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Etymological Outline

— OF THE —

ELEMENTS OF

PHYSIOLOGY

— and —

146481. ANATOMY,

— ARRANGED BY —

Gilston Scott, M. D.

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ETYMOLOGICAL OUTLINE

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— AND —

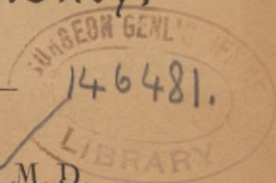
Anatomy.

— ARRANGED BY —

CLIFTON SCOTT, M. D.

1890.

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Preface.



In presenting this outline the author would say that while it has not grown up in the class-room the needs of the class-room have suggested its preparation. Recognizing that students who are far enough advanced to study these subjects with profit, ought to study the *subject* rather than a book, it has been arranged without reference to any text.

The fact that several states have passed laws making these studies part of the common school course, thus compelling thousands of pupils who will never know anything of the dead languages to study Physiology and Anatomy, is sufficient excuse for using the English Spelling of Greek terms.

Having learned that most pupils in the elementary classes of our schools experience great difficulty in tracing out the etymology of scientific terms and in composing brief definitions from the wordy explanations of our authors, some work in both these lines will be found in this outline. For a similar reason the author has introduced only that anatomy which he conceives to be necessary for the comprehension of the subject of physiology.

For the sake of brevity and for the purpose of cultivating memory all repetition of etymologies has been avoided.

As this work is only an outline and in no way a substitute for a text only such topics have been discussed as the pupil cannot readily prepare upon by the study of our ordinary elementary texts, all others are placed in their logical order and left to the pupil to elaborate.

The author wishes to express his thanks for the friendly criticisms of his colleagues, Dr. A. Schneider, and Mrs. A. J. Lilly, and for the valuable assistance of his pupils Messrs. J. A. Pellett, and C. E. Kellogg.

If the pupils into whose hands this outline may fall are led by it to a comparison of the views of different authors then the author's purpose will have been realized.

CLIFTON SCOTT, M. D.

Explanation of the Method of Outlining.

From Neighbour's Outline of Letter-Writing.

The capability of expressing subdivisions to any degree, as well as the compactness, characteristic of the system of outlining employed, is bringing it rapidly into favor.

It cannot be expected, however, that to every one who shall examine this text the method will be familiar, and for this reason a brief explanation of its workings, at the beginning would appear to be advisable.

In every production in which logical arrangement is aimed at, each thought has its appropriate place, in no other than which would it do so well. This place is indicated in the following outline by a character, THE INDEX, composed of COEFFICIENT and EXPONENT. The coefficient denotes the PLACE of the thought among others of the same rank; the exponent, the DEGREE of subdivision of the main topic. To make the meaning more clear, the student can put a part of the work of the text into braces. Then the exponent 1 indicates the FIRST degree of subdivision, the exponent 2 the SECOND, 3 the THIRD, etc., of the main topic, Physiology.

Both coefficient and exponent are read as if cardinal adjectives. Thus 1^2 is read "one-two," 5^6 is read "five-six."

1¹ PHYSIOLOGY.

1² DEFINITION:—The science which treats of the functions of the organs of the organized bodies.

2² DIVISIONS.

1³ HISTOLOGY:—Gr *istos*, a tissue, and *logos*, a discourse.

1⁴ DEFINITION:—The science which treats of the minute structure of tissues as revealed by the microscope.

2⁴ TISSUE.

1⁵ DEFINITION:—The substance composing an organ.

2⁵ KINDS.

1⁶ EMBRYONIC:—Gr. *em*, within, and *bryo*, I grow.

1⁷ DEFINITION:—A tissue composed of primitive cells from which all organized bodies are developed.

2⁷ ELEMENTS.

1⁸ PROTOPLASM:—Gr. *protos*, first, and *plasso*, I form.

1⁹ DEFINITION:—A living, mucilaginous substance.

2⁹ CHARACTERISTICS.

1¹⁰ MOVEMENT (Amœboid):—Gr. *ameibo*, I change, and *idos*, like. A constant change of form.

2¹⁰ Separates into spheroidal masses.

2⁸ Granules.

3⁷ Where found.

4⁷ CHARACTERISTICS.

1⁸ Homogeneous structure.

2⁸ Multiplication of cells.

2⁶ CELLULAR:—Lat. *cellua*, a little cell.

1⁷ DEFINITION:—Tissues in which cells have assumed special characteristics.

2⁷ CELLS:—Lat. *cella*, a little sack.

1⁸ DEFINITION:—A definite mass of protoplasm.

2⁸ Parts.

1⁹ NUCLEUS:—Lat. *nu.x*, a nut.
A differentiated mass in the interior of a cell.

2⁹ Cell contents.

3⁹ Cell wall.

3⁸ Growth.

3⁵ FORMS:—Lat. *forma*, a form, shape.

1⁶ EPITHELIUM:—Gr. *epi*, upon, *thete*, a nipple.

1⁷ DEFINITION:—Layer of cells covering surfaces exposed to the air.

2⁷ Characteristics.

1⁸ Hardened matrix.

2⁸ Definite form.

3⁸ Removal.

4⁸ Renewal.

3⁷ Kinds.

1⁸ SQUAMOUS:—Lat. *squama*, a scale.

- 1^o Description.
- 2^o Location.
- 4⁷ Mode of growth.
- 5⁷ METAMORPHOSES:—Gr. *meta*, a change, and *morphav*, a form.
- 1⁸ Nails.
- 1^o Bed of.
- 2^o Base of.
- 3^o Growth of.
- 2⁸ Hair.
- 1^o Location.
- 2^o Elements.
- 1¹⁰ SAC:—Gr. *sakkos*, a bag or pouch.
- 2¹⁰ PAPILLA:—Lat. *papilla* a nipple. A bulb situated at the bottom of a hair sac.
- 3¹⁰ SHAFT:—The cylindrical, horny portion of a hair.
- 1¹¹ Growth of.
- 2¹¹ Parts of.
- 1¹² MEDULLARY:—Latin, *medius*, middle.
- 2¹²: CORTICAL:—Lat. *cortex*, bark.
- 3¹² CUTICLE:—Lat. *cutis*, skin.
- 4¹² Root sheaths.
- 5¹² GLANDS:—(sebaceous), Lat. *sebum*, suet.

6¹² MUSCLES:—Gr. *mus*,
to move.

3⁸ CRYSTALLINE LENS:—Lat. *lens*,
a lentil.

2⁶ CARTILAGE:—Lat. *Cartilago*, a firm,
elastic substance from which bones
are developed by ossification.

1⁷ Elements.

1⁸ Cells.

2⁸ Intercellular substance, matter
existing between the cells.

2⁷ Characteristics.

1⁸ Abundance of intercellular sub-
stance.

2⁸ Of cells.

3⁸ Of growth.

4⁸ Elasticity.

5⁸ Blood supply.

3⁷ Composition.

1⁸ Protoplasm.

2⁸ Oil globules.

3⁸ CHONDRIIN:—Gr. *Chondros*, car-
tilage. A jelly-like substance
extracted by boiling.

3⁶ CONNECTIVE:—Lat. *con*, together;
nectere, to bind.

1⁷ Distribution.

2⁷ Elements.

1⁸ CORPUSCLES:—Lat. *corpusculum*,
a little body.

2⁸ Yellow, elastic fibers.

- 3⁸ FIBRILLAE:—Lat. *fibrilla*, a small fiber.
- 3⁷ Examples.
- 1⁸ LIGAMENTS:—Lat. *ligare*, to bind. White, elastic bands, connecting bones at the joints.
- 2⁸ TENDONS:—Lat. *tendere*, to stretch. White, elastic cords, connecting muscles with bone.
- 3⁸ FASCIA:—Lat. *fas*, a band. The thin, tendinous, investment of muscle.
- 4⁸ FIBRO-CARTILAGE.
- 4⁶ ADIPOSE:—Lat. *adeps*, fat.
- 1⁷ Location.
- 2⁷ Cells.
- 1⁸ Nucleus.
- 2⁸ Cell wall.
- 3⁸ Cell contents.
- 5⁶ BONE:—Sax. *ban*, a firm, hard substance composing the skeleton of animals.
- 1⁷ COMPOSITION.
- 1⁸ ORGANIC MATTER:—Lat. *organicus*, vital.
- 1⁹ Predominates when ?
- 2⁹ Removal.
- 2⁸ INORGANIC:—Lat. *in*, not, and *organicus*, vital.
- 1⁹ Phosphate of lime.
- 2⁹ Phosphate of magnesium.

- 3^o Carbonate of lime.
- 4^o Sodium chloride.
- 5^o Predominates when?
- 6^o Removal.
- 2⁷ Minute Anatomy.
 - 1⁸ Haversian canals.
 - 2⁸ LACUNAE:—Lat. *lacuna*, a small lake.
 - 3⁸ CANALICULI:—Lat. *canalicula*, a small canal.
 - 4⁸ Haversian rods.
 - 5⁸ Mineral.
- 3⁷ Structure.
 - 1⁸ Compact tissue.
 - 2⁸ CANCELLOUS TISSUE:—Lat. *canalli*, lattice work.
 - 3⁸ MEDULLARY CANALS.
- 4⁷ MARROW:—A fatty, semi-solid substance occupying the medullary canal.
- 5⁷ PERIOSTEUM:—Gr. *peri*, around, and *osteon*, a bone.
- 6⁷ ENDOSTEUM:—Gr. *endon*, within, and *osteon*, a bone.
- 7⁷ OSSIFICATION:—Lat. *os*, bone, *facere*, to make.
 - 1⁸ How performed.
 - 2⁸ Centers of.
- 6⁶ TEETH.
 - 1⁷ DEFINITION:—Small, hard bodies, imbedded in the jaws, and used in seizing and masticating food.

2ⁱ CLASSES OF MATTER.

- 1⁸ DENTINE:—Lat. *dens*, tooth. The substance of the teeth surrounding the pulp and covered by the enamel and cementum.
- 2⁸ CEMENTUM:— Lat. *caementum*, marble chips. A calcareous substance investing the fang of the tooth.
- 3⁸ ENAMEL:—Lat. *in*, upon, and *amel*, to form a glossy surface. The smooth, vitreous substance covering the crown of the tooth.

3ⁱ PARTS.

- 1⁸ CROWN:—Portion of the tooth above the gum.
- 2⁸ NECK:—The part of the tooth to which the gum adheres.
- 3⁸ FANG:—The part of the tooth imbedded in the jaw.

4ⁱ STRUCTURE.

- 1⁸ PULP:—A mass of nerves and blood vessels entering the tooth at the apex of the fang, and occupying the central cavity.

2⁸ Layer of dentine.

3⁸ Layer of cementum.

5ⁱ Development.

1⁸ Method.

2⁸ Sets.

1^o Temporary.1¹⁰ Names.1¹¹ INCISORS:—Lat. *incidere*,
to cut.2¹¹ CUSPIDS:—Lat. *cuspidis*, a
point.3¹¹ MOLAR:—Lat. *molaris*, a
grindstone.2¹⁰ When erupted.2^o Permanent.1¹⁰ Names.1¹¹ Incisors.2¹¹ Cuspids.3¹¹ Bicuspids.4¹¹ Molars.2¹⁰ When erupted.7^o MUSCULAR TISSUE.1¹ DEFINITION:—Masses of red tissue
with the power of contractility.2¹ KINDS.7^o STRIATED:—Lat. *striatum*, stripe.1^o Description.2^o Location.3^o Elements.1¹⁰ Ultimate fibers.2¹⁰ SARCOLEMMA:—Gr. *sarkos*,
flesh, and *lemma*, coat. A
delicate, transparent mem-
brane ensheathing the stri-
ated material.

