The anatomy, particular and surgical, of the human body / [Peter David Handyside].

THIS Series of Engravings, intended to illustrate the Particular and Surgical Anatomy of the Human Body, consists of a Selection from the well known and deservedly popular System of Anatomy of the late MR FYFE. I have, however, arranged, revised, and carefully corrected the Plates, and at the same time have annexed an entirely new Letter-press,—one systematically arranged, and in strict accordance with the most modern and generally received Anatomical Nomenclature.

My object in preparing these Plates is,—a desire to present *as aids to, and as reminiscences of Practical Anatomy*, a few faithful and accurate delineations of Structure, at such a price as may place them within the reach of every Medical Student and Practitioner.

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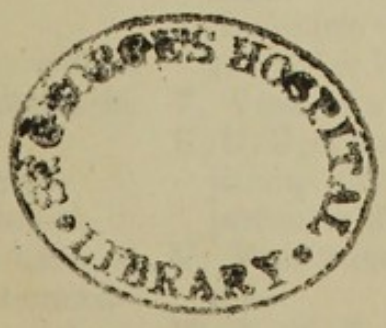
January 1837.



THE

BLOOD-VESSELS.

EXPLANATION OF PLATE I.

Being a Front View of an injected and dried Preparation of the HEART and LUNGS, with their Large VESSELS.—Although the LUNGS, from being dried, were much contracted, yet the relative position of all the parts is well displayed.—*(Fyfe.)*

A, Right subclavian vein.
B, Right external jugular vein;
C, Its termination in the subclavian vein.—Between B and C, two pairs of valves are seen.
D, Right internal jugular vein.
E, A pair of valves at the termination of this vein in the subclavian.
F, Termination of the small or right thoracic duct, in the angle between the internal jugular and subclavian veins.
G, Right vena anonyma.
H, Left subclavian vein.
I, Left external jugular vein, with a pair of valves at its termination in the subclavian.
K, Left internal jugular vein;
L, Its termination and valves.
M, Thoracic duct, where it forms a curvature previous to its termination;
N, Its termination with a pair of valves.
O, Left vena anonyma, with the termination of the left internal mammary vein.
P, Vena cava superior, formed by the junction of the venæ anonymæ, and receiving the right internal mammary vein.
Q, Vena azygos, turning round the right branch of the trachea, and terminating in the superior vena cava.
R, Vena cava entering the pericardium.
S, Its course within the pericardium, and before it enters the heart.
T, Vena cava inferior.
U, U, U, Trunks of the hepatic veins joining the vena cava, where it perforates the diaphragm.
V, Vena cava joining the right auricle.
W, X, Y, Z, Right auricle; only a small part of which is seen in this view.—W, X, Auricular appen-

dage.—W, Y, Z, Right sinus venosus.

a, b, c, d, Right ventricle, with branches of the coronary artery and vein dispersed upon it.—*a,* Space opposite to the right auriculo-ventricular opening.—*c,* Apex of the ventricle.—*d,* Origin of the pulmonary artery.

e, Two of the *Sinuses* of VALSALVA, the third being placed on the opposite side of the artery.

d, f, Trunk of the pulmonary artery fore-shortened.

f, Passage of the artery through the pericardium, and its division into,

g, g, Two great branches, the right passing beneath the arch of the aorta, and being considerably longer than the left.

h, h, &c. Their principal ramifications in the lungs.

i, i, &c. Pulmonary veins.

k, k, Their passage towards the left sinus venosus and auricular appendage.

l, The left auricular appendage.

m, Part where the left auricle opens into *n, o, p, q,* the left ventricle.

m, o, p, The left coronary artery and vein lodged in the groove, in front of the septum cordis.

q, Apex of the heart.

r, Origin of the aorta, and one of the *Sinuses* of VALSALVA.

r, s, Aorta ascendens, and its situation within the pericardium.—*s,* Dilated part of the aorta, sometimes called its *Great Sinus.*

s, t, Arch of the aorta, giving off the

u, Arteria innominata,

v, Left carotid, and,

w, Left subclavian.

x, Division of the arteria innominata into the

y, Right subclavian, and,

z, —— carotid.

1. Course of the left carotid.
2. That of the left subclavian.
3. Aorta descendens.
4. Trachea.
5. *Right* branch of the Trachea, the *Left* branch passing under the arch of the aorta.

6. 6. &c. Ramifications of the trachea in the lungs.

7. 7. &c. The lungs shrivelled.

8. 8. 8. Relations of the *Pericardium Reflexum* to the roots of the great vessels.

EXPLANATION OF PLATE II.

Being a View of the Arteries, and of the Deeper Nerves of the Neck. *(From Haller.)*

A, Larynx.

B, B, Trachea.

C, C, Right lobe of the Thyroid gland.

D, Esophagus.

