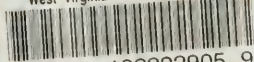
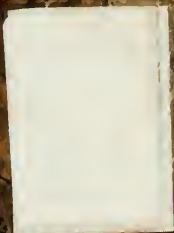
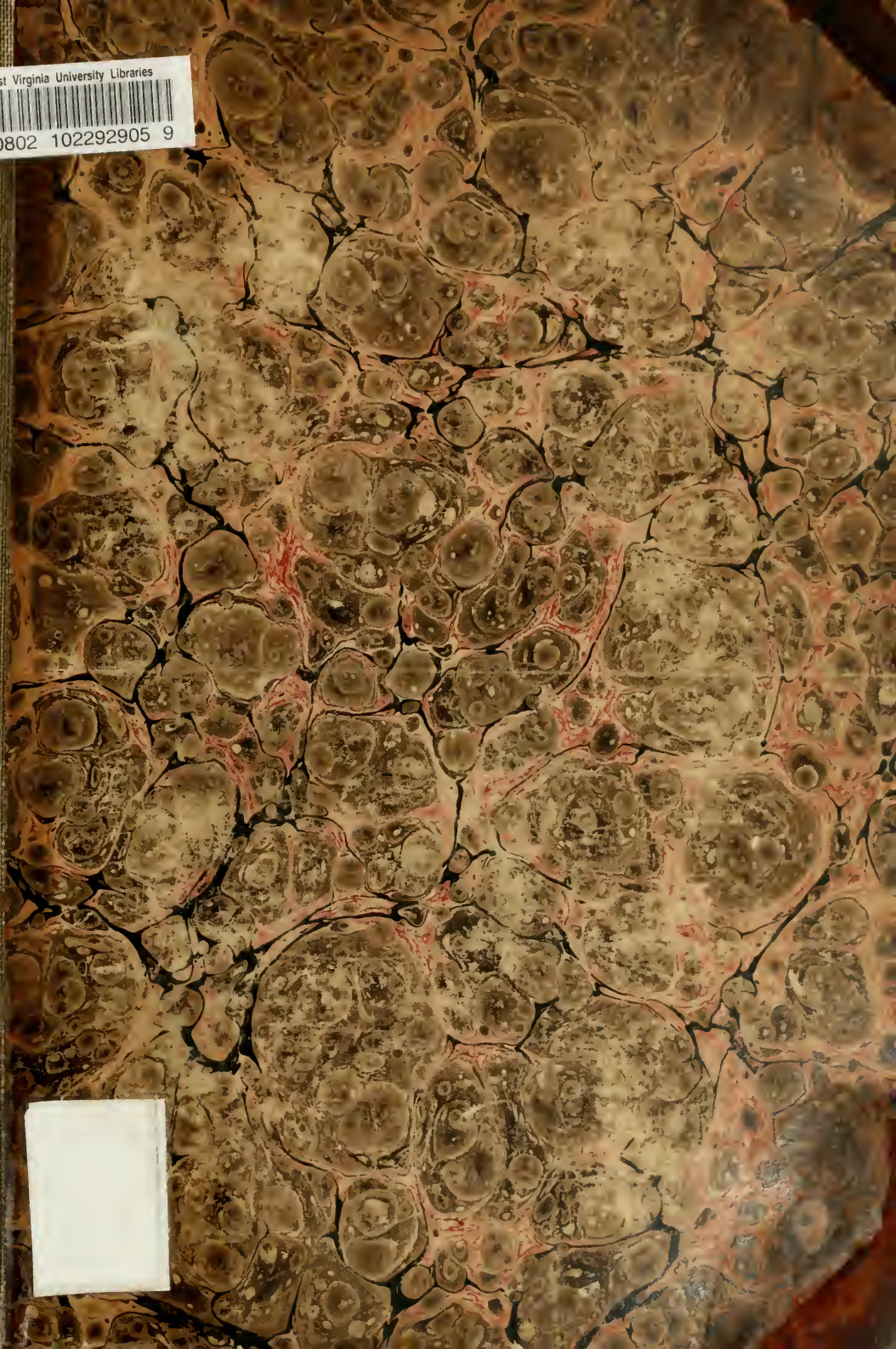


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# VIEWS

OF THE

## MUSCLES OF THE HUMAN BODY

DRAWN FROM NATURE

AND ENGRAVED BY

GEORGE LEWIS :

ACCOMPANIED BY SUITABLE EXPLANATORY REFERENCES.

DESIGNED AS A GUIDE TO THE STUDENT OF ANATOMY,

AND

A BOOK OF REFERENCE FOR THE MEDICAL PRACTITIONER.

LONDON :

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## ADVERTISEMENT.

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**T**HE small book of INNES on the MUSCLES, with Engravings reduced from the matchless Work of the great ALBINUS, has been for a long time employed by Anatomical Students as an assistant to their labours in the Dissecting Room. The Author of the present Views, when engaged in dissecting, in the course of his professional studies as an artist, had recourse to INNES; but soon felt the want of more assistance than could be derived from representations on so small a scale. He made Sketches from his own Dissections; and having completed several Drawings, engraved them. He now offers these Engravings to the Public, being convinced that they will afford to others that aid which he himself would have been glad to meet with at the outset of his Anatomical studies. His confidence in the utility of the Work has been strengthened by the encouraging approbation and sanction of some Gentlemen, whose Anatomical experience and knowledge add weight to their  
opinion

opinion on such a subject: of these, he is allowed to mention the names of Mr. LAWRENCE, and Mr. STANLEY of St. Bartholomew's Hospital.

Those who wish for the fullest information on Myology, will resort to the immortal production of ALBINUS\*, and the recently-published posthumous Work of the not less illustrious MASCAGNI†; in both of which the profoundest science has received the utmost aid from the Draftsman and Engraver. It is the humbler aim of the Author to furnish a set of Plates, which, by combining portability with fidelity and clearness of representation, may assist the young Anatomist in his practical pursuits, and refresh the memory of the Medical Practitioner, who cannot revive his recollections by referring to the subject, when accidents, injuries, or diseases, require the light of Anatomical skill and knowledge. He flatters himself too, that these Views are calculated to be of service to Painters and Sculptors, as well as to those who take interest in Works of Art: such productions can neither be properly executed nor estimated without an acquaintance with the structure of the Human Body. The Author wishes his own Work to be judged by reference to this standard. It has been derived entirely from Nature.

All

\* *Tabulæ Sceleti et Musculorum Hominis. Leyden.*

† *Anatomy for Painters and Sculptors, in Italian; with Figures, of the size of life. Florence, 1816.*



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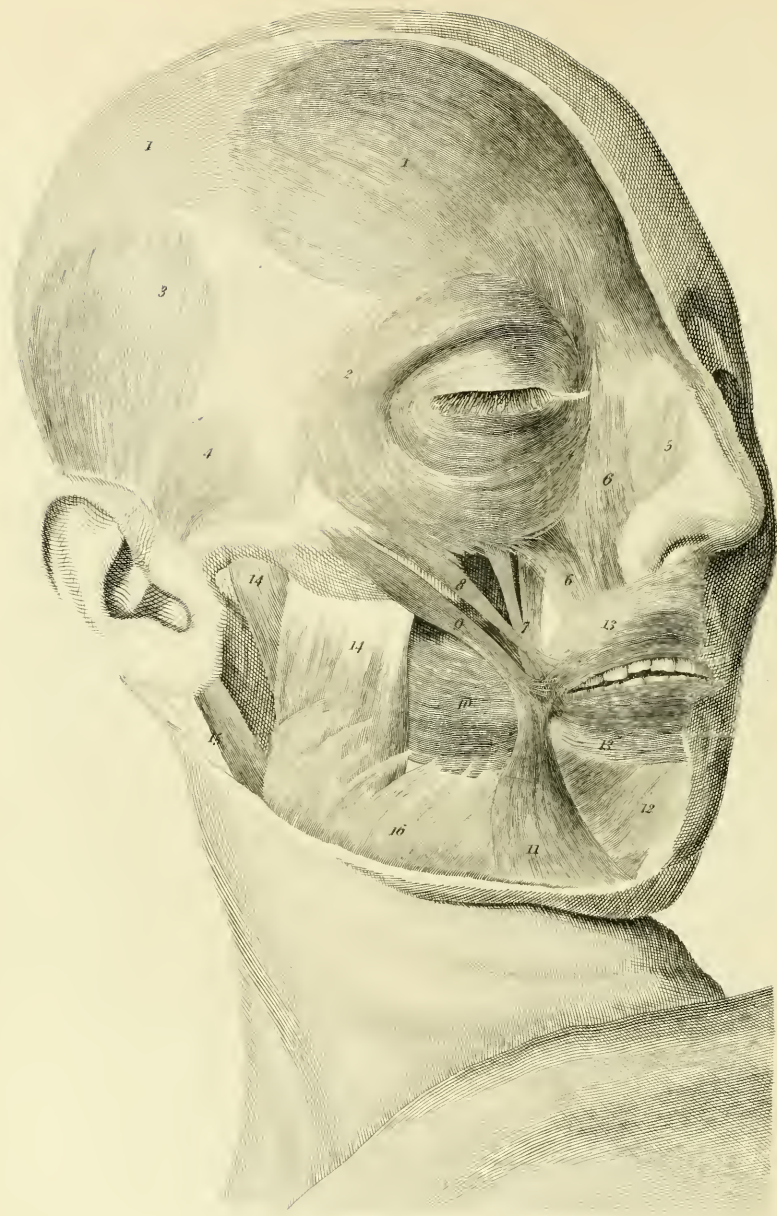
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*Deum & Engr<sup>d</sup> by G. Leoni*

