

A compleat treatise of the muscles : as they appear in humane body, and arise in dissection; with diverse anatomical observations not yet discover'd. Illustrated by near fourty copper-plates, accurately delineated and engraven / By John Browne.

Contributors

Browne, John, 1642-approximately 1700.

Casseri, Giulio Cesare, approximately 1552-1616. Tabulae anatomicae.

Molins, William. Myskotomia.

Publication/Creation

In the Savoy [London] : Printed by Tho. Newcombe for the Author, 1681.

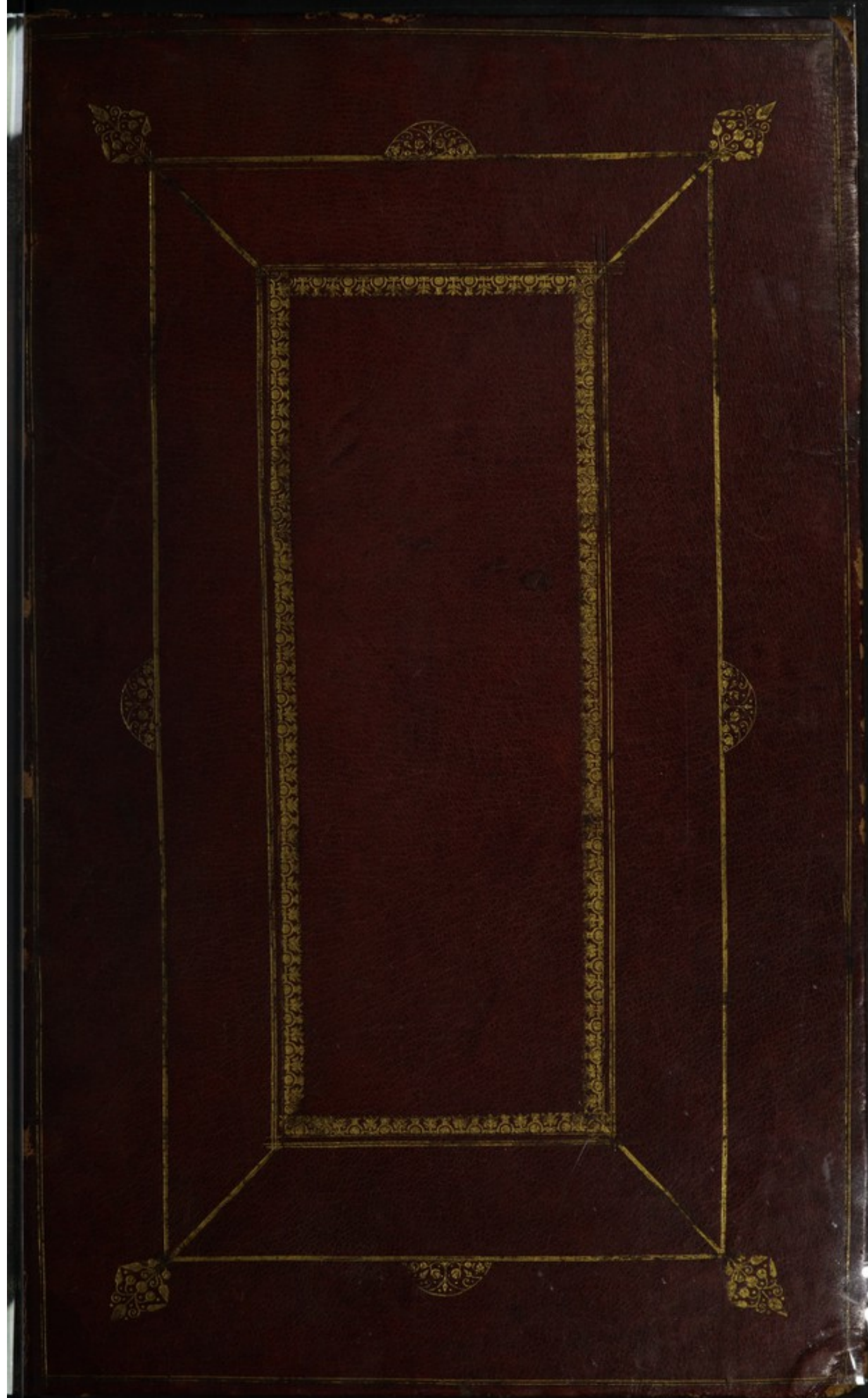
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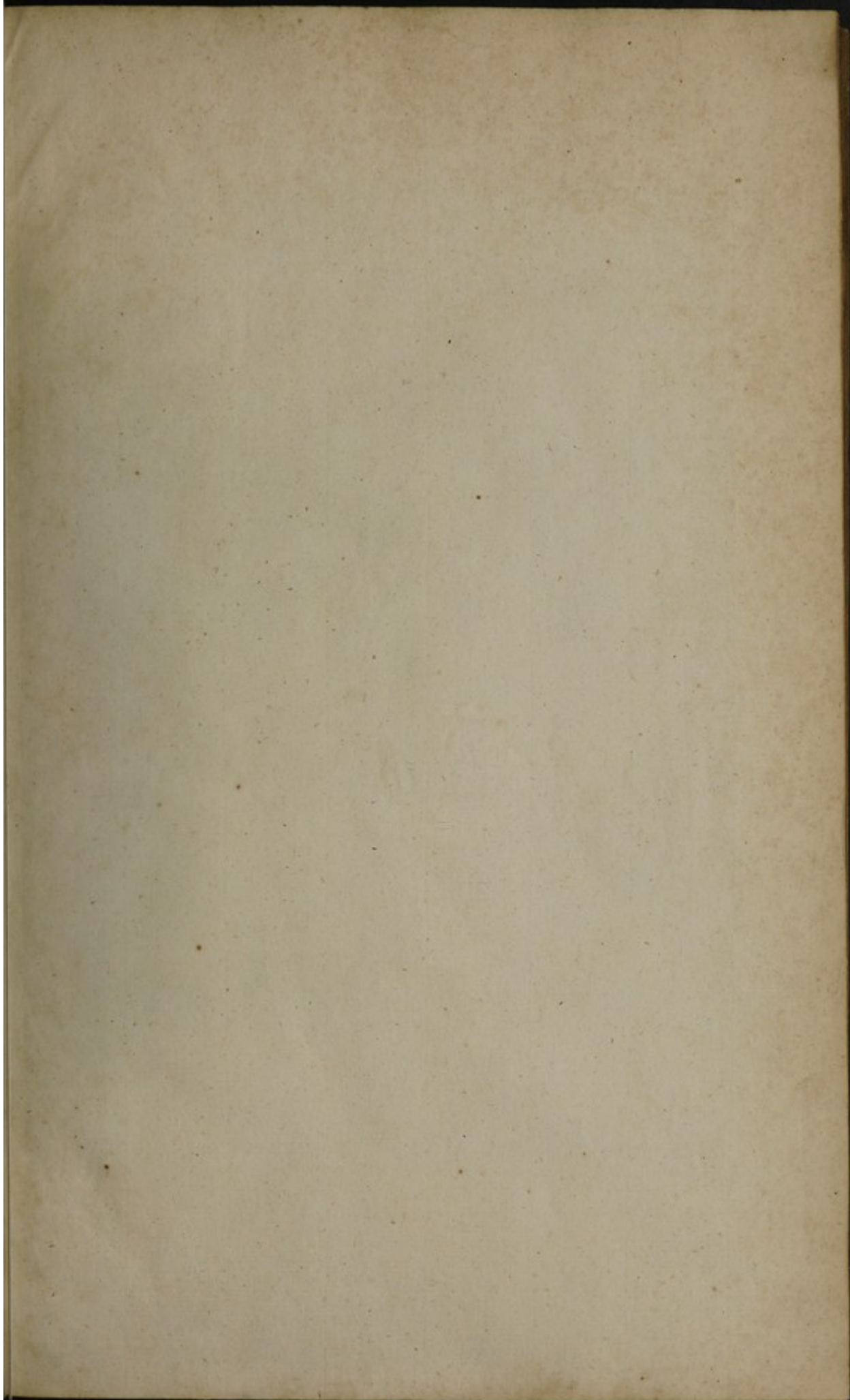


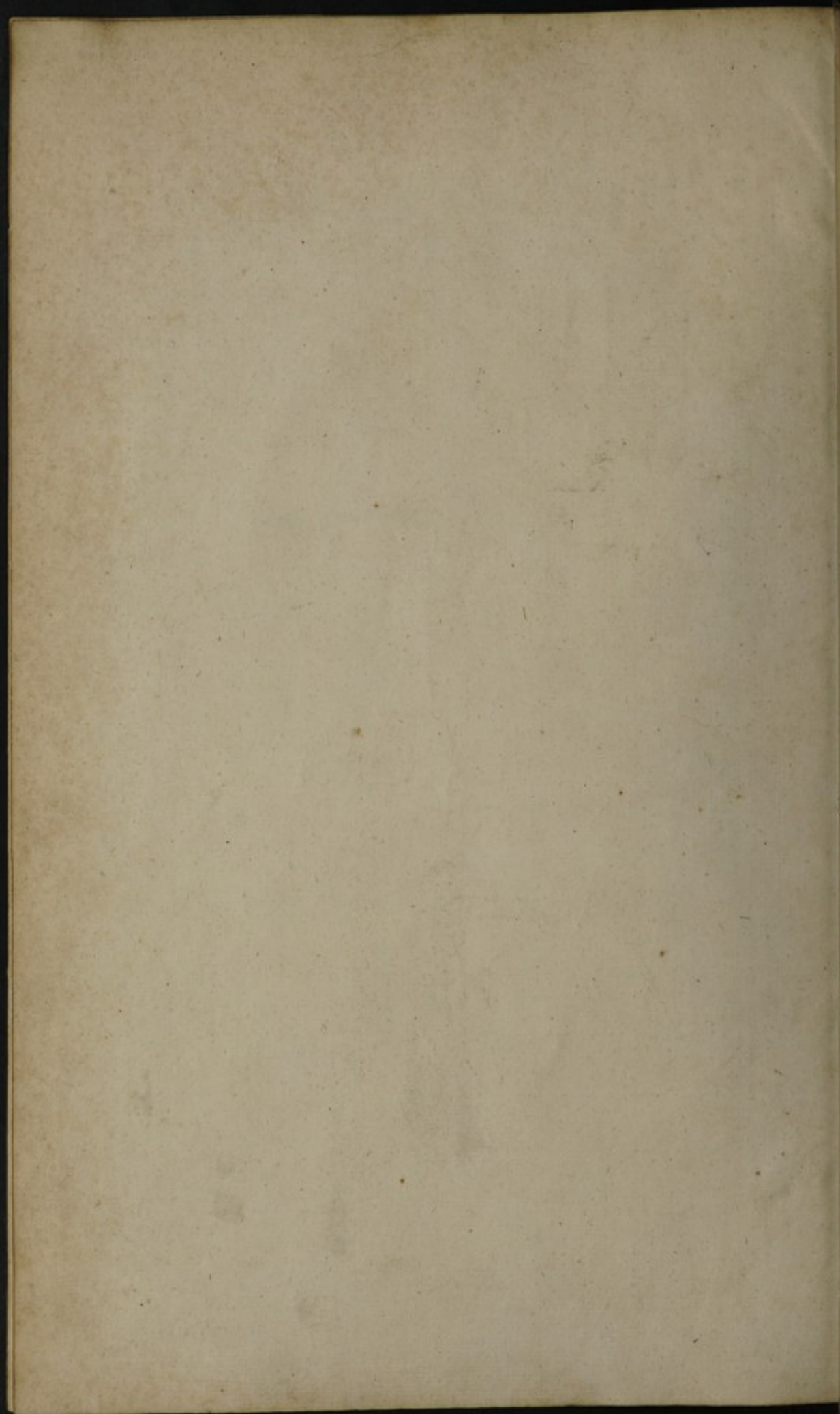


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Joannes Browne
Regius Chirurgus Ordinarius.
Ætatis suæ 59. Anº Dom 1681.

A
Compleat Treatise
OF THE
MUSCLES,
As they appear in
Humane Body,
And arise in
DISSECTION;
With Diverse
Anatomical Observations
Not yet Discover'd.
Illustrated by near Forty
COPPER-PLATES,
Accurately Delineated and Engraven.

By John Browne, Sworn Chirurgion in Ordinary to His Majesty.

Non Nobis Nati.

In the SAVOY.

Printed by *Tho. Newcombe* for the Author. 1681.

Complete Treatise

MISSILES

Human Body

DISSOLUTION

Anatomical Operations

Not to be covered



COPYRIGHT

Accuracy, Delicacy and Lightness

By John Brown, Surgeon to the Army, &c.

NEW YORK

In the Year 1858

Printed by Van Nostrand & Co., New York

TO HIS
Most Sacred Majesty
CHARLES II.

By the Grace and Providence of God

K I N G

O F

Great Brittain, France, and Ireland,
Defender of the Faith, &c.

T H E S E

Anatomical Exercitations

O F

MUSCULAR DISSECTION,

Are most Humbly Dedicated, by

Your Majesties

Most Loyal Subject,

And most Obedient Servant,

John Browne.

TO HIS
Most Sacred Majesty
CHARLES II.
By the Grace and Providence of God
KING
OF
Great Britain, France, and Ireland,
Defender of the Faith, &c.
THESE
Anatomical Exercitations
OF
MUSCULAR DISSECTION.
Are most Humbly Dedicated, by
Your Majesty's
Most Loyal Subject,
And most Obedient Servant,
John Browne.

Charles R.

CHARLES By the Grace of God;
King of England, Scotland, France, and
Ireland, Defender of the Faith, &c. To
all Our loving Subjects of what Degree, Condition, or
Quality soever within Our Kingdom and Dominions,
Greeting: Whereas it hath been manifested unto Us,
that Our Trusty and Well-beloved John Browne Esq;
one of Our Chirurgeons in Ordinary, hath not only
with great Art, but at the Expence of much Time
and Charge, delineated, described, and accurately En-
graved in Copper-plates an Anatomical Treatise of
Muscular Dissection; which performance of his is
to Our great liking and satisfaction, so that We may
express Our Approbation thereof, and give him all due
and ample encouragement for the future; We do
hereby signify Our Royal Pleasure, granting unto
the said John Browne the sole Priviledge of
Printing the aforesaid Treatise with its Copper Fi-
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ensuing the Date of this Our License; and Pro-
hibition, without the Consent and Approbation of the
said John Browne, his Heirs, Executors and Assigns,
as they and every of them so offending will answer
the

the contrary at their utmost Perils ; Whereof as well
the Wardens and Company of Stationers of Our City
of London, the Farmers, Commissioners, and Officers
of Our Customs, as all other Our Officers and Mi-
nisters whom it may concern, are to take particular
notice that due Obedience be given to this Our Royal
Command.

Given at Our Court at Whitehall this 22th Day
of Nov. in the Three and thirtieth Year of, &c.


By His Majesties Command,

L. Jenkins.

To His Grace
CHRISTOPHER
Duke of Albemarle,

Earl of Torington, Baron Monck of Pothoridge, Beauchamp, and Teyes, Knight of the Most Noble Order of the Garter, One of the Gentlemen of His Majesties Bed-Chamber, One of His Majesties most Honourable Privy-Council, Lord Lieutenant of the Counties of Devon and Essex, And Captain of His Majesties Guards of Horse.

May it please Your Grace,

 *IS Majesty having been Graciously pleased not only to take a view of, but to allow the Publication of this Treatise of Muscular Dissection; Now after Him it waits at Your Graces Feet, imploring Your Pardon for its Presumption: But Your Generous Spirit always encouraging the Industrious Man, breathes Life into my Undertaking, by which Your Grace does declare to the World Your valuable Goodness, as well as Your substantial Honour: You never exercising Your self in little Designs, but in the Publick Service of Your King and*
Country;

Clarissimis, Doctissimisque Viris D.D.
Præfidi & Sociis Collegii Regalis Medicorum Londinensium, Myologicam
hanc exercitationem ex animo lubens ac
merito Dicat Dedicatque, J. Brown.

Quantum Lucis Scientiæ conferat Methodica Institutionis ratio, non vobis solummodo (Literatorum Coryphæi) sed & Tyronibus etiam omnibus tam clarum est, quam quod Clarissimum. Partes enim si Debita serie tractentur explicenturque, & perspicue abinvicem dignoscuntur, & multo melius a Lectoribus percipiuntur; Quippe quod Ordinata rerum dispositio præcepta, tam Jucundiora, tam faciliora reddat, dum singula separatim in suâ Classe reposita, memoriâ adjuvant & oblectant. Ut igitur ista tam manifesta prætermittam, de re ipsâ dicere liceat. Antiquiores hanc Scientiam Anatomicam in duas partes diviserunt, Actionem, & Contemplationem, quarum alterius ope, quicquid in Cælo, Terrâ Marique videri usquam possit, in uno homine conspicitur, & tot miracula deteguntur, ut Calamus iis enumerandis oneri succumberet, & admiratio nos penitus obruat. Nihil est quod vel à Naturâ, vel Arte expectari possit, quod hæc Ars non proferat. Subiectum enim ejus adeo nobile est, nimirum Corpus hominis, ad Imaginem Dei, à Deo creati, ut nihil nobilius sub Sole inveniri possit; & singulas humani corporis particulas adeo eleganter describit, ut Arti simul vestræ Medicorum, & nostræ Chirurgorum

Epistola Dedicatoria.

rurgorum summo ornamento fiet. Veritatem in abditis musculorum (& cæterarum partium) meatibus & tenuissimis fibrillis latentem e Tenebris vindicat, & in clarissimam Lucem revocat. Obscuris Lumen, Obsoletis nitorem, Fastiditis gratiam; Dubiis fidem, & vetustate quasi abrogatis Auctoritatem conciliat: Per hanc Medici ferendo Judicio aptiores fiunt; cum Symptomatibus & indicationibus instructi citius certiusque affirmare queant, quam partem, quâ causâ morbi dolor, urgeat, afficiatque imò ex ipsâ mortuorum dissectione discunt, & vivis hominibus, bonâ valetudine utentibus, vitam denuò instaurare, & moribundus Spiritum, nè exeat, detinere. Et in hac equidem praxi nulla unquam ætas fuit (sive diligentiam indefessam, sive abundantem Inventorum felicitatem Spectes) nostrâ hac aut ditior aut fecundior; cujus assidua Cura ac Labor improbus nova non pauca adinvenit, antiqua correxuit, & hanc artem ita illustravit, ut jam ferè ad culmen perfectionis summum pervenisse videatur. Quod si de Anatomicis videndum esset. Nostrates plurimi extiterunt Heroes, qui ut sidera Cæli, Clarissima medicinæ Lumina, & veluti Dii Mortales in hac Arte emicuerunt; Inter quos quantâ cum famâ Harvæius, Entius, Glissonius, Whartonus, Charltonus, Willisfitus, Gualterus Nedhamus, Lowerus, cum multis aliis scripserunt, ut Libri & nomina ipsorum celeberrima nullis delenda sæculis testantur. Jam tandem ad vos, Viri Apollinei, mea se dirigit Oratio, sub quorum Patrocinio Lucubrationes hasce ausus sum divulgare. De vobis dicere fas est; quod quasi Medicorum Principes doctrinæ Jatricæ fines producit, & Industriâ quotidianâ Artem condecoratis, unâ & augetis; adeò ut ex Collegio vestro, veluti solo fertili,
Inventa

Epistola Dedicatoria.

Inventa felicissima ad artis propagationem, & Morborum extirpationem indies nascantur. Ad me quod attinet, Non ita arrogans sum, ut aliorum aut dicta, aut facta mihi ascribere velim, sed potius suum cuique tribuere cupiens, Authorum nomina ad marginem Libri appono, quos in Elencho (eos referente, é quorum scriptis universum hoc opus congestum fuit) Invenietis. Nostrum itaque, qualecunque Munusculum, etsi non verbis politum, attamen ad utilitatem hominum aliquo modo conducens, (quandoquidem veritatis plurimum in se contineat) fronte serenâ accipite. Valete & Æternum quam felicissimi vivite,

Sic Orat,

Nominib. Illustrib. & Nobillissim.

Devotissimus & Observantissimus,

Johⁿ Brown

To his Highly Esteemed Friend Mr.
John Browne, &c.

S I R,

I Have through want of leisure, but cursorily viewed your History of, and Observations on the Muscles: together with your choice number of their Types and Figures elegantly delineated with your own hand. Yet I think, I did it not so superficially, but that I may truly and confidently say, that whoever considers how profitable, and indeed how necessary the knowledge of the Muscles is, not only in Chirurgery, but in Medicine and Philosophy also, (since the faculty and use of the Nerves which distributes Life and Motion to all parts cannot be understood and explain'd without it) must, when he hath perused your Brief, Accurate, and Judicious Treatise, of the Muscles, together with your Observations and Animadversions thereon, be so Ingenuous, if he be just, as to acknowledge their great usefulness not only to Chirurgeons, but to Students in Medicine and Philosophy likewise, and must therefore joyn with me to their Encomium; and earnestly desire, and importune their Publication as well as

Sir,

Your assured Friend and
Servant,

E. Dickinson M. D.

Physician to the Kings Person
and Family.

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To

To Mr. John Browne on his Treatise of
Muscles.

S I R,

I Cannot but commend your Ingenious Design of making so useful
a Book for the benefit of young Chirurgeons, and your Judi-
cious choice of Cuts for that purpose: It is a Book which I am sure
the Chirurgeons-Hall doth much want, for the younger sort to
have in their hands in order to their better attending the Learned
Reader. And not only so, but the most able Anatomists will be glad
of so compleat a Contraction of so considerable part of Anatomy into
one view, where they may at any time recollect themselves, as to
their former Readings and Observations. Therefore your Edition
of this Treatise cannot but oblige the World, and amongst others,

Charter-House,

April 14. 79.

Sir,

Your humble Servant,

Wal. Needham.

MYographicum hunc Tractatum ab Expertissimo Viro D.
Johanne Browne conscriptum, Medicorum Chirurgo-
rumque Tyronibus, & utrorumque etiam Peritissimis utilem
fore Judicat,

Tho. Allen M. D.

Regius Medicus Ordinarius & Coll.
Lon. Soc. & Censor.

In Laudem Authoris.

Perlegendo vestrum de Musculis Libellum, magnum invenio certamen inter Ingenium & Ingeniosum tui calamum, quis Palmam portare meruit; & nè iniquè Judicarem, Legentibus sat erit, tam perutilem, sic perjucundum fore existimat,

Amicus tuus tui ad Aras,

Edvardus Warner.

Med. Personæ Regis Ordinarius
& ejus Exercitui M. Generalis.

To his much valued Friend Mr. John
Browne.

S I R,

I Have read over your Treatise of Muscles, (as my time would permit) and find you have taken great pains and care in your Collections, and made good Observations, and exprest much Art and Industry in your Figures: and (by consulting excellent Authors) have contracted much into little: that a competent knowledge in this part of Anatomy (so absolutely necessary in the safe practice of Chirurgery) may probably be much easier attained to, than formerly by young Indagators; and be a further confirmation to others, who have already sweat in the same Study. Therefore I cannot but encourage you to make it publick, by which I suppose you will oblige many who are Friends to such Anatomical Enquiries: amongst whom give me leave to reckon,

Sir,

Martii 26. 79.

Your Affectionate Friend
To serve you,

Edmund King M. D.

Physician in Ordinary to his Majesty.

T O

TO THE
Ingenuous and Studious
READER.

Curteous Reader,



S Anatomy is generally allowed the best and truest Speculum or Looking-Glass, illustrating, and presenting all the parts of the Body, with their Affects, and Affected Parts, most clearly and evidently: so also is it the main Basis, on which Chirurgery doth build its fairest Fabrick, and comely Structure. And of what great use this hath been, and is, to Mankind, not only the Ancients, but also Modern Writers do most admirably declare; How this Renowned Art hath in former Ages been treated, and carefully treasured up and Celebrated in Theaters and Anatomical Schools, many Authors have to Posterity voluminously satisfied; And that it still doth get greater footing amongst the Ingenuous and Industrious Sons of Art, every Age doth, and may with admiration evince, and the many Learned Lectures annually read, may both most honourably and happily set forth and demonstrate.

This Art of Anatomy, as it doth require the industrious Study, and accurate care of a curious Enquiry, so also doth it reward his pains with the Jewel of Knowledge, and afford his Endeavours the happy issue of a fair success: giving those methods and measures of security

The Epistle to the Reader.

curity in Chirurgical Practice, which are most consentaneous and genuine for the Industrious Practitioner, to study and search after. This is as his best Compass, whereby he may sail freely in the main Ocean of his Art, without any mistrust or dread of splitting himself upon any Rocks of danger, or Shelves of mistake, for its by this alone, that we arrive at and do gain how our Membranes are made, and spun out of Spermatick Fibres, and how out of Maternal Blood are framed our Muscular parts. It is from this Tree of Knowledge, all the differences between a Vein and Artery are pluckt up: Its this Garden that affords us the various Flowers of Nerves and Tendons, and shews us the different Beds of Ligaments and Bones: It's this Sun that conducts the Understanding, that advanceth the same into Affection, that promotes our Affections towards our Maker. And come we but to take a view and survey of the Symmetry of his parts, and therein but cast our Eye and consider on the rare Offices and Uses which are variously bestowed on them, we ought as well in Justice, as in Reason, to grant and allow, that nothing in this great Universe may or can surpass him, especially in the exquisite Fabrick of his Muscles, and the variety of their Motion.

Now although Myology hath been by the Ancients thus traced, yet Steno hath quite altered the Fabrick of their design, affirming, that there is in every Muscle two opposite Tendons, into which are inserted two kinds of Fibres, the which being closely annexed do frame the Tendon, and in that part wherein they are loosely intertext, there they do allow of a constituted Flesh, implanting one above another, here placing and disposing the thickness and depth of the Flesh, framing its latitude, and declaring its order of Fibres; and this Figure he describes by a Mathematical Line, taking thence
c their

The Epistle to the Reader.

Steno's description of a Muscle.

their Cannons which do explain their actions ; Thus he satisfies, that all the *Fleshy Fibres* in a simple Muscle, are carried in a direct Line from one Tendon obliquely into another, and these Tendons are interwoven in their opposite ends and angles of the *Fleshes* ; by which he doth ingeniously describe a Muscle to be a collection of moving *Fibres*, so framed and formed, that the middle *Fleshes* do frame an oblique angle, and that the two opposite Tendons do form two *Quadrangular Prisma's* ; this Figure he very accurately represents by Instruments used by Painters, or Picture-Drawers, wherein we see by the application of their Pegs, the true insertion of their Tendons are hereby very well explained, and the *Fleshy parts* lively delineated : for when they bring their greatest distances from their opposite angles, and being hereby made more acute, these are brought to two sides, and so this Instrument is made both longer and narrower, this shewing the Muscle no way contracted, but rather narrowed, and reduced into a longer body, the length thereof not being changed, save only in its Position ; Thus have we by Steno shewn, a muscle may appear as a simple part consisting of one *Venter* and two Tendons, as are many of those in the Arm, or Thigh, and in many other parts of the Body ; or Compound having many Venters, to every of which is allowed two Tendons.

In a simple Muscle, because either one Tendon or both ought to be attracted, and because the attracting part is thin, and broad, the Belly of the Muscle doth require for its frame, a diversity of *Fibres* to answer to the variety of its Figures ; whereas Compound Muscles are distinguished by their greater variety of *Fibres* : for besides this variety of Figures which ought to be observed ; so also ought their Venters, being either more or less, with their order of *Fibres*, and diversity
of

The Epistle to the Reader.

of Frames have a respect allowed them. Therefore shall we find that to every simple, as well as compound Muscle is bequeathed a Membranous covering, invested ^{Membran} with Fleshy Fibres for its direct motion, and is intertext with transverse Fibres for forming it into a Membrane. It hath a Vein and Artery inserted into its middle, sending ^{Vein and Artery.} forth of their Surcules into the oblique moving Fibres, from whence the smaller Ramifications being dispersed through the Interstitia of the Fleshes, doth besprinkle and bedew them with their Afflux of Blood, ^{Nerv.} and its Reflux: The Nerve entring herein doth distribute of its small Branches into its neighbouring Muscles, carrying in it the soul of the commanded action, and commanding its execution in the lower guard of the Fleshy Fibres, and of its Membranous Fibrilla's; And as touching its action, in dissection of living Bodies, we ^{its action.} plainly perceive that it doth contract, but not as the old opinion held: that the Fibres did contract from their ends, towards their Originations, one end of the Muscle being carried through the other; whereas the Fleshy Fibres only, and their ends are seen to be contracted towards their middle, their Tendons being mutable, and not altered either in their longitude or thickness, the which Worthy Steno first observed, the which he doth describe in the Diaphragma, and those Muscles appointed for Respiration, the which is moved by a constant turn, as is cleared and perceived; How oft therefore the Muscle is seen to be contracted, all its Fleshy Fibres in either end are apparently shewn to be driven together, and as it were seen to bow and yield to each other; and hence do seem to appear either shorter or thicker: the which being loosned from its constriction, you will find it to appear in its proper length and thickness, this alteration being produced by the Spirit or subtile Matter which passeth from the Tendons into the Fleshy parts; and

The Epistle to the Reader.

and here stuffing them or filling them up in every place, doth force and compel them to yield hereunto, it tumefying its Fibres; but when this receeds from these Fleshy parts into the Tendons, these Fibres do lessen of their bulk, and do appear in their genuine length and thickness.

Humours.

We ought also to speak somewhat of that Matter which keeps them moist, and here may we offer, that as touching the Humours by which all the Muscular Fibres, Fleshes, Tendons and Membranes are besprinkled and filled, and so hereby seen as it were to run into tumefaction, these are generally reckoned two, (vid.) Blood and Nervous Juice; As to the first, this is allowed to tinge and wash over all the Fleshy Fibres, and those parts to which they are interwoven, and their Membranes, and to soften them with manifest sense; Thus if Spirit of Wine tinged with Ink, be injected into an Artery reaching a Muscle, the Vein being tied up, you will find all the Superficies of the Fleshy Fibres, and of its transverse Fibrilla's to be covered with blackness, yet will you see its Tendons scarcely concerned with any change of colour, these only irrigating the Fleshy parts, and those chiefly which are most exterior. How much these Humours may, and do conduce towards the Animal Faculties and their Exercise is easily made out: for without this Nervous Liquor, the Animal Spirits would have no proper consistence granted them, and their chief dependance is from their Crasis; Hence therefore according to Steno, a perpetual Afflux of Blood is plainly requisite, for as he observes, in a living Dog, the descendent Trunck of the Aorta or great Artery being tied up without any incision, the voluntary motion of all the back parts do cease, so oft as it was tied up, and that the motion renewed so oft as it was relaxed.

Now

The Epistle to the Reader:

Now when the Muscle is contracted, *Vivisection* doth only declare the Fleshy Fibres to attain the only motion, as being more tumefied, asperate, and abbreviated, the Muscle swelling and enlarging in its belly, and the inward Tendons as being of themselves immovable, being neither changed in length or thickness, only drawn up by their Fleshy Fibres; whence may be collected, that the Animal Spirits, when they perfect any Muscular motion, they do generally perform this between the Fleshy Fibres. Now shall we disclose some difficulties which do and may arise as Knotty Disputes about Muscular Dissection, and Muscular Motion, and how these Spirits do operate so tacitely without any incitement thereto; How they fill these Fleshy Fibres, and so seeming to shorten their Tendinous Fibres, for the producing of which effects, the plenty of these Spirits arising from these Tendinous Fibres, are not altogether sufficient for performing and managing this, and therefore do require others as its adjutants or assistants to promote and further the same in its design, both in occasioning mutual Rarefaction, and Tumefaction, or suddain Inflation of those Bodies which do occasion this Abbreviation.

That the Fleshy Membrane of the Muscle doth tumefie when its contracted, is without all doubt, and beyond all dispute, for this is apparent enough to sight and touch in *Vivisection*; all the Fleshy Fibres being corrugated together, and are more tumefied, and do appear more asperate, hence cometh its abbreviation; the Muscle appearing both more thick and more broad, hence therefore may we justly conclude, that Muscular Motion in general may probably be granted; As that the Animal Spirits being derived from the Brain by the conduct of the Nerves, and thence conveyed into the body of every Muscle, and from hence by commerce do pass to the

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Tendinous

The Epistle to the Reader.

Tendinous Fibres, and do at length get quarter there, and entertainment, as in other *Promptuaries* or *Mansions*, the which *Spirits* being in their nature very active, so fast as their vigour will permit them, they do expand themselves, and penetrate into the *Fleshy Fibres*: and continuing this their course, they at length do arrive at the *Tendons*, and having once entred them, they do therein proceed in the same method: and that the *Animal Spirits* flowing from the *Tendinous Fibres*, do equally pass under the *Fleshy Fibres*, is very apparent; in that it is granted that in every *Muscle* there is allowed two *Tendons*, whose opposite *Angles* are so framed, that these *Animal Spirits* running from a double top do fill the whole *Body* of the *Muscle*; and the motion hence taking its *Origination*, doth very speedily receed, if the contraction ought to be made indifferently towards the middle *Fleshy parts*: the *Tendons* are generally equal, but the motion most inclinable towards one part of the *Flesh*: and hence may we collect, the regular or irregular motions of a *Muscle*, every regular or irregular motion hereof granted to arise from either the *Cerebrum* or *Cerebellum*, it being thence dispatcht by the *Nerves*, and so sent into the *Muscles*, the effects and consequences whereof do evidently evince and demonstrate. Thus have I a little presumed to enlarge upon the *Readers Epistle*, as touching the use and benefit of the *Muscles*, wherein also I have introduced somewhat of *Muscular Motion* according to *Steno*, and have the rather chosen to enlarge the *Discourse* here, the *Body* of the *Treatise* being wholly intended to appear *Publick* and *Concise*, without any *Flourishes* or empty *Enlargements* of *Discourses* or *Controversies*.

Peruse

The Epistle to the Reader.

Peruse therefore this ensuing Discourse with a Candid Interpretation, and pass by all the Literal Elapses you may meet with, and accept these with that Amicable Mind, as they are Dedicated and intended by,

John Browne.

From my House at the
Chirurgeons-Arms at
Charing-Cross,

London.

The

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This

This Table sheweth the Names of
the Muscles, as they do arise in Dissec-
tion.

O Bliquus Descendens
Obliquus Ascendens
Rectus

Piramidilis

Transversus

Frontalis

Aperiens Palpebram Rectus

Claudens oculum superior

Claudens oculum inferior

Recti Quatuor Oculi

Obliquus Primus Oculi

Obliquus Secundus Oculi

Attollens Aurem

Detrahens Aurem

Adducens Aurem

Abducens Aurem

Externus Tympani Auris

Internus Tympani Auris.

Abducens Nasi alas

Attollens Nasi alas

Claudens nasum externus

Claudens nasum internus

Communis Claudens Alas

Zygomaticus Riolani

Abducens Labios

Deprimens Labii inferius

Constringens Labios

Platysma Myodes sive Quadratus

Buccinator

Masseter sive Mansorius

Temporalis seu Crotaphites

Mastoidens

Biventer sive Digastricus

Coracohyoideus

Sternohyoideus

Sternothyroideus

Hyothyroideus.

Styloceratohyoideus

Pterygopalatinus

Spheno-palatinus

Mylohyoideus Riolani

Geniohyoideus

Miloglossus

Ceratoglossus

Genioglossus

Hypoglossus

Styloglossus

Lingualis

Cricothyroideus anticus

Æsophigeus seu Sphincter Gule

Stylopharyngeus

Cephalopharyngeus

Cricoarytenoideus Posticus

Cricoarytenoideus Lateralis

Arytenoideus

Thyroarytenoidus

Sphæno-pharyngeus Primus

Sphæno-pharyngeus Secundus

Pterygoideus Externus

Pterygoideus Internus

Longus

Scalemus seu Triangularis

Pectoralis

Subclavius

Serratus major Anticus

Serratus minor Anticus

Intercostales Externi

Intercostales Interni

Cremasteres

Erector sive Director Penis

Accelerator Penis

Musculi Clitoridis

Levatores Ani

Sphincter Ani

Sphincter

The TABLE.

*Sphincter Veficæ
Detrusor Urinæ
Diaphragma.*

Here let the Body be turned
upon the Face.

*Cucullaris sive Trapezius
Latissimus Dorsi
Rhomboides
Levator Patientiæ
Rotundus Major
Suprascapularis Superior
Suprascapularis Inferior
Nonus humeri Placentini sive Ro-
tundus Minor
Subscapularis.*

If you intend to take off the
whole Arm with the Scapula,
the Dissection of these fol-
lowing Muscles will with
more ease be performed.

*Deltois
Biceps
Ostæus humeri Placentini sive
Coracobrachialis
Brachialis Internus
Gemellus Major
Gemellus Minor
Anconæus
Palmaris
Caro Musculosa Quadrata
Flexor Carpi Interior seu Ulnaris
Flexor Carpi Exterior sive Radia-
lis
Flexor Secundi Internodii Perfo-
ratus
Flexor Tertii Internodii Perforans
Flexor Tertii Internodii Pollicis
Pronator Radii Teres*

*Pronator Quadratus
Flexores Primi Internodii Digi-
torum
Flexor Primus, Primi Interno-
dii Pollicis
Flexor ejusdem Secundus
Flexor Secundi Internodii Pollicis
Primus
Secundus
Tertius
Quartus*

*Minimi Digni abductor
Pollicis abductor
Pollicis adductor
Interossei
Extensor Carpi Exterior
Extensor Secundi & Tertii In-
ternodii Digitorum
Supinator Radii Longus
Extensor Pollicis ossis Tertii
Extensor Secundi & Tertii Pol-
licis
Abducens Indicem
Supinator Radii Brevis
Primi Internodii Extensores.*

Here you return to the Body
it self as it lies

*Serratus Posticus Superior
Serratus Posticus Inferior
Splenius sive Triangularis.
Trigeminus
Transversalis
Spinatus
Recti Majores
Recti Minores
Obliqui Superiores
Obliqui Inferiores
Longissimus Dorsi
Sacrolumbus
Cervicalis descendens
Sacer*

Semispinatus

The TABLE.

Semispinatus
Quadratus
Psoas
Psoas Parvus

If you please to take off the Thigh from the Trunk of the Body, by dividing the *Os Ileon* from the *Os Sacrum*, the dissection of the subsequent Muscles will the better be performed.

Iliacus Internus
Glutæus Major
Glutæus Minor
Glutæus Medius
Piriformis sive Iliacus Externus
Obturator Internus
Quadrigeminus
Obturator Externus
Membranofus
Sartorius
Gracilis
Rectus
Vastus Externus
Vastus Internus

Biceps
Semimembranosus
Seminervosus
Triceps
Lividus
Gasterocnemius Externus
Plantaris
Gasterocnemius Internus
Subpopliteus
Flexor Tertii Internodii Perforans.
Tibiæus posticus
Flexor pollicis
Flexor Secundi Internodii Perforatus.
Adducens Pollicem
Abducens minimum Digitorum
Transversalis Placentini
Tibiæus Anticus
Peroneus Primus
Peroneus Secundus
Extensor Pollicis
Extensor Tertii Internodii Digitorum
Extensor Secundi Internodii Digitorum
Interossei.

The Names of the Authors concerned in this
Muscular Discourse.

Thomas Bartholinus
Casper Bauhinus
Albertus Columbus
Bartholomeus Cabroules
Isbrandus Diemerbroeck
Galen
Regnerus de Graaf
Hippocrates
Andreas Laurentius

Julius Casserius Placentinus
Johannes Riolanus
Daniel Sennertus
Adrianus Spigelius
Joannes Valverdus
Andreas Vesalius
Joannes Veslingius
Vidus Vidii

Obliquus

The Obliquus Descendens.

THis first pair of Muscles with which Nature hath covered the Abdomen, as a Vail, are endowed with oblique Fibres, and by reason of their descent, they have this name bestowed upon them. They do arise from the lower parts of the 6th. 7th. 8th. and 9th. Ribs indented; or indenting themselves with *Serratus Major Anticus*; as also Membranous from the transverse processes of the Vertebres of the Loyns, and part of the *Os Ileon*, and then passing to the *Linea Alba*, and *Os Pubis*, by a broad Nervous Tendon marches into the middle of the Abdomen; (its very hard to separate this Muscle from its subjacent Tendon without laceration) it adhering so closely to it. This Tendon with its next neighbour being either lacerated or dilated, and the *Omentum* or *Intestines* hereby making a prolapsion either into the *Inguen* or *Scrotum*, does occasion either an *Hernia Omentalis*, or *Intestinalis*. To dissect this Muscle exactly, you must divide the *Latissimus* from him very low, so as that you may attain his Lumbal Origination the better.

The chief use of this Muscle, as *Columbus* and *Laurentius* do affirm, is to contract the *Thorax*, as sometimes upwards, hereby assisting Respiration. *Laurentius's* observation of these Muscles is worth note; when he writes that these Abdominal Muscles are quite contrary to the other Muscles of the Body, these being crooked before they do Operate, and do turn inward in their Operations, hereby with much facility compressing the inward Cavities; the which, by reason of the laxness of the lower Belly, and its yielding to vacuity, it frames a Contention inwards, and a Remission outwards. Another Observation may be, that these Muscles do bind the Intestines in oblique descending Angles.

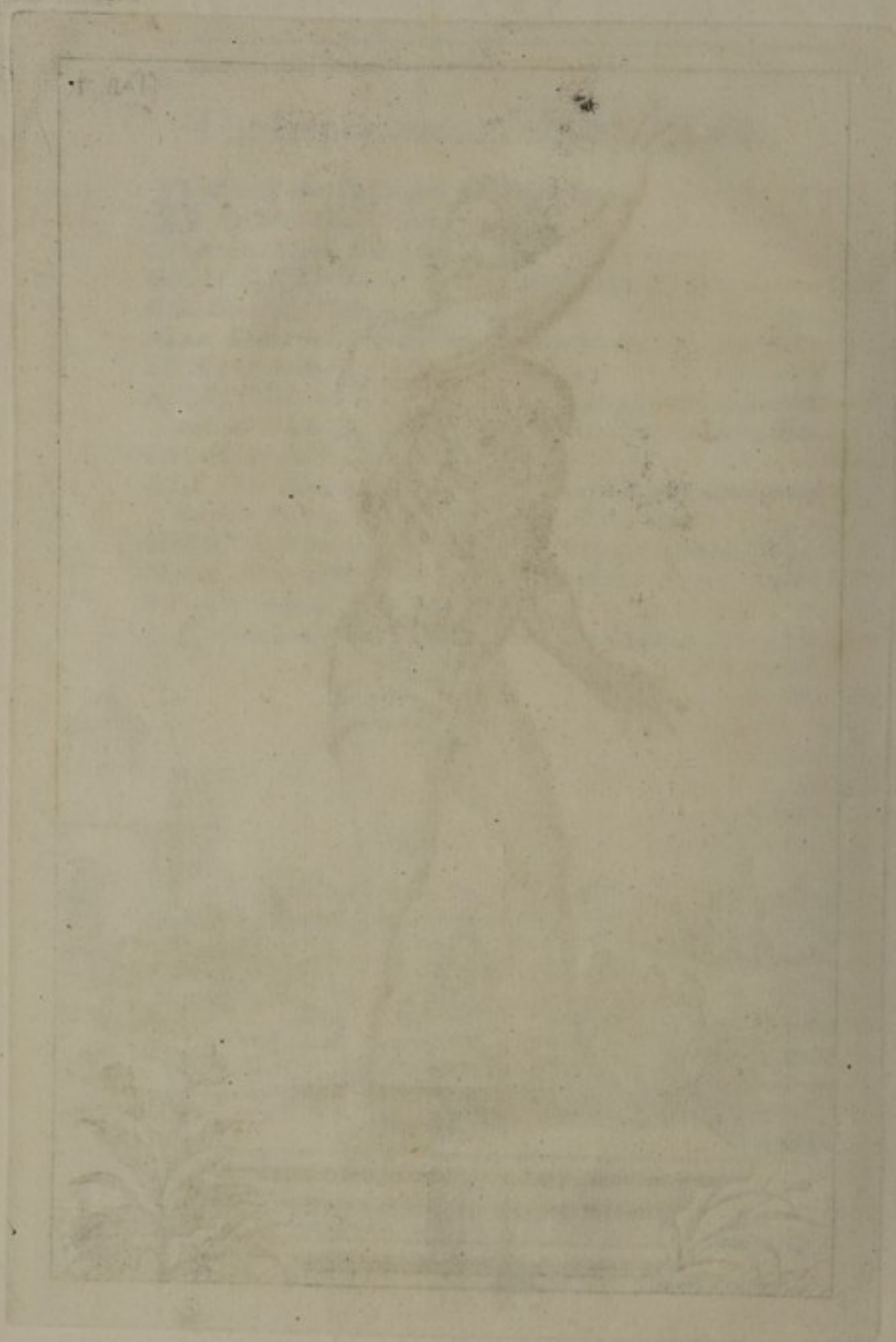
The Explanation of the First Table.

B Part of the Muscle called Ani-scaptor.
D. Musculus Pectoralis in situ.
C. Serratus Major Anticus.
G.G. I.I. K.K.K. Musculus obliquus descendens.
G.G. Shews the Fleshy part of this Muscle.
a.a.a.a. Shews its Connexion with Serratus Major.
I.I. Shews another part of the same Muscle.
K.K.K. Shews another Fleshy part of this Muscle, with its Tendon
 and where it begins, and how it is expanded into the Linea alba.
V.V. Shews the Semilunary Line.
L.L.L. The Tendon of the Oblique descendend Muscle running over
 the right Muscles of the Abdomen to the Linea alba.
M.M.M. The White Line into which this Tendon is inserted.
N.N.N. The Intersections of the Right Muscles.
P.P. The Spine of the Os Ileum.
Q.Q. Some heads of the Muscles moving the Thigh.

Obliquus

TAB. I.





The Obliquus Ascendens.

THis is immediately substrated to the former, and is furnished with Ascendent Fibres, it ariseth fleshy from the Appendix of the *Os Ileon*, and Membranous from the processes of the same Vertebres as the former; and so ascending into the 11th. and 12th. Ribs with a fleshy Margent, then extending himself into a large double Tendon in which the *Rectus* is conveyed, proceeds to the *Linea alba*, and Semilunary Line, and is implanted into the 9th. 10th. 11th. and 12th. Ribs. Observe that this Muscle is best rais'd by finding the Nerve that runs between this and the Transverse at his Origination from *Os Ileon*. This doth help the former in his Compression.

The chief use and action of this Muscle as *Columbus* doth offer, is, That these working together, they do detract the Muscles of the *Thorax*. Nature planting here a Series of Fibres contrary to the former, and these being by her thus made for a stronger Compression. its use.

Moreover as I humbly conceive, that this Oblique ascending Muscle is obliquely perforated near the *Os Pubis*, by the Cremasters and the Spermatick Veins and Arteries a little above the perforation of the Oblique descending Muscles; so that these Oblique ascending Muscles lodging just under the former, do run counter with them in their Fibres, and do keep them in Oblique ascending Angles. obf. 27.

Moreover, that whereas the various Muscles of the Abdomen several ways contracting themselves inwards, do force the Excrement downwards, and at the same time do reduce both the Ventricle and Intestines into their proper places, and are Antagonists to the *Diaphragma*, because in its motion in order to enlarge the capacity of the *Thorax* to give reception to the Lungs tumefied with Air, the *Diaphragma* is brought towards a plain, and doth thereby both press the Stomach and Intestines downwards, by which, the motion of the Chyle is gently solicited into the *Ductus chyliferus*. And when the *Diaphragma* hath done playing, these Abdominal Muscles do act their parts, by relaxing the *Diaphragma*, and bringing it into an Arch, the Belly growing lank, and the Intestines and Stomach being forc't inwards, and upwards, by the contraction of the Abdominal Muscles.

The

The Explanation of the Second Table.

- A** *A. Obliquus Descendens, laid bare.*
B.B.B. *The bodies of the Ribs.*
9.10.11. *The lower Ribs.*
a a.a. *Shews the Tendinous Membrane of the Oblique descend*
Muscle.
B.B. *Obliquus ascendens, in situ, shewing its Ascendent Fibres.*
C.C.C. *Linea Semilunaris.*
i.i.i.i. *Recti Musculi, Transparent under the Tendons of the Oblique*
ascendent Muscle.

Rectus.





The Explanation of the Third Table. Rectus.

THis third pair are cloathed with Right Fibres, being made very strong, and well lin'd with Flesh: They do arise from the *Os Pubis*, and running according to the length of the Body, are inserted into the sides of the *Sternum*, where the last true Ribs have their Cartilages. The Insertions hereof are various, for sometimes there is seen three, sometimes four, and sometimes three and a half; sometimes all above, sometimes some below; as also the *Anastomosis* of the *Mammillary Vessels* external, and *Epigastrick* internal, always found in Women, rarely in Men; as also the multitude of Nerves sent to the *Perigraphs* is very observable, for if you find four *Perigraphs*, you will find no *Pyramidal Muscles*. This Muscle brings the Belly forwards.

These Muscles are allowed to be of great use; some Authors affirming that they do abduce the *Penis* from the Ribs. And when we do arise out of our Beds, these Muscles do seem to tumefie and fill outwards; others do declare, that these do inflex the *Thorax*, and do draw the Brest to the *Os Pubis*, and the *Os Pubis* to the *Thorax*, and that out of their Contraction, there is seen two various Motions performed. Use.

