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AN ATLAS

OF

SURGICAL APPARATUS;

BEING

A SERIES OF DELINEATIONS

OF

THE MOST IMPORTANT MECHANICAL AUXILIARIES OF SURGERY,

WITH DESCRIPTIVE LETTER-PRESS,

EXPLAINING THEIR SEVERAL USES AND MODES OF APPLICATION.

BY

HENRY T. CHAPMAN,

MEMBER OF THE ROYAL COLLEGE OF SURGEONS,

AND LATE HOUSE SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

LONDON:

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1832.

TO

J. P. VINCENT, Esq.

WILLIAM LAWRENCE, Esq. F.R.S.

AND

HENRY EARLE, Esq. F.R.S.

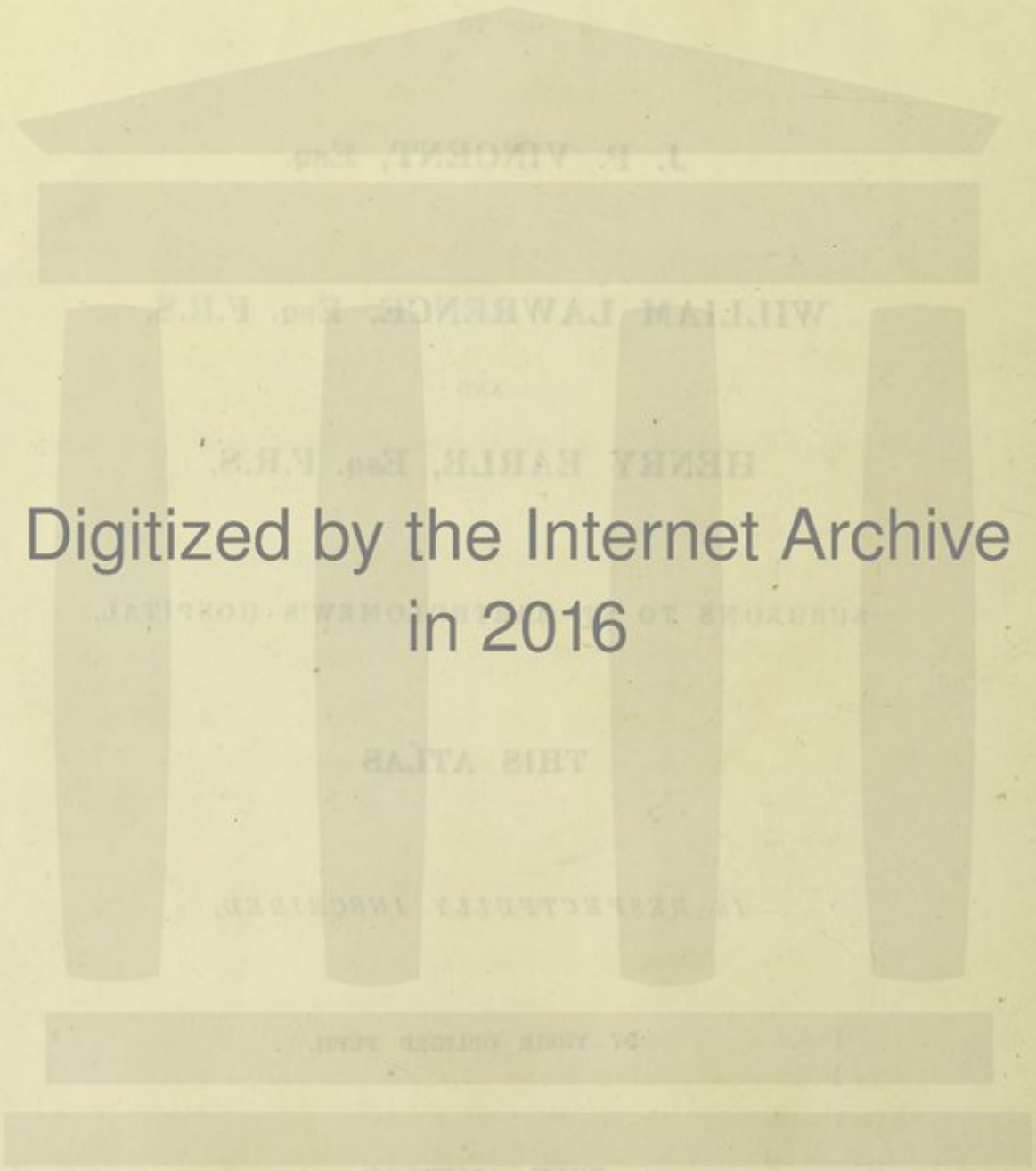
SURGEONS TO ST. BARTHOLOMEW'S HOSPITAL,

THIS ATLAS

IS RESPECTFULLY INSCRIBED,

BY THEIR OBLIGED PUPIL

THE AUTHOR.



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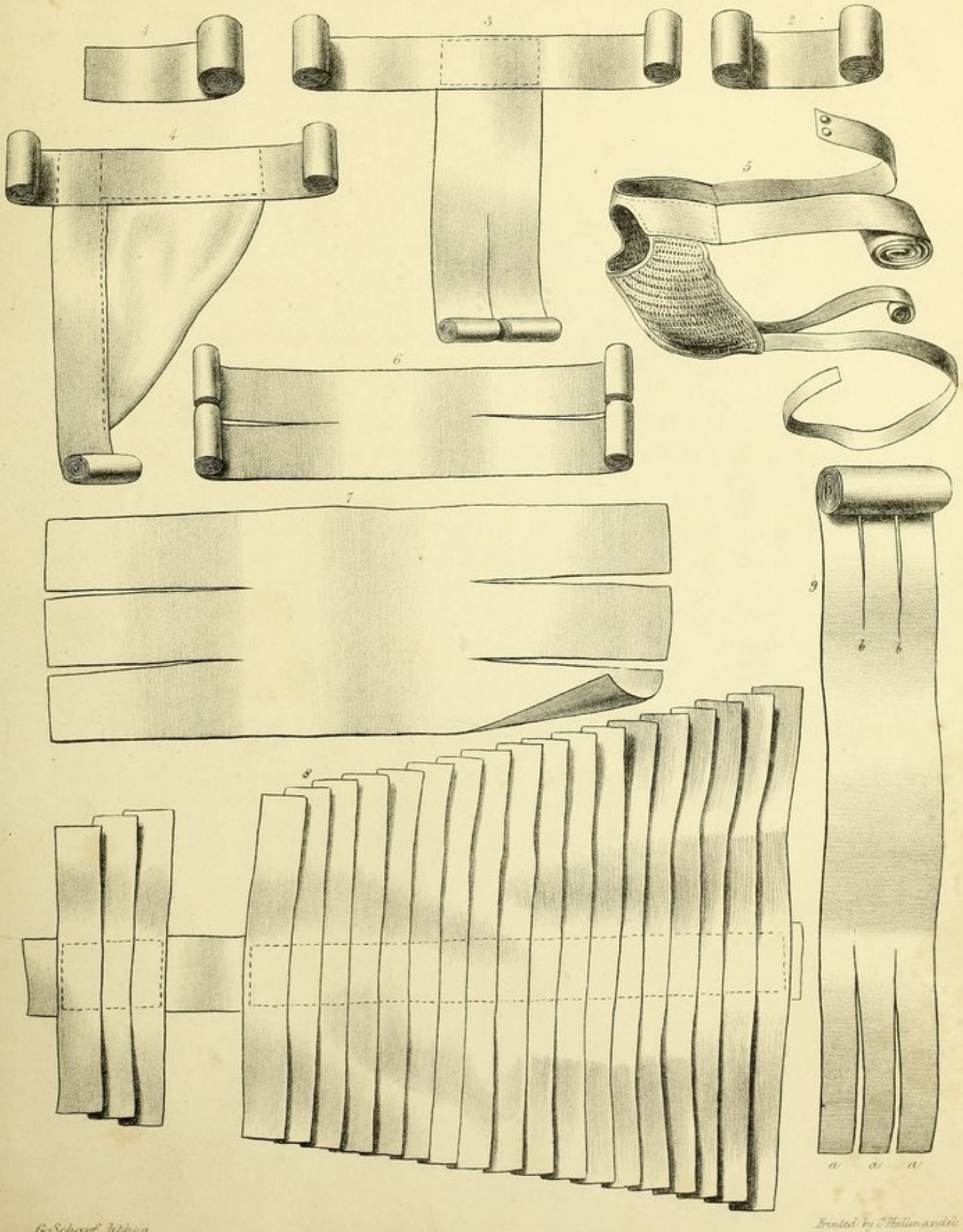
The Instruments used in Ophthalmic Surgery are given, of their full dimensions; the others are reduced one-third.



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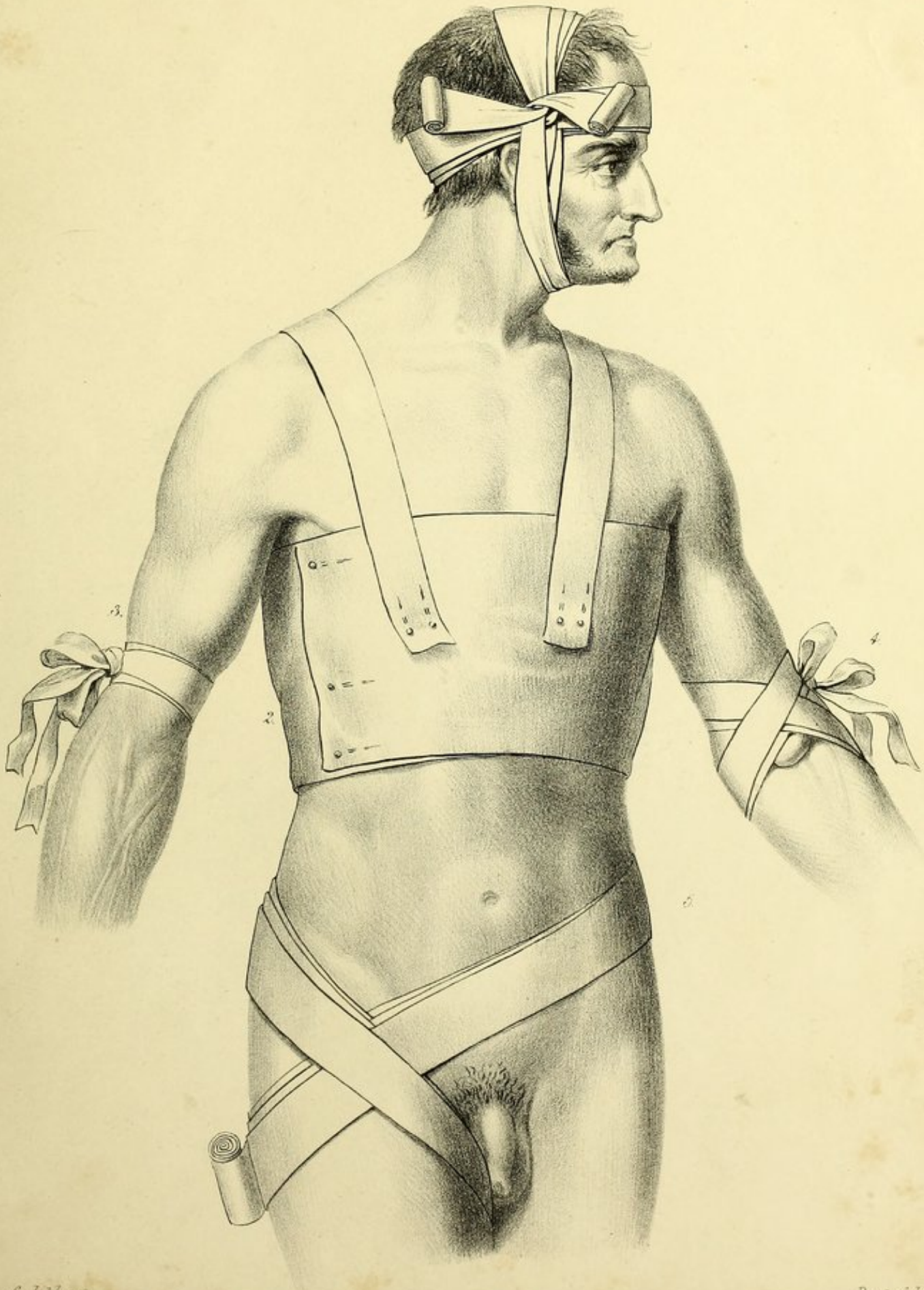

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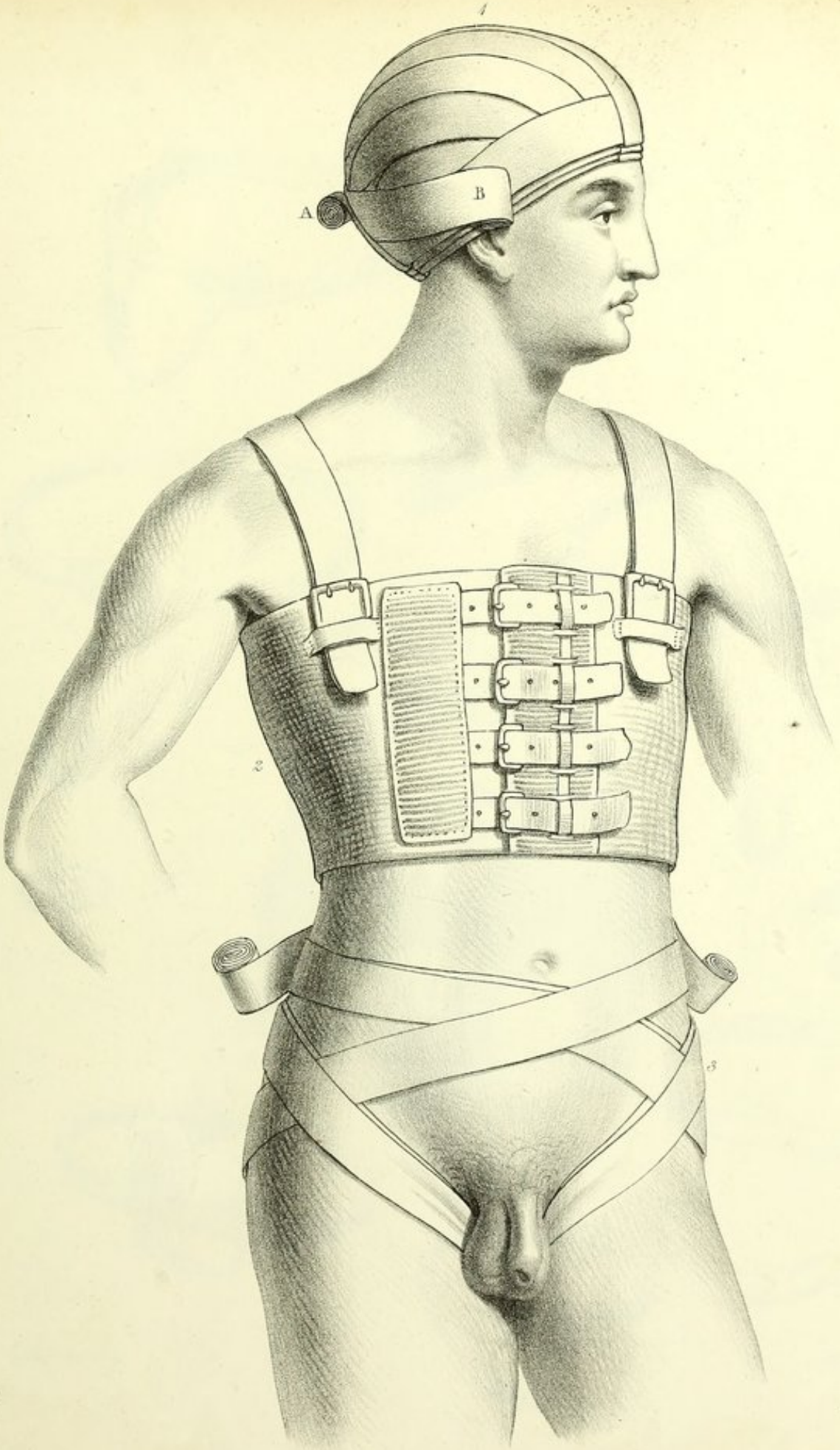

