OSTEOLOGY.

THE general framework of the body is built up mainly of a series of bones, supplemented, however, in certain regions by pieces of cartilage; the bony part of the framework constitutes the **skeleton.**

In the skeleton of the adult there are 206 distinct bones, as follows:—

Axial Skeleton	Vertebral column	26	
	Skull	22	
	Hyoid bone	1	
	Ribs and sternum	25	
		—	74
Appendicular Skeleton	Upper extremities	64	
	Lower extremities	62	
		—	126
Auditory ossicles			6
			—
	Total		206

The patellæ are included in this enumeration, but the smaller sesamoid bones are not reckoned.

Bones are divisible into four classes: *Long, Short, Flat, and Irregular.*

Long Bones.—The long bones are found in the limbs, and each consists of a body or shaft and two extremities. The **body**, or **diaphysis** is cylindrical, with a central cavity termed the **medullary canal**; the wall consists of dense, compact tissue of considerable thickness in the middle part of the body, but becoming thinner toward the extremities; within the medullary canal is some cancellous tissue, scanty in the middle of the body but greater in amount toward the ends. The *extremities* are generally expanded, for the purposes of articulation and to afford broad surfaces for muscular attachment. They are usually developed from separate centers of ossification termed **epiphyses**, and consist of cancellous tissue surrounded by thin compact bone. The medullary canal and the spaces in the cancellous tissue are filled with marrow. The long bones are not straight, but curved, the curve generally taking place in two planes, thus affording greater strength to the bone. The bones belonging to this class are: the **clavicle, humerus, radius, ulna, femur, tibia, fibula, metacarpals, metatarsals,** and **phalanges.**

Short Bones.—Where a part of the skeleton is intended for strength and compactness combined with limited movement, it is constructed of a number of short bones, as in the **carpus** and **tarsus.** These consist of cancellous tissue covered by a thin crust of compact substance. The **patellæ,** together with the other sesamoid bones, are by some regarded as short bones.

Flat Bones.—Where the principal requirement is either extensive protection or the provision of broad surfaces for muscular attachment, the bones are expanded into broad, flat plates, as in the **skull** and the **scapula.** These bones are composed of two thin layers of compact tissue enclosing between them a variable quantity of cancellous tissue. In the cranial bones, the layers of compact tissue are familiarly known as the **tables of the skull**; the outer one is thick and tough; the inner is thin, dense, and brittle, and hence is termed the **vitreous table.** The intervening