2⁶ Unstriated.

1⁹ Description.

2⁹ Where found.

3⁹ Characteristics.

1¹⁰ Hollow.

2¹⁰ Involuntary.

8⁶ NERVOUS:—Gr. *neuron*, a string.

1⁷ DEFINITION:—Those tissues by means of which we receive impressions and produce muscular action.

1⁸ White.

2⁸ Gray.

2⁷ Elements.

1⁸ Nerve fibers.

1⁹ Location.

2⁹ Parts.

1¹⁰ Tubular sheath.

2¹⁰ Medullary sheath.

3¹⁰ Axis cylinder.

2⁸ Nerve cells.

1⁹ Location.

2⁹ Elements.

1¹⁰ Cell wall.

2¹⁰ Cell contents.

3¹⁰ Nucleus.

4¹⁰ Nucleolus.

5¹⁰ POLES:—Projections from nerve cells.

3⁹ Kinds.

- 1¹⁰ APOLAR:—Lat. *a*, without, and *polus*, a pole. Without a projection.
- 2¹⁰ UNIPOLAR:—Lat. *unus*, one, and *polus*. With one projection.
- 3¹⁰ BIPOLAR:—Lat. *bis*, twice, and *polus*.
- 4¹⁰ MULTIFOLAR:—Lat. *multum*, many, and *polus*. With many projections.
- 2⁸ OSTEOLOGY:—Gr. *osteon*, bone, and *logos*, discourse.
- 1⁸ DEFINITION:—That branch of Anatomy which treats of the skeleton.
- 2⁸ SKELETON:—Gr. *skeletos*, dried up.
- 1⁶ DEFINITION:—The bony framework of the body.
- 2⁶ ORGANS:—Gr. *organon*, an instrument.
- 1⁶ BONES:—The solid, hard portions of the skeleton.
- 1⁷ KINDS.
- 1⁸ LONG:—A bone having a shaft and two enlarged extremities.
- 2⁸ SHORT:—A mass of bone with more than two surfaces.
- 3⁸ FLAT:—A bone having two surfaces separated by borders.
- 4⁸ IRREGULAR:—A bone whose form will not admit of a geometrical description.
- 2⁷ MEMBRANES.

- 1⁸ PERIOSTEUM:—Gr. *peri*, around, and *osteon*.
- 1⁹ DESCRIPTION:—A dense, fibrous membrane adherent to, and investing bones.
- 2⁰ FUNCTIONS.
- 2⁸ ENDOSTEUM:—A membrane lining the medullary canal.
- 3⁷ Groups.
- 1⁸ Head.
- 1⁹ CRANIUM:—Gr. *kranion*, head. That group of bones which envelop the brain.
- 1¹⁰ FRONTAL:—Lat *frons*, front.
- 2¹⁰ PARIETAL:—Lat. *paries*, a wall.
- 3¹⁰ TEMPORAL:—Lat. *tempus*, time.
- 1¹¹ SQUAMOUS PORTION:—Lat. *squama*, a scale.
- 2¹¹ MASTOID PORTION:—Gr. *mastos*, nipple, and *eidōs*, like.
- 3¹¹ PETROUS PORTION:—Gr. *petra*, a rock.
- 4¹⁰ OCCIPITAL:—Lat *oc*, on, and *caput*, a head.
- 5¹⁰ ETHMOID:—Gr. *ethmos*, a sieve, and *eidōs*.
- 6¹⁰ SPHENOID:—Gr. *sphen*, a wedge, and *eidōs*.
- 2⁹ Face.

- 1¹⁰ NASAL:—Lat. *nasus*, nose.
- 2¹⁰ LACHRYMAL:—Gr. *lakryma*, a tear.
- 3¹⁰ SUPERIOR MAXILLARY:—Lat. *super*, above, and *maxilla*, a jaw.
- 4¹⁰ PALATE:—Lat. *palatium*, the roof of the mouth.
- 5¹⁰ VOMER:—Lat. *vomer*, plow-share.
- 6¹⁰ SUPERIOR TURBINATED: Lat. *turban*, a top.
- 7¹⁰ MALAR:—Lat. *mala*, a cheek.
- 8¹⁰ INFERIOR MAXILLARY:—Lat. *inferus*, below, and *maxilla*.
- 3⁹ EAR.
- 1¹⁰ INCUS:—Lat. *incus*, an anvil.
- 2¹⁰ MALLEUS:—Lat. *malleus*, a mallet.
- 3¹⁰ ORBICULAR:—Lat. *orbis*, a circle.
- 4¹⁰ STAPES:—Lat. *stapes*, a stirrup.
- 2⁸ TRUNK:—Lat. *truncus*. The principal part of the body to which the limbs are attached.
- 1⁹ THORAX:—Gr. *thorax*, a coat of mail. That portion of the trunk enveloping the chief organs of circulation and respiration.

1¹⁰ SPINAL COLUMN.

1¹¹ VERTEBRÆ:—Lat. *verte-
tere*, to turn.

1¹² PARTS.

1¹³ BODY.

2¹³ PROCESSES:—Lat. *pro-
cedere*, to go for-
ward.

1¹⁴ TRANSVERSE:—Lat.
trans, across, and
vertere. Bony
eminences pro-
jecting from the
sides of verte-
bræ.

2¹⁴ ARTICULAR:—Lat.
articulus, a small
joint.

1¹⁵ Superior.

2¹⁵ Inferior.

3¹⁴ SPINOUS:—Lat. *spi-
na*, a thorn.

2¹² GROUPS.

1¹⁵ CERVICAL:—Lat. *cer-
vix*, neck.

2¹⁵ DORSAL:—Lat. *dor-
sum*, back.

3¹⁵ LUMBAR:—Lat. *lum-
bus*, loin.

2¹⁰ RIBS:—Sax. *rib*.

- 1¹¹ TRUE:—Ribs attached to the sternum by an independent cartilage.
- 2¹¹ FALSE:—Ribs whose cartilage blends with the next cartilage above.
- 3¹¹ FLOATING:—Ribs which have no cartilaginous attachment in front
- 4¹¹ PARTS.
- 1¹² HEAD:—The enlarged vertebral extremity.
- 2¹² NECK:—The constriction in front of the head.
- 3¹² TUBERCLE:—The eminence which articulates with the transverse processes.
- 4¹² ANGLE:—Point where the degree of curvature changes.
- 5¹¹ ARTICULATION:—Lat. *articulus*, a small joint.
- 3¹⁰ STERNUM:—Gr. *sternon*, solid.
- 1¹¹ PARTS.
- 1¹² MANUBRIUM:—Lat. *manubrium*, handle. The uppermost broad portion of the sternum.

2¹² GLADIOLUS:—Lat. *gladius*, a sword. The middle expanded portion of the sternum.

3¹² ENSIFORM APPENDIX:—Lat. *ensis*, sword, and *forma*, form. The cartilaginous lower extremity of the sternum.

2¹¹ ARTICULATION.

2⁹ PELVIS:—Lat. *pelvis*, a basin.

1¹⁰ INNOMINATA:—Latin *in*, without, and *nomen*, name. The hip-bone.

1¹¹ ILIUM:—Lat. *ilium*, the flank.

2¹¹ ISCHIUM:—Gr. *iskhion*, I support.

3¹¹ PUBES:—Lat. *pubes*, mature, grown up.

2¹⁰ SACRUM:—Lat. *sacer*, holy, sacred.

2¹⁰ COCCYX:—Gr. *coccyx*, cuckoo.

3⁸ Extremities.

1⁹ Upper.

1¹⁰ Shoulder.

1¹¹ CLAVICLE:—Lat. *clavis*, a key.

2¹¹ SCAPULA:—Lat. *scapulum*, shoulder-blade.

- 2¹⁰ ARM-HUMERUS:—Lat. *humerus*, shoulder.
- 3¹⁰ FOREARM.
- 1¹¹ RADIUS:—Lat. *radius*, a spoke.
- 2¹¹ ULNA:—Lat. *ulna*, the elbow.
- 4¹⁰ HAND.
- 1¹¹ CARPUS:—Gr. *karpōs*, the wrist.
- 1¹² FIRST ROW.
- 1¹³ SCAPHOID:—Gr. *skaphe*, boat, and *eidōs*.
- 2¹³ SEMILUNAR:—Latin, *semi*, half, and *lunar*, moon.
- 3¹³ CUNEIFORM:—Latin, *cuneus*, a wedge, and *forma*.
- 4¹³ PISIFORM:—Lat. *pisi*, a pea, and *forma*.
- 2¹² SECOND ROW.
- 1¹³ TRAPEZIUM:—Greek, *trapezion*, a trapezium.
- 2¹³ TRAPEZOID:—Greek, *trapezion* and *eidōs*.
- 3¹³ OS MAGNUM:—Lat. *os*, bone and *magnum*, large.
- 4¹³ UNCIFORM:—Lat. *uncus*, hook and *forma*.

ETYMOLOGICAL OUTLINE OF

2¹¹ METACARPUS:—Gr. *meta*, after, and *karpos*.

3¹¹ PHALANGES:—Gr. *phalanx*, a row of soldiers.

2⁰ LOWER EXTREMITIES.

1¹⁰ THIGH-FEMUR:—Latin, *femur*, thigh.

2¹⁰ LEG.

1¹¹ PATELLA:—Lat. *patera*, a bowl.

2¹¹ FIBULA:—Lat. *fibula*, a brace or clasp.

3¹¹ TIBIA:—Lat. *tibia*, flute.

3¹⁰ FOOT.

1¹¹ TARSUS:—Gr. *tarsos*, posterior part of the foot.

1¹² ASTRAGALUS:—Gr. *astragalos*, a die, base of a column.

2¹² OS CALCIS:—Latin, *os calx*, the heel.

3¹² Scaphoid.

4¹² Cuneiform.

5¹² Unciform.

1¹³ External.

2¹³ Middle.

3¹³ Internal.

6¹² CUBOID:—Gr. *kubos*, a cube, and *eidos*.

2¹¹ METATARSUS:—Gr. *meta*, beyond, and *tarsus*, broad.

3¹¹ PHALANGES.4⁸ IRREGULAR.

1⁰ HYOID BONE:—Gr. letter *u*,
eidos.

2⁰ SESAMOID BONE:—Gr. *sesame*,
a grain of sesanum, and *eidos*.

3⁰ WORMIAN:—Name of an anat-
omist.

2⁶ LIGAMENTS:—Lat. *ligamentum*.

1⁷ DEFINITION.

2⁷ KINDS.

1⁸ CAPSULAR:—Gr. *capsa*, a chest.
A ligament investing a joint,
its fibers at right angles to the
joint opening.

2⁸ Deepening.

3⁸ Strengthening.

4⁸ ANNULAR:—Lat. *annulus*, a ring.
Investing a joint, its fibers
parallel to the joint opening.

