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CUNNINGHAM'S MANUAL  
OF  
PRACTICAL ANATOMY



REVISED AND EDITED BY

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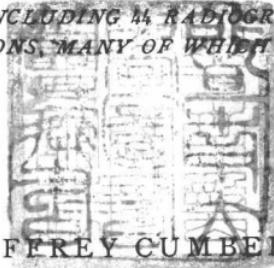
ELEVENTH EDITION

VOLUME ONE

GENERAL INTRODUCTION

UPPER LIMB LOWER LIMB

WITH 44 PLATES (INCLUDING 14 RADIOPHOTOGRAPHS) AND 144 OTHER  
ILLUSTRATIONS MANY OF WHICH ARE COLOURED



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MANUAL OF ANATOMY



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PROFESSOR OF ANATOMY, ROYAL COLLEGE OF SURGEONS, DUBLIN, 1882-1883

PROFESSOR OF ANATOMY, TRINITY COLLEGE, UNIVERSITY OF DUBLIN, 1883-1903

PROFESSOR OF ANATOMY, UNIVERSITY OF EDINBURGH, 1903-1909

From identical Bronze Plaques in the Dissecting Rooms,  
Trinity College, Dublin, and the University of Edinburgh

## PREFACE TO THE ELEVENTH EDITION

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SINCE the publication of the Tenth Edition of this *Manual*, Dr. E. B. Jamieson, who has been co-editor since 1935, has retired. His long career as a teacher of Anatomy and his authorship of popular anatomical works have made his name familiar to thousands of students, whose grateful good wishes will go with him now. To the present editor, who also is his former pupil, Dr. Jamieson's co-operation has been invaluable in the task of revising while maintaining the essential character of the *Manual* that bears the name of Cunningham.

This new edition has been prepared at a time when the long-drawn-out discussions on reform of the Medical Curriculum in British Schools have culminated in a new series of Recommendations by the General Medical Council. The Recommendations that deal with anatomical study and instruction emphasise the educational value of certain functional aspects of the subject, which incidentally have not hitherto been neglected in this *Manual* or in any progressive School; but at the same time they specifically endorse what has long been required of students of Medicine—the dissection of the whole body—thus giving official sanction, if that were needed, to the plain necessity that first-hand acquaintance with Regional Anatomy should be an essential part of medical education. The perennial question of detail, on which there is much difference of opinion, remains for solution.

A Preface is perhaps not the place for a dissertation on

the principles of anatomical teaching ; but this much may be said. Anatomical knowledge clearly must have a basis of factual and topographical information : Anatomy without detail would be of less value than " bricks without straw " ; and experience shows that students denied the " straw " of anatomical information may be content, to the detriment of their clinical studies and the dismay of their clinical teachers, with the " stubble " they may pick up for themselves.

No doubt it is impossible to reach any final agreement on the body of details that must or should be known to every student of Medicine before he begins clinical study, and it must be left to individual teachers, preferably with the advice of their clinical colleagues, to make their own selection. But a *Dissecting Manual* too closely shorn of detail is more likely to inculcate a habit of superficial observation than to concentrate the attention upon the things that alone are supposed to matter. It is indeed a common fallacy in criticisms of anatomical teaching that students are expected to remember every detail that may be mentioned : the judicious introduction of descriptive detail should be considered rather as one means of inducing that sense of topography upon which an appreciation of the value of anatomical detail in elucidating clinical problems may later depend.

With these considerations in mind, the text of this edition has undergone a thorough revision with one main object in view—the use of detail, not in itself of immediate essential value, as an element in scenic description as the student learns to find his way about the body and to appreciate the main features of the landscape. A considerable reduction in length has thus been attained ; but the editor hopes that the original character of the *Manual* as a complete guide to dissection, combined with a readable topographical description, has not been impaired.

The order of the earlier dissections, including suggestions for the appropriate number of days to be spent on each region, has been retained. The sequence depends upon the old plan of placing the body first in the " lithotomy position "—not

now perhaps the practice in many dissecting rooms. There is, however, a certain convenience in beginning with the dissection of the perineum, although that may equally well be done at a later stage with the anterior wall of the abdomen or with the pelvis. The older plan is therefore retained as a general guide; but it can readily be altered to suit the ideas of individual teachers and the general order of dissection that they may prefer. In a few regions, alternative methods of dissection are suggested; but here again individual teachers can vary the instructions according to the plan that they favour.

