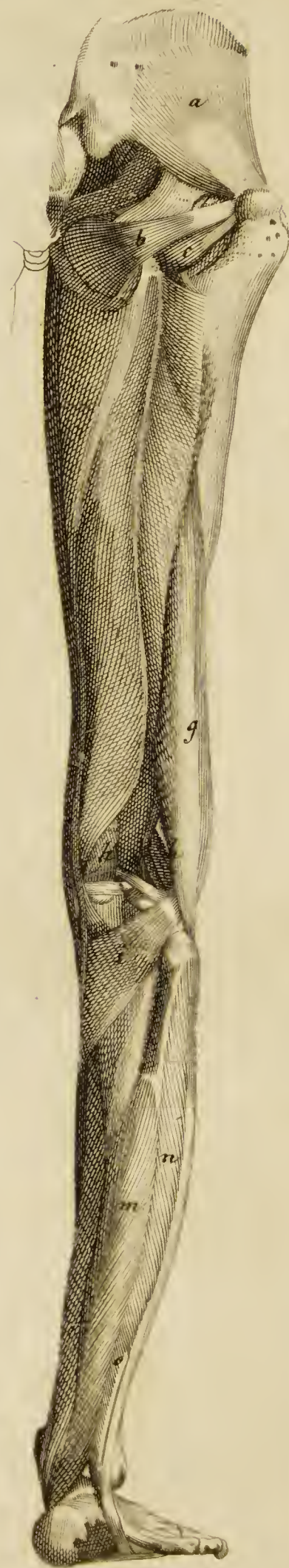


Fig. 4.



Fig. 5.

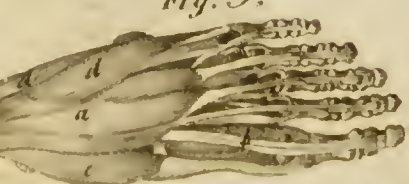


Fig. 6.

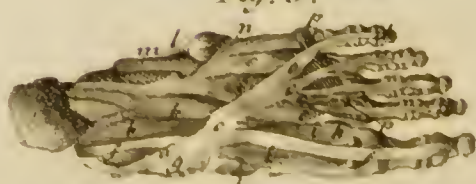


TABLE XV.

REPRESENTS the MUSCLES situated on the BACK-PART of the INFERIOR EXTREMITY.

FIG. 1.

A View of the First Layer of MUSCLES on the Back-part of the INFERIOR EXTREMITY.

- a*, The gluteus maximus.
- b*, Part of the gluteus medius.
- c*, The vastus externus.
- d*, Part of the adductor magnus femoris.
- e*, The gracilis.
- f*, Part of the sartorius.
- g*, The long head of the biceps flexor cruris ;
- h*, Its short head.
- i*, The semi-tendinosus.
- k*, The semi-membranosus.
- l*, Part of the vastus internus.
- m*, The edge of the plantaris.
- n*, The gastrocnemius externus.
- o, o*, The edges of the gastrocnemius internus.
- p*, The tendo Achillis.
- q*, The peroneus longus.
- r*, The peroneus brevis.
- s*, The flexor longus pollicis pedis.
- t*, The tendon of the peroneus brevis.
- u*, The tendon of the peroneus longus, in its passage to the sole.

v, The

T A B L E XV. CONTINUED.

- v, The tendons of the extensor longus digitorum pedis.
- w, The tendon of the peroneus tertius.
- x, The abductor minimi digiti pedis.
- y, A ligament common to the long and short peronei muscles, and one proper to each of them.
- z, The ligamentum tarfi annulare.

FIG. 2.

*The Second Layer of MUSCLES on the Back-part of the
INFERIOR EXTREMITY.*

- a, The gluteus medius.
- b, The pyriformis.
- c, The gemini.
- d, The tendon of the obturator internus passing between the gemini.
- e, The quadratus femoris.
- f, The vastus externus.
- g, The adductor magnus femoris.
- h, The semi-tendinosus.
- i, The gracilis.
- k, The semi-membranosus.
- l, The biceps flexor cruris.
- m, The long head of the biceps.
- n, The short head.
- o, The common tendon of the two heads.
- p, Part of the vastus internus.
- q, q, The cut heads of the gastrocnemius externus.
- r, The popliteus.
- s, The soleus.

t, The

T A B L E XV. CONTINUED.

- r, The plantaris.
- u, The cut tendon of the gastrocnemius externus.
- v, The tendo Achillis, with the tendon of the plantaris adhering to it.
- w, The peroneus longus.
- x, The peroneus brevis.
- y, The flexor pollicis longus.
- z, The tendons of the extensor digitorum longus.
- 1, The extensor brevis digitorum.
- 2, The flexor brevis digitorum.

F I G. 3.

*The Third Layer of MUSCLES on the Back-part of the
INFERIOR EXTREMITY.*

- a, The gluteus minimus.
- b, The obturator internus.
- c, The tendon of the obturator externus.
- d, The gracilis.
- e, The semi-membranosus.
- f, f, The adductor magnus femoris.
- g, The short head of the biceps.
- h, h, The cut heads of the gastrocnemius externus, with a view of the femilunar cartilages.
- i, The popliteus.
- k, The tibialis posticus.
- l, The flexor longus digitorum pedis.
- m, The flexor longus pollicis pedis.

n, The

T A B L E XV. CONTINUED.

- n*, The peroneus longus, with the passage of its tendon to the sole.
- o*, The peroneus brevis.
- p*, The extensor brevis digitorum pedis.
- q*, The flexor digitorum accessorius.

F I G. 4.

A Posterior View of the Fourth Layer of MUSCLES on the INFERIOR EXTREMITY.