3⁶ SYNOVIAL MEMBRANE:—Gr. *syn*,
with, and *oon*, egg.

1⁷ DEFINITION:—A sack containing
synovia for lubrication.

2⁷ CLASSES.

1⁸ ARTICULAR, adherent to the ends
of bones in joints.

2⁸ BURSAL:—Gr. a leathern bottle.
A sack between the tendons
and bones.

3⁸ VAGINAL:—Lat. *vagina*, a sheath.
A membrane investing a ten-
don.

3⁷ Functions.

3⁵ Articulations.

1⁶ Definition.

2⁶ Classes.

1⁷ SYNARTHROSIS:—Gr. *syn*, with, and *arthroses*, articulation.

1⁸ DEFINITION: An immovable joint.

2⁸ Examples.

1⁹ SUTURES:—Latin, *suerē*, to stitch. A joint formed by dovetailing the edges of bone together.

2⁹ HARMONIA:—Gr. *harmonia*. A joint formed by rough surfaces perfectly adapted.

3⁹ SCHYNDYLESIS:—Gr. *schindelo*, I split into small pieces. A joint formed by the margin of a plate of bone fitting into a groove of another bone.

4⁹ GOMPHOSIS:—Gr. *gomphos*, a nail. A bone fit'ed into a depression of another bone,

2⁷ AMPHIARTHROSIS:—Gr. *amphi*, on all sides, and *arthrosis*. A joint producing slight motion in all directions.

3⁷ DIARTHROSIS:—Gr. *dia*, through, *arthrosis*.

1⁸ DEFINITION:—A very movable joint.

2⁸ Examples.

- 1^o ARTHRODIA:—Gr. *arthron*, a joint. A joint where one bone glides upon another.
- 2^o GINGLYMUS:—Gr. *ginglymos*, a hinge. A joint permitting motion in one plane.
- 3^a MUSCLES:—Masses of red, contractile tissue.
- 1⁴ Composition.
- 1⁵ MYOSIN:—Gr. *mus*, a mouse. An albuminous substance coagulable after death.
- 2⁵ Salts.
- 1⁶ Phosphate.
- 2⁶ Potash.
- 3⁵ Extractives.
- 1⁶ KREATIN:—Gr. *kreatos*, flesh. Nitrogenous waste of muscle.
- 2⁶ LACTIC ACID:—Lat. *lac*, milk.
- 2⁴ Color.
- 3⁴ Classes.
- 1⁵ Hollow.
- 1⁶ Description.
- 2⁵ Locations.
- 1⁷ Blood Vessels.
- 2⁷ LYMPHATICS:—Lat. *lymphā*, water.
- 3⁷ Ducts.
- 4⁷ Alimentary canal.
- 5⁷ Heart.
- 6⁷ Iris.

2^b Striated.1⁶ Description.2⁶ Location.4⁴ Function.1^b Attached to levers.1⁶ Definition of lever.2⁶ Classes of levers.1⁷ First.1⁸ Description.2⁸ Examples in the body.1⁹ Skull.2⁹ Arm.3⁹ Foot.2⁷ Second.1⁸ Description.2⁸ Examples in the body.1⁹ Thigh bone.2⁹ Ribs depressed.3⁹ Foot.3⁷ Third.1⁸ Description.2⁸ Examples in the body.1⁹ Arm.2⁹ Leg.3⁹ Head.2⁵ To give outline to body.3⁵ To protect delicate organs.4⁶ To produce motion.1⁶ Cause of contraction.

2⁶ Kinds of motion.

1⁷ FLEXION:—Lat. *flexio*, a bender. Causing extreme ends of articulating bones to approach each other.

2⁷ EXTENSION:—Lat. *ex*, out, and *tendo*, I stretch. Causing extreme ends of articulating bones to recede.

3⁷ ABDUCTION:—Lat. *ab*, from and *duco*, I lead. Movement from the median line.

4⁷ ADDUCTION:—Lat. *ad*, toward, and *duco*. Movement toward the median line.

5⁷ ROTATION:—Lat. *rotare*, to turn round. Turning of a bone on its own axis.

6⁷ CIRCUMDUCTION:—Latin, *circum*, around, and *duco*. Movement describing a cone, the apex at the joint.

5⁴ Attachments.

1⁶ Origin.

2⁶ Insertion.

6⁴ Names.

1⁶ RECTI:—Lat. *rectus*, straight.

1⁶ SUPERIOR:—O., apex of orbit. I., upper surface of eyeball.

2⁶ INFERIOR:—O., apex of orbit. I., lower surface of eyeball.

3⁶ INTERNAL:—O., apex of orbit. I., internal surface of eyeball.

- 4⁶ EXTERNAL:—O., apex of orbit. I., external surface of eyeball.
- 2⁵ OBLIQUE:—Lat. *obliquus*, slanting.
- 1⁶ SUPERIOR:—O., apex of orbit. I., back of eyeball.
- 2⁶ INFERIOR:—O., internal. anterior part of orbit. I., outside of orbit.
- 3⁵ LEVATOR PALPEBRÆ.—Lat. *levare*, to raise, and *palpebra*, an eyelid, from *palpitare*, to palpitate. O., apex of orbit. I., cartilage of eyelid.
- 4⁵ ORBICULARIS PALPEBRARUM:—A circular muscle in the eyelid.
- 5⁵ BUCCINATOR:—Lat. *buccinare*, to sound the trumpet. A fan-shaped muscle in the cheek.
- 6⁵ ORBICULARIS ORIS:—Lat. *orbicular*, and *os*, mouth. A circular muscle in the lips around the mouth.
- 7⁵ MASSETER:—Lat. *massetris*, I chew, O., zygomatic arch. I., inferior margin, and posterior angle of jaw.
- 8⁵ TEMPORAL:—Lat. *tempus*. O., temporal ridge of skull. I., the coronoid process of the lower jaw.
- 9⁵ INTERNAL PTERYGOID:—Gr. *pteron*, a wing, and *oidos*. O., external plate of pterygoid process. I., inner side of the angle of the jaw.
- 10⁵ SCALENI:—Gr. *skalenos*, unequal.
- 1⁶ ANTICUS:—Lat. *ante*, before. O., transverse processes of 3rd, 4th, 5th and 6th cervical vertebræ. I., upper surface of first rib.

- 2⁶ MEDIUS:--Lat. *medium*, middle. O., transverse processes of the six lower cervical vertebræ. I., first rib behind sub-clavian artery.
- 3⁶ POSTICUS:--Lat. *post*, after. O., transverse processes of the three lower cervical vertebræ. I., posterior part of second rib.
- 11⁵ TRAPEZIUS:--Gr. *trapeza*, a table. O., occipital bone, and spinous processes of dorsal vertebræ. I., external third of clavicle and spine of scapula.
- 12⁶ LATISSIMUS DORSI:--Lat. *latus*, broad, and *dorsum*, back. O., sacrum, lumbar spines, and six lower dorsal spines. I., anterior ridge of bicipital groove and humerus.
- 13⁵ PECTORALIS MAJOR:--Latin, *pectus*, breast, and *major*, larger. O., costal cartilages, sternum, internal third of clavicle. I., external ridge of bicipital groove.
- 14⁵ PECTORALIS MINOR:--Lat. *pectus*, and *minor*. O., 3rd, 4th and 5th ribs. I., coracoid process of scapula.
- 15⁵ DELTOID:--Greek letter delta and *ei-dos*. O., external 3rd of clavicle, acromion process, and spine of scapula. I., outer side and center of humerus.
- 16⁵ LEVATORES COSTARUM:--Lat. *levator*, and *costa*. O., transverse processes of dorsal vertebræ. I., upper margin of rib, between tubercle and angle.

- 17^b EXTERNAL INTERCOSTALS. O., external inferior margin of rib. I., external superior margin of rib below.
- 18^b INTERNAL INTERCOSTALS. O., internal superior margin of rib. I., internal inferior margin of rib above.
- 19^b SERRATUS MAGNUS:—Lat. *serra*, a saw, and *magnus*, great. O., internal lip of vertebral border of scapula. I., nine superior ribs.
- 20^b BICEPS:—Lat. *bis*, and *caput*. O., by two heads, coracoid process of scapula, and above head of scapula. I., tuberosity of radius.
- 21^b TRICEPS:—Lat. *tri*, and *caput*. O., three heads, below head of scapula, and on external and internal surfaces of humerus. I., olecranon process of ulna.
- 22^b ABDOMINAL:—Lat. *abdere*, to conceal.
- 1^b RECTUS. O., sternum and lower ribs. I., pubes of innominate bones.
- 2^b EXTERNAL OBLIQUE. O., eight lower ribs, and extends downward and forward to median line and pelvis.
- 3^b INTERNAL OBLIQUE. O., innominate bone; extends downward and forward.
- 23^b SARTORIUS:—Lat. *sartor*, a tailor. O., anterior margin of ilium. I., inner side of upper end of tibia, below its tubercle.

24⁶ QUADRICEPS EXTENSOR:—Lat. *quat- uor*, four, and *caput*. O., four heads from innominate bone and femur. I., superior margin of patella. Patella attached to tibia by ligamentum patellae.

25⁶ GASTROCNEMIUS:—Gr. *gaster*, stom- ach. and *gemini*, twins. O., posterior surface of femur above condyles. I., os calcis.

26⁶ SOLEUS:—Lat. *solum*, sole-fish.

4⁶ Blood.

1⁴ Definition.

2⁴ Composition.

1⁵ PLASMA:—Lat. *plasmatus*, a thing form- ed.

1⁶ Definition.

2⁶ Water.

3⁶ Salts.

4⁶ Albumen.

1⁷ Coagulable by heat.

2⁷ Coagulable spontaneously.

2⁵ Cruor-Corpuscles.

1⁶ Red.

1⁷ Size.

2⁷ Shape.

3⁷ Origin.

4⁷ Destruction.

5⁷ Function.

6⁷ Number.

2⁶ White.

1⁷ Size,

2⁷ Shape.

3⁷ Origin.

4⁷ Destruction.

5⁷ Number.

6⁷ Amœboid movement.

3⁵ COAGULATION:—Lat. *co*, and *agere*, to bring together.

1⁶ How hastened.

2⁶ How retarded.

3⁶ Why necessary.

3⁴ CIRCULATION.

1⁶ Definition.

2⁶ Organs.

1⁶ Heart.

1⁷ Shape.

2⁷ Size.

3⁷ Tissue.

4⁷ Location.

5⁷ Membranes.

1⁸ PERICARDIUM:—Gr. *peri*, and *kardia*, heart.

2⁸ Endocardium.

6⁷ Cavities.

1⁸ AURICLE:—Lat. *auris*, ear.

1⁹ Right.

1¹⁰ Location.

2¹⁰ Openings

1¹¹ SUPERIOR VEVA CAVA:—
Lat. *vena*, vein, *cava*, a
hollow.

2¹¹ INFERIOR VENA CAVA.

3¹¹ CORONARY SINUS:—Lat.
corona, crown.

4¹¹ FORAMEN THEBESII: —
From name of a Ger-
man naturalist.

5¹¹ AURICULO-VENTRICULAR:
Lat. *venter*, abdomen.

2⁹ Left.

1¹⁰ Location.

2¹⁰ Openings.

1¹¹ PULMONARY VEINS:—Gr.
pleumon, lungs.