# PLATE I.

## MUSCLES OF THE FACE, SCALP, AND EAR.

---

1. 1. **FRONTAL** portion of the *fronto-occipitalis* or Epicranius muscle, and its tendon or *aponeurosis*.—A portion of its fibres descends upon the nose, and mixes with those of the *compressor naris*, and of the *levator labii superioris et alæ nasi*.
2. *Orbicularis palpebrarum*.—The white portion opposite to the internal junction of the eyelids is the tendon, which lies across the front of the *lachrymal sac*, and is fixed to the nasal process of the superior maxillary bone.
3. *Attollens auriculam*, or *superior auris*, lying upon the temporal *fascia*, and on the *aponeurosis* of the *occipito-frontalis*.
4. *Prior atricula*, or *anterior auris*.
5. *Compressor naris*.
6. 6. *Levator labii superioris et alæ nasi*.
7. *Levator anguli oris*.—Although represented here as arising by two distinct portions, it has more commonly a single origin.
8. *Zygomaticus minor*.
9. *Zygomaticus major*.
10. *Buccinator*.
11. *Depressor anguli oris*.
12. *Depressor labii inferioris*.
13. 13. *Orbicularis oris*.
14. 14. *Masseter*: the external and internal portions of the muscle.—Behind the latter, of which only a small part is visible in this view, the condyle of the lower jaw is seen. The *masseter* is covered below by the fibres of the *platysma myoides*.
15. *Sterno-cleido-mastoideus*.
16. Portion of the *platysma myoides*.—Its fibres ascend over the basis of the lower jaw, and partly terminate in the fat of the face, partly are blended with those of the *depressor anguli oris* and *labii inferioris*. The anterior fibres have a bony insertion into the lower jaw, under the attachment of the *depressor labii inferioris*: a part of it is just visible here.

## PLATE II.

### MUSCLES OF THE NECK.

---

ON the left side of the subject, the superficial stratum, or that immediately under the skin, is seen: on the right side, the second layer is exposed by the removal of the *platysma myoides*.

- a. Lower jaw-bone.
- b. Sternum.
- c. d. Clavicles.
- e. f. Larynx and trachea.
- g. Internal jugular vein.
- h. i. Internal and external carotid arteries.
1. *Platysma myoides* or *latissimus colli*.—The outlines of the *sterno-cleido-mastoideus* and of the clavicle are partially seen through it. The bony insertion of the muscle into the anterior and lateral portion of the lower jaw is seen: the continuation of the other fibres on to the face is represented in Plate I. 16.
2. Right *sterno-cleido-mastoideus*: its double attachment to the clavicle and sternum is seen below.
3. Sternal attachment of the left *sterno-cleido-mastoideus*.
4. 4. Portions of the right and left *pectoralis major*.
5. Right *sterno-hyoideus*.
6. 6. Right *sterno-thyroideus*. This muscle is sometimes so broad, that a portion of it appears, as in this view, on the outer, as well as on the inner edge of the *sterno-hyoideus*.
7. Left ditto.
8. Left *sterno-hyoideus*.
9. Right *omo-hyoideus*.
10. 10. The anterior and posterior portions of the *digastricus*, or *biventer maxillæ inferioris*. The tendon which unites them is fixed by a thin expansion to the os hyoides.
11. *Stylo-hyoideus*.
12. *Mylo-hyoideus*.
13. *Pterygoideus internus*.
14. *Styloglossus*.

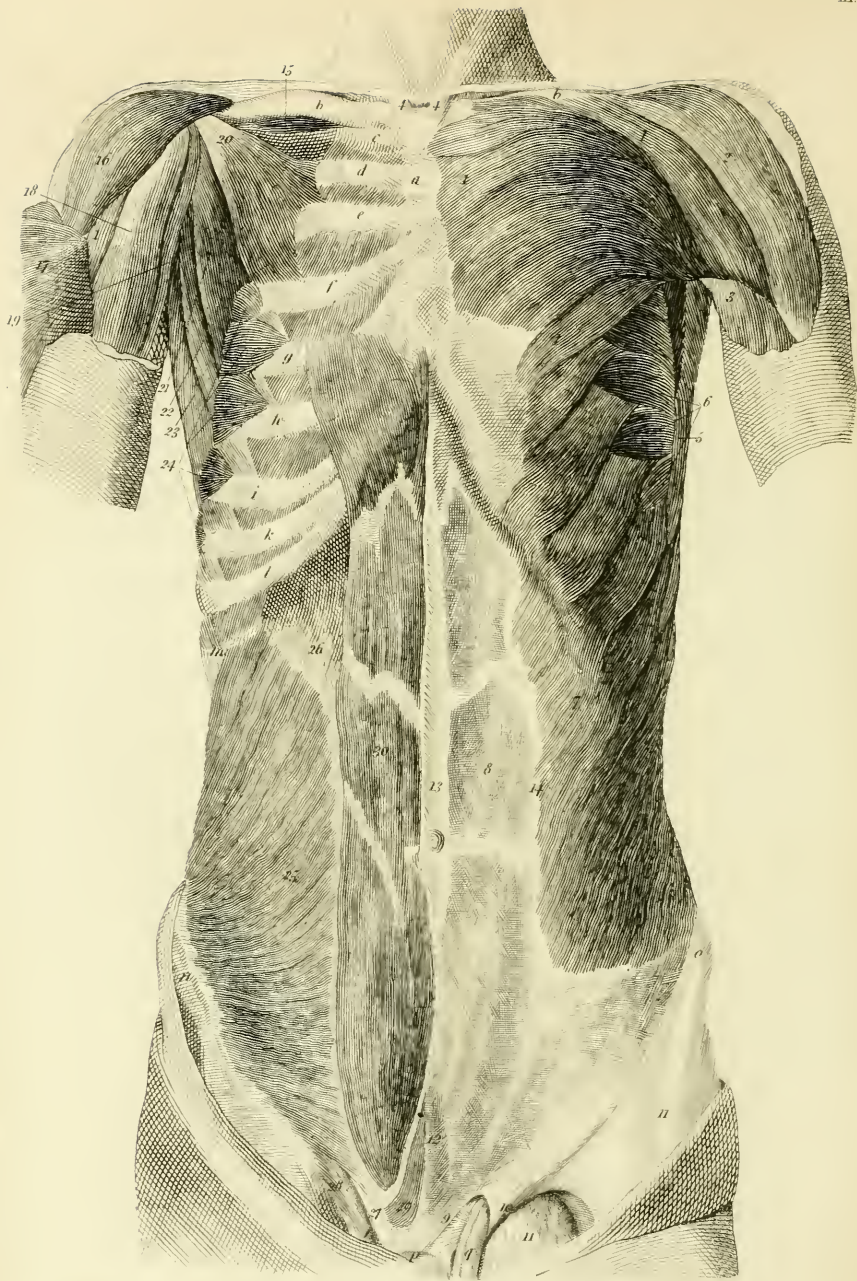




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## PLATE III.