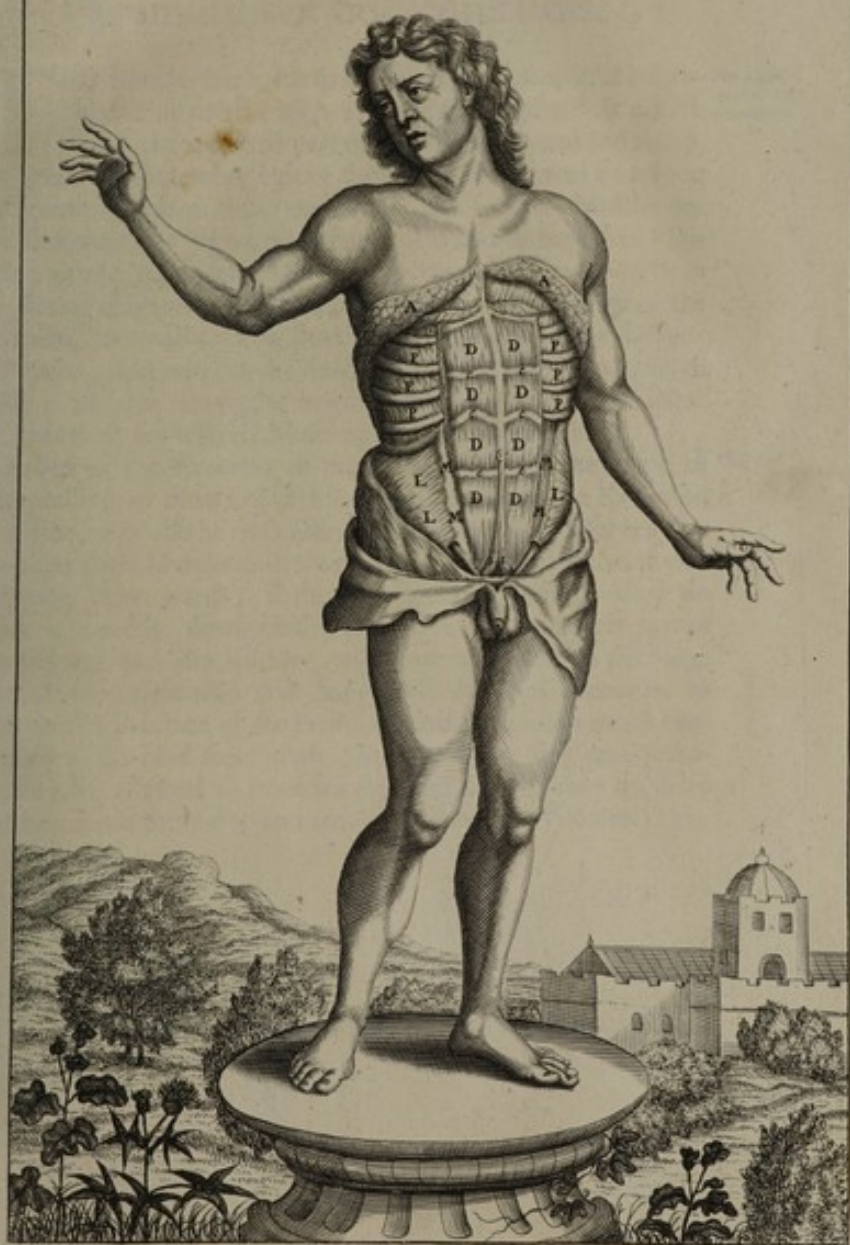
But I humbly conceive that these Muscles taking their Origination from the *Os Pubis* and *Sternum*, and inserting themselves into the *Linea alba*, and running all down in length through the middle of the Abdomen, do in their Contraction press the Insertions inwards, and do assist the *Peristaltick* motion in the exclusion of grosser Excrements. Or.

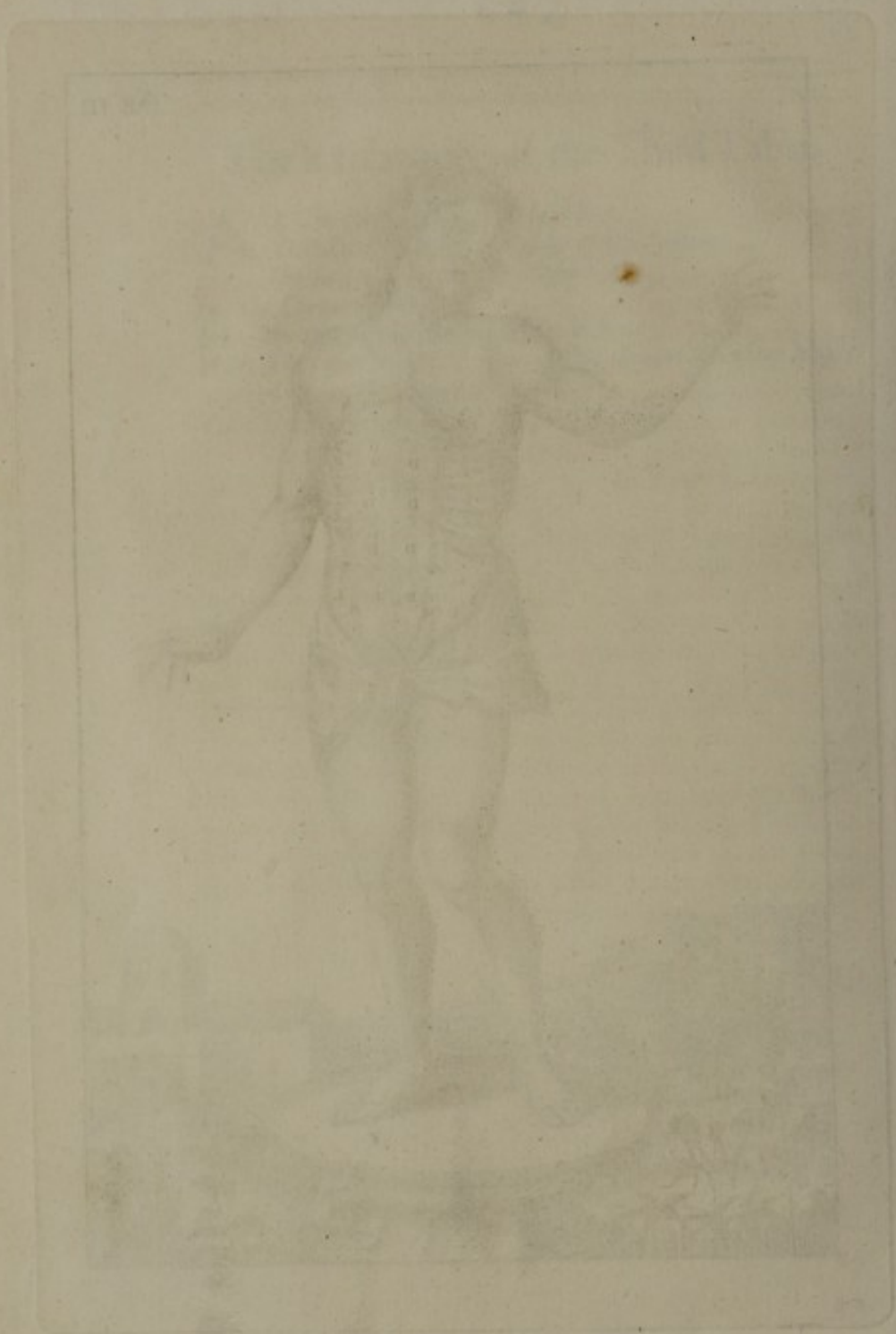
The Explanation of the Third Table.

A *A. The Cutis with the Fat laid bare.*
D.D.D.D. *The Right Muscles of the Abdomen.*
e.e.e.e. *The Intersections of these Muscles.*
i.i. *The Pyramidal Muscles.*
L.L. *The Oblique Ascendant Muscles in situ.*
MM *That part of the Tendon of the Oblique Ascendant Muscle which covers the Right Muscle.*
P.P. *The Intercostal Muscles.*

Pyramidalis

TAB III





Pyramidalis or Succenturiatus.

THis Muscle hath its name from its make, and resemblance it carries with a Pyramidal Figure. It ariseth from the external part of the *Os Pubis* broad and fleshy, and running somewhat below the *Rectus*, is inserted by a long and round Tendon into the *Linea alba*. These Muscles are seen sometimes to be wanting in such Persons as have the Origination of the Ascendent Muscle not from the *Ileon*, but from the strong Ligament which runneth from the Spine up to the *Os Pubis*, internally : and have four Perigraphs in the *Rectus*.

*This presseth
the Abdomen
downwards.*

Vesalius, *Adernaus*, and *Columbus* do all describe them (though badly) to arise from the beginning of the Right Muscles ; But that these are distinct Muscles are evidently apparent.

Fallopins the Inventer of them, doth ascribe the action of Compression to them ; and that they do promote the Excretion of Urine, this also he doth affirm. *Laurentius* does observe, that if one of these Muscles doth work alone, it draws the *Linea alba* obliquely downwards ; if they do work together, they do work it directly downwards, and do hereby compress part of the Inguen and the Bladder, when we at leisure do discharge our Urine. *Columbus* will have these Muscles somewhat to add to the Erection of the Penis, but his Opinion is much contradicted by *Flud* from their Situation : for they cannot reasonably be allowed to serve for this use, because they do in no measure reach this part, and are also apparent in Women.

Their Use.

The

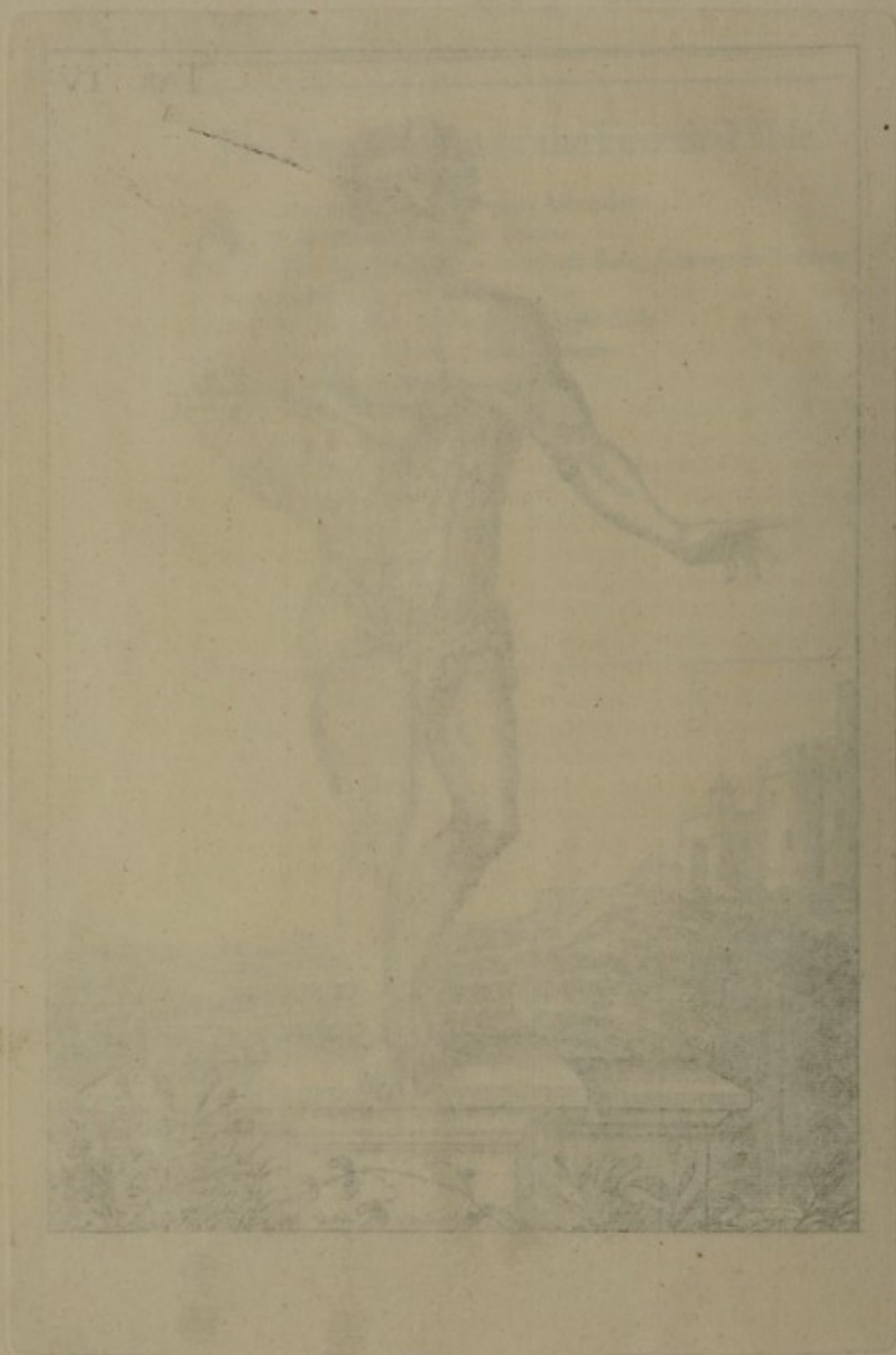
The Explanation of the Fourth Table.

A Shews the Muscle Obliquus Ascendens.
B B. Demonstrates its Tendon.
C.C.C.C. The Right Muscle of the Left Side, shewing the Tendons
 Duplicature.
K.K.K.K. The same Muscle of the Right Side.
d. The Transversus Muscle of the Abdomen.
e.e. The Pyramidal Muscles.

Transversus.

TAB. IV.





The Transversus.

THis fifth Muscle firmly annexed to the adjacent *Peritonæum* ^{This brings the Abdomen inwards.} is framed of Transverse Fibres, it ariseth from the Transverse processes of the Loyns and the *Os ileon*, and the Cartilaginous inward part of the lower Ribs with a Nervous Membrane, from the same Ligament as the former; as also with a Flethy Origination from the inward part of the Spurious Ribs, and Terminates in a broad Tendon at the Semilunary Membranes, the *Linea alba*, and so down to the *Os Pubis*; he adheres firmly to the adjacent *Peritonæum* in a manner all along, save only in the *Pubes*, where he divides himself. *Bartholinus* declares, that its chief use is to Compress the Colon. Its generally agreed by all Anatomists, that these Muscles do serve for bringing the Abdomen inwards; the which action is very necessary in the Contraction of the lower Belly. *Spigelius* allows it another action, which is, that it moves the *Thorax* Circularly to the Sides, hereby promoting and cherishing the Native Heat; These Muscles also being of a moderate thickness, do serve as a defence and covering to the subjacent Parts

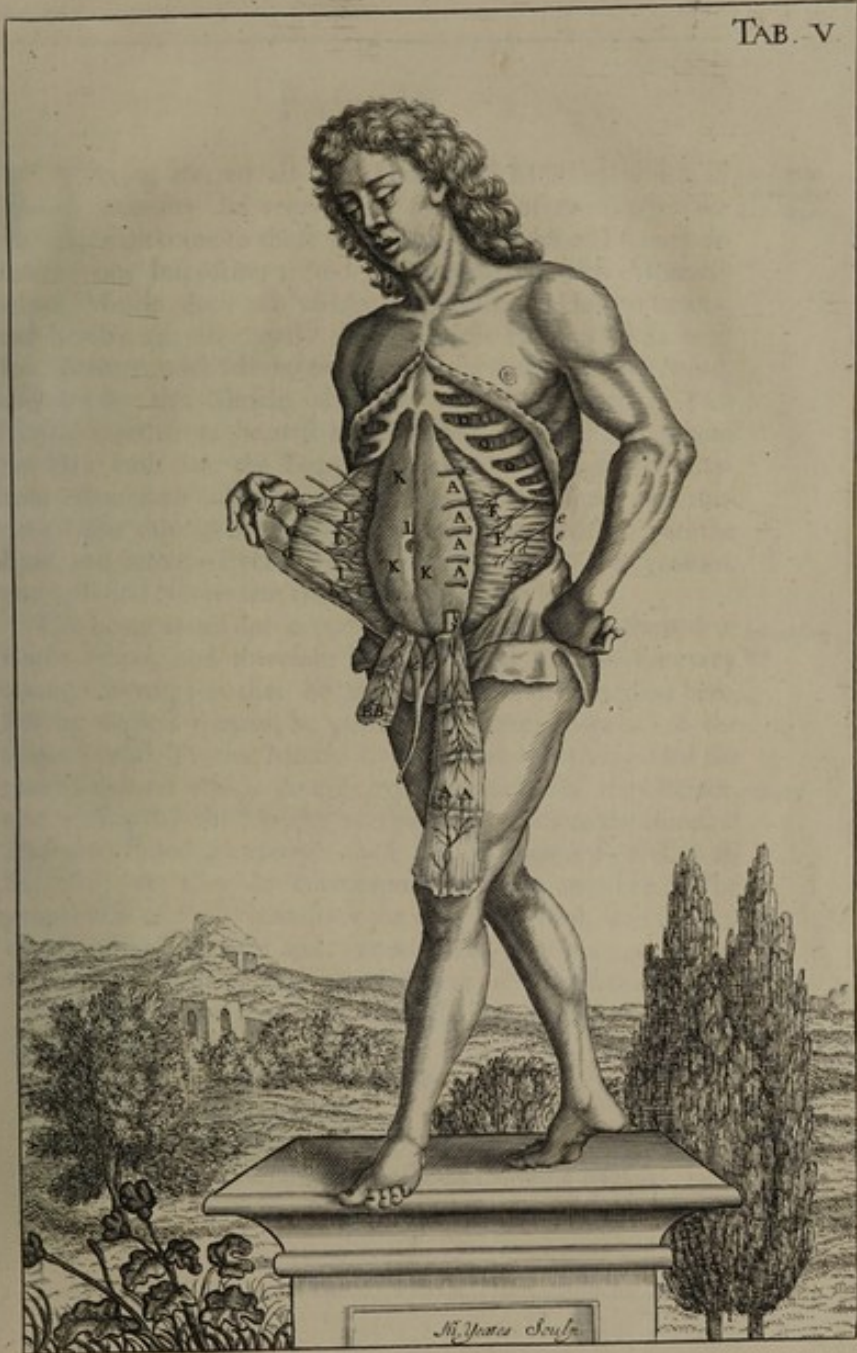
This Transverse Muscle is obliquely perforated a little above the Oblique ascending Muscle, by the Cremasters, and Spermatick Veins and Arteries; so that the perforations of the Oblique Descending, and Ascending Muscles of the Abdomen being framed one above another, not in streight but in bevil Lines, do intercept the passage of the Intestines falling into the Scrotum. These Transverse Muscles running the breadth of the Abdomen cross-ways, do run counter to the Fibres of the Right Muscles, which binds in the Intestines crossing the length of the Abdomen downwards long-ways, as the Fibres of the Transverse Muscles running overthwart, do in their Right Angles secure the Intestines in their actions broad ways, and cross the Abdomen.

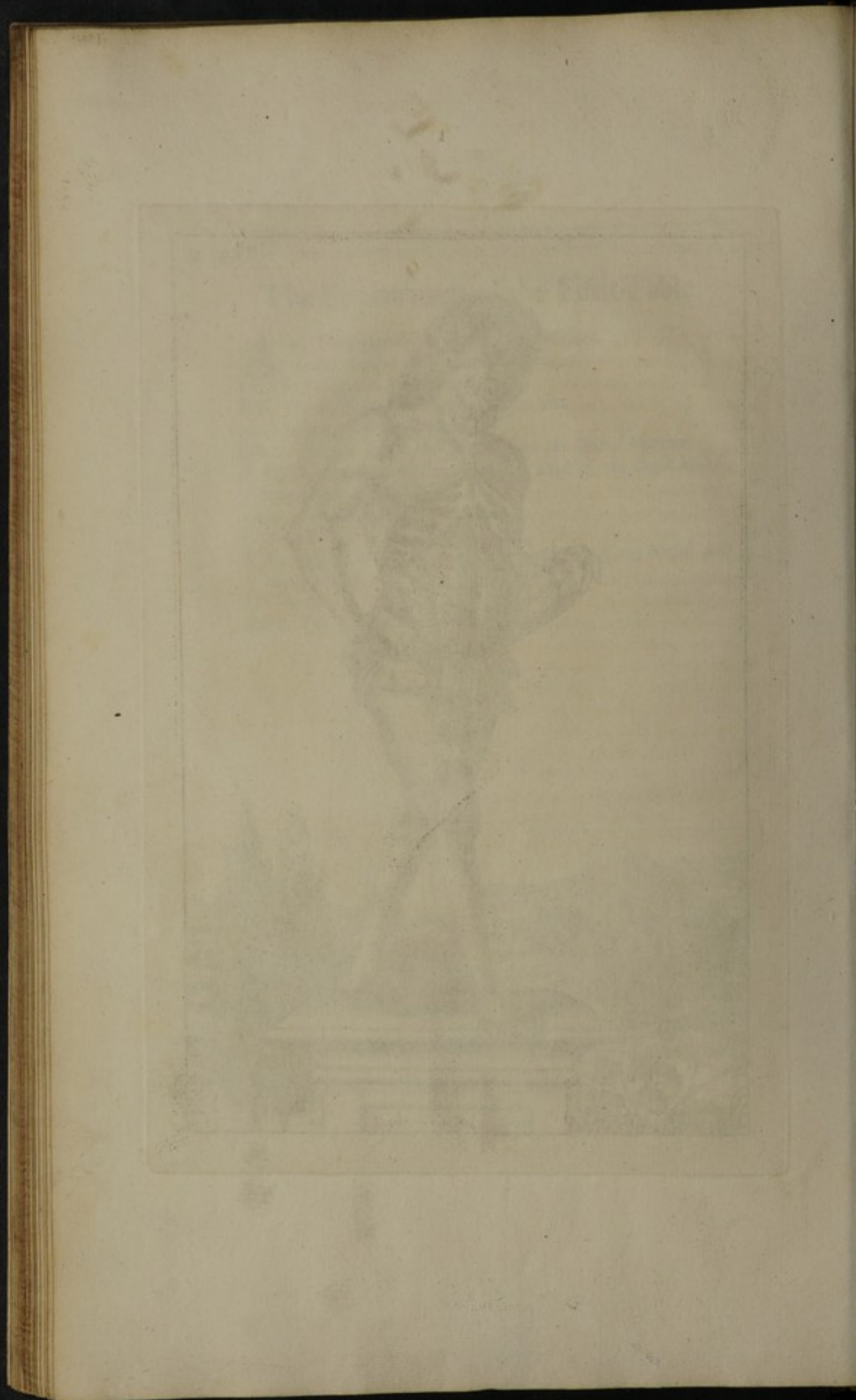
The Explanation of the Fifth Table.

- A** A. The Inward face of the Right Muscles.
B.B. Another of the same cut in pieces.
c.c. The Pyramidal Muscles laid bare.
F.F. The whole Muscle, Tranversalis in situ.
c.c. Shews its first beginning.
G.G.G. Nerves sent to this Muscle from the Spinal Marrow.
A.A.A.A. Branches of Veins and Arteries of the Eight Muscle, transmitted into this Muscle.
i.i.i. The same Muscle laid bare.
h. Shews its Tendon laid bare also.
K.K.K. Part of the Peritonæum to which part of this Muscle doth closely adhere.
L. The Navel.
O.O.O. The Intercostal Muscles.

Frontalis.

TAB. V





Frontalis.

HAVING cleared all the Abdominal Muscles, which in necessity did require the first use of the Knife: we next come to those parts which in order of Dignity do deserve our Inspection; And here begin we with *Frontalis*, which Muscle doth act variety of postures in Human Bodies, and hereby are excellently delineated the Pictures of Sadness, Joy, Sorrow, and Mirth, these being the Passions of the Mind, and are by this Muscle extreamly well Decyphered. This Muscle ariseth from the most elated part of the Forehead, where the Hair ends near the Temporal Muscle, and where the Carnous Membrane adheres most firmly to the Cranium, and running right down, is inserted into the Skin which covers the Eyes, and into the Eyebrows; In raising this from the Cranium, you will find Nerves sent from the Cranium to him.

This being raised up, it opens the Eye with it: its framed of Right Fibres, and therefore lies as a good Caution for every young Chyrurgeon that he makes no transverse Incision here, lest by neglect thereof, he purchase the utter downfall of the upper Eyelid. To this Muscle by late Anatomists are added the two *Occipitales* which do arise from the middle of the Occiput, and passing by the Muscles of the Ears, tends to the aforefaid *Musculus Frontalis*: though these do not appear so well in all Subjects, yet they do counterpoise in some measure. The proper use of these is to draw the Skin backward, and to keep the Forehead streight and smooth, that so it may not be too subject to Wrinkles, by the frequent action of the former.

This Muscle you have very well described at *Tab. 6. Fig. 1.* at *A. A.* at *Tab. 7. Fig. 3.*

1. At *A.* Shewing the same *in situ*.

a a. Shewing its beginning.

V. V. Its Termination.

A. At *Fig. 2.* The same Table shews the same Muscle.

Aperiens.

Aperiens Palpebram Rectus.

*This lifts up
the upper
Eyelid.*

THere are two Eyelids belonging to either Eye, the upper of which is moved upwards and downwards, both for the opening and shutting of the same; the first designed for Sight, and the second appointed for maintaining its Vigour, This Muscle ariseth from the upper Orbit of the Eye, near its Elevator, where the Optick Nerve hath its transimission: arising with a thin and fleshy beginning, and is expanded with a broad and thin Tendon into the Margent of the Palpebra, and taking the same up, doth open the Eye; this is not to be shewn but with the other Muscles of the Eye after it is taken from the Cranium. This Muscle and the next following, have their distinct Originations and Insertions, although their Muscular Fibres do seem to unite, which hath made some Physicians conclude them to be both but one Muscle; the which on the contrary by accurate Demonstration, is shewn that they have two distinct Nerves taken into two distinct places; for the upper takes a small Nerve from that Motion which arises out through the Cavity of the upper Orbit, the lower assuming its small Nerves from that which it produceth through the Cavity of the lower part of the Orbit, the which Physicians have observed in a Cymical Spasm of the Face: wherein the lower Eyelid is seen to appear as it were immoveable, convell'd and drawn downwards, whilst the upper doth move Naturally; The which could not succeed if they both should be moved by one Muscle.

This Muscle you have very well explained at *Tab. 7. Fig. 1.* at *B. C.* and at *Tab. 6. Fig. 2.* at *I. I.*

Claudens.

Claudens seu Semicircularis superior
Deprimens.

THis ariseth with a sharp beginning from the inward ^{This shuts}
Angle of the Eye, and from part of the Eyebrow ^{the Eye.}
near the Nose, and so falls somewhat transverse to-
wards the Exteriour part of the Eye, becoming fleshy, and so
broad, as that he possesseth the whole space between the Eye-
brow and the Cartilage out of which the Hairs of the Eyebrow
do grow, and is inserted into the Angle of the Eye.

Julius Casserius, Sect. 1. de Organ. cap. 8. doth describe ^{Use}
these Indications drawn from the Palpebra, as that such as have
their upper Eyelids elated, to be Proud and Fierce; those who
have them deprest, to have their Eyes as it were half shut, these
generally accounted to be of a mild and humble Nature and
Disposition.

This Muscle you have described at *Tab. 6. Fig. 2.* at *I. I.* at
B. B. Fig. 1. at the same Table, and at *Tab. 7. Fig. 1.* at *B.* and
B. Fig. 2.

D

Inferior

Inferior seu Attollens Semicircularis.

The nether is
lifted up by
this. **T**His ariseth being Membranous and thin from the top of the Nose near the Angle of the lower Eyelid, with a sharp point, and carried transverse about the middle of the Lid, becoming fleshy, and is inserted into the same Angle as the other. Amongst Authors there is held a Dispute, whether that these two Muscles be not properly one, and that *Orbicularis* being so generally received; though the one doth depress, and the other attol or lift up, at the same time to make a perfect close over the Eye.

These Muscles are as Drawbridges for the Eye to open and shut; and as the first doth produce its perfect Sight by being drawn up, so doth the other procure its ready Rest and Quiet by as perfect a closure.

Use. To these *Riolanus* doth add *Musculus Ciliaris*, which he would have serve to the more firm closure of the Eyelids; but this depends rather on his Fancy or his Knife, than any Foundation in Nature: nor is there need of such a Muscle, since that Office is sufficiently performed by the two forementioned; if they be not one Orbicular Muscle, as some suppose, and consequently by their Circular Fibres constringe as firmly as a Sphincter does.

Both these you have described at *Fig. 1. Tab. 7.* at *C.* and at *B. Fig. 2.* in the same Table.

Rectus Oculi Primus Elevator.

THe Curtains of the Eye being drawn, we next arrive This lifts the
Eye upwards at the Body of the Eye its self with its Muscles, by which it performeth all its variety of Motions; the truth is, so much hath already been said of these Muscles, as well as of the Coats and Humours which belongeth to the Eye, that its lost time to trouble you with Repetition thereof; this only I shall offer, that this fine Globulous Body ought to have so many Muscles as it enjoys, to make it hang so perpendicularly in the Orbit of its Bone, and be so well ballanc'd, as that it may perform every of its Motions with dexterity, and thereby with ease and advantage execute those Offices for which it was at first designed.

This Muscle ariseth from the upper part of the Orbit of the Eye, near where the Optick Nerve comes forth, and is inserted into that Coat of the Eye called *Cornea*, where it is clear, and near the Iris by a thin and Membranous Tendon.

This Muscle amongst Anatomists is generally accounted the first of the Eye, and is either called *Attollens* or *Superbus*, being held the Master of Pride and Disdain; the expressing of which Action occasions the Eye to open. Dr. *Willis Fol. 149. de Anima Brutorum*, doth attribute this Motion to the Eyelid rather, and by him is called *Musculus Humilis*, because in a devout and intense Prayer it is much lifted up, and hence is it that we commonly see the Hypocritical Tribe, who do affect a form of Sanctity to lift their Eyes so much up, that scarce any part but the White thereof is seen, the Pupil in these Creatures being so obscured that scarce any part thereof is to be seen.

This you have very well delineated at *Tab. 6. Fig. 3.* at *G. G.* and at *Fig. 5.* in the same Table at *A.*

 Rectus Secundus five Depressor.

*This brings
the Eye
downwards.*

THis is by some Anatomists called the second Muscle of the Eye, and is so far from advancing it, that it brings it down; and hence hath it the name of *Humilis* given it, by some also it is called *Deprimens*, shewing by its Action and Motion the Index of an humble and submissive Temper and Constitution; it is opposite to the former, and is lesser, arising from the lower opposite part of the same Cavity, and hath its insertions as the former, it brings the Eye towards the Chin; This Muscle you have exactly described in *Tab. 6. Fig. 3.* at *H.* and at *D.* *Fig. the 5th.* of the same Table.

Use.

Obs.
W.

This Muscle is less than the former, which is its Antagonist Muscle, though their powers hereby are not rendred unequal; because there is less force required to depress than to elevate, and therefore we see it happen in like manner in other parts of the Body. And indeed our great Architect has hereby admirably provided for a due balance of the opposite Muscles; for where there is an excess of power or action on either side, we usually see a Spasm succeed: as happens in the following Muscle, (or *Adducens*) which in Children is so often contracted by a vicious turning their Eye inward upon drinking, or otherwise, that it occasions that deformed Squinting or cast of the Eye, the which on the account of the Pliableness of the opposite Muscle they are so prone to in their tender years, over what they are in a more confirmed Age.

Rectus

Rectus Tertius five Adducens.

THis third Muscle of the Eye doth arise from the Orbita of the Eye near the Origination of the Elevator, subsisting in the inward Angle, drawing the Eye inwards towards the Nose; This Muscle by some Authors is called *Bibitorius*, and amongst good Fellows great respect is given to this Muscle bringing their Eye towards their good Liquor; bringing the Eye towards its inward Angle, and making it hereby look somewhat a Squint. Dr. *Willis* in his Book *De Anima Brutor. cap. 15. de Visu*, makes mention of a Young man troubled with the Palsie, who when his other Muscles of his left Eye were relaxed, this *Adducens* was strongly contracted, and hence his Eye was so distorted, that its Object seemed as it were double, neither could he distinguish any thing very well with it.

This Muscle you have excellently described at *Tab. 6. Fig. 2.* at *G.* at *Fig. 3.* at *I. I.* in the same Table, and also at *Fig. 5.* of the same Table at *B.*

Rectus Quartus sive Abducens.

*This brings
the Eye out-
wards.*

THIS Muscle by Anatomists is sometimes called *Abducens*, and likewise *Indignator. us*, from its cross and scornful Effects it carries with it, bringing the Eye outwards. This Muscle ariseth from the External Angle of the Eye, and is inserted as the former: the Eye is drawn inwards by these four working together, and the motion is as it were suspended, which by Physicians is called a Tonick Motion. In Dissection of a Monkey, all these Muscles perfectly appeared exactly as in a Human Eye: and which is observable in these Creatures distinguishable from all other Brutes, these have no *Musculus Suspensorius*, or *Septimus Brutorum*.

*of
C.*

This Muscle you have also exactly described at *Tab. 6. Fig. 2.* at *H.* and at *K. K. Fig. 3.* and at *C. Fig. 5.* of the same Table.

Obliquus

F

Regus

Obliquus Major vel Superior cum Trochlea.

*This carries
the Eye to its
inward An-
gle.*

THis ariseth from the same place with the *Abducent*, and marcheth in a right Line to the External part of the Internal Angle, where it grows indifferently thick, and is then attenuated and grows round, and goes through a Pulley there designed for it, the which so soon as it hath past it, it, yet so bends its self that it makes the Right Angle of the Eye; and running upwards it begins to grow Oblique, and passing by the *Levator* is inserted between the *Abducent* and Oblique Muscles, as is before demonstrated. The *Trochlea* or Pulley is a perforated Cartilage, passing to the Bone of the upper Mandible, near the inward Angle of the Eye; These two Muscles are called *Amatorii*, or the Lovers Muscles, being as the true Messengers of Affection, by some they are called *Circumactores* or the Rowling Muscles, for they do much work in Human Body: in Sheep also they are of very great use, being given them as their chief Watchers, or those which do work their Eyes about. The young Chyrurgeon is here cautioned, that in his Curing of *Fistula Lachrymalis*, he takes great care of this Muscle. The use of this Muscle is to turn or rowl the Eye inwards towards the inward Angle of the Eye by a Circular Motion, and so to abduce the Pupil from the Nares or Nostrils; several Fibres do pass from the *Periostium*, or inward Film of the Orbita to the forementioned *Trochlea*, and according to some do constitute the *Musculus Trochleæ*, though the use of them seem designed for a steady fixing the *Trochlea*, rather than for a Muscular motion.

Continue.

Use.

*Obs.
cr.*

This Muscle you have also exactly described at *Tab. 6. Fig. 2.* at *D. E. E. D.* shewing the Muscle *E.* the *Trochlea*, and *F.* the chord of this Muscle; at *Fig. 3.* at *M. M.* you have it, and at *E. Fig. 5.* you have it again very exactly delineated.

Attollens

 Attollens Aurem.

AS the Eyes are placed in the forepart of the Head as This carries the Ear upwards and forwards. Watchmen to guard the Body, so also hath our wise Creator planted two Ears at the sides thereof for the better perception of Sounds, and a more ready passage to hearing, to the better performance of which there are hereto given variety of Muscles; amongst which, this is reckoned as the first, it arising from the External Termination of the Frontal Muscle, and so being thin and Membranous, is carried over the Temporal Muscle, and is inserted growing narrower into the upper part of the Ear, moving it upwards and forwards. Use.

This Muscle you have exactly delineated at *Tab. 6. Fig. 4.* at *H.* and at *S. Tab. 7. Fig. 1.* you have the same again.

Adquiescens

F Detrahens

Detrahens Aurem.

*This moves
the Ear
downwards.*

THis Muscle ariseth Flefhy, broad, and sometimes Fibrous, from the back part of the Head, near the Mammillary procefs, and fo growing narrower in its progreff is inserted into the whole Cartilage which encompaffeth the Ear; be careful in raifing the *Cutis* left you take up this Muscle with it, and fo loofe him; this moves the Ear downwards and forwards, this Muscle is by fome allowed as part of *Quadratus Buccas Detrahens*.

Use.

This you have shewn you at *Tab. 7. Fig. 1.* at T. T. T.

Adducens

Detrahens

Adducens Aurem ad Anteriora.

THis is a common Muscle, being part of that which *Spi-* *This draws*
gelius calls *Quadratus Buccas Detrahens*, and is also al- *the Ear*
 lowed as part of that Muscle called *Platysma Myodes*, *forwards.*
 from whose insertion you will find a Flethy and Fibrous Elongation implanted into the Root of the Ear.

This Muscle is said to draw the Ear forwards and somewhat upwards. Expect to meet this at *Quadratus Buccas Detrahens*, *use.*
 as being a part of it.

Abducens

Exercitus

 Abducens Aurem ad Posteriora.

*This brings
the Ear
backwards.*

THis Muscle is planted at the *Occiput*, and ariseth above the Mamillary processes from a Knot of Muscles which belong to the *Occiput*, with a narrow beginning, and being carried downwards transversely, is inserted with a double and sometimes treble Tendon into the hinder part of the Ear. This Muscle is said to draw the Ear backwards: In Beasts, as in Horses, Oxen, and the like Brutes these Muscles are much more large and apparent, and oft times more numerous, whence it is, that these can move their Ears more powerfully, and act those strong motions with them which we see is customary for them to do.

This you have described at *Tab. 6. Fig. 4. at I. I. I.*

Abducens

Externus

Externus Tympani Auris.

THe inward Ear hath two Muscles allowed it, found out by the two excellent Anatomists *Hieronimus Fabritius de aqua pendente*, & *Julius Casserius Placentinus*, and of these one is planted outwards, the other inwards; and from hence they do take their names; this ariseth from the upper and inward passage of the Auditory passage with a large Origination, and becoming Flethy is inserted externally by a short Tendon into the *Tympanum*, extending the Membrane with the *Mallens* upwards and outwards. *Spigelius* saith it is small and ariseth from the *Cutis*, and that Membrane which covers the Auditory passage.

This Muscle is one of the least in the whole Body, and is to be shown entire with some difficulty; great caution therefore is to be used in opening the *Os Petrosum*, about that part which respects the Temples, whether it be done by the small Chissil or Filing, that so the pieces of Bones being taken out by degrees, this Muscle may receive no prejudice; the like care is to be observed also in shewing the following Muscle.

This Muscle you have exactly shewn you at *Tab. 6. Fig. 6.* at *A.*

G

Internus

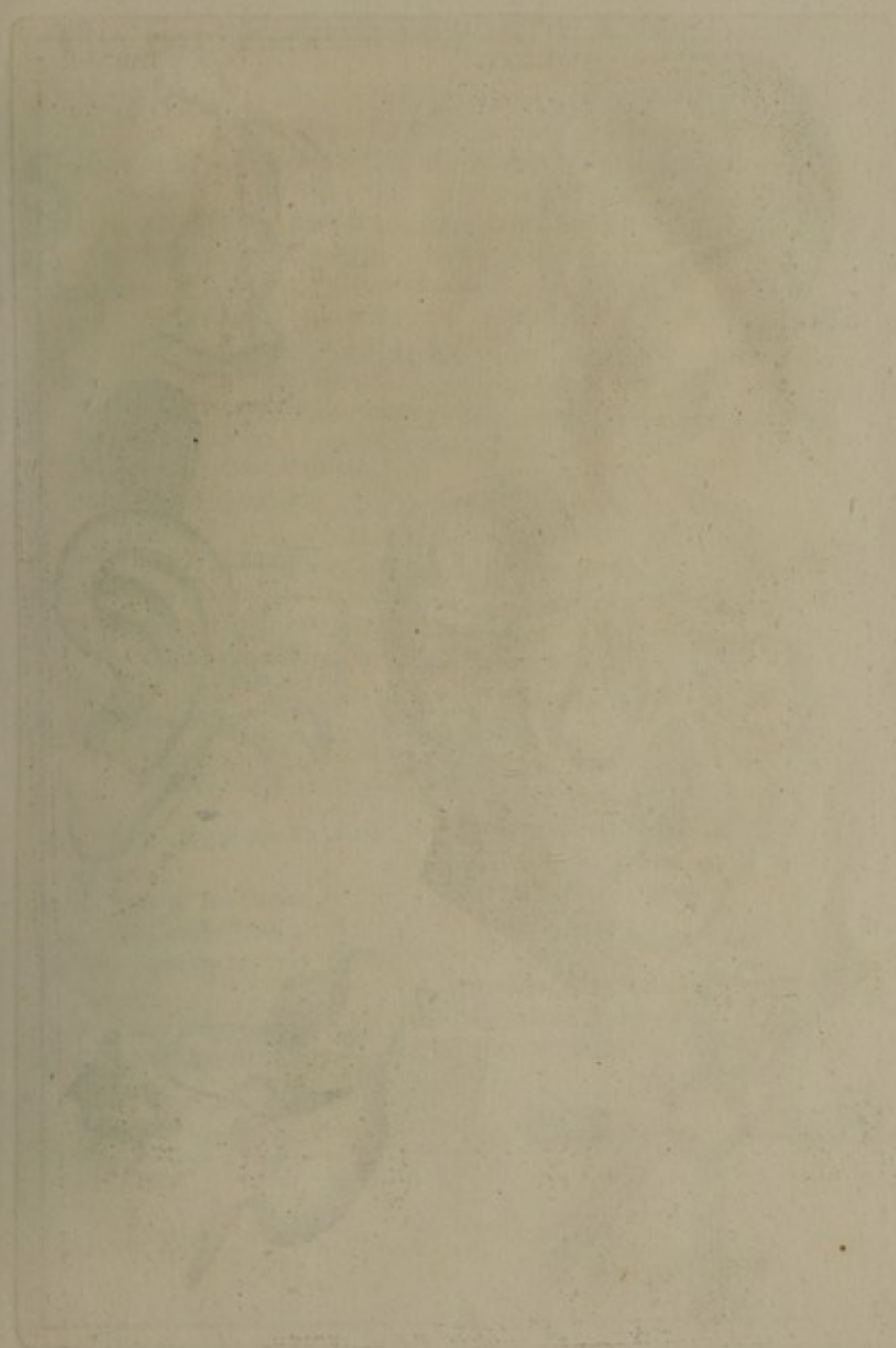
Internus Tympani Auris.

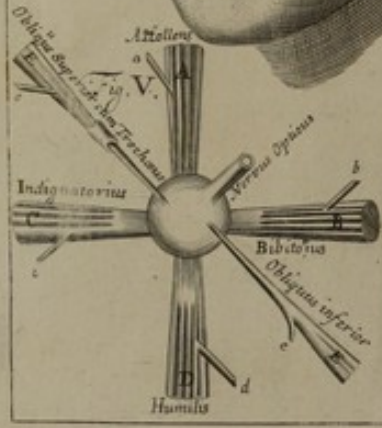
THis Muscle is inwardly planted, seated in the *Os Petrosum*, having its Origination from the Basis of the *Os Cuneiforme*, and so becoming Flethy, though thin and small, and having made half his progress, divides himself into two very small and very thin Tendons, the one of which is implanted into the upper process of the *Malleus*, the other into the Neck thereof, drawing it obliquely forwards, and bringing it somewhat inwards.

These two Muscles do then first move the Membrane with its small Bones upwards and downwards, when we would carefully listen or hearken to any important Matter, &c. Matter or Concern, as *Diemerbroeck* observes. *Dr. Willis Fol. 133. de Anima Brutorum*, writes, that the action of this Muscle is involuntary, and is wrought about by some Instinct of Nature; for when a very vehement sound doth approach the Ears, this Muscle doth remit its great noise, so as that it does sensibly obtund the relaxed *Tympanum* more powerfully; but if it be either more thin, or more obtuse, this contracted Muscle doth distend the *Tympanum*, so that this obtuse Impression may be made more sensible.

This Muscle also you have exactly described at *Tab. 6.*

The





The Explanation of the Sixth Table.

FIG. I.

S Hews at *A. A.* The Frontal Muscle.
B. B. The Muscles of the Eyelids.
b. c. The Membrana Carnosa laid bare.

FIG. II.

A. The Optick Nerve.
B. The Motory Nerve.
C. The Exortion of the Muscles.
D. Musculus Trochlearis.
E. The Trochlea.
F. The Chord of this Muscle.
G. Musculus Adducens.
H. Musculus Abducens.
I. I. The Muscle of the upper Eyelid.
K. K. Shews them cut off.

FIG. III.

A. A. A. A. Shews the Cranium reflected.
B. B. Part of the Brain.
C. C. The Cerebellum.
D. The uniting of the Optick Nerves.
E. E. Their progress to the Eyes.
G. G. Musculus Attollens.

H. Deprimens of the Right Eye.
I. I. Adducens.
K. K. Abducens.
L. Obliquus Externus.
M. M. Obliquus Internus.

FIG. IV.

H. Musculus Auriculam recta sursum Movens.
I. I. I. Musculus Triceps eandem sursum trahens.

FIG. V.

A. Attollens.
a. Shewing its Nerve.
B. Bibitorius.
b. Shews its Nerve.
C. Indignatorius.
D. Humilis.
E. Musculus Trochlearis, or Obliquus Superior.
F. Obliquus Inferior.
o. The Optick Nerve.

FIG. VI.

A. Externus Tympani Auris.
B. Membrana Tympani.
C. C. Internus Tympani Auris.

Attollens

Abducens

Abducens Nasi Alas.

*This dilates
the Nose.*

THe Nose is the Organ of Smelling, and this gains place in the more eminent part of the Body, for the better susception of the ascent of Vapours and invisible Halations, and their Qualities are sent up hither by the Olfactory Nerves to the common Sensory, and are there approved of according to Judgment; and thus is Man brought into a capacity of either taking or refusing such things as may prove either beneficial or prejudicial, purchased without the Eye, and perceived without the Ear; The Nose is not wholly moved, but rather its lower parts which we call *Alæ*, and these are either kept open or shut by the benefit of Muscles: and these are called either *Abducentes* or *Adducentes*, or if you please *Aperientes* or *Claudentes*.

Use. This Muscle ariseth very small and Fleshy from *Os Maxillæ Superioris*, near the first *Par Labiorum proprium*, and is inserted into the lower and upper part of the *Alæ*, and moveth either part upwards.

This you have exactly delineated at *Tab. 7. Fig. 1.* at *D. in situ*, *e.* shews its Origination, *d.* its Insertion *Fig. 2. id. Tab.* you have the same at *B.*

Attollens

Attollens Nasi Alas.

THis Muscle ariseth from the top of the Bone of the Nose, near the *Lachrymal* Cavity, with a sharp and Fleshy beginning, descending to its sides in a triangular form much resembling the *Greek* Letter Δ . and so descending according to the length of that Bone, is inserted broad and Fleshy into the *Alas Nasi*, and do carry the same upwards; *Casseri* hath found them much resembling Myrtle Leaves, these two pair drawing the *Nasi Alas*, do dilate and open the Nostrils. *This brings
supra.*

This you have fairly described at *Tab. 7. Fig. 1.* at *E. e.* shewing its sharp and Fleshy beginning, *f* shewing its Termination into the *Alas*, *B.* shews the same in the same Table *Fig. 2.* *vfe.*

H

Claudens

Claudens Nafum Externus.

*This Muscle
fills the No-
strils.*

THese Muscles are very small, and without it happen in very Nasute Persons they are never seen or to be distinguished; the first pair of which is outwards and Flethy, and so do arise at the Root of the *Alæ*, and so climbing transversely is inserted into the tip of the Nose; and as *Veslingius* judgeth, doth dilate the same, whilst others do affirm that this doth constringe it.

These Muscles are not to be shewn by any Figure, being both so small, and so inwardly implanted.

Claudens

Claudens

H

small Claudens Nasum Internus.

THis is much like the former as to its bigness, lodging inwardly under the Membrane which covereth the Nose from the Bone, it ariseth from the end of the Bone of the Nose, and is expanded into the *Alam Nasi*, and doth constringe it; this is very small, and very rarely found out, unless in such Nasute Persons whose general Series of Muscles are very apparent, thicker, and larger than ordinary.

There is also another Constrictive Muscle, which hath gotten the name of *Orbicularis* common to the upper Lip, the which drawing the Lip downwards, doth also therewith shut up and close the Nostrils; And this *Bartholinus* describes in *Fol. 358. Anatom.* where he affirms, That he hath observed an Appendix hereof to descend to the upper Lip, and that in such People who could not lift up their Nose without their Lips.

This Muscle with its former is not to be shewn by Figures, they being so very small.

Zygomaticus

Appendix

Zygomaticus Riolani, vel Attollens
Labium Superius.

*This lifts up
the Lip.*

TO Man are given Lips, both for his accommodation of Eating and Drinking; as also for forming his Voice, retention of Spittle, shutting the Mouth and defending the same from outward Injuries; and because all these Qualifications do require a voluntary Motion, they have given to them variety of Muscles to perform the same: amongst which this is nominated one of the third proper pair called by *Riolan. Zygomaticus.*

It ariseth Fleshy from the *Os Sygoma*, with a Fleshy and broad beginning, and running obliquely downwards and forwards is inserted into the side of the upper Lip near *Primus Nasi*, the which doth abduce it to its sides upwards. See this *Riolanus Anatomy.*

This also you have shewn you at the Letter G. at *Tab. 7. Fig. 1.* and at *Fig. 2. id. Tab.* at C. you have the same.

Zygomaticus

Abducens

Abducens Labia.

THis ariseth from the *Os Zygoma* Flefhy and round with much Fat, and is implanted into the Lips where they are joyned together: this moves the Lips upwards and outwards, and doth alfo help the former in their motion; this by fome Anatomifts is accounted the firft proper pair: thefe Mufcles do alfo draw the Lips to the fide, whether either one or both do operate either fingly or together.

This Mufcle you have fhewn *in fitu*, at *Tab. 7. Fig. 1.* at *H. i.* and *k.* fhewing both its Origination and Infertion; the fame you have at the Letter *D.* in the fecond Figure of the fame Table.

I

Labium

 Labium inferius Deprimens.

*This brings
the lower
Lip down-
wards and
outwards.*

THis ariseth Fleſhy from the lowermoſt and outermoſt part of the lower Mandible, whence running obliquely, it is broadly inſerted into the middle of the Lip, and moves it downwards and outwards; this is called the fourth pair of the proper Muſcles.

This Muſcle hath a part with the firſt pair called *Detrahens Quadratus*, by which it is obliquely moved to either ſide, (*vid.*) right or left, as either of them are in Operation, drawing the whole lower Lip downwards.

Uſe. This Muſcle you have ſhewn at the Letter *I. Tab. 7. Fig. 1.* and at *E.* in the ſecond Figure of the ſame Table.

 Par

muscle I

Par Labium constringens sive Musculus
Orbicularis & Constrictor.

THis is common to either Lip, being framed of a fungous Substance, with Orbicular or Constrictory Fibres, arising from the middle of the Bones of the upper and lower Mandible, and doth form and make the whole Body of the Lips, encompassing the Mouth like a Sphincter, and drawing the Lips mutually to it, the which do firmly adhere to the red *Cutis*, which gives them their admirable Vermilion Dye: as also shews the Paleness of them in Sickness; All these Muscles of the Lips are so closely conjoynd to the *Cutis*, that their Fibres do intersect one amongst another; and hence is it that such a variety of motions are seen in the Lips; and thus have we shewn all the Muscles of the Lips. *Fallopins* hath another pair of these Muscles belonging to the Lips, whose *Cutis* is so closely mixed with the Muscles, that it rather seems to be a Musculous *Cutis* or a Curicular Muscle.

This Muscle is also called *Osculatorius* from the use which is made of it.

These Muscles of the Lips have variety of Uses given them for performing their diversity of Actions; as some being designed for shutting the Mouth, others for opening the same; some made for accommodation of Eating and Drinking, and others formed for Ornament of Speech and Love Motions.