E, Rectus capitis anticus major.

F, Scalenus anticus.

G, H, Scalenus medius and posticus.

I, I, Levator anguli scapulæ.

K, Complexus.

L, Splenius capitis.

M, Heart turned aside.

N, Coronary artery.

O, Vena cava superior.

a, Arteria innominata.

b, Right carotid.

c, —— subclavian.

d, Vertebral.

e, Internal mammary.

f, Superior intercostal.

g, An irregular branch from the subclavian artery, termed *Superficialis Colli*.
h, External thoracic.
i, Thyroid axis.
k, Supra-scapular (transversalis humeri).
l, Transversalis colli.
m, Servicalis superficialis.
n, Branches to the levator, complexus, splenius, and trapezius.
o, Cervicalis ascendens.
p, Thyroid branch of the thyroid axis.
q, Its thoracic branch.
r, Anastomoses with the superior intercostal.
s, Left bronchial artery.
t, *t*, Aortic intercostal arteries.
u, Uppermost of the inferior intercostals, from which the right bronchial goes off.
v, Aorta descendens.
w, Right carotid.
x, Internal carotid.
y, External carotid.
z, Superior thyroid artery, with superior laryngeal, muscular, and thyroid branches.

Nerves.

1. 1. Pneumogastric (or 8th) nerve.
   2. 2. Its recurrent branch.
   3. Its cardiac branch.
   4. Its œsophageal branches or plexus.
6. Middle cervical ganglion.
   5. Its branch to the upper cervical ganglion.
   7. Its cardiac branches.

EXPLANATION OF PLATE III.

Which represents the Upper Part of the AORTA, the CAROTID ARTERIES, and particularly the Internal MAXILLARY BRANCH, and the Serpentine Course of the Internal CAROTID.—*(From Haller.)*

A, Part of the arch of the aorta.
B, Arteria innominata.
C, C, The common carotids.
D, Internal carotid.
E, External carotid.
F, F, Superior thyroid artery, drawn downwards.
G, Windings of the internal carotid beneath the cranium;
H, Its curvature within the temporal bone.
I, Section of the internal carotid, where it lies at the side of the Sella Turcica.
K, Lingual artery.
L, Facial artery raised from its groove in the submaxillary gland.
M, N, O, Its branch named Palatina ascendens, to the palate and uvula.
P, Its Submental branch, which goes to the chin, and anastomoses with the inferior coronary artery.
S, Occipital artery.
T, Posterior auricular artery.
p, Arteria pharyngea ascendens.
r, Posterior meningeal branch drawn down.
R, R, Temporal artery.
U, Anterior branch of the temporal artery.
V, Its posterior branch.
W, Its auricular branch.
X, A branch to the masseter and temporal muscles.
Y, Trunk of the internal maxillary artery.
Z, Meningeal branch of this artery.
a, Inferior maxillary branch.
b, Pterygoid branch of the meningeal artery.

c, Two pterygoid branches of the maxillary artery.
d, Deep posterior temporal branch.
e, Deep anterior temporal branch.
f, Ramus buccalis, which ramifies in the buccinator muscle.
g, Alveolar branch of the maxillary artery, which anastomoses with O.
h, Infra-orbitar branch of the maxillary artery.
Q, Part where the infra-orbitar and alveolar branches of the internal maxillary anastomose.
k, *k*, Pharyngea or Palatina descendens, which anastomoses with O and *g*.
l, Superior pharyngeal branch.
m, A branch to the nose.
n, Branches to the periosteum of the orbitar fissure.
s, Branches to the pharynx and muscles of the uvula.

Nerves, &c.

t, Internal jugular vein.
u, Facial (or seventh) nerve.
v, Its anastomosis with the pneumogastric nerve.
w, Hypoglossal (or ninth) nerve.
x, Ramus descendens noni of this nerve, to the muscles of the neck.
y, Pneumogastric nerve.
z, Spinal accessory nerve.
1. 1. Glosso-pharyngeal nerve.
5. 5. Superior cervical ganglion.
4. Its ascending branch.
2. 3. Branches of 4 to the ganglion of Bock, and the 6th nerve.
* Ganglion of Bock.
6. Connexion between 1st and 2d cervical ganglia.
7. The inferior maxillary nerve from the third of the fifth.
8. Its gustatory (or lingual) branch.
11. The infra-orbitar branch from the second to the fifth nerve.
13. The ramus palatinus of the second of the fifth nerve.
15. Trochlearis, (or fourth) nerve.
16. Abducens, (or sixth) nerve, and its connexion with 2. and 3.
17. Motor Oculi, (or third) nerve.
18. Optic, (or second) nerve.
20. 21. 22. Stylo-glossus, stylo-hyoideus, stylo-pharyngeus muscles.
23. Ball of the eye.
24. Inferior oblique muscle.
25. Abductor oculi.
26. Levator oculi.
27. Levator palpebræ superioris.
28. Part of the Antrum Highmorianum.