### FRONT VIEW OF THE MUSCLES OF THE TRUNK.

ON the left side, the superficial stratum is seen ; except that the *platysma myoides* has been removed from the upper part of the chest and shoulder. On the right side, the second layer of muscles is brought into view, by the removal of the *pectoralis major* and *obliquus externus abdominis*.

a. Sternum.

b. b. Clavicles.

c. d. e. f. g. h. i. k. l. m. The ten upper ribs. The distinction between the bone and the cartilage is sufficiently obvious in the Engraving. The intervals of the ribs are filled by the intercostal muscles. Those which are placed between the cartilages, and run obliquely from above downwards and outwards, are the anterior portions of the *intercostales interni*. Small portions of the *intercostales externi* are seen between the bony portions of the ribs, running from behind downwards and forwards : none of these, however, are visible in the three superior intercostal intervals.

n. Crista of the right ilium.

o. Anterior superior spinous process of the left ilium.

p. Symphysis pubis.

q. r. Spermatic cords.

1. 1. 1. Left *pectoralis major*.—The upper part is the clavicular portion ; the middle or broadest division, the sternal portion ; the lower part is a small slip arising from the upper part of the *aponeurosis* of the *obliquus externus abdominis*.

2. Anterior portion of the left *deltoides*.

3. Left *biceps brachii*.

4. 4. Sternal insertions of the right and left *sterno-cleido-mastoideus*.

5. Anterior portion of the left *latissimus dorsi*.

6. Part of the left *serratus magnus*.

7. Left *obliquus externus abdominis*, reeling from the inferior edge of the *pectoralis major* to the ilium.

8. *Aponeurosis* of the left *obliquus externus abdominis*, extending from the sternum and the cartilages of the sixth and seventh ribs, to the ossa pubis, and crural arch.

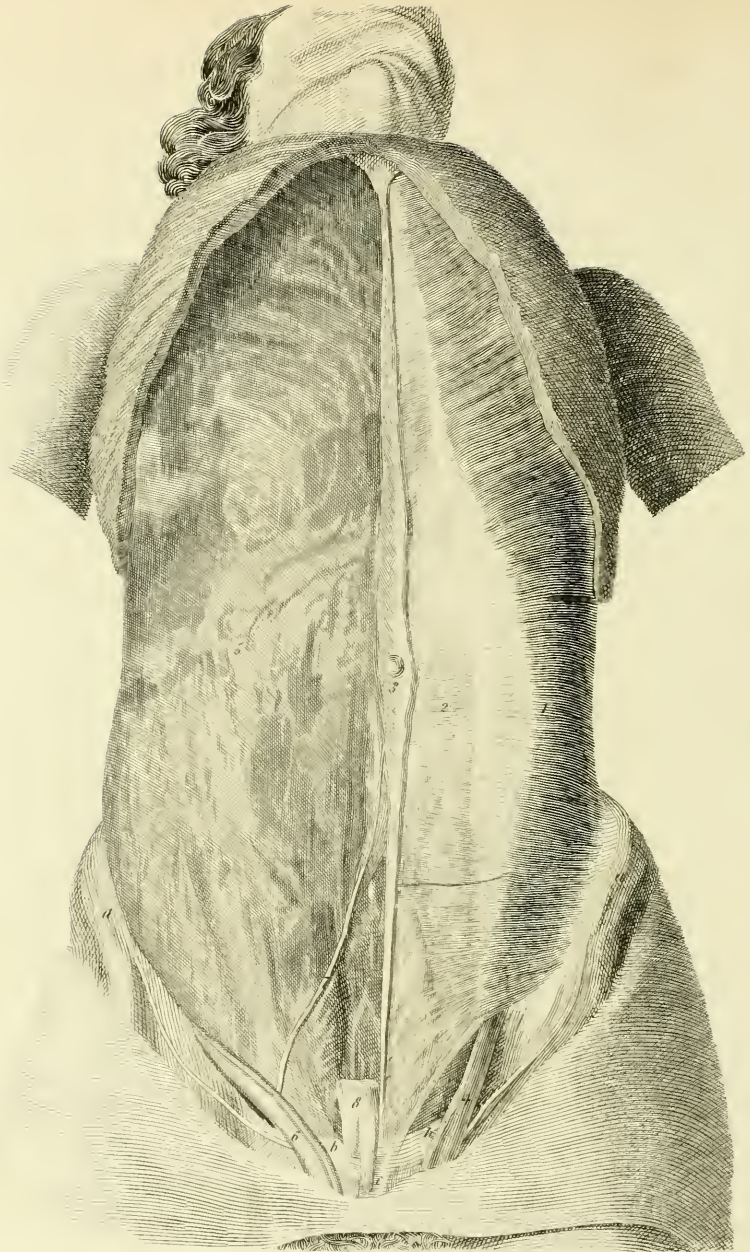
9. 10. Internal and external columns of the aperture through which the spermatic cord passes. The latter, which is the inferior margin of the *aponeurosis* of the *obliquus externus*, is also called *Poupart's ligament*.

11. 11. The *fascia* of the thigh, covering the muscles and vessels of the limb, and lost in the inferior margin of the *aponeurosis* of the *obliquus externus* or *Poupart's ligament*.

PLATE III.—*continued.*

12. Outline of the left *pyramidalis*, seen through the *aponeurosis* of the *obliquus externus*.
13. *Linea alba*, or interlacement of the *aponeuroses* of the right and left *obliquus externus, internus, and transversus abdominis*. The round aperture near its middle is the *umbilicus*.
14. *Linea semilunaris*, or line following the external margin of the *rectus abdominis*.—The cross lines passing between the *linea alba* and *semilunaris*, and produced by the attachment of the *aponeurosis* of the *obliquus externus* to the tendinous intersections of the *rectus abdominis*, are sometimes called *lineæ transversæ*.
15. *Sub-clavius*.
16. Anterior portion of the right *deltoides*.
17. Internal surface of the right *pectoralis major*, which has been reflected.
18. The two heads of the *biceps brachii*.
19. *Coraco-brachialis*.
20. *Pectoralis minor*.
21. *Sub-scapularis*.
22. *Teres major*.
23. *Latissimus dorsi*.
24. *Serratus magnus*.
25. *Obliquus internus abdominis*.
26. *Aponeurosis* of the *obliquus internus*, inserted into the cartilages of the ninth, eighth, and seventh ribs, and into the ensiform cartilage. The *aponeurosis* of this muscle, when it has reached the outer margin of the *rectus abdominis*, splits into two layers; an anterior and more considerable one, which joins that of the *obliquus externus*, and passes with it, in front of the *rectus*, to the *linea alba*; a posterior and thinner, which is united to the *aponeurosis* of the *transversus*. The former has been removed, to expose the *rectus*.
27. Insertion of the *obliquus internus*, at its lower part, into the *os pubis*.
28. *Cremaster*.
29. *Pyramidalis*; exposed by the removal of the anterior part of the tendinous sheath enclosing the *rectus*.
30. Right *rectus abdominis*; extending from the cartilages of the fifth, sixth, and seventh ribs, to the symphysis pubis.—The opposite muscle is covered by the *aponeurosis* of the *obliquus externus*, and the anterior layer of the *aponeurosis* of the *obliquus internus*. The two *recti* nearly touch each other above; are more widely separated by the *linea alba* in the middle; and again approach very nearly below.





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## PLATE IV.

### THE TRANSVERSUS ABDOMINIS AND PERITONEUM.

---

THE *transversus abdominis* is seen on the left side, the two *obliqui* having been removed. On the right side, the *peritoneum* is brought into view, by the removal of all the abdominal muscles.

- a. a. Anterior superior spines of the ilia.
- b. b. Ossa pubis.
- c. Symphysis pubis.
- 1. *Transversus abdominis*.—Its superior portion arises from the sixth true rib; the inferior, from the outer half of the crural arch.
- 2. *Aponeurosis* of the *transversus*, reaching from the ensiform cartilage to the os pubis.—This *aponurosis*, together with the posterior or thinner layer of the *aponurosis* of the *obliquus internus*, passes behind the *rectus abdominis* to the *linea alba*. But its lower portion, from about the middle point between the *umbilicus* and *pubes*, goes in front of the *rectus*; and from the same point the entire tendon of the *obliquus internus* goes in front of the *rectus*. The point in question is marked by a transverse line in the Engraving. Hence, above this line, the *rectus* is separated from the *peritoneum* by the *aponurosis* of the *transversus*: below it, the muscle lies in contact with the membrane.
- 3. *Linea alba*, extending from the ensiform cartilage to the symphysis pubis; narrow above and below, and broader towards the middle.
- 4. Left spermatic cord, passing under the inferior margin of the *transversus abdominis*.
- 5. *Peritoneum*.
- 6. Right spermatic cord.
- 7. Fibrous cord, being the remains of the right umbilical artery of the fœtus.
- 8. Inferior extremity of the *rectus abdominis*, split into two portions, which are fixed to the symphysis pubis.