This you have fairly shewn you at *Tab. 7. Fig. 1.* at *K. K.* and at *Tab. id. Fig. 2.* you have the same at *F. F.*

The Lips
are parled
up by this.

use.

Buccinator.

Quadratus

Quadratus five Platysma Myodes.

This draws
down the
Cheek.

THe first Muscle lying under the Skin of the Neck is called *Quadratus*, from its Figure, and is small and Membranous firmly adhering to the *Cutis*, arising from the Vertebres of the Neck, *Scapula*, *Clavicle*, and *Sternum*, large, broad and thin, with store of Membranous Fibres, and so running up with oblique Fibres, is inserted into the Chin, where both the upper and lower Lips are joyned; and enlargeth himself so far as to make *Adductor auris ad Anteriora*, and because it agrees much with the Chin, it helps forwards the opening of the Mouth; and by its enlarging its self so far as to make *Adductor auris ad Anteriora*, the Ears also may be allowed to be moved by the help of this Muscle; it hath various Surcules of small Nerves belonging to it from those of the Neck; This Muscle being once convell'd there follows a Cynick Spasm.

Caution.

Here's Caution also for the young Chyrurgeon, where he ought to take notice of the Fibres of this Muscle, especially when he may or shall be called to make Incision here; for want of knowing of which upon making transverse Incisions here, and crossing the Fibres and their Ductures, he presently occasions an Avulsion in the Cheeks, otherwise great care must be had to preserve this Muscle; for whether you do raise the *Cutis* from above or below, he adheres very closely to it; In the raising this Muscle, be careful of leaving its Elongation that makes *Adductor auris ad Anteriora*, which you will rarely miss.

This Muscle according to *Riolanus* you have expressed in our 10th. Tab. Fig. 1. at F.

Quadratus

Buccinator.

Buccinator.

THis second Muscle which formeth the Cheek is called *Buccinator* from the use that is made of it; it ariseth from the upper part of the upper Mandible, and from the lower part of the lower Mandible, where the Gums begin, and do amplest the whole Cheeks in their seats, being round like a Circle: the proper Coat of the Mouth adheres so firmly to him inwards, that he is scarce separable from it; outwardly he hath a large round Tendon implanted into the midst of him, which hath his Origination from a Glandulous Substance, growing to the *Os Zygoma*, close by the Origination of the Muscle so called.

This Muscle doth not only move the Cheeks with the Lips, but doth also constringe them, and drive the Meat fallen into the Mouth into the Cheeks back again to the Teeth, sending or conveying the Meat thither, until it be better lessened, and made smaller, and a more accurate Confractiō of the same be hereby made. *Placentinus* writes, That he hath found a very strong Ligament in the Center of this Muscle; the which arising outwards, and creeping along the *Os Gingivæ*, terminateth into a small and thin Muscle directly opposite to the Cheek; but *Riolanus* denies the same.

This Muscle if you please may also be allowed as a hand to the Teeth, sending the Meat till it be well Chewed to the Teeth, by which it may the better be lessened and comminuted.

This Muscle you have shewn you at *Tab. 7. Fig. 1. at F.* and at *P. Tab. ead. Fig. 2.*

Masseter five Lateralis, feu Manforius.

*This draws
the nether
Mandible
laterally.*

THis ariseth with a double beginning, strong, large, and Nervous; first from that Suture where the fourth and first Bone of the upper Mandible joyneth; secondly Flethy from the *Os Jugale*, and is firmly and largely inserted into the lower Mandible External; This Muscle by reason of its diversity of Fibres given it, doth move the nether Mandible forwards, backwards, and laterally, and as it were about also; If you throw this Muscle either from its Origination or Insertion, *Temporalis* will appear in its Insertion.

Use.

The proper Use of this Muscle is shewn in Mastication; it moves to both sides, as to Right and Left; it takes its name of *Manforius* from its proper Action: and from its *site*, it is called *Lateralis*.

Use.

This you have shewn you at *Tab. 7. Fig. 1.* at the Letter *O.* *I.* shews it also at *Fig. 2. Tab. ead.* where *b. b.* shews its Origination, and *c. c.* its Insertion.

Temporalis

Temporalis seu Crotaphites.

This is the first and strongest of all the Muscles, filling the whole Cavity of the Temple Bones; it ariseth from the *Os Frontis*, *Syncipitis*, & *Sphenoides*, fleshy and Semicircular, and growing narrower in his descension, runneth under *Os Jugale*, with a short but very strong and fleshy Tendon into the process of the lower Mandible called *Corone*; it hath allowed it three Nerves on either side: One from the third, a second from the fourth, and a third from the fifth pair; Wherefore this Muscle being either inflamed, contused or wounded, sharp pains do immediately succeed, and great danger of Convulsion and fear of Death, especially if the hurt do happen about the Nervous part thereof; As touching the *Periostium*, you will find that if you do raise this Muscle carefully, (contrary to the opinion of some) you will meet it under this Muscle, although many have asserted the contrary. The end of this Muscle is the beginning of the lower Mandible, the which it moves and draws upwards, and hereby shutteth the mouth; and by some hence it is called *Attollens*, and is the strongest Muscle of the Body in respect of its bulk. And as *Spigelius* writes, it is furnished with so much strength, that he remembers in his ripe years that he hath lifted up several pounds of Lead by the strength of his Teeth, and carried them therewith. I have seen very great weights brought from the ground by the Teeth and strength of this Muscle, and it has been reported above 200 *l*. weight has been lifted from the ground by them. This Muscle both shuts the Mouth, and constringes the Teeth.

In opening the Temporal Artery, caution is to be used by the young Chirurgeon lest he injureth this Muscle, by cutting too deep, whence fatal Convulsions (or at least a prejudice to Mastication) do succeed. The safest way therefore is, first to make a light incision of the Skin, and then the Artery lying bare may the readier be hit and divided without injuring this Muscle, which lies under it; or at least it will be well to use in this Operation the Lancet that is retuse on one side like the Penknife, and to take the Artery pretty high about that part of the Temples which joyns to the *Os Frontis*.

This you have at *Tab. 7. Fig. 1.* at *L m. m. m.* shewing its Semicircular beginning, *H.* shews the same, *Fig. 2. ejusd. Tabal.* —
Mastoideus.

*Thin draws
the Mandible
upwards.*

up.

up.

obj.

up.

Mastoideus.

*This con-
tracts the
Neck.*

THis is one of the eight pair seated in the forepart of the Neck, strong, long, and smooth : it ariseth with a double beginning ; a certain Cavity distinguishing them, one from the *Sternon Nervous*, and the other Flešhy from the more elated part of the *Clavicle*, and is obliquely inserted into the Mammillary process by a round and Flešhy Tendon.

obj. This is worthy Note, that in a live Man, especially in thin and aged People, in which it is very conspicuous, that if the whole pair do work, it bends the Head right, but if one of them do only work, this Muscle is only contracted, and this brings the Head forward laterally.

Use. This you have at *Tab. 7. Fig. 2. at K in situ, d. d* shewing its Origination from the *Sternon*, *e. e.* its Insertion into the Mammillary process of the Temple Bone.

Biventer

Biventer Digastricus seu Graphyoides.

THis is the second pair called *Biventer*, the like of which is not to be found in Human Body; in the middle of whose Venter it groweth thinner, having as it were two Venters, arising near the Mammiform process: it riseth with a broad and Nervous beginning from the process *Styloides*, and suddenly becoming round, Fleishy, and small, so soon as he recurvates under the *Styloides*, he becomes a Nervous round Tendon, and then becomes Fleishy again, and is inserted into the middle Interiour part of the nether Mandible, and by drawing the Mandible downwards doth open the Mouth; the too great descent of which is hindered by its annexed Ligament. And for the better performance of this work, the former Muscle doth help this very much in its Operation.

Provident Nature hath given this Muscle two Bellies, and from thence it got its name, having in its middle an interjacent Tendon, very aptly resembling a *Trochlea* or Pulley; formed for this use, that whereas these Muscles do not arise from the lower parts of the Neck, but rather bred from the upper parts thereof, they do reflect about the lower parts of the Mandible like a Pulley, drawing the Mandible downwards, and so opening the Mouth.

This you have shewn at *Tab 7. Fig. 1.* at *N. Extra Situm*, whose Tendon is described by *N.* and its Venters by *L. M.*

The

L Coracohyoides.

Coracohyoides.

*This brings
the Os Hy-
oides ob-
liquely
downwards.*

THis Muscle is very thin and long, so that by Anatomists it is held there is not its like to be found in Human Body, for thinness and length; it is endowed with a double Belly by a distinct Tendon: it ariseth with a Flethy beginning near the Neck of the *Os Scapulae* from its process *Coracoides*, and running under the *Levator Patientiae* of the *Scapula*, is obliquely carried under the *Mastoides*, and there becometh a small round Tendon, and then Flethy again: and so is implanted into the Horns of the *Os Hyoides*, and draws it obliquely downwards; If you leave this Muscle in its Origination at the Dissection of the *Levator*, you will find his Origination perfect.

use.

obs.

This Muscle hath a double Venter, as its former Companion, that the *Jugular* might not be too much compressed by it.

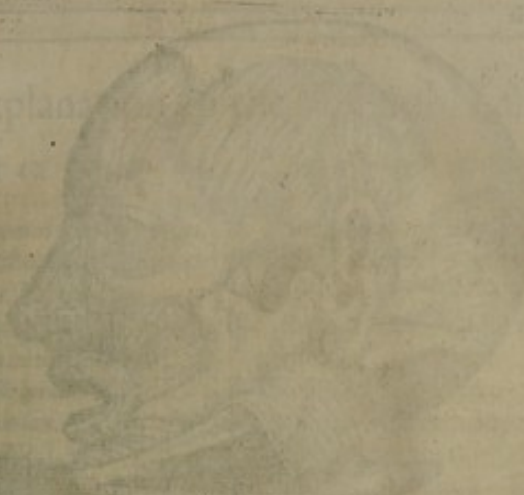
This you have described very exactly at *Tab. 7. Fig. 2.* at the Letters *L. L.* these two Letters demonstrating its two Venters described in their Natural Position; and at *Tab. 8. Fig. 3.* you have the same laid bare at *H. H.*

The

The Explains

FIG. 1

A. The
B. The
C. The
D. The
E. The
F. The
G. The
H. The
I. The
J. The
K. The
L. The
M. The
N. The
O. The
P. The
Q. The
R. The
S. The
T. The
U. The
V. The
W. The
X. The
Y. The
Z. The



P. The
Q. The
R. The
S. The
T. The
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Z. The

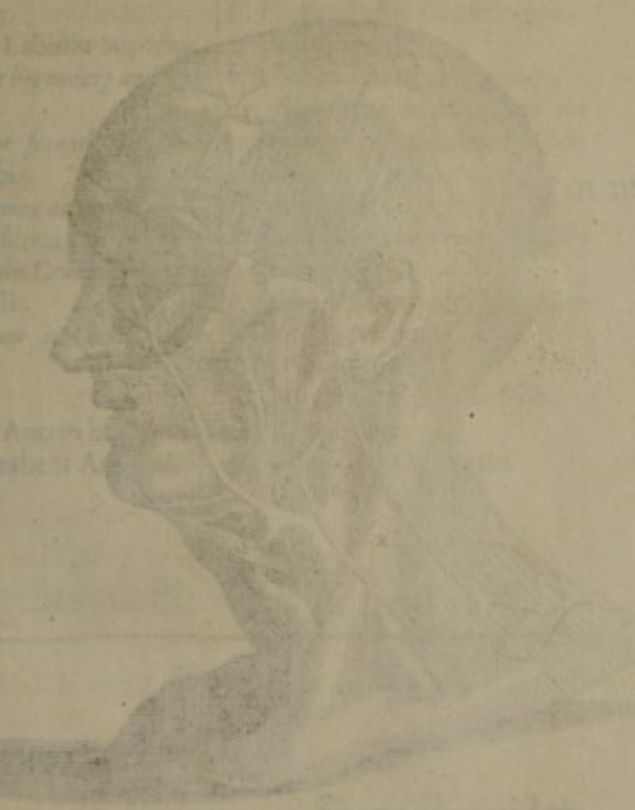
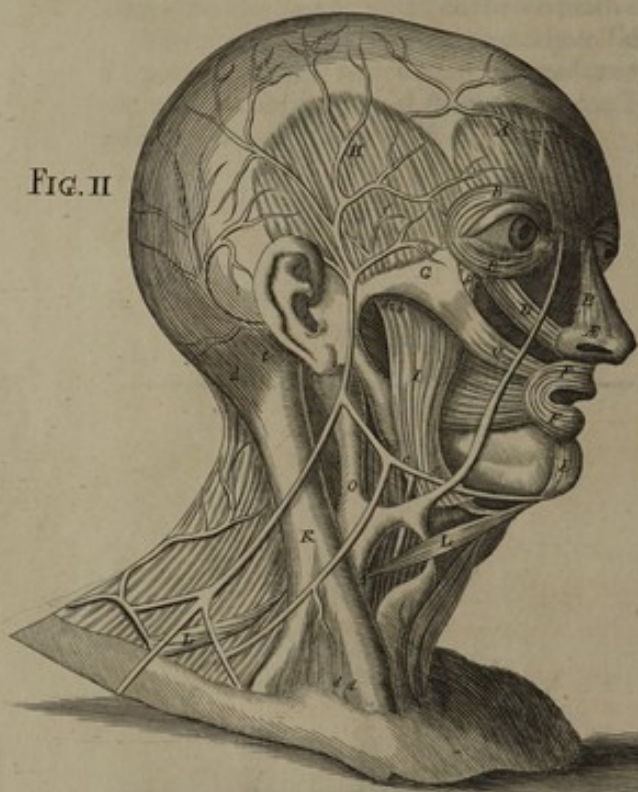


FIG. 2

FIG. I



FIG. II



The Explanation of the Seventh Table.

FIG. I.

- A** The Frontal Muscle in situ.
a. a. Shews its beginning.
b. b. Its end or Termination.
B. C. The Muscle of the Palpebræ.
D. Abducens alas in situ.
c. Shews its Origination.
d. Its Termination.
E. Attollens Nasi Alas.
e. f. Shews its beginning and ending.
F. Buccinator.
G. Attollens Labium Superius.
i. k. Shews its beginning and ending.
H. Shews the second pair, Abducens Labia.
i. k. Its beginning and ending.
I. Labium inferius Deprimens.
K. K. Labium Constringens.
L. Temporalis.
m. m. m. Shews its Semicircular beginning.
O. Lateralis.
S. Attollens Aurem in situ.
T. T. T. Detrahens Aurem.

FIG. II.

- A.* Musculus Frontalis in situ.
B. B. The Muscles of the Palpebræ.
Æ. Nasi Alas Constringens in situ.
B. Nasi Alas Abducens.
C. Attollens Labium Superius.
D. Abducens Labia.
E. Inferius Labium Deprimens.
F. F. Par Labia Constringens.
H. Temporalis.
b. b. Shews its two beginnings.
c. c. Shews its insertion into the largeness of the lower Mandible.
K. Mastoides.
d. d. Shews its beginning from the Sternon.
e. d. Its insertion into the Mamillary process.
L. L. Coracoides.
O. The outward Jugular Vein.
P. Buccinator.
G. Shews the Os Jugale.

Sternohyoides.

Hyothyroides.

Sternohyoides.

The Sternohyoides.

*This brings
the Os Hy-
oides down-
wards.*

THese are generally accounted the second pair, moving the *Os Hyoides* downwards and backwards; This Muscle ariseth broad and Flefhy from the inner part of the *Sternum* under the Skin of the Neck, and running on (the same in substance and breadth all along) the *Aspera Arteria*, and the *Thyreoidal* Cartilage of the *Larynx*, is inserted into the Basis of the *Os Hyoides*.

Use: This Muscle brings the *Os Hyoides* directly downwards and somewhat backwards.

You have this fairly delineated at *Tab. 8. Fig. 2.* at C. C. and at G. G. *Fig. 3. id. Tab.*

Sternothyreoides.

Sternothyreoides

Sternothyreoides.

THese Muscles of the *Larynx* (as they call the Head of This extends the Larynx. the *Aspera Arteria*) are so nominated, not because they do move the whole *Larynx*, but its Cartilages; This formerly was called *Bronchus*, but we more properly from its name and insertion do call it *Sternothyreoides*: it ariseth Flethy and broad from the upper and inner part of the *Sternon*, and keeping his dimensions, creeps up with streight Fibres along by the *Aspera Arteria*, and is inserted into the lower side of the Scutiformal Cartilage, the which when it presses the *Scutiformis*, it narrows its *Rima* or Cleft.

It is generally believed that this does close up the lower part of the *Scutiformis*, and that it draws downwards, whence the upper part thereof is seen to be extended, and the *Rimula* or Cleft dilated. v.

This also have you delineated at *Tab. 8. Fig. 2.* at *L. L. N. N.* shews the same at *Fig. 3. Tab. ejusd.*

Sternothyreoides

M Hyothyreoides.

Hyothyreoides

Hyothyreoides.

*This con-
tracts the
Larynx.*

THis ariseth from the whole side of the *Os Hyoides*, at his Basis, and running down broad with right Fibres is inserted into the lowest and lateral part of the *Scutiformal* Cartilage, and by attolling it, doth dilate its *Rima*. *Riolanus* thought this pair not to be peculiarly appointed to any Cartilage, but did lift up the whole *Larynx*; if you raise this Muscle clear from its Origination and Insertion, you will be less troubled to find out these Muscles of the *Larynx*.

os.

This draws the *Larynx* upwards, whence it is we in our selves, when we would frame a sharp Voice, that we then do bring the *Larynx* upwards, and when this is contracted, it contracts the upper part of the *Scutiformis*, driving it inwards.

This also you have delineated at *Tab. 8. Fig. 2. at m. m. M. M.* shewing the same at *Fig. 3. ejusd. Tab.*

Stryloceratothyoides.

Stryloceratohyoides.

THis third pair ariseth from the Root of the *Processus Styloides*, and being small and round, is implanted into the Horn of the *Os Hyoides*, found infallibly by *Digastricus* his running through or under him; obliquely, moving the *Os Hyoides* obliquely upwards. This brings the Os Hyoides obliquely upwards.

This draws it obliquely upwards.

Observe that its Insertion is in the lower part of the Horn (or rather towards the Basis) of the *Os Hyoides*.

E. E. Shews this, *Tab. 8. Fig. 3.* F. F. Shews the same, *ead. Tab. Fig. 2.*

Amongst these Muscles of the *Fauces*, the two pair lately found out by the Ingenious Doctor *Croune* may not improperly here be mentioned; one of which are named by him *Musculi Pterygo-palatini*, and the other *Spheno-palatini*. The former of these are seated in the Interior part of the Cavity of the *Os Pterygoides*, and terminate with their Tendons (which run on part of the foremention'd Bone as on a *Trochlea*) about the *Glandula palati*, which (together with the *Uvula*) they depress.

The latter of these, or *Spheno-palatini*, arise from the *Os Sphenoides*, and with a broader Tendon are inserted into the sides of the *Glandula palati*, which (together with the *Uvula*) they do attoll. From the situation and action of these latter Muscles may some account be given, how the *Uvula* being relaxt is commonly reduc't by thrusting the Thumb bent toward the Palate or these Muscles.

These Muscles you have exactly shewn you at *Tab. 10. Fig. 2.* at O. O. X. X. Shews its Tendon, Q. Shews the latter, where f. f. shews its Tendon also.

Milohyoides

Mylohyoides Riolani.

This moves
the Os Hy-
oides dire-
ctly upwards.

This ariseth laterally from the nether Mandible inwards, under the *Dentes Molares*, Flefhy, and is inserted into the Basis of the *Os Hyoides*, externally; this is to be thrown upwards in Dissection. Look into *Riolan*, which doth give you fatisfaction as to this Muscle.

Geniohyoides.

Geniohyoides.

THis first pair which from their primary use were called *Recta Attollens*, & *Geniohyoides*, drawing it directly upwards and somewhat forwards, it ariseth internally from that middle part of the lower Mandible called the Chin, and marching down short, broad, and Fleshy, is inserted in a proper Cavity, at the Basis of the *Os Hyoides* internally.

This Muscle moves the *Os Hyoides* directly upwards, and somewhat forwards. vñ.

D. D. Shews this Muscle, *Tab. 8. Fig. 3.* *E. E.* Shews the same, *Tab. ead. Fig. 2.*

N Myloglossus.

Myloglossus.

*This moves
the Tongue
upwards.*

THe Tongue, whereas it is not only the primary Instrument of the Voice, but also is useful for turning of the Meat contained in the Mouth, and doth obtain very many voluntary Motions ; for the executing of each of which, there are required several Muscles, amongst which this is said to be the fourth pair, it ariseth with a broad beginning from the innermost lateral part of the lower Mandible under the *Molares*, and is inserted into the Ligament which ties the Basis of the Tongue to the *Fauces* ; At the Origination of *Mylohyoides* you will certainly find this, and it is best shewn when the Mandible is divided : when one of these move, the Tongue is turned upwards : when both move, the tip is directly lifted upwards towards the Palate.

C. Shews this Muscle, *Tab. 8. Fig. 2.*

Ceratoglossus.

Myloglossus M

Ceratoglossus.

THis is one of the four pair arising from the Horns of the *Os Hyoides*, and hence it is called *Ceratoglossus*, and is implanted obliquely into the sides of the Tongue, near its Root; if both these work together, they draw the Tongue downwards and inwards: if only one operate, it moves it either to the right or left side. *This brings the Tongue downwards.*

I. Shews this, *Tab. 8. Fig. 3.* *D.* Shews the same, *Fig. 2. ejusd. Tab.*

Genioglossus.

Genioglossus

 Genioglossus.

*This moves it
forward.*

THis is one of the second pair so called by *Spigelius*: it ariseth with a narrow Origination, about the middle of the lower Mandible or Chin, and then enlarging himself, is inserted into the Root of the Tongue; *Vestlingius* doth number this amongst the number of *Os Hyoides*, and saith that they are implanted at the Basis of the Bone, which it draws streight upwards, whereby the Tongue is the more easily thrust forward out of the Mouth, though in the excessive heat of Fevers, the Fibres of this Muscle are so parcht that the Patient does it with difficulty.

up.

E. Shews this, Tab. 8. Fig. 3.

 Hypoglossus

Hypsiloglossus seu Basioglossus.

THis is one of the third pair, it ariseth Flefhy from the ^{This moves} Basis of *Os Hyoides*, and is inserted into the middle of ^{it back-} the Tongue, according to its longitude, and by draw- ^{wards.} ing it inwards, doth bring it backwards.

This being contracted, it brings the Tongue inwards, and backwards. Use.

G. Shews this, Fig. 3. Tab. 8.

O

Stryloglossus.

 Styloglossus.

*This brings
the Tongue
upwards and
inwards.*

THis ariseth Flefhy and fmall, with a fharpe beginning from the *Styloidal* procefs, and growing more broad and Flefhy, is inferted into the lateral part of the Tongue, and it brings it upwards and inwards : it is beft found, by difcovering of *Styloides* with your Finger, and then your Eye will direct you to it, at the lateral part of the Tongue ; in man it is fflender, but in Beafte it is double, Flefhy, and thick.

Ufe.

Its ufe is thus explained ; If either of thefe Mufcles moves, the Tongue is carried either to the right or left fide directly, but both moving, its brought back to the *Fauces*.

K. Shews this, *Tab. 8. Fig. 3.*

Lingualis.

Lingualis.

THis ariseth Flefhy and large from the Bafis of the *Os Hyoides*, and fo runs according to its longitude, forward to the tip of the Tongue, and is much disputable whether it be a Muscle or not; it's endowed both with oblique, tranfverfe, and right Fibres, all which are fo fully sprinkled about the Tongue, that is through its whole Body, that they are scarce divifible, and cannot by the beft and moft induftrious hand be feparated.

Spigelius doth give thefe Ufes to thefe pair of Muscles, if they may properly be called fo, that the tranfverfe Fibres which are implanted in them do ferve to contract the Body of the Tongue and fo to thicken it, the oblique dilating it, and feparating them from one another, and that the right were framed for bringing it to the Palate and *Fauces* in Constriction.

This Muscle is not to be explained, being disputable whether it be a Muscle or not amongst Anatomifts.

Cricothyreoideus

Cricothyreooides

Cricothyreoides Anticus.

*This moves
the Carti-
lage oblique-
ly down-
wards.*

THis is said to be the first proper pair of the *Larynx*, as is held by *Veslingius* and most Anatomists: it takes its Origination from the fore-part of the Annulary Cartilage, and ends in the sides of the Scutiformal, and hence it gets the name of *Cricothyreoides Anticus*, and is generally reputed to move the Cartilage somewhat obliquely downwards; it ariseth in the lower and fore-part of the *Larynx*, having a Flethy beginning; when this is contracted, it extends the Cartilage *Cricois* or *Annularis*, and so openeth its Cleft for a more deep and greater Voice or Sound.

Use.

F. Shews this at *Tab. 8. Fig. 2.* *D. D.* Shews the same laid bare, *Tab. ead. Fig. 2.* *C.* Shews the same, *Tab. ead. Fig. 3.*

Æsophageus

Cricothyreoides

The Explanation of the Eighth Table.

C. *Stenonychia* at Fig. 1. C. Shows the same laid flat.
 L. *L. stenonychia* at Fig. 2. L. Shows the same laid flat.
 M. *M. stenonychia* at Fig. 3. M. Shows the same laid flat.
 E. *E. stenonychia* at Fig. 4. E. Shows the same laid flat.
 D. *D. stenonychia* at Fig. 5. D. Shows the same laid flat.
 G. *G. stenonychia* at Fig. 6. G. Shows the same laid flat.
 I. *I. stenonychia* at Fig. 7. I. Shows the same laid flat.
 A. *A. stenonychia* at Fig. 8. A. Shows the same laid flat.
 F. *F. stenonychia* at Fig. 9. F. Shows the same laid flat.



The Explanation of the Eighth Table.

- C** C. Sternohyoides at Fig. 2. G. G. Shews the same laid bare at Fig. 3. ejusd. Tab.
L. L. Sternothyroides Fig. 2. at **N N.** Shews the same laid bare Fig. 3.
M. M. Hyothyroides Fig. 2. at **m. m.** Shews the same bare at Fig. 3. ejusd. Tab.
E. E. Styloceratothyoides at Fig. 2. **F. F.** Shewing the same laid bare at Fig. 3. ejusd. Tab.
D. D. Genethyoides at Fig. 2. **E. E.** Shews the same laid bare at Fig. 3. ejusd. Tab.
C. Miloglossus shews this at Fig. 2.
E. Geneoglossus at Fig. 2.
I. Ceratoglossus at Fig. 1. **D.** Shews this also at Fig. 2.
G. Hypsiloglossus at Fig. 2.
K. Styloglossus at Fig. 2.
F. Crycoarytenoides Anticus at Fig. 1. **D. D.** Shews the same laid bare
-

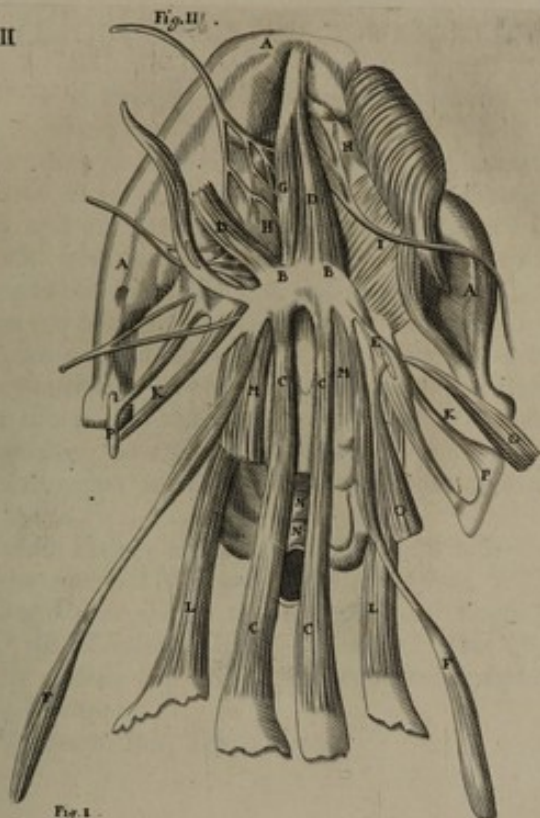
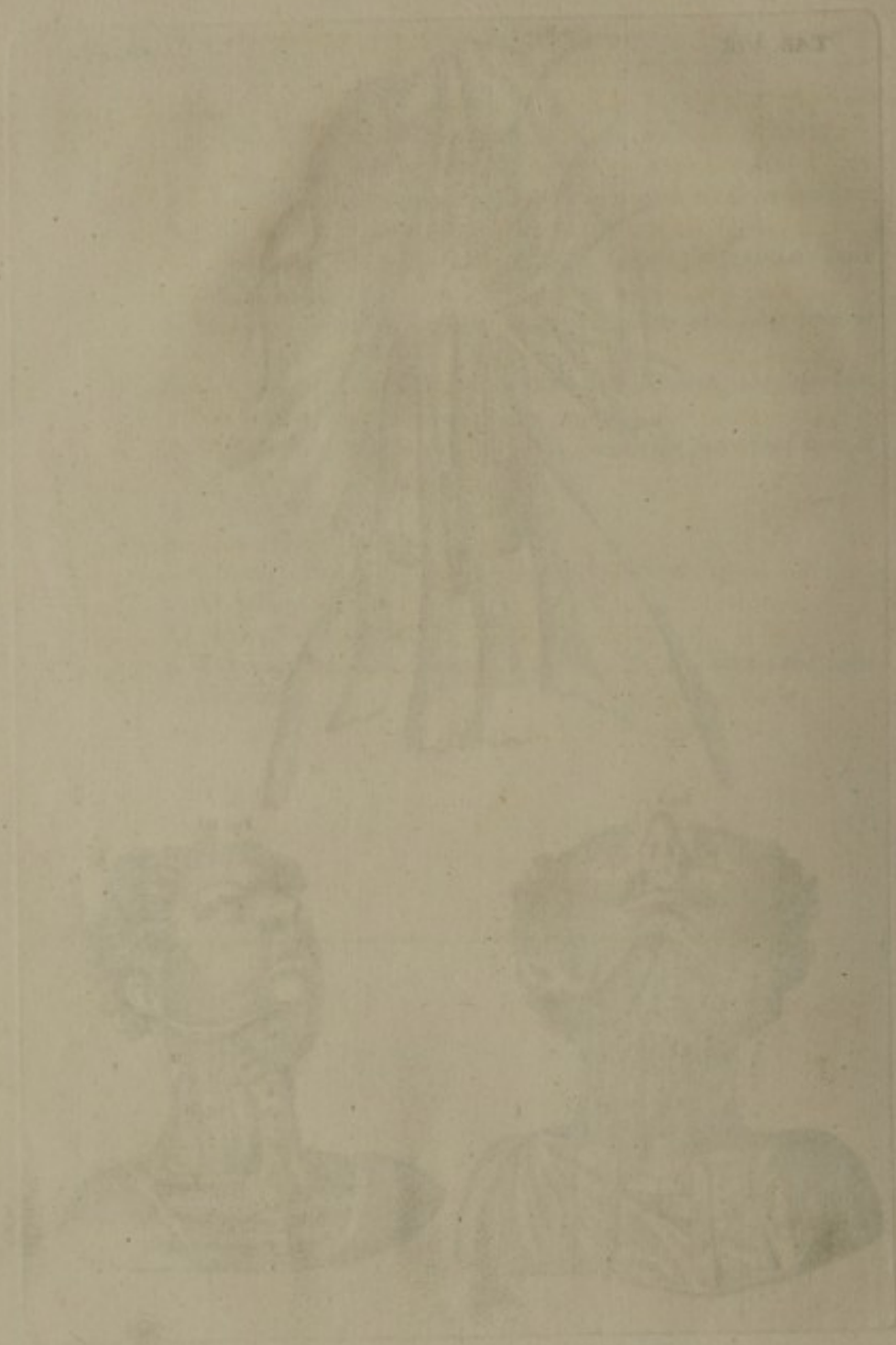


Fig. I.



Fig. III.





Æsophageus seu Sphincter gulæ.

THe *Æsophagus* is a round Channel, by and through which our Nourishment, as both Meat and Drink doth pass from the Mouth into the Stomach, and this Action of Deglutition is performed by the Fibres of the *Æsophagus*, and its Muscles; for whereas we Eat and Drink at our wills and when our pleasure is this Action is performed when thus made use of, by such Instruments as do serve for a voluntary Motion, as Muscles, which are to be numbred with their Animal Actions: and although it may serve for a Natural use, (as for Nutrition) yet it is no less Animal than Breathing, the which also is customary to Nutrition, yet is it Animal; Now this *Sphincter Gule* is very officious in this service, for when a due Mastication is made, this by its Constriction doth drive it downwards.

*The constriction
Fauces.*

In use.

It ariseth Fleshy, and is a broad Muscle wholly encompassing both the fore and back part of the *Æsophagus*, arising laterally according to the length of the Scutiform Cartilage, encompassing the *Æsophagus* like a *Sphincter*; This Muscle being carefully raised, you will much better find *Stylopharyngæus* & *Cephalopharyngæus*.

D. D. Shews this, Tab. 9. Fig. 5.

P

Stylopha

Stylopharyngæus.

*This dilates
and opens the
Æsophagus.*

Use.

THis third pair is so called, and do arise with a small beginning from the inner part of the *Styloidal* process, and descending with its thin body, is implanted by a Membranous Tendon into the *Thyroid*, the sides of the *Os Hyoides*, and the Root of the Tongue; this helpeth forwards the former in its Contraction.

Whereas there are appointed two as Dilators of the *Æsophagus*, so this is accounted as one of the Constrictors, though *Veslingius* thinks it rather Dilates.

C. C. Shews this, *Tab. 9. Fig. 5.*

Cephalophæ

Stylophæ

Cephalopharyngæus.

THis ariseth from the *Cranium*, and the first Vertebre of the Neck where they are joyned, and so descending, is implanted into the lateral sides of the *Os Hyoides*, *Cartilago Scutiformis*, and the beginning of the *Æsophagus*, for whom he seems to make a Coat, and by lifting this up doth constringe the *Fauces* in the Deglutition.

A. A. Shews this, *Tab. 9. Fig. 5.*

Cricoary.

Cricoarytænoides Posticus.

*This extends
the Larynx.*

BY *Spigelius* this is reckoned as one of the first pair of the *Larynx*, extending or opening its Cleft, and by *Casseri* it is called *Par Cucullare*, it ariseth Flethy from the hinder and lower part of the *Cricoides*, and running up with right Fibres, and repleating the Cavity of the *Cricoides*, is Nervously implanted into the inner seat of the *Arytænoides*, and by division of the two *Arytænoidal* Cartilages, the *Larynx* is opened. This doth extend the *Arytænois*, and by converting it backwards to the outward parts, it opens the Epiglott.

D. D. Shews this at *Tab. 9. Fig. 1.* *G. G.* Shews the same laid bare, *Tab. ejusd. Fig. 2.* *C. C.* Shews the same, *Fig. 4. ejusd. Tab.*

CRICOIDES

Cricoary

Cricoarytænoides Lateralis.

THis is generally allowed one of the third pair, extending the *Larynx* to the side, or opening its second *Rima* or Cleft, it ariseth from the lower part of the Annular Cartilage upwards, and is inserted into the lateral external part of the *Arytænoides*, opening the *Larynx* by the oblique induction of its Cartilages. This extends
it obliquely
lateral.

Here's also observable, That by how much the second pair of the Contractors doth draw to a mutual Contract, the second pair of the Extenders do bring them outwards, and so open them. This is generally allowed to extend the *Larynx* laterally, and so doth open the *Rimula*.

E E. Shews these laid bare, *Tab. 9. Fig. 2* C. Shews the same *in situ*, *Tab. ead. Fig. 3*. C. C. Shews them *in situ*, *Tab. ead. Fig. 5*.

Arytænoides.

Arytænoides.

This con-
tracts it ob-
liquely la-
teral.

Use.

THis is also called *Clandens Secundum*, its very small and Flethy, and ariseth with oblique Fibres from the *Arytænois*, where it is joyned to the *Cricois*, and is again inserted into it, where it connecteth its self with its Companion ; This moveth the *Arytænois* obliquely, and to either side, and so by constringing its Basis, doth shut the *Glottis*.

This is c lled *Arytænoides* or *Guttalis*, and whereas there are allowed two motions of the *Larynx*, by which it is either contracted or dilated, shut or opened, so doth both these Dilatations and Constrictions, or Clausion and Apertion proceed from their proper Muscles. Thus when the *Thyroides* is dilated, the *Arytænoides* is shut ; and thus according to *Galens* opinion, the *Larynx* is contracted when the sides of the *Thyroides* or *Scutiformis* are contracted and moved inward, dilated when they are extended and brought outwards, and shut when the *Arytænois* is constringed and brought into a cavity, opened when it is brought outwards and extended.

The action of these Muscles are most remarkable, when we forcibly stop our Breath for some time, for then it prevails against the contrary endeavour of the Muscles of the *Thorax*, which serve to Respiration, and shuts the *Arytænoides* so close, that no Air can enter in.

F. F. Shews the same laid bare, Fig. 2. *ejusd. Tab. B. B* Shews them at Fig. 4. *ejusd. Tab.*

Thyreosary

Thyrecoarytenoides.

THis is one of the fourth pair, arising Fleſhy, broad, and is tranſverſely implanted in the Cavity of the *Larynx*, and from the middle inner part of the *Thyroidis*, and being carried upwards according to its length, is inſerted into the lateral part of the *Arytenoidis*, which makes the *Glottis*, the which conſtringing doth ſhut the *Larynx*; This Muſcle is beſt found by dividing *Cartilago Thyroidis*, from the *Cricoidis*, *Arytenoidis*, and ſubjacent Muſcles, the Coats of them being carefully preſerved, after which will plainly appear this.

This pair if they be inflamed, in a Squinancy, when as they do exactly ſhut the *Rima* or Cleft, it brings Death along with it.

D. Shews this, *Fig. 3. Tab. 9.* B. B. Shews the ſame at *Fig. 6. ejusd. Tab.*

R. Sphenopharynx

Sphenopharyngæus Primus.

*This doth
dilate the
Fauces.*

THe Muscles of the *Fauces*, by some the *Pharynx* or beginning of the *Æsophagus*, are those which do serve for Deglutition, and therefore Nature hath planted at the top of the *Æsophagus* Muscles here as Instruments of voluntary motion for acting to our wills or pleasures; and as some of these do serve for Constriction, so also are others as useful for Dilatation, amongst which are these reckoned as the first pair.

This riseth thin and Nervous nigh the sharp Appendix of the *Os Cuneiforme*, descending by the inward Cavity of the *Pterygoides*, and is inserted by a small Tendon into that Skinny part of the *Pallate*, from which the *Gargareon* seems to proceed, and doth dilate these parts for Reception of their Nutriment.

Neither this nor its fellow are rais'd well or distinctly without much trouble and difficulty.

B. B. Shews this at *Tab. 9. Fig. 4.*

Sphenopha

R Sphenopha

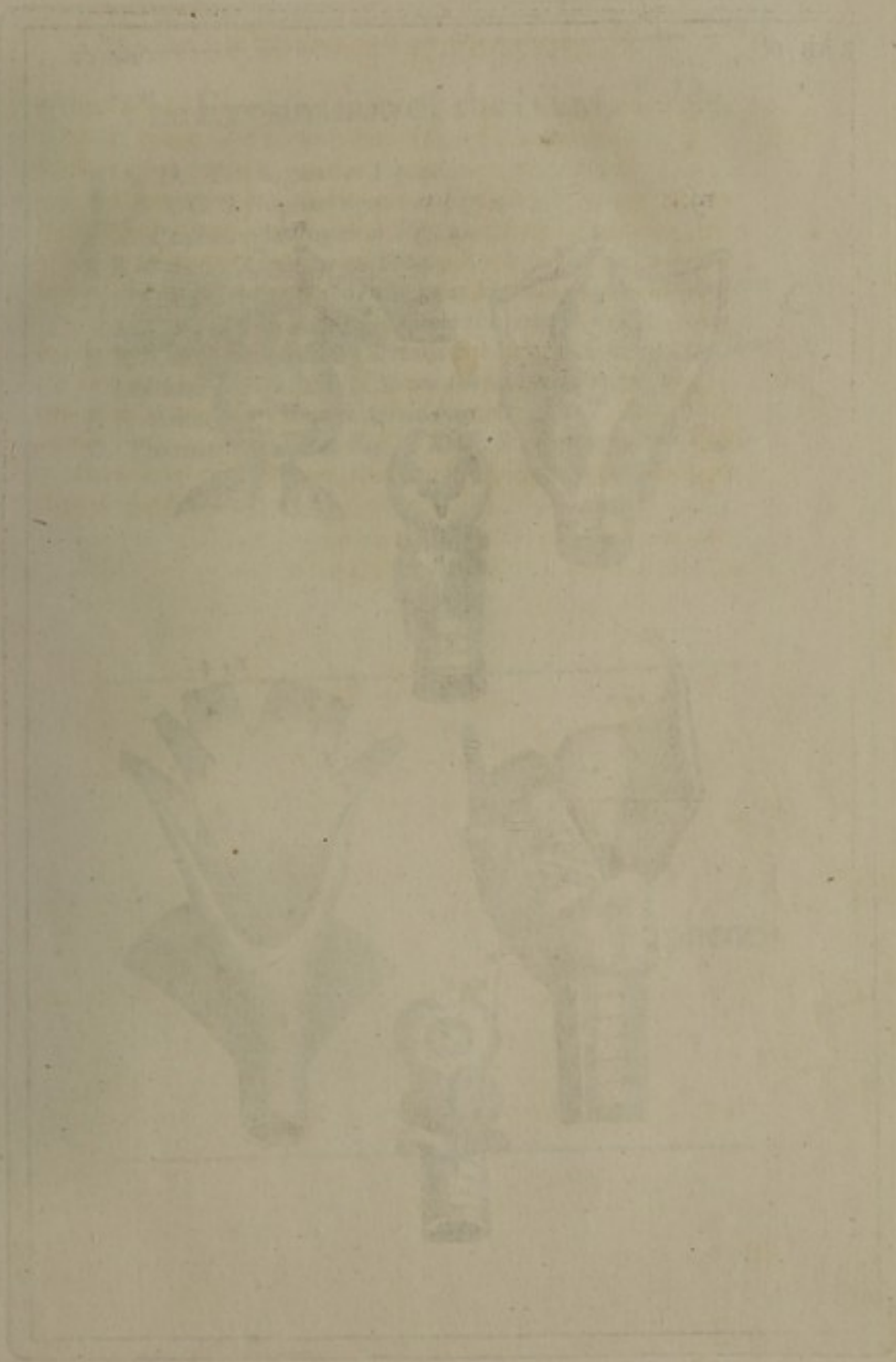


Fig. 1.



Fig. 2.

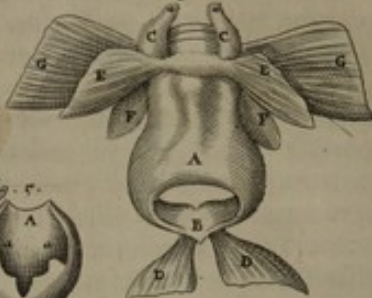


Fig. 3.



Fig. 4.

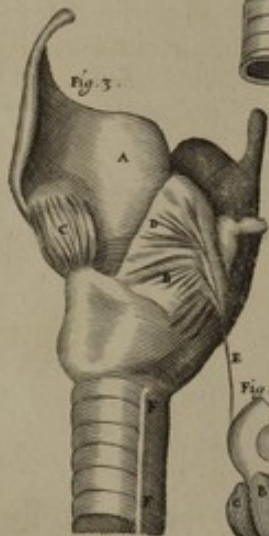


Fig. 5.

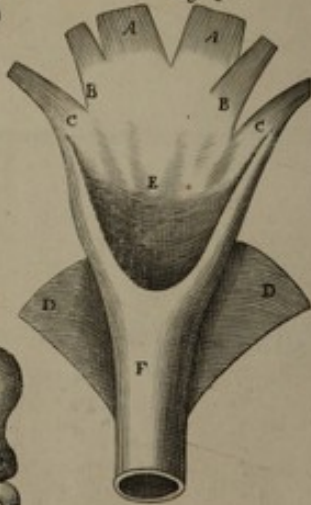


Fig. 6.



The Explanation of the Ninth Table.

- D** D. *Æsophagæus* at Fig. 4.
C. C. *Stylopharyngæus* at Fig. 4.
A. A. *Cephalopharyngæi* at Fig. 4.
B. B. *Sphenopharyngæi* at Fig. 4.
D. D. *Cricoarytenoideus Posticus* at Fig. 1. G. G. *Shews the same*
laid bare at Fig. 2. D. D. Shews the same at Fig. 5.
E. E. *Cricoarytenoideus Lateralis* at Fig. 2. C. C. *Shews the same*
laid bare at Fig. 3. C. C. Shews the same also at Fig. 6.
F. F. *Aritenoides* *shews this laid bare at Fig. 2.*
D. *Thyroaritenoides* at Fig. 3. B. B. *Shews the same at Fig. 6.*
-

Spheno

The Explanation of the Ninth Table.

D. D. Sphenocranium at Fig. 4.
 E. E. Sphenocranium at Fig. 4.
 A. A. Cephalocranium at Fig. 4.
 B. B. Sphenocranium at Fig. 4.
 C. C. Sphenocranium at Fig. 4.
 D. D. Sphenocranium at Fig. 4.
 E. E. Sphenocranium at Fig. 4.
 F. F. Sphenocranium at Fig. 4.
 G. G. Sphenocranium at Fig. 4.
 H. H. Sphenocranium at Fig. 4.
 I. I. Sphenocranium at Fig. 4.
 K. K. Sphenocranium at Fig. 4.
 L. L. Sphenocranium at Fig. 4.
 M. M. Sphenocranium at Fig. 4.
 N. N. Sphenocranium at Fig. 4.
 O. O. Sphenocranium at Fig. 4.
 P. P. Sphenocranium at Fig. 4.
 Q. Q. Sphenocranium at Fig. 4.
 R. R. Sphenocranium at Fig. 4.
 S. S. Sphenocranium at Fig. 4.
 T. T. Sphenocranium at Fig. 4.
 U. U. Sphenocranium at Fig. 4.
 V. V. Sphenocranium at Fig. 4.
 W. W. Sphenocranium at Fig. 4.
 X. X. Sphenocranium at Fig. 4.
 Y. Y. Sphenocranium at Fig. 4.
 Z. Z. Sphenocranium at Fig. 4.

Sphenocranium

Sphenopharyngæus Secundus:

THis second is by some allowed to arise from the same Origination as the former, and is inserted into the lateral and back part of the *Fauces* and *Æsophagus*, the which drawing downwards, they do dilate the Cavity of the *Fauces* and *Gula*; To find these after you have raised the *Larynx* and *Æsophagus*, leave the *Fauces* entire, then divide the *Fauces* themselves from *Os Palati*, till you come into the Cavity, then carry your Knife close internally to the *Os Cuneiforme*, and being thus divided, you will with ease find both their Originations, and with as much pleasure you may dissect them.

This also is shewn at *Tab. 10. Fig. 1. at B. B.*

Next to these should I have put in the *Stomach* and *Intestines*, but *Dr. Willis* hath given so full an Account of them, and shewn their *Fibres* so exactly, that whoever desires to take a view of them may be very well satisfied thereof in his Book named *Pharmaceutice Rationalis*.

Pterygoides

Pterygoides

Pterygoides Externus five Abducens.

*This brings
the Mandible
forwards.*

THe lower Mandible hath allowed it variety of Motions, and these are both very necessary to Human life, as also for well ordering of their Designs: for how can the Meat be either received into the Mouth, or there chewed or lessened, unless the Mouth were opened, and then shut again; the Teeth do act their parts, and by a mutual Collision and Commination towards a fair Deglutition, do make a happy progress towards the health of Man; without the benefit of Muscles, the Grinders must lie still, and the Incisors grow dull; the Mandible hath its variety of Muscles granted it for the discharge of its variety of Offices, amongst which this is accounted as one of its fourth pair, and doth arise from the External part of the *Processus Aliformis* in part, as also from the rough and sharp Line of the *Os Sphenoidis*, strong, Nervous, and Flethy, and so marching down large, is inserted by a strong broad Tendon into the inner part of the lower Mandible, laterally, just under the Tendon of the Temporal Muscle, and doth move the Mandible forwards, and as it were doth abduce it from the Head.

Use.

E. E. Shews this at *Tab. 10. Fig. 1.*

Pterygoides

Pterygoides

Pterygoides Internus seu Adducens.

THis ariseth thick and short from the inner Cavity of the *Processus aliformis*, being first Nervous, then Flethy, and is inserted by a broad, long, and Nervous Tendon into the lower Mandible internally lateral, the which drawing it upwards, doth help the Office and Action of *Temporalis*, bringing the Mandible inwards and backwards. These two Muscles do not appear until the whole dissection of the Tongue, *Larynx*, and *Gula* be fully compleated.

D. D. Shews this at *Tab. 10. Fig. 1.*

S

Longus.

Longus.

*This con-
trasts the
Neck.*

THE Neck is as an Appendix to the middle Venter, or a middle between the Head and Trunk. Such Animals are destitute hereof, which do not move their Heads with the Trunk of their Bodies, as Fishes, Frogs, &c. This Neck hath a four fold motion granted it, as forwards, backwards, and to either side, and every of these Motions are performed by the benefit of Muscles, of which some are called Flectors, others Extensors; of the Flectors, the first pair are called *Longi*, lying under the *Æsophagus*.

This Muscle ariseth sharp and Flethy from the forepart of the Body, from the fifth and sixth Vertebre of the *Thorax*, where the Rib joyns its self to him, and so running up under the *Æsophagus*, is joyned to the sides of the Bodies of all the Vertebres, ascending until he comes to the first of them, where meetin^g with *Scalenus*, they insert themselves by a sharp Nervous Tendon into the transverse process of the first Vertebre of the Neck.

use.

The Neck by the benefit of these with the Head, is bent or contracted forwards, one only operating, it carrieth it to the sides

A. A. Shews this, *Tab. 10. Fig. 2.*

Longus

2

Scalenus

The Explanation of the Tenth Table.

F I G. I.

- A** A. Temporalis laid bare.
B. B. Masseter.
C. C. Digastricus or Biventer.
D. D. Pterygoideus Internus.
E. E. Pterygoideus Externus.
F. Quadratus Riolani.