EXPLANATION OF PLATE IV.

A View of the Vertebral and Carotid Arteries, with some of the Branches of the External Carotid in a Child.—*(From Haller.)*

a, Subclavian artery.
b, Course of the subclavian.
c, Transversalis humeri.
d, Inferior thyroid, giving off an anterior cervical branch.
e, Cervicalis ascendens.
f, Common carotid artery.
g, External carotid.
h, Superior thyroid artery.
i, Lingual artery.
k, Facial artery.
l, Occipital artery.
m, Mastoid branch.
n, Ramifications of the occipital artery.
o, Vertebral artery, with its numerous branches to the spinal marrow and its membranes,—and others which communicate with the cervicalis profunda.
p, Its curve over the atlas.
q, Transversalis colli.

EXPLANATION OF PLATE V.

Which represents the Common Carotid Artery; its division into Internal and External Carotids; the Course of the former in the Neck, and the principal Branches of the latter.—*(From Haller.)*

A, Inferior margin of the thyroid cartilage.
B, Its superior margin.
C, Body of the os hyoides.
D, Sub-maxillary gland.
E, Sublingual gland.
F, Base of the lower jaw, the ramus of which bone is removed.
G, External pterygoid process.
H, Fore part of the zygoma.
I, Back part of the zygoma, the intermediate portion having been removed.
K, Meatus auditorius.
L, Mastoid process.
M, Foramen ovale.
N, Transverse process of the atlas.
O, Sterno-thyroideus.
P, Omo-hyoideus.
Q, Q, Sterno-hyoidei.
R, Mylo-hyoideus.
S, Part of the hyo-glossus, the most of which is cut away.
T, Constrictor superior of the pharynx, connected with
* The pterygo-maxillary ligament.
U, Stylo-glossus.
V, Stylo-pharyngeus.
W, Levator palati.
X, Circumflexus palati.
Y, Obliquus capitis superior.
Z, ——— inferior.
a, Levator anguli scapulæ.
b, Complexus.
c, Pneumo-gastric nerve.

Arteries.

d, *d*, Vertebral artery.
e, Its muscular branches to the obliqui capitis, rectus major, complexus, and rectus minor.
f, Common carotid artery.
g, Bifurcation of the common carotid.
h, *h*, Internal carotid a little curved in this place.
i, Its point of entrance into the carotic canal.
k, External carotid artery.
l, Superior thyroid artery.
m, Branch to the hyo-thyroideus, hyo-glossus, and sterno-hyoideus.
n, Branch to the sterno-hyoidei muscles.
o, Branch descending a great way under the skin to the omo-hyoideus;
p, Branch to the crico-thyroideus and thyroid gland.
q, Pharyngea ascendens.
r, A superficial branch to the parotid gland.
s, Branch ramifying on the pharynx.
t, Branch to the pneumogastric nerve, sympathetic ganglion, scalenus, recti capitis antici, and longus colli.
u, *u*, Lingual artery.
v, Branch to the hyo-glossus.
w, Arteria ranina, or lateralis linguæ.
x, Superficial, or sublingual branch to the mylo-hyoideus.
y, Facial artery.
z, Palatina ascendens.
1. Large branch to the sub-maxillary gland.
2. 3. *Submentalis*, to the sublingual gland and mylo-hyoideus.
4. Course of the facial artery towards the lips.
5. Occipital artery.

6. Stylo-mastoid artery.
7. Posterior auricular artery.
8. 8. Cervical, occipital, and temporal branches of the occipital artery.
9. Winding of the *external carotid* before it divides into the
10. Superficial temporal, and the
&, Internal maxillary.
11. Middle meningeal artery, passing through the foramen spinale.
12. 13. Deep temporal branches.
14. Internal maxillary artery, lying on the root of the external pterygoid process.
15. Maxillary or alveolar branches.
16. Infra-orbitar artery.
17. Nasalis posterior and palatina descendens, appearing obscurely in the spheno-maxillary fissure.

EXPLANATION OF PLATE VI.

A View of the ARTERIES, and of some of the principal VEINS, on the HEAD.—*(From Haller.)*

D, Situation of the common carotid artery, marked by dotted lines, and faintly coloured.
E, Situation of the internal carotid artery.
B, B, Parotid gland.
15. Socia parotidis.
14. Duct of the parotid gland.
16. Duct of the socia parotidis.
17. Sub-maxillary gland.
18. Masseter muscle.
19. Depressor anguli oris.
20. ——— labii inferioris.
21. Orbicularis oris.
22. Buccinator.
23. Zygomaticus.
24. Levator labii superioris alæque nasi.
25. Levator anguli oris.
26. Orbicularis palpebrarum.
27. Frontalis.
28. Temporalis.
29. Sterno-cleido-mastoideus.
30. Section of the trachea.
31. Œsophagus.
32. 32. Integuments cut and turned back.