## PLATE V.

### BACK VIEW OF THE MUSCLES OF THE TRUNK.

THE first layer is seen on the left side; the second on the right, the *trapezius*, *latissimus dorsi*, and *gluteus magnus*, having been removed.

- a. External transverse ridge of the occipital bone.
- b. Spine and acromion of the right scapula.
- c. Superior angle of ditto.
- d. Inferior angle of ditto.
- e. Upper portion of the right humerus.
- f. Acromion of the left scapula.
- g. Crista of the left ilium.
- h. ——— right.
- i. Sacrum.
- k. Coccyx.
- l. Tuberosity of the ischium.
- m. Ramus of ditto.
- n. Great sacro-sciatic ligament.
- o. Right trochanter major.
- p. Left ditto.
- 1. 1. Occipital portion of the *fronto-occipitalis*, or Epicranium muscle.—The frontal portion is seen in Plate I. 1. 1.
- 2. 2. *Retrahentes auriculam*.
- 3. *Trapezius*.
- 4. *Sterno-cleido-mastoideus*.
- 5. Left *splenius capitis*.
- 6. *Deltoides*.
- 7. Left *infra-spinatus*.
- 8. Left *rhomboideus major*.
- 9. 9. *Latissimus dorsi*.
- 10. *Obliquus externus abdominis*.
- 11. Left *gluteus magnus*.
- 12. Its insertion into the thigh-bone below the *trochanter major*. Above this point, the muscular fibres are implanted in the *fascia* of the thigh.
- 13. Left *gluteus medius*.
- 14. *Flexors* of the left thigh.
- 15. *Complexus*.
- 16. Right *splenius capitis*.
- 17. *Levator scapulae*.
- 18. *Rhomboides minor*.
- 19. ——— *major*.

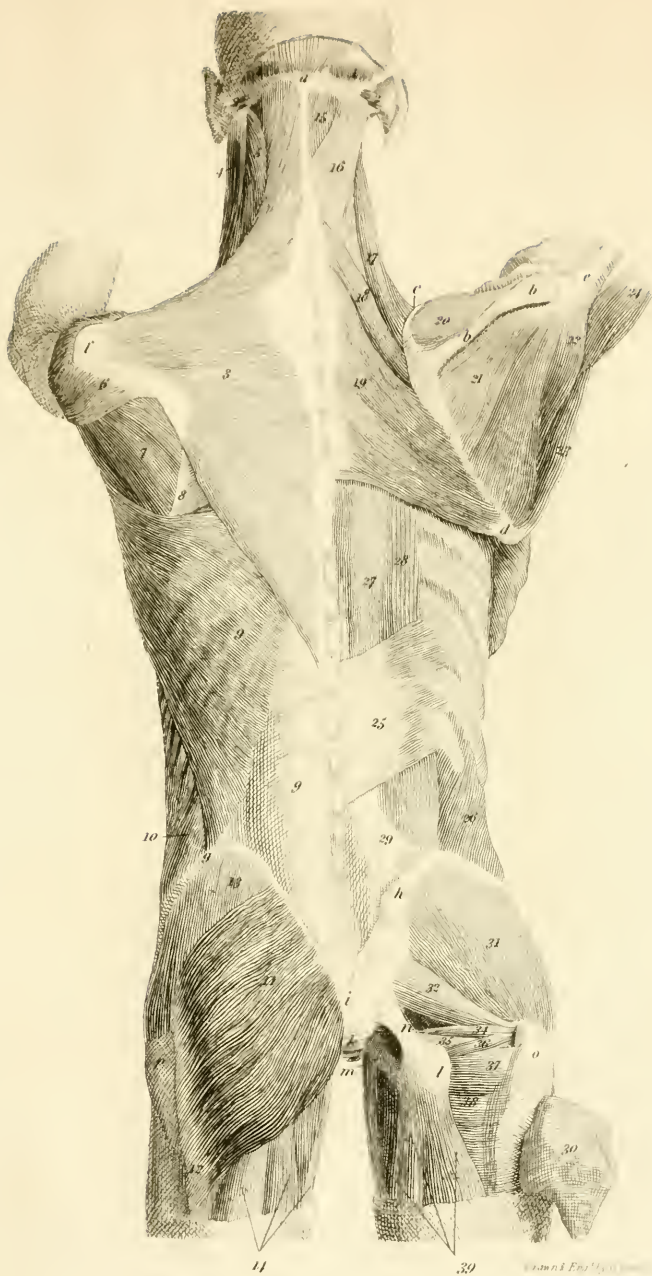




PLATE V.—*continued.*

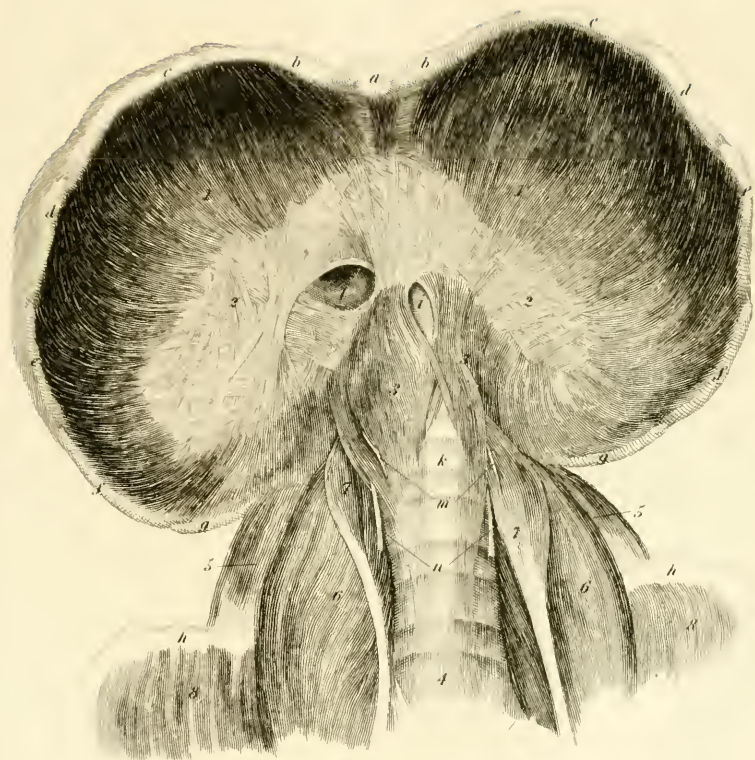
20. *Supra-spinatus.*
21. Right *infra-spinatus.*
22. *Teres minor.*
23. *Teres major.*
24. Long head of the *triceps brachii.*
25. *Serratus inferior posticus.*
26. *Obliquus internus abdominis.*
27. *Longissimus dorsi.*
28. *Sacro-lumbalis.*
29. Common origin of the two foregoing muscles.
30. Right *gluteus magnus.*
31. ——— *medius.*
32. *Pyriformis.*
33. *Gemellus superior.*
34. *Obturator internus.*
35. *Gemellus inferior.*
36. *Quadratus femoris.*
37. Great head of the *triceps femoris.*
38. Flexors of the right thigh.