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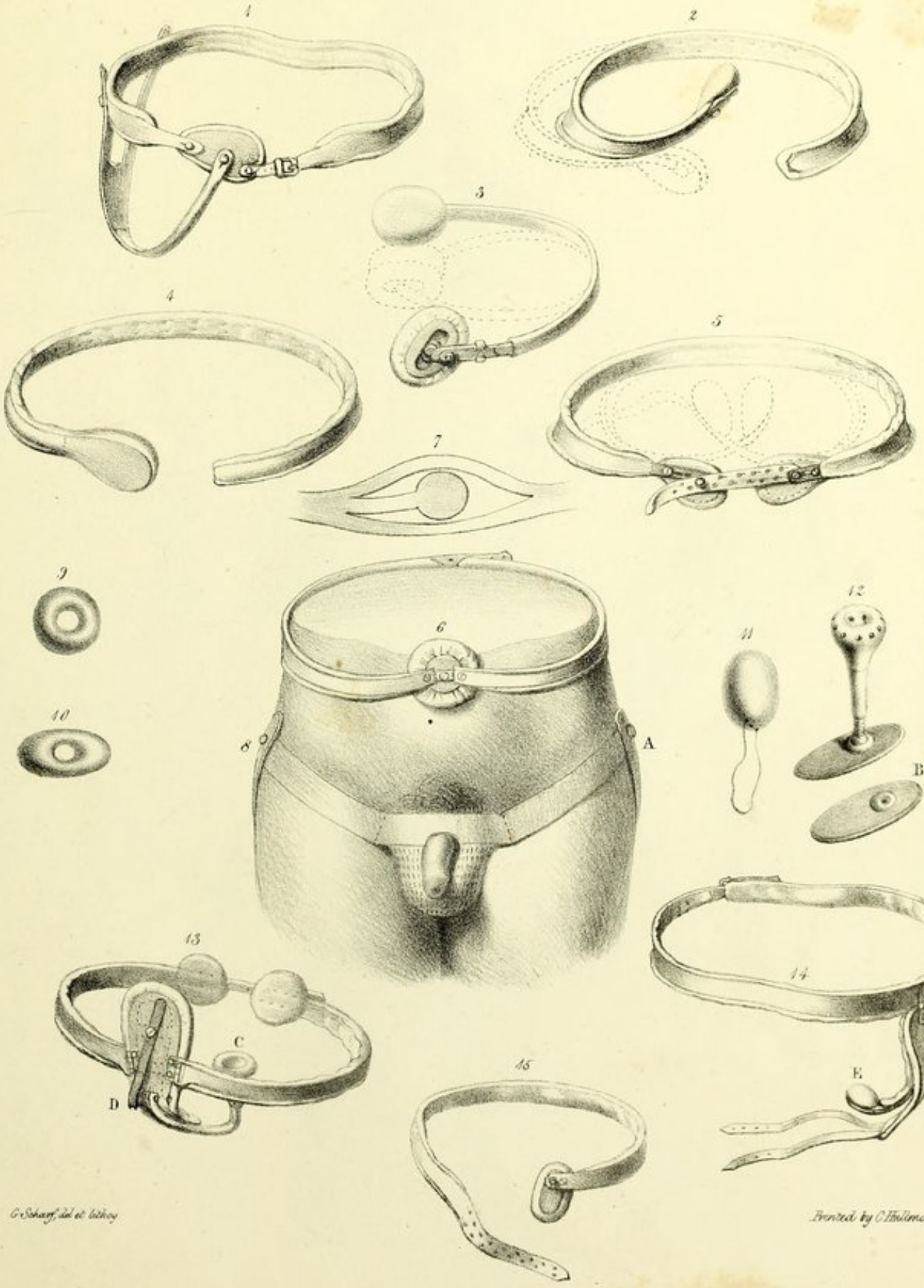

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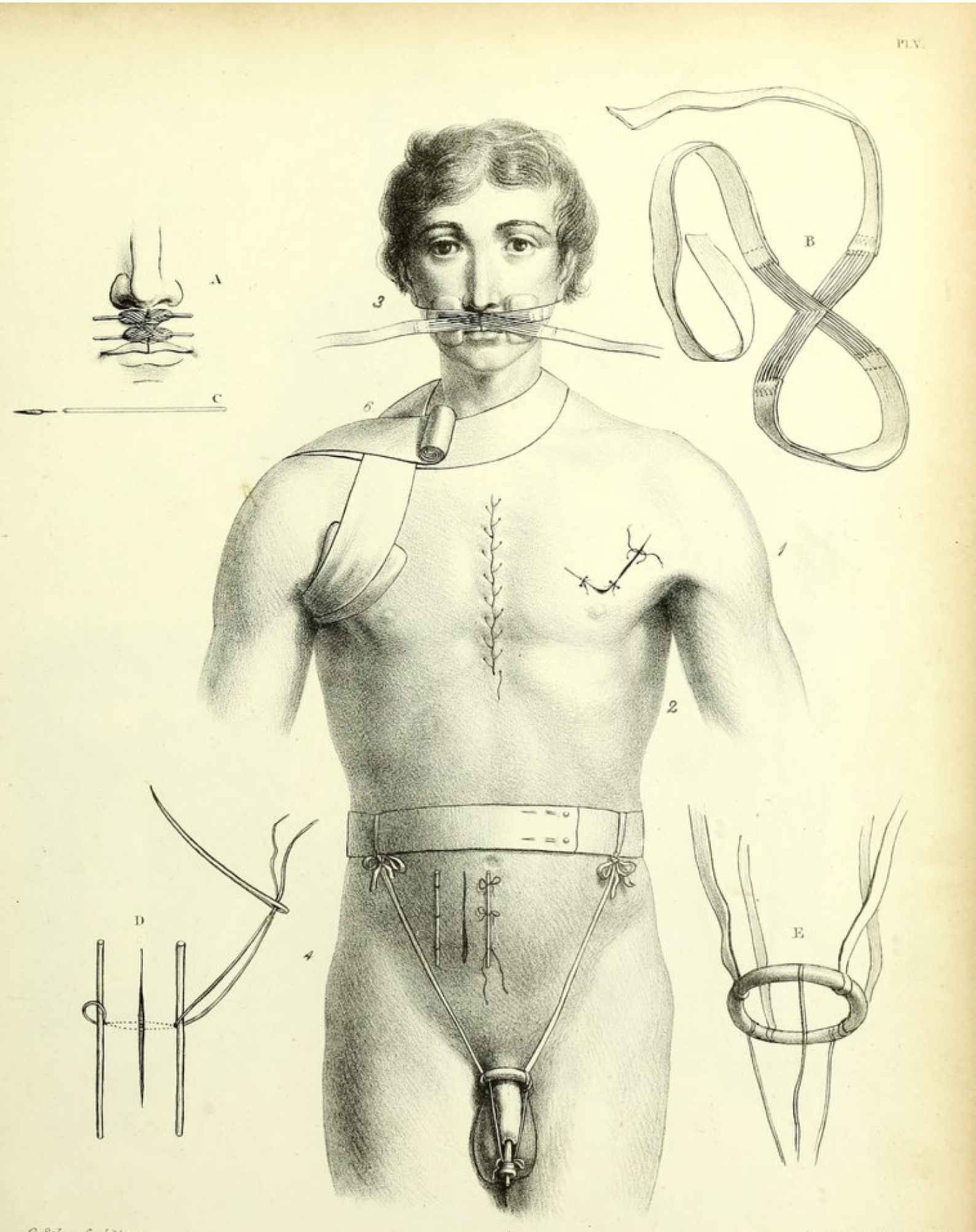

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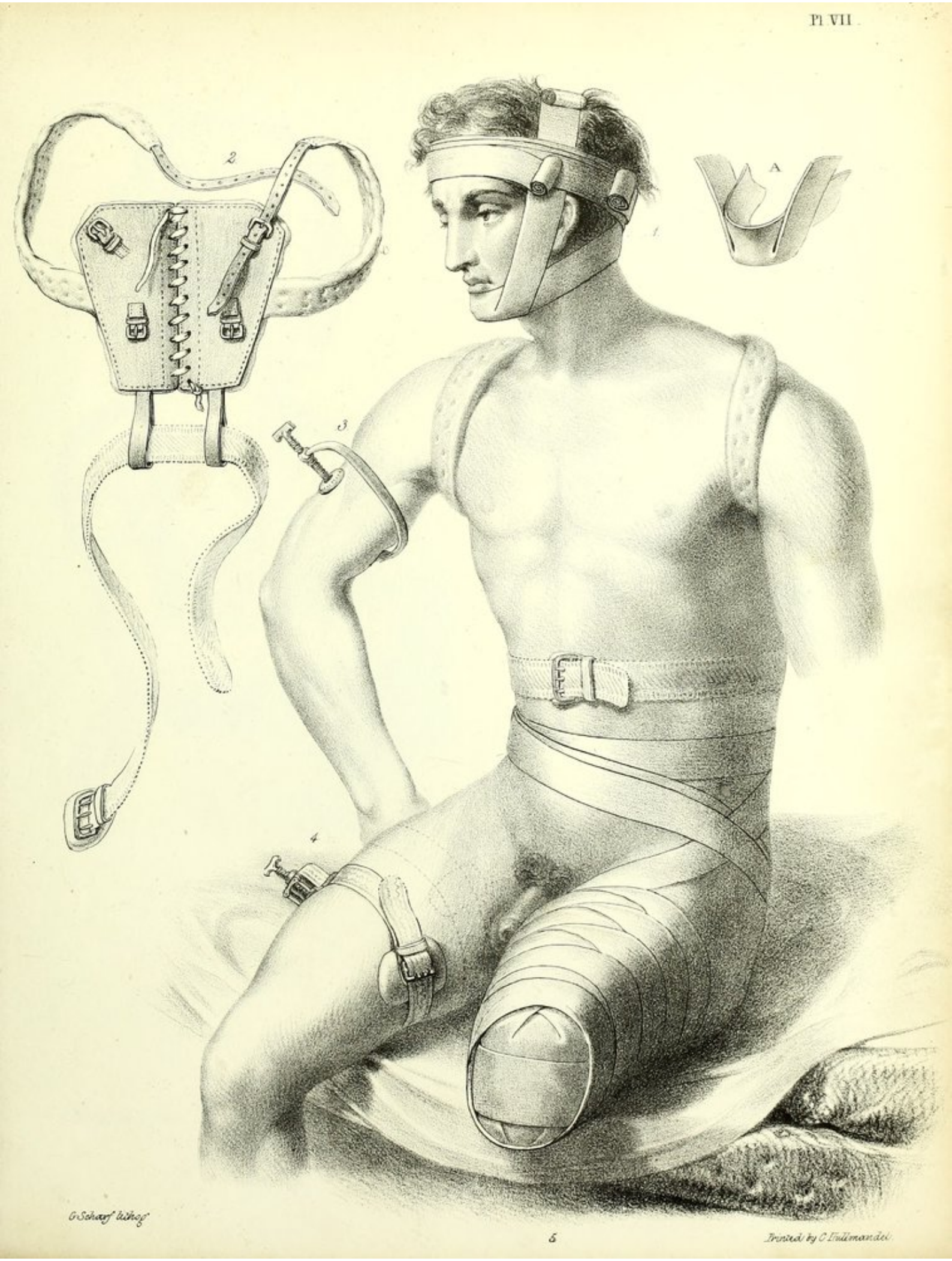

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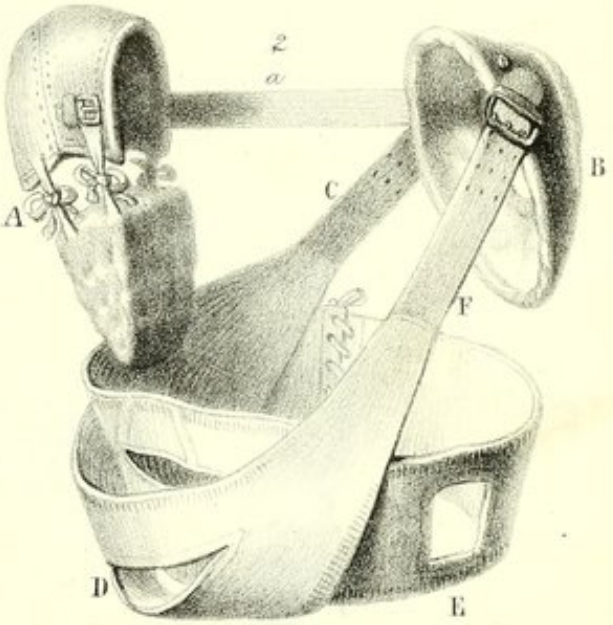

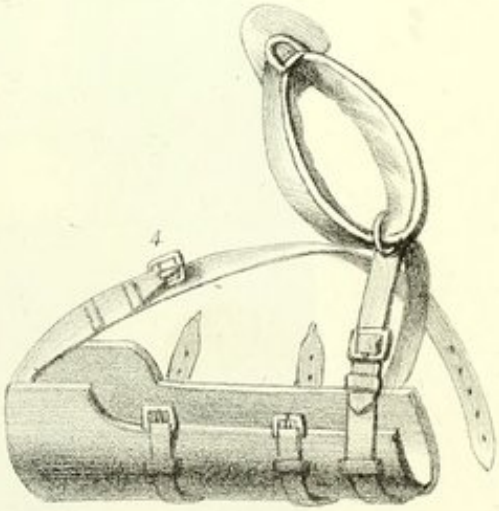

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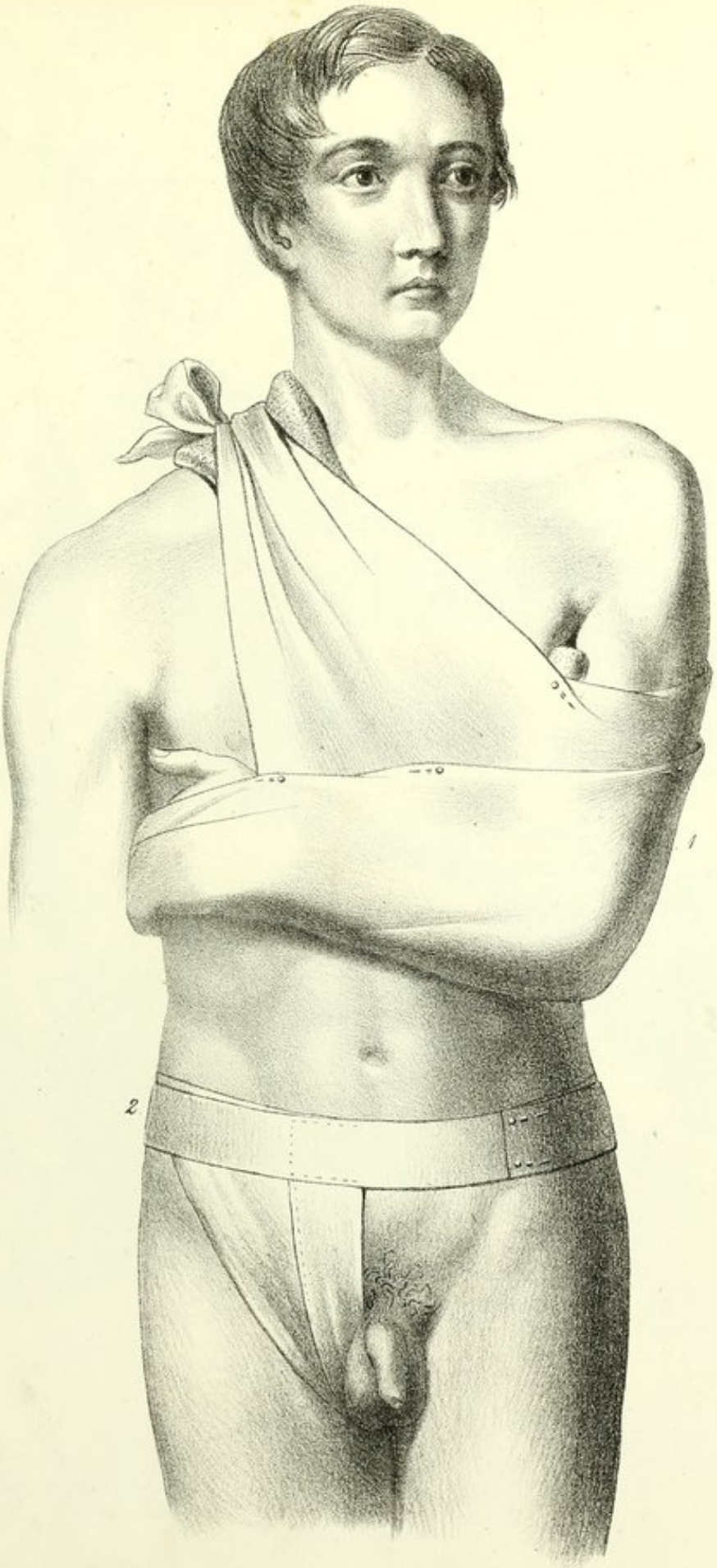