F I G. II.

- r. f. t. v.** Os Ptery. oides.
O. O. Musculus Pterygopalatinus which depresseth the Uvula;
 and with it the Glandule of the Palate.
X. X. Shews its Tendon which is reflected about the neck of the
 Os Pterygoides as on a Trochlea, and is inserted into the Gland-
 ular of the Palate.
r. Shews the neck of the Os Pterygoides with its small head.
B. Shews the Glandula Palati.
d. The Uvula.
a. a. Part of the Muscle Pterygoideus Internus to which is adjacent
 Pterygopalatinus mentioned at O. O.
C. Shews its Origination arising from the lower part of the Cavity
 of the Os Pterygoides.
q. Shews another Muscle called Sphenopalatinus which attols the
 Glandula Palati, and with that the Uvula.
f. f. Shews its Tendon implanted in the side of the Glandula Palati.
Z. Shews its Origination out of the Os Sphenoides.
g g The Interior Cavities of the Nostrils

Moreover as touching these two Muscles (besides what hath
 already been said as to their Uses) this Observation is very mate-
 rial as to their Usefulness, (viz) in Hauking or forcibly raising
 up any tough Flegm or Lapidouse Matter lodged about the Æsophagus,
 these are of very great use as to the dispatch of the same forward,
 and sending it outwards, being here planted as two strong Ligaments
 which can give force to the Palates raising it self for the discharge of
 the same

F I G. III.

- A** Musculi Longi.
B. Scalenus.
C. Mastoideus.

Scalenus

Fig: 2.

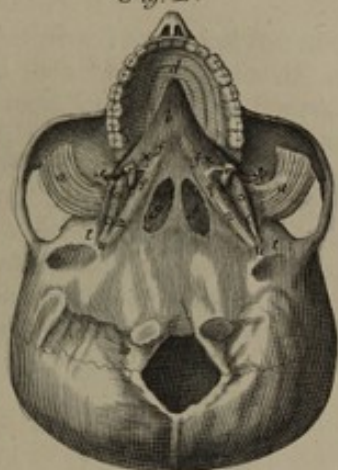
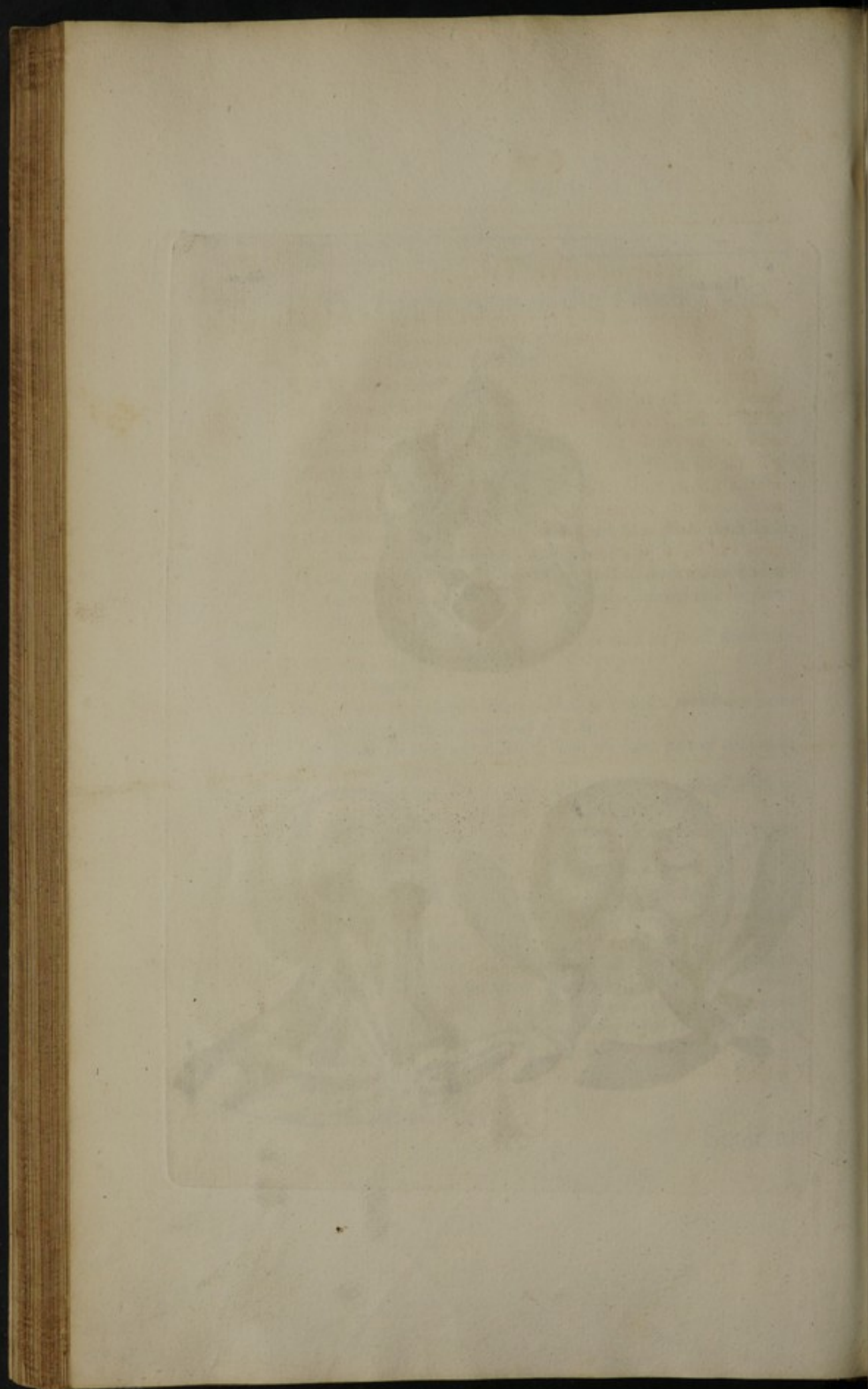


Fig: 1.



Fig: 3.





Scalenus five Triangularis.

THese pair of Muscles resembling a Triangular Figure, by some Anatomists are not improperly called *Triangularis*. This contracts the Neck as the former.

This ariseth from the first and uppermost Rib of the *Thorax*, broad and Flethy, and then narrowing himself, in his upper course he bestows transverse Fibres upon all the transverse processes of the Neck, and is inserted as the former, and doth also help the former forward in their motion; This Muscle hath a peculiar Cavity allowed it, through which the Arteries descending to the Arm, and the Veins ascending from thence do pass.

If these Muscles do work together, they do contract and bring the Neck and also the Head right forwards, but if only one do operate, it inclines the Neck to one side forwards.

B. Shews this at *Tab. 10. Fig. 2.*

Pectoralis.

Pectoralis.

*This moves
the Arm for-
wards.*

THe upper part of the Arm reaching from the top to the *Cubite*, is that which we generally do call the Arm, and this is moved by several Muscles, the first of which is called either *Adducens Humerum*, or *Pectoralis*, by some the Boxing Muscle, it possesseth the forepart of the *Thorax*, and ariseth first from the middle of the *Clavicle*, where he is most round, and next the Breast Flethy, then from the *Sternum* according to his length, and is annexed to his Cartilages; Thirdly, from the Cartilages of the sixth, seventh, and eighth Ribs, and is there Nervous in his Origination, and so proceeds Flethy and large until he arrives at the lateral part of the *Thorax*, where he is converted into a short, broad, and strong Tendon, and is inserted into *Os Humeri*, and according to his length between *Deltoid* and *Biceps*.

v.

This bringeth the Arm to the Breast forwards, and hence by some hath it given it the name of the Boxing Muscle, and this either directly, or somewhat upwards, or downwards, according to the contraction of its upper, middle, or lower Fibres.

B. Shews this in *Tab. 16. c. b. d.* Shew its diverse Fibres.

Subclavius.

Subclavius.

THis is called the *Subclavius* which is seated under the *Clavicle*, and lodgeth between the first Rib of the *Thorax*; This is accounted the first Muscle of the *Thorax*, it ariseth from the Inferior part of the *Clavicle*, and being enlarged forwards with Oblique and Transverse Fibres, it is implanted into the first Rib near the *Sternum*, and by drawing it upwards and outwards, doth dilate the *Thorax*.

The use of this Muscle is for drawing down the *Clavicle*, when it is moved upwards with the *Scapula*, for when the *Scapula's* are attolled, the *Clavicles* are lifted up with them, the which to reduce into their proper places, the *Subclavius* is to be brought downwards; and hence in Fractures of the *Clavicles*, if they be fractured near the *Sternum*, the Arm with the *Scapula* does soon fall downwards, and that part which is next the *Sternum* doth ascend and is raised upwards, as *Hippocrates* doth observe, *Lib. de Fractur.* and on the contrary, if they be broken near the *Acromium*, you will find neither part to ascend: the cause of which, the same worthy Author doth fortifie with this ingenious Reason; Whereas this Muscle is inserted to that part which is next the *Acromium*, when the *Clavicle* is fractured two ways, this *Subclavian* Muscle is presently contracted; and thus the Arm draws the dependent *Scapula* together with its self, whilst the other part is detained in its place by the strength of the Muscle.

F. Shews this, *Tab. 11.*

T

Serratus

Serratus

Serratus Minor Anticus.

THis is the fourth, which wholly lies under the *Pectoral* ^{*This brings it upwards.*} Muscle in the fore part of the *Thorax*, and is called *Serratus* from its being like a Saw, acuminate with various Fleshy Fibres; *Minor*, as touching its difference with the *Major*, it is substrated to the *Pectoral* Muscle, arising from the four first upper Ribs (but one) by so many serrated Originations, and so descending towards the *Scapula* narrows himself, and is inserted broad, Fleshy, and Nervous into the *Processus rostriformis* of it, and draweth it forward to the *Thorax*: if they work both together, they do bring the *Scapula* to the Breast: if the upper ^{*use.*} they bring it upwards, and *é contra*: if the lower, they bring it downwards.

This Muscle hath also (as I conceive) the same Use with the former, binding the *Scapula* forward to the Trunck of the Body.

F. Shews this laid bare, *Tab. 11.*

Intercostales

Intercostales

Intercostales Externi.

*These do di-
late the Tho-
rax.*

THese have their Originations from the Transverse processes of the Back, where the Ribs are joyned, and so proceeding Fleishy, do fix themselves all along from the lowermost part of the upper Rib, external to the upper part of the lower Rib, and so doth proceed to the Cartilage of the *Sternum*: The outward Muscles being contracted, do draw the Ribs towards their Originations upwards and outwards, in Respiration; hence the *Thorax* is dilated, and so its Cavity is made wider.

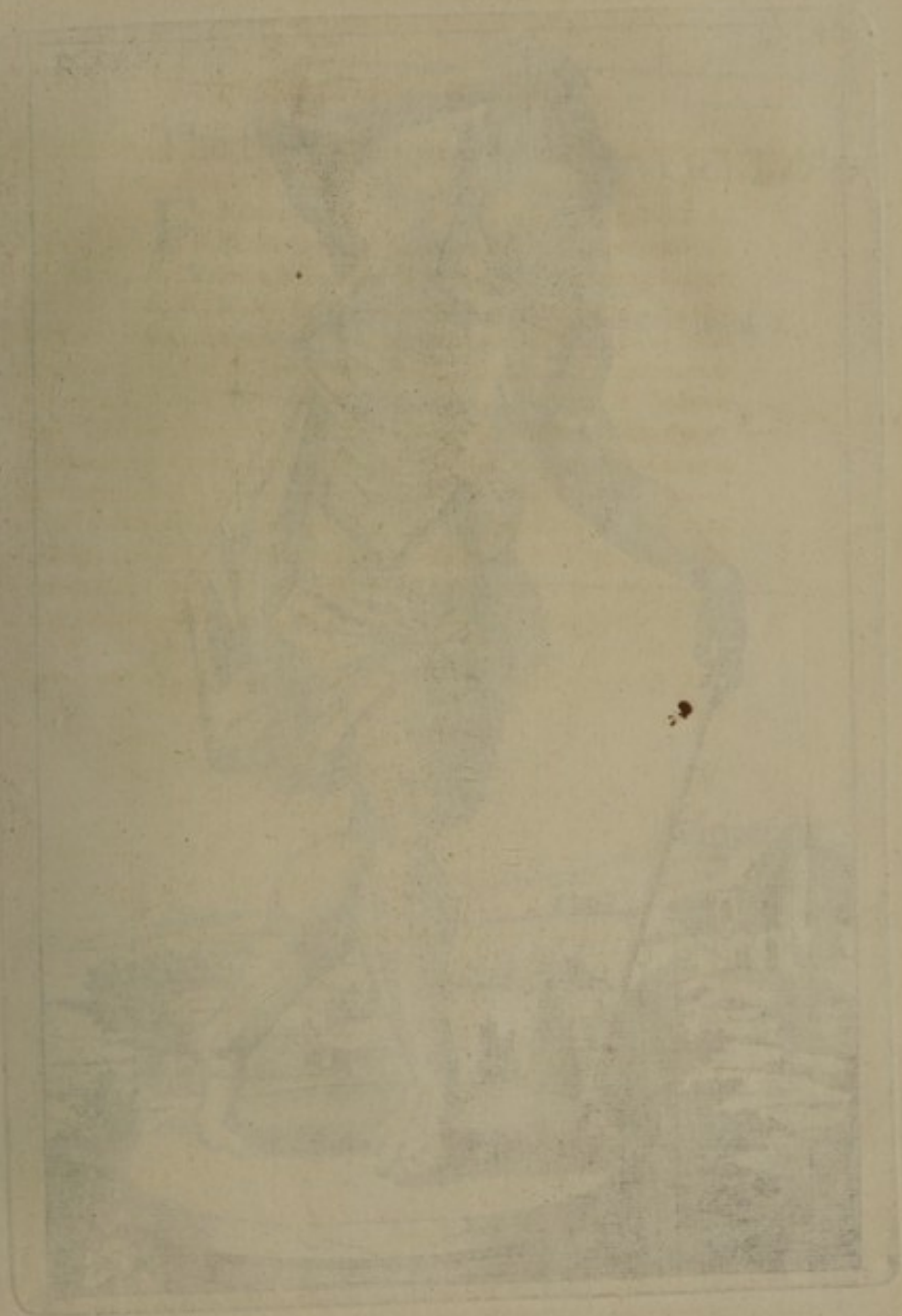
Use.

obj. All these Muscles are endowed with Oblique Fibres, and these intersecting each other, do shew their differences from the *Interni*. As a good Observation to the young Chirurgion, let him take care in opening of any Abscesses or Empyemas which may happen here, for if he makes a direct Incision here downwards, he cuts and divides all the *Spermatick* Fibres, and therefore in these cases he is advised to make his Incision in an oblique manner.

K. K. K. K. Shews this at *Tab. 11.* O. O. O. Shews the same, *Tab. 5.*

intercostales

Interco





The Explanation of the Eleventh Table.

F Subclavius.

D. D. Serratus Major Anticus.

E. Serratus Minor Anticus *shewing it laid bare.*

K. K. K. K. Intercostales Externi, Intercostales Interni.

C. C. Subscapularis.

Interco

Intercostales Interni.

THese have their Originations where the Ribs do begin ^{these do} to bend inwards, and run from the lower to ^{move the} the upper part of the Ribs, not only to the Cartilage, ^{Thorax and} but under that to the *Sternon*; these Muscles do work contrary ^{constrict it.} to the former, for these do bring the *Thorax* downwards and inwards in Expiration, whence it becomes Constrict, and the ^{up.} Cavity is made less.

Moreover, whereas the External Muscles do end about the beginning of the Cartilages, so as that there are left Intercartilaginous spaces: hence is it, that Nature, that provident Mistress, who abhors all vacancies, hath filled all these empty spaces with these Internal Muscles, and hath raised the same to the Exterior Superficies of its space or those spaces.

These you may also see with the former.

V

Pectoralis

Pectoralis Internus seu Triangularis.

*This doth
constrict
the Thorax.*

THis by some is accounted the sixth Muscle of the *Thorax*; it is a small and thin Muscle arising from the inner part of the *Sternum*, and adheres to the Cartilage of the upper Ribs, sending forth on either side four small Projections to the Osseal Extremities, by which the third, fourth, fifth, and sixth true Ribs are joyned to the Cartilages, by the adduction of which, they do constrict the *Thorax*, and do somewhat depress it forward.

use.

This Muscle is not to be shewn by any Figure: *For the reason is, that the Muscles of the Thorax are so small, and so thin, that they cannot be shewn by any Figure, but only by the touch, and by the sight of the dissection.*

Cremasteres

Pectoralis

V

Cremasteres five Suspensorii.

THere are three proper Coats allowed the Testicles, 1st. *Erythroides* or *Tunica rubra*, and 2^{dly}. *Elytrois*, or *Vaginalis*, and 3^{dly}. *Tunica Albuginea*, or *Nervosa*: to the External Membrane of the first are adnated the Cremaster Muscles, one on either side, the which in Men have their Originations from that Ligament which is in the *Os Pubis*; in Dogs and other Animals they are seen to take their Originations from the Tendons of the Transverse Muscles, and their Fleshy Fibres do run through the whole length of the Vaginal Coat, especially in its back part; for which cause the outward Superfices of this Coat is seen to be Asperate and Fibrous, the inward smooth, and covered with a certain waterish Humidity, and is strongly annexed to the lower part of the Testicles.

Regnerus de Graaf doth allow a three fold Use of this Muscle; as first that it keeps the Testicles from Cold; Then that it keeps them up from falling down, the which by their weight, should it once so happen, they would hinder the *Spermatick* Vessels in their Operations; And lastly, as various Authors have writ and observed, That they attract them for a better Excretion of the Seed, as is seen in the Act of Venery. *Bartholinus* doth witness, That there are such who have this so strong, that they can according to their will retract the Testicles, and then again dismiss them.

Tab. 13. Fig. 4. at C. C. you have this, D. D. Shews their Fleshy Fibres.

Accessor

Erector

Erector Penis, five Collateralis.

*T. it is said
to erect the
Penis.*

THe Seed made, prepared, and elaborated in the *Spermatick* Vessels do require a proper Instrument for its discharge into that part which Nature at first designed it for, by which means we see the like produced by the help of this Instrument. *Plato in Timæo* did suppose the *Penis* to be some certain Animal, which could produce such strange effects as touching both Generation and Propagation, but although it is no Animal, yet it must properly be allowed an Animal-part and Instrument: Its placed in the lower part of the Belly, for the more commodious executing its Office, it takes its Original from a strong Foundation, as from the Bones of the *Pubis*, to whose Root it is most firmly planted; we pass by its Figure and Substance, and come to its Muscles.

Ufe. This Muscle has his Original from the Appendix of the *Coxendix*, beneath the beginning of the two Nervous Bodies, in whose Interior part their thickest Fibres do terminate and vanish. *Spigelius* doth assert that they take their names from their qualities, and that they do erect the *Penis*, and in coition do preserve the same; but this is denied by *Regnerus de Graaf*, as you will see in the next Chapter: for these Muscles rather depress the *Penis*, that so the Seed may be the more straightly ejaculated into the *Uterus*.

S. S. Shews this at *Tab. 13. Fig. 1.* T. T. Shews the same, *Tab. ead. Fig. 2.* G. G. Shews this, *Tab. 12.*

Accelerator

FIG. 1.

The Explanation of the Twelfth Table.

G G. Erector Penis.
F. F. Accelerator Penis.
K. K. Levatores Ani.
I. Sphincter Ani.

Accele

Accelerator Penis.

BEsides the former, the Virile Member hath two other Muscles allowed it called *Urethram Trabentes*, arising Fleshy from the *Sphincter Ani*, and joyning with its partner internally lateral, and marching by the fore part of the *Penis*, is inserted into the *Urethra*, and is generally asserted that it was framed for the dilating of the *Urethra*; but the Use thus designed these Muscles is much rejected by *Re n. de Graaf*, the which he confuteth by these Reasons, That when all Muscles do work in their own proper method, their Venters do tumefie, and their ends do approach nearer each other; the which being granted, it cannot thus happen that the *Penis* should be extended, the Action of the Muscle being Contraction, and this being most contrary to Extention; neither can the *Penis* obtain Erection by the benefit or help of these Muscles, for it rather would appear depressed than erected these being contracted, and they being planted in the lower part, or under the *Penis*, taking their Origination from the Appendix of the *Coxendix*, and so implanted to the lower part of the Yard.

Tab. 13. Fig. 1. & 2.
dilate the Urethra.

As to the two also which are assigned by other Authors to dilate the *Urethra*, they are in no ways capable to perform this, these Muscles running through the middle of it, are firmly united to each other by one extremity of Fibres, whilst the opposite to the former obliquely running over the *Urethra*, do send the same into the sides of its Nervous Bodies; but as to the Erection of the *Penis* two kinds of Vessels do seem chiefly to serve with the Muscles for the performance of this, as Nerves and Arteries; but of these you may plentifully satisfy your self in *Regner. de Graaf, de Organ. Viror. Fol. 154. &c.*

This you have at *R. R. Tab. 13. Fig. 1. Fig. 2.* at S. S. you have the same, *ead. Tab. F. F.* Shews the same, *Tab. 12.*

Musculi Clitoridis.

*This extends
the Clitoris.*

THe *Clitoris* hath variety of names bestowed on it, as *Amoris Dulcedo*, *Oestrum Veneris*, *Libidinis Sedes*, &c. it differs from the *Virile Member* if you consider its whole *Fabrick*; First, because its bifurcated parts are twice longer when joyned, in the *Penis* when the parts are conjoyned they are four times longer than the bifurcated parts. Then because it hath no such like Channel as hath the *Penis*, neither is its *Glans* perforated as is that of the *Penis* in Men; All Anatomists have by consent allowed that there are Muscles annexed to the *Clitoris*, but as touching the number of them there is held a Dispute; we judge and allow of two arising from the Bones of the *Coxendix*, and running above its *Crura*, are implanted in them; This Muscle we call *Graafiani*, and by this the *Clitoris* is raised.

osf.

This Use we think proper to ascribe to the *Clitoris* and its Muscles, by the Contraction of the *Clitoris* and compressing its Thighs, it doth distend the third Body much more with the *Glans*.

use.

There is also another pair of Muscles ascribed to the *Clitoris* by Authors, arising from the *Sphincterani* with a broad beginning, passing by the Lips of the *Pudendum*, between the *Clitoris* and *Plexus Retiformis*, and it is so annexed to the *Clitoris*, that it is judged that it was appointed rather for the contracting of the Vaginal Orifice, than for erecting the *Clitoris*; and from hence we presume to call it *Musculus Labiorum Uteri Contractor*.

C.C. Shews these at *Tab. 13. Fig. 4.* by this Muscle the *Clitoris* is depressed, D.D. Shews its Flethy Fibres, E.E. The Flethy Fibres of the *Sphincter* annexed to the Nervous substance of the *Clitoris*.

Levatores

Levatores Ani.

That part we generally call the *Anus* is that which is the ^{this life} end of the *Intestinum Rectum*; these arise from the ^{is up.} Ligaments of the *Coxendix*, and *Os Sacrum*, under the Bladder, small, thin, broad, and Membranous, and are inserted into each side of the *Podex*; These Muscles being very much relaxed, do suffer a *Procidentia Ani*, or rather *Prolapsus Intestini*, ^{2^{de}.} these are best discovered before you remove the *Intestinum Rectum*, *Vesica*, and adjacent parts.

R. R. Shews these at *Tab. 13. Fig. 2.* K. K. Shews the same, *Tab. 12.*

Sphincter

Sphincter Ani.

*This part
is the Anus.*

THis from its Use is called *Constrictor Ani*, or *Orbicularis*, it ariseth from the lower Vertebres of the *Os Sacrum*, round, and broad, joyning himself largely circular to the *Intestinum Rectum* with Transverse Fibres much thicker above than below, where he adheres so firmly to the *Cutis*, that it is scarce separable : and hence by some Anatomists it is called *Cuticulosus*.

use.

We acknowledge the Use and Nobility of either of these, for when they any wise suffer a *Paralysis*, this being hurt, the Excrements involuntarily do come down, and for the service they do in this case, they are called *Constrictores*

Q. Shews this at *Tab. 13. Fig. 2. I.* Shews the same, *Tab 12.*

Sphincter

Sphincter

Sphincter Vesicæ.

THe Urinary Bladder is an Organick Membranous part of the lower Belly, the which is formed as a receiver to take the Urine into it, or Serum which passeth from the Kidneys into it, and at due time doth also serve for a discharge of the same, and so this Bladder hath two Muscles given it, the one is said to retain the Urine in it, the other drives it out; How unkind would Human life be, if it should be continually attended with a continual dropping of Urine, as also how troublesome would it be to Mankind to be perplexed with as great a stoppage; therefore kind Nature as she hath been so free as to give the Bladder one pair to keep it in whilst it is convenient to discharge it, so also hath she been as provident to let it out when the Bounds of Nature commands a discharge thereof: the first from its Office hath gained the name of *Sphincter*.

This is placed orbicularly in the neck of the Bladder, scarcely distinct from the substance of it, only where you find a round Induration, this is the same, this doth keep the Urine from involuntary falling out from the Bladder, purging it up.

O. O. Shews this at *Tab. 13. Fig. 1.*

Y

Detrusor

Detrusor Urinae. 2

*T'sa lets
it out.*

THis is said to arise between the common, and second proper Coat of the Bladder, the first Coat properly being his, if not him, and therefore it is very Fabulous, which some Physitians so strongly contend for, that besides the former they will allow the Bladder many other Muscles, but in truth the best of Authority doth not afford any other of the Bladder besides these two already named.

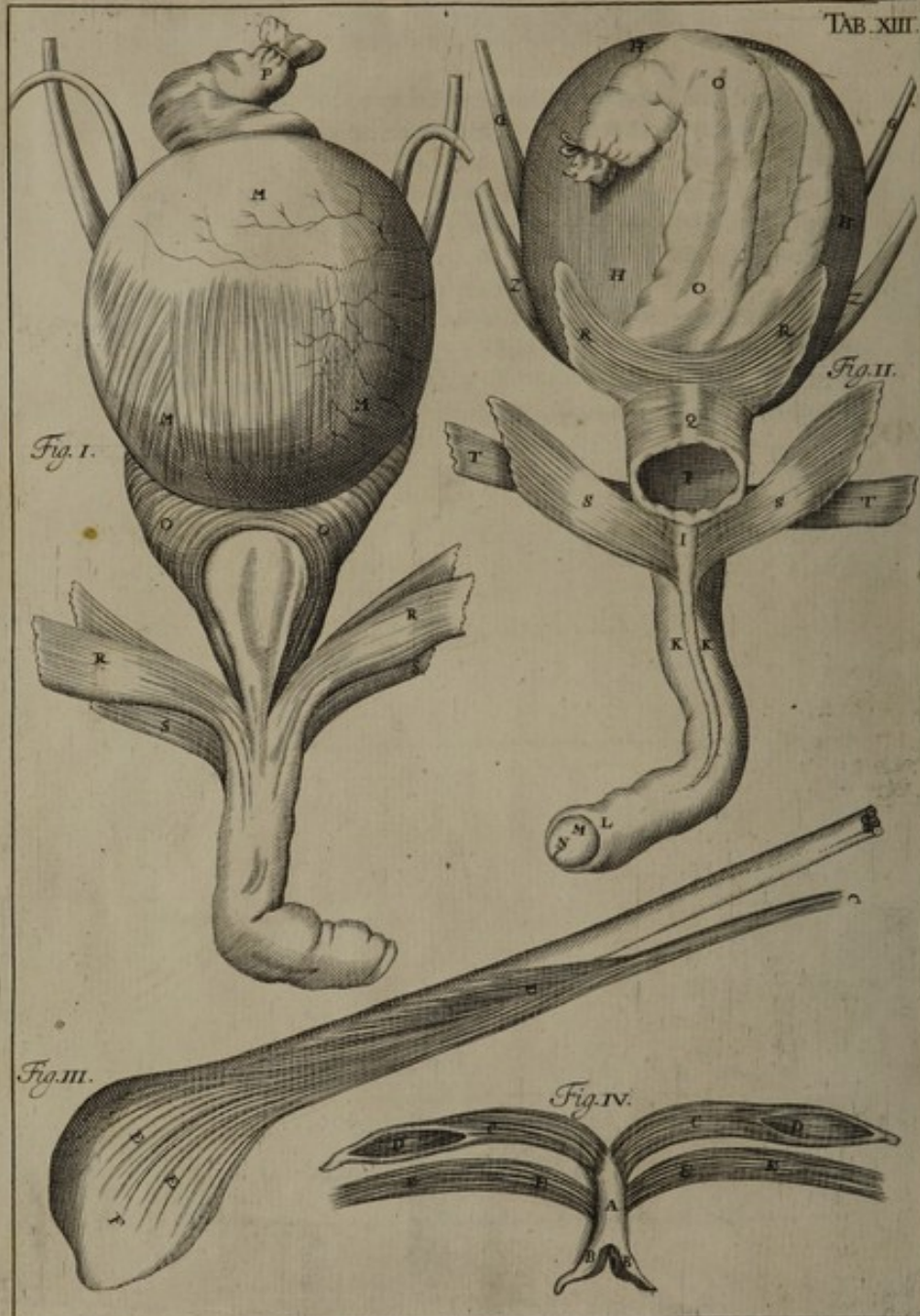
This Muscle therefore is only the middle Coat of the Bladder, which consisting of Carnous Fibres running length-ways serves to the expulsion of the Urine. The tone of these Fibres is much injured when the Bladder is overmuch distended with Urine, or when it is held too long.

M. M. M. Shews this, *Tab. 13. Fig. 1.*

Diaphragma.

Detrusor





The Explanation of the Thirteenth Table.

- C** D. Cremasters at Fig. 3.
S. S. Erector Penis at Fig. 1.
T. T. Shews the same laid bare at Fig. 2.
R. R. Accelerator Penis at Fig. 1.
S. S. Shews the same laid bare at Fig. 2.
C. C. Musculi Clitoridis at Fig. 4. and at D. D. E. E.
R. R. Levatores Ani at Fig. 2.
Q. Sphincter Ani at Fig. 2.
O. Sphincter Vessicæ at Fig. 1.
M. M. M. Detrusor Urinæ at Fig. 1.
-

Diaphragm

The Explanation of the Thirteenth Table.

C. D. Crenellum in Fig. 1.
 S. S. Section of the same in Fig. 2.
 T. T. Shows the same in Fig. 3.
 A. A. Accretion of the same in Fig. 4.
 S. S. Shows the same in Fig. 5.
 C. C. Shows the same in Fig. 6 and in D. D. E. E.
 A. A. Section of the same in Fig. 7.
 C. C. Shows the same in Fig. 8.
 O. O. Shows the same in Fig. 9.
 M. M. Shows the same in Fig. 10.

Diagram

Diaphragma.

THis Muscle hath its Origination from the first Vertebre of the Loins, obtaining a circular Figure, and much different *in situ* from other Muscles, answering in magnitude the transverse bottom of the *Thorax*, and is inserted into the forepart of the *Sternum*, and Termination of the True Ribs, and to the twelfth Rib, as also to the extremities of the bastard Ribs, on the Sides.

This distinguishes the lower Belly from the middle.

It is in its middle (for its greater strength) Membranous and Nervous, to which middle the Flethy Fibres do run as to their Center: Wounds happening in this Center, are reputed Mortal, because hence suddainly doth follow a present decay of Respiration, and very troublesome Convulsions, whereas Wounds happening in the Flethy parts hereof, are void of this danger allowed by *Galen*, and this is confirmed by various examples.

of.

The *Diaphragma* borrows its Origine from the Vertebres of the Back near the Loins, and round the Termination of the Ribs and *Ensiformis Cartilago*, and hath its Tendon in its Center or middle of it: and by contracting it self, moveth downward, bringing it self from an Arch toward a Plain, and so enlargeth the Cavity of the *Thorax* to give way to the blown up *Lungs*, inspired with numerous Particles of Air.

use.

Next to this should I have Discoursed of the Heart, that Royal Muscle of the Body, by the Reciprocal motion of whose Fibres all that Blood is let both into it and out of it, by which our Human Pile is kept up and preserved: but Doctor Lower having already so fully written hereof, and also given such exact Figures of all its variety of Fibres, I recommend the Reader wholly to his Book *De Corde*, my task more properly relating to those of the Artus.

This you have at *Tab. 16. Fig. 2.*

summa.

Here

Here let the Body be turned upon its Face.

Cucullaris five Trapezius.

*This moves
the Scapula
variously.*

THis is the first, the which with its Companion doth very aptly express a Monks Hood : it takes its Origination Flešhy from the lower part of the *Os Occipitis*, and from the Spines of the Vertebres of the Neck, and the eight upper Spines of the *Thorax*, and springeth Membranous, broad, and running externally towards the *Scapula*, grows narrower, and is inserted into the whole Spine of the *Scapula*, and near half his Basis, as also to part of the *Clavicle*, by a broad, Nervous, and Flešhy Origination, and by the variety of Fibres allowed it, it is variously moved, as upwards, downwards, directly, obliquely, according as its Fibres are variously contracted ; Divide this Muscle from its partner at their Originations from the Spines of the Vertebres, and being so followed and cleared from the *Os Occipitis*, the Muscles underneath this will much better appear.

And I conceive another Use of this Muscle may be to fasten the *Scapula* to the Vertebres of the Neck and *Thorax* ; but the chief Use of it is to move the *Scapula* obliquely upwards.

This you have at *A. A. A. B. Tab. 14. B.* Shews its Tendinous Insertion into the *Scapula*, *a. b. c.* Its three sorts of Fibres.

Latissimus

Latissimus Dorsi, sive Anisocalptor.

THis *Abducent* Muscle, or *Latissimus* is so called from its magnitude, the which with its Companion doth near cover the Back, it ariseth with a large Membranous beginning from the Spines of the Vertebres of the *Thorax*, between the *Os Sacrum*, and the sixth Vertebre of the *Thorax*, as also from the upper part of the *Os Ileon*: his Origination here is chiefly Membranous, but running higher, so soon as it attains the curvation of the Ribs, he grows Flethy, and in his ascension becoming narrower, is carried over the lower Angle of the *Scapula*, and by a strong and short, but broad Tendon, he is implanted below the upper head of *Os Humeri*, between the *Pectoralis* and *Rotundus*, great care must be had, lest in the raising this Muscle from his Origination, you do take up the Origination of the subjacent Muscle *Serratus Major Posticus*, and if you be not very careful in your dissection, you will borrow from *Quadratus Lumbi*, as you raise him from the *Ileon*, to which he firmly adheres; as also near the *Scapula*, *Serratus Major Anticus* will arise with him, without mature and deliberate observation hereof: this brings the Arm backwards, sometimes upwards; its diversity of Fibres contracting themselves doth occasion these variety of Motions.

This is shewn at *Tab. 13.* at *C. C. D.* *C. C.* Shews its Origination, *D.* Shews where its Tendon ariseth, *N. N. O. O.* Shews the same laid bare at *Tab. 15.*

This brings
the arm
backwards to
the Funda-
ment.

vs.

Z

Rhom

I. C. A. S. T. O. R.

Rhomboides.

This brings
the Scapula
backwards.

THis is so called from *Rhombus*, the which is by Mathematicians said to be a foursquare Figure, not consisting of equal Angles, but of Lines: it riseth broad and Flethy immediately under the *Cucullaris*, from the Spinal processes of the three lower Vertebres of the Neck, and three upper Vertebres of the *Thorax*, whence running with thin Fibres, it descends down to the *Scapula*, to whose whole Basis externally, it adheres broad and Flethy; in the raising of this, take care that you do not raise the Tendon of *Serratus Posterior Superior*, who lies just under him. And also because it taketh its Origine from the three lower Vertebres of the Neck, and the three upper of the *Thorax*, and is inserted into the Basis of the *Scapula*, whereupon it doth assist the *Cucullaris*, and bind the *Scapula* backward to the lower part of the Neck and upper part of the *Thorax*.

This Muscle holds the *Scapula* to the Back: hence Consumptive people have prominent *Scapula's* from the weakness of this Muscle; from this also in some Persons may an account be given of the Gibbosity of this part.

This you have at *Tab. 15.* at *B. B. in situ, c. c. c.* Shews its Origination, *G.* Shews the same laid bare at *Tab. 24. h. h. i.* Shews its beginning and ending.

Levator

The Explanation of the fourteenth Table.

A
B
C
D
E
F
G
H
I
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z

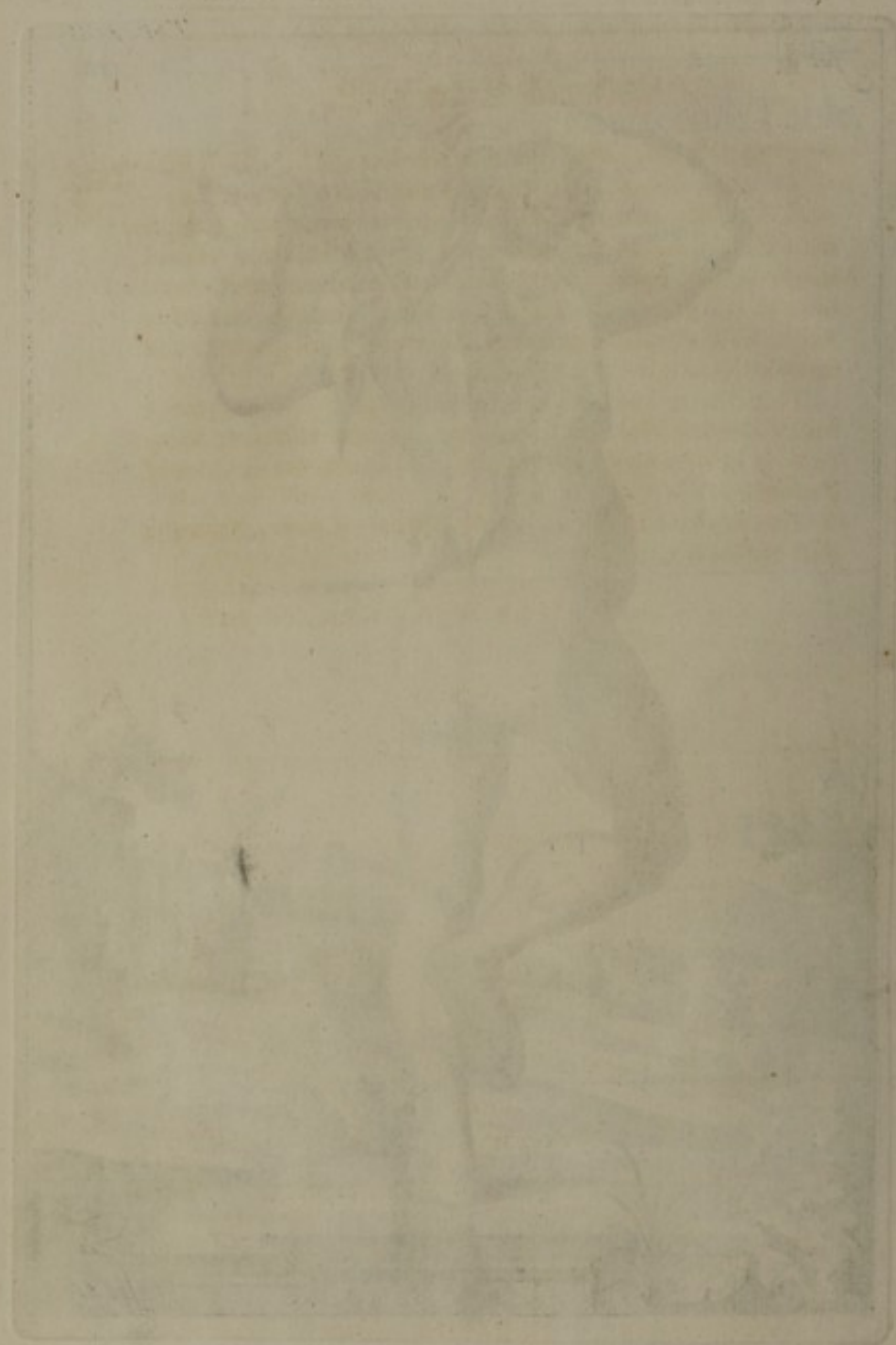
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The Explanation of the Fourteenth Table.

A A. A. Cucullaris.
B B. Shows one part thereof laid bare.
C. C. Levator Patentie.
D. D. Rhomboides.
G. G. G. G. Latissimus Dorsii.

Levator





 Levator Patientiæ.

THis is also called *Scapulam Attollens* : This ariseth from the second, third, fourth, and fifth Transverse Processes of the Neck, and hath as many Originations with their *Interstitia* : these joyning do descend, and adjoyn to the whole upper side of the *Rhomboides*, until it is inserted by a broad, Flethy Tendon to the highest, as also to the lower Angle of the *Scapula*, and doth draw the same upwards and forwards, and is raised with the Arm.

This Muscle had its name from *Spigelius* : it bearing many heavy burdens, for the *Scapula* by the help hereof with the Arm is lifted up forwards, and hence takes the better name of *Patientiæ*.

This you have at *Tab. 15. at A. laid bare, 1. 2. 3. 4.* Shews its four beginnings.

 Rotundus

 Superficialis

Rotundus Major.

This draws the Arm down backwards.
Use. **T**His is also called *Humerum Deprimens*, its also called *Rotundus*, it being Spherical; it ariseth with a Flethy beginning from the lower Angle of the *Scapula*, and adheres Flethy from his lower Rib, and having marched half way, deserts, and being indifferently dilated somewhat upwards, is inserted by a short, broad, and strong Tendon into that part of the *Os Humeri* where *Pectoralis* hath his insertion, and doth draw the Arm down backwards. It partly lies under the Arm-pit.

Obs. Its generally observed by all Masters of Anatomy, that all Depressers are much less then the Attollers in Human Body. Thus the *Temporalis* is the strongest Attollent of the lower Mandible, and *Biventer* is the most infirm Depriment, and the reason is, there is required much more for the lifting up of a weight, than for his bringing down.

This you have at *Tab. 15. at E.*

Rotundus

Superfca

Superscapularis Superior five Supra-
spinatus.

THis is Flefhy and long, and preffeth the whole *Scapula* This brings it about outwards. upwards : it arifeth from the whole Basis of the *Scapula* Flefhy above the Spine, filling the whole Cavity between the Spine and the upper Rib of the *Scapula*, and going back to the neck of it, paffeth under the fecond Ligament of the *Humerus*, as the Biceps doth, and is inferted by a broad and ftrong Tendon obliquely into the neck of the *Os Humeri*, Use. and doth bring the Arm about with the former ; others do affirm that it moves the Arm upwards with the *Deltoides*. And I apprehend that a great Ufe of this Mufcle is to help the *Coracobrachialis* and *Infraspinatus*, in lifting up the Arm.

This you have at *Tab. 15. at F. L.* Shews the fame laid bare.

A a

Super-

Suprascapularis Inferior five Infraspinatus.

*This brings
the Arm a-
bout out-
wards.*

Use.

THis covereth the whole Exteriour part of the *Scapula*, which under the Spine, arising from almost the whole Basis of the lower part of the *Scapula*, and possessing the *major* part of that Cavity, Flethy, running backward, narrows himself according to the form of the part, and by a broad Tendon is inserted into the Ligament of the *Os Humeri*, as some will have it; But I humbly conceive, That this Muscle according to its situation, doth more probably assist the *Deltoides* and *Coracobrachialis*, lifting the *Os Humeri* upward.

This you have at *Tab. 15. at G. M.* Shews the same laid bare.

Nonus

Nonus Humeri Placentini five Rotundus Minor.

F *Allopius* calls this *Transversalis Brevior* from its site, and *Rotundus* from its form: It ariseth sharp and Flefhy from the lowest Angle of the *Scapula*, at his Basis, and growing more Flefhy to its Venter, decreafes again, and terminates himself by a fharp Tendon into the neck of *Os Humeri*; This by fome Anatomifts is held as a part of that Mufcle called *Rotundus Major*.

*This helps
the motion
of Rotundus
Major.*

This Mufcle deprefseth the *Os Humeri*, and is an Antagonift to the *Deltoides* and *Coracobrachialis*.

This you have at *Tab. 17. at Fig. 2. at A. B. C. A.* Shewing its Flefhy beginning, *B.* Its Cavity or Fiffure, *C.* Its thin and Nervous Tendon; This you have alfo at *Fig. 1. Tab. id. at P. P. Q. Q. Q.* Shews the Nerve that paffes through this into other Mufcles.

Subscapularis.

Subscapularis.

*This brings
the Arm in-
wards.*

THis is seated in the Cavity of the *Scapula*, and possesseth the whole Cavity thereof: it ariseth Flethy from the whole inward Basis of the *Scapula*, and so running forwards, according to the dimensions of the Bone, narrowing himself, and by a broad Tendon, is inserted into the third Ligament of the *Os Humeri*.

Use.

These last Muscles do work the whole Arm about, from whence they have also their names, but the *Subscapularis* brings it inwards, the *Suprascapularis Inferior* outwards, and also upwards, but these together do moderately elevate it; their Use may be most commodiously shewn, if the whole Arm be put into a middle Figure, and afterwards, neither abducted from the Breast to the Arm, neither the middle Figure changed with the Cubite of the Arm, the Cubitus being drawn outwards, and again brought inwards.

This you have at *Tab. 11. at C. C.*





The Explanation of the Fifteenth Table.

A *Shews Levator Patientia.*

B. B. *Rhomboides.*

C. C. C. C. *Shews the Spines of the Vertebres, from whence they do take their Origination.*

E. *Rotundus.*

F. *Superfcapularis Superior.*

L. *Shews it laid bare.*

G. *Superfcapularis Inferior.*

M. *Shews it laid bare.*

a. *Ostivus Humeri Placentini.*

v. *Shews it laid bare.*

If

The Explanation of the Fifteenth Table.

A Shows Levator Palmarum.
 B. B. Rhomboides.
 C. C. C. Shows the Spine of the Vertebral Column where they do
 take their Origin.
 E. Rhomboides.
 F. Suprascapularis Superior.
 I. Spinae Cervicis.
 G. Suprascapularis Inferior.
 M. Spinae Thoracis.
 A. Osseus Humeri Truncatus.
 S. Spinae Scapulae.

If the whole Arm with the Scapula be taken off, the dissection of these following Muscles will with more ease be performed.

Deltois.

THis is accounted the second Muscle of the Arm, called ^{This lifts up the Arm.} by some *Triangularis Humeralis*, arising generally Nervous; First, forward from the middle of the *Clavicle* where it is broadest, next the *Os Humeri*; Secondly, from the top of the *Scapula*, where it is joyned to the *Clavicle*; Thirdly, from the whole Spine of the *Scapula*, these Originations presently growing Flethy, descending and narrowing become a strong Tendon, externally Flethy, internally Nervous, which is transversely planted under the neck of *Os Humeri*; this lifts up the Arm sometimes directly, sometimes forwards, or backwards according to its Series of Fibres, these being contracted: In the middle part hereof unexperienced Chirurgeons ^{Caution.} do make *Fontanels*, but very inconsiderately, because this Muscle being contracted, the Orifice of the *Fontanel* therein made is also therewith contracted, sending thereby the Pea forth with force and pain, and the Issue doth heal up presently; which Errour may with ease be shunned, if they made them in the distance between this and the *Biceps*, four or five Fingers breadth from the joynt of the Arm, in which place, when the Arm is bent, there is presently perceived this Interstitium.

This you have at *F. F. Tab. 16. H. H. I.* Shews the same laid bare.

B b

Biceps.

Biceps.

*This Muscle
leads the
Cubite.*

THis Muscle ariseth with a double beginning, arising first externally from the top of the *Acetabulum Scapulae* by one Substance, and so runs under the Ligament of that Juncture over the head of the *Os Humeri*, and through a Channel insculpt for it, where it is bound in by a proper Ligament; Secondly, arising broad, Flethy, and Nervous from the *Coracoidal Apophysis* of the *Scapula*, and is carried over the internal head of the *Os Humeri*, and so descending meets with the other, and makes one strong and Flethy Muscle, and narrowing himself becomes a strong, thick, large, and Nervous Tendon, and is inserted into an Oblong Prominence under the upper head of the *Radius*.

Caution.

Its this Tendon which generally doth lie under the middle Vein of the Arm, which cautioneth all young Chirurgeons to beware of it in *Venae Sectione*, for it produceth great danger to the Patient: for Wounds received here are of very great Consequence, because both Veins, Nerves, and Arteries are very relative to it and bordering upon it, the which, of what direful consequence it hath been many Masters of our Art in this Honourable City can both evince and certifie.

Use.

This *Biceps* bendeth and listeth up the Cubite.

This you have at *Tab. 16.* at *L. M.* And at *Tab. 17.* at *G. H. I.* you have the same, *G.* shewing its first head, *H.* Another head of this Muscle, *I.* Shewing its Flethy belly, *K.* Its thick and Nervous Tendon.

The Explanation of the Sixteenth Table.