2¹¹ AURICULO-VENTRICULAR:
Lat. *aurus*, and *venter*.

2⁸ VENTRICLES:—Lat. *venter*.

1⁹ Right.

1¹⁰ Location.

2¹⁰ Openings.

1¹¹ Auriculo-ventricular.

2¹¹ Pulmonary artery.

2⁹ Left.

1¹⁰ Location.

2¹⁰ Openings.

1¹¹ Auriculo-ventricular.

2¹¹ AORTA:—Gr. *aorte*, sus-
pended.

7^r Valves.1^s Location.2^s TRICUSPIDS:—Lat. *tri*, and *cuspis*.1^o Location.2^o Number.2^s BICUSPIDS:—Lat. *bis*, and *cuspis*.1^o Location.2^o Number.4^s Semilunar.1^o Location.2^o Number.5^s Parts.1^o Membrane.2^o CHORDÆ TENDINÆ:—Greek, *khordi*, a cord, and *tendo*, I stretch.3^o COLUMNÆ CARNÆ:—Lat. *columna*, column, and *caro*, flesh.8^r Movements.1^s DIASTOLE:—Gr. *dia*, through, and *stello*, I dilate.2^s SYSTOLE:—Gr. *sys*, and *stello*, I send.9^r Sounds.1^s First.1^o Where heard.2^o Cause.2^s Second.1^o Where heard.

2^o Cause.

2⁶ ARTERIES:—Gr. *aer*, air, and *terein*, to preserve.

1⁷ Definition.

2⁷ Location.

3⁷ Method of branching.

4⁷ Coats.

1⁸ Cellular.

2⁸ Muscular.

3⁸ SEROUS:—Lat. *serum*, whey.

5⁷ Nerves.

3⁶ CAPILLARIES:—Lat. *capillus*, hair like.

1⁷ Definition.

2⁷ Location.

3⁷ Coats.

4⁶ VEINS:—Lat. *vena*.

1⁷ Definition.

2⁷ Location.

3⁷ Coats.

1⁸ Cellular.

2⁸ Muscular.

3⁸ Serous.

4⁷ Valves.

5⁷ Nerves.

3⁶ Systems.

1⁶ Arterial

1⁷ Kind of blood.

2⁷ Character of flow.

- 3⁷ Cause of flow.
- 2⁶ Capillary system.
 - 1⁷ Character.
 - 2⁷ Cause of flow.
- 3⁶ Venous system.
 - 1⁷ Kind of blood.
 - 2⁷ Character of flow.
 - 3⁷ Cause of flow.
- 4⁶ Cardiac.
 - 1⁷ Kinds of blood.
 - 2⁷ Cause of movement.
- 4⁶ Pulse.
 - 1⁶ Definition.
 - 2⁶ Cause.
 - 3⁶ Frequency.
 - 1⁷ At different ages.
 - 2⁷ During emotion.
 - 3⁷ During sickness.
- 5⁶ Names of arteries.
 - 1⁶ Aorta.
 - 1⁷ ARCH:—The curved portion at the beginning of the vessel.
 - 2⁷ THORACIC:—Gr. *thorax*, a coat of mail. Extends from the arch to the diaphragm.
 - 3⁷ ABDOMINAL. Extends from diaphragm to the fourth lumbar vertebræ.
 - 2⁶ CORONARY:—Lat. *corona*, a crown.

- 1⁷ Right; supplies the right side of the heart.
- 2⁷ Left; supplies the left side of the heart.
- 3⁶ INNOMINATE. Rises from the upper right side of the arch, and extends upward one inch and a half to sternal end of clavicle, and divides into the right subclavian and common carotid.
- 4⁶ CAROTIDS:—Gr. *karos*, stupor.
- 1⁷ Common.
- 1⁸ RIGHT:—Extends from innominate upper margin of larynx.
- 2⁸ LEFT:—Extends from arch on left side to upper margin of larynx,
- 2⁷ EXTERNAL:—Extends from the common c., upward and outward to supply side of head and face.
- 3⁷ INTERNAL:—Extends from c. c. into skull through petrous portion of temporal bone, and supplies the brain, its membranes, and the eye.
- 5⁶ SUBCLAVIAN:—Extends from the innominate under the clavicle, to the lower border of the first rib.
- 1⁷ Right.
- 2⁷ Left.

- 2⁶ AXILLARY:—Lat. *ala*, wing, signifies the arm-pit. An extension of the sub-clavian through the arm-pit.
- 7⁶ BRACHIAL:—Gr. *brachion*, arm. From axillary in the arm, to a point one-half inch below the elbow.
- 8⁶ RADIAL:—Extends along radius to the hand.
- 9⁶ ULNAR:—Extends along ulna to the hand.
- 10⁶ INTERCOSTALS:—Ten pairs, each resting in a groove along the internal inferior margin of the rib.
- 11⁶ CÆLIAC AXIS:—Branches from abdominal aorta near the diaphragm, one-half inch in length, and divides into three branches.
- 1⁷ SPLENIC:—Branch of cœliac axis, and is distributed to the spleen.
- 2⁷ GASTRIC:—Branch of cœliac axis, and is distributed to the stomach.
- 3⁷ HEPATIC:—Greek, *hepatos*, liver. Branch of cœliac axis, distributes blood to liver and stomach.
- 12⁶ SUPERIOR MESENTERIC:—Gr. *meso*, middle, and *enteron*, intestine. Branch of abdominal aorta, behind pancreas. Supplies small intestine, cœcum, and the ascending and transverse colon.
- 13⁶ Branch of abdominal aorta, about two inches above its division into the common iliacs. Distributed to

descending colon, sigmoid flexure and rectum.

14⁶ RENAL:—Lat. *ren*, kidney. Across from the abdominal aorta directly to the kidney.

15⁶ ILIAC:—Lat. *ilia*, flanks.

1⁷ COMMON:—The two arteries which result from the division of the aorta at its lower part.

1⁸ Right.

2⁸ Left.

2⁷ EXTERNAL:—Extends from common iliac to femoral arch at the margin of the pelvis.

3⁷ INTERNAL:—Distributed to the organs of the pelvis.

16⁶ FEMORAL:—Lat. *femur*, thigh. Extends from femoral arch along the front and inner side of thigh to its lower third, where it becomes the popliteal.

17⁶ POPLITEAL:—Lat. *post*, behind, and *plico*, I fold. The space behind the knee. It lies wholly within the popliteal space.

18⁶ TIBIAL.

1⁷ ANTERIOR:—Branch from popliteal passing downward in front of tibia.

2⁷ POSTERIOR:—Branch from popliteal passing downward behind the tibia.

6^b NAMES OF VEINS.

1^o JUGULAR:—Lat. *jugulum*, throat.
Returns the blood from the head
and unites with the sub-clavians.

1^r Right.

2^r Left.

2^o SUB-CLAVIANS:—Return the blood
from the arms and unite with the
jugulars to form the innominate.

1^r Right.

2^r Left.

3^o VENA CAVA:—Lat. *vena*, a vein, and
cava, a hollow.

1^r SUPERIOR:—Formed of the right
and left innominates, and empty-
ing into the right auricle.

2^r INFERIOR:—Receives blood from
lower extremities, abdomen and
chest, and empties into the right
auricle.

4^o PORTAL:—Lat. *porta*, a gate. Form-
ed by gastric, splenic, and super-
ior and inferior mesenteric veins.
It is about two and one-half inches
long and enters the liver at the un-
der surface of the transverse fis-
sure.

5^o GASTRIC:—Receives blood from the
stomach and helps to form the
portal vein.

6^o SPLENIC:—Conveys the blood from
the spleen to the portal vein.

- 7⁶ HEPATIC:—Collects all the blood from the liver and conveys it to the ascending vena cava.
- 8⁶ SUPERIOR MESENTERIC:—Collects blood from the region supplied by the superior mesenteric artery and unites with the portal vein.
- 9⁶ INFERIOR MESENTERIC:—Collects blood from the region supplied by the inferior mesenteric artery and unites with portal vein.
- 10⁶ SAPHENOUS:—Gr. *saphes*, manifest. Large subcutaneous of the leg, and unites with the femoral.
- 11⁶ VENA COMITES:—Lat. *vena*, and *comes*, an associate.
- 5⁴ RESPIRATION:—Lat. *respiro*, I breathe.
- 1⁵ Definition.
- 2⁵ Organs,
- 1⁶ LARYNX:—Gr. *larynx*, voice box.
- 1⁷ Definition.
- 2⁷ Cartilages.
- 1⁸ THYROID:—Gr. *thyra*, folding-door and *eidōs*.
- 2⁸ CRICOID:—Gr. *krikos*, a ring, and *eidōs*.
- 3⁸ ARYTENOID:—Gr. *arytaena*, a ladle, and *eidōs*,
- 4⁸ EPIGLOTTIS:—Gr. *epi*, and *glottis*, the mouth-piece of a flute.
- 3⁷ Membranes.
- 1⁸ Crico-thyroid.

- 2⁸ Thyro-hyoid.
- 4⁷ Vocal cords.
 - 1⁸ False.
 - 2⁸ True.
 - 1⁹ Attachments.
 - 2⁹ Action.
 - 3⁹ Comparison in male and female.
- 5⁷ Muscles.
 - 1⁸ Intrinsic.
 - 2⁸ Extrinsic.
- 6⁷ Nerves.
 - 1⁸ Recurrent laryngeal.
 - 2⁸ External laryngeal.
- 7⁷ Ventricles.
- 2⁶ TRACHÆ:—Gr. *trakhus*, rough.
 - 1⁷ Definition.
 - 2⁷ Diameter.
 - 3⁷ Length.
 - 4⁷ Tissues.
 - 1⁸ Incomplete fibro, cartilaginous rings.
 - 2⁸ Mucous membranes.
 - 3⁸ Muscular fibers.
 - 4⁸ Connective tissue.
 - 5⁷ Functions.
- 3⁶ BRONCHI:—*bronchion*, wind-pipe: divisions of the trachea.
 - 1⁷ Right.
 - 2⁷ Left.

- 3⁷ Differences.
- 4⁷ Functions.
- 4⁶ LUNGS:—Sax. *lunge*.
 - 1⁷ Definition.
 - 2⁷ Right.
 - 3⁷ Left.
 - 4⁷ Shape.
 - 5⁷ Weight.
 - 6⁷ Color.
 - 7⁷ Lobes.
 - 8⁷ Root.
 - 1⁸ Location.
 - 2⁸ Organs composing,
 - 1⁹ Bronchi.
 - 2⁹ Pulmonary vessels.
 - 3⁹ Nerves.
 - 4⁹ Lymphatics.
 - 5⁹ Bronchial artery.
 - 6⁹ Connective tissue.
- 9⁷ PLEURA:—Gr. *pleura*, the side.
 - 1⁸ Definition.
 - 2⁸ Layers.
 - 1⁹ Parietal.
 - 2⁹ Visceral.
 - 10⁷ Air sacs.
 - 11⁷ Air cells.
- 12⁷ PARENCHYMA:—Gr. *parenkhyuma*,
effusion.
- 13⁷ Source of blood.