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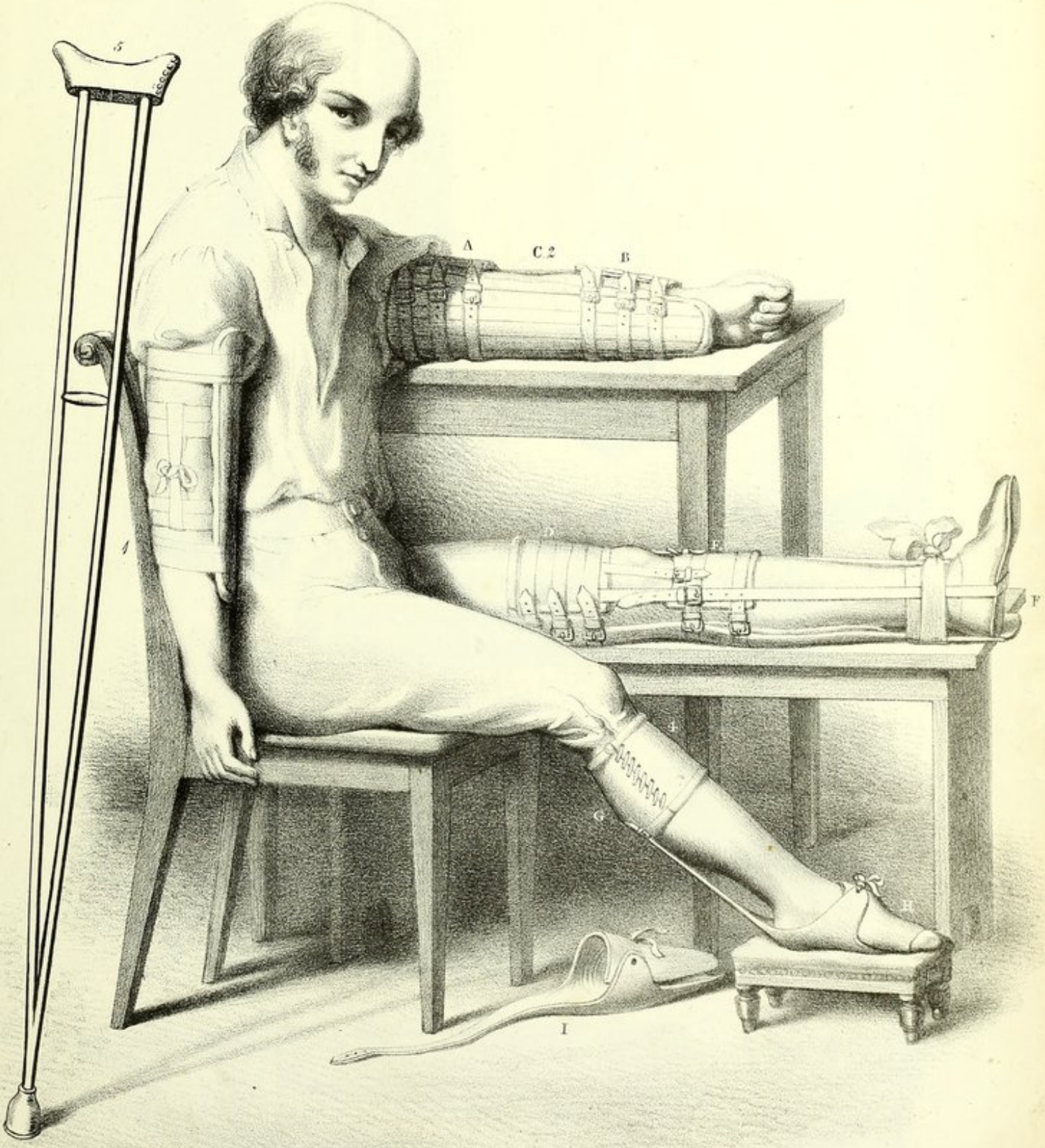

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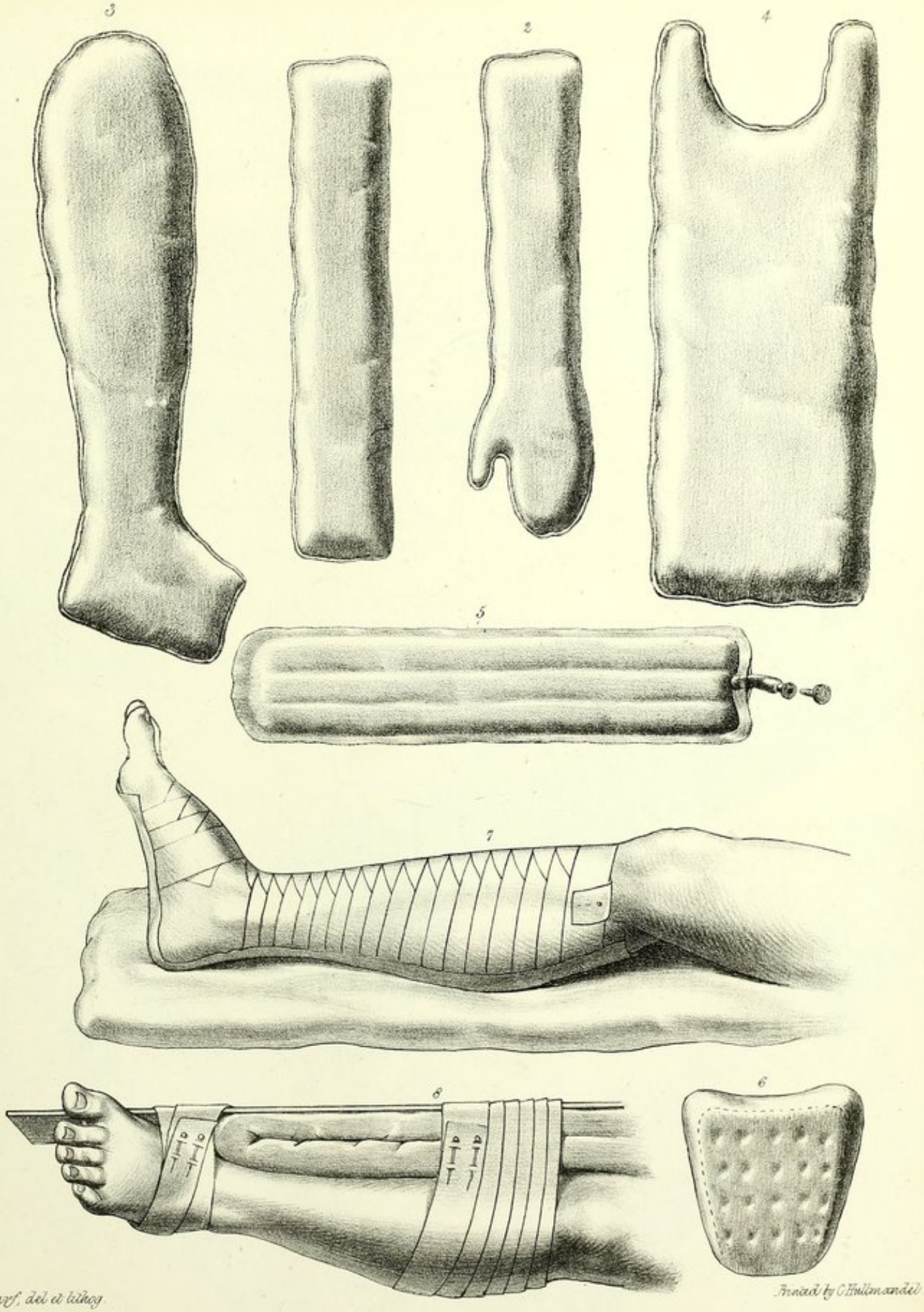

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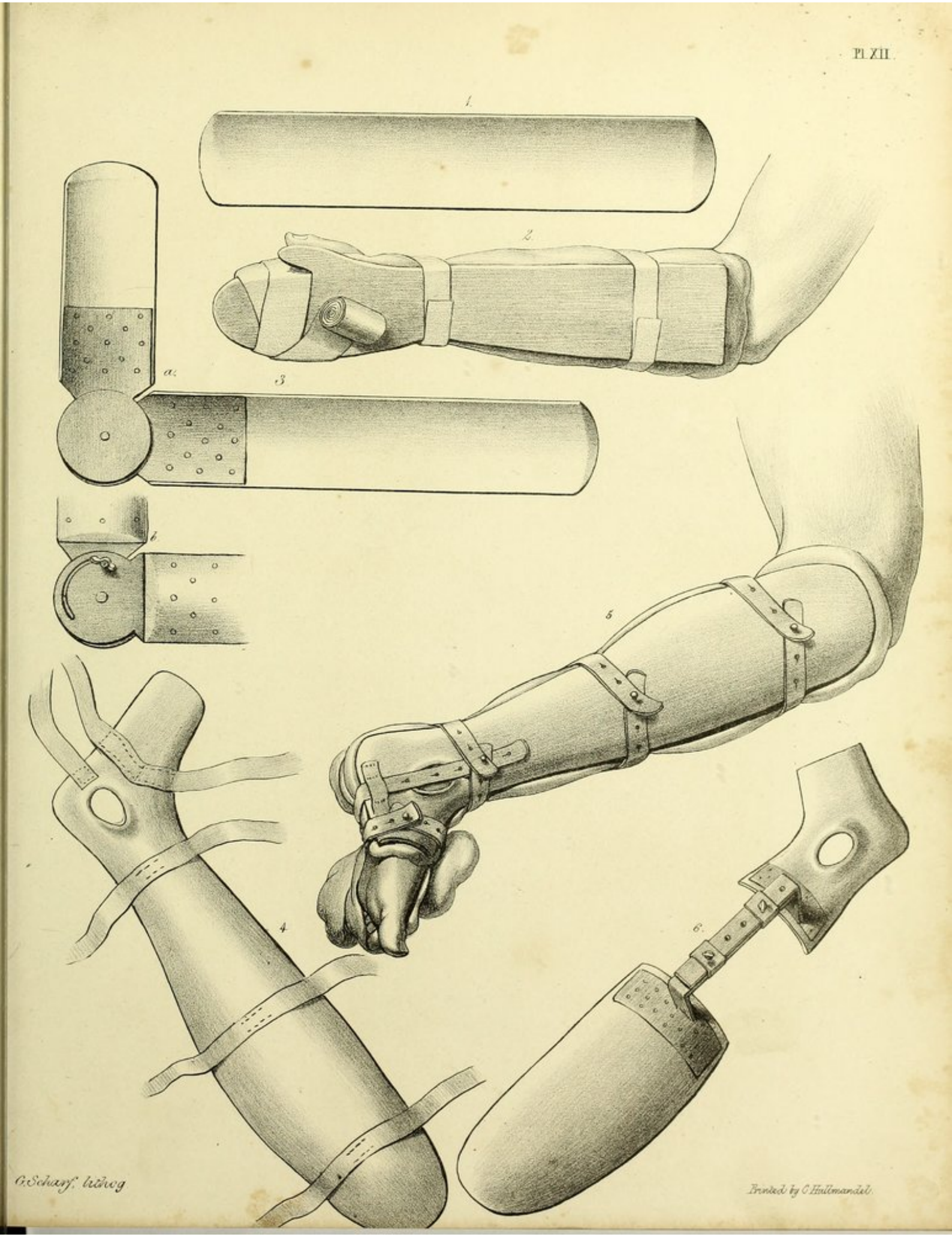

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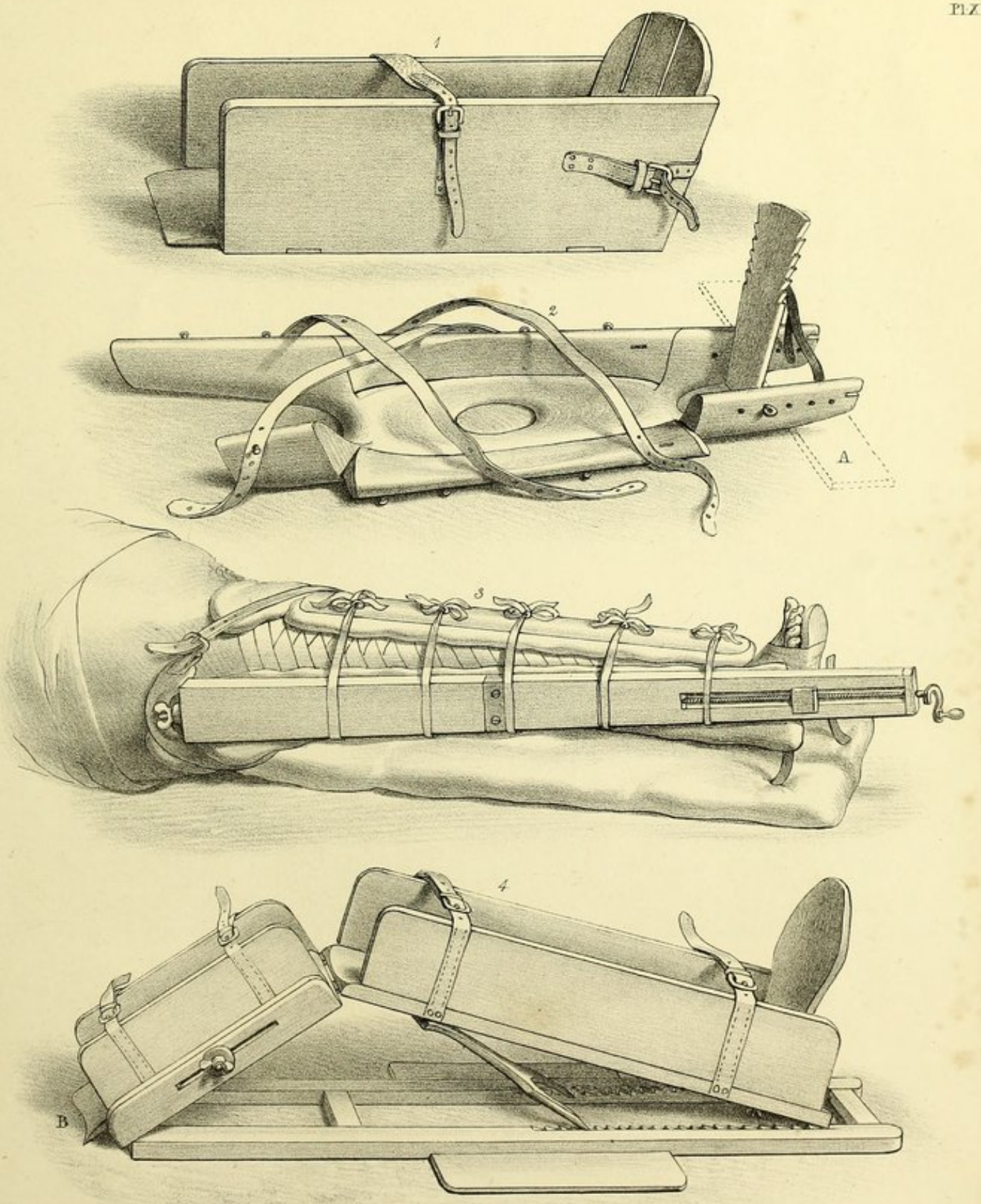

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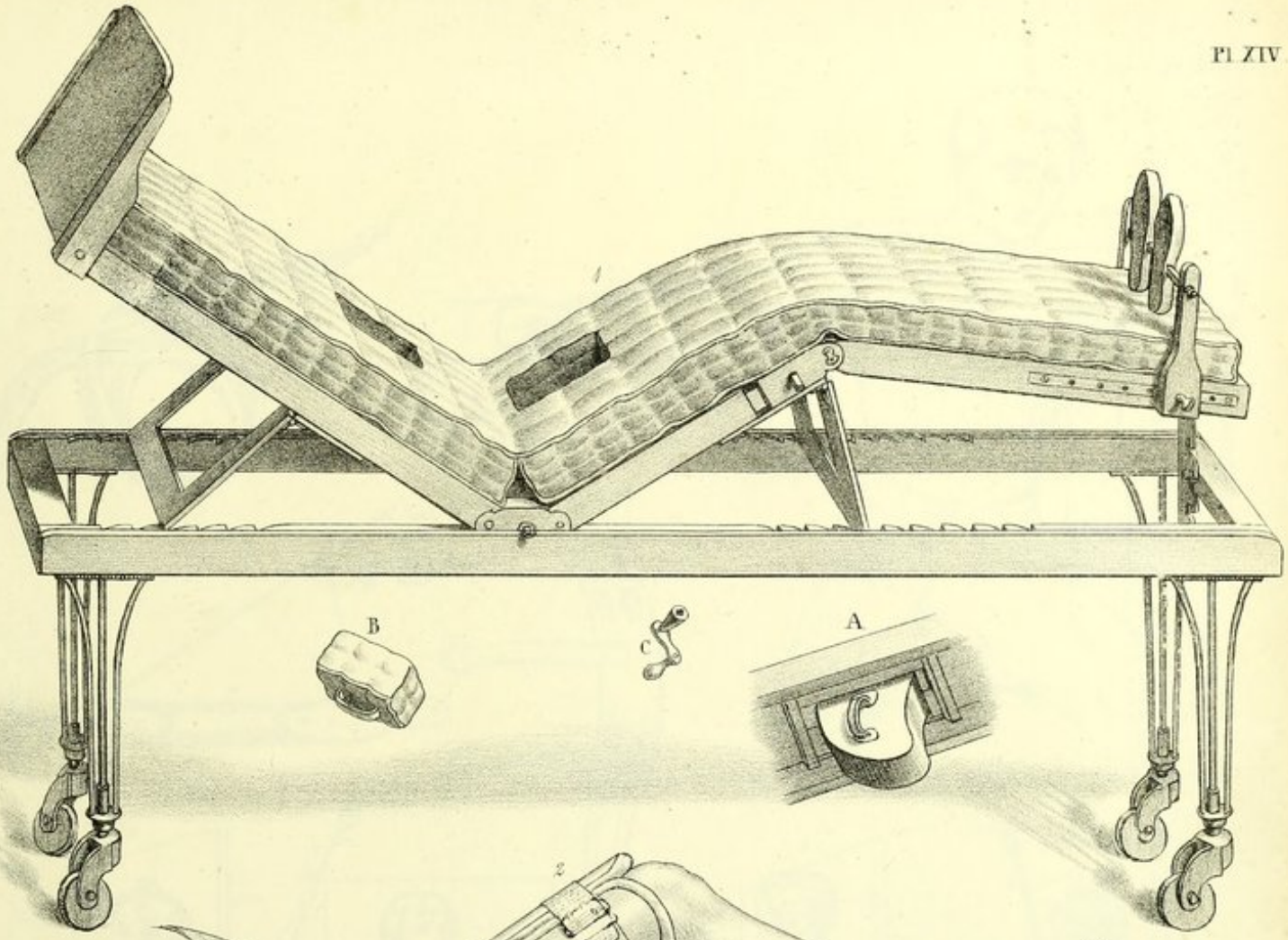