Arteries.

F, Situation of the external carotid artery.
d, Superior thyroid artery.
G, Sublingual artery, covered with veins and with the hyo-glossus muscle.
H, Facial artery, also covered at its beginning.
e, Muscular and glandular branches.
f, Palatina ascendens.
a, Submentalis.
* Facial artery, in its groove of the inferior maxillary bone, in front of the masseter.
g, Muscular artery of the under lip, anastomosing wit the submentalis, and with
b, *b*, *b*, Coronary artery of the under lip, ramifying in the masseter, buccinator, and depressor anguli oris, and terminating in the orbicularis oris.
I, I, Occipital artery covered by the parotid gland and by muscles, and becoming superficial on the occiput.
x, Posterior auricular artery.
h, Pharyngea ascendens concealed.
K, Temporal artery covered by the parotid gland.
y, *y*, *y*, Branches to the parotid gland.

i, i, Transversalis faciei arising from the temporal artery,—uncommonly large in this figure.

k, Branch to the temple and under eye-lid.

l, Branches to the muscles, 23, 24, and 25.

c, c, c, Continuation of the transversalis faciei, forming, in this figure, the coronary artery of the upper lip, also the

m, Lateralis nasi artery, communicating with the

s, Ophthalmic artery coming from the orbit.

n, Continuation of the superior coronary artery, sending off the

v, Nasalis externa, and then communicating with the artery of the opposite side.

o, Seat of the infra-orbitar artery (a branch of the internal maxillary.)

p, Anastomosis of the infra-orbitar and transversalis faciei.

q, Anastomosis of the infra-orbitar and superior coronary artery.

r, Anastomosis of the infra-orbitar with the ophthalmic.

Besides these anastomoses, the faintly coloured lines point out others at the ala of the nose and on the upper lip.

t, Anastomosis of the ophthalmic with the lateralis nasi.

u, Anastomosis of the ophthalmic with *p.*

w, Supra-orbital branch of the ophthalmic.

2. Deep branch of the temporal artery.

4. Anterior auricular branch of the temporal artery.

5. Anterior temporal branch.

6. Anastomoses of the anterior temporal with *w.*

7. Branches of the temporal artery to the frontal and coronal regions of the head.

8. Posterior temporal branch.

9. Coronal branches.

10. Anastomosis with the occipital artery.

Veins.

11. Frontal vein, and

12. Ophthalmic vein terminating in the

z, Angular vein.

C, C, Facial vein.

13. Temporal vein.

A, A, External jugular vein.

EXPLANATION OF PLATE VII.

A View of the VEINS, &c. of the HEAD and NECK.—*(From Haller.)*

A, Frontal muscle.

B, Cranial Fascia, or tendon of the occipito-frontalis.

C, Attollens aurem.

D, Retrahentes aurem.

* Attrahens aurem.

E, E, Aponeurosis of the temporal muscle, cut to shew the vein it covered.

F, Zygomaticus minor.

G, ——— —— major.

H, Levator anguli oris.

I, Depressor anguli oris.

K, Risorius Santorini.

L, Masseter.

M, M, The parotid gland divided, to obtain a view of the vein which it covers.

N, Duct of the parotid gland.
O, Socia Parotidis, with its duct opening into that of the parotid.
P, Sterno-hyoideus.
Q, ——— thyroideus.
R, Thyroid gland.
S, Omo-hyoideus.
T, Section of the sterno-cleido-mastoideus.
U, Splenius.
V, Trapezius.
W, Common carotid artery.
X, Superior thyroid artery.

Veins.

a, Numerous communications between the frontal and temporal veins.
b, Trunk of one of the frontal veins.
c, Oculo-angular vein, formed by the frontal vein of this side, and by numerous temporal, palpebral, and nasal veins.
d, Anterior facial vein, receiving blood from the face in general.
e, *f*, Anterior superficial temporal vein, communicating with the frontal, with the posterior superficial vein, and with its fellow upon the opposite side.
g, Posterior superficial temporal vein communicating with the occipital veins.
h, Deep temporal vein communicating with the frontal, facial, and superficial temporal veins.
1. Superficial temporal vein.
2. Transversalis faciei vein.
3. Continuation of the temporal vein.
4. Occipital vein.
i, Posterior auricular vein.
k, *k*, The superficial occipital vein.
l, The posterior branch of the facial vein.
m, Posterior facial vein.
5. The trunk formed by the two facial veins, represented in this figure terminating in the
6. Internal jugular vein.
n, 9. External jugular vein, strictly so called.
o, Termination of the external jugular in the subclavian vein.
7. 8. Cutaneous cervical veins.
10. Transversa colli.
p, Anterior external jugular vein.
q, *q*, Continuation of the internal jugular vein.
r, Subclavian vein.
s, Left vena anonyma.