- 1⁸ Bronchial artery.
- 2⁸ Pulmonary artery.
- 14⁷ Nerves.
 - 2⁸ PNEUMOGASTRIC:—Gr. *pneuma*, air, and *gastric*.
 - 2⁸ Sympathetic.
- 15⁷ Vital capacity.
- 5⁶ DIAPHRAGM:—Gr. *phrasso*, I close, and *dia*.
 - 1⁷ Definition.
 - 2⁷ Shape.
 - 3⁷ Attachments.
 - 4⁷ Layers.
 - 1⁸ Pleural and Cardiac.
 - 2⁸ Muscular.
 - 3⁸ PERITONEAL:—Greek, *teino*, I stretch, and *peri*.
- 5⁷ PHRENIC NERVE:—Gr. *phren*, diaphragm.
- 6⁷ Openings.
 - 1⁸ Vena cava.
 - 2⁸ OESOPHAGUS:—Gr. *oiso*, I carry, and *phago*, I eat.
 - 3⁸ AORTA:—Gr. *aortekomai*, I am suspended.
- 7⁷ Function.
- 6⁶ Muscle.
 - 1⁷ Inspiratory.
 - 1⁸ Diaphragm.

- 2⁸ SCALENA:—Gr. *skalenos*, irregular or uneven.
- 1⁹ ANTICUS:—Lat., before.
- 2⁹ MEDIUS,—Lat., middle.
- 3⁹ POSTICUS:—Lat., posterior.
- 3⁸ EXTERNAL INTERCOSTAL.
- 4⁸ LEVATORES COSTARUM:—Latin, lifters of the ribs.
- 5⁸ PECTORALIS MAJOR:—Lat., larger (muscle) of the breast.
- 6⁸ PECTORALIS MINOR:—Lat., smaller (muscle) of the breast.
- 7⁸ SERRATUS MAGNUS:—Lat., large saw-toothed (muscle.)
- 2⁷ Expiratory,
- 1⁸ Internal Intercostals.
- 2⁸ Infra Costals.
- 3⁸ Abdominal.
- 1⁹ Obliquus External.
- 2⁹ Obliquus Internal.
- 3⁹ RECTUS ABDOMINUS:—Latin, straight abdominal (muscle.)
- 7⁶ Ribs.
- 3⁶ Parts.
- 1⁶ Inspiration.
- 1⁷ Definition.
- 2⁷ Movements.
- 1⁸ Sternum.
- 2⁸ Of Ribs.

- 3⁸ Of Diaphragm,
- 4⁸ Effects of.
- 4^b Objects of,
 - 1⁶ Furnish Oxygen.
 - 1⁷ Oxydizes Chyle.
 - 2⁷ To produce animal heat.
 - 2⁶ To remove waste matter.
- 5⁶ Air.
 - 1⁶ Composition,
 - 1⁷ OXYGEN:—Gr. *oxms*, acid, and *gen-nao*, I engender.
 - 2⁷ NITROGEN:—Gr. *nitron*, and *gen-nao*.
 - 3⁷ Carbon Dioxide.
 - 2⁶ Changes.
 - 1⁷ Loses Oxygen.
 - 2⁷ Receives Carbon Dioxide.
 - 3⁷ Receives Water.
 - 3⁶ Kinds.
 - 1⁷ Residual.
 - 2⁷ Supplemental.
 - 3⁷ Tidal.
 - 4⁷ Complimental.
- 6⁴ DIGESTION:—Lat. *digere*, to digest.
 - 1^b Definition.
 - 2^b Processes.
 - 1⁶ MASTICATION:—Lat. *masticare*, to chew.

- 2⁶ INSALIVATION:—Lat. *in*, and *saliva*, spittle.
- 3⁶ DEGLUTITION:—Lat. *de*, and *glutire*, to swallow.
- 4⁶ CHYMIFICATION:—Lat. *chymus*, juice, and *facere*, to make.
- 5⁶ CHYLIFICATION:—Lat. *chylus*, juice, and *facere*.
- 6⁶ Separation.
- 7⁶ Absorption.
- 3⁵ Food.
- 1⁶ Definition.
- 2⁶ Classes.
- 1⁷ Mineral.
- 1⁸ Water.
- 1⁹ Sources.
- 2⁹ Uses.
- 2⁸ Salts.
- 1⁹ Sources.
- 2⁹ Kinds.
- 1¹⁰ Phosphate of Lime.
- 2¹⁰ Phosphate of Magnesium.
- 3¹⁰ Carbonate of Lime.
- 4¹⁰ Sodium Chloride.
- 3⁹ Uses.
- 2⁷ ORGANIC:—Gr. *organon*, work. an instrument.
- 1⁸ PROTEIDES:—Gr. *proteion*, to take first rank.
- 1⁹ ALBUMEN:—Lat. *albus*, white.

2° FIBRINE:—Lat. *fibra*, a filament, fibre.

3° CHONDRINE:—Gr. *khondros*, cartilage.

4° GELATINE:—Lat. *gelare*, to freeze, congeal.

5° CASEINE:—Lat. *caseus*, cheese.

6° MYOSIN:—Gr. *mus*, a mouse or rat.

7° Sources.

8° Uses.

2° CARBONACEOUS:—Latin *carbo*, coal.

1° Sugars.

1¹⁰ Sources.

2¹⁰ Kinds.

1¹¹ SUCROSE:—F. *sucre*, sugar.

2¹¹ LACTOSE:—Lat. *lac*, milk.

3¹¹ GLUCOSE:—Greek, *glucos*, sweet.

2° Fats.

1¹⁰ Sources.

2¹⁰ Composition.

3° Starch.

1¹⁰ Sources.

2¹⁰ Composition.

4° Gums.

4° Organs.

1° Mouth.

2° Teeth.

3⁶ Salivary Glands.1⁷ Definition.2⁷ Class. (Racemos.)3⁷ Names.1⁸ PAROTID:—Gr. *para*, near, and
otos, the ear.1⁸ Location.2⁸ Duct. (Steno's.)3⁸ Size and Weight.2⁸ SUBMAXILLARY:—Lat. *sub*, un-
der, and *maxilla*, jaw.1⁹ Location.2⁹ Duct. (Wharton's.)3⁹ Size and Weight.3⁸ SUBLINGUAL:—Lat. *sub*, and *lin-
gua*, tongue.1⁹ Location.2⁹ DUCT:—Lat. *ducere*, to lead.1¹⁰ Ravini. (An anatomist.)2¹⁰ Bartholine. (An anatomist.)3⁹ Size and Weight.4⁷ Secretion—Saliva.1⁹ Composition.1⁹ Water.2⁹ Salts.3⁹ Pepsin.2⁸ Reaction.3⁸ FUNCTION:—Lat. *functio*, per-
forming, executing.

5⁷ Nerve Supply.

4⁶ PHARYNX:—Gr. *pharo*, I cut or divide.

1⁷ Definition.

2⁷ Coats.

1⁸ Mucous.

2⁸ Muscular.

3⁷ Length.

4⁷ Openings.

1⁸ Posterior Nares.

2⁸ Eustachian Tubes. (After Eustachus.)

3⁸ FAUCES:—Lat. gullet or throat.

4⁸ ŒSOPHAGUS:—Gr. *oiso*, I carry, and *phago*.

5⁸ GLOTTIS:—Gr. *glottis*.

5⁶ ŒSOPHAGUS:—Gr. *oiso*, and *phago*.

1⁷ Definition.

2⁷ Coats.

1⁸ Mucous.

2⁸ Areolar.

3⁸ Muscular.

3⁷ Length.

4⁷ Diameter.

5⁷ Function.

6⁶ STOMACH:—Gr. *stomachos*.

1⁷ Definition.

2⁷ Shape.

3⁷ Length.

- 4⁷ Width.
- 5⁷ Coats.
 - 1⁸ Mucous.
 - 2⁸ Muscular.
 - 3⁸ SEROUS:—Lat. *serum*.
- 6⁶ Apertures.
 - 1⁸ CARDIAC:—Gr. *cardia*, the heart.
 - 2⁸ PYLORIC:—Gr. *pile*, a gate, and *ouros*, a guardian.
- 7⁷ Glands.
 - 1⁸ Mucous.
 - 2⁸ PEPTIC:—Gr., *pepto*, I digest.
 - 1⁹ Location.
 - 2⁹ Secretion—Gastric Juice.
 - 1¹⁰ Composition.
 - 1¹¹ Water.
 - 2¹¹ Salts.
 - 3¹¹ Acids.
 - 4¹¹ PEPSIN:—Gr. *pepto*,
 - 2¹⁰ Reaction.
 - 3¹⁰ Amount.
- 8⁷ Relations.
- 9⁷ Movements.
- 10⁷ Functions.
- 11⁷ Nerve Supply.
- 12⁷ Curvatures.
 - 1⁸ Greater.
 - 2⁸ Lesser.
- 7⁶ INTESTINES:—Lat. *intestinus*.

- 1⁷ Definition.
- 2⁷ Coats.
 - 1⁸ Mucous.
 - 1⁹ VILLI:—Lat. *villus*, a tuft of hair.
 - 2⁹ VALVULÆ CONNIVENTES:—Lat. closing valves.
 - 2⁸ Muscular.
 - 3⁸ Serous.
- 3⁷ Divisions.
 - 1⁸ Small.
 - 1⁹ Length.
 - 2⁹ Sections.
 - 1¹⁰ DUODENUM:—Latin, *duo-decimo*, twelve.
 - 2¹⁰ JEJUNUM:—Lat. *jejunus*, empty.
 - 3¹⁰ ILIUM:—Gr. *eileo*, I turn or twist.
 - 3⁸ Glands.
 - 1¹⁰ Brunner's. (After Brunner.)
 - 2¹⁰ Solitare.
 - 3¹⁰ Agminated.
 - 4¹⁰ Lieberkuhn's. (After Lieberkuhn.)
- 2⁸ Large.
 - 1⁹ Divisions.
 - 1¹⁰ CÆCUM:—Latin, *cæcus*, blind.

- 1¹¹ Ilio Cæcal Valves.
- 2¹¹ Vermiform Appendix.
- 2¹⁰ COLON:—Gr. *colos*, hollow
or *colno*, I arrest.
- 1¹¹ Ascending.
- 2¹¹ Descending.
- 3¹¹ Transverse.
- 3¹⁰ RECTUM:—Lat. straight.
- 3⁹ Flexures.
- 1¹⁰ HEPATIC:—Gr. *hepatos*, liv-
er.
- 2¹⁰ SPLENIC:—Gr. *splen*, the
spleen.
- 3¹⁰ SIGMOID:—Gr. *sigma* (*s*)
and *eidos*.
- 3⁹ Glands.
- 1¹⁰ Mucous.
- 2¹⁰ Solitare.
- 4⁷ Functions.
- 5⁷ Nerve Supply.
- 6⁷ Blood Supply.
- 8⁶ Liver.
- 1⁷ Description.
- 2⁷ Location.
- 3⁷ Relation.
- 4⁷ Shape.
- 5⁷ Weight.
- 6⁷ Lobes.
- 1⁹ Right.

