By the articulation of the two innominate bones with each other in front at the pubic symphysis, and with the sides of the sacrum behind, the osseous walls of the cavity of the Pelvis are formed. This cavity is subdivided into a false and a true pelvis. The false pelvis lies between the expanded wing-like portions of the two ilia. The true pelvis lies below the two ilio-pectineal lines and the base of the sacrum, which surround the upper orifice or brim of the true pelvis, or pelvic inlet; whilst its lower orifice or outlet is bounded behind by the coccyx, laterally by the ischial tuberosities, and in front by the pubic arch. In the erect attitude the pelvis is so inclined that the plane of the brim forms with the horizontal plane an angle of from 60° to 65°. The axis of the cavity is curved, and is represented by a line dropped perpendicularly from the planes of the brim, the cavity and the outlet; at the brim it is directed downward and backward, at the outlet downward and a little for­ward. Owing to the inclination of the pelvis, the base of the sacrum is nearly 4. in. higher than the upper border of the pubic symphysis. The female pelvis is distinguished from the male by certain sexual characters. The bones are more slender, the ridges and processes for muscúlar attachment more feeble, the breadth and capacity greater, the depth less, giving the greater breadth to the hips of a woman; the inlet more nearly circular, the pubic arch wider, the distance between the tuberosities greater, and the aceta­bulum smaller in the female than in the male. The greater capacity of the woman’s over the man’s pelvis is to afford greater room for the expansion of the uterus during pregnancy, and for the expulsion of the child at the time of birth.

The femur or thigh-bone (fig. 16) is the longest bone in the body, and consists of a shaft and two extremities. The upper extremity or *head* has a smooth hemispherical surface, in which an oval roughened fossa, for the attachment of the ligamentum teres of the hip, is found; from the head a strong elongated *neck* passes downward and outward to join the upper end of the shaft ; the place of j unction is marked by two processes or trochanters ; to the *external* or *great trochanter* are attached many muscles; the *internal* or *lesser trochanter* gives attachment to the psoas and iliacus. A line drawn through the axis of the head and neck forms with a vertical line drawn through the shaft an angle of 30°; in a woman this angle is a little less obtuse than in a man, and the obliquity of the shaft of the femur is slightly greater in the former than in the latter. The shaft is almost cylindrical about its centre, but expanded above and below; its front and sides give origin to the extensor muscles of the leg; behind there is a rough ridge, which, though called *linea aspera,* is really a narrow surface and not a line; it gives attachment to several muscles. The lower end of the bone presents a large smooth articular surface for the knee-joint, the anterior portion of which forms a *trochlea* or pulley for the movements of the patella, whilst the lower and posterior part is subdivided into two convex *condyles* by a deep fossa which gives attachment to the crucial ligaments of the knee. The inner and outer surfaces of this end of the bone are rough, for the attachment of muscles and the lateral ligaments of the knee.

The *femur* constitutes usually about 0∙275 of the individual stature; but this proportion is not constant, as this bone forms a larger element in the stature of a tall than of a short man. The human femur presents also a concave popliteal surface, thus differing from that of Pithecanthropus, whose popliteal surface is convex. In the bones of some races the dorsal ridge of the thigh-bone (linea aspera) projects as a prominent crest causing the bones to appear “ pilastered,” a condition the amount of which is indicated by the increased relative length of the sagittal of the coronal diameter of the bone. Pilastering, though characteristic of lower and primitive races of man, is never found in the anthropoids. The upper third of the femur in some races is sagittally flattened, a condition which is called *platymeria.* Its degree is indicated by the excess of the coronal over the sagittal diameter in this region.

The patella or knee-pan (fig. 16) is a small triangular flattened bone developed in the tendon of the great extensor muscles of the leg. Its anterior surface and sides are rough, for the attachment of the fibres of that tendon; its posterior surface is smooth, and enters into the formation of the knee- joint.

Between the two bones of the leg there are no movements of pronation and supination as between the two bones of the forearm. The tibia and fibula are fixed in position; the fibula is always external, the tibia internal.