## PLATE VI.

### THE DIAPHRAGM, SEEN FROM BELOW.

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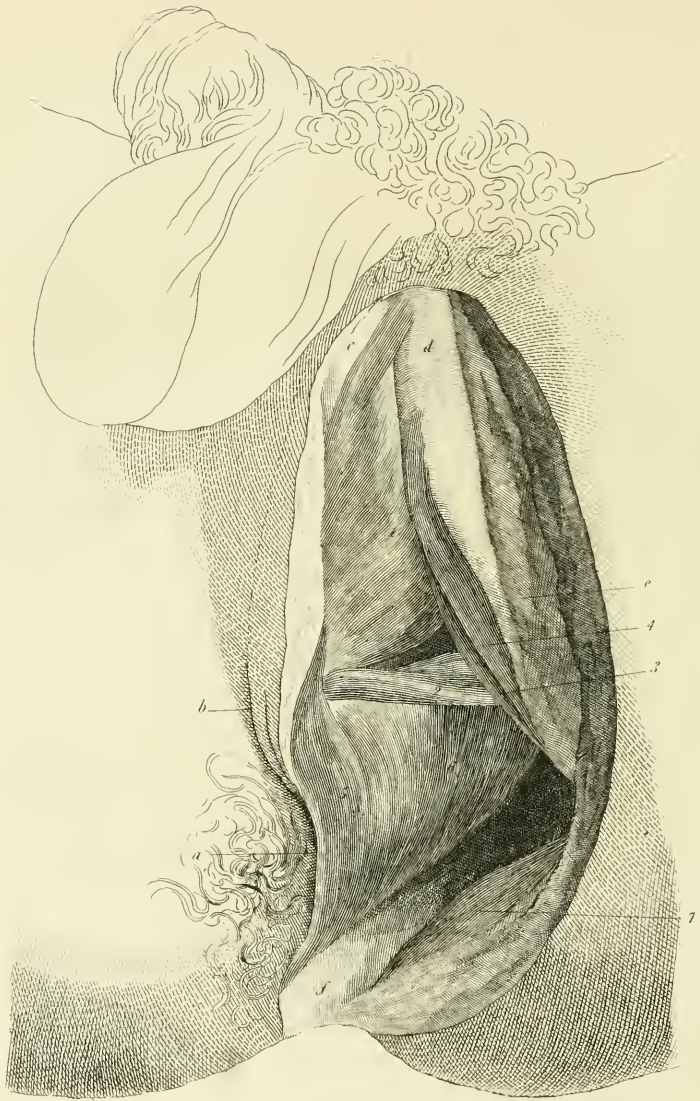
- a. THE ensiform cartilage.
- b. b. Cartilages of the last pair of true ribs.
- c. c. d. d. e. e. f. f. g. g. Portions of the cartilages of the five pairs of false ribs.
- h. h. Cristæ of the ossa innominata.
- 1. 1. 1. The greater diaphragm, or the part of the muscle which forms the partition between the chest and abdomen. The middle portion is a small fasciculus of fibres arising from the posterior surface of the ensiform cartilage.
- 2. 2. The central tendon of the diaphragm, or common point of attachment, as well for the fibres of the greater diaphragm, as for those of the appendices or crura.
- 3. 3. The right and left crus or appendix of the diaphragm.—The decussating fibres, connecting the two crura, and separating the passage of the œsophagus from that of the aorta, are seen between the two crura.
- 4. Tendinous origin of the crura from the bodies of the vertebræ.
- i. Opening between the two crura for the passage of the œsophagus, accompanied by the nerves of the eighth pair.
- k. Opening between the two crura, through which the aorta passes; together with the absorbing trunk, or trunks, which in the chest constitute the thoracic duct.
- l. Aperture in the central tendon of the diaphragm, for the passage of the inferior vena cava.
- m. m. The right and left splanchnic nerves, passing into the abdomen between the muscular fasciculi of the crura.
- n. n. The right and left great sympathetic nerves, passing between the fibres of the crura.
- 5. 5. Right and left *quadratus lumborum*.
- 6. 6. ————— *psaos magnus*.
- 7. 7. ————— *parvus*.
- 8. 8. ————— *iliacus internus*.











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## PLATE VII.

### MUSCLES OF THE MALE PERINEUM.

---

- a. ANUS.
- b. Raphe perinei.
- c. Urethra.
- d. Left corpus cavernosum penis.
- e. Ramus of the ischium.
- f. Os coccygis.
1. Left half of the *accelerator urinæ*, covering the bulb of the urethra.—The anterior slip is fixed to the corpus cavernosum penis: the posterior extremity has its fibres blended, in front of the anus, with those of the *sphincter ani*, and *transversus perinei*.
2. *Transversus perinei*.
3. *Transversus perinei alter*.
4. *Erector penis*.
5. *Sphincter ani*; or *sphincter ani externus*.
6. *Levator ani*; the fibres of which are completely blended, along its anterior edge, with those of the *sphincter*.
7. Edge of the *gluteus magnus*.

## PLATE VIII.

### FASCIA OF THE THIGH, AND OF THE FORE-ARM AND PALM.

---

FIG. I.—*The Fascia or Aponeurosis of the Thigh, as it appears after the Removal of the Integuments.*

- a. b. c.* THE three lower lumbar vertebræ.  
*d.* Sacrum.  
*e.* Crural arch.  
*f.* Aperture in the fascia at which the saphena major joins the femoral vein.  
1. *Psoas magnus.*  
2. *Iliacus internus.*  
3. *Pyriformis.*
- 

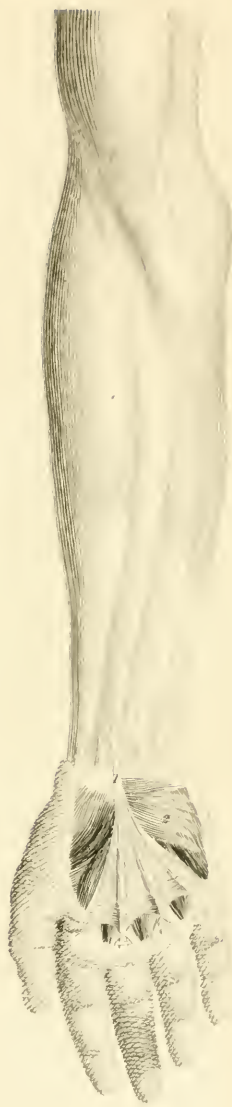
FIG. II.—*The Fascia of the Fore-Arm and of the Palm.*

1. Tendon of the *palmaris longus.*  
2. *Palmaris brevis.*

Fig. 1



Fig. 2











# PLATE IX.

## MUSCLES OF THE UPPER EXTREMITY.

THE LEFT LIMB IS REPRESENTED.

FIG. I.—*Muscles of the Scapula, Arm, and Fore-Arm, on the Inner or Palmar Aspect.*

- a. CLAVICLE.
- b. Coracoid process of the scapula.
- c. Humerus.
- d. Inferior or carpal extremity of the radius.
- e. Carpal extremity of the ulna.
1. *Omo-hyoideus*.—The course of this muscle in the neck, to its insertion in the os hyoides, is seen in Plate II. 9.
2. 2. *Serratus magnus*. For its origin, see Plate III. 6. & 24.
3. *Levator scapule*. See Plate V. 17.
4. *Rhomboideus minor*. See Plate V. 18.
5. ————— *major*. See Plate V. 19.
6. *Sub-scapularis*.
7. *Pectoralis minor*. See Plate III. 20.
8. Anterior edge of the *deltoides*.
9. *Coraco-brachialis*.
10. *Teres minor*.
11. *Pectoralis major*. See Plate III. 1. 1. 1.
12. *Teres major*.
13. *Latissimus dorsi*. See Plate V. 9. 9.
14. *Biceps brachii*. For the insertion of its tendon, see Plate X. Fig. 1. 1.
15. 15. *Triceps brachii*. The rest of this muscle, and its insertion, are seen in Fig. 2. 18.
16. *Brachialis internus*. Its insertion is seen in Plate X. Fig. 1, 2.
17. *Supinator radii longus*.
18. *Pronator radii teres*.
19. *Flexor carpi radialis*.
20. *Palmaris longus*. The expansion of its tendon into the *palmar fascia* is seen in Plate VIII. Fig. 2.
21. *Flexor carpi ulnaris*.
22. *Flexor digitorum sublimis*, or *perforatus*.
23. *Flexor longus pollicis*.
24. Tendons of the *abductor longus*, and *extensor major pollicis*.