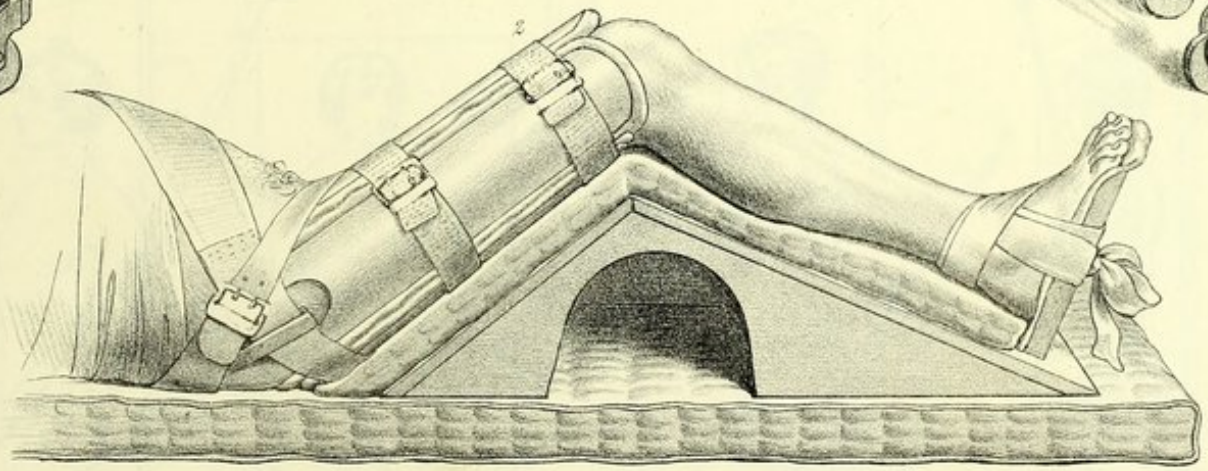

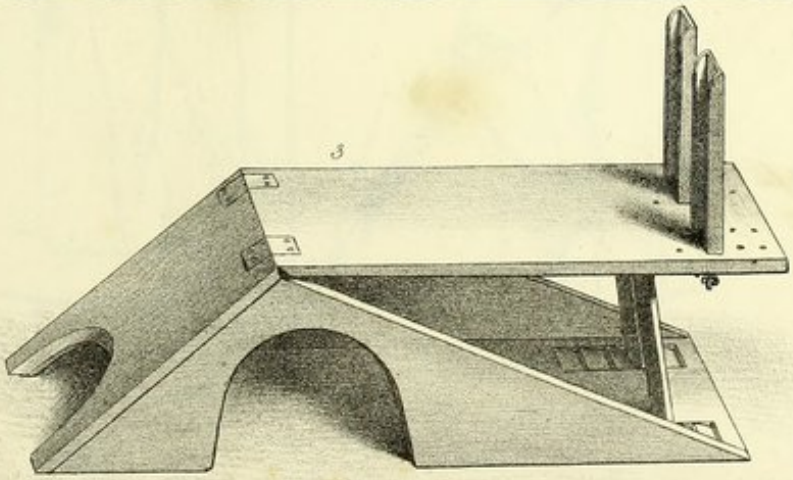

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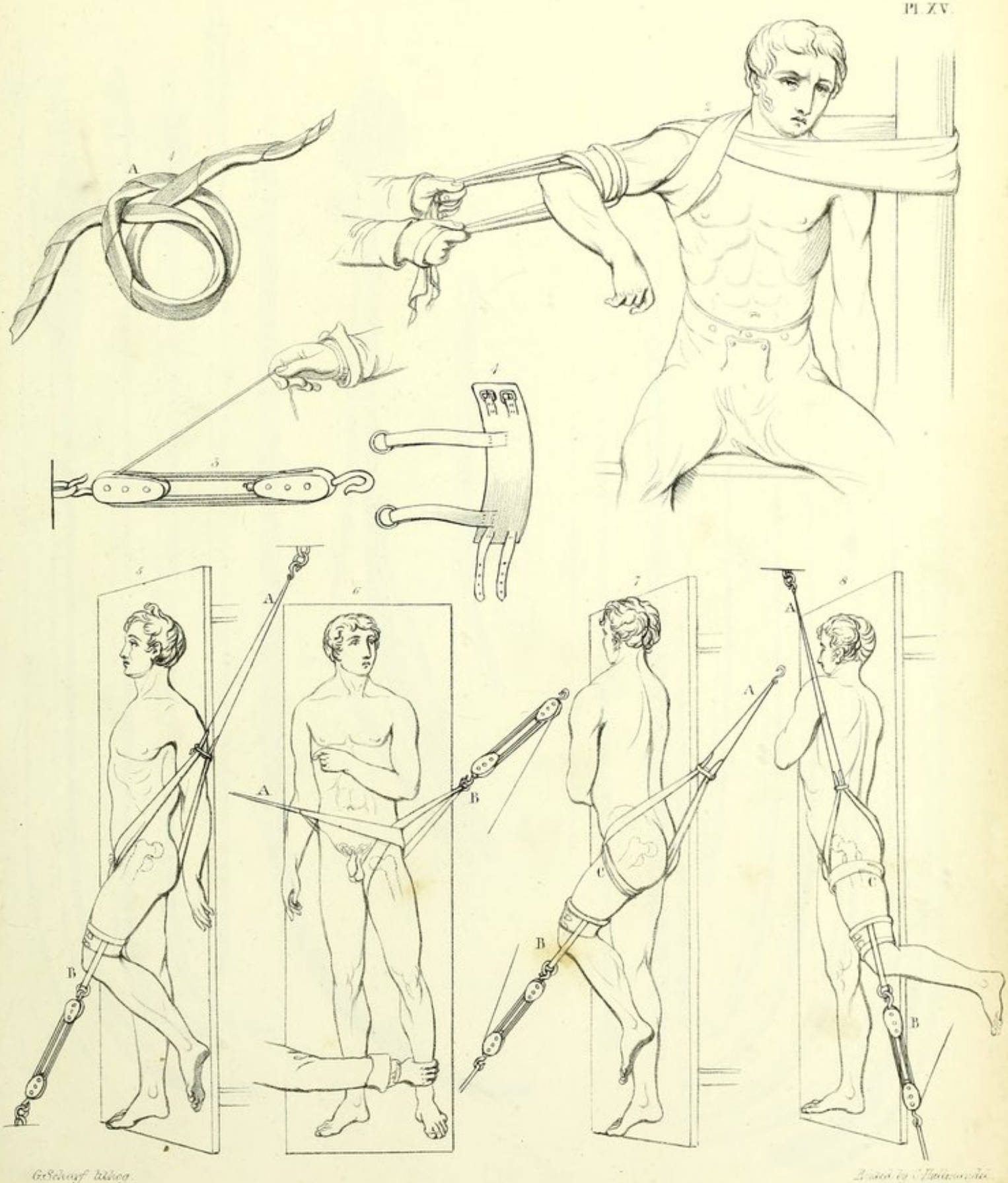

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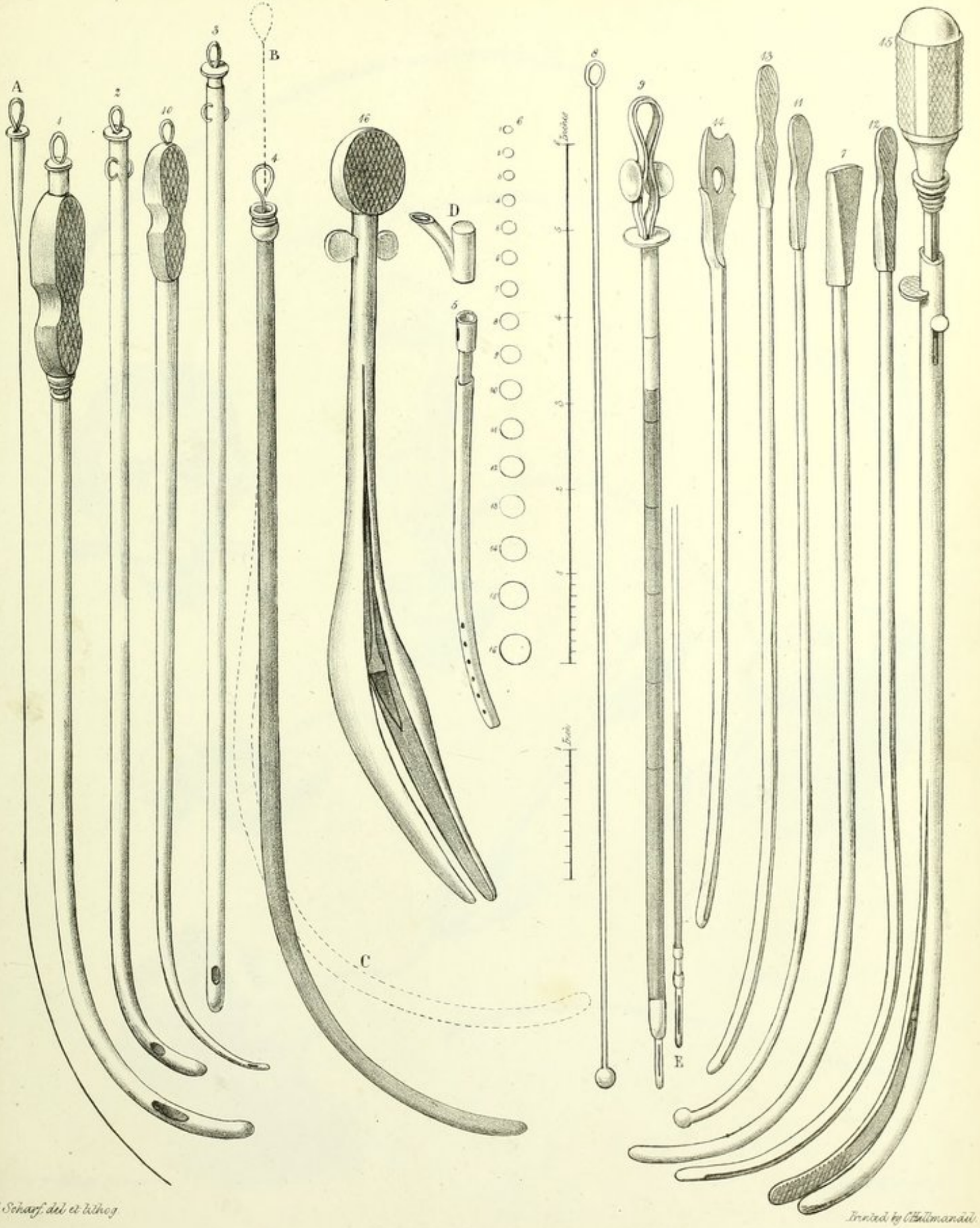

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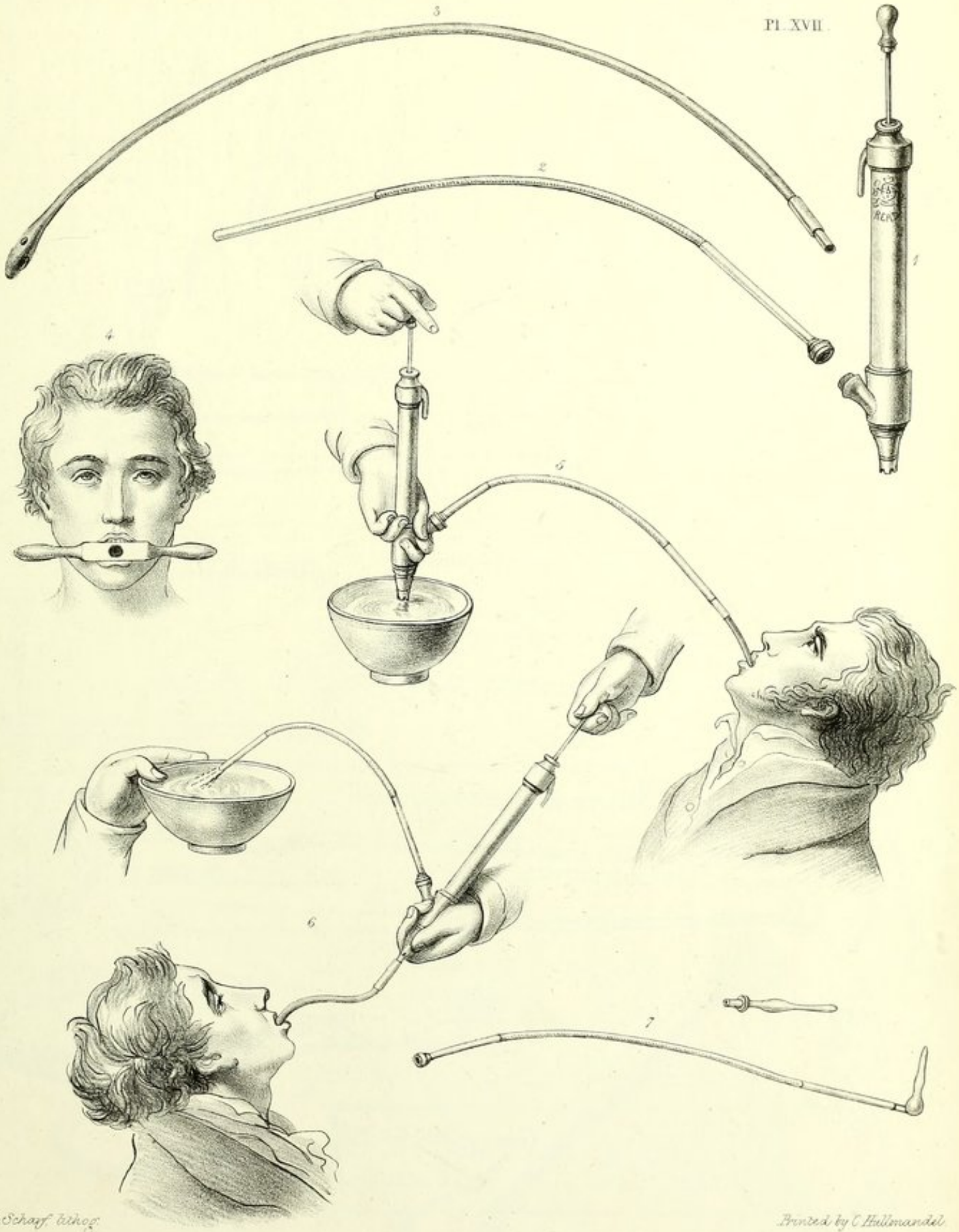