- a*, Part of the iliacus internus.
- b*, Part of the psoas magnus.
- c*, Their insertion into the trochanter minor.
- d*, The obturator externus.
- e, e*, The adductor magnus femoris.
- f*, The tibialis posticus.
- g*, The peroneus brevis, with the insertion of its tendon.

F I G. 5.

Represents the First Layer of MUSCLES on the Sole of the Foot, after removing the Common Integuments, the Aponeurosis Plantaris, and the Vaginal Ligaments of the Toes.

- a*, The flexor brevis digitorum, the tendons of which are perforated by the tendons of the flexor longus, and inserted into the second phalanx of the four small toes.
- b*, The tendon of the flexor longus pollicis, at the sides of which the flexor brevis pollicis appears.
- c*, The abductor pollicis.
- d, d*, The abductor minimi digiti.
- e, e*, The transversalis pedis.

F I G.

T A B L E XV. CONTINUED.

F I G. 6.

The MUSCLES which appear in the Sole, after those represented in the former Figure, have been removed.

- a*, The tendon of the flexor longus digitorum.
- b, b*, The flexor digitorum accessorius, with its insertion into the tendon of the flexor longus digitorum.
- c*, The connection of the flexor longus digitorum, and flexor longus pollicis.
- d, d*, The insertion of the tendons of the flexor longus digitorum into the last phalanx of the four small toes.
- e, e, e, e*, The four lumbricales.
- f, f*, The tendon of the flexor longus pollicis.
- g*, The insertion of the tibialis posticus.
- h*, The insertion of the tibialis anticus.
- i, i*, The two portions of the flexor brevis pollicis.
- k*, A small portion of the adductor pollicis.
- l*, The insertion of the peroneus brevis.
- m*, The tendon of the peroneus longus, passing to the sole.
- n*, The flexor brevis minimi digiti.
- o, o*, Two of the interossei, the insertions of which, and of the other interossei, are seen at the lateral parts of the roots of the toes.
- p, p*, The transversalis pedis.



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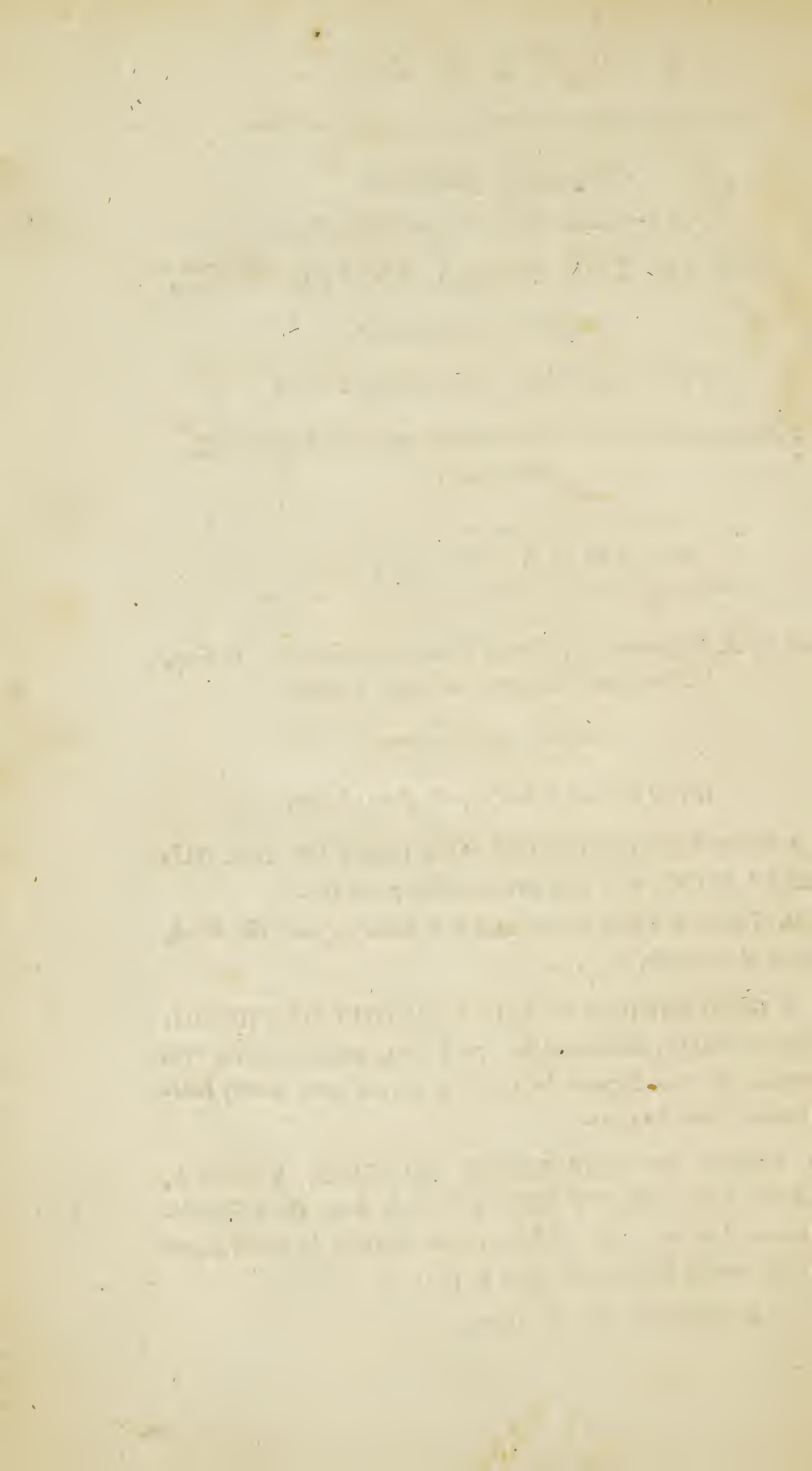
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