EXPLANATION OF PLATE VIII.

Interior of the CRANIUM of a CHILD, with the DURA MATER adhering to it, and its VEINS and SINUSES minutely injected.—*(Altered from Wrisberg.)*

FIG. I.

Represents the Concave Surface of the Calvarium, with the DURA MATER *and its* VEINS.

A, A, &c. The cut edge of the cranium.
B, B, Large falciform process of the dura mater, (or falx cerebri.)
C, C, Superior longitudinal sinus.
D, Inferior ———————
E, E, E, Veins of the dura mater, the anterior trunks of which are the Venæ Meningeæ Mediæ: The others are seen terminating, either in the superior longitudinal sinus, or running towards the foramina in the base of the cranium.

FIG. 2.

Represents the Interior of the BASE *of the* CRANIUM.

A, The tentorium cerebelli, with the termination of cerebral veins in the left lateral sinus.
B, The cut edge of the falx cerebri.
C, Small falciform process of the dura mater, (falx cerebelli).
D, D, D, Trunks of the venæ meningeæ mediæ.
E, E, Cerebral veins terminating in,
a, The right lateral sinus.
b, b, The *Circular* (RIDLEY'S) *Sinus*.
c, The left cavernous sinus.
d, d, The superior petrosal sinuses.
g, Torcular Herophili.
h, Straight sinus.
f, f, Posterior occipital sinuses.
e, e, Anterior ————————

EXPLANATION OF PLATE IX.

Being a View of the BASE of the ENCEPHALON, with the TRUNKS of its ARTERIES and NERVES.—*(From Haller.)*

B, The anterior lobes of the brain separated a little from each other.
C, C, The lateral lobes.
D, D, The posterior lobes.
E, E, Cerebellum.
F, F, Nodus encephali.
G, Medulla oblongata.
* Commissura magna cerebri.

Arteries.

a, a, The trunks of the internal carotid arteries.
b, b, Anterior arteries of the cerebrum.
x, Anterior communicating artery, or branch by which *b, b*, communicate.
g, g, Arteries of the commissura magna cerebri, (or corpus callosum), running between the anterior lobes of the brain, and turning over the commissura magna, to reach the inner side of the hemispheres.
h, h, Middle arteries of the cerebrum running in the fossæ of Sylvius to the lateral parts of the brain, and giving off the choroid arteries.
c, c, Posterior communicating arteries, or connexion between the carotids and vertebrals.
d, d, The vertebral arteries, with the anterior and posterior spinal arteries passing down from them.
o, o, The posterior arteries of the cerebellum, the right seen in this figure, arising from the vertebral, and the left from
e, e, The basilar artery. This vessel is formed by the union of the vertebrals, and it divides in front into
f, f, i, i, The posterior arteries of the cerebrum, and
z, z, The anterior arteries of the cerebellum.
*a, b, *, b, a, c, f, f, c*, The circle of Willis.

Nerves.

1. 1. The first pair, or olfactory nerves, under the anterior lobes of the brain.
2. 2. The second pair, or optic nerves, behind which are seen their union, and the tractus optici.
3. 3. The third pair, or motores oculorum.
4. 4. The fourth pair, or nervi pathetici.
5. 5. The fifth pair, or nervi trigemini.

6. 6. The sixth pair, or nervi abducentes.
7. 7. The seventh pair, composed of the portio dura (facial nerve) and portio mollis (auditory nerve), the former of which is placed anteriorly.
8. 8. The eighth pair, composed of the glosso-pharyngeus, pneumo-gastric, and spinal accessory.
9. 9. The ninth pair, or linguales, composed of small fasciculi.
10. 10. The sub-occipital, or 1st cervical nerve.

EXPLANATION OF PLATE X.

This represents the ARTERIES of the ENCEPHALON, as seen after a Horizontal Section of the CEREBRUM, at the Depth of the LATERAL VENTRICLES, all of the Fornix, excepting its four Crura, having been removed.—*(From Haller.)*

A, A, The cortical, and,
B, B, &c. The medullary part of the cerebrum.
C, Anterior lobes of the cerebrum, separated a little from each other.
D, D, Arteriæ corporis callosi.
E, E, The lateral ventricles.
F, Horizontal section of the commissura magna cerebri, immediately above the commissura anterior, and where continuous with,
G, G, The anterior crura of the fornix, situated between the corpora striata and the
I, I, Corpora striata.
H, H, Section of the posterior crura of the fornix.
K, K, The thalami optici.
L, L, The choroid plexus, or process of the pia mater found in the lateral ventricles, and the right and left portions of which are united together at
M, The foramen commune anterius, or fissure by which the lateral ventricles communicate with each other, and with,
* * The third ventricle.
z, *z*, The corpora quadrigemina covered by pia mater.
N, N, Branches of the anterior arteries of the cerebellum ramifying on the upper surface of that division of the encephalon.