The principal change in the order of dissection is the method now adopted for the Brain in Volume III. The order has been reversed, so that the dissection now proceeds from the hind-brain upwards. This method has its inconveniences, but it is the more logical order; and it has the additional advantage that it brings the method of dissection into line with the laboratory exercises now adopted in this Department and elsewhere. Care has been taken, however, to provide, by means of introductory paragraphs and otherwise, that the method remains suitable for those who may undertake dissection of the brain without immediate personal guidance. The editor is greatly indebted to Dr. G. J. Romanes, Lecturer in Neuro-Anatomy in this Department, for suggesting some new dissections and for his assistance in the rearrangement of this Section. It has had also the advantage of proof-reading by Dr. E. B. Jamieson, who has made valuable suggestions, particularly in the important matter of introducing brief definitions of structures to which incidental reference is inevitably made before they are encountered in the dissection.

The text-illustrations remain substantially as before, but some of the older radiographs have been replaced. In Volume I, notably, a new series of radiographs of injected arteries has been introduced, for the preparation of which the editor owes grateful thanks to Mr. J. A. Ross, F.R.C.S.Ed., Mr. R. C. Craig, F.R.C.S.Ed., and Mr. John Borthwick.

He is indebted also to Dr. D. R. Maitland, M.R.C.P.E., D.M.R.E., for the new epiphysial radiographs that appear in Plates XXXVII, XXXVIII and XLIII in Volume I.

As on previous occasions, acknowledgments are due also to a number of friends and correspondents who have made suggestions, in particular to Mr. R. I. Greenblatt of Birmingham who has called the attention of the editor to some points in the Tenth Edition that required clarification. The editor owes a special debt to Professor T. B. Johnston, who made a complete series of suggestions for revision—by way mainly of the elimination of unimportant descriptive details—the great majority of which he has been very glad to adopt. Dr. R. G. Inkster has advised on details of dissections and on other matters, such as the movements at the “transverse tarsal joint” and the true nature of inversion and eversion of the foot; and he has undertaken the laborious task of preparing the index for each of the three volumes.

The process of eliminating synonyms has been carried to its conclusion in this edition; but, as in the Tenth Edition, the glossary, which shows the chief differences between the Birmingham Nomenclature, now firmly established in this country, and the B.N.A., has been retained in Volume I for the convenience of older readers and of others who may still wish to refer to it.

J. C. B.

DEPARTMENT OF ANATOMY  
UNIVERSITY OF EDINBURGH  
*June 1948*

## GLOSSARY

The first column gives the anglicised version of those terms in the Birmingham Revision which differ radically from the Basle Nomina Anatomica.

The second column gives the corresponding Basle names.

### GENERAL TERMS AND PARTS OF HUMAN BODY

B. R.	B. N. A.
Cephalic	Cranialis
Anterior and palmar	Volaris
Upper limb	Extremitas superior
Lower limb	Extremitas inferior
Suprasternal fossa	Fossa jugularis
Infraclavicular fossa	Trigonum deltoideo-pectorale
Epigastric fossa	Scrofula cordis
Palm of hand	Vola manus

### OSTEOLOGY

Pedicle of vertebral arch	Radix arcus vertebræ
Laminæ „ „	<i>Omitted</i>
Axis vertebra	Epistropheus
Odontoid process	Dens
Spinous tubercles of sacrum	Crista sacralis media
Transverse tubercles of sacrum	Cristae sacrales laterales
Articular tubercles of sacrum	„ „ articulares
Inlet of thorax	Apertura thoracis superior
Outlet „ „	„ „ inferior
Suprasternal notch	Incisura jugularis
Condylar part of occipital bone	Pars lateralis
Posterior condylar canal	Canalis condyloideus
Anterior „ „	„ hypoglossi
Optic groove	Sulcus chiasmatis
Palatino-vaginal canal	Canalis pharyngeus
Vomero-vaginal canal	„ basi-pharyngeus
Hiatus for greater superficial petrosal nerve	Hiatus canalis facialis
Auditory meatus	Meatus acusticus