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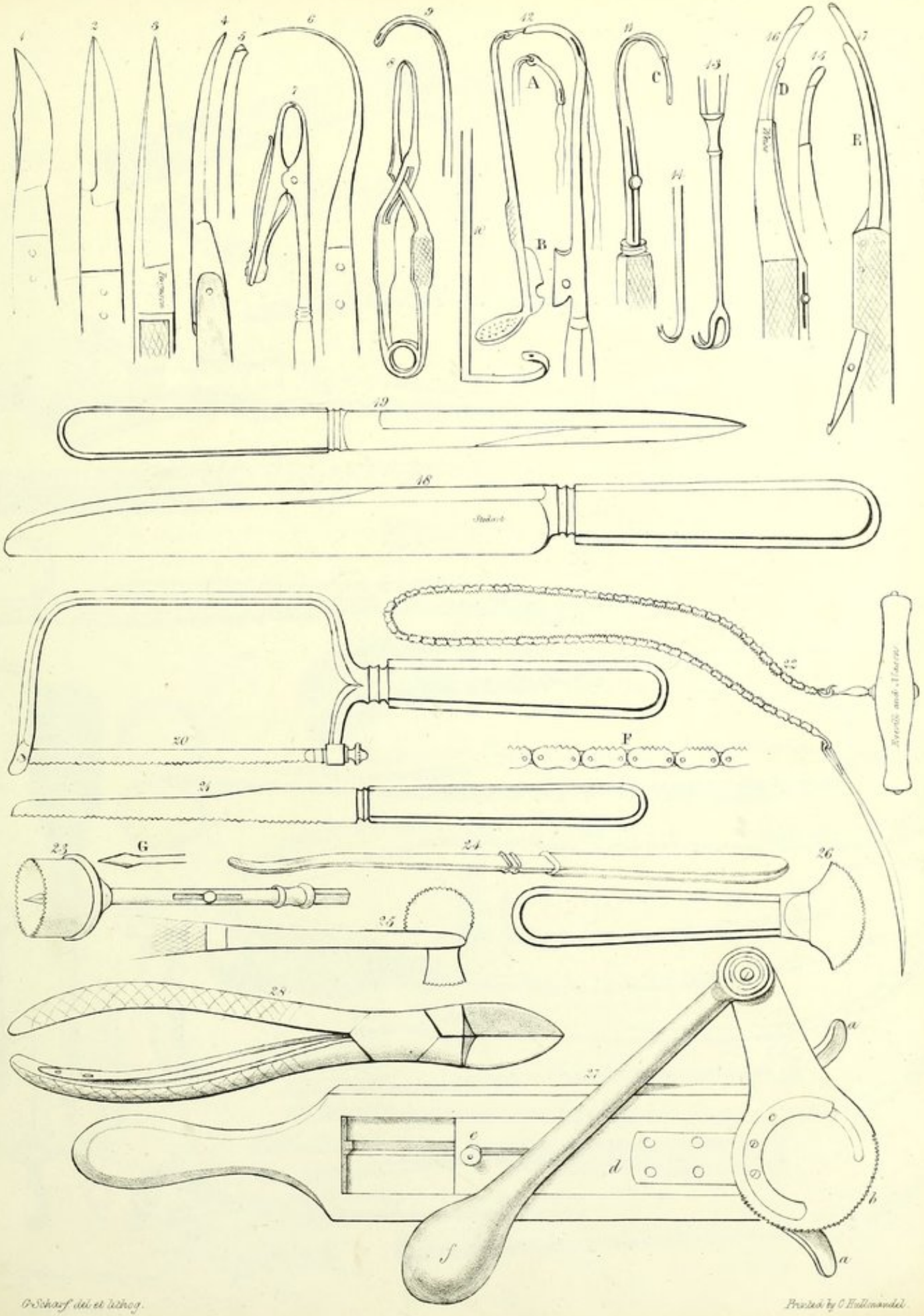
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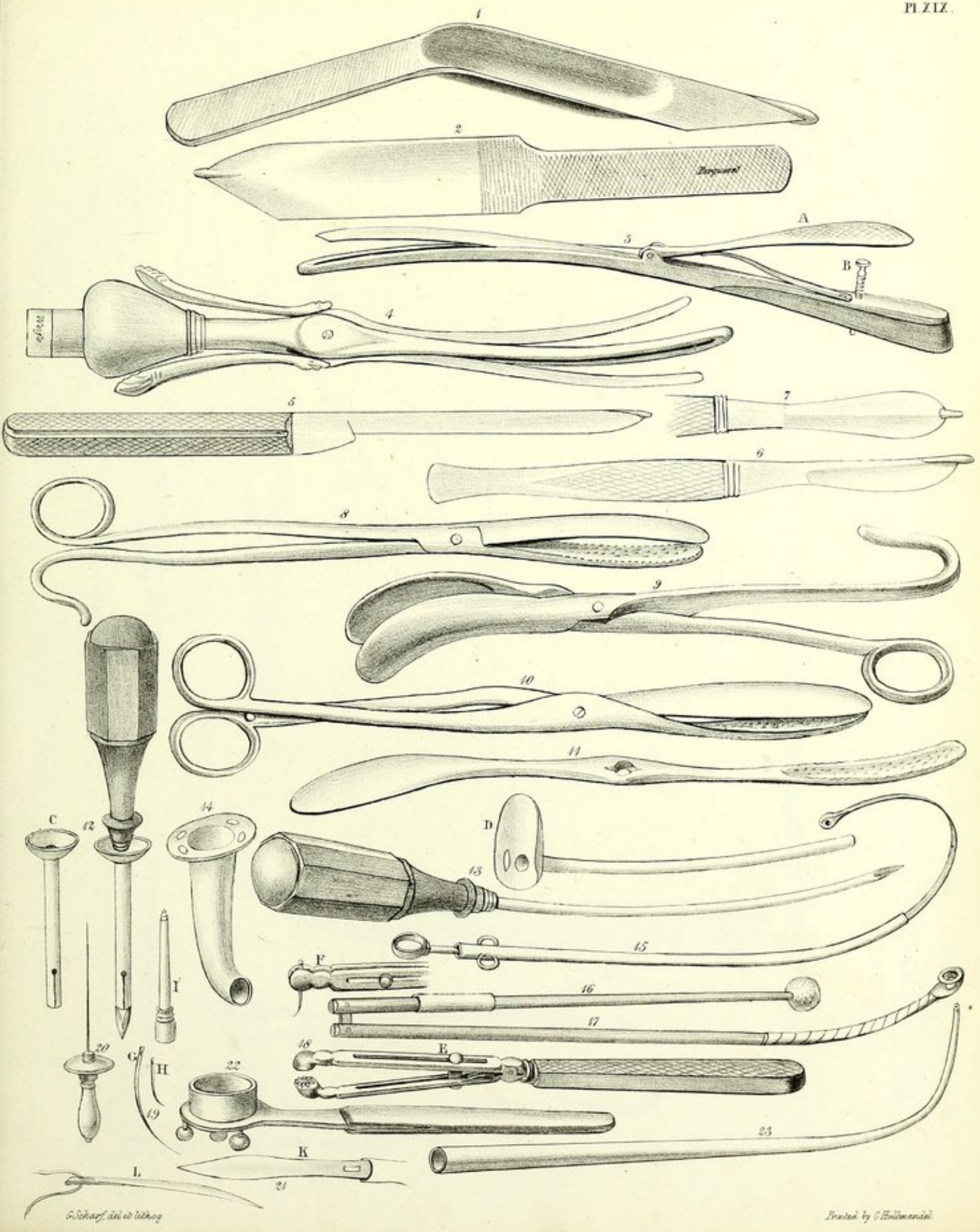
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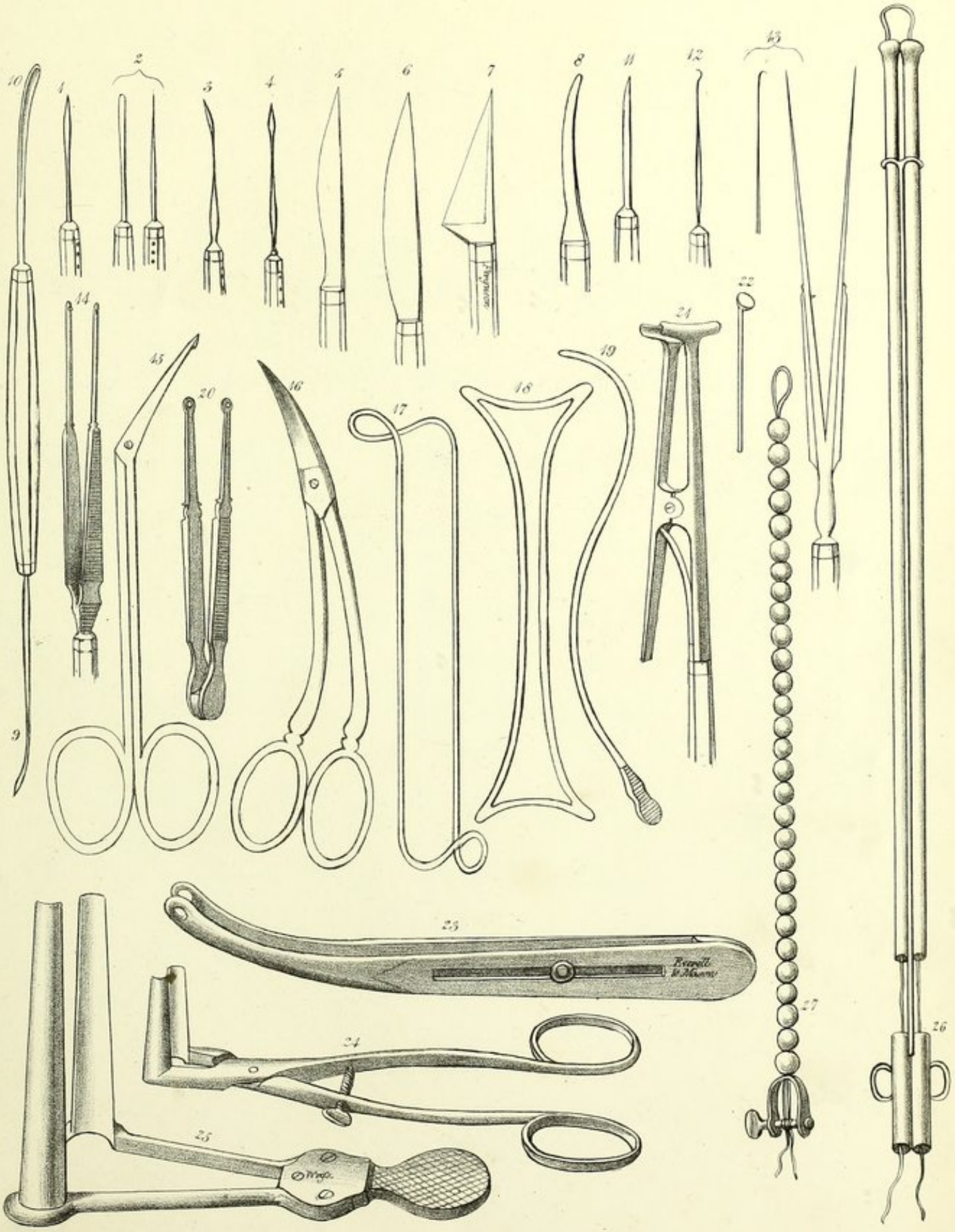

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TO

SIR JAMES M'GRIGOR, M. D.

DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE ARMY

&c. &c. &c.

THIS WORK IS DEDICATED,

AS A TRIBUTE OF HIGH RESPECT FOR HIS EMINENT TALENTS, AS WELL AS OF SINCERE ESTEEM FOR THE UNIVERSALLY ACKNOWLEDGED WORTH AND EXCELLENCE OF HIS CHARACTER,

BY

HIS OBLIGED AND FAITHFUL SERVANT,

JOHN G. M. BURT.

PREFACE.

Among the many useful and valuable works which have appeared in this country, illustrative of various branches of medical science, it appears rather extraordinary that one upon Surgical Anatomy should still be a desideratum. To supply this want has been the object of the Editor in publishing the following Illustrations, founded on the much and justly-admired work of M. Blandin.

In the progress of the undertaking, it occurred to the Editor that M. Blandin's arrangement might be materially improved, and some additional Plates added, to render the illustrations more complete ;—this he has done, and also accommodated the letter-press to the most approved nomenclature of our medical schools.

With these explanations he submits the work to the Medical Profession, trusting that it will prove acceptable ; and he begs to add, that, from the high character of Messrs J. & J. Johnstone, the engravers, he feels quite confident that the plates will be executed in the best style ; while, from the arrangements he has made with them, the expense will be such as to put it within the reach of all who may desire to obtain it.

Edinburgh, 1*st December* 1830.

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Edinburgh, 1*st December* 1830.

PLATE I.

PLATE FIRST.

VIEW OF THE SUPERFICIAL ANATOMY OF THE NECK.

A. A. A. Lateral Portion of the Head, from the Occiput to the Ear, and from thence to the Chin.
B. B. B. Clavicle.
C. Portion of the Great Pectoral Muscle.
D. Portion of the Deltoid Muscle.
E. Triangular Space formed by the two preceding Muscles with the Clavicle, and filled with Cellular Substance, perforated for the transmission of the two following Vessels:—
F. Acromial Artery.
G. Cephalic Vein.
H. H. Sterno-mastoid Muscle.
I. Anterior Margin of the Trapezius.
J. J. Two digitations of the Levator-Anguli-Scapulæ.
K. K. The Integuments reflected backwards.
K' The Platysma Myoides also reflected.
L. Omo-Hyoid Muscle.
M. Portion of the deep-seated Layer of the Cervical Fascia, arising from the Middle Tendon of the preceding Muscle, and prolonging itself to the Clavicle, against which it fixes the Supra-Scapular Vessels.
N. N. Anterior Scalenus Muscle.
O. O. Fibres of the Posterior Scalenus Muscle.
P. Superior Digitations of the Serratus Magnus.
Q. Subclavian Artery, passing out between the Scaleni Muscles, and giving off, in the present case, as is not uncommon, a large Artery, which crosses the Brachial Plexus, and represents the deep branch of the Transverse Cervical.
R. Portion of the First Rib, over which we can with facility apply a Ligature to the Subclavian Artery.
S. Branch already pointed out, which is given off by the Subclavian Artery.
T. Artery which arises from the Subclavian, and represents the ordinary tract of the transverse Cervical, of which we have in this instance the superficial branch only.
U. Supra-Scapular Artery, lying close to the Clavicle.
V. Portion of the Axillary Vein in front of the Anterior Scalenus Muscle.
X. External Jugular Vein, single, and of greater size below, dividing on the Sterno-Mastoid. This high division of the External Jugular is common, but not constant.
Y. Termination of the Anterior Jugular Vein, situated under the Sterno-mastoid Muscle, in front of the deep layer of the Cervical Fascia, and joining the External Jugular.
Z. Common Trunk of the Transverse Cervical and Supra-Scapular Veins, lying close to the Clavicle.
a. Brachial Plexus on the outer side of the Axillary Artery.
b. Cord of Communication of the Cervical and Brachial Plexuses.
c. c. Phrenic Nerve, crossing the direction of the Anterior Scalenus Muscle.
d. Supra-Scapular Nerve.
e. Mastoidean Nerve of the Superficial Cervical Plexus.
f. f. Auricular Nerve of the same Plexus.
g. Three Cervical Nerves of the Superficial Cervical Plexus, forming a Curve on the Posterior Border of the Sterno-Mastoid Muscle.
h. Branch from the Superficial Cervical Plexus, entwining the Jugular Vein in the middle of the Neck.
i. Deep Cervical branch of the Superficial Cervical Plexus, passing towards the Trapezius.
j. j. j. Descending Supra-Clavicular Filaments of the Cervical Plexus.
k. k. Descending Supra-Acromial Filaments of the same Plexus.
l. l. Mastoidean and Fascial Lymphatic Vessels.
m. Lymphatic Ganglion Exterior to the Sterno-Mastoid Muscle.
n. n. n. Supra-clavicular Lymphatic Ganglia.
o. Lymphatic Vessels of the Neck.
p. Lymphatic Vessels which follow the Anterior Jugular Vein, and come from the Anterior part of the Neck.
q. q. Superficial Lymphatic Vessels of the Thorax, which terminate in the Supra-clavicular Ganglia.

PLATE SECOND.

VIEW OF THE DEEP-SEATED ANATOMY OF THE NECK.

