*phus*, from the Belly River formation of Alberta, if the skull in the Hadrosauridæ* can be considered a criterion of the size of the animal as a whole.

In the paratype the canium proper (brain-case), the squamosals, postfrontals, prefrontals, lachrymals and nasals are preserved together, the other elements of the skull (with the exception of the premaxillaries, predentary, vomer, and right articular which were missing) were all found in a disarticulated state, free from each other and with practically no distortion. In the type skull (figure II) the premaxillaries are in position, the vomer is partially preserved, but the predentary is badly damaged. From the two specimens, therefore, we have full information relative to all the elements of the Edmontosaurus skull except the predentary and the vomer.

The paratype reveals the exact shape of the brain cavity and the position of the cranial nerves. In it are preserved without distortion the palatines, pterygoids, and ectopterygoids, three elements of which little has hitherto been known in the Hadrosauridæ.

In plates II and III, two aspects of the skull are given showing the relative position to each other of the elements seen from these particular viewpoints.

The skull of *Edmontosaurus* is large and massive, triangular in outline as seen from the side, high posteriorly, and narrowing down to the front. As viewed from above it is broad behind and in front, and greatly constricted behind the snout. Its posterior height is greater than its half-length. Its posterior breadth slightly exceeds the full lateral expansion of the snout, and is a little less than its half-length. The orbit is large, the quadrate long, and the great development of the premaxillary bones in front, to form the horizontally expanded snout, is remarkable. Viewing the skull from the side one is impressed by the depth and robustness of the mandible.

The principal bones of the skull with some of their main characteristics are briefly as follows:—

*Frontal.* Rather flat, of irregular shape, longer than broad, and entering narrowly into the formation of the orbital rim. Posteriorly it meets the parietal, externo-posteriorly the postfrontal, and anteriorly the nasal and prefrontal.

*Postfrontal.* Of considerable size, gibbously protrudent outward, somewhat triangular in superior aspect as well as when viewed from the side. Is in contact with the frontal, parietal, squamosal and jugal, extensively overlapping the squamosal. It forms the posterior curve of the orbital rim. A remarkable feature of this bone is the development within it of a deep pocket-like recess leading back from the orbital cavity. Following the presence of this large recess the lateral

*The name Hadrosauridae proposed by Cope in 1869 (1871) has precedence to Trachodontidae used by Lydekker in 1888 and later by Marsh in 1890.