EXPLANATION OF PLATE XI.

In this View, the CHOROID PLEXUS represented in the preceding engraving is removed, and the THALAMI OPTICI, with the PINEAL GLAND, NATES, and TESTES, are exposed; together with the FOURTH VENTRICLE, the ARTERIÆ CEREBRI PROFUNDÆ, and ARTERIÆ CEREBELLI ANTERIORES.—*(From Haller.)*

A, The cineritious substance of the brain.
B, B, &c. The medullary substance. —The two posterior B's are placed

upon an oblique section of the posterior lobes of the brain.

C, Part of the commissura magna cerebri.

D, The pineal gland, placed over the nates, and in front of,

I, The testes.

E, E, The upper surface of the cerebellum.

F, F, The medullary part of the cerebellum, termed *Arbor Vitæ*.

G, G, The cineritious part of the cerebellum.

H, H, Fourth ventricle, the lower and posterior part of which exhibits transverse medullary striæ, and the calamus scriptorius.

1. 1. Thalami optici.

2. 2. Corpora striata.

K, K, Section of the anterior crura of the fornix.

L, L, Tænia semicircularis.

M, M, Striæ medullares, converging from the optic thalami and tænia semicircularis towards

* The commissura cerebri posterior.

N, Arteriæ corporis callosi.

O, O, Branches of the vertebral arteries, termed *Arteriæ Cerebri Profundæ*, which supply the back part of the cerebrum, and *Arteriæ Cerebelli Anteriores*, which are distributed upon the upper part of the cerebellum.

EXPLANATION OF PLATE XII.

Being a View of the Arteries of the Fore Part of the Thorax and Abdomen.—On the left side, the Integuments, Superficial Fascia, and Costal Portion of the Obliquus Externus are removed.—On the right side, the Clavicle and all the Muscles of the Thoracic Region are taken away, so as to display the Pleura; and the Transversalis Muscle is exposed.—*(From Haller.)*

LEFT SIDE.

Bones and Muscles.

A, Sternum.

B, Clavicle.

C, C, The fifth and eleventh ribs.

D, Deltoides.

E, Pectoralis major.

F, An irregular muscular slip, found in this subject, passing from the sternum to the fifth rib.

H, Part of the serratus magnus.

I, I, Rectus abdominis, covered by the abdominal fascia.

K, Obliquus externus.

L, Duplicature of the abdominal fascia, called Poupart's Ligament.

M, Spermatic cord, covered by the fascia intercolumnaris.

N, Part of the pectoralis minor.

O, Scalenus anticus.

P, Left lobe of the thyroid gland.

Q, Trachea.

Vessels.

a, Carotid artery.

b, Subclavian artery.

c, Vertebral artery.

d, Thyroid axis, giving off the inferior thyroid artery, the cervicalis ascendens, and transversalis colli.

e, Internal mammary artery.

f, Internal jugular vein.

g, Subclavian artery, at the outer border of the scalenus anticus.

h, Thoracica acromialis artery, from the axillary.

i, *k*, Anastomosis between the tho

racica suprema, and the anterior intercostal branches of the internal mammary artery.

l, Humeral artery.

m, Median nerve.

n, Epigastrica communicans branch of the internal mammary artery.

o, *o*, Branches of the epigastric artery, which have perforated the linea semilunaris.

p, Femoral artery.

q, Its inguinal branches.

r, Origin of the epigastric artery.

s, Femoral vein.

RIGHT SIDE.

Bones and Muscles.

A, Scalenus anticus.

B, ——— medius and posticus reflected outwards.

C, Trapezius.

D, Deltoides.

E, Tendinous insertion of the pectoralis minor.

F, Subscapularis.

G, Latissimus dorsi.

H, First rib.

I, Eleventh rib.

K, K, Rectus abdominis faintly expressed, that the vessels situated behind it may, as it were, shine through it.

L, Pyramidalis.

M, Transversalis.

N, Inferior part of the transversalis cut off, to expose to view the epigastric artery.

O, The obliquus descendens reflected.

P, ——— ascendens.

Vessels.

aa, Right vena anonyma.

a, Carotid artery.

b, Subclavian.

c, Vertebral artery.

d, Thyroid axis, giving off the inferior thyroid artery, the cervicalis ascendens, and the transversalis colli.