PLATE IX.—*continued.*

FIG. II.—*Muscles of the Scapula, Arm, and Fore-Arm, on the Outer or Dorsal Aspect.*

- a. Clavicle.
- b. Acromion.
- c. Spine of the scapula.
- d. External condyle of the humerus.
- e. Olecranon.
- f. Inferior or carpal extremity of the ulna.
- g. Carpal extremity of the radius.
1. Portion of the *trapezius*. See Plate V. 3.
2. *Serratus magnus*.
3. *Pectoralis major*.
4. *Deltoides*.
5. *Infra-spinatus*.
6. *Teres minor*.
7. *Teres major*.
8. *Triceps brachii*.
9. *Biceps brachii*.
10. Outer or radial edge of the *brachialis internus*.
11. *Supinator radii longus*. See Fig. 1. 17.
12. *Extensor carpi radialis longior*.
13. ————— *brevior*.
14. Tendinous insertions of the two foregoing muscles into the *metacarpus*.
15. *Extensor digitorum communis*.
16. *Extensor proprius auricularis*.
17. *Abductor longus pollicis*; or *extensor primi internodii pollicis*.
18. *Extensor major pollicis*; or *extensor secundi internodii*.
19. ————— *minor* —————; or ————— *tertii* —————.
20. *Indicator*.
21. *Flexor carpi ulnaris*.
22. *Extensor carpi ulnaris*.
23. Posterior annular ligament of the wrist.
24. *Anconæus*.



Fig 2



Fig 1



De an. C. S. 1789. p. 120.

W. Cheselden sculp. J. Smith delin.

## PLATE X.

### VIEWS OF SOME DEEP-SEATED MUSCLES IN THE FORE-ARM AND LEG.

FIG. I.—*Deep-seated Muscles on the Inner or Palmar Aspect of the Fore-Arm.*  
—*The Pronator Teres, the Extensores Carpi Radiales, the Palmaris Longus, the Flexor Digitorum Sublimis, and the Flexor Carpi Ulnaris, have been removed.*

- a. INTERNAL condyle of the humerus.
- b. Coronoid process of the ulna.
- c. Tubercle of the radius.
- d. Carpal extremity of the radius.
- e. ————— ulna.
- f. Annular ligament of the carpus.
1. Tendon of the *biceps brachii*. See Plate IX. Fig. 1. 14.
2. Insertion of the *brachialis internus* into the coronoid process of the ulna.  
See Plate IX. Fig. 1. 16.
3. *Supinator radii brevis*.
4. *Flexor digitorum profundus*, or *perforans*.
5. *Flexor longus pollicis*.
6. Tendon of the *supinator radii longus*.
7. Tendons of the *abductor longus* and *extensor major pollicis*.
8. 8. The two attachments of the *pronator quadratus*. The intervening portion of the muscle is covered by the *flexor digitorum profundus*, and *flexor longus pollicis*.
9. Tendon of the *flexor carpi radialis*.
10. ————— *palmaris longus*.
11. ————— *flexor carpi ulnaris*.

FIG. II.—*Deep-seated Muscles on the Back of the Leg; the Muscles of the Calf having been removed.*

- a. Femur.
- b. b. Its condyles.
- c. c. Semilunar cartilages of the knee.
- d. Tibia.
- e. Fibula.
- f. Its inferior or tarsal end, called the malleolus externus.
- g. Malleolus internus of the tibia.

PLATE X. FIG. 2.—*continued.*

1. Tendon of the *biceps femoris*. See Plate XIV. Fig. 2. 4.
2. 2. Portions of the *gastro-cnemius*.
3. Portion of the *plantaris*.
4. *Semimembranosus*.
5. *Sartorius* and *gracilis*.
6. *Popliteus*.
7. 7. *Peroneus longus*: its tendon, having passed behind the external malleolus, goes into the sole of the foot.
8. 8. *Peroneus brevis*; and its insertion into the fifth metatarsal bone.
9. *Flexor longus pollicis pedis*.
10. *Flexor longus digitorum pedis*.
11. 11. *Tibialis posticus*.



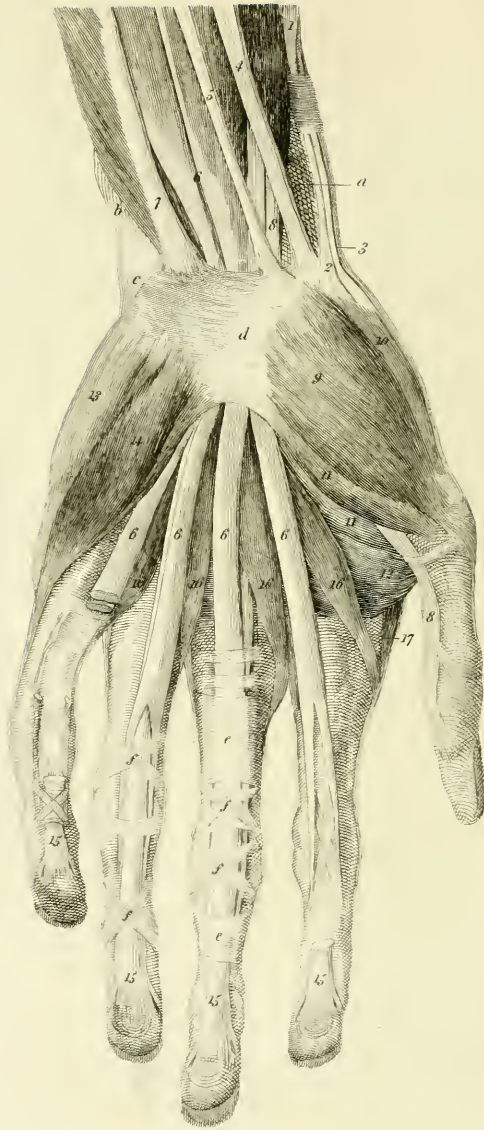


Fig. 1. Musculi et Ligamenta Perineo-Rectalis Equi.

Pl. An. Tab. 1. Fig. 1.



## PLATE XI.

SUPERFICIAL MUSCLES OF THE PALM AND FINGERS, AS SEEN AFTER THE REMOVAL OF THE PALMARIS BREVIS, AND THE PALMAR FASCIA; WITH THOSE ON THE CARPAL END OF THE FORE-ARM.

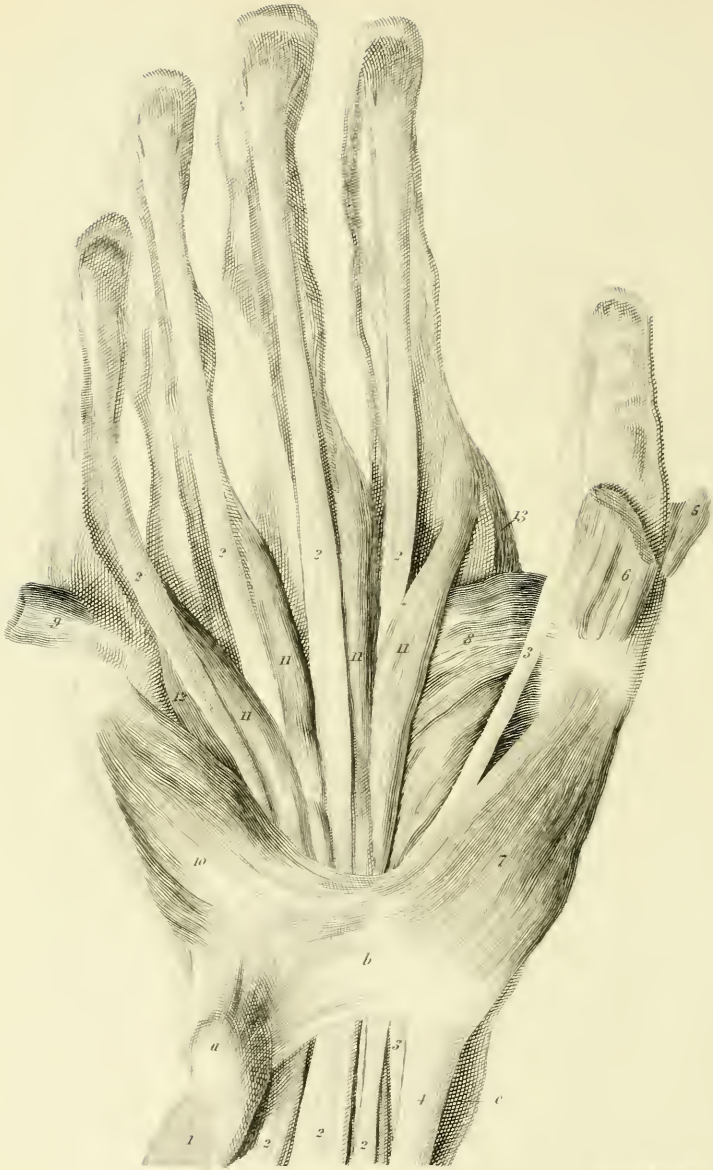
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- a. CARPAL end of the radius.
- b. ————— ulna.
- c. Os pisiforme.
- d. Annular ligament of the carpus (*ligamentum carpi proprium*), under which the flexor tendons and median nerve enter the palm.
1. Tendon of the *supinator radii longus*. See Plate IX. Fig. 2. 11.
2. ————— *abductor longus pollicis*. See Plate IX. Fig. 2. 17.
3. ————— *extensor major pollicis*. See Plate IX. Fig. 2. 18.
4. *Flexor carpi radialis*. See Plate IX. Fig. 1. 19.
5. Tendon of the *palmaris longus*.
- 6.6.6.6. *Flexor digitorum sublimis* or *perforatus*. See Plate IX. Fig. 1. 22.
7. *Flexor carpi ulnaris*.
- 8.8. *Flexor longus pollicis*.
9. *Abductor brevis pollicis*.
10. *Opponens pollicis*.
- 11.11. *Flexor brevis pollicis*.
12. *Adductor pollicis*.
13. *Abductor minimi digiti*.
14. *Flexor brevis minimi digiti*.
- 15.15.15.15. Tendons of the *flexor digitorum profundus* or *perforans*. See Plate IX. Fig. 1. 4.
- 16.16.16.16. *Lumbricales*.
17. *Abductor indicis*.
- e.e. Strong ligaments, of semi-cartilaginous structure, (*ligamenta vaginalia phalangis primæ et mediæ digitorum*), confining the tendons of the *flexor sublimis* and *profundus* to the palmar surfaces of the first and second digital phalanges. They have been removed, or cut open, in the other fingers, in order to expose the course of the tendons.
- f.f.f.f. More slender ligaments with decussating fibres, occupying the intervals of the preceding, and confining the tendons in their passage over the joints. (*Ligamenta obliqua* or *cruciformia*.)—In the middle finger, all the ligaments confining the flexor tendons are represented. In the ring-finger, the *ligamenta vaginalia* have been removed, so as to shew the course