A. Shows Major Anterior
 B. Shows in Origin
 C. Shows in Origin of Fibre
 D. Shows in Origin of Fibre
 E. Shows in Origin of Fibre
 F. Shows in Origin of Fibre
 G. Shows in Origin of Fibre
 H. Shows in Origin of Fibre
 I. Shows in Origin of Fibre
 J. Shows in Origin of Fibre
 K. Shows in Origin of Fibre
 L. Shows in Origin of Fibre
 M. Shows in Origin of Fibre
 N. Shows in Origin of Fibre
 O. Shows in Origin of Fibre
 P. Shows in Origin of Fibre
 Q. Shows in Origin of Fibre
 R. Shows in Origin of Fibre
 S. Shows in Origin of Fibre
 T. Shows in Origin of Fibre
 U. Shows in Origin of Fibre
 V. Shows in Origin of Fibre
 W. Shows in Origin of Fibre
 X. Shows in Origin of Fibre
 Y. Shows in Origin of Fibre
 Z. Shows in Origin of Fibre

Quarries

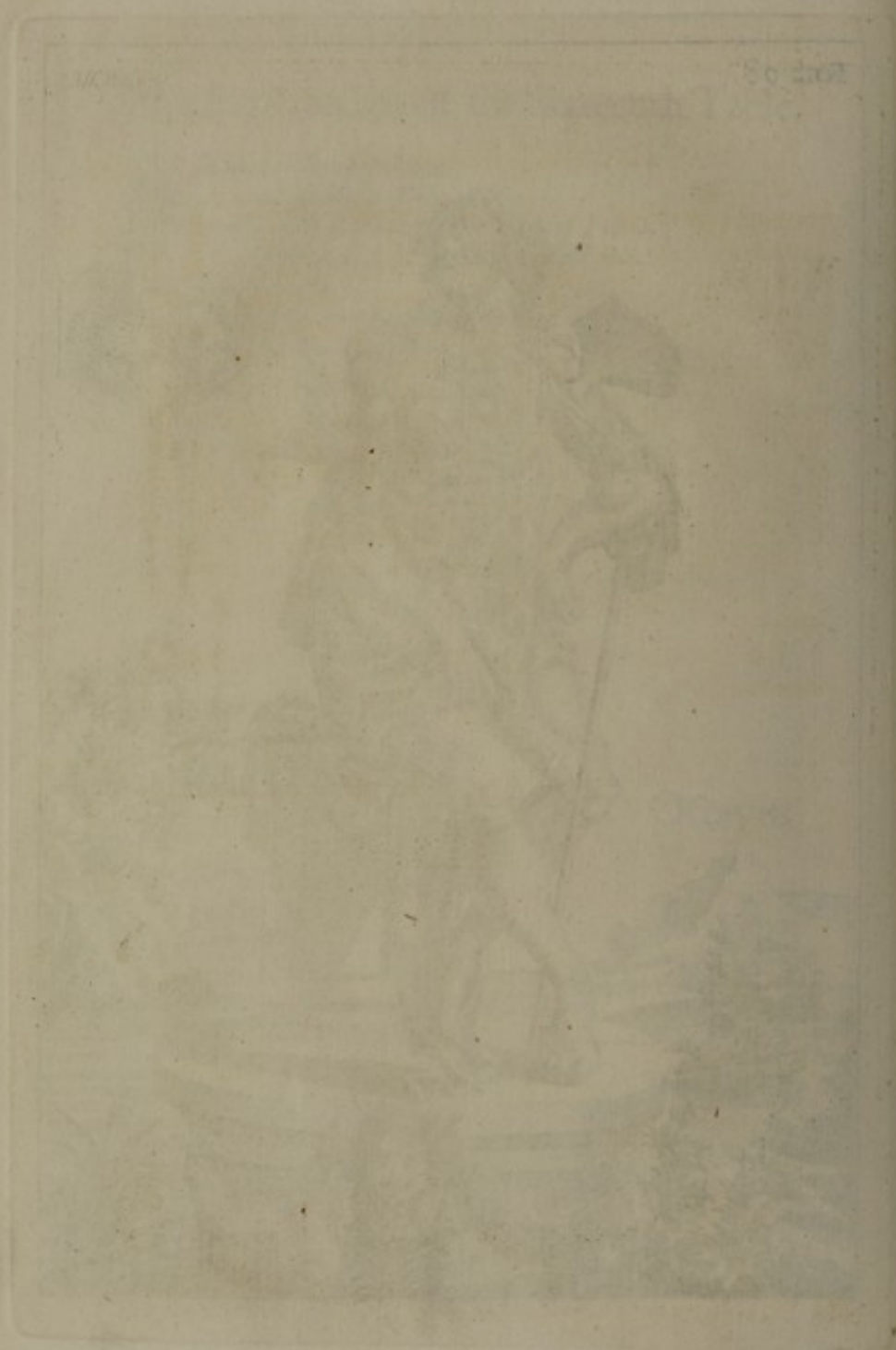
The Explanation of the Sixteenth Table.

A Serratus Major Anticus.
a. a. a. Shews its Originations.
B. Pectoralis. *c. b. d.* Shews its diversity of Fibres.
F. F. F. F. Deltois. *H. H. I.* Shews it laid bare.
L. M. Biceps in situ.
K. Shews the same somewhat laid bare.
X. Shews Brachieus in situ.

Octavus

Octavus





Octavus Humeri Placentini, five Perforatus seu Coracobrachialis.

THis ariseth by a short and Nervous Origination from the Coracoidal process of the Scapula, near the Origination of the Deltoides, and so descending, becomes somewhat long, large, and Fleshy, and is implanted by a strong Tendon into the middle of the Os Humeri, and doth adduce it with the Pectoralis forwards to the Breast, as some would have it; the Venter hereof is perforated, and through the body of this Muscle doth pass a Nerve, which serves the rest of the Muscles; Riolan. reckoned this Muscle to be a part of the Biceps, or of the first Muscle of the Cubite, which doth contradict Autopsy.

And I do humbly conceive that this Muscle in truth doth assist the Deltoides in bending the Arm, and lifting up the Os Humeri.

This you have at Tab. 15. at a. in its place, b. Shewing the same laid bare.

Brachiaëus Internus.

This bends
the Cubite
forwards.

THIS Muscle lodgeth under *Biceps*, but is more short and Flefhy : it arifeth about the middle of the *Os Humeri*, near the infertion of the *Deltoides*, and *Pectoralis* double, broad, and Flefhy : partly by the Exteriour, partly by the inner fide of the faid Bone, but prefently joyning, and firmly adhering to the Bone, in its defcent becoming large, till at laft it terminates broad and Flefhy in the Ligament of the Joynt, as well as in the Appendices of the Cubite and *Radius* ; This with the *Biceps* doth very ftrongly contract the Cubite, lifting it up, being an affiftant to the *Biceps*.

This you have at *M. N. O.* at *Tab. 17.* *M.* Shewing its beginning, *N.* Its Venter or Belly, *O.* Its large and Flefhy Tendon.

Gemellus

Brachiaëus

Gemellus Major, Brachiiæus Externus,
aut Longus.

THis Muscle ariseth doubly broad and strong, partly ^{This extends} ^{the Cubite.} Flethy, partly Nervous, from the lower part of the *Scapula*, where it hath a peculiar Cavity a little under the neck of it: and growing Flethy descends, and joyns himself to the inner side of the *Os Humeri*, where he meets with his other Flethy Origination, and so making one, is carried down to the inner side of the *Process* of the *Olecranon*, and is there implanted; The Use of this Muscle is generally reputed to extend the Cubite, and is an Antagonist Muscle to the *Biceps Internus*, which is a Flexor and lifter up of the Cubite: and the *Biceps Externus* doth extend it, and put it backward and depress it. ^{Use.}

This and its following partner you have described at *R. R. S. S.*
Tab. 17. R. R. Shewing its beginnings, *S. S.* Its double Venter.

C c

Exten

Extensor Cubiti Brevis, vel Brachiaëus Internus.

*This doth
assist the for-
mer in its
extension.*

Use.

This is the second of the Extenders of the Cubite, and doth arise backwards Nervous from the neck of the *Os Humeri*, and so becoming Flešhy, descends to the middle of *Os Humeri*, and doth inseparably mix himself with the former, and at length is inserted partly Flešhy, partly Nervous into the outward side of the *Olecranon*, about the place we lean on. These two Muscles as they have right Fibres given them from their beginning to their ends, they do extend the Cubite directly, as the two former did contract it.

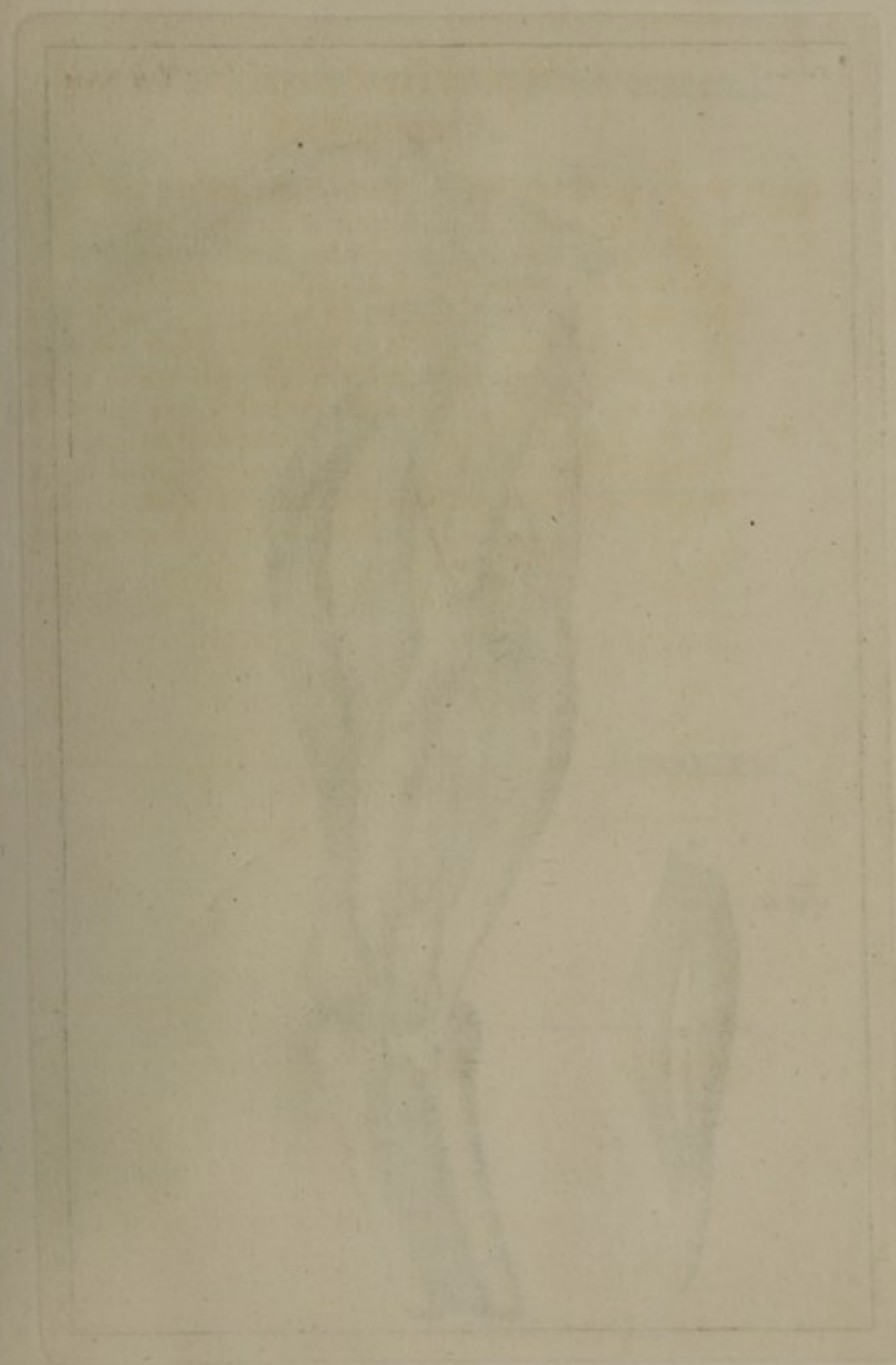
Veslingius says this Muscle arises from the middle of the *Os Humeri*, and it is accordingly represented so in his Cuts.

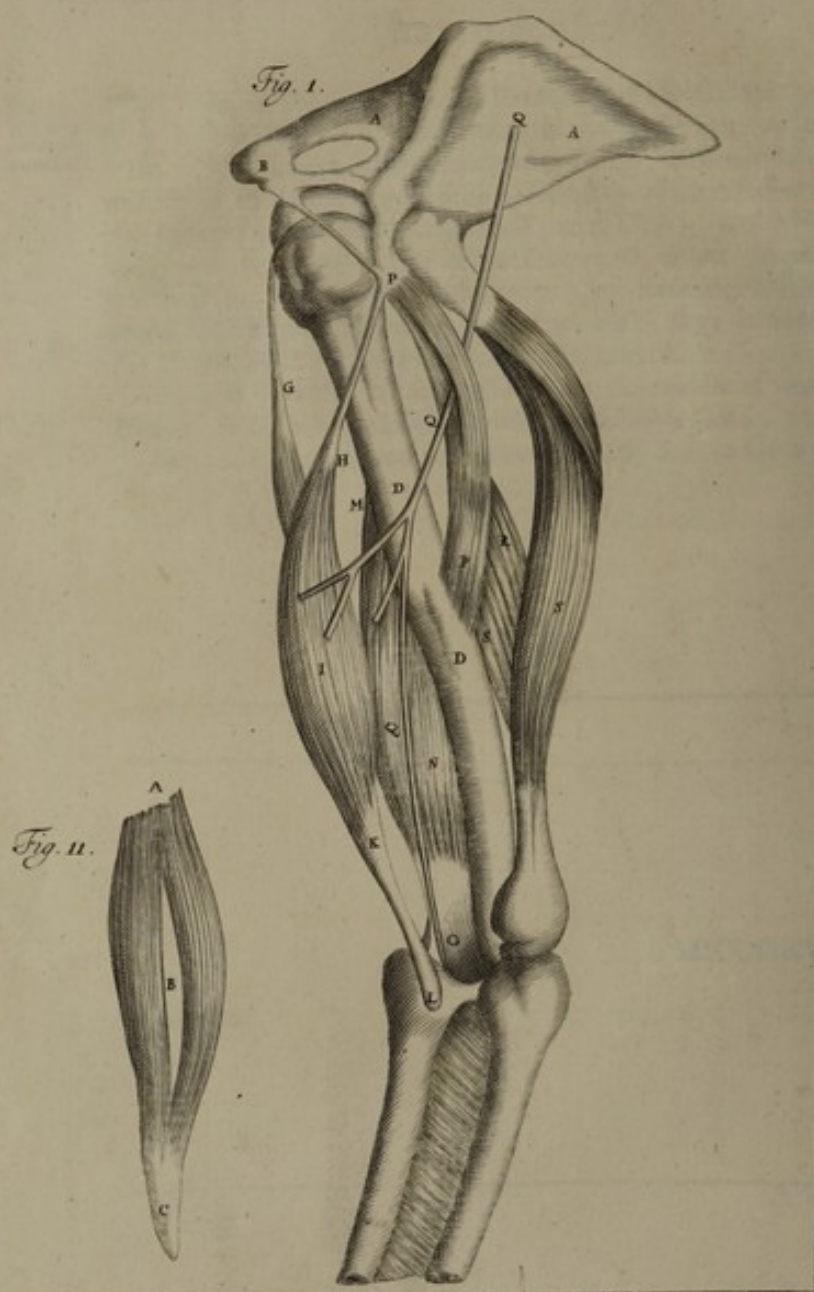
This and its partner you have shewn at R. R. S. S. at *Tab. 17.*

Anconæus.

EXCISE

C.C.





The Explanation of the Seventeenth
Table.

M N. O. Brachicus Internus.
R. R. S. S. Gemellus Major.
Gemellus Minor *you have also in the same Table.*

Anconæus.

The Explanation of the Seventeenth
Table.

M
The following is the
list of the names of the
persons who were
present at the
meeting of the
Committee on
the 17th of
January 1841.

Appendix.

Anconæus.

THis being but a small bodied Muscle, doth arise from the lower and back part of the *Os Humeri*, being planted between the *Cubitus* and the *Radius*, and is inserted with a Nervous Tendon (sometimes obliquely) into the lateral part of the *Ulna*, a Thumbs length below the *Olecranon* or Elbow; As those two last do help forward the *Cubites* extention, this doth help the former, &c.

This is not to be shewn or represented by Figure.

Palmaris.

Palmaris. A

*This moves
the Palm of
the Hand.*

THis ariseth round and Nervous, from the inward Extrabérance of *Os Humeri*, and presently becoming Flethy and narrow, about the middle of the Cubite is carried somewhat obliquely, and is turned into a long and round Tendon, and passing over the inward Ligament of the *Radius* comes to the Palm and there doth expand it self into a most broad Tendon, and is laterally inserted into the first Joynts of the Fingers, and is so closely fixed to the *Cutis*, that it is not thence to be separated without difficulty; The contraction of this *Cutis* occasioneth apprehension, and doth endue the Palm of the Hand with an Exquisite Sense; and the Skin becoming immovable by the gripe, it occasioneth a more steady keeping of any thing therein contained

use. The learned *Fallopins* hath observed this Muscle sometimes to be double in either Arm, and arising from the same place, that one doth end in a broad Tendon, such as already is described, the other, in the Transverse Ligament of the *Carpus*.

an. This you have at *Tab. 18. Fig. 1.* at *D. E.* Shews where it passeth into a Tendon, *b.* Shews the expansion of the same Tendon, *G. G. G. G.* Its Terminations; At the same Letter you have the same expressed at the second Figure *Tab. ejusd.*

Palmaris.

Caro Musculosa Quadrata.

Near adjacent to the former, is planted a Flešhy Substance ^{this does assist the former.} arising from the *Membrana Carnosa* under *Mons Lunæ*, where the eighth Bone of the *Carpus* is placed, and then marcheth under *Palmaris*, to the middle of the Palm, and is inserted into the outside of that Tendon that separates the little Finger from the rest; this makes the Hand hollow, and the Use hereof is perceived and declared in large contractions of the Palm, drawing the *Mons Lunæ* to the middle of the Hand: this is when we would make it appear very hollow.

This you have at P. P. at Fig. 2. Tab. 18.

D d

Flexor

Flexor Carpi Interior five Ulnaris.

*This sends
the Wrist.*

This ariseth sharp, Flefhy and Nervous from the inner *Apophysis* of the *Os Humeri*, and so running Flefhy the whole length of the Cubite, to which it adheres, hath its Insertion at the Wrist into its fourth Bone, partly Nervous, partly Flefhy, this paffeth not under the Transverse Ligament, but is only wrapt up with the common Membrane of all the Muscles; Its Use is thus, fuch as are the Inflectors do poffefs the whole part, and do arife from the inward Protuberance of the Arm: thofe that do extend, do arife from the back part and outward Extuberance.

Use.

This you have at *Tab. 18. at Fig. 1. at R. R. f.* Shewing its Flefhy and Nervous beginning, *g.* Its end partly Flefhy, partly Nervous; This alfo you have at the fecond Figure at the fame Table, at the fame Letter: *K. K.* Shews the fame *in fin* at *Tab. 19. at Fig. 1. b.* Shewing its beginning, *c. d.* Its end as formerly.

Flexor

Flexor

Flexor Carpi Exterior five Radialis.

THis ariseth as the former from the same Extuberance, and so running somewhat transversly near the outer part of the *Primi Digitorum Flexores*, is fixed to the *Radius*, and a little before it arrives at the *Carpus* doth become a round Tendon, which cleaving to the Transverse Ligament, runneth under him, and enlarging himself, is inserted into that *Os Metacarpi* which stands before the little Finger; these two do contract the Hand.

*This doth
help the former
in its
Contraction.*

These two working together, the *Carpus*, and the Hand with it is also contracted; one only working, its sometimes moved into that side somewhat obliquely which is contracted.

This you have at *Tab. 18. Fig. 1. & 2. at S. S. in situ*, *L.* Shewing its beginning, *M.* Its slender and Nervous Termination, *L. L.* Shews the same at *Tab. 19. in situ*, *e.* Shews there its Fleshy beginning, *f.* The Tendon of this Muscle, *G.* Shews the same laid bare at *Tab. 20. Fig. 1.*

Flexor Secundi Internodii Perforatus.

This con-
trasts the
second Joint
of the Fin-
gers.

THe Fingers, which are the great Messengers of Writing our Minds, and which are implanted in us for performing of many strong and vigorous Motions, do act these by the benefit of Muscles, by which they are both contracted, extended, and brought to a lateral Use; We begin with the Contractors, these being seated in the Cubite, and those generally do gain the name of Contractors which do bring the four Fingers into a Curvation; Of these Muscles of the Fingers, this is said to be the first, and taketh its name from its Use, contracting the second Bone of the Fingers.

It ariseth from the inward Protuberance of *Os Humeri*, under the former, and so growing broad and Fleshy about the middle of the *Cubitus* and *Radius*, somewhat adhering thereto marcheth forwards, and becomes wholly round and Fleshy near the Wrist, where it is divided into four Fleshy Portions, from which proceeds so many Tendons, all which are involved in one proper Mucaginous and thin Coat, and so running internally under the Ligament, gets through the Palm, and then doth distribute to the first and second Joynts of the four Fingers, as many Tendons which are perforated a little before their insertion for the transmission of the Tendons of *Tertii Internodii Flexor*. This Muscle by some is called *Sublimis & Perforatus*.

This you have at *Q. Q. Tab. 18.* at both Figures *in situ*, *d.* Shews its Origination, *e.e.* Its Bivaricated Tendon, *D. D. D. D.* Shews the same at *Tab. 19. Fig. 1.* *C. C. C. C.* Shews it laid bare at *Fig. 2.*

Flexor

Flexor

The Explanation of the Eighteenth Table.

- D** Palmaris at Fig. 1. *E.* Shews where it passeth into a Tendon.
F. Declares where it expands it self into a broad Tendon.
G. G. G. G. Shews the Termination of these Tendons.
O. O. O. O. Flectentes Pollicem.
P. Caro Musculosa Quadrata.
Q. Q. Flexor Secundi Internodii Digitorum.
d. Shewing its beginning at Fig. 2. *e. e.* Its Bivariated Tendons.
R. R. Flexor Carpi Interior, *f. g.* Shews its Origination and Termination.
S. S. Flexor Carpi Exterior, *L. M.* Shews its Origination and Termination.
V. V. Extensor Carpi Exterior.
X. X. Pronator Radii Teres.
Y. Y. Tertium Pollicis Internodii Flectens.
Z. Z. Pars quædam Flexoris Tertii Internodii Digitorum.
-

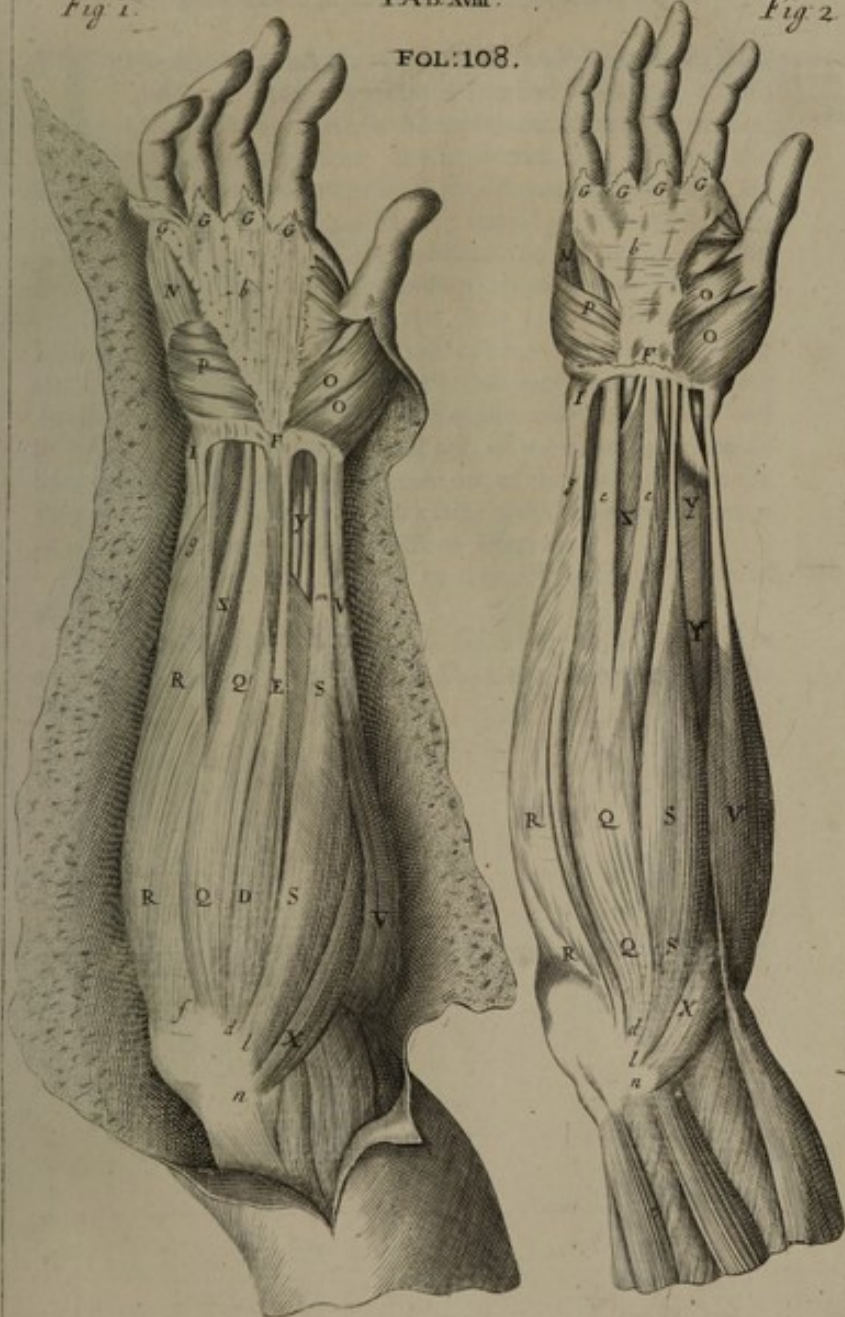
Flexor

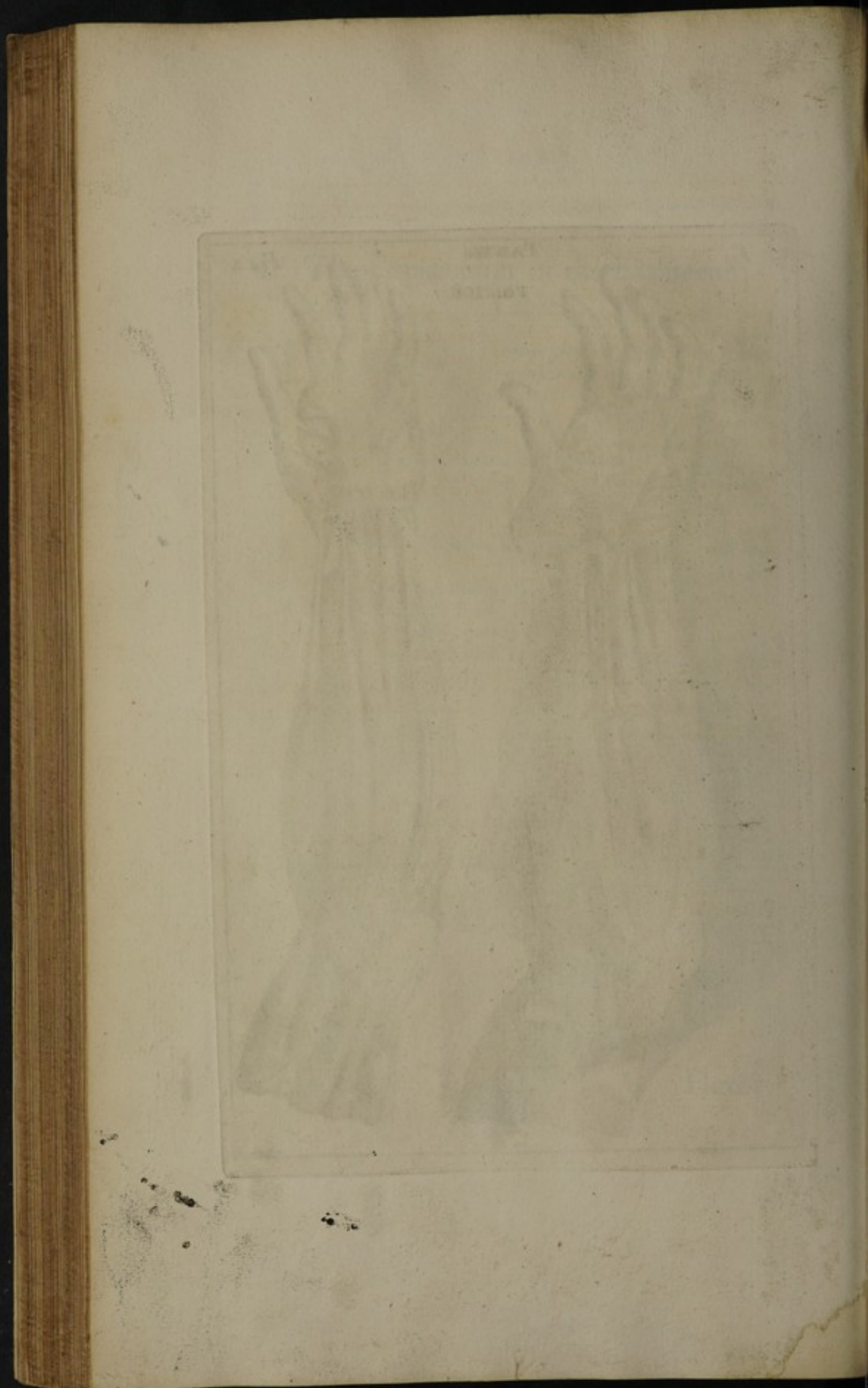
Fig 1.

TAB. XIII.

FOL. 108.

Fig 2.





Flexor Tertii Internodii.

THis doth contract the third Joynt, and from thence doth takes its name : by some it is called *Profundus*, as also *Perforans* ; it ariseth Membranous some part of him, from the same Extubérance as the former, the rest from the Root of the forward process of the *Olecranon*, becoming afterwards exactly round and Flešhy, running under the former, and adhering inwards to the *Cubitus*, on the outward to the *Primi pollicis Flexor*, and descending about the middle of the Cubite, they divide, and make their progress through the Fissures of the others, and are inserted into the third Joynts of the Fingers : and that a right inflection may be made by these Muscles, and that the contracted Tendons may not rise up, and so lift up the *Cutis* in the inward part of the hand according to their length, a Channel being made out of the hard Membranes, they are inwardly included with a fatty and Oleaginous Humour in which they have their free course of Motion.

These Muscles are allowed to contract the third Joynts of the Fingers.

This you have at *Tab. 18. at Z. Fig. 1. & 2.* This you have exactly at *Tab. 19. Fig. 2. at D. D. a. a. a. a.* Shewing its four Tendons.

PROMATOR

E c

Flexor

Flexor Secundi Internodii Pollicis.

*This heads
the second
Joyn of the
Thumb.*

THis *Flexor* is not seated in the Hand, as the former but in the Flešhy part of the Cubite: it ariseth round and Flešhy from the *Os Cubiti*, and so marching along by the *Radius* to which it adheres, as also to the Membrane that joyns the *Cubitus* and *Radius*, it comes to the Wrist, where it becomes a round Nervous Tendon, having also a proper thin Mucaginous Membrane, and so marching forwards, is inserted into the second joynt of the Thumb by a somewhat broad Tendon.

vs. This contracts the second Joynt of the Thumb, to which it is fixed.

This you have at *Y. Y. Tab. 18. Fig. 1.* This also you have at *P. P. Fi. 1. Tab. 19.* This you have laid bare at *Tab. 20. at M. M.*

the Finger: and that a right inflection may be made

the Finger: and that a right inflection may be made

the Finger: and that a right inflection may be made

the Finger: and that a right inflection may be made

Pronator

Flexor

Pronator Radii Teres.

THe *Radius* is wrought with two Motions, the one *per accidens*, the other *per se*, and hence hath it given it two kinds of Muscles: the first from their Uses are called *Pronatores*, the other *Supinatores*. The second of the *Pronators* is called *Teres*, so called from its form, it ariseth from the Root of the inner prominence of the *Os Humeri*, and from the inside of the *Os Cubiti*, and is there joyned by a large Fleshy Origination to the *Radius*, and thence descending obliquely downwards by his inner side a little above the middle, is implanted into him Fleshy, from whence a Nervous Head doth proceed, which is inserted into the External Head of the *Radius*.

This Muscle is held to bring the *Radius* downwards.

This you have at *X*. in both Figures *Tab. 18. n.* Shewing its Origination; This also you have at *Tab. 19. Fi. 1.* At *O G. Fig. 2. ejusd. Tab.* you have the same at *K. d.* Shewing its Origination, *e.* Its Termination, *C. C.* Shews the same at *Tab. 20. Fig. 1. a.* Demonstrating its beginning, *b.* Its Termination.

Flexor

Pronator

Pronator Quadratus sive Inferior.

*This works
as the former.*

THis is allowed the first of the *Pronators*, it is wholly Fleshy, and ariseth from the lower and inner part of the Cubite near the *Radius*, running over the Ligament that joyns the Cubite and the *Radius* transversly, and so doth implant himself Fleshy into the inward part of the *Radius*, with a broad beginning, much representing a Mathematical Square, having four equal sides.

Use. These two Muscles, while they are contracted towards their Originations, do move the *Radius* forwards, and so doth connect the Hand which the lower part of the *Radius* by the benefit of the *Carpus*.

This you have at *Tab. 19. Fig. 1.* at *I. K.* Shews this, *Tab. 20. Fig. 1. e. e.* Shews its beginning, *f. f.* Its Termination.

Flexores

Flexores Primi Internodii five Lumbricales.

THese are small and slender Muscles, arising round, long, and slender, from those Membranes which do enwrap the Tendons of *Tertii Internodii Flexores*, and so passing on Fleshy, are inserted by a round, Nervous Tendon into the first of the Joynts of the Fingers, and are best shewn by raising one from his Origination, and leaving him in his Insertion, and the other *é contrario*, these bends the Fingers laterally. *These bend the Fingers laterally.*

This you have at *F. F. F. F. Tab. 19. Fig. 1.* *G. G. G. G.* Shews their four Tendons, *F. F. F. F.* Shews the same at the same *Tab. Fig. 2.* *b. b. b. b.* Shewing their Originations, *F. F. F. F.* Shews the same in its place, *Fig. 21. Tab. 21.* *f. f. f. f.* The beginning of these Muscles, *g. g. g. g.* Shews their Tendons.

F f

Flexor

Flexor Primus, Primi Internodii Pollicis.

*The head
the Thumb.*

THe Thumb is bent or contracted in its Joynts, and these after several ways, and hence have they their names severally bestowed upon them, some of these being Contractors of the first, others of the second.

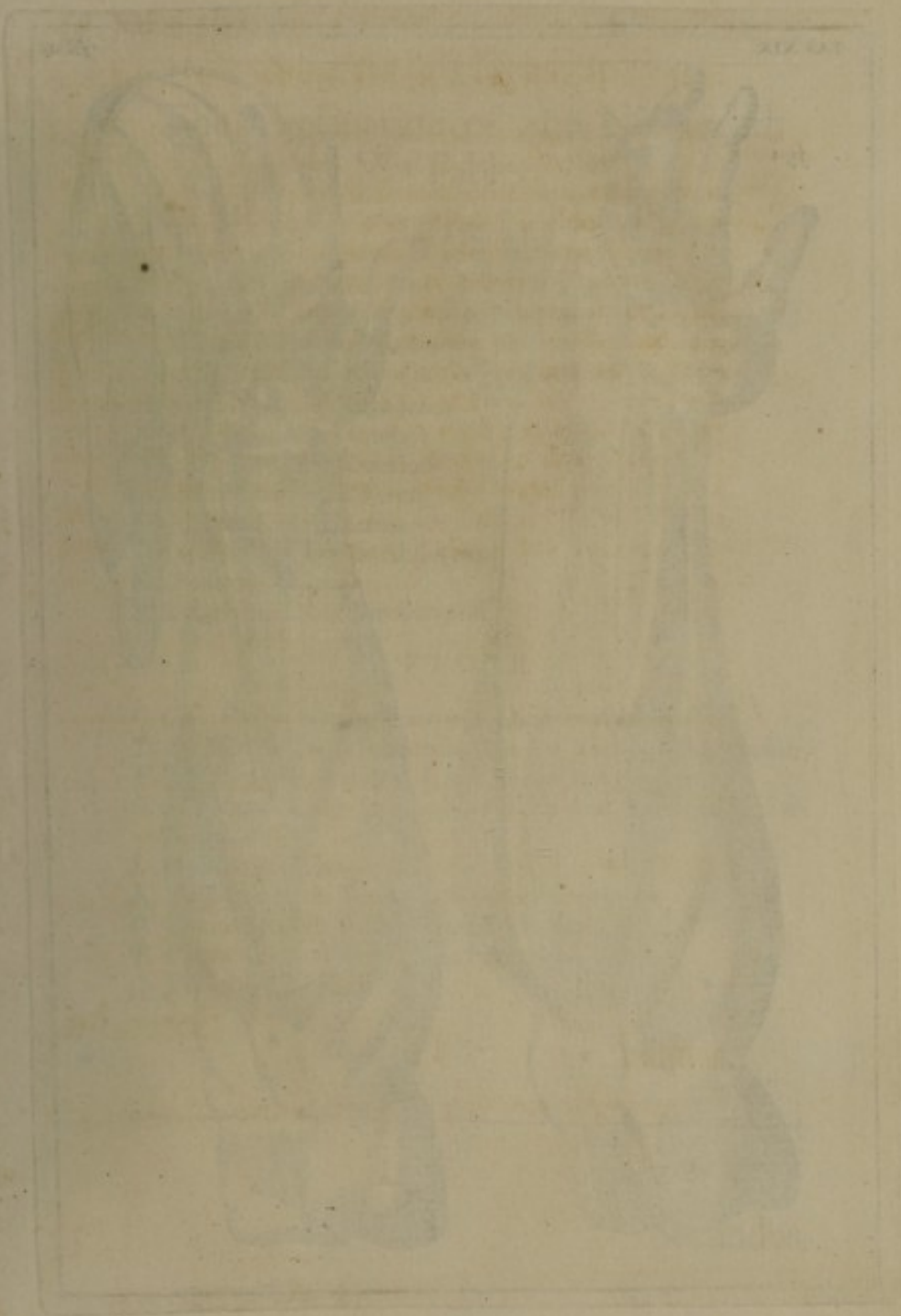
This first ariseth Flešhy from the upper seat of the Annular Ligament which is in the *Carpus*, near the Thumb, and ascending, doth encompass the first and second Joynts of the Thumb, and is inserted into the head of the first Joynt Flešhy.

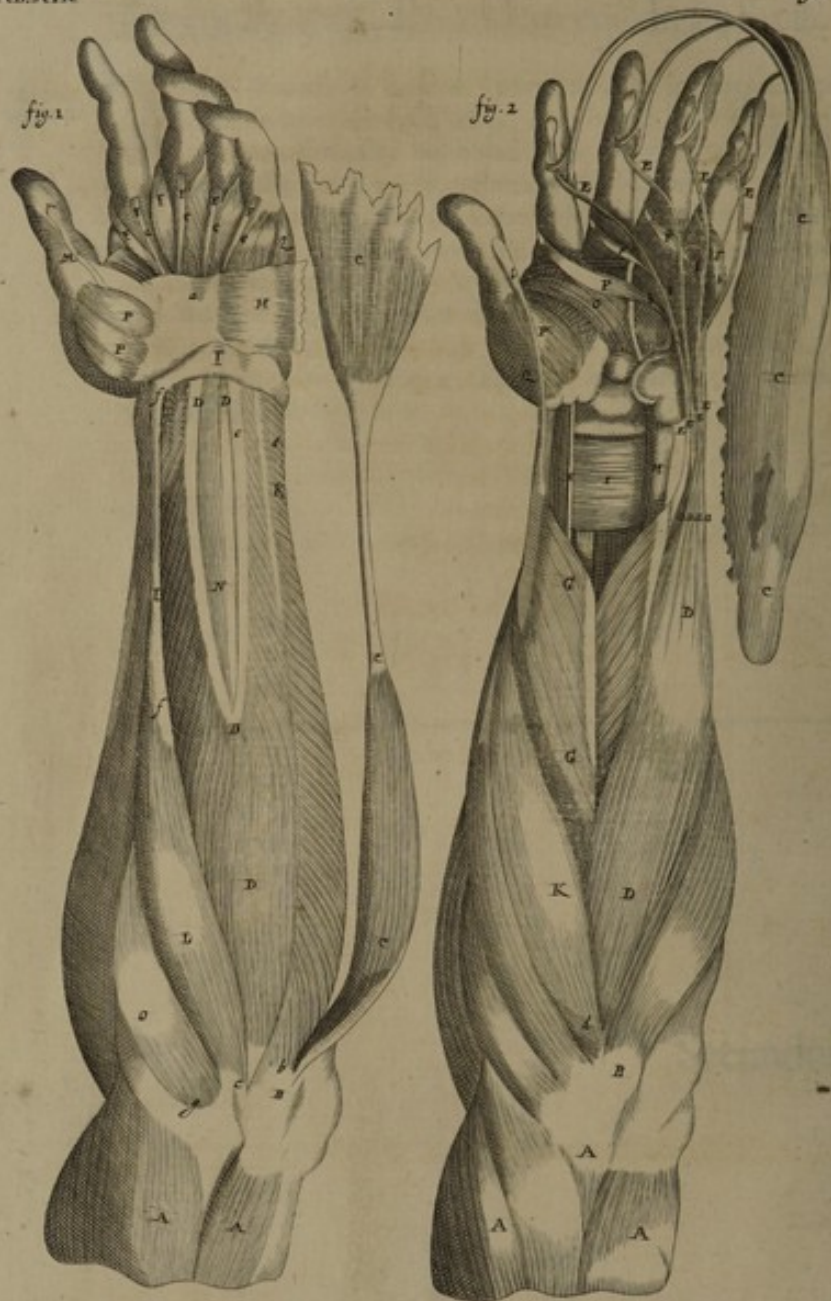
This you have at *Tab. 19. Fig. 1.* at *P. P.* This you have also at *A. B. Tab. 21. Fig. 1.* This you have also at the second *Fig. ejusd Tab.* at *B.*

Secundus.

Flexor

P. P.





The Explanation of the Nineteenth
Table.

FIG. I.

- C** C. Palmaris *laid bare.*
D. D. D. D. Flexor Secundi Internodii Digitorum. **E. E.**
E. E. Shews its four Tendons.
F. F. F. F. Lumbricales. **G. G. G. G.** *Shews these four Tendons.*
H. Caro Musculosa Quadrata.
K. K. Flexor Carpi Interior.
L. L. Flexor Carpi Exterior.
O. G. Pronator Radii Teres.
P. P. Pollicem Flectentes.
Q Minimum Digitum Abducens.
R. Pollicem Abducens.
S. S. Carpum Extendens Exterior.

FIG. II.

- C. C. C.** Flexor Secundi Internodii Digitorum *laid bare.*
D. D. Flexor Tertii Internodii. *a. a. a. a. Shews its four Tendons.*
F. F. F. F. Lumbricales, *b. b. b. b. Shews their Originations.*
G. G. Flexor Tertii Internodii Pollicis *laid bare. c. Shews its Tendon.*
I. Quadratus in situ.
K. Secundus Radii Teres. *d. Shews its Origination.*
O. Primus Secundi Pollicis Articuli Flexor.
P. Flexor Primus Primi Pollicis Internodii.
Q. Pollicem Abducens.
-

Secundus.

The Explanation of the Nineteenth
Table.

1. The first column contains the names of the
persons who have been admitted to the
degree of Bachelor of Arts, in the
University of Cambridge, since the year
1700, to the year 1750, inclusive.
2. The second column contains the names of
the persons who have been admitted to the
degree of Bachelor of Arts, in the
University of Cambridge, since the year
1750, to the year 1800, inclusive.
3. The third column contains the names of
the persons who have been admitted to the
degree of Bachelor of Arts, in the
University of Cambridge, since the year
1800, to the year 1850, inclusive.
4. The fourth column contains the names of
the persons who have been admitted to the
degree of Bachelor of Arts, in the
University of Cambridge, since the year
1850, to the year 1900, inclusive.
5. The fifth column contains the names of
the persons who have been admitted to the
degree of Bachelor of Arts, in the
University of Cambridge, since the year
1900, to the year 1950, inclusive.

FIG. II.

1. The first column contains the names of the
persons who have been admitted to the
degree of Bachelor of Arts, in the
University of Cambridge, since the year
1700, to the year 1750, inclusive.
2. The second column contains the names of
the persons who have been admitted to the
degree of Bachelor of Arts, in the
University of Cambridge, since the year
1750, to the year 1800, inclusive.
3. The third column contains the names of
the persons who have been admitted to the
degree of Bachelor of Arts, in the
University of Cambridge, since the year
1800, to the year 1850, inclusive.
4. The fourth column contains the names of
the persons who have been admitted to the
degree of Bachelor of Arts, in the
University of Cambridge, since the year
1850, to the year 1900, inclusive.
5. The fifth column contains the names of
the persons who have been admitted to the
degree of Bachelor of Arts, in the
University of Cambridge, since the year
1900, to the year 1950, inclusive.

 Secundus.

THis being smaller then the former, ariseth Flefhy, partly from the fame Ligament, and partly from *Os Carpi*, next the Thumb, and running under the other, is implanted into the fame Joynt from its Root, even to its middle: this is wholly lodged under the former, and is covered over with its breadth.

These two do bend the Joynt of the Thumb, and adduceth it to the Hand. *Riolanus* doth not acknowledge this as a *Flexor*, but rather doth think, that the Muscles arising from the Bones of the *Carpus*, and *Metacarpus*, to be either *Adductors* or *Abductors*.

This you have at *Tab. 19. at M. M. Fig. 1.*

 Secundi

Secundi Internodii Pollicis, Flexor Primus.

*This bends
the second
Joynt of the
Thumb.*

THis Muscle ariseth broad, thin, and Flethy, from that *Os Metacarpi* that receiveth the Fore-finger a little below his head, and running towards his Thumb grows somewhat triangular, and is inserted by a Membranous Tendon into the head of the second Joynt of the Thumb on the side next the Fore-finger.

ut. This Muscle by most Anatomists is allowed to bend the second Joynt of the Thumb.

This you have at *O. O. O. O. Fig. 1. & 2. Tab. 18. C.* Shews the same laid bare at *Tab. 21. Fig. 2.* This is also shewn *in situ* at *Tab. 18. at i. Fig. both.*

Secundus.

Secundi

 Secundus.

THis ariseth with a broad and fleshy beginning, from the middle part of *Os Metacarpi* of the third Finger, ^{*The note; as the former.*} running to the Thumb, and is inserted into the middle of the second Joynt thereof, in its inward part.

This Muscle is said to be next to the former, and thus each do succeed one another in place and order; and as touching their proper Uses, you will meet them all summed up together in *Quarto Musculorum Digitorum*.

This you have at *Tab. 18. at O. I.*

G g

Tertius.

Tertius.

*Tab. 18. d. 3.
operat. 3.
the former.*

This follows the second, and is contiguous to it, this ariseth broad and Fleſhy from the *Os Metacarpi* of the third Finger, and is implanted into the ſame with the former.

This Muſcle is alſo allowed to begin where the other ended: all theſe together do make up that Fleſhy Maſs which our Chirurgeons make uſe of, which you have more fully in the next; they are contracted according to the Bone moving towards the other Fingers, and according to their variety of Operations they do expreſs their diverſity of Uſes.

This you have at *O. 3. in Tab. 18.* at both Figures; This you have laid bare at *D. D. Tab. 21. Fig. 2.*

Tertius.

g d

Quartus.

The Explanation of the Fourth Table.

THis ariseth Flefhy from the *Os Metacarpi* of the Little Finger about the middle of it, and running under the other, is inserted into the same Joynt as the former. *This brings the Thumb to the Little Finger.*

All these Muscles are Flefhy, of which, the two contracting the first Joynt, with that abducing the Thumb, do constitute that little Hillock of the Thumb so called by Chiromancers; but the third of the second Joynt maketh whatsoever is Flefhy between the Life-Line, and the aforesaid little Hill; these are contracted according as the rest of the Joynts of the Fingers, and they working together, do bring the Thumb to the side of the Little Finger, hereby working the Hand into a hollownes. *use.*

This Muscle brings the Thumb up to the great or Fore-Finger.

This Muscle running under the former is not to be shewn by Figure.

The

Mimi

The Explanation of the Twentieth Table.

FIG. I.

- C** C. Secundus Radii Terei.
a. Shews its beginning, b. Its Termination.
D. D. Carpi Flexor & Extensor Internus *laid bare.*
G. Externus Carpi Flexor *laid bare.*
K. Quadratus.
c. e. Shewing its beginning.
f. f. Its Termination.
M. M. Secundi Pollicis Internodii Flexores *laid bare.*
N. N. N. N. Interossei.
P. Minimum digitum Abducens.

FIG. II.

- D. D.** Primus digitorum Extensor.
a. Shews its beginning.
b. b. b. Its threefold division, f. f. f. Shews three Tendons belonging to him.
H. Pollicis Adductor.
L. M. Carpum Extendentes.

Fig. 1.

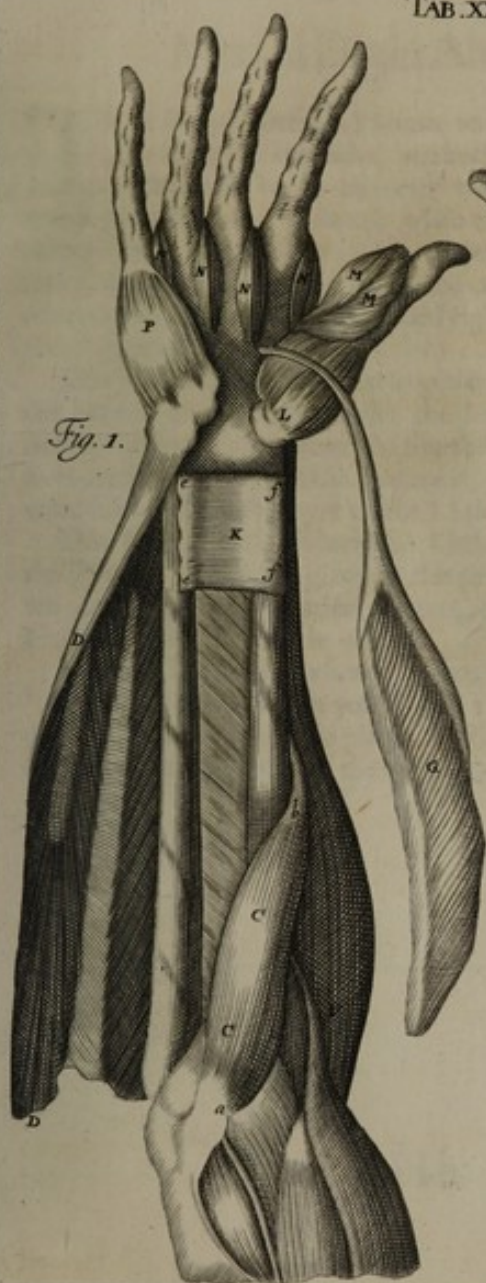


Fig. II.





Minimi Digiti Abductor.

THe Fingers besides Flexion and Extension, and being brought to the sides, are both adduced and abducted; This adducteth the Little Finger. then said to be adduced when they are drawn towards the Thumb; abducted, when they are retracted from thence: and the Muscles which do perform these Motions are many, some of which are accounted common, others proper; the common are commonly reckoned eight, the which from their site are generally called *Interossei*.

This Muscle called *Minimum Digitum Abducens*, is planted in the bottom of the Hand under the Little Finger, short and strong, arising fleshy from the fourth Bone of the *Carpus*, and so extending it self by the *Metacarpe*, is inserted into the outward side of the first Joynt of the Little Finger.