A. Portion of the Ear.
B. Portion of the Cheek.
C. Chin drawn upwards.
D. Portion of the Occiput.
E. Superior Extremity of the Sternum.
F. Right Clavicular Region elevated.
F'. Left Clavicle directed horizontally.
G. Right Side of the Neck, on which we see in profile the relative situations of the different parts.
H. H. The Integuments.
I. Subcutaneous Cellular Substance.
J. J. Layer formed above by the Platysma Myoides, and below by the Superficial Cervical Fascia.
K. Place where the Cervical Fascia, in the upper part single, divides into two principal Layers.
K'. Anterior and Posterior Layers of the Cervical Fascia.
L. Inferior Extremity of the Sterno-Mastoid Muscle, situated between the two layers of the Cervical Fascia.
L'. The Anterior External Jugular Vein, slightly developed, and confined between the two Layers of the Cervical Fascia.
L''. Ganglia and Lymphatics, situated between the Layers of the Cervical Fascia.
M. Fatty Cushion lying below the upper part of the Platysma Myoides.
N. Sterno-Hyoid Muscle.
O. Sterno-Thyroid Muscle.
P. Left Side of the Neck, where the different Organs have been completely laid bare, and are seen nearly in front.
Q. Hyoid Bone.
R. Inferior Maxillary Bone.
S. S. The Skin reflected backwards.
S'. S'. The Platysma Myoides also reflected backwards.
T. Hook applied to the Sterno-Mastoid Muscle, and drawn outwards, to display the parts naturally concealed.
U. Omo-Hyoid Muscle.
V. Sterno-Hyoid and Thyroid Muscles cut across.
V'. Their Inferior Extremities.
X. Crico-Thyroid Muscle.
X'. Thyro-Hyoid Muscle.
Y. Anterior belly of the Digastric Muscle.
Y.' Posterior belly of the same Muscle.
Y.'' Pulley of the Muscle.
Y.''' Fibrous lamina, which proceeds from the tendon of the Muscle.
Z. Stylo-Hyoid Muscle.
Z.' Stylo-Glossus Muscle.
&. Portion of the Inferior Constrictor Muscle of the Pharynx.
a. Portion of the Hyo-glossus Muscle.
b. Mylo-Hyoid Muscle.
c. Portion of the Masseter Muscle.
d Thyro-Hyoid space.
e. Thyroid Cartilage.
f. Crico-Thyroid Space, filled by an Elastic Membrane, exhibiting small vascular openings.
g. Cricoid Cartilage.
h. h. Thyroid Body.
i. Trachea.
j. Æsophagus inclining to the left.
k. Portion of the Brachio Cephalic Trunk.
l. Left Common Carotid Artery.
m. Inferior Thyriod Artery, passing transversely behind the Common Carotid, and in front of the commencement of the Æsophagus.
n. Division of the Common Carotid.
o. External Carotid Artery.
o.' Internal Carotid Artery.
p. Superior Thyroid Artery.
p.' Crico-Thyroid Artery.
q. Fascial Artery.
q.' Sub-mental Branch of the Fascial Artery
r. Lingual Artery.
t. Internal Jugular Vein.
t.' Anterior Jugular Vein.
u. Fascial Vein.
v. Temporal Vein, leaving the Parotid.
x. Lingual Vein.
x.' Lateral Thyroid Vein.
y. y. Filaments from the Cervico Fascial Branch of the Fascial Nerve.
z. z. Mylo-Hyoidean Filament of the Inferior Dental and Spinal Nerves.
1. Hypo-glossal, or Ninth Pair of Cerebral Nerves.
2. Descending Branch.
3. Arch formed by the preceding Nerve, and the descending Internal branch of the Cervical Plexus.
4. Sterno-Hyoidean Filament of the Hypo-glossal Nerve.
5. 5. Pneumo-gastric Nerve.
6. Superior Laryngeal Nerve of the left Pneumo gastric, dividing itself into two branches.
7 Cardiac branch of the Pneumo-gastric Nerve.
8. Inferior Laryngeal or left Recurrent Nerve, placed in front of the Æsophagus.
9. Cervical portion of the Great Sympathetic.
10. Termination of the Superior Cervical Ganglion.
11. Middle Cervical Ganglion, placed on the inferior curvature of the Thyroid Artery.
12. Communicating Filament of the Great Sympathetic with the Cervical Nerves.
13. Cardiac Nerve, superficial at its origin.
14. Origin of the Middle Cardiac Nerve.
15. 15. 15. Lymphatic Ganglia.
16. Porotidean Lymphatic Vessels.
17. Mastoidean do.
18. Fascial do.
19. Submental do.
20. Cervical do.

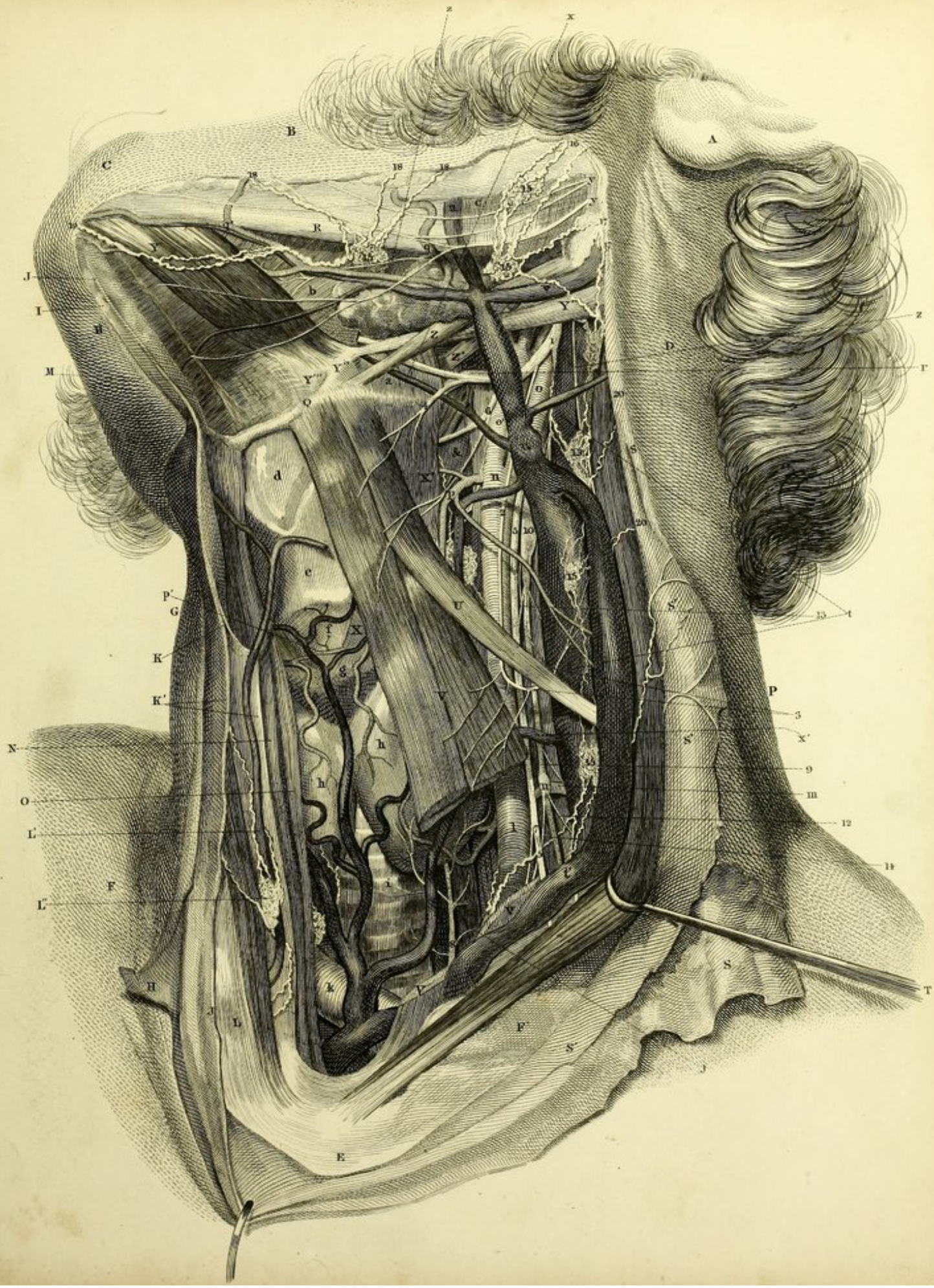
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PLATE III.

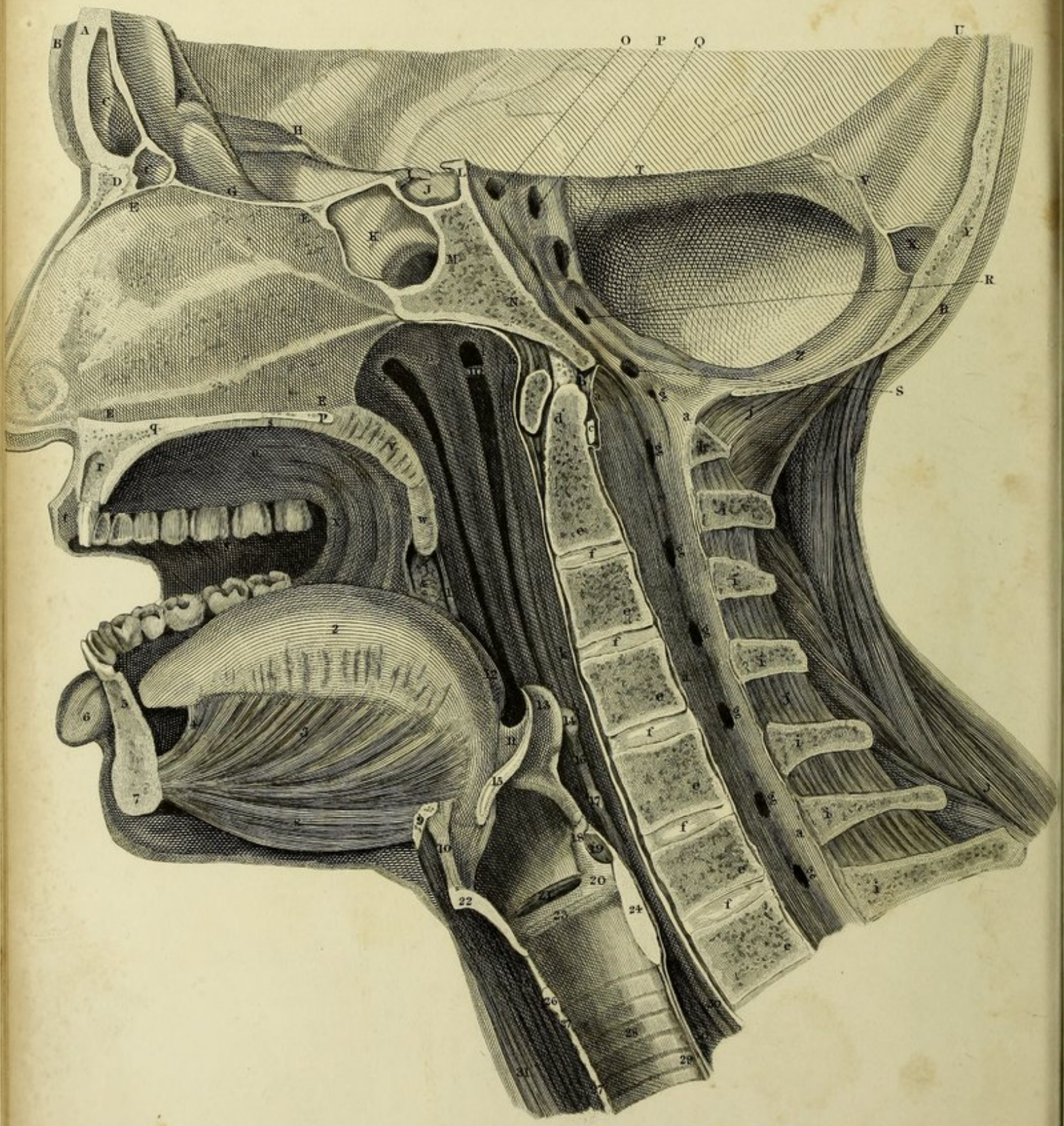
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PLATE THIRD.

PERPENDICULAR SECTION OF THE HEAD AND NECK, TO SHEW THE RELATIVE SITUATIONS OF THE CAVITIES OF THE NOSE, MOUTH, LARYNX AND PHARYNX.

A. Cut Edge of the Frontal Bone.
B. B. B. Cut Edge of the Integuments.
C. C. Frontal Sinuses.
D. Cut Edge of the Nasal Bone.
E. E. E. E. Left Surface of the Septum Narium, covered by the Pituitary Membrane.
F. Anterior Portion of the Falx Cerebri.
G. Cut Edge of the Cribriform Plate of the Ethmoid Bone
H. Irregular Surface of the Right Orbitar Process of the Frontal Bone.
I. Anterior Clinoid Process
J. Sella Turcica.
K. Part of the Left Sphenoidal Sinus, with the Septum which divides it from that of the opposite side.
L. Cut Edge of the Posterior Clinoid Process.
M. Cut Edge of the Body of the Sphenoid Bone.
N. Cut Edge of the Basilar Portion of the Occipital Bone.
O. Opening for the Passage of the Nerve of the Fifth Pair.
P. Meatus Auditorius Internus, for the Passage of the Auditory and Fascial Nerves.
Q. Foramen Lacerum for the Passage of the Nerve of the Eighth Pair and Lateral Sinus.
R. Foramen Condyloideum Anterius, for the Passage of the Nerve of the Ninth Pair.
S. Round Opening of the Dura Mater, at which the Vertebral Artery enters the Cranium.
T. Edge of the Tentorium.
U. Posterior Portion of the Falx Cerebri.
V. Part from which the Tentorium has been detached on the left side.
X. Lateral Sinus divided.
Y. Cut Edge of the Occipital Bone.
Z. Falx Cerebelli.
a. a. a. a. Cut Edges of the Lining Membrane of the Spinal Canal.
b. Cut Edge of the Ligament which connects the Processus Dentatus to the Occiput.
c. Cut Edge of the Circular Ligament, which connects the Processus Dentatus to the Atlas.
d. Cut Edge of the Processus Dentatus.
e. e. e. e. e. e. Cut Edges of the Bodies of the Second, Third, Fourth, Fifth, Sixth and Seventh Vertebræ.
f. f. f. f. f. Intervertebral Substance.
g. g. g. g. g. g. g. Openings for the Passage of the First, Second, Third, Fourth, Fifth, Sixth and Seventh Cervical Nerves.
h. Cut Edge of the Back of the Atlas.
i. i. i. i. i. i. Cut Edges of the Spinous Processes of the Second, Third, Fourth, Fifth, Sixth and Seventh Vertebræ.
j. j. j. Muscles of the Back of the Neck.
k. k. Cut Edge of the Pharynx.
l. Sacculus Cœcus of the Pharynx.
m. Membrane which sometimes divides the Sacculus at this part.
n. Eminence caused by a Piece of Cartilage at the extremity of the Eustachian Tube.
o. Opening of the Eustachian Tube.
p. Cut Edge of the Palate Bone.
q. Cut Edge of the Palatine Process of the Superior Maxillary Bone.
r. Part of the Cavity for the reception of the fang of the First Left Incisor Tooth of the Upper Jaw.
s. Cut Edge of the Palatine Membrane.
t. Cut Edge of the Upper Lip.
u. Palate.
v. Cut Edge of the Soft Palate.
w. Uvula.
x. Folds of the Membrane of the Mouth.
y. Internal Lining of the Cheek.
z. Glosso-palatine Arch.
&. Tonsil.
1. Pharyngo-palatine Arch.
2. Cut Edge of the Tongue.
3. Genio-glossus Muscle.
4. Frenum of the Tongue.
5. Part of the Cavity for the reception of the fang of the First Left Incisor Tooth of the Lower Jaw.
6. Cut Edge of the Under Lip.
7. Cut Edge of the Inferior Maxillary Bone.
8. Genio-hyoideus Muscle.
9. Cut Edge of the Os-hyoides.
10. Ligament which connects the Os-hyoides to the Thyroid Cartilage.
11. Frenum of the Epiglottis.
12. Dorsum of the Tongue.
13. Epiglottis.
14. Eminence caused by the Posterior Extremity of the Corner of the Os-hyoides.
15. Cut Edge of the Epiglottis.
16. Line denoting the situation of the Ligament which connects the Posterior Extremity of the Corner of the Os-Hyoides, to the Superior Corner of the Thyroid Cartilage.
17. Situation of the Superior Corner of the Thyroid Cartilage.
18. Corniculum of the Larynx.
19. Cut Edge of the Aretenoid Muscle.
20. Base of the Aretenoid Cartilage.
21. Ventricle of the Larynx.
22. Cut Edge of the Thyroid Cartilage, in front.
23. Vocal Chord.
24. Cut Edge of the Broad Posterior Portion of the Cricoid Cartilage.
25. Cut Edge of the Ligament which connects the Small Anterior Portion of the Cricoid Cartilage, to the Inferior Part of the Thyroid Cartilage, in front.
26. Cut Edge of the Small Anterior Portion of the Cricoid Cartilage.
27. 27. Cut Edges of the Cartilaginous Rings of the Trachea.
28. Internal Surface of the Trachea.
29. Cut Edge of the Membranous Part of the Trachea.
30. 30. Cut Edges of the Æsophagus.
31. Muscles in front of the Neck.

PLATE FOURTH.

THE EYE.

THIS PLATE IS INTENDED TO ILLUSTRATE THOSE PARTS OF THE EYE MOST COMMONLY CONCERNED IN SURGICAL OPERATIONS.

FIGURE FIRST

Represents the Eye-ball, part of the Cornea Sclerotica and Iris being removed.

A. A. The Tunica Conjunctiva.
B. The Cornea.
C. The Iris.
D. D. The Sclerotica.
E. The Crystalline Lens.
F. The Optic Nerve.
G. One of the Ciliary Processes.
H. The Zonula Lucida, or space between the Anterior extremities of the Ciliary Processes, and margin of the Crystalline Lens.
I. I. The anterior termination of the Retina.
K. The part of the Hyaloid Membrane, which forms the Canal of Petit, to which the Pigmentum Nigrum of the Choroid Coat and Ciliary Processes adhere.

FIGURE SECOND

Represents one-half of the Coats of the Eye, from which the humours have been removed.

A. The Cornea.
F. F. The Sclerotica.
C. C. The anterior termination of the Choroid Coat, where the Ciliary Ligament commences.
D. The Ciliary Ligament and Processes, to which the Iris is attached.
E. The Iris.
F. The Optic Nerve, which expands within the Choroid Coat forming the Retina.