The tibia or shin-bone (fig. 16) is the larger and more important of the two bones of the leg; the femur moves and rests upon its upper end, and down it the weight of the body in the erect position is transmitted to the foot. Except the femur, it is the longest bone of the skeleton, and consists of a shaft and two extremities. The upper extremity is broad, and is expanded into two *tuberosities,* the external of which has a small articular facet inferiorly, for the head of the fibula; superiorly, the tuber­osities have two smooth surfaces, for articulation with the condyles of the femur ; they are separated by an intermediate rough surface, from which a short *spine* (really a series of elevations) projects, which gives attachments to the interarticular crucial ligaments and semilunar cartilages of the knee, and lies opposite the intercondylar fossa of the femur. The shaft of the bone is three-sided; its inner surface is subcutaneous, and forms the shin; its outer and posterior surfaces are for the origin of muscles; the anterior border forms the sharp ridge of the shin, and terminates superiorly in a tubercle for the insertion of the extensor tendon of the leg; the outer border of the bone gives attachment to the interosseous membrane of the leg. The lower end of the bone, smaller than the upper, is pro­longed into a broad process, *internal malleolus,* which forms the inner prominence of the ankle: its under surface is smooth for articulation with the astragalus; externally it articulates with the lower end of the fibula.

The *tibia* in most civilized races is triangular in the section of its shaft, but in many savage and prehistoric races it is two-edged. The condition is named *platycnemia,* and is indicated by the pro­portional excess of the sagittal over the coronal diameter. The foetal tibia has its head slightly bent backward with regard to the shaft, a condition which usually disappears in the adult, but which is shown in the prehistoric tibae found in the cave of Spy. In races that squat on their heels the front margin of the lower end of the tibia is marked by a small articular facet for the neck of the astragalus.

The fibula, or splint-bone of the leg (fig. 16), is a slender long bone with a shaft and two extremities. The upper end or *head* articulates with the outer tuberosity of the tibia. The shaft is four­sided, and roughened for the origins of the muscles. Separating the anterior from the internal surface is a slender ridge for the attachment of the interosseous membrane. The lower end has a strong process *(external malleolus)* projecting downward to form the outer prominence of the ankle, and a smooth inner surface for articulation with the astragalus, above which is a rough surface for the attachment of ligaments which bind together the tibia and fibula.

The foot consists of the tarsus, the metatarsus and the five free digits or toes. The human foot is placed in the prone position, with the sole or plantar surface in relation to the ground; the dorsum or back of the foot directed upward; the axis of the foot at about a right angle to the axis of the leg; and the great toe or hallux, which is the corresponding digit to the thumb, at the inner border of the foot. The human foot, therefore, is a pentadactylous, plantigrade foot.

The bones of the tarsus or ankle (fig.

16, Tr), are seven in number, and are arranged in three transverse rows—a proximal, next the bones of the leg, consisting of the astra­galus and os calcis, a middle, of the scaphoid and a distal next the meta­tarsus, consisting of the cuboid, ecto- meso- and ento-cuneiform. If the tarsal bones be looked at along with those of the metatarsus and toes, the bones of the foot may be arranged in two longitudinal columns—an outer, consisting of the os calcis, cuboid and the metatarsal bones and phalanges of the fourth and fifth toes; an inner column consisting of the astragalus, scaphoid, three cuneiform and the metatarsal bones and phalanges of the first, second and third toes. The tarsal, like the carpal bones, are short and, with the exception of the cuneiforms which are wedge-shaped, irregularly cuboidal; the dorsal and plantar surfaces are as a rule rough for ligaments, but as the astragalus is locked in between the bones of the leg and the os calcis, its dorsal and plantar surfaces, as well as the dorsum of the os calcis, are smooth for articulation; similarly, its lateral surfaces are smooth for articulation with the two malleoli. The posterior surface of the os calcis projects backward to form the prominence of the heel. With this exception, the bones have their anterior and posterior surfaces smooth for articulation. Their lateral surfaces are also articular, except the outer surface of the os calcis and cuboid, which form the outer border; and the inner surface of the os calcis, scaphoid and ento-cuneiform, which form the inner border of the tarsus. Supernumerary bones are occasionally found as in the hand.

The metatarsal bones and the phalanges of the toes agree in number and general form with the metacarpal bones and the phalanges in the hand. The bones of the great toe or hallux are more massive than those of the other digits, and this digit, .

unlike the thumb or ρollex, does not diverge from the other digits, but lies almost parallel to them.

*Embryology.—*The development of the appendicular skeleton takes.