This Muscle doth abduce the Little Finger from the rest of the Fingers, and hath given it this particular Use, that whilst we do apprehend Spherical Figures, the same time, the Little Finger is abducted from the rest. Use.

This is call'd also *Hypothenar* by some Authors.

This you have shewn you at *Tab. 19. at Q. Fig. 1.* At *Tab. 20.* you have at *P.* in this place, At *Tab. 21. Fig. 1.* you have it *in situ*, And at *Fig. 2.* of the same Table it is laid bare at *E. E.*

Hh

Pollicis

 Pollicis Abductor. M

This abductor is from the Little Finger.

THe Thumb when moved laterally, is either abducted from the rest of the Fingers, or adduced; this *Abducens* ariseth Nervous near the *Flexor Primi Internodii Pollicis*, from the Interior part of the Bone sustaining the Thumb; and then becoming Flethy, implants it self by a Membranous Tendon into the first Joynt of the Thumb, and this abducerh it from the Little Finger.

use.

This is call'd also *Thenar* according to the *Greek* Idiom which names the more protuberant parts of the Palm *Σύνταξις τῆς Σίνος ἀπὸ τῆς προεξέχουσας*.

This you have at *Tab. 19. Fig. 2.* at *Q.* & *Fig. 1.* at *R.* *O.* Shews the same laid bare at *Fig. 2. Tab. 27.* *Æ.* Shews the same in place, *Tab. 21. Fig. 1.*

Pollicis

Pollicis

Pollicis Adductor.

Adducens is that which is seen in the space between the Pollex and the Index, and ariseth Flethy from the outward and back part of that *Os Metacarpi* that sustains the Fore Finger, and is inserted Flethy and broad to the inside of the Thumb to the first Joynt, and doth adduce the Thumb to the Index.

*Then brings
the Thumb
to the Little
Finger.*

This is call'd *Antitbenar* by some Authors.

This you have at *Tab. 21. Fig. 2.* at *H.* And at *O. Fig. 2. ejusd. Tab.* At *Tab. 20.* you have it at *Fig. 2.* at *H.*

26.

Interossei.

Extensor

Interossei.

*These mark
the Fingers
laterally.*

THese *Interossei* are generally accounted eight, Fleshy and small, and long, arising from the Bones of the *Metacarp*, according to whose whole length they do march; when these do attain to the Roots of the Fingers, they become Tendons, and are laterally inserted from the first to the second Joynts; there are six of these planted in the three joynts of the Bones of the *Metacarp*, (*viz.*) two in every one, so as one is carried to the inward, the other to the outward Finger, and another thereof belongs to the first Bone of the *Metacarp* which sustains the *Index*, and is incumbent in that part which respects the Thumb; the last adheres to the last Bone of the *Metacarpus* in the outward part of the Hand, or in its back thereof.

viz.

These Muscles by how much they do attain the rest, do also extend the second and third Bone, which is first observed by *Galen* 1 *de usu part.* 18. and this is the reason, why the Extensor of the Fingers being cut, yet their extension is not quite abolished: for these *Interossei* working together, do very excellently perform this Extension, and as they are implanted to the first Bone, if either of one of the Fingers be contracted, they do extend the first Joynt, if either, it either doth abduce or adduce it.

This you have at *f. G. H. H. H.* at *Tab. 2. Fig. 2.* At *Tab. 2.* you have the same at *N. N. N. N. Fig. 1.*

Extensor

Extensor Carpi exterior, sive Radius Externus, seu Bicornis.

THis is accounted the first of the outward Muscles of the *Carpus*, it ariseth from the External acuminate part of the Arm, with a broad and Nervous beginning, then growing more Fleishy, he runs by the *Radius* according to its length, and arriving half way, it marcheth into a strong Tendon, and is presently inserted with a double Tendon into the first and second Bone of the *Metacarpus*; and hence by reason of its double Insertion and Origination, is by some called *Geminus*.

*This extends
the Carpus.*

The Use of this Muscle is to extend the *Carpus*.

Use.

This you have at *Tab. 22. Fig. 1.* at *E. B. B.* Shews the same, *id. Tab. Fig. 2. a.* Shews its beginning, *b. d.* Its Tendinous Termination, *l. K. K.* Shews the same laid bare, *Tab. 23. Fig. 2. l.* Shews its beginning, *K. K.* Its two Ventrers, *b. b.* Declares its two Tendons produced thence, *L. M.* Shews them also at *Tab. 20. Fig. 2.*

The Explanation of the One and twentieth Table.

FIG. I.

- A** Pollicem Abducens.
B. Primum Articulum Pollicis Flectentes.
C. C. Abducens Minimum Digitum.
D. Part of the Tendon of the third Flexor of the Thumb.
F. F. F. F. Lumbricales.
f. f. f. f. Shews their Originations.
g. g. g. g. Their Tendons.
G. G. G. G. The four Tendons of the Flexores Tertii Internodii.

FIG. II.

- B.** Primi Pollicis Internodium Flexor.
a. Primi Pollicis Internodium Abducens.
C. C. Primus Secundi Pollicis Internodii Flexor laid bare.
D. D. Secundus & Tertius Secundi Pollicis Flexores.
E. E. Duo minimi digiti Abductores.
F. G. G. H. H. Interossei.
b. b. b. The Tendons thereof.

Extensor

Fig. I.

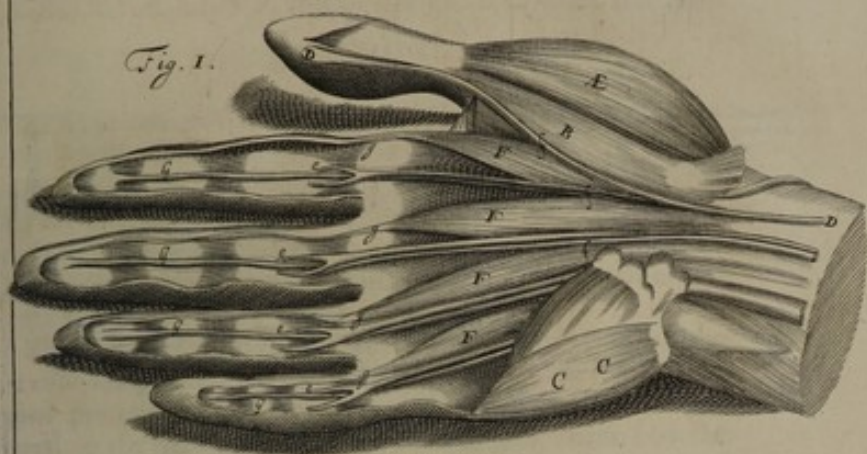
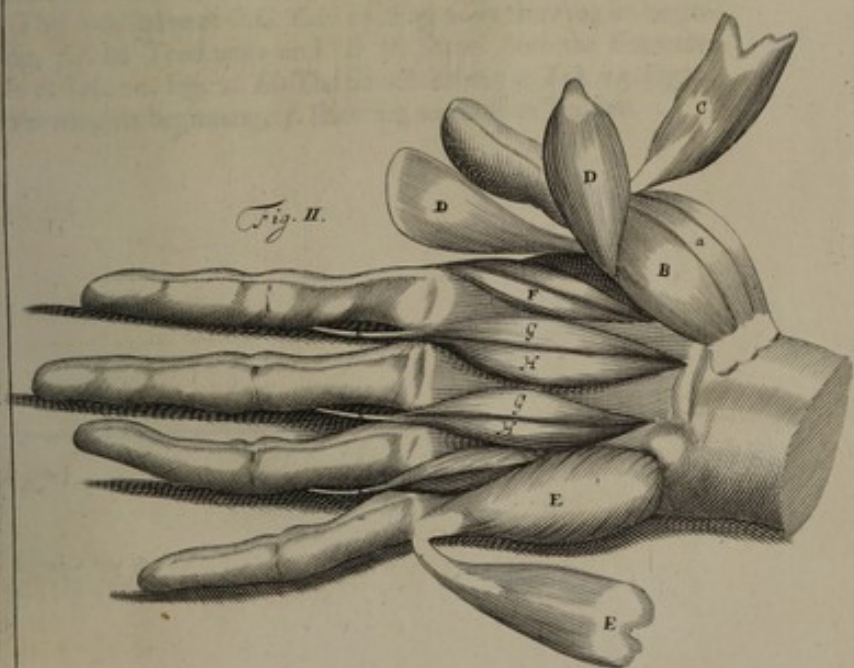


Fig. II.





Extensor Carpi Interior, five Cubitæus Internus.

THis ariseth from the Internal *Apophysis* of the Arm, as This doth extend the Hand. also from the top of the Cubite, and being dilated through the Cubite according to his length near the *Carpus*, is turned into a strong and round Tendon, by which he is inserted into a *Sinus*, above the lower Appendix of the Cubite, and into the upper part of the *Os Metacarpi* of the Little Fingers.

That worthy Observation of these parts is, that all the Flexors are planted in the forepart, and do arise from the inward protuberance of the Arm, and that the Extensors are seated in the back part, and do take their Origination from the outward Extuberance: And thus the Hand by the benefit of the *Carpus*, joyned with the *Radius*, is made either to bend or extend it self.

This you have at C. C. *Tab. 22. Fig. 2. e.* Shewing its beginning, *f. f.* Its Tendinous end, *L. M.* Shews both the Extensors also at *Tab. 20. Fig. 2. H.* The same laid bare at *Tab. 23. Fig. 2. e.* Shewing its beginning, *f.* Shewing towards its Tendon.

Digitorum Secundi & Tertii Internodii Tensor Communis.

These do extend the second and third Joyns of the Fingers.

AS there were some Muscles which did inflect the Fingers, and others designed for contracting the Thumb, so also are there diverse Muscles appointed for extension of the same; This is nominated as the first of the Extenders of the Fingers, it ariseth partly Flethy, and partly Nervous from the outward *Apophysis* of the Arm, and becoming more Flethy, descending between the two Extensors of the *Carpus*, and then narrowing doth divide it self into three round Tendons, which are included in a common thin Mucaginous Coat, and so are carried under the Annular Ligament, passing which, they divide themselves, and are inserted into the first, middle, and third Fingers, at the second and third Joyns.

viz.

These Tendons do reach to the ends of the third Bone, and do lodge under the Nails, whence follows, that such sharp and girding pains do happen in these parts when any Injury falls upon them.

This you have at *D. D. Tab. 22. Fig. 1.*

Minimi

Minimi Digiti Tensor.

THis ariseth sharp and Nervous from the same part as the former, and for near half way is united to it; so as ^{*This doth assist in extension.*} they seem all as one, but coming to the transverse Ligament, it becomes a round, large, and Nervous Tendon, which is implanted into the first, second, and third Joynts of the Little Finger.

This you have described with the rest.

K k

The

The Explanation of the Two and twentieth Table.

FIG. I.

- C. C. Digitorum Extensor Primus *laid bare.*
a. a. Shews its Tendon
D. D. Extensor Digitorum Secundus.
E. Carpus Exterior Extendentium.
F. Indicem Abducens.
G. Pollicis Extensor Primus.
H. Pollicis Extensor Secundus.
O. Supinator Radii Brevis.

FIG. II.

- B. B. Carpus Extendentium Exterior.
C. C. Carpus Interior Extendentium.
D. Supinator Radii Brevis.
H. Pollicis Extensor Primus *laid bare.*
I. Pollicis Extensor Secundus *laid bare.*
O. Pollicem Adducens.

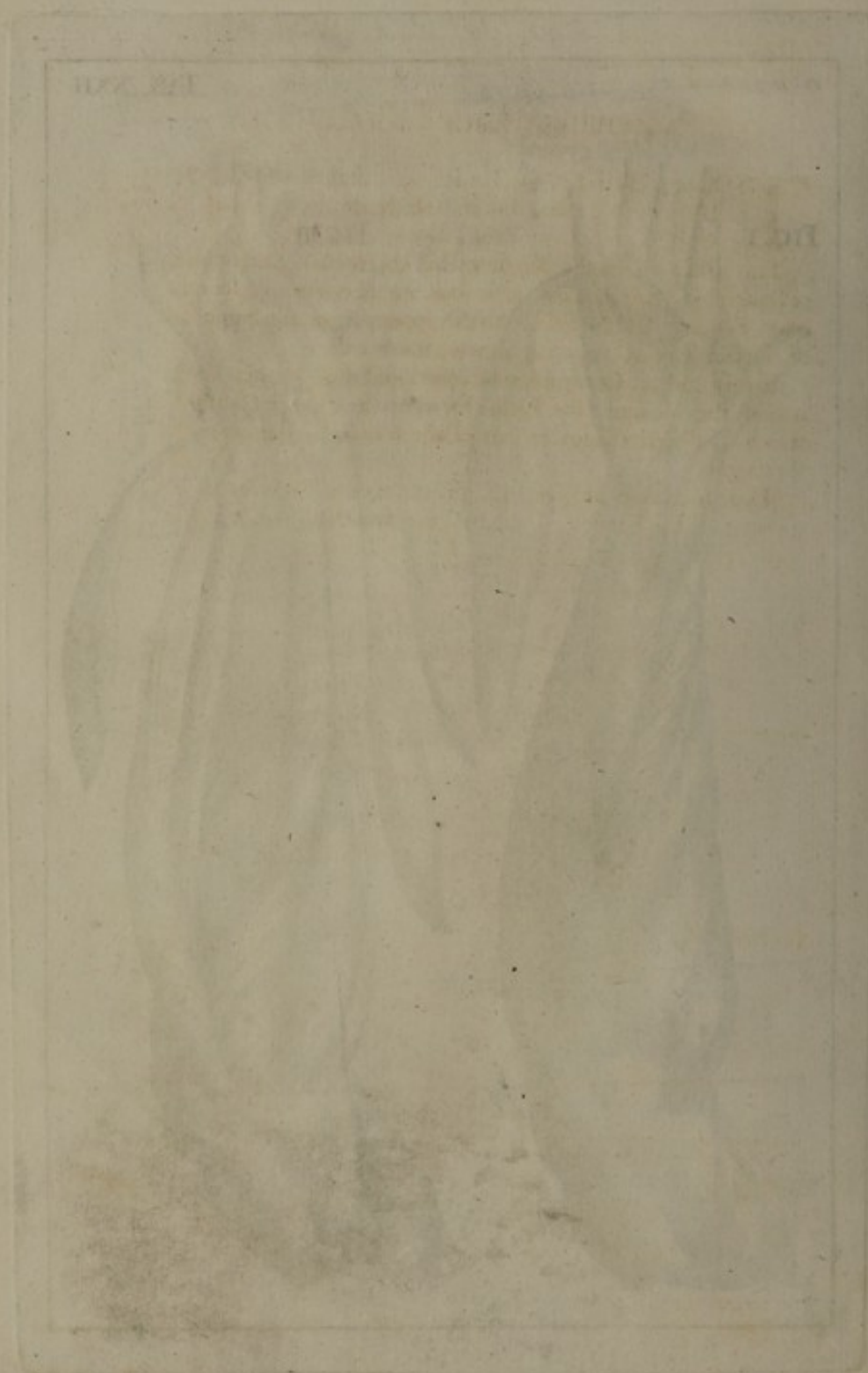
Supinator

FIG. I



FIG. II





Supinator Radii Longus.

This is called *Longus*, because it obtaineth the longest belly of all the Muscles which do creep about the Cubite. The longest the Radius outwards.

This ariseth from the middle of the *Os Humeri*, and running obliquely over the *Radius*, at its bottom it becomes a Membranous Tendon, and is fastned to the upper part of the Appendix of the said *Radius*, inclining somewhat inwards.

If this and its Companion be contracted towards their Originations they do move the *Radius* forwards as also the Hand, the which is tied to the lower part of the *Radius* by the benefit of the *Carpus*. use.

This you have at *Tab. 23. Fig. 1.* at *C. a.* Shewing its beginning, *b.* Its Tendon, *D.* Shews the same laid bare at *Fig. 2. Tab. 23.* *a.* Shews its beginning, *b. b.* Its Tendon.

 Secundi & Tertii Pollicis Tensor.

*This extends
the second
and third
Joints of
the Thumb.*

THis ariseth from the same place of the Cubite as the former, and ascends obliquely over the *Radius*, and divides its self into two unequal parts, yet closely adhering, and is carried in a proper Channel at the Appendix of the *Radius*: the upper part remaining somewhat Fleshy, yet at last becomes a round Tendon, and is inserted into the *Os Carpi* which receives the Thumb; the other being presently subdivided into two small pieces of Flesh, do at length become Tendons: the first of which is inserted into the first Joynt of the Thumb, the other by a Membrane, fixeth its self to the second and third Joynts of the Thumb.

This you have at *Tab. 22. at H. & I. Fig. 1. 1.* At *Fig. 2. ejusd. Tabul.* shews the same.

Secundi

Indicem

Indicem Abducens.

THis ariseth with a Fleſhy Origination from the middle of the Cubite, and ſo running obliquely to the Appendix of the *Radius*, it becomes two Tendons, which by a proper Sinus in the ſaid Appendix are tranſmitted under the Annular Ligament over the *Metacarp*, and the upper Tendon is carried to the Root of the Little Finger, the other is implanted into the Root of the ſecond Finger obliquely, that it may abduce from the Thumb: it is accompanied with two Extenſors of the Fingers in the lower Joynts, as the ſecond and third.

This you have at *F. Fig. 1. Tab. 22.*

Prim

L 1

Supina

Supinator Radii Brevis.

*This helps
Longus in
its Motion.*

THis being shorter and thinner than *Supinator Radii Longus*, ariseth from the Extremity part of the Ligament of the lower Head of *Os Humeri*, and from the process of the Cubite; and running obliquely (outwardly Membranous, inwardly Flethy) doth recover the middle of the *Radius*, and is strongly implanted into it.

v/c.

These two Muscles if they do work together, they do contract the *Radius* forwards and outwards, and so do bring the Hand upwards: but the one draws the part downwards, and the other draws it upwards.

This you have at *O. Tab. 22. Fig. 1. D.* Shews the same at *Tab. ejusd. Fig. 2. D.* Shews the same at *Tab. 23. Fig. 2. c* Shewing its Insertion into the *Radius*, *E.* Shews it at *Fig. 2. ejusd. Tab. c.* Shewing its Origination, *D.* Its Tendon.

Supinator

11

Primi

Primi Internodii Extensores.

They arise Fleſhy, round, long, and ſlender from the Bones of the *Metacarp*, and ſo running to the Roots of the Fingers, are laterally inſerted to the firſt and ſecond Joynts of the Fingers, and are to be raiſed as the *Flexores primi Internodii*; When theſe Muſcles are contracted to their Originations, the ſecond and third Joynts of the Fingers, together with the help of the *Interoffei* are primarily extended, and in time of need, may ſerve to aſſiſt in oblique Motions: and wiſe Nature placed theſe inwardly, that if by any miſchance the outward Tendons might receive any miſchief, or happen to be wounded, yet by the aſſiſtance of theſe, the Fingers might be extended.

This you have at *D. D. Tab. 20. Fig. 2. a.* Shews its beginning, *b. b. b.* Its diviſion into three Fleſhy parts.

The

The Explanation of the Three and twentieth Table.

FIG. I.

D Supinator Radii Longus *laid bare.*

a. Shewing its beginning.

b. b. Its Tendon.

E. Supinator Radii Brevis.

C. Shews its Origination.

D. Its Insertion.

H. Shews the Ligament which distinguishes the External Muscles from the Internal.

FIG. II.

C. Supinator Radii Longus.

D. Supinator Radii Brevis, c. Shews its Insertion.

H. Carpum Extendens Interior laid bare.

e. Shews its beginning, f. Its Tendon.

I. K. K. Carpum Extendens Exterior laid bare.

b. b. Shews its two Tendons.

The

Next

Fig. 1.

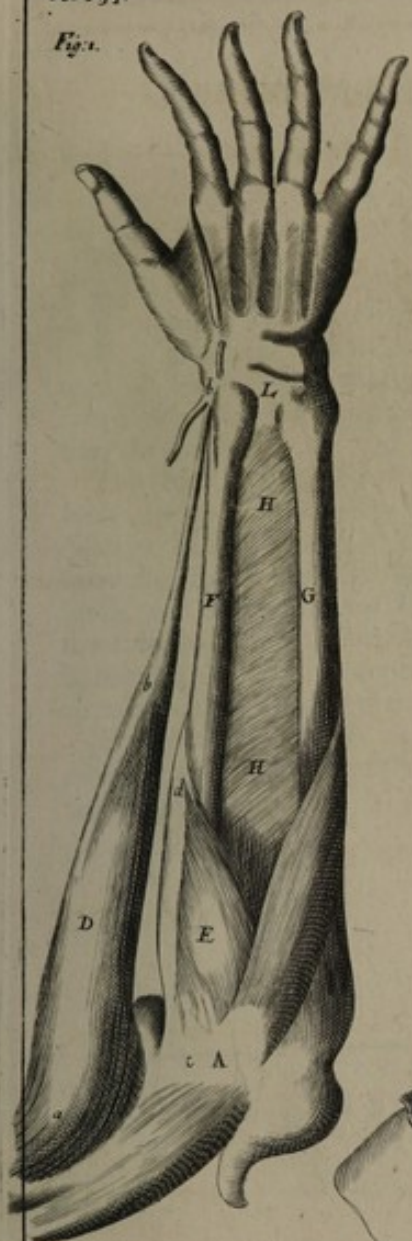
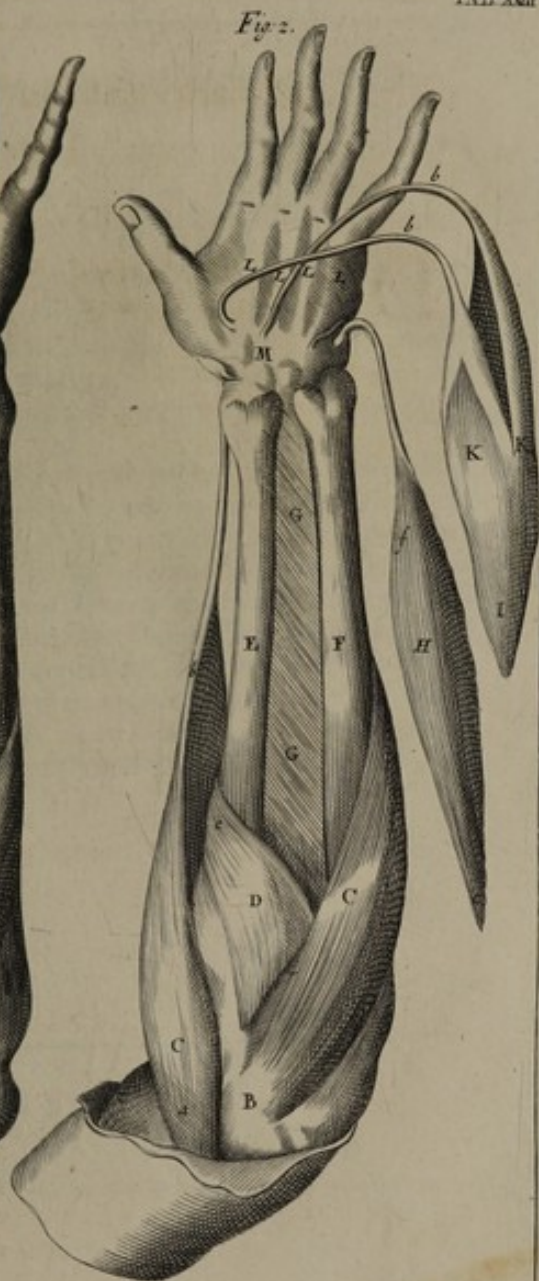
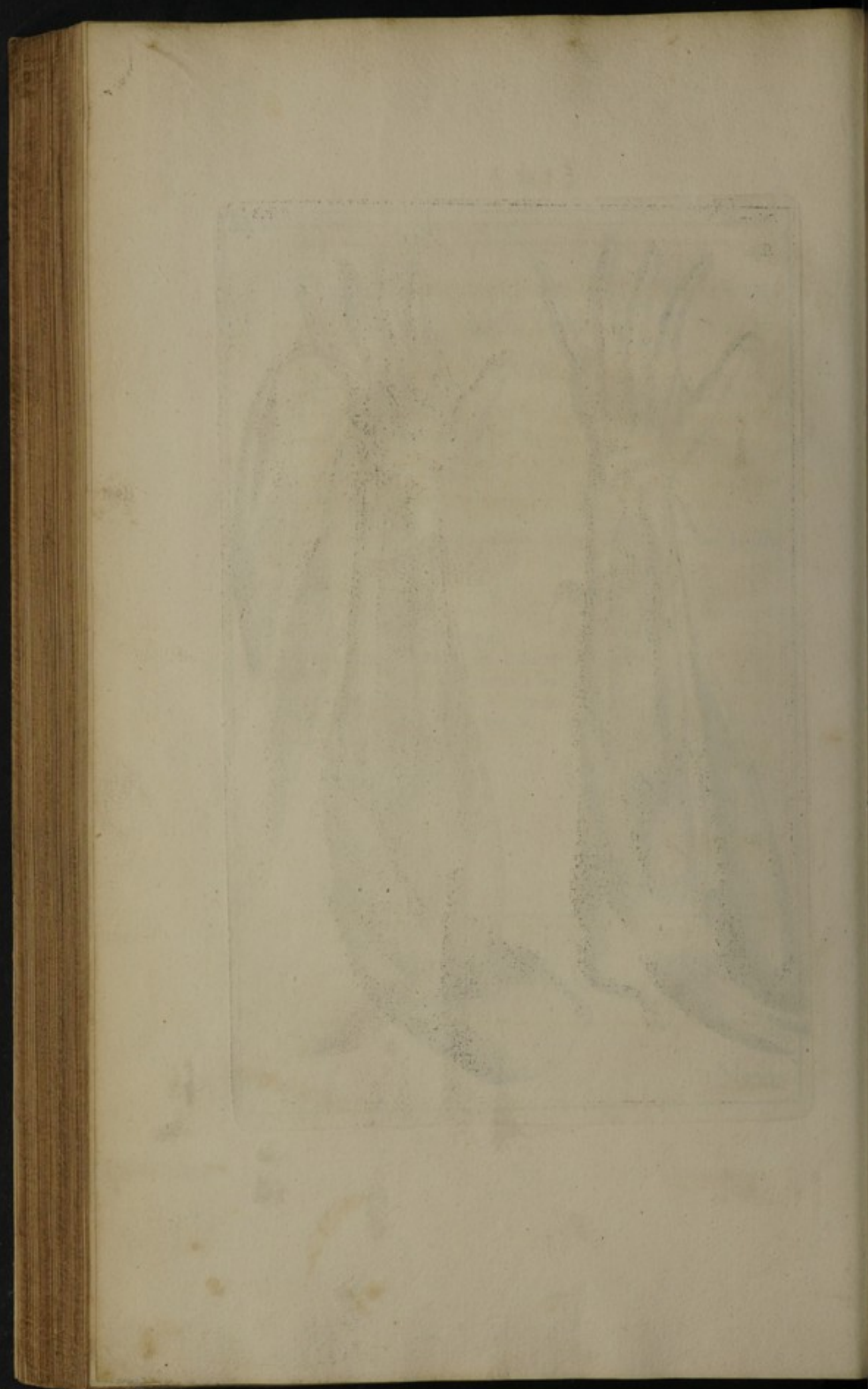


Fig. 2.





Next come we to the Body it self as it lies.

Serratus Major Posticus.

TO the former Muscles of the *Thorax* are also added these two, so called *Serrati postici* from their Actions, as also from their Indentings: and *Postici* being contrary to those *Serrati* we have already described, and they are also called either *Superiores* or *Inferiores* from their places which they do possess.

This Muscle being small is inserted in the Back under *Rhomboides*, between either *Scapula*, and upon the first pair of the Muscles of the Head, arising very thin and Membranous; from the Spinal processes of the three last Vertebres of the Neck, and the first of the *Thorax*, and in its oblique progress towards the Convex part of the *Thorax* it becomes Flethy, and is inserted into the four upper Ribs, by so many distinct Terminations, and by drawing them upwards doth dilate the *Thorax*.

This you have at *Tab. 24. at C. in situ, d.d.* Shewing its beginning, *e.e.e.* Its end consisting of three sorts of Fibres, *D.* The same laid bare.

M m

Serratus

Serratus Posticus Inferior.

This dilates
the lower
part of the
Thorax.

THis Muscle is broad, thin, and Membranous, placed almost in the middle of the Back under *Latissimus*, and the *Aniscliptor* of the Arm, arising from the Spines of the lower Vertebres of the Back, and the first of the Loyns, and marching along transversely becomes Flethy and is inserted into the four lower Ribs by so many distinct Terminations, the which drawing outwards doth dilate the lower part of the *Thorax*.

E. Shews this at *Tab. 24. f. f.* Shews its Origination, g.g.g. Its Serrated Insertion, F. This Muscle laid bare.

Splenius

Serratus

M m

Splenius five Triangularis.

This ariseth double: First, from the Spines of the fourth, fifth, third, second, and first Vertebres of the *Thorax*: Secondly, from the Spines of the five lower Vertebres of the Neck, and so running broad and long about the third Vertebre of the Neck, both the Originations do unite: and by oblique Fibres both Muscles do insert themselves into the middle of the *Occiput*; You must take off from its Originations, and preserve as many of its *Ansule* as you can between the Spines by running between, and recovering its Tendon; If both move, they draw the Head directly backwards, if only one move, it turns the Head laterally.

This you have at *Tab. 24.* at *A. A. A. A.* Shews the same at *Tab. 26.* This you have at *B. B.* also *Tab. 25. Fig. 1.*

Trigemi

Trigeminus five Complexus.

*This extends
the Neck.*

This is the second pair of the Extenders, lying under the former, and is called *Trigeminus*, because it has allowed it a threefold Origination, and seemeth to be conflated out of three Muscles running into one: it hath various beginnings, and obtains both many and Nervous parts; it ariseth threefold, first, from the fourth and fifth transverse Processes of the Vertebres of the *Thorax* and immediately becoming Flethy doth ascend over the rest of those Vertebres, until he reacheth the lowest Vertebre of the Neck, where it becomes a round Tendon; Not far from thence again it becomes Flethy, and inserts it self into the middle of the *Occiput*; The second Origination is by a short round Nerve from the same Process of the last Vertebre of the Neck, and thence becoming Flethy is joyned to the other before its Insertion; The third Origination is partly Flethy, and Nervous from the transverse Processes of the first and second Vertebres of the *Thorax*, and running obliquely outwards, after union with the former, is inserted into the Root of the Mammillary Process, bestowing an Anfula upon every transverse Process of the Neck. To find this fairly, divide the sides of *Spinatus*, and *Longissimus Dorsi*, and his Origination will more plainly appear.

ob.

Riolanus doth observe that the Fibres both of this *Complexus* and *Splenius* to be intersected and disposed cross-ways for the better strengthening of either Muscle.

B. B. Shews this at *Tab. 24.* *B. B.* Shews the same at *Tab. 26.* *C.* Shews the same laid bare at the same Table.

Trigeminus

Transver

Transversalis.

THis ariseth from the transverse Processes of the six upper Vertebres of the *Thorax*, and so growing thicker, is implanted externally into all the transverse Processes of the Neck, and hence had it given it its name, and doth draw the Neck backwards: but one of these only working, they bend it obliquely downwards; between these are carried the Nerves of the Spinal Marrow, passing out of the Vertebres of the Neck.

This you have at *E. E. Fig. 2. Tab. 25.*

N n

The

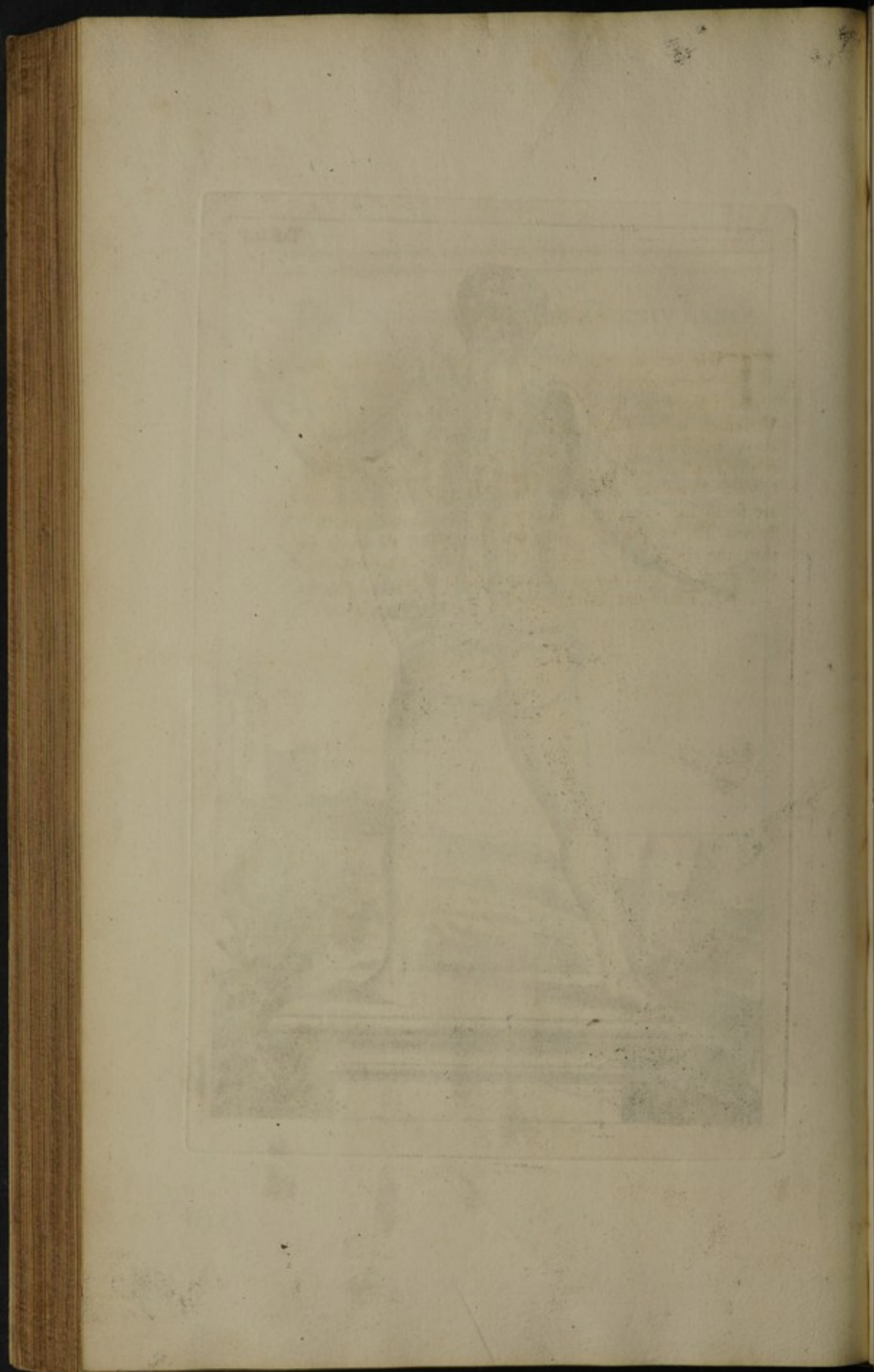
The Explanation of the Twenty fourth Table.

A <i>A. Triangulare by some called Splenius.</i>	<i>g. g. g. Its Insertion.</i>
<i>b. b. Shews its first and second sides.</i>	<i>F. Shews the same Muscle laid bare.</i>
<i>B. B. Trigemini.</i>	<i>G. Shews Rhomboides laid bare.</i>
<i>C. Serratus Posticus Superior.</i>	<i>h. h. Shews its Flefhy beginning.</i>
<i>d. d. Shews its Origination.</i>	<i>i. i. Its Flefhy Termination.</i>
<i>e. e. e. Shews its Termination.</i>	<i>H. H. Longissimus Dorfi.</i>
<i>D. Shews the same laid bare.</i>	<i>I. The same laid bare.</i>
<i>E. Serratus Posticus Inferior.</i>	<i>K. K. Sacrolumbus.</i>
<i>f. f. Shews its Origination.</i>	<i>L. M. N. The same laid bare.</i>

Spinati

TAB. XXV.





Spinati Colli.

THis pair are long and large, possessing the whole Neck, ^{*This extends*} between the Spines: it ariseth with many beginnings ^{*on the former.*} from the Roots of the Spines of the seven uppermost Vertebres of the *Thorax*, and ascending, gets a Tendon out of every transverse process of the Vertebres of the Neck, and is firmly implanted into the whole lower part of the second Spine of these Vertebres, and there the right and left do meet, and are so all the way united, that they are not divisible but by the Spine; These with the former do also extend the Neck, and then the Head, either directly, if they work together, or if ^{*Use.*} they work singly or apart, it brings it obliquely.

E. f. f. These you shall have at *Fig. 2. Tab. 25.*

Recti

Recti

Recti Majores.

*These ex-
tend the
head.*

THese are the fourth pair : this Muscle is small, thin, and Flethy, arising from the points of the Spines of the second Vertebre of the Neck, and ascending, are inserted into the middle of the *Occiput*, and doth help the motion of the third pair.

These are generally held to be the fourth pair of the Neck, and are granted to give assistance to the former in their Extensions.

This you have at *E. Fig. 1. Tab. 26.* At 25. you have them at *C. C.* At *b. b.* you have them, *id. Tab. Fig. 2.*

Recti

Recti

Recti Minores.

THese pair lying under the former, being of the same substance and shape, accompanied with the like ductus, These do help the former. do arise from a small protuberance of the first Vertebre of the Neck round, and ascending, are implanted as the former underneath them; by the benefit of these *Majores* and *Minores*, if the whole pair work together, it extends the Head directly, but if one only move, it is moved laterally.

Nature hath made so many Muscles for extension of the Head, that Man might more aptly fit himself for the Contemplation of Cœlestial Bodies, and for this Motion, small Muscles were thought most requisite: and lest they might tire or grow weary in their long dependence, Providence hath ordered to these, long Muscles, more properly adapted for a longer bowing of the Head, or extending it to a sharper Angle.

These you have at *Fig. 1. Tab. 25. at D. D. Fig. 2. ejusd. Tab.* you have them at *b. b.*

impild

O o

Obliqui

Obliqui Superiores.

These do turn the Head about.
viz. **T**HE sixth pair are planted under the *Recti* or the fore-mentioned, answering their form or shape, being but small, and arising from the outward side of the *Recti* at their implantations, and obliquely descending, are inserted into the process of the first Vertebre of the Neck: if both move, they nod, and directly backwards: if only one, it inclines the Head laterally.

These are called *Obliqui* from their *site*, and one pair are implanted above another, either of which do lie under the *Recti Extenderes*, whose substance and form they exactly do answer. *Banhus* will have these to arise in the *Occiput*, and to end in the lateral processes of the first Vertebre of the Neck.

These you have at *F. Fig. 1. Tab. 26.* At *Tab. 25.* you have the same at *E. E. Fig. 1. Fig. 2. ejusd. Tabul.* you have them at *e. e.*

Obliqui

O O

Obliqui Inferiores.

THis lower pair ariseth longish, Flefhy, and thin from the <sup>This helps
the form. r.</sup> Spine of the fecond Vertebre of the Neck, and obliquely afcending, are inferted with the *Obliqui Superiores* into the tranfverfe Procefs of the firft Vertebre.

When thefe are contracted, they work it about the Spine circularly, whence it is, that the Head confifting upon the fame, it is alfo moved circularly therewith to the fides; but becaufe thefe two pair are very fmall, the two former pair of Extenfors, they do help thofe in their Motion, as alfo thofe of the right, as we have already fhewn. u.

Thefe you have at *Tab. 25. Fig. 1. at F.* And at *d. d.* you have them at *Fig. 2. ejusd. Tab.*

The

The Explanation of the Twenty fifth
Table.

FIG. I.

A Trigemini.
B. Splenius.
C. C. Recti Majores.
D. D. Recti Minores.
E. E. Obliqui Superiores.
F. F. Obliqui Inferiores.

FIG. II.

a. a. Recti Minores.
b. b. Recti Majores.
c. c. Obliqui Superiores.
d. d. Obliqui Inferiores.
E. E. Transversales Colli.
f. f. f. Spinati Colli.

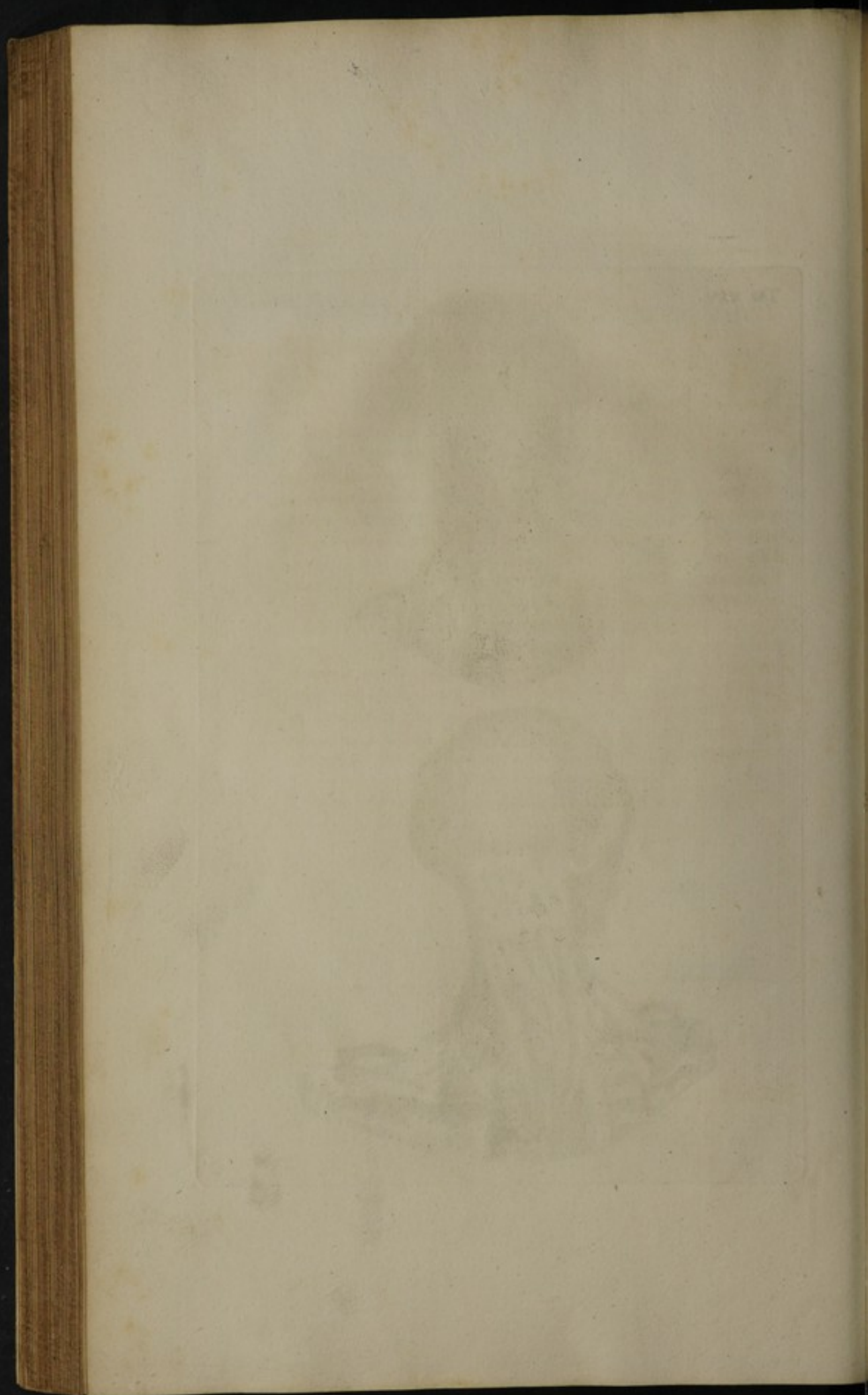
Longis.

Fig. 1.



Fig. 2.





Longissimus Dorfi.

THis Muscle hath not this name given it, only because it is planted between the Muscles of the Back, but being as the longest of the whole Body : for it ariseth from all the Spines of the *Os Sacrum*, and Vertebres of the Loins, as also from the inward part of the *Os Ileon*, where it joyns it self to the *Sacrum*, being the first and chief pair, its beginning being externally strong and Nervous, and somewhat Acute, but within Flethy, and so ascending, doth fix it self to the transverse Processes of the Loins, and becomes more Flethy ; then marching on, it narrows it self, and gives a small Nervous Tendon upon every transverse Process of the *Thorax*, except the twelfth, and doth insert it self into the said Process of the first Vertebre of the *Thorax*, although sometimes it attains the Mammillary Process.

This is allowed to extend both the *Thorax*, the Loins, and their Vertebres : upon this borders the whole *Sacrolumbus* in its outside, whose beginning with this is one and the same, and is also continued from the end of the *Os Sacrum* to the twelfth Vertebre of the *Thorax*, and so continued in its whole progress through the Loins.

This you have at *H. H. Fig. 1. Tab. 24. I. I.* Shews the same laid bare in the Right side, *H. H. I.* You have the same at *Tab. 26. b. b.* The same laid bare.

Sacrolumbus.

*This helps
the force
in extending
the Thorax.*

THis Muscle lieth under *Serratus Posterior Inferior*, having the same Origination with *Longissimus Dorsi*, and doth adhere to him externally lateral, according to its length, until it hath got the twelfth Vertebre of the *Thorax*, where they seem to be two, although scarce divisible by dissection, and so growing thinner, doth in it self by two small Tendons into every Rib of the *Thorax* at their Incurvation.

Use.

About these Tendons there doth arise a great dispute amongst Anatomists; for some with *Laurentius* do think this Muscle to send forth a double Tendon, one upwards to the lower parts of the Ribs, the other downwards to their upper part; and these Tendons thus diversly mediating (which are manifestly seen about the Ribs) are seen to attol the Ribs upwards in inspiration, and to draw them downwards in expiration; The truth is, these contrary actions are not to be reasonably conjectured to be acted by one certain Muscle: and that it may very well be allowed, that these descending Tendons ought to proceed from some other peculiar Muscle, here upon a diligent enquiry, we find them to proceed from a certain Muscle substrated to the *Sacrolumbus*, and to this it is so closely annexed, that it is scarce perfectly to be separated from it.

This you have at *K. K. Tab. 24. L. M. N.* The same laid bare.

Cervicalis

Cervicalis Descendens.

This takes its Origination from the third, fourth, fifth, ^{the sixth, and the} sixth, and seventh Vertebres of the Neck, and hence ^{Thorax.} by *Diemerbroeck* is Christened by the name of *Cervicalis Descendens*, thence arising Flelhy, sending forth Tendons, somewhat downwards into the upper part of all the Ribs, directly opposite to those Tendons of the *Sacrolumbus*, and these Tendons thus intersecting themselves, do not work together but by turns; As the Tendons of the *Descendentis Cervicalis*, do draw the Ribs upwards in aspiration, so the *Sacrolumbal* ^{Expiration.} Tendons in expiration do draw the Ribs downwards, so as they may be moved to, and contracted by them.

As to this Muscle the Author will further satisfy you, and therefore I recommend you to *Diemerbroeck*.

Sacer.

Sacer.

*This extends
the Loyns.*

For the various Motions of the Back and Loyns, as forwards, backwards, and laterally, to every of the Vertebres are implanted Tendons of Muscles; Our Accurate Dissectors of late have found four pair of Muscles to be planted in the Back and Loyns, by whose help, the strong Motions of these parts are performed: some appointed for Contraction, others for Extension.

This pair are so called from their Origination, because they do arise from the Exterior part of the *Os Sacrum*, where they are joyned to the Spine, and so arising Flethy, have three several Tendinous Insertions: the first into the upper part of the transverse Processes of the Vertebres of the Loyns, the other into the Root of the same Processes, and the third into the Spine of the same Vertebre; To find this out, you must raise *Latissimus Dorsi*, and *Sacrolumbus* from their Membranous Originations; at *Os Ileon*, *Os Sacrum*, and from the Lumbal Spines, and immediately under this will this appear *in situ*, these helping forwards the action of *Longissimus Dorsi*.

This you have at *L. M. N.* at *Tab. 26.* *L. M.* Shewing its beginning, *N.* Its Termination.

Sacer.

Semispina.

Semispinatus.

THis is the fourth pair, arising with a Nervous beginning This extends the Thorax. from all the Spines of the *Os Sacrum*, and Loyns, and becoming Flefhy, doth bestow a Nervous Tendon upon every Spine of the Vertebres ascending, and terminates acutely in the Spine of the first Vertebre of the *Thorax*, extending it.

This by *Spigelius* is accounted the second pair of the Muscles extending the *Thorax*. vfe.

This is shewn at *Tab. 26.* at *K. K. c. c.* Shewing its beginning, *d.* Its Termination.

Q q

Quad

 Quadratus.

*This Muscle
extends the
Loyns.*

THis Muscle is called *Quadratus* from the resemblance it hath with a square : it ariseth from the back part, and upper Cavity of *Os Ileon*, as also from the upper part of *Os Sacrum*, broad, thick and Fleshy, and so ascending over the Vertebres of the Loyns, doth adhere internally to their transverse Processes, and inserts it self being grown narrower, to the inner part of the twelfth Rib Fleshy, and doth bend the Vertebres of the Loyns forwards : and one only working, it bends it obliquely forwards to the sides.

Use.

Use.

The Loyns are concerned with three Motions, the which are performed by two pair of Muscles, for they are bent forwards, extended backwards, and brought laterally, they are contracted by these two, and extended by *Sacer*.

This you have shewn at *R. R. Tab. 26.*

Psoas

Psoas vel Lumbaris.

Since Ambulation is the proper office and work of the Foot, and this being very consistent in Firmation and Motion, (for when one Foot remains on the Ground, the other is lifted up, and so moved forward for the completing of Ambulation) now for the performance of either of these Functions, its very requisite these parts should be furnished with such Muscles as may make forwards towards these Extensions and Contractions, as also to the promoting of the various Motions of the Thigh, Leg, and Foot, these being according to our pleasures either extended, contracted, adduced, abducted, and wrought or brought about : amongst the Contractors we meet with this, as the first called *Lumbaris* or *Spina*.