FIGURE THIRD

Represents the Eye-ball, from which the Cornea and anterior half of the Sclerotica have been removed, by which the anterior part of the Choroid Coat, the Ciliary Ligament, the Iris, and the Crystalline Lens are seen anteriorly.

A. The Sclerotica.
B. B. The Choroid Coat.
C. The Ciliary Ligament.
D. D. The Iris, having one-half torn down.
E. E. The Ciliary Nerves.
F. The Crystalline Lens.
G. The anterior part of the Vitreous humour which occupies the space between the Ciliary Processes and margin of the Lens.

FIGURE FOURTH

Represents one-half of the right Orbit with its contents, divided perpendicularly.

A. A. A. A. The Bony Orbit.
B B. The Integuments, covering the Anterior of the Orbit.
C. D. The Upper and Lower Eyelids. The two black points at their Nasal extremities, represent the Orifices of the Lateral Lacrymal Canals, called the Puncta Lacrymalia.
E. E. The Eye-ball, showing its Coats, and humours contained within them.
F. The Optic Nerve.
G. The Levator Palpebrae Superioris, the Tendon of which is inserted into the Tarsal Cartilage of the Upper Eyelid.
H. The Levator Oculi, the Tendon of which is inserted into the Sclerotica about the eighth of an inch from the margin of the Cornea.
I. The Depressor Oculi.
K. The Adductor Oculi.
L. The Conjunctiva lining the Eyelids and covering the anterior surface of the Eye-ball, forming a pouch by its reflection.

FIGURE FIFTH

Represents the Anterior Half of the Coats of the Eye, seen from behind, the Humours being removed.

A. The Sclerotica.
B. B. The Choroid Coat.
C. C. The Ciliary processes.
D. The Iris, having its Circular Apperture, called the Pupil.

FIGURE SIXTH

Represents the Vitreous and Crystalline humours, as taken from the Coats of the Eye, represented in Figure Fifth.

A. A. The Hyaloid Membrane of the Vitreous Humour, covered by a portion of the Retina.
B. B. The part of the Hyaloid Membrane, which forms the Canal of Petit, to which some of the pigment of the Ciliary Processes and Choroid Coat adheres.
C. C. The space between the Ciliary Processes and margin of the Lens, occupied by the anterior part of the Vitreous Humour, upon the Hyaloid Membrane of which the vessels, for the nourishment of the Lens, proceed to the Capsul.
D. The Crystalline Lens.

FIGURE SEVENTH

Represents an Anterior View of the Eyelids and Lacrymal Organs, upon the removal of the Integuments and Orbicularis Palpebrarum.

A. B. C. D. The situation of the margin of the Bony Orbit.
E. The inner angle of the Eye.
F. The outer Angle.
G. H. The Puncta Lacrymalia, or orifices of the lateral Lacrymal Canals which lead to the Lacrymal Sac.
D. I. The Lacrymal Sac.
I. J. The Nasal Duct.
J. The lower orifice of the Nasal Duct, entering the lower and lateral part of the Nose, at the Fossa formed by the inferior spongy bone, (K) and superior Maxillary (J) bones.
L. The orifices of the Sebaceous Ducts, leading from the Meibomian Glands, represented by a dotted line.
M. The Cartilage of the Upper Eyelid.
N. The Cartilage of the Lower Eyelid.
O. The Lacrymal Gland.

Fig. 1.

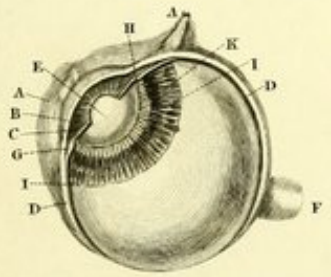


Fig. 2.

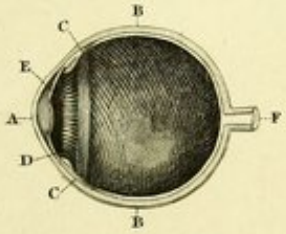
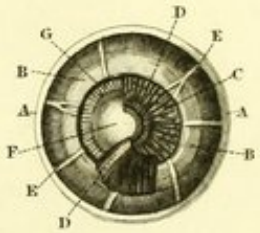


Fig. 3.



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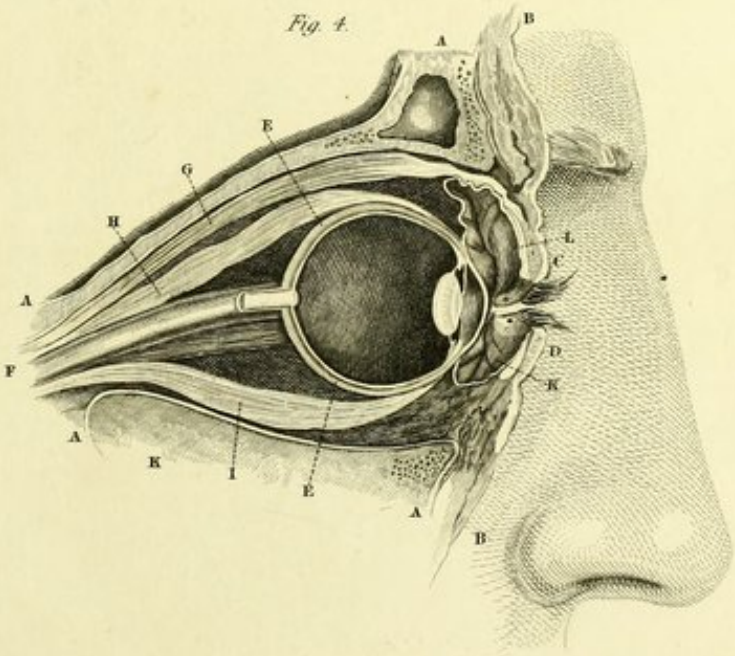

Fig. 5.

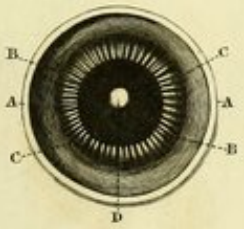

Fig. 6.

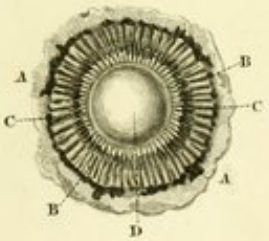

Fig. 7.

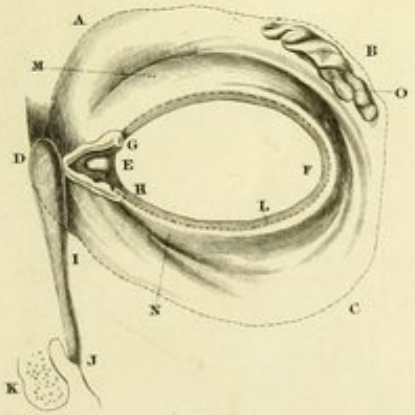

PLATE V.

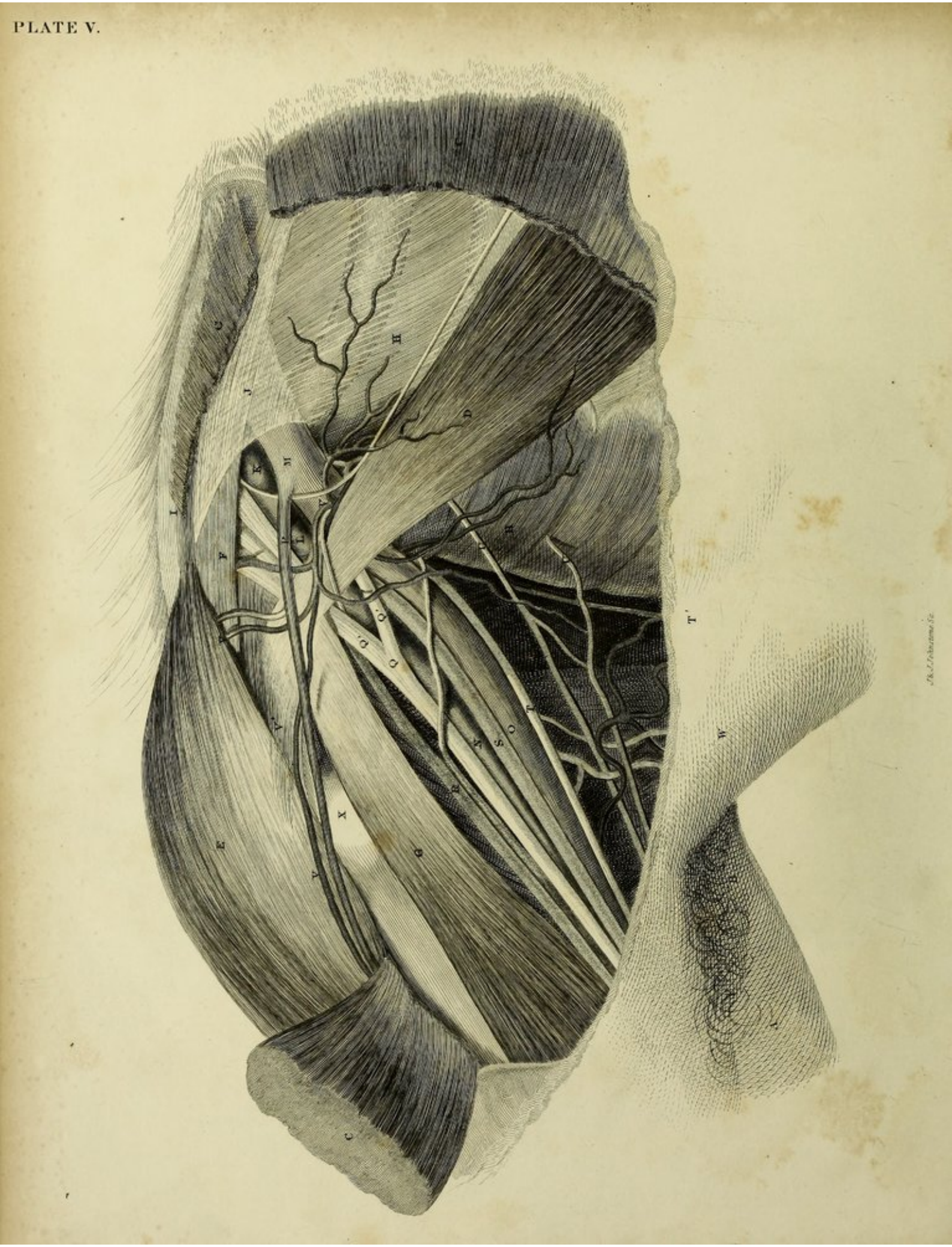

PLATE FIFTH.

FRONT VIEW OF THE AXILLA, THE ARM BEING SLIGHTLY ELEVATED.

A. Portion of the inner side of the Arm,
B. Hair of the Arm-pit.
C. C. Flaps of the Great Pectoral Muscle, the origin reflected upon the Chest, the insertion upon the Deltoid Muscle.
D. Lesser Pectoral Muscle.
E. Anterior portion of the Deltoid Muscle.
F. Sub-clavius Muscle.
G. Coraco-brachialis Muscle.
H. Lateral portion of the Thorax.
I. Clavicle.
J. Coraco-Clavicular Aponeurosis, covering the Subclavius Muscle; the internal and superior portions only of this Aponeurosis seen here, the rest having been raised to show the Vessels and Nerves.
K. Subclavian Artery.
L. Portion of the Subclavian Artery, where the ligature should be applied.
M. Subclavian Vein.
N. Axillary Artery.
O. Axillary Vein.
P. Cephalic Vein.
Q. Median Nerve, with its two roots.
Q.' Q.' Which embrace the Artery.
R. Musculo-cutaneous Nerve, following the course of the Coraco-brachialis Muscle, from the side of which a few Fibres have been cut away to shew the Nerve.
S. The ulnar Nerve, lying close upon the Artery.
T. The internal Cutaneous Nerve, separated from the preceding by the Axillary Vein.
T.' Posterior Thoracic Nerve in the bottom of the Cavity, and attached to the Serratus Magnus Muscle.
U. U. Brachial branches of the Intercostal Nerves.
V. V. V. Acromial Artery arising from the Subclavian, behind the lesser Pectoral Muscle.
V.' Coraco-acromian ligament slipping under the Deltoid Muscle.
W. Small Arterial and Veinous branches of the Axilla.
X. Head of the Humerus.

PLATE SIXTH.

THE AXILLA, VIEWED FROM BELOW, THE ARM BEING STRONGLY ELEVATED.

A. Portion of the Arm.
B. Portion of the Costal Region of the Thorax, forming the internal boundary or wall of the Axilla.
C. C. The Ribs, cut obliquely.
D. Aorta.
E. Vena Cava Inferior.
F. F. Two superior Digitations of the Serratus Magnus.
G. Posterior Thoracic, or External Respiratory of Charles Bell, passing over the Serratus Magnus.
H. Long Thoracic Artery, passing, like the preceding Nerve, upon the Serratus Magnus, but carried much farther forward, and encircled with Lymphatic Ganglions, which they receive.
I. I. Lymphatic Vessels passing out between the Intercostal Spaces.
J. J. Bundles of the Lymphatic Vessels of the Mamma.
K. Bundles of Lymphatic Vessels, coming from the upper part of the Anterior Abdominal Parietes.
L. Anterior boundary of the Axilla, in which we find
M. M. The Skin and Breast.
N. N. Subcutaneous Tissue.
O. Portion of the Cephalic Vein.
P. Pectoralis Major.
Q. Pectoralis Minor.
R. Anterior Thoracic Vessels and Nerve.
S. Vessels and Nerve of the Pectoralis Minor.
T. Posterior Wall of the Axilla, on which has been reflected the Skin from the base.
U. Hairy Skin from the base of the Axilla.
V. Subcutaneous Cellular Tissue.
X. X. Latissimus Dorsi, held with a Hook.
Y. Longissimus Dorsi.
Z. Tendon of the Long Head of the Triceps, near its insertion under the Glenoid Cavity.
a. Situation where is seen the naked Fibrous Capsule of the Shoulder Joint, very feeble.
b. Tendon of the Subscapular Muscle, passing on the inner side of the Joint.
c. Lymphatic Ganglion, which receives
d. Lymphatics of the Neck.
e. e. Lymphatics of the Back.
f. f. Lymphatics of the Superior part of the Loins.
g. Circumflex Vessels and Nerves, passing between the Triceps and Humerus.
h. Anterior or Common Scapular Vessels.
i. Transverse and Dorsal Branches of the Anterior Scapular Vessels.
j. Axillary and Descending Branches of the Common Scapular Vessels.
k. Great Subscapular Nerve which accompanies the Descending Branch of the Common Scapular Artery.
k.' Posterior Angle of the Axilla.
l. l. Two Brachial Lymphatic Ganglions.
m. Axillary Vein, placed in front of the Artery, and formed by the union of the following Veins :—
n. n. Two Brachial Veins.
o. Basilic Vein.
p. p. Axillary Artery, placed between the Vein and the Plexus.
q. Place where the Artery is embraced by the Brachial Plexus.
r. Brachial Plexus, placed behind the Artery.
s. Median Nerve.
t. Ulnar Nerve.
u. Internal Cutaneous and Radial Nerves united.
v. Situation where the Bundles of Vessels and Nerves occupy the Anterior Angle of this Cavity.
x. Situation where the Axillary Vessels and Nerves are placed in the External Angle of the Axilla.
y. y. Brachial Filaments of the Intercostal Nerves.
z. z. Small Ramifications of the Intercostal Arteries.

PLATE VI.

N. E. Jacob Del.t

from Blandin.