PLATE XI.—*continued.*

course and relative position of the tendons of the *sublimis* and *profundus*, 6 & 15. All the ligaments are removed in the fore-finger, as well as the greatest part of the tendon of the *flexor profundus* 15: thus the fissure in the *sublimis* 6, for the passage of the *profundus* 15, is brought into view, as well as the interlacing of the two portions of the *sublimis* behind the *profundus*, and their ultimate insertion in the middle phalanx. The ligaments have been laid open in the little finger, so as to expose the channel which they form for the tendons. The latter have both been cut through opposite to the first joint of the finger: the *flexor sublimis* has been again divided at the middle joint, so as to leave its *decussated* portion and insertion, while the *profundus* has been divided at the middle *phalanx*.





—GROVE A. del. Pinx. Sculp.

Fig. 1. The Extensor Digitorum and Extensor Indicis Propius.

## PLATE XII.

### MUSCLES OF THE HAND, IN A MORE DEEP-SEATED VIEW.

---

THE *flexor sublimis* has been removed. The *abductor* and *flexor brevis pollicis*, and the *abductor digiti minimi*, have been reflected.

- a. Os pisiforme.
- b. Annular ligament of the carpus.
- c. Carpal extremity of the radius.
1. *Flexor carpi ulnaris*.
2. 2. 2. 2. } *Flexor digitorum profundus*. See Plate X. Fig. 1. 4.
2. 2. 2. }
3. 3. *Flexor longus pollicis*.
4. *Flexor carpi radialis*.
5. *Abductor pollicis* reflected.
6. *Flexor brevis pollicis* reflected.
7. *Opponens pollicis*.
8. *Adductor pollicis*.
9. *Abductor digiti minimi*.
10. *Adductor ossis metacarpi digiti minimi*.
11. 11. 11. 11. *Lumbricales*.
12. One of the *interossei interni* or *priores*.
13. *Abductor indicis*.

## PLATE XIII.

### MUSCLES ON THE BACK OF THE HAND AND FINGERS, WITH THE ADJOINING PORTION OF THE FORE-ARM.

---

- a. INFERIOR or carpal extremity of the ulna.
- b. Radius.
- c. d. e. f. Metacarpal bones.
- g. *Posterior annular* ligament of the wrist. (*Ligamentum commune carpi dorsale*.)
- 1. 1. *Extensor carpi ulnaris*; and its insertion into the fourth metacarpal bone.  
See Plate IX. Fig. 2. 22.
- 2. 2. *Extensor proprius auricularis*. See Plate IX. Fig. 2. 16.
- 3. 3. 3. 3. *Extensor communis digitorum*. See Plate IX. Fig. 2. 15. It will be observed, that a portion separates from the third tendon to join the *extensor proprius auricularis*.
- 4. 4. *Extensor minor pollicis*.
- 5. 5. *Extensor major pollicis*.
- 6. 6. Tendon of the *extensor carpi radialis longior*. See Plate IX. Fig. 2. 12.
- 7. 7. ————— *brevior*. See Plate IX. Fig. 2. 13.
- 8. *Abductor indicis*.
- 9. *Interosseus prior indicis*.
- 10. *Abductor digiti minimi*.
- 11. 11. 11. *Interossei posteriores* or *externi*.
- 12. 12. 12. 12. Tendons of the *lumbricales* and *interossei*, first connected by broad expansions with the tendons of the *extensor communis digitorum*, and then inserted together in the last *phalanges*.
- 13. Tendon of the *indicator*.—It will be observed, that the forefinger also receives a slip from the *extensor communis*.









Fig 2

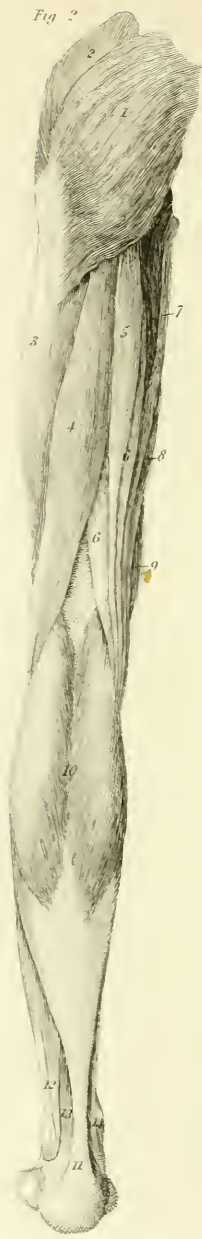
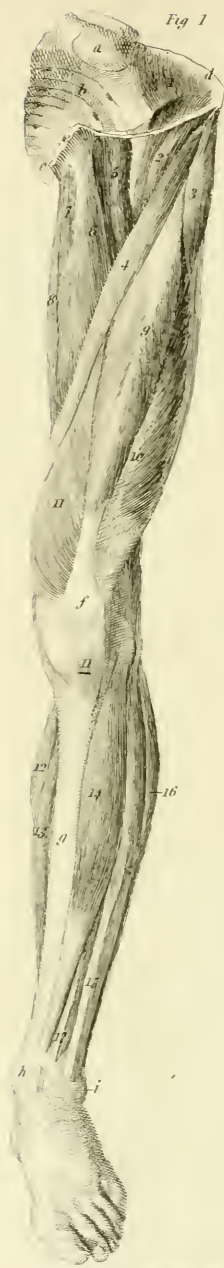


Fig 1



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## PLATE XIV.