It ariseth Livid and Fleshy from the sides of the Bodies of the two last Vertebres of the *Thorax*, and the three uppermost of the Loyns, and from their transverse Processes descending somewhat round from the inner part of the *Os Ileon* ; to the *Os Pubis*, where it becomes a strong and round Tendon, and running through its Sinues, is implanted into the upper part of the lesser *Rotator* : Its Use is to draw the Thigh upwards, and to bend it inwards ; and because the Kidneys do lie upon this Muscle, as *Laurentius* doth observe, over which is spread a notable Nerve, hence it happens, that such as are troubled with the Stone, do find a sleepiness in that side of the Thigh whereon the Stone is lodged, by its compression.

D D. Shews this at *Tab. 27. b. b.* Shews its Origination, *E.* Its Tendon, *F. F.* The Nerves which pass hence into the Thigh, *G. G. G.* The same laid bare.

The

The Explanation of the Twenty sixth
Table.

A Splenius.	<i>bare.</i>
<i>a. a. a. Shews its Anfulæ.</i>	<i>b. b. Shews the same wholly laid</i>
B. B. Trigemini.	<i>bare.</i>
<i>C. The same laid bare.</i>	<i>a. a. a. Shews its inward Face and</i>
D. D. Transversales Colli.	<i>Anfulæ.</i>
E. Rectus Major.	K. K. Semispinatus.
F. Obliquus Superior.	L. M. N. Sacer.
G. Obliquus Inferior.	L. L. Shews its Origination.
H. H. I. Dorsi Longissimus laid	R. R. Lumbales Quadrati.

Psoas

TAB. XXVI.





Psoas Parvus.

BEsides the former, in some Bodies is seen this *Psoas Parvus*, This doth help the former. so called by *Baubine*, it ariseth Flešhy the length of a little Finger, and is dilated with a slender and plain Tendon above the *Psoas*, and ends with the *Psoas* and *Ileon*, and embraceth them very firmly; *Riolan.* affirms he never could find this in Women; *Bartholine* writes, that he saw this Muscle arising in a strong and Flešhy Man at the *Hague*, whose beginning was Flešhy, and did equal the breadth of three transverse Fingers; it was inserted Flešhy in the upper Posterior Margent of the *Os Ilii*, at the Origination of the *Iliacus Internus*: he obs. supposed its Use to be as a Pillow to the former, and that whereas the *Os Ileon* of it self was immovable, or that it might sustain the *Os Ileon* erected, lest by the standing too much thereon, it might cause a weariness and prove burthenfom. its Use.

Our Master of Anatomy, *Mr. William Molins* in the Year of his being Master doth mention this Muscle, in the Body then Dissected by him.

This Muscle lies under the former, but appears not very frequently.

The Explanation of the Twenty seventh Table.

A <i>A. Shews Quadrati.</i>	I. I. I. <i>Iliacus Internus.</i>
D. D. <i>Ploas or Lumbalis.</i>	L. L. M. M. M. <i>The same laid bare.</i>
b. b. <i>Shews its Origination.</i>	O. <i>Lividus.</i>
E. <i>Its Tendon.</i>	P. <i>The same laid bare.</i>
G. G. G. <i>The same laid somewhat bare.</i>	R. <i>Rectus.</i>
	T. <i>Fascialis.</i>

We





We arrive now to the taking the Thigh off from the Trunk of the Body, by dividing Os Ileon from the Os Sacrum, after which, will this appear as the most proper Order of Dissecting these following Muscles.

Iliacus Internus.

THIS is the second Muscle of the Thigh, proceeding from the whole Spine of the Os Ileon semicircular broad, and internally Flethy, then narrowing, and growing thicker becomes Tendinous, and passing through the same Sinus with the Psoas, is implanted into the same Rotator a little below it. This is allowed to bend the Thigh directly, that is, when it is raised towards the Body, so as that it inclines to no one side, and when we make a right Angle with the Spine, then we properly say the Thigh is contracted, when sitting we sit with contracted Thighs. *This contracts the Thigh directly.*

This you have at 27. Tab. at I. I. I. L. L. The same laid bare *id. Tab. M. M. M.* Shews its Flethy beginning.

Glutæus

Glutæus Major.

*This extends
the Thigh
obliquely
backwards.*

THis is the first of the Extenders, the which with its other two doth make up the Fleſhy Maſs of the Buttocks, the Skin being laid bare, this ſhews its broad beginning, enated from diſverſe Bones: it ariſeth from the whole Spine of the *Os Ileon* externally, then from the lower part of the *Os Sacrum* laterally; And thirdly, from the *Os Coxendix* large, and Fleſhy, running obliquely down over the Juncture of the *Os Coxendix*; and growing narrower is implanted by a broad and ſtrong Tendon into the firſt Impreſſion of the great *Rotator*, and part of it alſo into the *Linea aſpera*.

uſe.

Then we properly do affirm the Thigh to be extended, when it's brought outwards, (*viz.*) as when we ſtand as it were with divaricate Thighs, or Thighs that are placed at a diſtance.

This you have at *Tab. 28.* at *C. C. C. a. a. a.* Shews its upper part, *b. b.* Its other part, *H. I. K.* The ſame laid bare. *H. H. H.* The thick and Fleſhy beginning of it, *i. i. i.* Its thick Belly, *K. K.* Its Tendinous Subſtance.

Pſoas

Glutæus Medius.

THis Muscle ariseth under the former, much like it both *This extends it obliquely forwards.* in *situ* and magnitude, from the forepart of the Spine, as also from the back of *Os Ileon*, Flethy, broad, and semicircular, and obliquely descending, narrows it self, and doth enwrap the Juncture as the former, and is implanted by a broad, strong and Membranous Tendon transversely into the fourth impression of the great *Rotator*; This is said to extend the Thigh and draw it upwards, and laterally forwards, as some imagine, but I humbly conceive it assisteth the *Glutæus Major*, and depresseth the *Os Femoris*: and after it is lifted up by the *Psoas* and *Iliacus Internus*, this Muscle pulleth it down again, and is as an Auxiliary Muscle to the *Glutæus Major*, and *Minor*, in the extension of the Thigh. *Use.*

L. L. Shews this Muscle *in situ* at *Tab. 28. e. e.* Shews its Flethy beginning, *B. B.* Shews the same *in situ*, *Tab. 29. D. e. f.* Shews it laid bare, *D. D. D.* Shews its Flethy beginning, *E.* Its Flethy Belly, *F.* Its Tendon.

S f

Glutæus

Glutæus Minor.

This extends the Thigh directly. **T**His lies wholly under the second, arising livid, broad, Semicircular and Flefhy, about the lower part of the back of the *Ileon* near the *Acetabulum* of the *Coxendix*, and so runs obliquely forwards Fibrous, according to the Ligament that binds in the head of the *Os Femoris*, and is implanted by a broad and strong Tendon into the third impression of the great *Rotator*.

Use. These three do extend the Thigh, and do draw it backwards, and so extend it. I conceive it most probable, they all unite in pulling the *Os Femoris* downward and backward, after it is elevated by the *Flexors*, the *Psoas*, and *Iliacus Internus*.

This is shewn at *Tab. 29. at G. G. a. a.* Shews its beginning, This you have laid bare at *Tab. 29. at a. a. a. b. b.*

Iliacus

 Iliacus Externus vel Pyriformis.

THis Circumagent Motion is performed when the Thigh This brings the Thigh about upwards. is Circumverted; which thus happens: when standing with the Right Foot firm upon the Ground, we move the Thigh obliquely; this Motion is twofold, for its either brought outwards or inwards: outwards when the Knee is moved outwards, and the Heel inwards: inwards when the Knee is brought to the Ham, and the Heel forwards; Amongst these Circumagent Muscles this is reckoned the first

It ariseth thick and Fleshy from the three lower Vertebres of the *Os Sacrum*, and running transversely becomes a round Tendon, and is inserted into the fourth impression of the great *Rotator*; This draws the Thigh upwards, outwards, and backwards, this is allowed the thickest Muscle in Human Body, and is stuffed out with wonderful variety of Fibres. use.

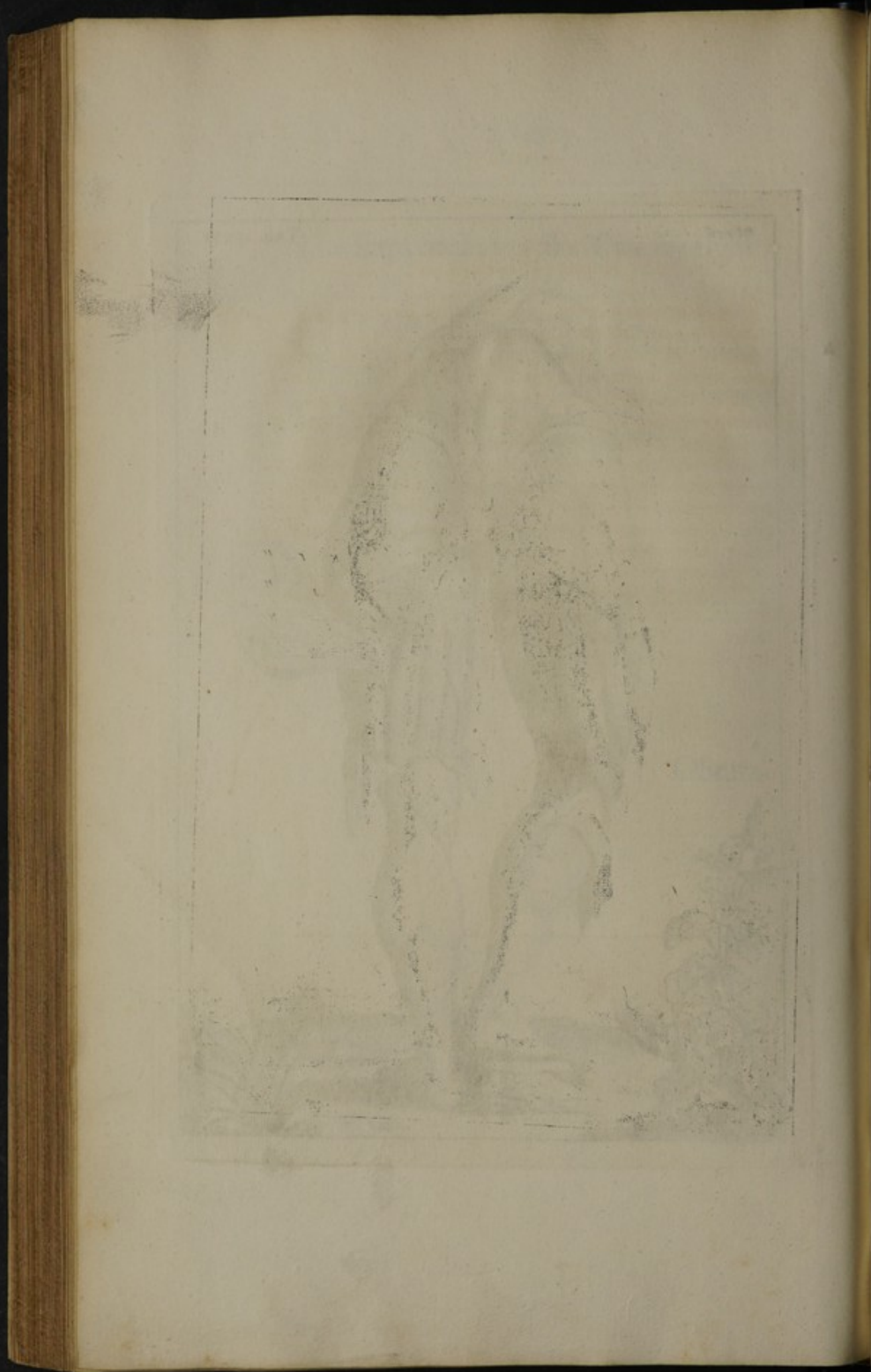
This is shewn at *Tab. 28.* at *M. f.* Shews its beginning, *g.* Its Tendon, *H. Tab. 29.* Shews the same *in situ*, *K.* Shews the same laid bare, *L.* Shews its beginning, *M.* Its long and slender Tendon, This you have laid bare at *Tab. 32.* at *L.*

 The

The Explanation of the Twenty eighth Table.

<p>C C. C. Glutæus Magnus. <i>I. I. I. Its Venter.</i> <i>a a. a. Shews the Circumference of its Origination</i> <i>H. I. K. The same laid bare.</i> <i>H. H. H. Shews its first and fleshy Origination.</i></p>	<p><i>K. K. Its Tendinous Substance.</i> <i>L. L. Glutæus Medius.</i> <i>C. C. Shews its fleshy beginning.</i> <i>M. Pyriformis.</i> <i>Q. Q. Marfupialis.</i></p>
--	--

Obtura



Obturator Internus five Marfupialis.

THis arifeth Flefhy and large from the Membrane internally that covers the great perforation of the *Os Pubis*, and covering the whole inward face of that Bone and *Coxendix*, grows narrower, and fends forth three or four Tendons which are carried through the *Sinus* of the *Coxendix*, which is arched over, according to its length, with a ftrong Ligament, backwards to the outward part of the *Coxendix*, where they are received into a Flefhy Purfe, and fo making one Tendon, are implanted into the *Sinus* of the great *Rotator*, and doth make the outward Rotation; This Mufcle muft be raifed inwards, and got through the *Sinus* under the Ligament, then its Purfe will plainly appear.

*This brings
the Thigh
round about
outwards.*

This is fhewn at *Tab. 28.* at *Q. Q. O.* Shews the fame at *Tab. 29.* This you have alfo, *Tab. 29.* at *D. E. F. G. G.* Shews the fame laid bare, *H.* Shews its Flefhy Purfe.

 Quadrigeminus.

*This brings
the Thigh
about back-
wards.*

THis ariseth Flefhy from the rifing of the *Os Ileon*, and from the Appendix of the *Coxendix*, and runs broad, fhort and Flefhy towards the hinder part of the great *Rotator*, and is inferted into that fpace of the Bone which is betwixen the two *Rotators*; the head of *Lividus* and part of *Triceps* muft be thrown off, before the Origination of this will be cleared, or *Obturator Externus* found out.

This Mufcle by *Vefalius* is divided into two Mufcles.

or.

These Circumagent Mufcles do then bring the Thigh about, when ftanding directly, and firm on the Earth we move the Thigh obliquely, and this Motion appears double, as outwards or inwards; that properly granted inwards, when the Knee is brought toward the *Poples*, and the Heel carried outwards: that outwards, when the Knee is carried outwards, and the Heel brought inwards.

This you have at *Tab. 30. at I.*

Obtura

 Obturator Externus.

THis hath its name from its Origination, it arising from the outward part of the Cavity, and is subjacent to the *Pectineus*, it arising large and Flethy from the Membrane that enwrappeth the perforation of the *Os Pubis* externally, and so running transversely to the back part of the Thigh, becomes narrower, and is inserted by a strong Tendon into the the *Sinus* of the great *Rotator*, and doth direct the inward Rotation. You must carefully bring your Knife inwardly about the edge of the perforation of the *Os Pubis*, and it will both arise and appear the better. *This brings the Thigh about inwards.*

This (together with the *Internus*) fill up the Cavity which lies betwixt the *Os Pubis* and *Ischium*, whence it has its denomination. *use.*

This you have at *Tab. 32.* at *H. I. K.* Shews the same laid bare, *C. C.* Shews the same at *Tab. 30.* *S.* Shews the same at *Tab. 31.* This you have also at *Tab. 32.* at *H.* in its place, *I. K.* Shews it laid bare.

The

The Explanation of the Twenty ninth
Table.

A A. A. A. Lividus.	M. Biceps.
C. C. Obturator Exter- nus.	O. Seminervosus laid bare.
D. D. E. Obturator Internus.	P. Shews its Flefhy Origination.
D. D. Shews its broad and Se- micircular head	Q. Its Nervous Termination.
E. E. The Tendons thereof.	R. Semimembranosus laid bare.
F. F. The Marfupium or Purfe it self.	S. Shews its Nervous head.
G. G. Shews the fame laid bare	V. Biceps laid bare.
H. Shews its Flefhy Purfe.	X. Shews its Origination.
I. Quadrigeminus.	Y. Shews its Tendinous Infertion.
K. Seminervosus.	a. a. a. b. b. Glutæus Minimus laid bare.
L. Semimembranosus.	c. Pyriformis laid bare.
	m. m. m. Shews Triceps in situ.





Membranofus.

THe Leg hath three motions allowed it, it being either extended, contracted, or brought somewhat obliquely outwards, all the Extenders are implanted in the fore side of the Thigh, and these working together, do extend it aright; This Muscle by Anatomists is reckoned as the first of the Extenders.

It ariseth sharp, externally Nervous, inwardly Flethy, from the Spine of the *Os Ileon*, on that side next *Sartorius*, and then becomes broad, and Nervously Membranous, enwrapping all the Muscles of the Thigh within its self; then covering the Patella and two Focills in their outward part, is there implanted, and doth extend the Leg directly; and as some Authors will have, doth somewhat abduce it outwards.

As much as possibly may be, is to be kept of this Membrane in Dissection, and the division thereof to be made in the back part.

This you have at *Tab. 30. at M.M. O.O.O. M.M.* Shewing its beginning, *O.O.* Declaring its broad Tendon, *Q R.S.* Shews the same laid bare.

Sartorius five Fascialis.

*This bends
the Leg.*

THis Muscle hath its name from its daily use which is made of it by Taylors, and Shoemakers, who when they be at their work, do generally sit Cross-leg'd, some call this *Fascialis* from *Fascia*, a Ligature or Swadling Band.

It ariseth sharp, Fleshy and Nervous from the fore part of the Spine of the *Os Ileon*, and then becoming Fleshy and broad, runneth obliquely internally over the Muscles of the Thigh, becoming Tendinous and broad at the inward Appendix of the *Os Femoris*; and is implanted by a broad Tendon, as some Authors affirm, and round, as others into the *Tibia*.

use.

Riolan. writes, that this doth not bend the Leg, but rather doth bring it inwards, and so he supposeth doth more aptly extend it; This is one of the longest Muscles in Human Body.

This you have at *Tab. 30.* at *A. A. B.* Shews its Origination, *C.* Its Termination, *D. D.* Shews the same laid bare, *T.* Shews it also at *Tab 27.*

Gracilis.

Gracilis.

THis is generally accounted the second of the Contractors : *This doth assist the former.*
 it ariseth large and Nervous from the middle of the *Os Pubis*, according to the length of its Cartilage, and so descending inwards towards the Ham Flethy, doth there become a round Tendon, at the inner head of the *Os Femoris*, inserting it self into the *Tibia* near the former.

The first and second of the Flexors are planted in the fore part of the Thigh, the one outwards, the other inwards, the rest in the back part thereof ; if they be all contracted together, they do bend the Leg directly, but the first four only working, they do bring it somewhat inwards, whilst the other endeavours to carry it outwards, and by this motion, the end of the Foot in which the Toes are implanted is somewhat brought outwards.

This is shewn at *F. F.* in its place, *Tab. 30. G.* Shews its Commissure, *H.* Shews its Insertion, *I. K. L.* Shews the same laid bare, *I.* Shewing its Nervous beginning, *K.* Its round Belly, and *L.* Its round Tendon.

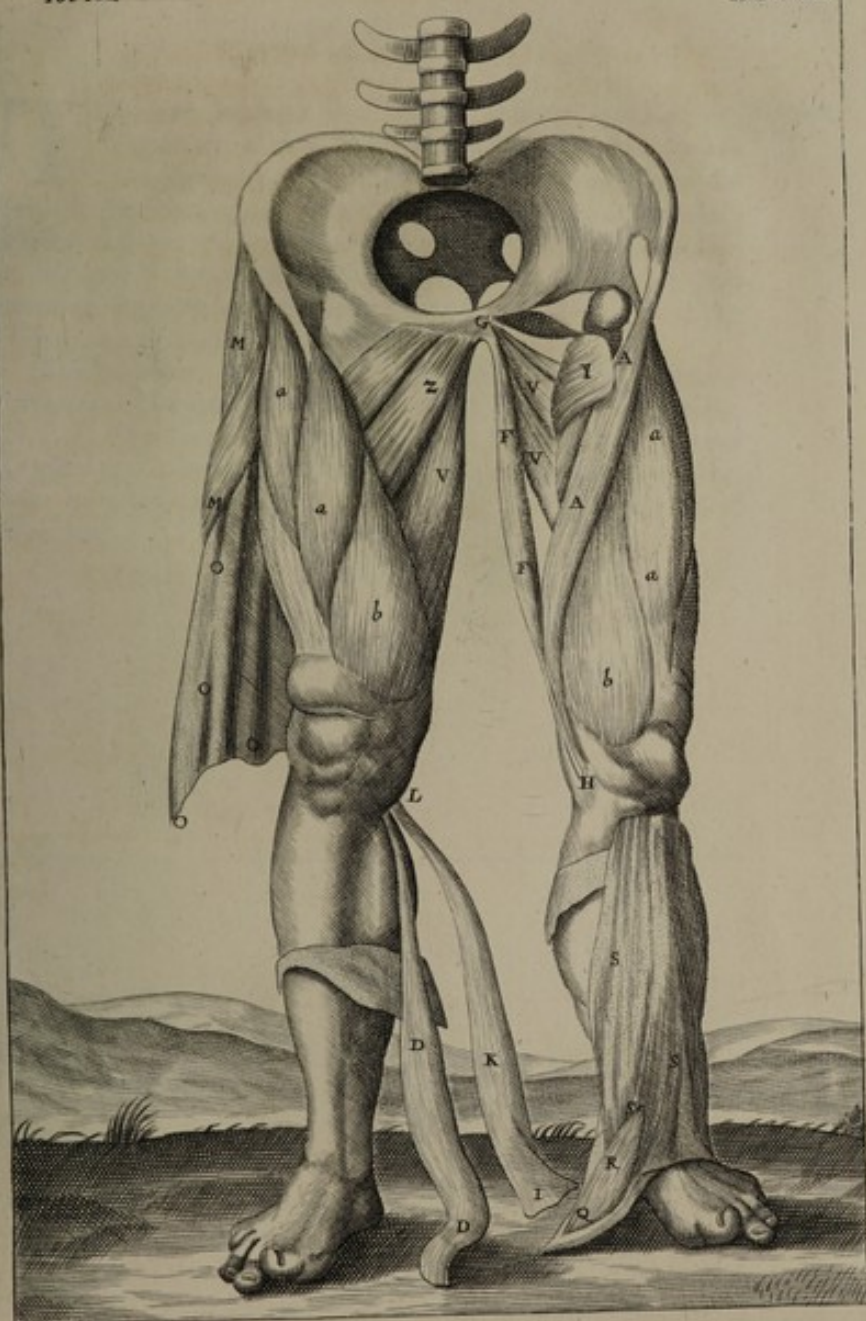
The

The Explanation of the Thirtieth Table.

A <i>A. Fascialis or Sartorius.</i>	<i>bare.</i>
<i>D. D. Shew the same laid</i>	<i>V. V. Triceps in either side.</i>
<i>bare.</i>	<i>X. Obturator Externus.</i>
<i>F. F. Gracilis.</i>	<i>Y. Lividus.</i>
<i>I. K. L. The same laid bare.</i>	<i>Z. The same laid bare.</i>
<i>M. M. O. O. Membranofus.</i>	<i>a. a. Rectus in situ.</i>
<i>Q. R. S. The same Muscle laid</i>	<i>b. b. Vastus Internus in situ.</i>

Rectus.

The





Rectus.

THis hath its name from its right Progress, and hath the Figure of a true Muscle, and is held as the third of the Extenders: it ariseth sharp and Nervous from the small inner Extuberance of the *Os Ileon*, and then becoming Flethy and round, when it arrives at the *Patella* it expands it self into a strong broad Tendon, entirely covering it, and running downwards, is inserted into the outward part of the *Tibia*, at a prominency provided for it. *This extends the Leg.*

This you have at *A. A. Tab. 31.* *B.* Shews the inward protuberance of the *Os Ileon* whence it ariseth, *C.* Shews its Tendon, *D. E. F.* The same laid bare, *D.* Shews its sharp and Nervous beginning, *E.* Its Flethy Venter, *F.* Its strong Tendon; This you have also at *Tab. 30.* at *a. a. a. a.* *R.* Shews this also at *Tab. 27.*

X x

Vastus

Vastus Externus.

*This also
dub extend
the Leg.*

THis from its great Mass of Flesh, hath its name given it, and is the third of the Extenders, arising broad and Nervous from the Root of the great *Rotator*, cleaving to the upper and outward part of the *Os Femoris*, and so descending Fleshy to the *Patella*, it becomes a Membranous broad Tendon, and mixing with the Tendon of the *Rectus* makes the same covering for the *Patella*, carrying the same insertion with it.

This you have at G. G. G. in its place at *Tab. 31. H.* Shews the beginning of this Muscle, *I.* Its Tendinous Membrane.

Vastus

Vastus Internus.

THis is the fourth extending Muscle, arising Nervous This works at the former. from part of the lesser Rotator, and from the neck of the *Os Femoris*, and growing Flethy, adheres to the Anterior, and Interior part of the said *Os Femoris*, and recovering the *Patella*, mixeth it self with the two former, covering the *Patella*, and taketh its insertion in the same place as they do.

This you have at *L. L. L. Tab. 31.* This you have also in its place at *Tab. 30. at v. v.*

Biceps.

Biceps.

*This doth
control the
Leg.*

THis is the fifth inflecting Muscle, arising sharp and Nervous from the Appendix of the *Coxendix*, and growing Flethy, runs down externally, and being got half way, it attenuates and grows Nervous, as tending to a Tendon, where it joyns it self with its other head which ariseth from the *Os Femoris*, where *Glutens Major* hath its insertion, and so growing thicker, outwardly Nervous, becomes a strong Tendon, and runs through the outward *Sinus* of the outward part of the head of the *Os Femoris*, and fixeth it self firmly to the outward side of the upper Appendix of the *Fibula*; Sometimes this Muscle is distinguished with a double beginning and ending, so observed by *Vesalius*, and therefore by him this is called *Duplex*.

os.

us.

This Muscle doth bend the Leg and pull it backward.

This you have laid bare at *Tab. 32. at O. O.* At *Tab. 29.* you have it at *M. V.* Shews this laid bare at *Tab. 29. X.* Shews its beginning, *Y.* Shews its Tendinous Substance, *Z.* Its Flethy Mole or Substance.

Biceps

Semi

Semimembranosus.

THis is accounted the fourth of the Inflectors, arising ^{This tends} where the former did, with a small Membranous be- ^{the Leg.} ginning, and running downwards by the back part of the Thigh, doth continue Membranous half its progress; and then becoming Flethy and thick, inserteth it self by a round Tendon into the Ham, in the inner side of the *tibia*; The first of the four Inflectors being tied into the inner side of the *Tibia*, and the fifth into the *Fibula*; the first makes the inward hardness in the Ham, the other, the outward.

This you have at *Tab. 29. at L.* You have the same laid bare at *R. S.* Shews its Nervous Head, *T.* Its broad Tendon.

Y y

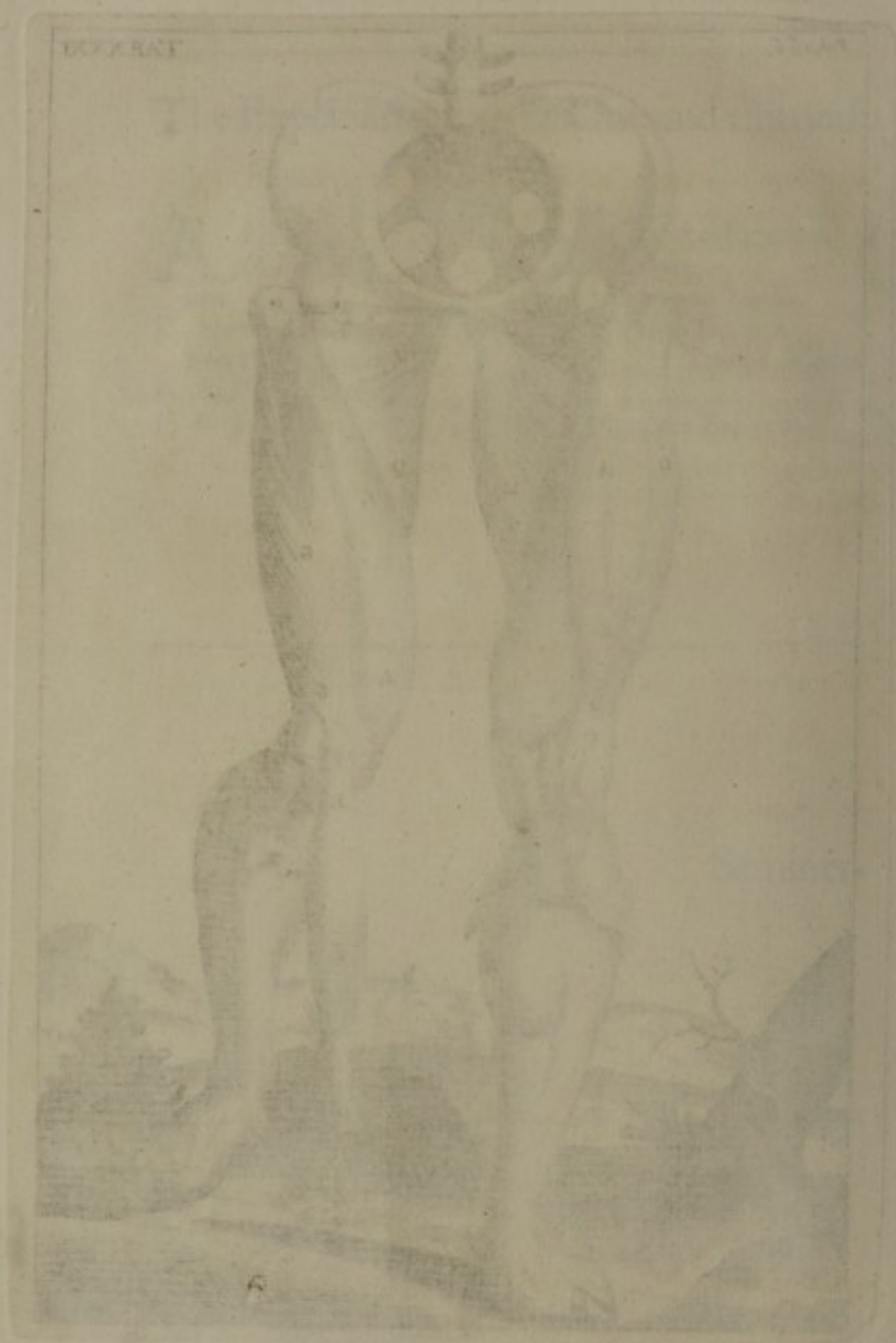
The

The Explanation of the One and thirtieth
Table.

A <i>A. Rectus.</i>	<i>G. G. G. G. Vastus Externus.</i>
<i>D. E. F. The same laid bare.</i>	<i>H. Its beginning.</i>
<i>D. Shewing its sharp and Nervous Ori. ination.</i>	<i>I. Its Membranous Tendon.</i>
<i>E. Its Flefhy Venter.</i>	<i>L. L. L. Vastus Internus.</i>
<i>F. Its ftrong Tendon.</i>	<i>Q. Q. Q. Q. Triceps in either fide.</i>
	<i>S. S. Obturator Externus.</i>

Seminera





Seminervosus.

THis hath its name from its Substance, it being partly ^{This nerve} Nervous, and partly Fleſhy, and is the third pair: it ^{is the far-} ^{mer.} ariſeth ſmall and Nervous from the ſame Appendix as the former, and ſo continuing half way in its deſcent, it then becomes Fleſhy, running by the back part of *Oſ Femoris*, to the Ham, near which it becomes a round Tendon, and reflecting it ſelf, is inſerted into the forepart of the *Tibia*.

This Tendon hath allowed it this worth obſervation, that it reacheth even to the middle of the length of the *Tibia*, with the reſt of the Tendons implanted to the *Tibia*, the which do ſcarſe deſcend ſo far. off.

This you have at *Tab. 29. at K. O.* Shews the ſame laid bare, *P. P.* Shews its Nervous beginning, *Q.* Its Nervous Tendon.

Triceps.

Triceps.

*This begins
the Thigh
Femoris.*

THis is the largest of all the Muscles of the Thigh, yea, I may say, of the whole Body; its apparently seen to have three heads, all which do conclude in one end: It ariseth with three heads, the first Flešhy and Nervous from the Appendix of the *Coxendix*, the which swelling, doth dilate it self into the hinder part of the Thigh, and then growing small, doth end in a round Tendon, at the inner head of the said *Os Femoris*; The second ariseth Flešhy from the *Coxendix* at its conjunction with the *Pubis*, and terminates at the Root of the lesser *Rotator*, and in the upper part of the *Aspera Linea*; The third ariseth Flešhy from the lower part of the *Os Coxendix*, and is implanted into the *Linea Aspera* of the said *Os Femoris*; To which some add a fourth, (*viz.* the following call'd *Pectineus*) which seems to be a part of this.

viz.

This is a Riding Muscle, drawing the Thigh inward, and fixeth the Rider to his Seat, keeping him firm in the Saddle, and may be truly stiled *Musculus Pudicitiae*, as assisted by the *Lividus* in keeping the Legs close.

This you have at *Tab. 31.* at *Q. Q. Q. Q. A. A. A. A.* Shews it in *Tab. 32.* *B.* Shews its beginning, *D. D. D.* Shews the same laid bare; *E.* Shews its beginning, *F. G.* The division of its Tendon.

Lividus

Lividus five Pectinalis.

THis is allowed the fourth of the Inflectors, it ariseth ^{This leads} broad and Flefhy from the forepart of the *Os Pubis*, ^{the Thigh} near its Cartilage, obliquely descending, and is insert- ^{obliquely in-} ed by a large and short Tendon to the inside of the *Os Femoris*, ^{ward.} near its middle, so as it strongly brings the Thigh upwards and inwards.

By *Bartholine* this Muscle is reckoned amongst the Adducent Muscles.

This Muscle is assistent to the *Triceps*, being an Adductor of the Thigh, which it pulleth inward, being very useful in Riding, keepeth a Horseman close to the Saddle; and (as was before said) seems to be a part of the *Triceps*, though it does not so closely adhere to it, but it may be separated without difficulty.

This you have at *Tab. 29.* at *A. A. A. A. B.* Shews the forepart of the *Os Pubis*, from whence this Muscle takes its Origination, *O.* Shews the same at *Tab. 27.*

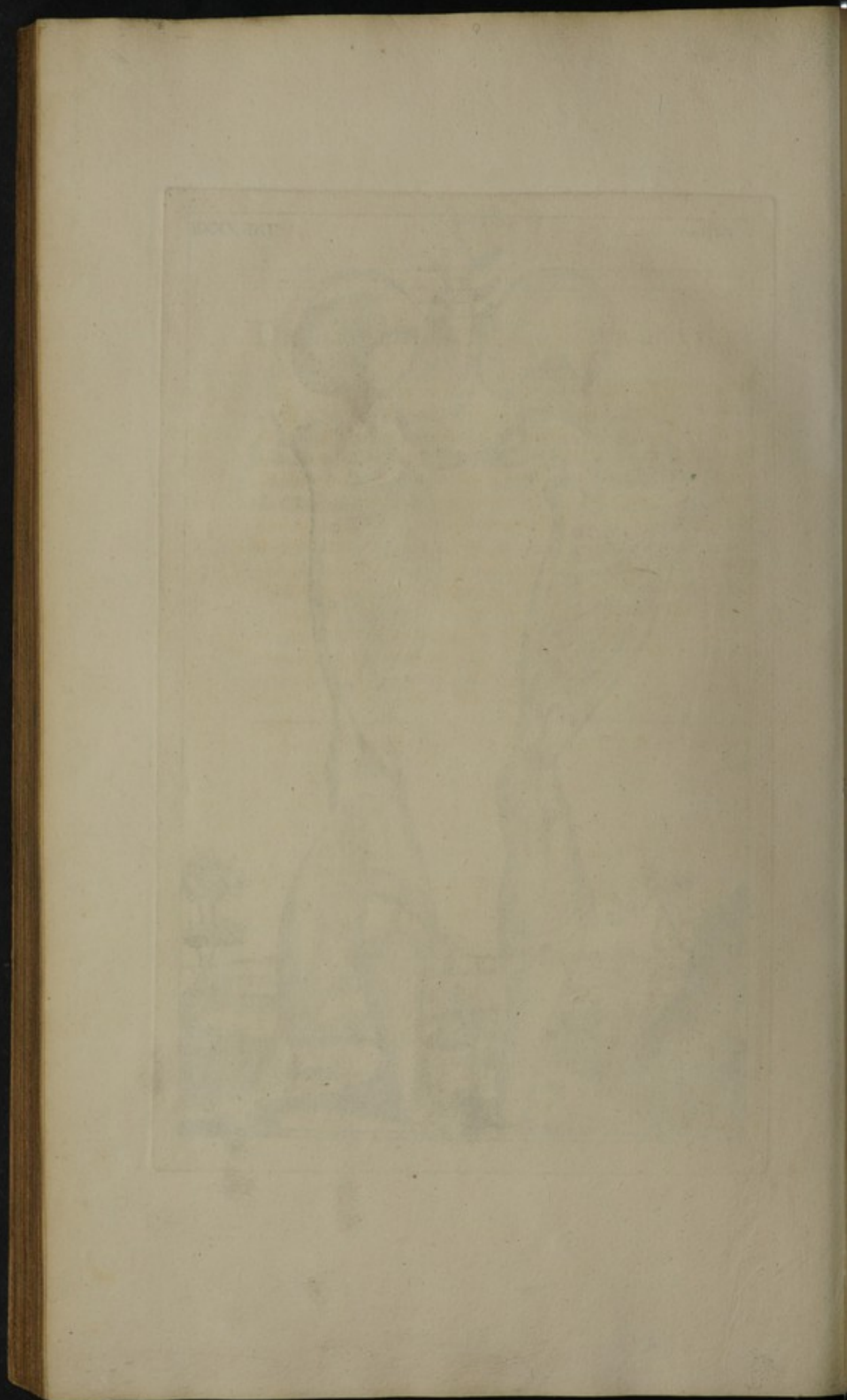
The Explanation of the Two and thirtieth Table.

A A A. Triceps
 B Shews its Origination.
 D. D. D. The same Muscle laid bare.
 H. Obturator Externus

I. The same laid bare.
 K. Shews its Tendon.
 L. Pyriformis laid bare.
 O O. Biceps laid bare.

Gaster





Gasterocnemius five Gemellus Externus.

THE Foot hath allowed its threefold motion, (*scilicet*) Ex-
 tension, Contraction, and lateral Motion; this is ac-
 counted the first of the Extenders, which maketh the
 Calf of the Leg: it ariseth broad and Fleshy from the inner
 head of *Os Femoris*, as also from the outward head of the same
 Bones; so descending according to their Originations, they are
 united about midway, and are converted into one entire, broad,
 strong, and Nervous Tendon, and becometh one with the Ten-
 don of *Gasterocnemius Internus*, and doth insert it self into the
 back part of *Os Calcis*, so that indeed they are but one Muscle
 with a double Origination.

Vesalius doth assert that the Sesamoidal Bones are Tributary to
 the two heads of this Muscle, not far from their Origination.

This you have at *Tab. 33. at D. E. F. G. H. Fig. 1. D.* Shews
 its first Origination, *E.* Another of its beginnings, *F.* Its Cohe-
 rence, *G. G.* Shews its large Fleshy Belly, *H.* Shews its large
 Tendon, at *Fig. 2. ejusd. Tab. O. P. Q. S.* Shews the same laid
 bare.

Plantaris.

This muscle
the skin of
the Sole of
the Foot.

AS that Muscle Is called *Palmaris*, which with its long and round Tendon doth march through the whole Interior part of the *Cubite*, and from thence to the Annular Ligament of the *Carpus*, and is afterwards expanded into a broad Tendon covering the whole Palm of the Hand; so also is this *Plantaris* expanded through the whole hinder part of the *Tibia*, with a long and round Tendon, and at length marcheth into the Sole of the Foot.

It ariseth Flethy, round, and slender under the former, from the outward lower head of *Os Femoris*, and after some Dilatation, it becomes a slender round Tendon, and running obliquely from the outward between both the *Gastrocnemii* inwards, and being joyned with their Tendons near the Heel laterally, running forwards, doth insert it self (after Dilatation over the Sole of the Foot) into each of the five Toes at the first Joynt.

Note.

The Dilatation of this Muscle over the Sole of the Foot, as also its Insertions, will not be found, unless you allow it to insert it self into *Flexor Primi Internodii* at its Origination in the Cavity of the *Os Calcis*.

Use.

This Muscle is of as great service to the Foot as *Palmaris* is to the Hand; and serves to the Extention, or Expansive Motion of the Foot.

This you have at *Tab. 3. Fig. 2.* at *L K. K. I.* Shewing its head, *K. K. K.* Its round Tendon.

Gaster

Gasterocnemius Internus, seu Soleus.

THis ariseth livid, strong, and Nervous from the Posterior Appendix of the *Fibula*, and growing larger, adheres both to that and *Tibia*, and descending at half way, it becomes narrower and Tendinous, making one with the *Gasterocnemius Externus* both in Origination and Insertion; These three Muscles are united about their ends, and do frame one very strong Tendon, implanted in the back part of the Heel, the which by reason of its greatnes, and singular strength above the Tendons of other Muscles, obtains the name of *Chorda Magna*, the which being Bruised or Wounded, (as *Hippi* writes) proves Mortal or very dangerous: its by this Tendon at this very day that our Butchers do daily hang up their Oxen by; And that which is worthy observation as touching this, is, that if any Inflammation doth arise about this part, it brings the whole Body miserably into consent therewith.

This you have at *L. M. N. Fig. 2. Tab. 33.* *L.* Shewing its strong and Nervous head, *M.* Its large venter, *N.* Declaring its Tendon.

Suppopliteus.

*This moves
the Leg ob-
liquely.*

THis ariseth broad and Nervous from the outward head of *Os Femoris*, and growing Flethy, runs obliquely to the back and inward part of the upper Appendix of the *Tibia*, and is there implanted.

Riolan saith, he sometimes hath found this double; This moves the Leg obliquely outwards, and turns the Foot somewhat inward towards the other.

This you have at *G. H. Tab. 33. Fig. 2. G.* Shewing its beginning, *H.* Its Termination.

Flexor

Flexor Digitorum Tertii Internodii, seu Perforans, sive Sublimis.

THis ariseth Flefhy, and long from the back part of the *Tibia*, running, and adhering according to its length, ^{*this bends the Toes in the third Joynts.*} to the middle of it, and there becoming a Tendon, is carried to the Internal *Matleolus*, where it becomes round, and is carried under the Ligament that proceeds from the lower Appendix of the *Tibia*, to the *Os Calcis*, and then divides it self into four Tendons, which terminates at the third Joynt of the four lesser Toes.

The Toes of the Feet are both contracted, extended, and moved laterally; And for these three Motions, Nature hath designed three kind of Muscles, and these are called either Flexors, Extensors, or Oblique Movers; four of these are implanted in the Leg; as this first, the Flexor of the Great Toe, and the Extensor of the third Joynt of the Toe, and the *Extensor Pollicis*; the other in the Foot.

L. L. L. L. Shews the four Tendons of this Muscle at *Tab. 37. Fig. 2.* *B.* Shews the Tendon of this Muscle, *Tab. 37. Fig. 2.* *D. D. D.* Shews its Flefhy part, *E. E. E. E.* Shews its four Tendons, *F. F. F. F.* Shews these also and their Originations at *Tab. 37. Fig. 2.* *H.* Shews this also at *Tab. 34. Fig. 1.* *I.* Shews its middle part, *K.* Its Exquisite Tendon, *D. D. E.* Shews the same, *Fig. 2. id. Tab.*

The Explanation of the Three and thirtieth Table.

FIG. I.

D E. F. G. H. I. Gasterocnemius Externus.

D. Shews its first Origination.

E. A second of its Originations.

F. Its Coition or Connexion.

G. G. Its large Fleshy Belly.

K. Its Tendinous Insertion.

FIG. II.

G. H. Suppopliteus.

G. Shews its Origination.

H. Its Termination.

I. K. K. Plantaris.

I. Shews its head.

K. K. K. Its Tendon.

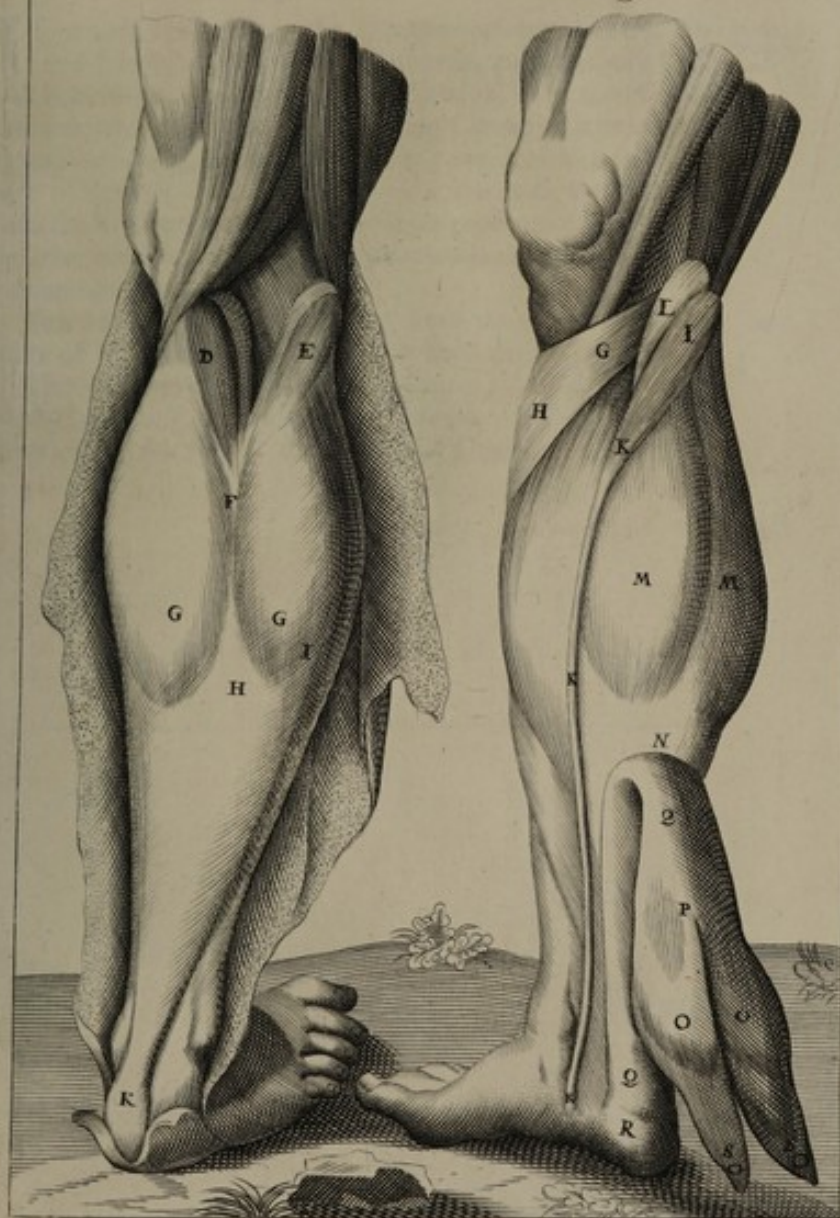
M. N. N. Gasterocnemius Internus.

O. P. Q. Shews Gasterocnemius Externus laid bare.

Tibiaeus

Fig: I.

Fig: II.





Tibiæus Posticus seu Nauticus.

IT ariseth Fleshy from the Ligament which joyns the *Tibia* This brings the Foot inwards. and *Fibula*, according to their length, and from both Bones backwards, becomes a round Tendon, near the *Malleolus Internus*, where being bound by a strong Ligament, it overspreads it, and recovering the Sole of the Foot, is inserted into that lower part of that *Os Tarfi*, which joyns it self with *Os Cubiforme*; Sometimes there is seen, that it hath produced two Tendons, the one implanted into the *Os Naviculare*, the other into the Innominated Bone.

This Muscle is called *Nauticus*, from the use which Seamen use. make of it, when they do run up the Shrouds.

This you have at *Tab. 35. Fig. 1.* at *E. E. e.* Shewing its Fleshy beginning, *f.* Declaring its Tendon, *D. D. D.* Shews the same at *Tab. 36. Fig. 2. E.* Shewing its Tendon.

B b b

Flexor

Flexor

Flexor Pollicis.

This bends
the Great
Toe.

THe Great Toe hath allowed it variety of Muscles, the first of which is this arising sharp and Fleshy about the middle of the back part of the *Fibula*, descending larger, nearer the inward *Malleolus*, running obliquely under it, and is inserted into the last Bone of the Great Toe; Under this Ligament lodgeth the *Os Sefamoides*.

of.

This Tendon is seen sometimes to conjoyn with the Tendon bending the third Joynt, running to the second Toe, and before it reacheth the second Joynt of the Great Toe, requires the largest *Os Sefamoides*, which is in the other Joynts of the Toes.

This you have at *Tab. 37. Fig. 2. c* Shewing its Tendon, *D. D. D.* Shews its Fleshy part, *Tab. 36. Fig. 1.* at *N.* you have it laid bare, *M.* Shews this at *Tab. 34. Fig. 1.* *N.* Shews its long and narrow Tendon, *I. I.* Shews the same exactly at *Tab. ejusd. Fig. 2. K. K.* Shews its Tendon, *N.* Shews this laid bare at *Tab. 36. Fig. 2.*

Flexor

Flexor Secundi Internodii, Perforatus seu
Profundus.

THis is a second of the Inflectors of the Toes, by some This bends the Toe in the second Joint. called *Flexor Brevis*, it ariseth Fleshy and Membranous from the extremity of *Os Calcis*, and marching half way the Sole of the Foot, divides it self into four round Tendons, which at their Insertions into the second Joynts of the lesser Toes are perforated for the transmission of the *Tertii Internodii Flexor*.

This you have at *Tab. 37. Fig. 1.* at *C. C. C. D. D. D.* Shewing its four Tendons; And at *Fig. 2. ejusd. Tab.* you have the same laid bare at *N. O.* Shewing its Origination, *P. P. P. P.* Declaring its Tendons, *Q.* Shews the same laid bare at *Tab. 34. Fig. 2.* *N.* Shews the same laid bare at *Tab. 37. Fig. 2. O.* Shews its Origination, *P. P. P. P.* Shews the four Tendons of this Muscle.

The

The Explanation of the Thirty fourth Table.

F I G. I.

F G. Suppopliteus laid bare.
 F. Shews its Flefhy beginning.
 G. Its Flefhy Termination.
 H. Flexor Tertii Internodii Digitorum.
 I. Shews its length.
 K. Its exquisite Tendon.
 L. L. Peroneus Primus.
 M. Flexor Pollicis.
 O. Pollicem Adducens in situ.
 P. P. Gasterocnemius Internus laid bare.
 Q. Plantaris laid bare.
 R. R. R. Shews its long and

round Tendon.

