## Measurements of the Scapula and Coracoid.

Combined length of scapula and coracoid along the middle of each bone Scapula, length from middle of upper end to middle of scapulo-coracoid suture breadth at upper end breadth at one-fourth of the length up from the middle of the scapulo-	Mm. 1086 876 175
coracoid suture	56
thickness at same pointabout	40

## FORE LIMB.

The fore limb of Gorgosaurus is slight and extremely short, its length being a little less than one-fourth of that of the powerful hind limb (Figure 31). In the type specimen it was found above the glenoid cavity having attained that position by the rotation of the limb upward in its socket, the head of the humerus remaining beside the glenoid cavity (Figure 7). The humerus, with its inner surface directed almost backward and its front face nearly outward, lay behind and parallel to the shaft of the scapula. The fore arm was bent downward and backward, the ulna and radius remaining together. The hand had been forced back on the fore arm so as to have the palm facing outward and the digits half closed on themselves. The arm was thus doubly bent, at the elbow and at the wrist, and this position has been retained in the mount, care having been taken to keep the component parts in the position in which they were found relative to each other, sufficient matrix being left to hold them securely in place. The limb is in an abnormally raised and unnatural position, but apart from this the bones are in their proper relative position and their full number is probably present (see carpus, p. 52).

There are two fingers to the manus of Gorgosaurus (Figures 31, 35, and 36) which were interpreted by the writer as being Nos. II and III, and so described and figured by him in the Ottawa Naturalist of January 1914. Prior to the discovery of Gorgosaurus the fore arm and the hand were unknown in any Cretaceous carnivorous dinosaur. Dr. Charles W. Gilmore in his paper "On the fore limb of Allosaurus fragilisi" of the Jurassic makes an interesting comparison of the fore foot in Triassic, Jurassic, and Cretaceous Theropods from which it appears that a reduction of the digits began and progressed from the outer side of the hand. In the specialization of the fore limb the greatest known reduction in the size of the limb itself and in the number of the digits was reached in Gorgosaurus. The writer is of the opinion that the two digits previously numbered II and III (original description) are the first and second, as suggested by Gilmore, and they are referred to as such in the present description.

<sup>&</sup>lt;sup>1</sup> Proc. U.S. Nat. Mus., vol. 49, November, 1915.