B. R.	B. N. A.
Squamo-tympanic fissure	Fissura petro-tympanica
Articular fossa (of temporal bone)	Fossa mandibularis
Nasal spine (of frontal bone)	Spina frontalis
Orbital plate (of ethmoid)	Lamina papyracea
Dental foramina	Foramina alveolaria
Naso-lacrimal groove	Sulcus lacrimalis
Alveolar arch	Limbus alveolaris
Greater palatine groove	Sulcus pterygo-palatinus
Tubercle of palatine bone	Processus pyramidalis
Genial tubercles	Spina mentalis
Submandibular fossa	Fovea submaxillaris
Impressions for gyri	Impressiones digitatæ
Greater palatine canal	Canalis pterygo-palatinus
Bony anterior aperture of nose	Apertura piriformis
Posterior aperture of nose	Choana
Suprascapular notch	Incisura scapulæ
Spino-glenoid notch	<i>Omitted</i>
Impression for costo-clavicular ligament	Tuberositas costalis
Conoid tubercle } Trapezoid ridge }	Tuberositas coracoidea
Bicipital groove of humerus	Sulcus intertubercularis
Lateral lip	Crista tuberculi majoris
Medial lip	"    "    minoris
Spiral groove	Sulcus n. radialis
Trochlear notch of ulna	Incisura semilunaris
Scaphoid bone	Os naviculare manus
Trapezium	Os multangulum majus
Trapezoid	"    "    minus
Ramus of ischium	Ramus inferior ossis ischii
Pectineal line	Pecten ossis pubis
Ilio-pubic eminence	Eminentia ilio-pectinea
False pelvis	Pelvis major
True "	"    minor
Arcuate line	Linea terminalis
Inlet of pelvis	Apertura superior
Outlet "	"    inferior
Intercondylar area of tibia	Fossæ intercondyloideæ
Soleal line	Linea poplitea
Styloid process of fibula	Apex capituli fibulæ
Posterior border "	Crista lateralis
Anterior surface "	Facies medialis (pars anterior)
Posterior surface "	{ Facies posterior { Facies medialis (pars posterior)
Medial and posterior tubercles of talus	Processus posterior tali
Lateral tubercle of calcaneum	Processus lateralis tuberis calcanei
Medial     "     "	Processus medialis     "     "

## JOINTS

## B. R.

Fibrous joint  
Flat suture  
Primary cartilaginous joint  
Secondary cartilaginous joint  
Synovial joint  
Plane joint  
Ball and socket joint  
Capsular ligament  
  
Intervertebral discs  
Lateral costo-transverse lig.  
Inferior costo-transverse lig.  
Superior costo-transverse lig.  
Manubrio-sternal joint  
Suprascapular lig.  
  
Spino-glenoid lig.  
Palmar ligs. of fingers  
Deep transverse ligs. of palm  
Acetabular labrum  
Lig. of head of femur  
Semilunar cartilages of knee  
Inferior tibio-fibular joint  
" " ligs.  
Short plantar lig.  
Plantar ligs. of toes  
Deep transverse ligs. of sole

## B. N. A.

Synarthrosis  
Sutura harmonia  
Synchondrosis  
Amphiarthrosis  
Diarthrosis  
Arthrodia  
Enarthrosis  
Stratum fibrosum capsulae articulatis  
Fibrocartilagines intervertebrales  
Lig. tuberculi costae  
" colli costae  
" costo-transversarium anterius  
Synchondrosis sternalis  
Lig. transversum scapulae superiorius  
Lig. transversum scapulae inferius  
Ligg. accessoria volaria  
Ligg. capitulorum transversa  
Labrum glenoidale  
Lig. teres femoris  
Menisci  
Syndesmosis tibio-fibularis  
Ligg. malleoli lateralis  
Lig. calcaneo-cuboideum plantare  
Ligg. accessoria plantaria  
Ligg. capitulorum transversa

## MUSCLES

Tendinous intersection  
Synovial sheath of tendon  
" bursa  
Ilio-costo-cervicalis  
Ilio-costalis  
Costalis  
Costo-cervicalis  
Longissimus thoracis  
Spinalis        "  
Semispinalis    "  
Lumbar fascia  
Occipito-frontalis  
Epicranial aponeurosis  
Compressor naris }  
Dilatator        }  
Depressor anguli oris  
Zygomaticus major

Inscriptio tendinea  
Vagina mucosa tendinis  
Bursa mucosa  
Ilio-costalis  
Ilio-costalis lumborum  
"                dorsi  
"                cervicis  
Longissimus dorsi  
Spinalis        "  
Semispinalis    "  
Fascia lumbo-dorsalis  
Epicranius  
Galea aponeurotica  
Nasalis  
Triangularis  
Zygomaticus