* Axillary plexus of nerves.

e, Subclavian artery, resting in its groove of the first rib.

f, Axillary artery, giving off the thoracica acromialis artery towards E, and,

g, *h*, The thoracica suprema, which passes forwards to inosculate in different places with the intercostal arteries, the internal mammary, &c.

i, *i*, The thoracica longa, or external mammary, with numerous anastomoses between it and the adjacent arteries.

k, Subscapular artery.

l, *m*, Trunk of the internal mammary artery descending behind the cartilages of the ribs, with the branches cut which it sends to the pectoral muscles, mamma, &c. Others may be observed to communicate with the intercostals and external mammary artery.

n, The point where the mammary artery sends off the branch, termed *Musculo-phrenica*, to the diaphragm.

o, The epigastrica communicans branch of the mammary artery behind the upper portion of the rectus abdominis.

p, Circumflexa ilii artery, arising from the external iliac.

q, Origin of the epigastric artery from the external iliac.

r, Branches to the transversalis, rectus, and umbilicus.

s, An anastomosis with the branches of the internal mammary artery.

EXPLANATION OF PLATE XIII.

Representing the Arteries of the Right Shoulder. *(From Haller.)*

FIG. I.—*Internal View.*

Bones and Muscles.

A, Coracoid process.
B, Head of the os humeri.
C, Superior, and,
D, Inferior costa of the scapula.
E, E, E, Depressions on the venter scapulæ for the subscapularis muscle.
F, Insertion of the subscapularis.
G, The deltoid.
H, Insertion of the latissimus dorsi.
I, Teres major.
K, Long head of the triceps extensor cubiti.
L, L, L, Insertion of the serratus magnus.
M, Axillary lymphatic glands, termed *Glandulæ Alares.*

Vessels.

a, Subclavian artery.
b, Vertebral artery.
c, Thoracica acromialis, from the *Axillary Artery.*
* * Thoracica suprema, and longa.
z, Thoracica alaris or axillaris.
d, *d*, Branches to the deltoid.
e, Origin of the subscapular artery.
x, Anterior or lesser circumflex artery of the humerus.
g, Posterior or greater circumflex artery of the humerus, which, in this instance, arises in common with the subscapular.
h, *Subscapular artery.*
i, A branch to the latissimus.
k, Large branches to the latissimus and serratus magnus.
l, *l*, Branch anastomosing with the dorsalis scapulæ branch *q*, and then ascending along the base of the scapula.
m, Branch anastomosing with *r*.
n, Branches forming a communication between the supra-scapular (*v*), and subscapular arteries.
o, *Circumflexa Scapulæ*, arising from the subscapular artery.
p, Branch to the teres major.
q, The dorsalis scapulæ, or infra-spinata, running along the inferior costa of the scapula, where it gives off branches to the teres minor.
r, Branch to the venter of the scapula, also following its inferior costa, to supply the teres major.
s, *s*, *s*, Anastomosing branches to the venter scapulæ and subscapularis.
t, Nutritious artery of the scapula.
u, Branch which passes through the coracoid notch at C, along with some supra-scapular branches.
v, *Supra-scapular artery*, (from the thyroid axis.)
w, Its supra-spinal branch.

FIG. II.—*External View.*

Bones and Muscles.

A, Spine of the scapula.
B, Acromion.
C, Part of the clavicle.
D, Base of the scapula above the spine.
E, Inferior costa of the scapula.
G, Fossa supra-spinata, and,
H, Fossa infra-spinata of the dorsum scapulæ.
I, Section of the os humeri.
F, Seat of articulation of the humerus with the scapula.

K, The infra-spinatus muscle turned forwards.
L, The teres minor also turned forwards.
M, The long head of the triceps extensor cubiti.
N, The teres major.
O, Insertions of the serratus magnus, and rhomboides major.
P, Part of the insertion of the trapezius.

Vessels.

a, See Fig. I. *o*.
b, Branch to the teres major.
c, See Fig. I. *l*.
d, See Fig. I. *q*.
k, Upper division of the infra-spinal artery from the subscapular.
e, Its anastomosis with *d*.
l, Its ascending anastomotic branch.
m, Its branches to the infra-spinatus.
g, Its ascending branch covered by the acromio-cervical ligament.
n, *Supra-scapular artery*, giving off,
p, *o*, Its branches, called the supra-spinal artery.
h, The supra-scapular here passes under the acromion, and assumes the name of the infra-spinal branch, where it first sends off,
i, A twig following the spine of the scapula, and anastomosing with *l* and *p*, and then inosculates with the infra-spinal branch of the subscapular artery at *g*.

EXPLANATION OF PLATE XIV.