Ths. Johnson

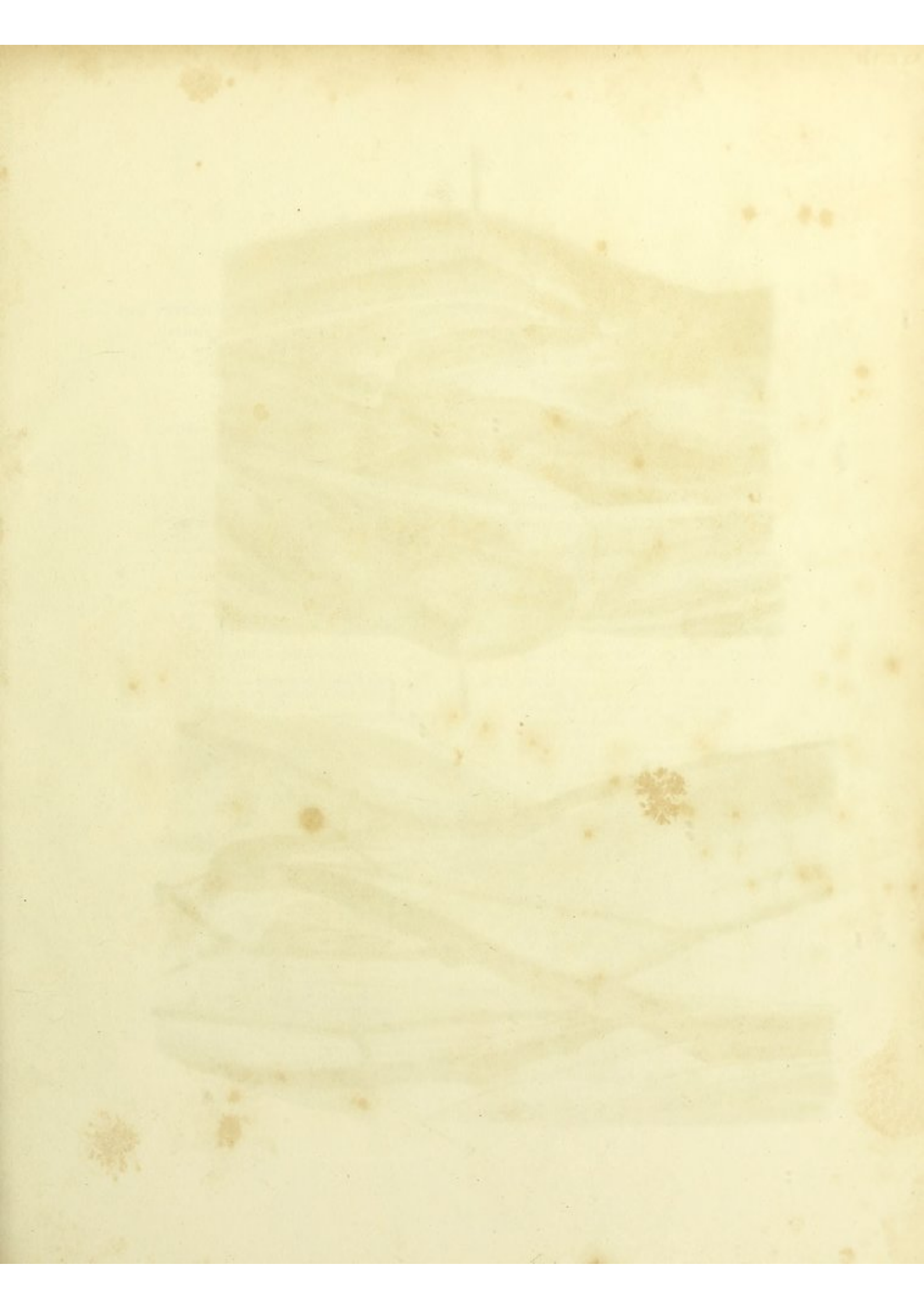

PLATE VII

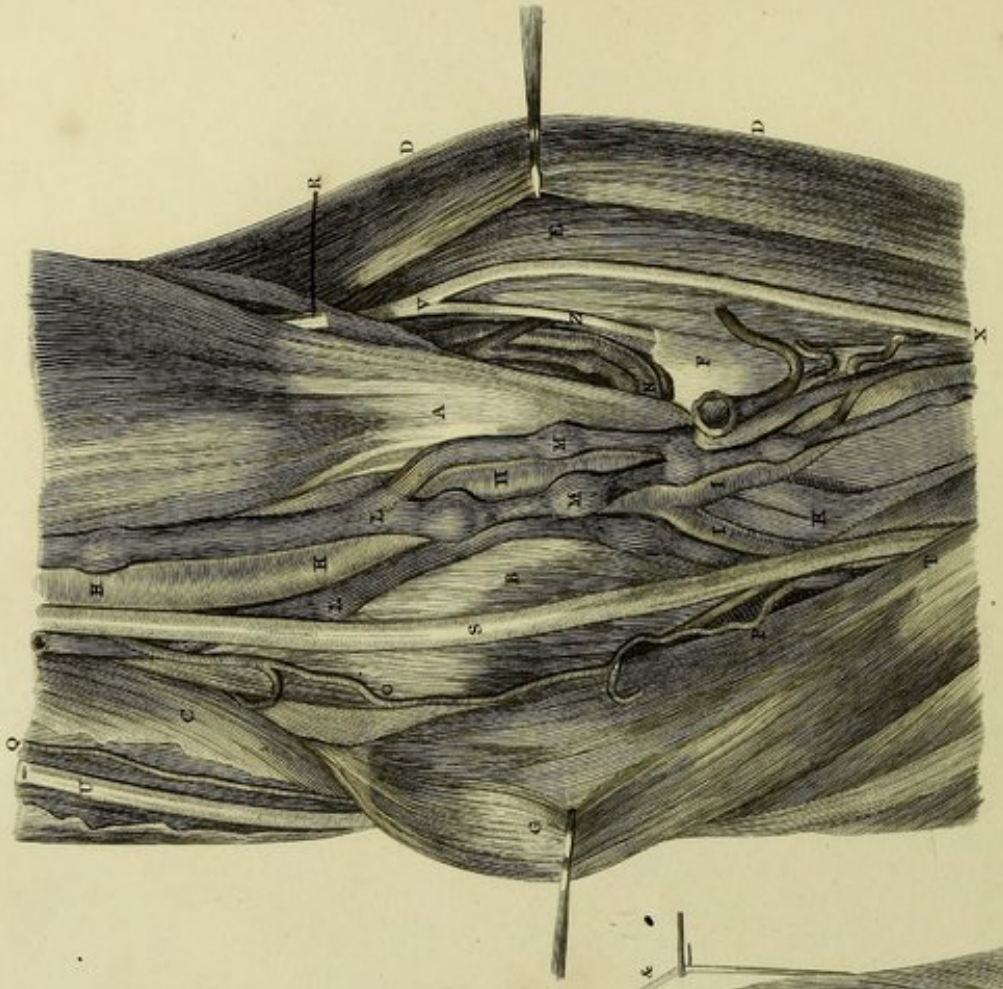

Fig. 2.

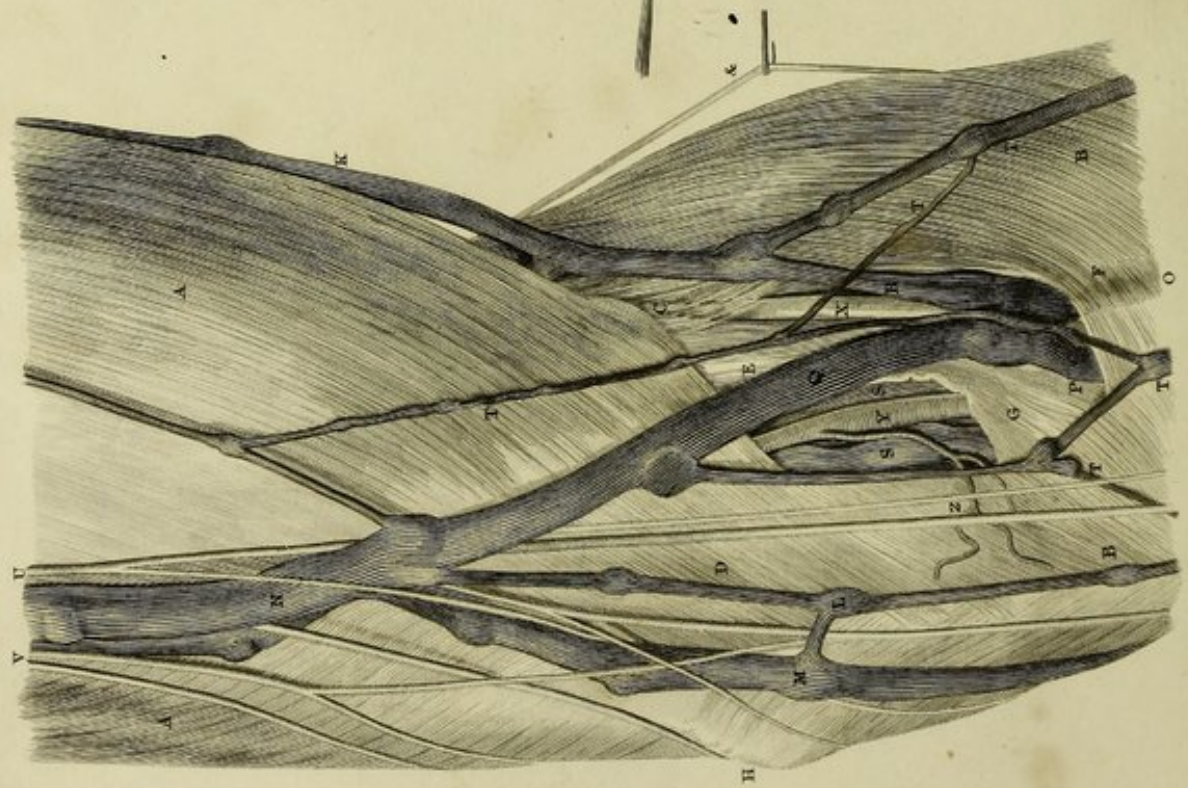

Fig. 1.

PLATE SEVENTH.

THE ANTERIOR ASPECT OF THE REGION OF THE ELBOW, IN WHICH THE VEINS HAVE BEEN STRONGLY INJECTED, TO SHEW, BY THEIR NODOSITIES, THE COMPARATIVE NUMBER OF VALVES IN THE SUPERFICIAL AND DEEP-SEATED VEINS.

FIGURE FIRST.

Superficial parts of the Bend of the Arm.

A. A. The termination of the Brachial Aponeurosis.
B. B. Commencement of the Anti-Brachial Aponeurosis.
C. Fibres of the Brachial Aponeurosis, which have an inclination outwards towards the bundle of Muscles on the outside of the Elbow.
D. Oblique direction inwards of the greater part of the Aponeurosis.
E. Place where the Tendon of the Biceps is partially covered by a thin Fibrous Aponeurosis.
F. The superficial Radial Vein, bound down in its small Sheath.
G. Fibrous expansion, detached from the Biceps, and becoming attached to the internal part of the Fascia.
H. The Inner Condyle.
I. The Superficial Radial Vein.
K. Cephalic Vein.
L. The Anterior Superficial Ulnar Vein.
M. The Posterior Superficial Ulnar Vein.
N. Origin of the Basilic Vein.
O. The common Median Vein, very prominent, and enclosed in a small Sheath.
P. Veinous branches which perforate the Fascia, and which unite the deep-seated Radial Veins with the origin of the Median Cephalic and Basilic.
Q. The Median Basilic Vein.
R. The Median Cephalic Vein.
S. S. Brachial Veins, which we perceive by means of an aperture in the Fascia of the Elbow, purposely made to display them.
T. T. T. Superficial anormal Veins.
U. Internal Cutaneous Nerve, dividing itself at the Elbow into a considerable number of branches, entwining the Median Basilic, and Basilic Veins.
V. The Filaments of a Cutaneous Nerve, given off, very high up, by the Ulnar Nerve, coming often even from the Brachial Plexus.
X. The External Cutaneous, or Musculo-Cutaneous Nerve, issuing from its deep position outside of the Biceps, passing under the Median Cephalic Vein, and slipping, without dividing itself, into the Sheath of the Median Vein.
Y. The Brachial Artery, seen between the two Veins.
Z. Small branch of the Brachial, of which one branch remains Subfascial, whilst the other becomes Subcutaneous, a branch which appears to be the rudiment of the variety, in which the Ulnar Artery passes superficially in this region.
&. Cutaneous branch of the Radial Nerve.

FIGURE SECOND.

Deap-seated Parts of the Bend of the Arm.

A. Tendon of the Biceps.
B. Flattened Tendon of the Brachialis Internus.
C. Internal Border of the Triceps Muscle.
D. D. Supinator Longus Muscle.
E. External Radial Muscles.
F. Small Supinator Muscle, presenting an aperture perforated by the Dorsal branch of the Radial Nerve.
G. Round Pronator Muscle, and bundle of Muscles on the inner side of the Elbow.
H. H. H. Brachial Artery, situated on the outer side of the Median Nerve, and entwined by its Veins.
I. I. I. Origins of the Radial and Ulnar Arteries.
K. K. Deap-seated Radial and Ulnar Veins.
L. L. Brachial Veins.
M. M. Radial Veins, surrounding an island where we see the Brachial Artery.
N. Origin of the Anterior Recurrent of the Epicondyle, which passes at this point under the Tendon of the Biceps. It is not there the normal disposition.
O. P. Anterior arterial arch of the inner Condyle, formed by the two following branches,
O. Internal Collateral Artery of the Arm,
P. Anterior Recurrent Ulnar Artery.
Q. Artery with the Ulnar Nerve passing behind the inner Condyle.
R. Divided Trunk of the Musculo Cutaneous Nerve.
S. Median Nerve, drawn a little to the inner side.
T. Place where the Median Nerve passes between the two bundles of the Round Pronator Muscles.
U. Ulnar Nerve.
V. Radial Nerve, dividing into two branches, viz.
X. Anterior branch,
Z. Posterior Branch, disappearing under the short Supinator Muscle.

PLATE EIGHTH.

THE FINGERS.

FIGRE FIRUST.

ANTERIOR ASPECT OF THE FINGERS.

No. 1.—*Exterior Surface of the Finger.*

A. Line of the last Phalangien Articulation.
B. Line of the first Phalangien Articulation.
C. Line of the Metacarpo-phalangien Articulation.

No. 2.—*Skeleton of the Finger.*

D. E. Lateral Articular Ligaments.
F. Anterior Ligament, developed by a Sesamoid Bone.

No. 3.—*Sheath of the Flexor Tendons laid open, to shew the Tendons.*

G. Tendon of the Flexor Digitorum Sublimis.
H. Tendon of the Flexor Digitorum Profundus.
I. Situation where the Flexor Tendon becomes flat, afterwards separating into two bundles, the Tendon of the Flexor Profundus passing between them.
K. Cut Border of the Sheath.
L. The Artery and Nerve in their natural positions—the Nerve lying on the inner side.

No. 4.—*View, with the Sheath entire.*

M. Anterior aspect of the Sheath.
N. N. Origin and termination of the Sheath.
O. O. Situations where the Fibrous Membrane of the Sheath forms Crucial bands.
P. P. Rounded openings in the Sheath for the transmission of Blood-vessels, and situated over the Metacarpo-phalangien Articulation.
Q. Situations where the Sheath is wanting, showing the naked Tendon of the Flexor Profundus.
R. Trunks of the Arteries.
S. Artery and Nerve;—the Nerve is seen outside the Artery, in consequence of the reflection of the Integuments.
T. Arch formed by the Artery on the last Phalanx, and the non-formation of the Arch by the corresponding Nerve.

No. 5.—*Veins of the Finger.*

U. Veinous Branch, by which the Anterior Plexus of Veins of the Finger communicates with those of the palm of the Hand.
X. X. X. Veinous Branches situated over the Lines of Articulation, and communicating laterally with the Digital Plexus.

FIGURE SECOND.

POSTERIOR ASPECT OF THE FINGERS.

No. 1.—*Exterior Surface of the Finger.*

A. B. C. Line of the Phalangien and Metacarpo-phalangien Articulations.

No. 2.—*Skeleton of the Finger.*

D. E. Digital Articulations deprived of their Posterior Ligaments, and showing one of their Lateral Ligaments.

No. 3.—*Fibrous Membrane of the Extensor Tendons of the Fingers.*

F. Extensor Tendon, narrow at the Metacarpo-phalangien Articulation.
G. Situation where the Extensor Tendon divides into three bundles, viz.:—
H. Middle Phalangien bundle.
I. I. I. Lateral Phalangettien bundles, which afterwards re-unite.
K. K. Tendons of the Lumbricales and Interossei Muscles.

No. 4.—*Vessels and Nerves.*

L. L. L. Arterial Branches, directed obliquely backwards over the lines of the Digital Articulations.
M. Arterial Arch at the root of the Nail, into which it sends many ramifications.
O. P. Corresponding Nerves, among which, for this finger especially, are O. from the Radial, and P. from the Dorsal branch of the Ulnar Nerve.
Q. Q. Q. Veinous Trunks coming from the Fingers, and forming the Veinous Arch of the back of the Hand.
R. Tendonous Expansion, which unites the two Extensor Tendons.

No. 5.—*Plexus of Veins.*

X. X. X. Veins communicating laterally between the Anterior and Posterior Veins.

FIGURE THIRD.

PERPENDICULAR AND LONGITUDINAL SECTION OF THE LAST PHALANX, TO SHEW THE FORMATION OF THE NAIL.

a. Section of the Bone.
b. Anterior Ligament of the last Phalangien Articulation, in which will be observed a Sesamoid Bone.
c. Termination of the Phalangettien Extensor Tendon.
d. Termination of the Phalangettien Flexor Tendon.
e.e. The Skin on the Anterior and Posterior surfaces of the Finger.
f. Sinus, formed by the Skin, in reflecting itself upon the Nail.
g. Point where the reflection of the skin commences on the back of the Nail.
h. The Nail.
l. Cellular Tissue of the Pulp of the Finger.
k. Tendinous Fibres, which connect the skin at the extremity of the Finger with the Anterior surface of the Bone.

FIGURE FOURTH.

EXTERIOR AND SIDE VIEW OF THE FINGER, WHICH IS BENT AT THE DIFFERENT ARTICULATIONS, TO SHOW, IN THAT POSITION, THE LINES OF THE ARTICULATIONS A. B. C.


Fig. 1.
Fig. 3.
Fig. 4.
Fig. 2.