B. R.	B. N. A.
Zygomaticus minor	Caput zygomaticum
Levator labii superioris	, infraorbitale
", ", alæque nasi	{ labii ", angulare
Depressor labii inferioris	superioris
Levator anguli oris	Quadratus labii inferioris
Anterior intercostal membranes	Caninus
Posterior intercostal membranes	Ligg. intercostalia externa
Transversus thoracis	", " interna
Sterno-costalis	Transversus thoracis
Innernost intercostals	Subcostales
Subcostals	Pars lumbalis
Vertebral part of diaphragm	{ Crus laterale ", intermedium ", mediale
Crus	Arcus lumbo-costales
Arcuate ligaments	Linea semicircularis [Douglasi]
Arcuate line	Lig. lacunare [Gimbernatii]
Pectineal part of inguinal lig.	Lig. inguinale reflexum
Reflected part of inguinal lig.	Falx aponeurotica inguinalis
Conjoint tendon	Annulus inguinalis subcutaneus
Superficial inguinal ring	", abdominalis
Deep      "	Bulbo-cavernosus
Bulbo-spongiosus	Fascia diaphragmatis urogenitalis
Perineal membrane	in inferior
<i>Omitted</i>	
Clavi-pectoral fascia	Diaphragma urogenitale
Bicipital aponeurosis	Fascia coraco-clavicularis
Palmar interossei	Lacertus fibrosus
Extensor retinaculum	Interossei volares
Flexor      "	Lig. carpi dorsale
Flexor digitorum accessorius	", transversum
Subsartorial canal	Quadratus plantæ
Saphenous opening	Canalis adductorius [Hunteri]
Extensor retinacula	Fossa ovalis
Flexor retinaculum	{ Lig. transversum cruris
Bursa of psoas major	{ ", cruciatum      "
Tibial intertendinous bursa	Lig. laciniatum
	Bursa ilio-pectinea
	{ ", m. sartorii propria
	{ ", anserina

## NEUROLOGY

Spinal cord	Medulla spinalis
White columns	Funiculi
Grey columns (Horns in section)	Columnæ
White commissure	Commissura anterior alba
Grey commissure	{ Commissura anterior grisea
Thoracic nucleus	{ Commissura posterior
	N. dorsalis (Stillingi; Clarki)

**B. R.**

Intersegmental tracts  
 Anterior spino-cerebellar tract  
 Posterior spino-cerebellar tract  
 Inferior cerebellar peduncle  
 Gracile tubercle  
 Middle cerebellar peduncle  
 Sensory decussation  
 Olivary nucleus  
 Dorsal N. of corpus trapezoideum  
 Olivo-cerebellar tract  
 Superior cerebellar peduncle  
 Floor of fourth ventricle  
 Vagal triangle  
 Vestibular area  
 Auditory striæ  
 Tectum  
 Quadrigeminal bodies  
 Aqueduct of mid-brain  
 Interthalamic connexus  
 Stria habenularis  
 Precentral gyrus  
 Postcentral gyrus  
 Postcentral sulcus }  
 Intraparietal sulcus }  
 Paraterminal gyrus  
 Suprasplenial sulcus  
 Isthmus of gyrus cinguli  
 Medial occipito-temporal gyrus  
 Occipito-temporal sulcus  
 Olfactory pyramid  
 Pes hippocampi  
 Dentate gyrus  
 Splenial gyrus  
 Anterior column of fornix  
 Posterior , , "  
 Stria semicircularis  
 Association fibres  
 Optic radiation  
 Cranial nerves  
 Sensory root of 5th N.  
 Motor root of 5th N.  
 Trigeminal ganglion  
 Ganglionic branches of maxillary N.  
 Superior dental nerves  
 Inferior dental nerve  
 Short sphenopalatine nerves  
 Long sphenopalatine nerve  
 Greater palatine nerve