- 2⁸ Left.
- 3⁸ LOBUS CAUDATUS:—Lat. *lobus*, a lobe, and *cauda*, a tail.
- 4⁸ LOBUS QUADRATUS:—Lat. *lobus*, and *quadratus*, a square.
- 5⁸ LOBUS SPIGELII. (After Spigelius.)
- 7¹ Vessels.
- 1⁸ Hepatic Artery.
- 2⁸ Lymphatic.
- 3⁸ Portal Vein.
- 4⁸ Hepatic Vein.
- 5⁸ Bile Duct.
- 1⁹ Biliary.
- 2⁹ Right Hepatic.
- 3⁹ Left Hepatic.
- 4⁹ CYSTIC:—Gr. *cystis*, a pouch.
- 5⁹ Common Bile Duct.
- 8⁷ Fissures.
- 1⁸ Longitudinal.
- 2⁸ DUCTUS VENOSUS:—Lat. *ductus* and *vena*.
- 3⁸ Transverse.
- 4⁸ Gall Bladder.
- 5⁸ Vena Cava.
- 9⁷ Ligament.
- 1⁸ TERES:—Lat. *teres*, long and round.
- 2⁸ Suspensory. (Broad.)
- 3⁸ Coronal.

- 4⁸ Lateral.
 - 1⁹ Right.
 - 2⁹ Left.
- 10⁷ Nerves.
 - 1⁸ Pneumogastric.
 - 2⁸ Sympathetic.
- 11⁷ Structure.
 - 1⁸ Capsule of Glisson. (An anatomist.)
 - 2⁸ LOBULES:—Gr. *lobos*, a lobe.
 - 1⁹ Size.
 - 2⁹ Structure.
 - 1¹⁰ Connective Tissue.
 - 2¹⁰ Veins.
 - 3¹⁰ Hepatic Cells.
 - 3⁸ Vessels.
 - 1⁹ Vena Porta.
 - 1¹⁰ Divisions.
 - 1¹¹ INTERLOBULAR:—Lat. *inter* and *lobus*.
 - 2¹¹ Lobular.
 - 3¹¹ Intralobular.
 - 4¹¹ Sublobular.
 - 2¹⁰ Distribution.
 - 2⁹ Hepatic Artery.
 - 1¹⁰ Vaginal.
 - 2¹⁰ Capsular.
 - 3¹⁰ Intralobular.
 - 3⁹ Bile Ducts.

- 4^o Hepatic Veins.
- 12⁷ Secretion—Bile.
 - 1⁸ Composition.
 - 1^o Water.
 - 2^o Solids.
 - 1¹⁰ BILIRUBIN:—Lat. *bilis*, bile, and *rubus*, red.
 - 2¹⁰ BILIVERDIN:—Lat. *bilis*, and *viridis*, green.
 - 3¹⁰ CHOLESTERINE:—Gr. *khole*, bile and *stear*, suet.
 - 4¹⁰ Salts.
 - 1¹¹ GLYCOCHOLATE OF SODA: Gr. *glykus*, sweet, and *khole*.
 - 2¹¹ TAUROCHOLATE OF SODA: Gr. *tauros*, ox, and *khole*.
- 2⁸ Color.
- 3⁸ Amount.
- 4⁸ Reaction.
- 5⁸ Supposed Function.
 - 1⁹ Promote Absorbtion.
 - 2⁹ Promote Peristalsis.
 - 3⁹ Emulsify Fats.
- 13⁷ GLYCOGENIC FUNCTION:—Gr. *glykus*, sweet, and *genesis*.
- 9⁶ PANCREAS:—Gr. *pan*, all, and *kreas*, flesh.
 - 1⁷ Definition.

2⁷ Relations.

3⁷ Shape.

4⁷ Ducts.

5⁷ Secretion—Pancreatic Juice.

1⁸ Composition.

1⁹ Water.

2⁹ Pancreatin.

3⁹ Salts.

2⁸ Functions.

1⁹ Convert Starch into Sugar.

2⁹ Emulsify Fats.

3⁹ Dissolve Albumen.

7⁴ ABSORPTION:—Lat. *ab*, and *sorbere*, to suck up.

1⁵ Definition.

2⁵ Organs.

1⁶ Lymphatics.

1⁷ Origin.

2⁷ Course.

3⁷ Coats.

1⁸ Fibrous.

2⁸ Muscular.

3⁸ Cellular.

4⁷ Communications.

5⁷ VALVES:—Lat. *valvo*, I fold up.

6⁷ Kinds.

1⁸ SUPERFICIAL:—Lat. *superficies*, surface.

2⁸ Deep.

- 7⁷ Function.
- 2⁶ GLANDS:—Lat. *glaus*, an acorn or kernel.
- 1⁷ Definition.
- 2⁷ Structure.
- 3⁷ Vessels.
- 1⁸ AFFERENT:—Lat. *ad*, to, and *fero*, I carry.
- 2⁸ EFFERENT:—Lat. *e*, from, and *fero*.
- 4⁷ Kinds.
- 1⁸ Lymphatic.
- 1⁹ Location.
- 2⁹ Function.
- 2⁸ Mesenteric.
- 1⁹ Location.
- 2⁹ Function.
- 3⁶ LACTEAL:—Lat. *lac*.
- 1⁷ Definition.
- 2⁷ Structure.
- 3⁷ Origin.
- 4⁷ Course.
- 5⁷ Functions.
- 4⁶ THORACIC DUCT:—Lat. *thorax*, a breast-plate, and *ductus*.
- 1⁷ Definition.
- 2⁷ Structure.
- 3⁷ Origin.
- 4⁷ Course.

- 5⁷ Length.
- 6⁷ Diameter.
- 7⁷ Coats.
- 8⁷ Termination.
- 9⁷ Function.

3⁵ Kinds.

- 1⁶ INTERSTITIAL:—Lat. *inter*, and *sistere*, to place.
- 2⁶ EXCRETORY:—Lat. *ex*, and *cernere*, to separate.
- 3⁶ CUTANEOUS:—Lat. *cutis*, skin.
- 4⁶ Respiratory.
- 5⁶ Venous.
- 6⁶ Lacteal.

8⁵ SECRETION:—Lat. *secerno*, I separate.1⁶ Definition.2⁶ Organs.1⁶ FOLLICLES:—Lat *follis*, a bag.

- 1⁷ Definition.
- 2⁷ Structure.
- 3⁷ Location.
- 4⁷ Functions.

2⁶ Glands.

- 1⁷ Definition.
- 2⁷ Structure.
- 1⁸ Cells.
- 2⁸ Blood Vessels.
- 3⁸ Lymphatics.
- 4⁸ Nerves.

- 5⁸ Ducts.
- 3⁷ Names.
 - 1⁸ Liver.
 - 2⁸ Salivary.
 - 3⁸ Pancreas.
 - 4⁸ Kidney.
 - 5⁸ Perspiratory.
 - 6⁸ Sebaceous.
 - 7⁸ Peptic.
- 4⁷ Function.
- 3⁶ Kinds.
 - 1⁶ EXCREMENTITIOUS:—Lat. *ex*, and *cernere*.
 - 2⁶ RECREMENTITIOUS:—Lat. *re*, return again, and *cernere*.
- 9⁴ Animal heat.
 - 1⁵ Definition.
 - 2⁵ Source.
 - 3⁵ Distribution.
 - 4⁵ Necessity.
 - 5⁵ Quantity.
 - 6⁵ Variations.
 - 7⁵ Local Productions.
 - 8⁵ Equalization of Temperature.
 - 9⁵ Local Elevation.
 - 10⁵ Regulation.
 - 1⁶ By Variation of Production.
 - 2⁶ By Variation of Loss.
 - 11⁵ Modifications.

- 1⁶ By Food.
- 2⁶ By Exercise.
- 3⁶ Age.
- 4⁶ Clothing.
 - 1⁷ Kind for different Climates.
 - 2⁷ Kind for different Seasons.
- 10⁴ Skin.
 - 1⁵ Definition.
 - 2⁵ Layers.
 - 1⁶ CUTIS VERA :—Lat. *cutis*, and *vera*, true.
 - 1⁷ Definition.
 - 2⁷ Structure.
 - 1⁸ Fibro-areolar.
 - 2⁸ Blood Vessels.
 - 3⁸ Lymphatics.
 - 4⁸ Nerves.
 - 3⁷ Parts.
 - 1⁸ CORIUM:—Gr. *korion*, leather.
 - 1⁹ Definition.
 - 2⁹ Structure.
 - 2⁸ Papillary Layer.
 - 1⁹ Definition.
 - 2⁹ Structure.
 - 4⁷ Glands.
 - 1⁸ PERSPIRATORY :— Latin, *per*, through, and *spirare*, to breathe.
 - 1⁹ Definition.

2⁶ Location.3⁰ Secretion—Perspiration.1¹⁰ Composition.2¹⁰ Amount.3¹⁰ Function.4⁰ Ducts.1¹⁰ Form.2¹⁰ Length.2⁶ SEBACEOUS:—Lat. *sebum*, tallow,
suet.1⁰ Definition.2⁰ Location.3⁰ Structure.4⁰ Secretion.5⁰ Ducts.6⁰ Function.3⁸ CERUMINOUS:—Lat. *cera*, wax1⁰ Definition.2⁰ Location.3⁰ Function.2⁶ Cuticle.1⁷ Definition.2⁷ Layers.1⁸ STRATA MUCOSUM:—Lat. *stratum*, layer, and *mucus*.1⁰ Structure.2⁰ Location.3⁰ Function.

2⁸ STRATA CORNUM: — Lat. *stratum*, and *cornus*, horn.

1⁹ Location.

2⁹ Structure.

3⁹ Function.

11⁴ NERVOUS SYSTEM

1⁵ Definition.

2⁵ Systems.

1⁶ CEREBRO-SPINAL: — Lat. *cerebrum*, brain, and *spina*, back-bone.

1⁷ Definition.

2⁷ Divisions.

1⁸ Brain.

1⁹ Definition.

2⁹ Parts.

1¹⁰ CEREBRUM:—Gr. *kara*, head.

1¹¹ Definition.

2¹¹ Size.

3¹¹ Shape.

4¹¹ Convolution.

5¹¹ Fissures.

1¹² Superior Longitudinal.

2¹² Rolando. (An anatomist.)

3¹² Sylvius. An anatomist.)

6¹¹ Division.

1¹² Lobes.

1¹³ Anterior.

2¹³ Median.

3¹³ Posterior.

2¹² CORPUS CALLOSUM:—

Lat. *corpus*, body, and *callum*, hard. A white band of nervous tissue connecting the hemispheres of the cerebrum.

3¹² OPTIC THALAMUS:—Gr. *optomai*, I see, and *thalamos*, a bed. Two large oval bodies in the base of the cerebrum from which the optic nerves were supposed to arise.

4¹² CORPORA QUADRIGEMINI:—Lat. *corpor*, bodies, and *quatuor*, four, and *gemini*, double. Four eminences at the posterior and inferior part of the middle lobe of the cerebrum. They give origin to the optic nerves.

7¹¹ Hemispheres.

1¹² Right.

2¹² Left.

8¹¹ VENTRICLES:—Five cavities near the base of the brain communicat-

ing with each other and the central canal of the spinal cord. Function unknown.

9¹¹ Function.

2¹⁰ Cerebellum.

1¹¹ Definition.

2¹¹ Shape.

3¹¹ Size.

4¹¹ Fissures.

5¹¹ Function.

3¹⁰ MEDULLA OBLONGATA:—

Lat. *medius*, and *oblongus*, oblong.

1¹¹ Definition.

2¹¹ Shape.