The Anterior Part of the RIGHT ARM, with the SUBCUTANEOUS BLOOD-VESSELS.—*(From Haller.)*

FIG. 1. and 2.—*Muscles.*

A, Omo-hyoideus.
B, Trapezius.
C, Deltoid.
* Insertion of the pectoralis major.
D, Latissimus dorsi.
E, Teres major.
F, Coraco-brachialis.
G, Biceps ;
H, Its tendinous insertion,
I, Its aponeurotic insertion.
K, Triceps extensor cubiti.
L, M, Supinator radii longus.
N, Pronator radii teres.
O, Flexor carpi radialis.
P, P, Flexor digitorum sublimis.
Q, R, Flexor carpi ulnaris.
S, Part of the flexor digitorum profundus.
T, T, Palmaris longus.
U, Palmar annular ligament of the carpus.

Arteries.

a, Arteria innominata.
b, Right carotid.
c, Right subclavian.
d, The supra-scapular and transversalis colli, branches of the thyroid axis crossing the scaleni muscles.
e, Cervicalis profunda.
Axillary artery between 24. and 25. with
l, An alar branch going off.
g, Thoracica suprema from the axillary.
f, Thoracica acromialis.
h, ———— longa, seu mammaria externa.

i, Subscapular artery.
k, Anterior circumflex artery.
The humeral artery may be observed in this figure to give off laterally many muscular and cutaneous branches.
m, Situation where the humeral may be injured in venesection.
n, *n*, The origin and progress of the ulnar artery.
o, *o*, *r*, Radial artery.
p, A large branch covered by the pronator teres.
q, Superficialis volæ of the radial artery, giving off a branch to the muscles of the thumb, and another to the palmar fascia.
2. Inosculation of the superficialis volæ with the superficial palmar arch formed by the ulnar artery.
4. Radial artery seen in the palm, giving off the magna pollicis. The radialis indicis 1. comes, in this figure, from the ulnar artery at *v*.
s, Ulnar artery.
t, Its palmar carpal branch.
v, Superficial palmar arch, which in this figure gives off at
3. The dorsalis pollicis, (a branch usually of the radial), as well as an occasional branch which anastomoses at 4. with the magna pollicis.
u, *w*, *x*, *y*, Its four large digital branches.
z, *z*, *z*, Bifurcations of the digital arteries.
1. The radialis indicis, which comes usually from 4.

Veins.

5. Superficial Radial vein, which, in this figure, corresponds above with the Median.
6. Division of the Median into the
7. Median Basilic, and the
15. Median Cephalic, which at the upper border of L, terminates in the
16. Cephalic vein, situated between the pectoralis major and deltoid muscles.
17. Termination of the cephalic in the
5. Axillary vein, between figs. 17. and 12. at its termination in the subclavian.
8. Anterior superficial Ulnar vein.
† Posterior superficial Ulnar vein.
9. Beginning of the basilic vein.
10. Basilic vein receiving the median basilic.
11. One of the venæ comites, or collateralis of the humeral artery, with
12. Its termination in the axillary vein.
13. The other vena comes, with
14. Its termination in the axillary vein.
18. External jugular vein.
19. Subclavian vein.
20. Internal jugular vein.
21. Vena anonyma.

Nerves.

22. 23. Two superior roots of the axillary plexus, emerging from the spinal canal between the anterior and middle scaleni muscles.
24. External root of the
27. Median nerve.
25. Its internal root.
26. External cutaneous, or perforans Casserii.
28. Situation where the median nerve may be injured in venesection.

EXPLANATION OF PLATE XV.

Being a View of the Muscles, with the Subcutaneous Vessels and Nerves of the Right Cubital Fossa;—taken from a very robust Male who died about middle life.—*(Fyfe.)*

A, A, A, The integuments and upper part of the superficial fascia cut and reflected.

z, *z*, *z*, Superficial fascia.

B, Biceps flexor cubiti.

C, Part where the biceps terminates by a tendinous and an aponeurotic insertion.

D, Triceps extensor cubiti.

E, Brachialis anticus.

F, Humeral artery. That part of it which extends to the fore-arm, with its division into radial and ulnar branches, are marked out by dotted lines.

Veins.

G, Trunk formed by the superficial Radial veins.

H, Trunk formed by the anterior and posterior superficial Ulnar veins.

I, Median vein. Other Median veins are seen between this vein and the superficial Ulnar vein.

K, Median-cephalic.

L, A deep vein ending in the median-cephalic, and exhibiting the communication between the subcutaneous and deep veins.

M, Median-basilic. An asterisk is placed on that part of this vein, which is usually opened in venesection, that is, over the aponeurotic insertion of the biceps, and the humeral artery.

N, Cephalic.

O, Basilic.

P, One of the venæ comites of the humeral artery.

Nerves.

Q, Internal cutaneous nerve dividing into branches, some of which pass over the veins, others under them.

R, External cutaneous nerve, the greater portion of which lies under K and I.

S, The same nerve ramifying underneath the median vein.

T, Median nerve drawn a little aside to shew the trunk of the humeral artery.