The Humerus (Arm Bone).

The **humerus** (Figs. 207, 208) is the longest and largest bone of the upper extremity; it is divisible into a **body** and **two extremities.**

Upper Extremity.—The upper extremity consists of a large rounded *head* joined to the body by a constricted portion called the **neck**, and two eminences, the **greater** and **lesser tubercles.**

The Head (*caput humeri*).—The head, nearly hemispherical in form,[1] is directed upward, medialward, and a little backward, and articulates with the glenoid cavity of the scapula. The circumference of its articular surface is slightly constricted and is termed the **anatomical neck**, in contradistinction to a constriction below the tubercles called the **surgical neck** which is frequently the seat of fracture. Fracture of the anatomical neck rarely occurs.

The **Anatomical Neck** (*collum anatomicum*) is obliquely directed, forming an obtuse angle with the body. It is best marked in the lower half of its circumference; in the upper half it is represented by a narrow groove separating the head from the tubercles. It affords attachment to the articular capsule of the shoulder-joint, and is perforated by numerous vascular foramina.

The Greater Tubercle (*tuberculum majus; greater tuberosity*).—The greater tubercle is situated lateral to the head and lesser tubercle. Its upper surface is rounded and marked by three flat impressions: the highest of these gives insertion to the Supraspinatus; the middle to the Infraspinatus; the lowest one, and the body of the bone for about 2.5 cm. below it, to the Teres minor. The lateral surface of the greater tubercle is convex, rough, and continuous with the lateral surface of the body.

The Lesser Tubercle (*tuberculum minus; lesser tuberosity*).—The lesser tubercle, although smaller, is more prominent than the greater: it is situated in front, and is directed medialward and forward. Above and in front it presents an impression for the insertion of the tendon of the Subscapularis.

The tubercles are separated from each other by a deep groove, the **intertubercular groove** (*bicipital groove*), which lodges the long tendon of the Biceps brachii and transmits a branch of the anterior humeral circumflex artery to the shoulder-joint. It runs obliquely downward, and ends near the junction of the upper with the middle third of the bone. In the fresh state its upper part is covered with a thin layer of cartilage, lined by a prolongation of the synovial membrane of the shoulder-joint; its lower portion gives insertion to the tendon of the Latissimus dorsi. It is deep and narrow above, and becomes shallow and a little broader as it descends. Its lips are called, respectively, the **crests of the greater and lesser tubercles** (*bicipital ridges*), and form the upper parts of the anterior and medial borders of the body of the bone.

The Body or Shaft (*corpus humeri*).—The body is almost cylindrical in the upper half of its extent, prismatic and flattened below, and has three borders and three surfaces.

Borders.—The **anterior border** runs from the front of the greater tubercle above to the coronoid fossa below, separating the antero-medial from the antero-lateral surface. Its upper part is a prominent ridge, the crest of the greater tubercle; it serves for the insertion of the tendon of the Pectoralis major. About its center it forms the anterior boundary of the deltoid tuberosity; below, it is smooth and rounded, affording attachment to the Brachialis.

The **lateral border** runs from the back part of the greater tubercle to the

[1] Though the head is nearly hemispherical in form, its margin, as Humphry has shown, is by no means a true circle. Its greatest diameter is, from the top of the intertubercular groove in a direction downward, medialward, and backward. Hence it follows that the greatest elevation of the arm can be obtained by rolling the articular surface in this direction—that is to say, obliquely upward, lateralward, and forward.