3¹¹ Size.

4¹¹ Divisions.

1¹² CORPORA PYRAMIDALIA:

Lat. *corpus*, and *pyramis*, a pyramid. Two pyramids of white matter on either side of the anterior median fissure.

2¹² OLIVARY BODIES:—Lat.

oliva, an olive. Two oval masses behind the corpora pyramidalia.

3¹² RESTIFORM BODIES:—

Lat. *restis*, a rope, and

forma, Largest columns of the medulla situated in front of the posterior pyramids.

4¹² POSTERIOR PYRAMIDS:—Two narrow white cords placed one on each side of the posterior median fissure.

5¹² PONS VAROLII:—Lat. *pons*, a bridge, and Varolius, an anatomist. The bond of union between the various segments of the brain.

5¹¹ Function.

3⁹ Membranes.

1¹⁰ DURA MATER:—Lat. *durus*, hard, and *mater*, mother.

1¹¹ Definition.

2¹¹ Structure.

3¹¹ Situation.

4¹¹ Processes.

1¹² FALX CEREBRI:—Lat. *falx*, a scythe, and *cerebrum*. A fold of the dura mater in the superior longitudinal fissure.

2¹² TENTORIUM CEREBEL-

LI:—Lat. *tendere*. A process of the dura mater separating the cerebrum from the cerebellum.

5¹¹ Functions.

2¹⁰ ARACHNOID:—Gr. *arachnos*, a spider web, and *eidōs*.

1¹¹ Definition.

2¹¹ Structure.

3¹¹ Location.

4¹¹ SUB-ARACHNOID SPACE:—
The interval between the arachnoid and pia mater. Communicates with the fourth ventricle.

5¹¹ CEREBRO-SPINAL FLUID:
A clear fluid occupying sub-arachnoid space.

6¹¹ Function.

3¹⁰ PIA MATER:—*pia*, tender, and *mater*.

1¹¹ Definition.

2¹¹ Structure.

3¹¹ Location.

4¹¹ Function.

2⁸ Cranial Nerves.

1⁹ Definition.

2⁹ Kinds.

1¹⁰ Special Sense.

2¹⁰ Sensory.

3¹⁰ Motor.

4¹⁰ Mixed.

3⁹ Parts.

1¹⁰ OLFATORY:—Lat. *olere*, to swell, and *facere*.

1¹¹ ORIGIN:—It arises from fissure of Sylvius and the posterior part of the anterior lobe of the brain.

2¹¹ COURSE:—Passes forward on the under surface of the anterior lobe to the cribriform plate of the ethmoid.

3¹¹ DISTRIBUTION:—Distributed to upper part of the nasal mucous membrane.

4¹¹ FUNCTION: That of smell.

2¹⁰ OPTIC:—Gr. *opticos*, eye.

1¹¹ ORIGIN:—Rises from the corpora quadrigemini, and optic thalamus.

2¹¹ COURSE:—They decussate forming the optic commissure and enter the orbit through the optic foramen.

3¹¹ DISTRIBUTION : — They pierce the sclerotic coat and form the retina.

- 4¹¹ FUNCTION:—Vision.
- 3¹⁰ MOTOR OCULI:—Lat. *mo-
vere*, to move, and *oculus*.
- 1¹¹ ORIGIN:—Rises from the
under surface of the
middle lobe near the
pons.
- 2¹¹ COURSE:—Passes forward
under the brain and en-
ters the orbit through
the sphenoidal fissure.
- 3¹¹ DISTRIBUTION:—Distrib-
uted to the iris and all
the muscles of the eye
except the superior ob-
lique and external rect-
us.
- 4¹¹ FUNCTION:—Purely mo-
tion.
- 4¹⁰ PATHETICUS:—Gr. *pathos*,
suffering.
- 1¹¹ ORIGIN:—Rises from the
valve Vieussens near the
corpora quadrigemini.
- 2¹¹ COURSE:—Passes forward
through the sphenoidal
fissure at its upper part.
- 3¹¹ DISTRIBUTION:—Supplies
the superior oblique
muscle.
- 4¹¹ FUNCTION:—Motor.
- 5¹⁰ TRIFACIAL:—Lat. *tres*, three,
and *facies*, face.

1¹¹ ORIGIN:—Rises from the corpus pyramidale.

2¹¹ BRANCHES.

1¹² OPHTHALMIC:—Gr. *ophthalmos*, eye.

1¹³ ORIGIN:—Separates from main nerve after passing through Casserian ganglion.

2¹³ COURSE:—Passes out at the sphenoidal fissure.

3¹³ DISTRIBUTION:—Supplies the eye, forehead, and nose.

4¹³ FUNCTION:—Sensation.

2¹² SUPERIOR MAXILLARY.

1¹³ ORIGIN:—Same as ophthalmic.

2¹³ COURSE:—Passes out at the foramen rotundum.

3¹³ DISTRIBUTION:—Supplies nose, upper lip, upper teeth, cheeks, and lower eyelid.

4¹³ FUNCTION:—Sensation.

3¹² INFERIOR MAXILLARY.

1¹³ ORIGIN: Same as oph-

thalmic, the motor root passing beneath the ganglion.

2¹³ COURSE:—Passes out of foramen ovale.

3¹³ DISTRIBUTION:—To tongue, lower teeth, chin, lower lip, and muscles of mastication.

4¹³ FUNCTION:—Taste, sensation and motion.

6¹⁰ ABDUCELS:—Lat. *ab*, and *duco*.

1¹¹ ORIGIN:—From the medulla oblongata.

2¹¹ COURSE:—Passes out of the sphenoidal fissure between the heads of the external rectus muscle.

3¹¹ DISTRIBUTION:—Supplies external rectus.

4¹¹ FUNCTION:—Motion.

7¹⁰ FACIAL, or Portio Dura.

1¹¹ ORIGIN:—Rises from the medulla oblongata between the olivary and restiform bodies.

2¹¹ COURSE:—Passes forward and outward through the meatus auditorius

internus and the aqueductus Fallopii and escapes at the styloid foramen below the ear.

3¹¹ DISTRIBUTION:—To all the muscles of expression of the face.

4¹¹ FUNCTION:—Motion.

8¹⁰ AUDITORY:—Lat. *auditus*, sense of hearing.

1¹¹ ORIGIN:—Same as facial.

2¹¹ COURSE:—Passes forward and outward through the meatus auditorius internus.

3¹¹ DISTRIBUTION:—To the internal ear.

4¹¹ FUNCTION:—Hearing.

9¹⁰ GLASSO-PHARYNGIAL:—Gr. *glossa*, tongue, and *pharyngus*, pharynx.

1¹¹ ORIGIN:—From the floor of the fourth ventricle.

2¹¹ COURSE:—Passes outward through the jugular foramen.

3¹¹ DISTRIBUTION:—Tongue and pharynx.

4¹¹ FUNCTION:—Sensation in tongue and motion in the pharynx.

10¹⁰ PNEUMOGASTRIC.

- 1¹¹ ORIGIN:—Same as glosso-pharyngeal.
- 2¹¹ COURSE:— Passes out through the jugular foramen down the neck to the abdomen and thorax.
- 3¹¹ DISTRIBUTION:—To the pharynx, larynx, œsophagus, heart, lungs, stomach and intestines.
- 4¹¹ FUNCTION:—Motor, sensory, secretory and nutrient.

11¹⁰ SPINAL ACCESSORY.

- 1¹¹ ORIGIN:—The accessory part rises from the medulla below the origin of the pneumogastric. Spinal portion rises from the lateral tract of the cord as low down as the sixth cervical vertebræ.
- 2¹¹ COURSE:—Passes upward into the skull through the foramen magnum and escapes through the jugular foramen.
- 3¹¹ DISTRIBUTION:—Accessory joins pneumogastric at

the jugular foramen. Spinal portion communicates with the sympathetic nerves and supplies some muscles of the neck.

4¹¹ FUNCTION:—Motion.

12¹⁰ HYPOGLOSSAL:—Lat. *hypo*, under and *glossa*.

1¹¹ ORIGIN:—Rises from the medulla between the pyramidal and olivary bodies.

2¹¹ COURSE: Escapes through the skull through the anterior condyloid foramen.

3¹¹ DISTRIBUTION:—Supplied to the group of muscles connected to the hyoid bone.

4¹¹ FUNCTION:—Motor.

3⁸ Spinal cord.

1⁹ Definition.

2⁹ Structure.

3⁹ Diameter.

4⁹ Length.

1¹⁰ In infancy.

2¹⁰ At maturity.

- 5^o Fissures.
 - 1¹⁰ Anterior Median.
 - 2¹⁰ Posterior Median.
 - 3¹⁰ Anterior Lateral.
 - 4¹⁰ Posterior Lateral.
- 6^o Columns.
 - 1¹⁰ Anterior Median.
 - 2¹⁰ Posterior Median.
 - 3¹⁰ Lateral.
- 7^o COMMISSURE: — Lat. *commis-*
sura, joining together.
- 8^o Membranes.
 - 1¹⁰ Dura Mater.
 - 2¹⁰ Arachnoid.
 - 3¹⁰ Pia Mater.
- 9^o Functions.
 - 1¹⁰ Transmit Impressions.
 - 2¹⁰ Reflex Action.
 - 1¹¹ Definition.
 - 2¹¹ Examples.
- 4⁸ Spinal Nerves.
 - 1⁹ Definition.
 - 2⁹ Kinds.
 - 1¹⁰ Sensory.
 - 1¹¹ Definition.
 - 2¹¹ ORIGIN:—From posterior
horn of gray matter of
the cord.
 - 3¹¹ Ganglion,

1¹² Definition.

2¹² Function.

4¹¹ DISTRIBUTION:—To the surface of the body and the extremities.

5¹¹ Function

2¹⁰ Motor.

1¹¹ Definition.

2¹¹ ORIGIN:—From the anterior horn of the gray matter of the cord.

3¹¹ DISTRIBUTION:—To the voluntary muscles of the body and the extremities.

4¹¹ Function.

3⁹ Groups.

1¹⁰ Cervical.

1¹¹ Number.

2¹¹ Location.

2¹⁰ Dorsal.

1¹¹ Number.

2¹¹ Location.

3¹⁰ Lumbar.

1¹¹ Number.

2¹¹ Location.

4¹⁰ Sacral.

1¹¹ Number

2¹¹ Location.

5¹⁰ Coccygeal.

1¹¹ Number.

2¹¹ Location.

4⁹ PLEXUSES:—Lat. *plexus*, a network.

1¹⁰ DEFINITION:—A network of interlacing nerves.

2¹⁰ CERVICAL:—Composed of the anterior branches of the four upper cervical nerves.

1¹¹ SUPERFICIAL:— Distributed to the superficial muscles of the neck and shoulder.

2¹¹ DEEP:— Distributed to the deep muscles of the neck and breast, and the larynx.

2¹⁰ BRACHIAL:—Formed of the anterior branches of the four lower cervical and first dorsal.

1¹¹ Description.

2¹¹ DISTRIBUTION:—To the muscles of the chest, shoulder, arm, Fore-arm and hand.

3¹⁰ LUMBAR:—Formed from the four upper lumbar nerves and sometimes the last dorsal.

1¹¹ Description.

2¹¹ DISTRIBUTION:—To the muscles of the abdomen, pelvis and thigh.