**B. N. A.**

Fasciculi proprii  
 Fasc. antero-lateralis superficialis  
 (Gowersi)  
 Fasc. cerebello-spinalis  
 Corpus restiforme  
 Clava  
 Brachium pontis  
 Decussatio lemniscorum  
 Nucleus olivaris inferior  
 " " superior  
 Fibrae cerebello-olivares  
 Brachium conjunctivum  
 Fossa rhomboidea  
 Ala cinerea  
 Area acustica  
 Striæ medullares  
 Lamina quadrigemina  
 Colliculi  
 Aquæductus cerebri (Sylvii)  
 Massa intermedia  
 Stria medullaris thalami  
 Gyrus centralis anterior  
 " " posterior  
 Sulcus interparietalis  
 Gyrus subcallosus  
 Sulcus subparietalis  
 Isthmus g. fornicati  
 Gyrus fusiformis  
 Sulcus temporalis inferior  
 Trigonum olfactorium  
 Digitationes hippocampi  
 Fascia dentata hippocampi  
 Fasciola cinerea  
 Columna fornicis  
 Crus "  
 Stria terminalis  
 Fibrae arcuatæ cerebri  
 Radiatio occipito-thalamica [Gra-tioleti]  
 Nervi cerebrales  
 Portio major  
 " minor  
 Ganglion semilunare [Gasseri]  
 Nn. spheno-palatini  
 Nn. alveolares superiores  
 N. alveolaris inferior  
 Nn. nasales superiores posteriores  
 N. naso-palatinus (Scarpæ)  
 N. palatinus anterior

**B. R.**

Lesser palatine nerves  
 Submandibular ganglion  
 Sensory root of 7th nerve  
 Auditory nerve  
 Inferior ganglion of 9th nerve  
 Superior ganglion of 10th nerve  
 Inferior ganglion of 10th nerve  
 Anterior cutaneous nerve of neck  
 N. to rhomboids  
 N. to serratus anterior  
 Pectoral nerves  
 N. to latissimus dorsi  
 Circumflex nerve  
 Radial nerve  
 Posterior interosseous nerve  
 Gluteal branches of lumbar nerves  
 Femoral branch of genito-femoral  
     nerve  
 Genital branch of genito-femoral  
     nerve  
 Lateral popliteal nerve  
 Sural communicating branch  
 Musculo-cutaneous nerve  
 Anterior tibial nerve  
 Medial popliteal nerve }  
 Posterior tibial nerve }  
 Sural nerve

**B. N. A.**

Nn. palatini medius et posterior  
 Ganglion submaxillare  
 N. intermedius  
 N. acusticus  
 G. petrosum  
 G. jugulare  
 G. nodosum  
 N. cutaneus colli  
 N. dorsalis scapulæ  
 N. thoracalis longus  
 Nn. thoracales anteriores  
 N. thoraco-dorsalis  
 N. axillaris  
 N. radialis et ramus superficialis  
     Ramus profundus  
 Nn. clunium superiores  
 N. lumbo-inguinalis  
 N. spermaticus externus  
 N. peronæus communis  
 Ramus anastomoticus peronæus  
 N. peronæus superficialis  
     "    profundus  
 N. tibialis  
 { N. cutaneus suræ medialis  
 { N. suralis

## SENSE ORGANS

Optic disc  
 Fascial sheath of eyeball  
 Lacrimal canaliculi  
 Aqueduct of cochlea  
 Roof of tympanum  
 Floor of tympanum  
 Medial wall of tympanum  
 Anterior wall of     "  
 Posterior wall of     "  
 Lateral wall of     "  
 Pharyngo-tympanic tube

Papilla n. optici  
 Fascia bulbi  
 Ductus lacrimales  
 Ductus perilymphatici  
 Paries tegmentalibus  
     "    jugularis  
     "    labyrinthicus  
     "    caroticus  
     "    mastoideus  
     "    membranaceus  
 Tuba auditiva (Eustachii)

## BLOOD-VASCULAR SYSTEM

Annulus ovalis  
 Infundibulo-ventricular crest  
 Infundibulum  
 Pulmonary valve  
     Right cusp  
     Posterior cusp

Limbus fossæ ovalis  
 Crista supraventricularis  
 Conus arteriosus  
 Valvulae semilunares a. pul.  
     V. semilunaris anterior  
     V. semilunaris dextra