### MUSCLES OF THE THIGH AND LEG.

11  
FIG. I.—*Front View.*

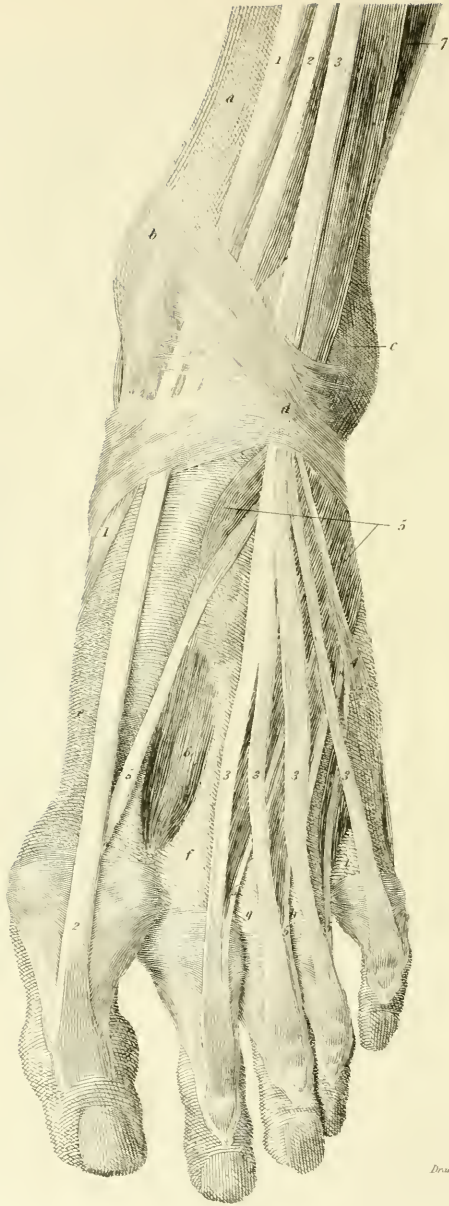
- a. FIFTH lumbar vertebra.
- b. Sacrum.
- c. Coceyx.
- d. Crista of the ilium.
- e. Symphisis pubis.
- f. Patella.
- g. Tibia.
- h. Internal malleolus.
- i. External malleolus.
1. *Iliacus internus.*
2. *Psoas magnus.*
3. *Tensor vaginæ femoris.*
4. *Sartorius.*
5. *Pectineus.*
6. Long head of the *triceps femoris.*
7. Middle head of ditto.
8. *Gracilis.*
9. *Rectus femoris.*
10. *Vastus externus.*
11. *Vastus internus.*
11. Common tendon, by which the *vasti*, *cruralis*, and *rectus femoris* are fixed to the front of the *tibia*.
12. Internal head of the *gastrocnemius.*
13. Internal edge of the *soleus.*
14. *Tibialis anticus.*
15. *Extensor longus digitorum pedis.*
16. *Peroneus longus.*
17. *Extensor longus pollicis pedis.*

PLATE XIV.—*continued.*

FIG. II.—*Back View of the Muscles of the Thigh and Leg.*

1. *Gluteus magnus.*
2. ——— *medius.*
3. *Vastus externus.*
4. *Biceps femoris.*
5. *Semitendinosus.*
6. 6. *Semimembranosus*, partly covered by the former, but, in consequence of its greater width, appearing beyond it on each side.
7. *Gracilis.*
8. *Sartorius.*
9. *Vastus internus.*
10. *Gastrocnemius.*
11. *Tendo Achillis.*
12. *Peronei.*
13. *Flexor longus pollicis pedis.*
14. Tendons of the *flexor longus digitorum pedis* and *tibialis posticus.*





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## PLATE XV.

### MUSCLES ON THE BACK OF THE FOOT, AND NEIGHBOURING PORTION OF THE LEG.

- 
- a.* TIBIA.  
*b.* Malleolus internus.  
*c.* Malleolus externus.  
*d.* Ligamentous band confining the tendons at their passage over the ankle.  
*e. f. g. h. i.* The five metatarsal bones.  
1.1. *Tibialis anticus.* See Pl. XIV. Fig. 1. 14.  
2.2. *Extensor longus pollicis pedis.* See Pl. XIV. Fig. 1. 17.  
3.3.3.3. *Extensor longus digitorum pedis.* See Pl. XIV. Fig. 1. 15.  
4. Tendon, which, with its corresponding portion of muscle, forms the *peroneus tertius.*  
5.5.5.5. *Extensor brevis digitorum pedis.*  
6. One of the *interossei externi pedis.*  
7. Portion of the *peroneus brevis.*

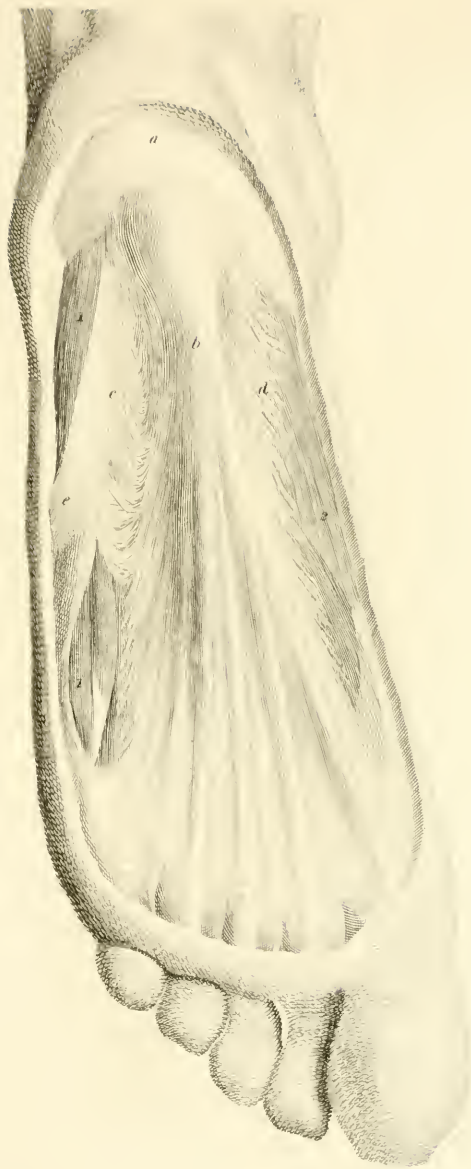
The tendinous expansions covering the backs of the toes are formed by the tendons of the *extensor longus* and *brevis digitorum*, with additional portions from the *abductor pollicis pedis*, the *lumbricales*, and the ligaments of the articulations between the *metatarsal* bones and toes.

## PLATE XVI.

### THE PLANTAR FASCIA, OR APONEUROSIS.

- 
- a. OS CALCIS.
- b. The middle or strongest portion of the *plantar fascia*, arising from the os calcis, and ending in attachment to the metatarsal bones, and sheaths of the flexor tendons of the toes.
- c. External lateral portion of the *fascia*.
- d. Internal ditto.
- e. Process of the fifth metatarsal bone.
1. 1. *Abductor digiti minimi pedis*.
2. ——— *pollicis pedis*.











## PLATE XVII.

FIRST LAYER OF MUSCLES IN THE SOLE OF THE FOOT, AS THEY  
APPEAR AFTER REMOVING THE PLANTAR FASCIA.

---

- a. Os CALCIS.
- b. b. b. Strong semi-cartilaginous ligaments which bind down the flexor tendons of the toes upon the 1st and 2d phalanges, similar to those in the fingers.
- c. c. Oblique or decussating ligaments, analogous to those of the fingers.
1. *Abductor pollicis pedis.*
  2. *Flexor brevis pedis.*
3. 3. 3. 3. 3. *Flexor brevis, or perforatus digitorum pedis.*
4. *Abductor minimi digiti pedis.*
  5. 5. *Flexor brevis.*
  6. 6. *Flexor longus pollicis.* See Plate X. Fig. 2. 9.
7. 7. 7. 7. *Lumbricales.*
8. 8. 8. 8. Tendons of the *flexor longus digitorum pedis.* See Plate X. Fig. 2. 10.—  
A portion of one of these tendons has been removed in the fourth toe, to shew the perforation or slit in the tendon of the *flexor brevis*, and its mode of insertion, which are analogous to the corresponding parts in the fingers.

## PLATE XVIII.

### SECOND LAYER OF MUSCLES OF THE SOLE.

---

THE *flexor brevis digitorum pedis*, the *abductor pollicis*, and *abductor digiti minimi*, have been removed.

- a. Os calcis.
- b. Os naviculare.
- c. Internal or great cuneiform bone.
- d. Process of the fifth metatarsal bone, into which the tendon of the *peroneus brevis*, 9, is inserted.
1. Tendon of the *abductor pollicis pedis*.
2. ————— *digiti minimi*.
3. 3. ————— *flexor longus pollicis*. See Plate X. Fig. 2. 9.
4. 4. 4. 4. 4. *Flexor longus digitorum pedis*. See Plate X. Fig. 2. 10.
5. 5. 5. 5. *Lumbricales*.
6. *Flexor accessorius digitorum pedis*.
7. *Flexor brevis pollicis pedis*.
8. ————— *digiti minimi pedis*.
9. Insertion of the *peroneus brevis*.

