4¹⁰ SACRAL:—Formed of five sacral nerves.

1¹¹ Description.

2¹¹ DISTRIBUTION:—To deep muscles of the back, to the viscera of pelvis, and the posterior muscles of thigh.

2⁶ SYMPATHETIC:—Gr. *sym*, and *pathos*.

1⁷ DEFINITION:—A double chain of ganglia connected with each other and with the cerebro-spinal system by nervous cords. These ganglia being situated just in front of the vertebræ and extending from within the skull to the lower part of the sacrum.

2⁷ DIVISIONS.

1⁸ GANGLIA:—Gr. *ganglion*, a knot.

1⁹ DEFINITION:—An enlargement in the course of a nerve, containing nerve cells and thought to be able to create nerve force.

2⁹ Groups.

1¹⁰ CEPHALIC: — Gr. *cephalon*,
head.

1¹¹ Number of Ganglia—3.

2¹¹ Distribution.

2¹⁰ Cervical.

1¹¹ Number of Ganglia—3.

2¹¹ Distribution.

3¹⁰ Thoracic.

1¹¹ Number of Ganglia—2.

2¹¹ Distribution.

4¹⁰ Abdominal.

1¹¹ Number of Ganglia—4.

2¹¹ Distribution.

5¹⁰ Sacral.

1¹¹ Number of Ganglia.

2¹¹ Distribution.

6¹⁰ Coccygeal.

1¹¹ Number of Ganglia—1,
Impæ.

2¹¹ Distribution.

2⁸ Nerves.

1⁹ Distribution.

2⁹ Communications.

3⁹ Function.

12⁴ SPECIAL SENSES.

1⁵ DEFINITION:—The endowments by
which we perceive the physical prop-
erties of external objects.

2⁵ Hearing.

1⁶ Definition.

2⁶ Organs.

1⁷ Ear.

1⁸ External.

1⁹ MEATUS AUDITORIUS:—Latin, *meo*, I go, a passage, and *audire*, to hear.

1¹⁰ Shape.

2¹⁰ Length.

3¹⁰ Diameter.

4¹⁰ Glands.

5¹⁰ Hairs.

2⁹ PINNA:—Lat. *penna*, feather.

1¹⁰ Structure.

2¹⁰ Parts.

1¹¹ HELIX:—Gr. *helain*, to roll. The semi-circular eminence which forms the outline of the pinna.

2¹¹ ANTI-HELIX:—A semi-circular eminence internal to the helix.

3¹¹ CONCHA:—Gr. *konkos*, a concave shell. A cavity with the meatus at the bottom.

4¹¹ FOSSA OF THE HELIX:—The groove between the Helix and the Anti-Helix.

5¹¹ FOSSA OF THE ANTI-HELIX:—Depression between the divisions of the Anti-Helix at its upper part.

6¹¹ TRAGUS:—Gr. *tragos*, a goat. An eminence in front and below the meatus.

7¹¹ ANTI-TRAGUS:—An eminence posterior and inferior to the tragus.

3¹⁰ Functions.

2⁸ Middle-Tympanum.

1⁹ Definition.

2⁹ Walls.

3⁹ Openings.

1¹⁰ EUSTACHIAN TUBE:—From Eustachius.

1¹¹ DEFINITION:—A tube leading from the pharynx to the middle ear.

2¹¹ Shape.

3¹¹ Length.

4¹¹ Diameter.

5¹¹ Function.

2¹⁰ MASTOID CELLS:—Cavities in the mastoid portion and communicating with the tympanum.

3¹⁰ FENESTRA OVALIS:—Lat. *fenestra*, a window, and *ovum*.

An oval opening between the vestibule and tympanum at the base of the stapes.

4¹⁰ FENESTRA ROTUNDA:—Lat. *fenestra*, and *rotundus*, round. A circular opening between the tympanum and cochlea.

5¹⁰ MEATUS AUDITORIUS EXTERNUS:—External opening of the tympanum.

4⁰ Bones.

1¹⁰ Malleus.

2¹⁰ Incus.

3¹⁰ Stapes.

4¹⁰ Function.

3⁸ Internal.

1⁰ Definition.

2⁰ Parts.

1¹⁰ Membranous.

2¹⁰ Bony.

3⁰ Fluids.

1¹⁰ ENDO LYMPH:—From *endo*, and *lymp̄ha*. A fluid which fills the membranous sac or labyrinth of the internal ear.

2¹⁰ PERI LYMPH:—From *peri*, and *lymp̄ha*. A fluid which fills all of the space in the internal ear external to

the membranous sac.

4⁹ Divisions.

1¹⁰ VESTIBULE:—Lat. *vestibulum*, a porch.

1¹¹ DEFINITION:—An irregular cavity next the tympanum and between the cochlea and semi-circular canals.

2¹¹ Size.

3¹¹ Parts.

1¹² SACCULUS:—Lat. little bag.

2¹² UTRICLES:—Lat. *uter*, a small bottle.

4¹¹ Function.

2¹⁰ Semi-circular canals.

1¹¹ Size.

2¹¹ Names.

1¹² Superior.

2¹² Posterior.

3¹² External.

3¹¹ Function.

3¹⁰ COCHLEA:—Gr. *kokhlias*, a spiral shell.

1¹¹ Shape.

2¹¹ Size.

3¹¹ Function.

2⁷ Auditory Nerve.

1⁸ Origin.

2⁸ Distribution.

1⁹ Cochlea.

2⁹ Vestibule.

3⁹ Semi-circular Canal.

3⁸ Function.

3⁵ Taste.

1⁶ Definition.

2⁶ Organs.

1⁷ Tongue.

1⁸ Definition.

2⁸ Structure.

3⁸ Functions.

2⁷ Nerves.

1⁸ GUSTATORY:—Lat. *gustare*, to taste. A branch from the inferior Maxillary division of the fifth.

2⁸ GLOSSO-PHARYNGEAL:—Nerve of taste in the tongue.

3⁸ HYPO-GLOSSAL:—Nerve of motion in the tongue.

3⁷ Soft Palate.

1⁸ Definition.

2⁸ Structure.

4⁶ Fauces,

1⁸ Definition.

2⁸ Structure.

4⁵ Smell.

1⁶ DEFINITION:—The process by which we recognize the odors of substances.

2⁶ Organs.1⁷ Nose.1⁸ Definitions.2⁸ Tissues.1⁹ Bones.2⁹ Cartilages.3⁹ Muscles.4⁹ Integuments.5⁹ FOLLICLES:—Lat *follis*, a bag.6⁹ Mucous Membrane.7⁹ Blood Vessels.8⁹ Names.2⁷ NASAL FOSSÆ.1⁸ Definition.2⁸ Meatuses.1⁹ SUPERIOR:—Passage under the superior turbinated bone.2⁹ MIDDLE:—Passage under the middle turbinated bone.3⁹ INFERIOR:—Passage under the inferior turbinated bone.3⁷ Nerves.1⁸ Olfactory.1⁹ Distribution.2⁹ Function.2⁸ Sympathetic.3⁸ Trifacial.3⁶ Functions.5⁶ Touch.

- 1⁶ Definition.
- 2⁶ Organs.
 - 1⁷ Skin.
 - 2⁷ Papillæ.
 - 3⁷ TACTILE CORPUSCLES:—Lat. *tac-*
tum, touch, and *corpus*
 - 4⁷ Terminal Bulbs.
- 3⁶ Modifications.
- 6⁶ Vision.
 - 1⁶ Definition.
 - 2⁶ Organs.
 - 1⁷ Optic Nerve.
 - 1⁸ Origin.
 - 2⁸ Course.
 - 3⁸ Distribution.
 - 4⁸ Function.
 - 2⁷ Globe.
 - 1⁸ Shape.
 - 2⁸ Diameter.
 - 3⁸ Muscles.
 - 1⁹ Recti.
 - 2⁹ Oblique.
 - 4⁸ Coats.
 - 1⁹ SCLEROTIC:—*scleros*, hard, the
external coat of the eye.
 - 1¹⁰ Location.
 - 2¹⁰ Tissue.
 - 3¹⁰ CORNEA:—Lat. *cornu*. The
anterior transparent por-
tion of the sclerotic.

1¹¹ Characteristics.

2¹¹ Function.

2⁹ CHOROID:—Gr. *chorion*, skin, and *eidos*. A black membrane lining the sclerotic internally.

1¹⁰ Layers.

2¹⁰ Location.

3¹⁰ Function.

4¹⁰ CILIARY PROCESSES:—Triangular folds of the choroid at its anterior part.

5¹⁰ IRIS:—Gr. *iris*, a rainbow.

1¹¹ DEFINITION:—A circular curtain in the aqueous humor perforated by an opening called the pupil.

2¹¹ Structure.

1¹² Muscles.

2¹² Pigment.

3¹¹ Function.

4¹¹ Pupil.

3⁹ RETINA:—Lat. *rete*, a net. The internal coat of the eye, formed of an expansion of the optic nerve.

1¹⁰ Layers.

1¹¹ RODS AND CONES:—The external layer.

2¹¹ Granular.

3¹¹ Ganglionic.

2¹⁰ Spots.

1¹¹ MACULA LUTEA:—Latin, *macula*, a spot, and *luteus*, yellow. A spot upon the center of the back of the retina where the layers are very thin and where the light easily reaches the cones.

2¹¹ BLIND SPOT:—The point where the optic nerve enters.

3¹⁰ Function.

5⁸ Humors.

1⁹ AQUEOUS:—Lat. *aqua*, water. A fluid behind the cornea and in front of the crystalline lens.

1¹⁰ Quantity.

2¹⁰ Reaction.

3¹⁰ Function.

2⁹ Crystalline Lens.

1¹⁰ Location.

2¹⁰ Shape.

2¹⁰ Suspensory Ligament.

4¹⁰ Functions.

1¹¹ Refract Light.

2¹¹ ACCOMMODATION:—The adaption of the eye to view objects at different distances.

3⁹ VITREOUS:—Lat. *vitrum*, glass.

1¹⁰ Location.

2¹⁰ Quantity.

3¹⁰ Shape.

4¹⁰ HYALOID MEMBRANE:—Gr.

hyalos, glassy.

5¹⁰ Function.

3⁷ Protecting Organs.

1⁸ Orbit.

1⁹ Shape.

2⁹ Walls.

3⁹ Cushion of Fat.

2⁸ Eye Brows.

1⁹ Tissues.

2⁹ Function.

3⁸ Eye Lids.

1⁹ Tissues.

2⁹ Eye Lashes.

3⁹ Functions.

4⁸ Lachrymal Apparatus.

1⁹ Glands.

1¹⁰ Location.

2¹⁰ Ducts.

3¹⁰ Functions.

2⁹ Canals.

3⁹ Sac.

4⁹ Duct.

3⁶ Irregularities.

1⁷ Far Sightedness.

1⁸ Causes.

2⁸ How Corrected.

2⁷ Short Sightedness.

1⁸ Causes.

2⁸ How Corrected.

3⁷ Double Vision.

1⁸ Causes.

1⁹ STRABISMUS:—Gr. *strabos*, twisted, the condition of the eyes when the two axes cannot be directed to the same point.

1¹⁰ Internal.

2¹⁰ External.

2⁹ Paralysis.

2⁸ How Corrected.

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