**B. R.**

Aortic valve  
 Left cusp  
 Anterior cusp  
 Pulmonary trunk  
 R. pulmonary artery  
 L. pulmonary artery  
 Innominate artery  
 Facial artery  
 Maxillary artery  
 Inferior dental artery  
 Superior dental arteries  
 Greater palatine artery  
 Palpebral arches  
 Supratrochlear artery  
 Suprascapular artery  
 Ulnar collateral artery  
 Supratrochlear artery  
 Radialis indicis artery  
 Palmar arches  
 Phrenic artery  
 Superior left colic artery  
 Inferior left colic arteries  
 Rectal arteries  
 Internal iliac artery  
 Artery of vas deferens  
 Artery to cremaster }  
 Artery to lig. teres uteri }  
 Descending genicular art.  
 Inferior vena hemiazygos  
 Superior „ „  
 Innominate veins  
 Transverse sinus }  
 Sigmoid sinus }  
 Thalamo-striate vein  
 Suprascapular vein  
 Internal iliac vein  
 Rectal veins  
 Prostate plexus  
 Left gastric vein }  
 Right „ „  
 Superior left colic vein  
 Inferior left colic veins

**B. N. A.**

Valvulae semilunares aortæ  
 V. s. posterior  
 V. s. sinistra  
 A. pulmonalis  
 Ramus dexter  
 „ sinister  
 A. anonyma  
 A. maxillaris externa  
 A. „ interna  
 A. alveolaris inferior  
 Aa. alveolares superiores  
 A. palatina descendens  
 Arcus tarsei  
 A. frontalis  
 A. transversa scapulæ  
 A. collateralis ulnaris superior  
 A. collateralis ulnaris inferior  
 A. volaris indicis radialis  
 Arcus volares  
 A. phrenica inferior  
 A. colica sinistra  
 Aa. sigmoideæ  
 Aa. haemorrhoidales  
 A. hypogastrica  
 A. deferentialis  
 A. spermatica externa  
 A. genu suprema  
 V. hemiazygos  
 V. hemiazygos accessoria  
 Vv. anonymæ  
 Sinus transversus  
 V. terminalis  
 V. transversa scapulæ  
 V. hypogastrica  
 Vv. haemorrhoidales  
 Plexus pudendalis  
 V. coronaria  
 V. colica sinistra  
 Vv. sigmoideæ

## LYMPHATIC SYSTEM

Submandibular lymph-glands  
 Supratrochlear lymph-glands  
 Aortic lymph-glands

Lymphoglandulæ submaxillares  
 Lymphoglandulæ cubitales superficiales  
 Lymphoglandulæ lumbales

B. R.	B. N. A.
Internal iliac lymph-glands	Lymphoglandulæ hypogastricæ
Superficial inguinal lymph-glands	Lymphoglandulæ inguinales
Deep inguinal lymph-glands	Lymphoglandulæ subinguinales superficiales
	Lymphoglandulæ subinguinales profundæ

## DIGESTIVE SYSTEM

Oro-pharyngeal isthmus	Isthmus faucium
Submandibular gland	Gl. submaxillaris
duct	Ductus "
Dentine (Ivory)	Substantia eburnea
Enamel	", adamantina
Cement	", ossea
Pharyngo-epiglottic fold	Plica glosso-epiglottica lateralis
Tonsil ( <i>The</i> )	Tonsilla palatina
Intratonsillar cleft	Fossa supratonsillaris
Naso-pharyngeal tonsil	Tonsilla pharyngea
Ileo-colic valve	Valvula coli
Vermiform appendix	Processus vermiformis
Descending colon	Colon descendens
Pelvic colon	", sigmoideum
Rectum	Intestinum rectum
Anal canal	Pars analis recti
Sacculations of colon	Haustra coli
Horizontal folds of rectum	Plicæ transversales recti
Anal columns	Columnæ rectales (Morgagnii)
", sinuses	Sinus rectales
Lesser sac of peritoneum	Bursa omentalis
Opening into lesser sac	Foramen epiploicum
Pelvic mesocolon	Mesocolon sigmoideum
Infundibulo-pelvic lig.	Mesorectum
	Lig. suspensorium ovarii

## RESPIRATORY SYSTEM

Posterior apertures of nose	Choanæ
Subvomerine cartilage	Cartilago vomero-nasalis
Upper nasal cartilage	", nasi lateralis
Lower   ",   "	", alaris major
Crico-vocal membrane	Conus elasticus
Vestibular lig.	Lig. ventriculare
fold	Plica ventricularis
Sinus of larynx	Ventriculus laryngis (Morgagnii)
Saccule of larynx	Appendix
Cervical pleura	Cupula pleuræ
Recesses of pleura	Sinus pleuræ
Costo-diaphragmatic recess	", phrenico-costalis