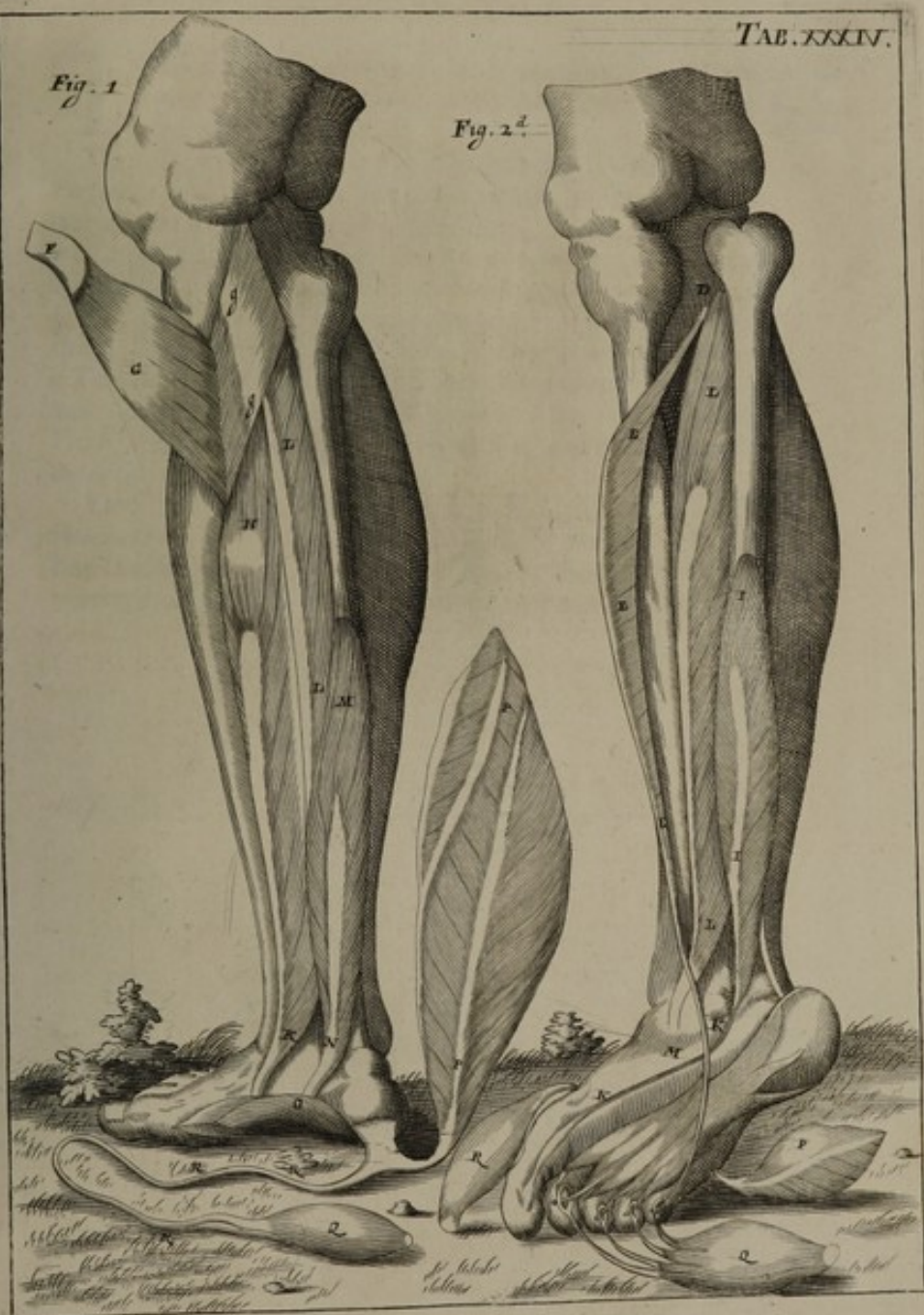
F I G. II.

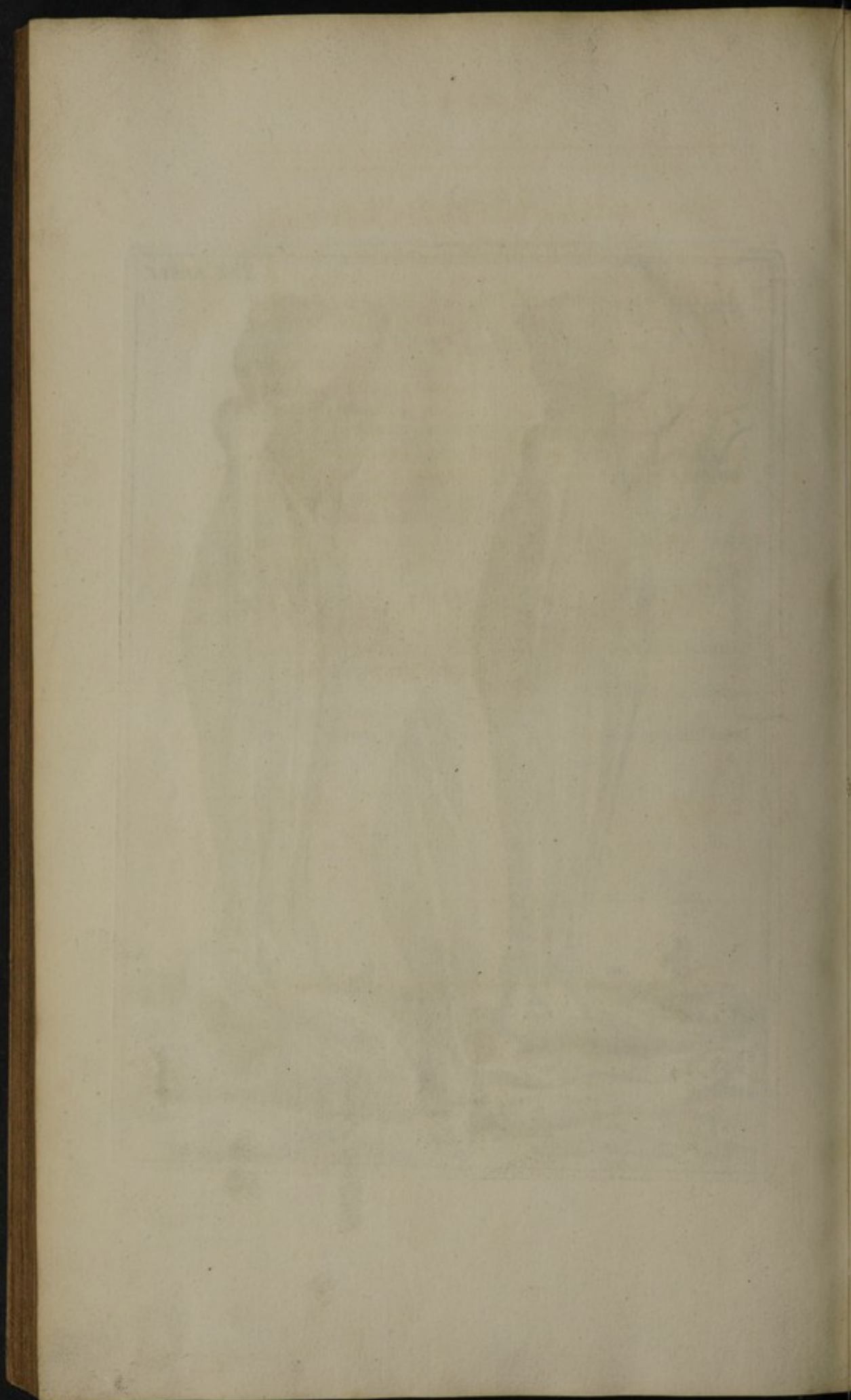
D. E. E. Flexor Tertii Internodii Digitorum.
 D. Shews its sharp Origination.
 E. E. E. Its slender and Flefhy Venter.
 F. Its Tendon.
 I. I. Pollicis Flexor.
 K. K. Shews its Tendon.
 L. L. Peroneus Primus in situ.
 M. Its Tendon.
 P. Minimum Digitum Abducens.
 Q. Pollicem Adducens laid bare.

Flexores

Fig. 1

Fig. 2^a





Flexores Primi Internodii Digitorum, seu Lumbricales.

THese are called *Lumbricales* both from their Use, Figure, *These tendons are first Joyns of the lesser Toes.* and Origination, much resembling Earth-Worms being put into the Hand.

They do arise round and Fleшы from the Tendons of the *Perforans* and *Perforatus*, and are inserted by small Tendons laterally to the first Joyns of the Toes; if you examine this well, you will find them to receive an addition of Carnous Fibres from a Musculous Fleшы seated or implanted in the inward Cavity of the *Os Calcis*, and proceeding Fleшы half the Sole, there doth make these; and from it sometimes doth proceed a Tendon to the first of the Toes, and makes *Secundi Internodii*; and you shall also find that the Tendon of the *Tertii Internodii Flexor* doth run through the Body of this; and is not perfectly divisible.

These you have at *Tab. 37. Fig. 1.* at *K. K. K. K. F. F. F. F.* shews the same at *Fig. 2. ejusd. Tab. R. R. R.* Shews their Fleшы Mass laid bare at *Tab. 36. Fig. 1. S. S. S. S.* Shews the Tendons whence they do arise, *T. T. T. T.* Shews their four Tendons.

subd A

C c c

Addu

Adductor Pollicis Major.

*This brings
the Toes in-
wards.*

THis ariseth Nervous from the inward part of the Heel, and from the Ligament, which keeps that and the *Talus* together, and so growing Flefhy and round, becomes Tendinous, inserting it self obliquely into the lateral and inward part of the first Joynt of the Great Toe.

osf. This abduceth the Great Toe from the rest of the Toes; or, as I may say, draws it inwards.

This you have at *Tab. 37. Fig. 1.* at *E. F. F.* Shewing its Tendon; At *Fig. 2. ejusd. Tab.* you have the same laid bare at *Q. Q. M.* Also shews the same at *Fig. 1. Tab. 35.* laid bare, *U.* Shews this at *Tab. 34. Fig. 1. R.* Shews the same laid bare, *Fig. 2. ejusd. Tab.*

Abdu

Abductor Minimi Digiti.

THe Little Toe hath a particular *Abductor* allowed it, from the Heel, arising Nervous from its External part, and growing Flethy in its progress, runs with a small Flethy Tendon under the *Or Metatarsi*, which is immediately plac'd before the Least Toe, and so is inserted into the External side of its first Joynt.

This you have at *Tab. 37. Fig. 1.* at *G. G. H. H.* Shews its Tendon, *I. I.* Shews the same lid bare at *Fig. 2. ejusd. Tab.* *L. M.* Shewing its Tendon, *K. K.* Shews its beginning, *Q.* Shews the same at *Tab. 35. Fig. 1.* *P.* Shews this at *Tab. 34. Fig. 2.*

Addu:

Adductor Minor, five Transversalis Placentini.

*This draws
the great
Toe to the
little Toe.*

THis by *Casseri*, who first found this out, gave it the name of *Transversalis*, because it binds the first Joynt proceeding from the Ligament of the Little Toe, and is carried transversely Fleshy, and marcheth out with a short and broad Tendon inwardly, to the first Bone of the Great Toe.

Use.

The Author of this Muscle doth assign this Use to it, That drawing the Great Toe towards the Little one, it makes a hollownes in the Foot; so as that in unequal and stony places, an apprehension as it were being hereby made, we may tread and walk more steadily, and commodiously, this being as a Ligament to the Foot, to keep it from slipping or sliding, and for a more secure ambulation; for by the help of this Muscle, the Foot is brought into that Figure, that it makes the step sure, and as it were doth apprehend the part it is set on.

This you have at *Tab. 37. Fig. 4.* at *E.* laid bare, *H.* shews the same at the Letter *A.* the first Toe, *P.* Shewing the same at *Tab. 36. Fig. 2.* *P.* Shews the same at *Tab. 35. Fig. 1.*

subbA

Tibiæus

Tibæus Anticus, five Musculus Catenæ.

THis is the first of the Inflectors, whose Tendon being ^{the least} transversly dissected or amputated, the Patient is compelled to carry his Foot in a Sling, by the benefit of which he is able in his passage both to lift up and inflect his Foot.

This Muscle ariseth sharp and Flethy from the uppermost Appendix of both the *Focils*, forwards: as also from the Ligament which binds them together, then being dilated, is narrowed about the middle of the *Tibia*, growing into a strong and round Tendon, running obliquely over the *Tibia*, and under the Annular Ligament, and is implanted into the inside of that *Os Tarfi* that is before *Os Pollicis*.

This Muscle I conceive governeth the Foot in motion, that it doth not squail to ^{off} much outward.

This you have at *Tab. 35. Fig. 2.* at C. C. *a.* Shewing its beginning, *b.* Its Termination and Tendon, M. N. Shews this at *Tab. 36. Fig. 1. O.* Shews its Tendon.

The Explanation of the Five and thirtieth
Table.

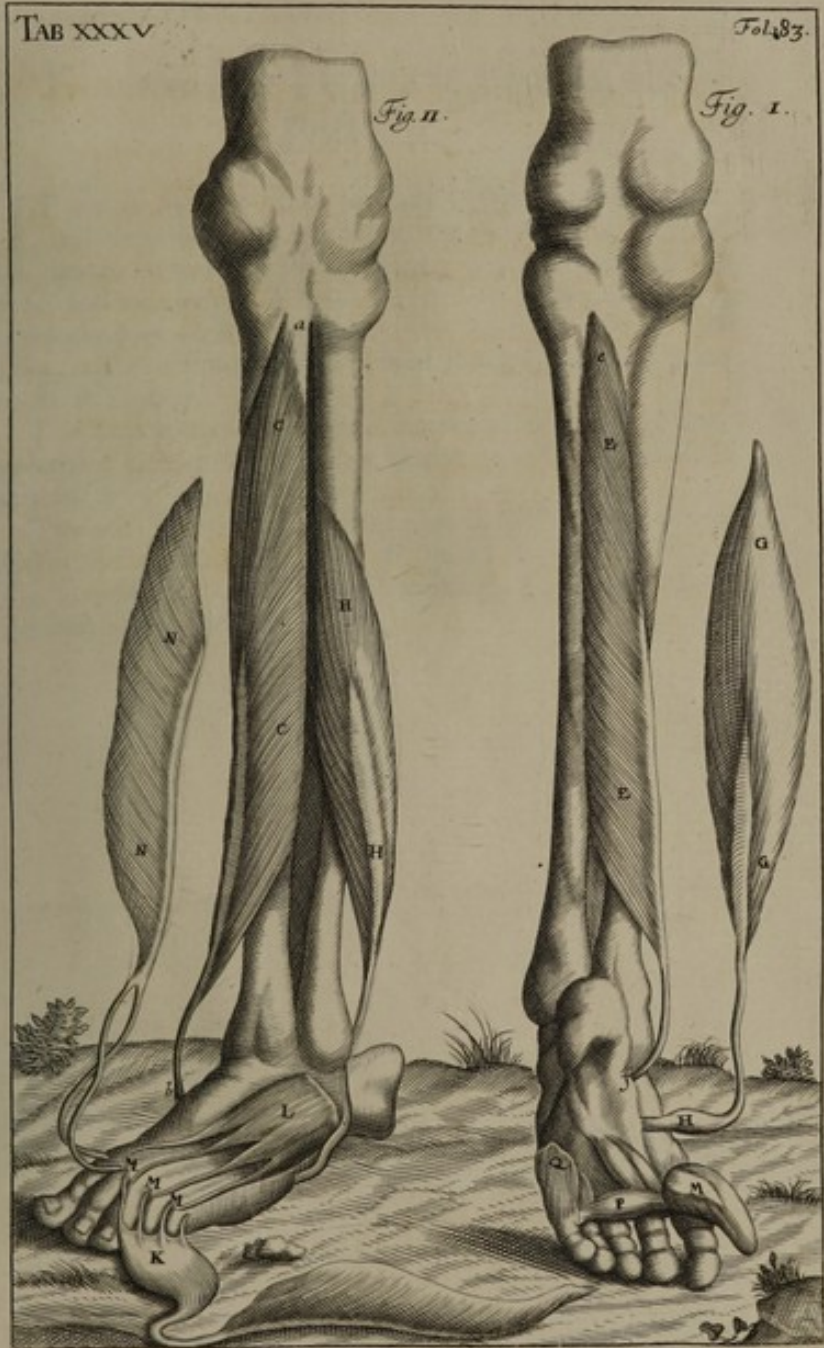
F I G. I.

E E. Tibiæus Posticus.
e. Shews its Origination.
f. Its Ten'on.
 G. G. Peronæus Secundus.
E. Shews its Tendon.
 M. Pollicem Adducens *laid bare.*
 N. O. Two Interosseal Muscles.
 P. Transversalis Placentini.
 Q. Minimum Digitum Abdu-
 cens.

F I G. II.

C. C. Tibiæus Anticus.

a. Shews its beginning.
b. b. Its Tendon.
 H H. Peronæus Secundus.
e. Shews its Origination.
D. E. Its Tendon.
 I. I. Extensor Tertii Internodii
 Digitorum
K. Shews its four Tendons.
 L. Extensor Secundi Internodii
 Digitorum.
M. M. M. Shews its Tendon.
 N. Pollicis Extensor *laid bare.*
O. Shews its Termination.





Fibulæus five Peronæus Primus, aut Posticus.

IT ariseth Nervous from the upper Appendix of the *Fibula*, *This brings the Foot outwards.* and descending, it adheres to the outward part thereof, being externally round, inwardly livid, next the Muscle red, and marching half way, it becomes a Tendon running obliquely backward through the *Sinus* under the external *Malleolus*, and is inserted into the Root of the *Os Tarfi*, that adjoyns to the *Os Pollicis*.

This Muscle draweth the Foot somewhat outward, and so regulateth it in Progressive Motion, that it cannot be cast too much inward. v.

This you have at *Tab. 36. Fig. 1.* at *B. C. D. D.* Shewing its Flethy Belly, *D.* Its Tendon, *V.* Shews the same laid bare at *Fig. 2. ejusd. Tab. L. L.* Shews this at *Tab. 34. Fig. 1. L. L.* Shews the same at *Tab. ejusd. Fig. 2.*

Peronæ

Peronæus Secundus five, Semifibulæus,
aut Anticus.

*This bends
the Ankle.*

THis Muscle ariseth long and Fleſhy from the *Fibula*, to which it adheres, and having made half its progreſs, becomes a round Tendon, running by the External *Malleolus*, and is implanted by two Tendons into *Oſ Metatarſi*, adjoyning to *Minimus Digitorum*.

This Muscle is alſo called *Semifibulæus*, it being a near neighbour to the *Fibula*; As alſo by *Spigelius* is named *Bicornis* from its double Inſertion into the ſmall Bone adjoyning to *Minimus Digitorum*.

This you have at *Tab. 36. Fig. 1.* at *E. E. F.* Shewing its Tendon, *I. I. I.* Shews the ſame at *Fig. 2 ejusd. Tab. K.* Shewing its Tendon, *G. G.* Shews the ſame laid bare at *Tab. 35. Fig. 1.* *H.* Shews its Tendon and place of its Inſertion, *H. H.* Shews the ſame at *Tab. 35. Fig. 2.*

Pollicis

Pollicis Tensor.

THis ariseth Flefhy from the *Fibula* (or as *Vesalius* offer-^{This extends the great Toe.} eth) from the outward fide of the *Tibia*, where it parts from the *Fibula*, as alfo from the Ligament that joyns them, to which it ftrongly adheres, and fo becoming a Tendon, runneth over the lower part of the *Fibula*, and under the tranfverfe Ligament, and is inserted into the two Joynts, in the upper part of the Great Toe, and doth extend them directly; fometimes this Tendon is feen divided into two: one of which is inserted into the laft Joynt of the Great Toe, the other into the *Os Metatarfi* which lies juft under it.

This you have at *L. Tab. 36. Fig. 1. b.* Shewing its Tendon, *N. N.* Shews this laid bare at *Fig. 2. Tab. 35. O.* Shews its Termination.

E e e The

The Explanation of the Six and thirtieth Table.

FIG. I.

B C. D. Peroneus Primus.
B. Shews its strong Origination.
 C. *Its Venter.*
 D. D. *Its Tendon.*
 E. E. Peroneus Secundus.
f. Shews its Tendon.
 G. Extensor Tertii Internodii Digitorum.
 H. H. H. H. *Shews its four Tendon.*
 I. *Its fifth Tendon.*
 L. Pollicis Tensor.
a. Shews its beginning.
b. Its Tendon.
 M. N. O. Tibialis Anticus.
M. Its Origination.
N Its Flefhy Venter.

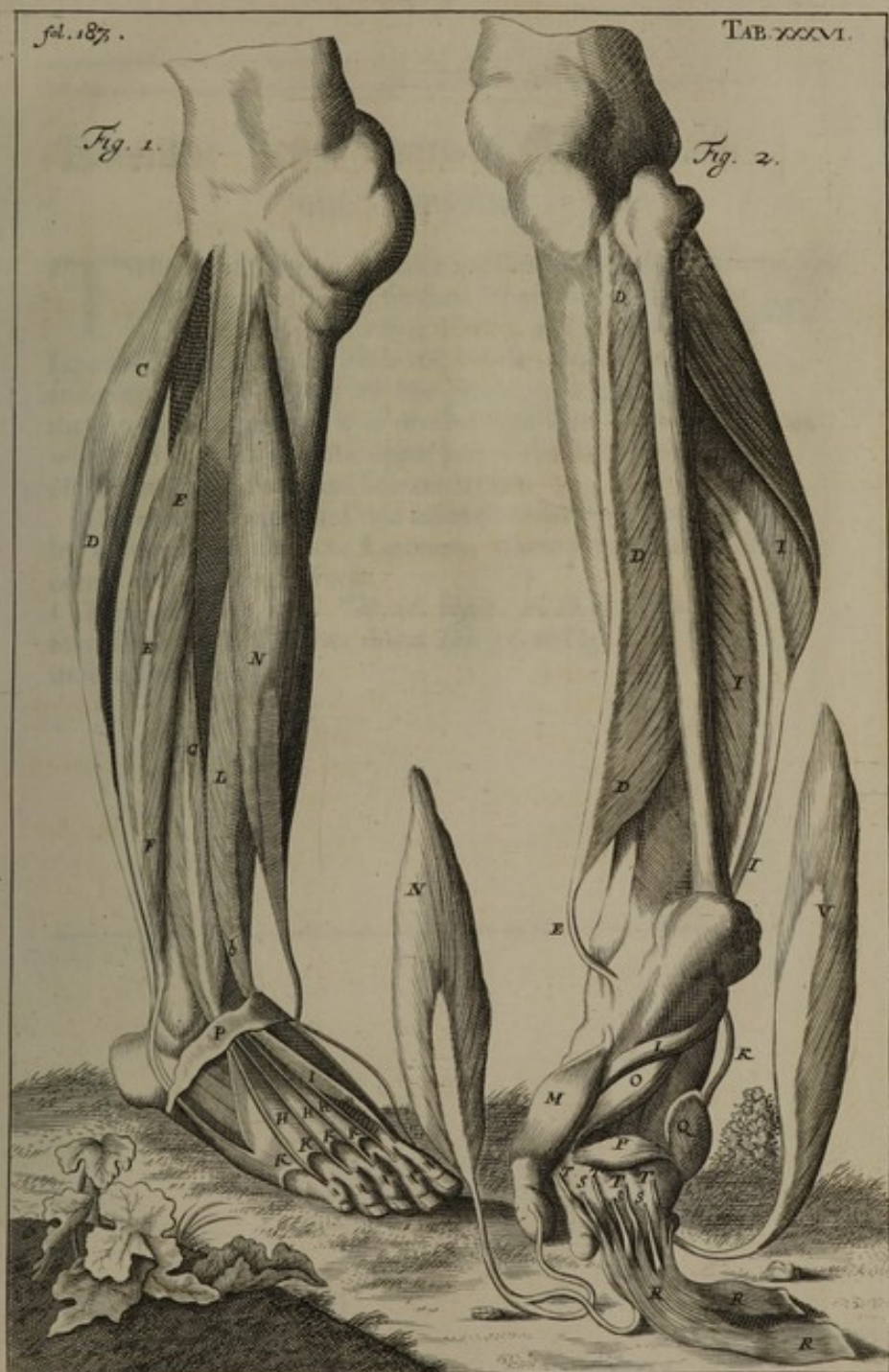
Q. Its Tendon.
 S. Extensor Secundi Internodii Digitorum.

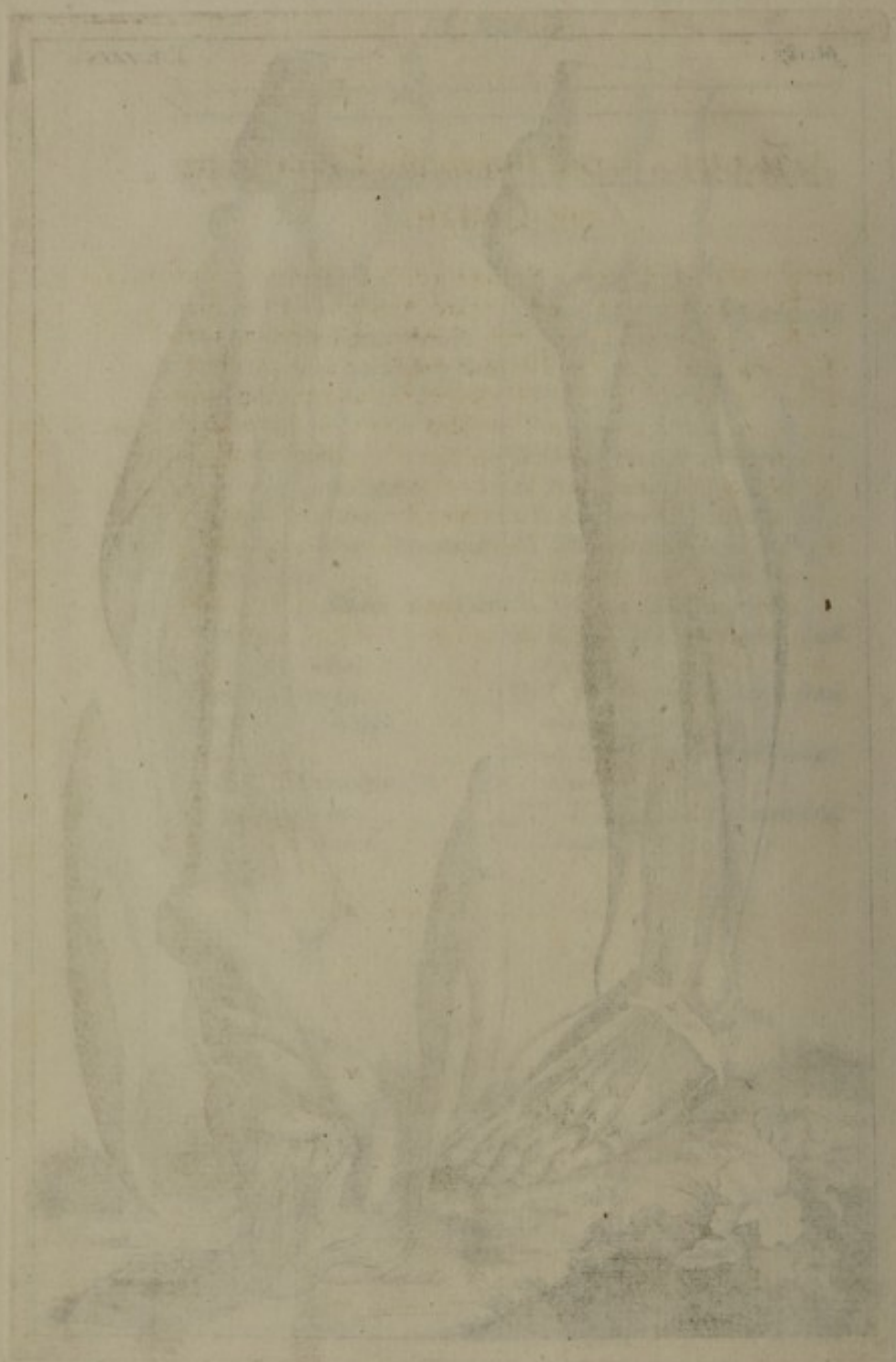
FIG. II.

D. D. D. Peroneus Primus.
E. Its Tendon.
 I. I. I. Peroneus Secundus.
K. Shews its Tendon.
 N. Pollicis Tensor laid bare.
 P. Transversalis Placentini.
 R. R. T. T. Lumbricales laid bare.
R. R. R. The Flefhy Mafs from whence they do arife.
 S S. S. S. *Shews the four Tendons whence they do arife.*
 T. T. T. T. *Shews their own four Tendons.*

Fig. 1.

Fig. 2.





Extensor Tertii Internodii Digitorum; aut Longus.

THis ariseth with a Nervous and Flefhy beginning, from ^{the outward,} the outward, and forward Appendix of the *Tibia*, ^{the third} and presently becoming Flefhy, and adhering to the ^{Joints of} the *Ligament* that joyns the *Tibia* and *Fibula*, it descends directly according to the length of the *Fibula*, and passing under the Annular Ligament, it is divided into four Tendons, the ^{off.} which do terminate in the upper part of the third or last Joynt of the four lesser Toes, and so extends them.

The other Tendons are tied amongst or between themselves by a certain Membranous Ligament, where they run through or over the back of the Foot.

This you have at *G. Tab. 36. Fig. 1.* *H. H. H. H.* Shews its four Tendons, *I. I.* Shews this at *Tab. 35. at Fig. 2.* *K.* Shews its four Tendons.

Extens

Extensor Secundi Internodii Digitorum,
aut Brevis.

*This extends
the second
Joyn.*

THis ariseth broad and Flefhy from the tranfverfe Liga-
ment upon the top of the Foot, and then appears, di-
viding it felf into four feveral Mufcles, which coming
to the Toes, fendeth forth Tendons to the fecond Bone of the
four leffer Toes, but chiefly to the fecond Joynts, where they
interfect the Tendons of the former.

vfe.

These two are allowed to extend the four leffer Toes.

This you have at *Tab. 35. Fig. 2.* at *L.* *M. M. M.* Shews its
Tendons, *S.* Shews the fame at *Tab. 36. Fig. 1.*

Interos.

The Explanation of the seven and this with Table.

FIG. I.	
A. A. Shows the beginning	
B. The Teacher of the subject	
C. Shows the order	
D. Shows the order	
E. Shows the order	
F. Shows the order	
G. Shows the order	
H. Shows the order	
I. Shows the order	
J. Shows the order	
K. Shows the order	
L. Shows the order	
M. Shows the order	
N. Shows the order	
O. Shows the order	
P. Shows the order	
Q. Shows the order	
R. Shows the order	
S. Shows the order	
T. Shows the order	
U. Shows the order	
V. Shows the order	
W. Shows the order	
X. Shows the order	
Y. Shows the order	
Z. Shows the order	
FIG. II.	
A. Shows the order	
B. Shows the order	
C. Shows the order	
D. Shows the order	
E. Shows the order	
F. Shows the order	
G. Shows the order	
H. Shows the order	
I. Shows the order	
J. Shows the order	
K. Shows the order	
L. Shows the order	
M. Shows the order	
N. Shows the order	
O. Shows the order	
P. Shows the order	
Q. Shows the order	
R. Shows the order	
S. Shows the order	
T. Shows the order	
U. Shows the order	
V. Shows the order	
W. Shows the order	
X. Shows the order	
Y. Shows the order	
Z. Shows the order	
FIG. III.	
A. Shows the order	
B. Shows the order	
C. Shows the order	
D. Shows the order	
E. Shows the order	
F. Shows the order	
G. Shows the order	
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The Explanation of the Seven and thirtieth Table.

FIG. I.

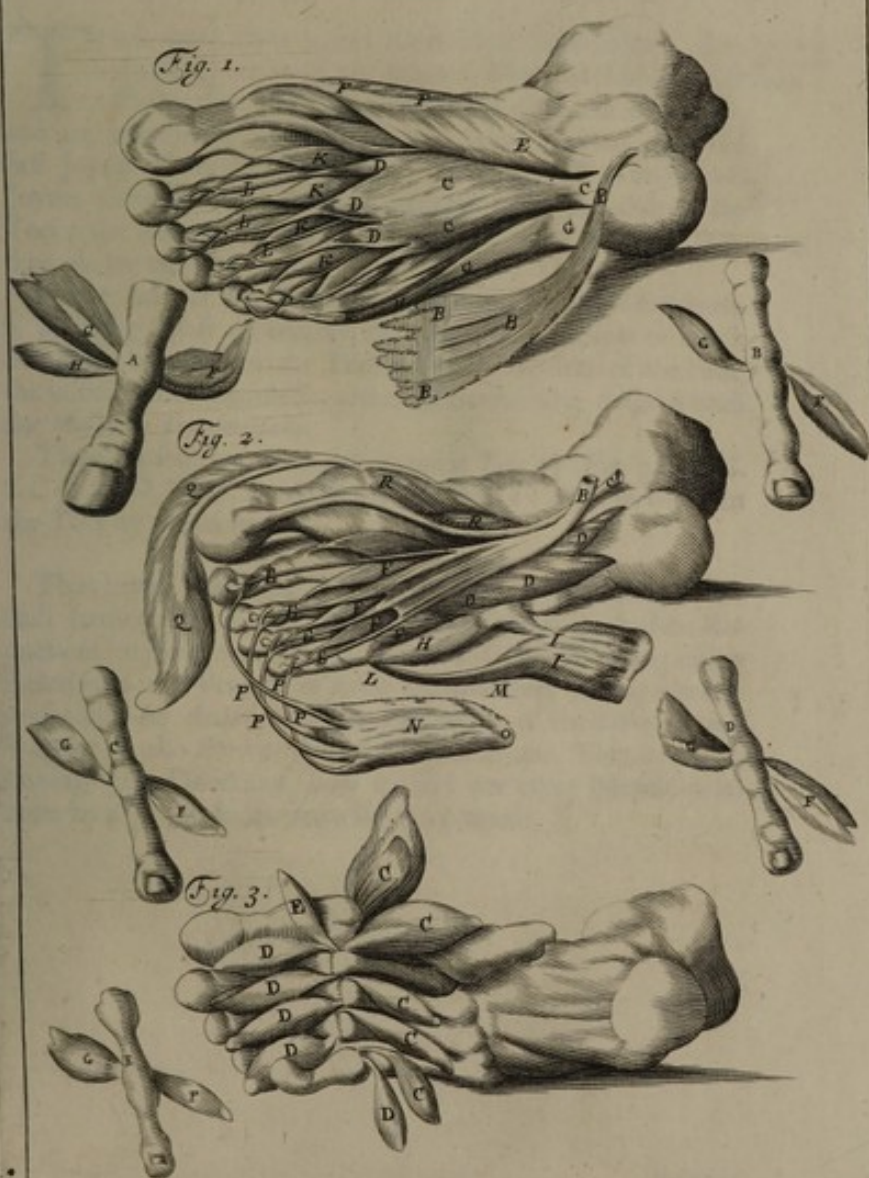
- C** C.C. Flexor Secundi Internodii Digitorum.
D. D. D. Shews its four Tendons.
E. E. Pollicem Adducens in situ.
F. F. Its Tendon.
G. G. Minimum Digitum Abducens.
H. H. Shews its Tendon.
K. K. K. K. Lumbricales.
L. L. L. L. Their four Tendons.
- K. K.** Shews its beginning.
L. One Tendon of this Muscle.
M. M. Shews the other
N. Flexor Secundi Internodii Digitorum laid bare.
O. Shews its sharp and Nervous beginning.
P. P. P. P. Shews its four Tendons.
Q. Q. Pollicem Adducens laid bare.
R. R. Two more of the Interosseal Muscles.

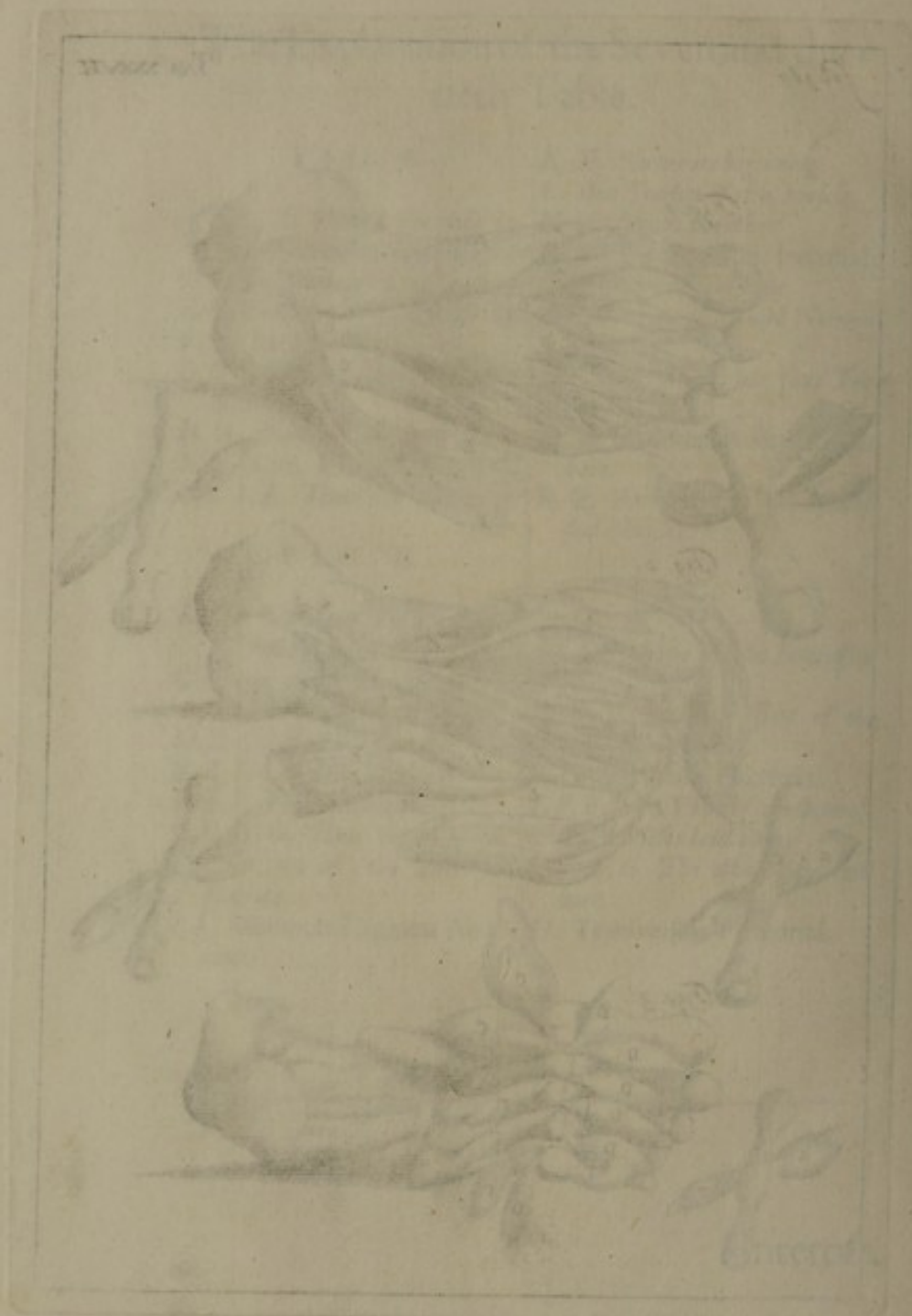
FIG. II.

- B.** The Tendon of Flexor Tertii Internodi Digitorum.
C. Shews the Tendon of Flexor Pollicis.
D. D. D. Its fleshy part.
E. E. E. Its four Tendons.
F. F. F. F. Lumbricales.
G. G. G. G. Their Tendons.
H. H. Two of the Interosseal Muscles.
I. I. Minimum Digitum Abducens.
- C. C. C. C.** Five of the Interosseal Muscles.
D. D. D. D. Other five of the Interosseal Muscles.
E. Transversalis Placentini.
F. F. F. F. F. Five of the Interosseal Muscles laid bare.
G. G. G. G. The other five laid bare.
H. Transversalis Placentini.

FIG. III.

Interos





Interossei.

THese have their names from their habitations; they dwelling amongst the Bones; These Muscles do arise ^{These move the Foot abliquely.} Flefhy from the fides of the Bones of the *Metatarsus*, and are inferted by some broad, but fhort Tendons, into the firft Joynts of the Toes outwardly, but inwards to the fecond Joynts thereof. The outward working, they do abduce the Toes: the inward do adduce them; they both working together, do extend them. v/c.

In the Sole of the Foot, which by fome is called *Vestigium*, is a Flefhy Mafs observable, the which like a Pillow or Bowlster doth keep warm the Tendons of the Muscles of the Foot, the which fome Anatomifts, although confufedly, do joyn with the *Musculus Transversalis*.

These Muscles you have delineated at *Tab. 37. Fig. 3.* at C C. C. C. C. D. D. D. D. D. And at F. F. F. F. F. G. G. G. G. G. in the Toes by themselves.

Thus have I concluded the whole Difcourse of Muscles; all I fhall farther add, is, the Enumeration of them, with their Reductions to their proper Places, Ufes, and Offices, being either Relative to the Venters or to the Articulations, having already prefented and drawn forth to you every of their Forms and Shapes: as alfo fhewn their Originations and Terminations; leaving you Directions, how to find out every Muscle in its order by a proper Index made for that purpose.

F I N I S.

F f f

This

This Table sheweth the Reduction of
the Muscles each to their proper place.

Use and Part.

The Forehead is lifted up by *Frontalis*.

The Eyebrows, { The upper } Lifted up by *Aperiens Rectus*.
 { The nether } Depressed by *Claudens Superior*.
 { The nether lifted up by *Claudens Inferior*.

The Eyes, { Rightly moved } Upwards by *Attollens*.
 { Downwards by *Deprimens*.
 { Inwards by *Adducens*.
 { Outwards by *Abducens*.
 { Obliquely } Downwards externally by *Circumagens Exterior*.
 { Upwards internally by *Circumagens Interior*.

The Nose is { Dilated by } *Primus Aperiens*.
 { *Secundus Aperiens*.
 { Contracted by } *Primus Constringens*.
 { *Secundus Constringens*.

The Lips are { Lifted up by *Attollens*.
 { Drawn laterally by *Abducens*.
 { Drawn down by *Deprimens*.
 { Purs'd up by *Labium Constringens*.

The Cheeks are { Drawn down by *Platysma Myodes*.
 { Drawn inward by *Buccinator*.

The nether Man- { Upwards by *Temporalis*.
dible is drawn { Downwards by *Digastricus*.
 { Laterally by *Masseter*.
 { Forwardly by *Pterygoides Externus*.
 { Backwards by *Pterygoides Internus*.

The Ears which { Externally } Upwards by *Attollens*.
are moved { Downwards by *Deprimens*.
 { Forwards by *Adducens*.
 { Backwards by *Abducens*.
 { Internally } By *Externus*.
 { By *Internus*.

The Tongue is moved { In Constriction } By *Lingualis*.
 { In Dilatation }
 { Forwards by *Genioglossus*.
 { Backwards by *Hypoglossus*.
 { Upwards by *Myloglossus*.
 { Downwards by *Ceratoglossus*.
 { Laterally by *Styloglossus*.

The

The *Os Hyoides* is moved by { Rightly } Upwards by { *Mylohyoides*.
 { *Geniohyoides*.
 Downwards by *Sternohyoides*.
 { Obliquely } Upwards by *Stylohyoides*.
 Downwards by *Ceratomyoides*.

The Palate is { Attolled by *Sphenopalatinus*.
 Depressed by *Pterygopalatinus*.

The Fauces are { Dilated by { *Sphenopharyngeus Primus*.
 { *Sphenopharyngeus Secundus*.
 Contracted by { *Esophagus*.
 { *Cephalopharyngeus*.
 { *Stylopharyngeus*.

The Larynx is { Dilated } When the *Thyroid* is { Extended by { *Sternohyoides*.
 { *Cricothyroides Anticus*.
 Contracted by *Hyothyroides*.
 Shut { While the { Contracted { Directly by *Thyroarytenoides*.
 { *Arytenoid* is { Obliquely lateral by *Arytenoides*.
 Opened { Extended { Rightly by *Cricothyroides Posticus*.
 { Obliquely laterally by *Cricothyroides Lateralis*.

The Head is { Contracted by { *Mastoides* if both move.
 { Laterally if but one.
 { *Splenius* or *Triangularis*.
 Extended by { *Trigeminus*.
 { *Recti Majores*.
 { *Recti Minores*.
 Turn'd about by { *Obliqui Superiores*.
 { *Obliqui Inferiores*.

The Neck is { Contracted by { *Longus*.
 { *Scalenus*.
 Extended by { *Transversalis*.
 { *Spinatus*.

The Thorax is moved { Primarily by { Dilate in { Freely the *Diaphragma* alone contracted:
 his proper { breathing { Coactively *Diaphragma* and *Intercostales Externi*.
 Muscles { Constrict in { Freely *Diaphragma* alone relaxed.
 which do { breathing { Coactively *Diaphragma* and *Intercostales Interni*.
 Extended as { *Longissimus Dorsi* which are { *Serratus Minor*
 { *Semispinatus* retained in { (*Postici*.
 { *Sacrospinalis* place by { *Serratus Major*
 Contracted as { *Musculi Recti*.
 { *Obliqui Ascendentes*. } *Abdominis*.
 Turn'd about by *Transversi*.
 Secondarily by the { Contracted by *Quadratus*.
 Lumbar Muscles { Extended by *Sacer*.

The Abdomen is compressed { Laterally by { *Obliqui Ascendentes*.
 { *Obliqui Descendentes*.
 Forwards by *Recti*.
 Downwards by { *Pyramidales*. or
 { Sometimes by *Transversi*.

The Loyns are { Contracted by *Quadratus*.
 Extended by *Sacer*.

The

- The Testicles are raised by *Cremasteres*.
 Retains by *Sphincter Vesicae*.
- The Bladder { Excretes by { *Detrusor Urinae*.
 { *Pyramidalis*.
 { *Obliqui Ascendentes Abdominis*.
- The Clitoris is { Raised by *Musculi Graafiani*.
 { Depressed by *Musculus Labiorum uteri contractorum*.
- The Anus is { Purs'd up by *Sphincter Ani*.
 { Elevated by *Levatores Ani*.
- The Penis is improp- { Erected by *Erectores* or *Directores*.
 perly said to be { Accelerated by *Acceleratores*.
- The Scapula is { Variously by *Cucullaris*.
 moved { Upwardly by *Levator Patientie*.
 { Backwards by *Rhomboides*.
 { Forwardly upwards by *Serratus Minor* } *Anticus*.
 { Forwardly downwards by *Serratus Major* }
- The Os Humeri { Forwards by *Pectoralis*.
 is moved { Upwards by { *Deltoides*.
 { *Ostium Humeri Placentini*.
 { Downwards by *Rotundus*.
 { Is carried about { External { *Superfascularis Inferior*.
 { part by { *Superfascularis Superior*.
 { towards the { *Nonus humeri Placentini*.
 { Internal part by *Subfascularis*.
- The Cubite is { Extended by { *Gemellus Major*.
 { *Gemellus Minor*.
 { Contracted by { *Biceps*.
 { *Brachialis*.
- The Radius is { Pronated by { *Quadratus*.
 { *Teres*.
 { Supinated by { *Longus*.
 { *Brevis*.
- The Carpus is { Contracted by { *Flexor Carpi Interior*.
 { *Flexor Carpi Exterior*.
 { Extended by { *Extensor Carpi Exterior*.
 { *Extensor Carpi Interior*.
- The Fingers are { Contracted by { *Flexor Primi* { *Internodii*.
 { *Flexor Secundi* {
 { *Flexor Tertii* {
 { Extended by { *Primus* { *Extendentium Digitorum*.
 { *Secundus* {
 { *Interossei* {
 { Moved laterally by { *Interossei*.
 { *Abductor Minimi*.
 { *Abductor Indicis*.

- The Thumb is {
 First by { *Flexor Primi Internodii.*
 Flexor Secundi Internodii.
 Contracted {
 Secondly by { *Primus*
 Secundus } *Flexores Internodii.*
 Tertius
 Quartus
 Thirdly by *Tertii Internodii Flexor.*
 Extended by { *Extensor Primus.*
 Extensor Secundus.
 Moved { Laterally internally by *Adducens.*
 Outwardly by *Abducens.*
- The Thigh is {
 Extended obliquely { Backwards by *Glutæus Major.*
 Forwards by *Glutæus Medius.*
 Contracted { Rightly by *Glutæus Minimus.*
 Directly by { *Psoas.*
 Iliacus Internus.
 Obliquely by { *Triceps.*
 Lividus.
 Moved about { Upwards by *Piriformis.*
 Inwards by *Obturator Externus.*
 Outwards by *Obturator Internus.*
 Backwards by *Quadrigeminus.*
- The Leg is {
 Contracted by { *Sartorius.*
 Gracilis.
 Seminervosus.
 Seminembranosus.
 Biceps.
 Membranosus.
 Extended by { *Rectus.*
 Vastus { *Externus.*
 Internus.
 Obliquely moved by *Suppopliteus.*
- The Ankle is {
 Extended by *Gastrocnemius* { *Externus.*
 Internus.
 Contracted by { *Tibialis Anticus.*
 Peroneus Secundus.
 Moved obliquely lateral { Internally by *Tibialis Posticus.*
 Externally by *Peroneus Primus.*
- The four lesser Toes are {
 Contracted by { *Perforans in the third*
 Lumbricales in the first } Joint.
 Perforatus in the second
 Extended by { *Interossei in the first Joint.*
 Secundi Internodii Tensor.
 Tertii Internodii Tensor.
 Obliquely moved by { *Interossei.*
 Minimi Digiti Abductor.
- The Great Toe is {
 Contracted by *Flexor.*
 Extended by *Tensor.*
 Obliquely moved by *Abductor.*
- The first Joints of the Toes are kept together by *Transversalia Plantarum.*
 Of the Sole of the Foot is moved by *Plantaris.*
- The Skin {
 Of the Palm of the Hand by { *Palmaris.*
 Caro Musculosa Quadrata.

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What Faults are committed by the Press, the Reader is desired to excuse, the Author's Occasions hindring him from so strict a Re-view of the whole Treatise from the Press.

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What English are contained in the text, the Reader is
 directed to consult the Author's Catalogue which is
 this a list of the whole Texts from the text.

H. B.

