



# Philadelphia Dental College and Hospital of Oral Surgery.

## CHAIR OF ANATOMY AND SURGERY.

### STUDIES IN ANATOMY.

Inform yourself as to the general construction of a human body.

QUERIES.—What is meant by the word skeleton? Of how many bones does a human skeleton consist? What is bone? What about difference of various kinds in bone at various ages?

Inform yourself concerning bone cartilage and inorganic materials; concerning the marrow, the cortical and spongy structures, the canals of Havers, the lacunæ; concerning processes, ridges, articular surfaces, foramina; concerning classification of bones into long, short, flat, and irregular; concerning articulations, fibro-cartilage, ligaments, synovial membranes; concerning the mechanism of osseous movement.

Passing from generals to particulars, study the bones of the lower extremity; next those of arm and forearm; pass to pelvis, thorax; end with the head.

QUERIES.—How many bones in the skull? How many pertain to the face? How many to the cranium? Which are irregular and which flat bones? What are the general characteristics of the maxilla? What is the difference between maxilla and maxillæ? What is an alveolus? What alveoli? Does alveolar process vary in different bones? What are marked points about the various head bones? What could I tell of a frontal bone if asked about it? Can I describe to myself the features of a lower human jaw? What is the antrum of Highmore? Why is it so named? What is the maxillo-malar process? What has a turbinated to do with a maxillary bone? What forms the hard palate? What is meant by the greater and lesser wings of the sphenoid bone? Where is the true pelvis? Where the false pelvis? Where are the tarsal bones? Where the carpal bones? Are the smallest toe-bones classed with short or long? What is the obstetric curve of the pelvis? What is the zygomatic arch? Where is the speno-maxillary fossa? What bones enter into the composition of the nostrils? What is a Wormian bone? What is a suture? What is meant by an enarthrodial articulation? What is a ginglymoid joint? Do I know how the different bones of the face articulate with each other? Do I know how the orbital cavity is formed? Could I intelligently describe to a patient the manner of construction of the cranium? What is periosteum? What is pericranium? What is periodontium? What is pericementum? What is peridentium?

From an appreciation of the features of a skeleton pass to the muscular system.

QUERIES.—What is a muscle? What are the uses of a muscle? What is the difference between muscles of voluntary and involuntary life? How are muscles related with the skeleton? What have muscles to do with flexion and extension of bones? How do muscles steady the skeleton? Why are muscles variously designated, as, for example, radiated, penniform, straight, quadrate, long, short, broad, etc.? What is the difference between the belly of a muscle and its tendon? What is muscular fiber? What of fasciculi? How does the muscle called levator labii superioris et alæque nasi get its name? Analyze the names of muscles generally. Try if you can group muscles, as, for example, into elevators, depressors, rotators, etc. Acquaint yourself with the action, the origin and insertion, of the muscles of expression.

Pass to the muscular system. Inform yourself about the heart, arteries, and veins.

In what part of the body is the heart situated? What is its use? How many compartments has it? What is the office of an auricle? What that of a ventricle? Where does the right auricle throw its blood? Where does blood go after leaving the left ventricle? What is the pulmonic circulation? Does the pulmonary artery contain venous or arterial blood? What becomes of the descending aorta? How does the head receive its arterial supply? Where is the dorsalis pedis artery? Analyze the names of arteries. What is the composition of an artery? How many beats of the heart to a minute? What is meant by the term pulse? What is cardiac systole? What cardiac diastole? What system of vessels return blood to the heart? How does blood get from an artery into a vein? Begin at the heart and trace the circulation to the feet; from the feet return the blood to the heart. Begin at the heart and carry the circulation to the teeth; from the teeth return it to the heart. What is meant by systemic



circulation? Is there any period of life at which the auricles are related? Study the general system and names of blood-vessels. Inform yourself as to what is meant by capillaries.

Pass to the nervous system.

QUERIES.—What is meant by the term nervous system? What is the cerebro-spinal center? What membranes envelope the brain and spinal cord? † What are the hemispheres of the cerebrum? Where is the cerebellum? What is the common ventricular cavity of the brain? How many ventricles are there? What forms the roof of the common ventricular cavity? Name some of the parts constituting the floor of the brain. Work out the meaning of the convolutions and involutions. Acquaint yourself with the anatomy of the spinal cord. Learn the names of the cranial nerves. How do these nerves get out of the skull? How many spinal nerves? Why are they called spinal? What is a nerve of special sense? What is a compound nerve? What is a motor nerve? What is the difference between nerve-cells and nerve-fibers? Explain the carrying of a sensation from the upper part of a great toe to the brain. Explain excito-motor action. What is a ganglion? Study the general distribution of the nerves. Acquaint yourself with the sympathetic system.

Group now the subjects.

BOOKS OF REFERENCE.—Dunghison's or Thomas's Medical Dictionary. Gray's, Leidy's, or other Anatomy. Garretson's "System of Oral Surgery."

## SURGERY.

Begin this subject by close reading on inflammation. Inflammation means simply perversion of circulation. The study is the most important that can engage the attention of a student. The cause of a perversion in circulation is found always in the presence of an irritant. There is never an inflammation without the presence of an irritant. The removal of an irritant is the cure of inflammation.

Study the meaning of irritation. How does an irritant provoke vascular perversion? Why does vascular irritability subside when an irritant is removed? How does an inflammation relieve a part of the presence of an irritant. What are the phenomenal expressions by which inflammation is recognized? What is simple vascular excitement? What is suppuration? What is repair? What is serum? What is lymph? What is pus? What is the difference between a simple and a specific irritant? What is the meaning of a common cold? On what common principle is inflammation treated? What are the indications for treatment of an inflammation wherever situated? What is expressed by the termination "itis"? What is meant by resolution in inflammation? Study the principle of restoring equilibrium in perversion of the circulation. Study the action of blood-letting, of dry-cupping, of hot foot-baths, of counter-irritants, of cathartics, of diuretics, of diaphoretics, of arterial and nervous sedatives.

QUERIES.—What is to be understood by the term tumor? How are tumors to be classified for diagnosis? Is a ranula a tumor? What is salivary fistula? Are ranulæ and fistulæ in any way connected? What is carcinoma? What is the difference between a histological and a clinical classification of surgical diseases? What is topographical, or surgical, anatomy? What means are employed for the control of hemorrhage? Where is the facial artery easiest of compression? How does one distinguish between arterial and venous bleeding? What is capillary hemorrhage? How is a bleeding alveolus controlled? What is to be done with a jetting hemorrhage from a wound in the cheek? What is to be done if one should luxate the jaw in extracting a tooth? How is luxation distinguished from fracture? What is to be done with a broken jaw? What is the difference between simple, compound, and complicated fractures? Where does the facial artery come from? If the lingual artery should accidentally be cut by the slipping of an elevator, how would the hemorrhage be controlled? Familiarize yourself with the surgical anatomy of the neck. How is an artery ligated? If a tooth should get into the trachea what is to be done? Acquaint yourself with the operation of tracheotomy. If a wisdom tooth had no room to erupt how would you relieve it? What is the difference between true and false ankylosis of the jaw? What is trismus traumaticus? What is tetanus? What is goitre? How would you diagnose goitre? What is meant by exsection of a nerve? How would you expose the inferior dental nerve?

The ability to answer these questions, together with the associate variations on them, will familiarize you with the manner of surgical study. Read now generally.

BOOKS OF REFERENCE.—Agnew, Gross, or other authors on general surgery; Garretson's "System of Oral Surgery," Miller's "Principles of Surgery."