

required great modification of the fore-leg and foot of the Lizard, to fit it for such cetaceous habits. The extremities were to be converted into fins instead of feet, and as such we shall find them to combine even a still greater union of elasticity with strength, than is presented by the fin or paddle of the Whale. Plate 12, Fig. 1, shows the short and strong bones of the arm (e), and those of the fore arm (f, g); and beyond these the series of polygonal bones that made up the phalanges of the fingers. These polygonal bones vary in number in different species, in some exceeding one hundred; they differ also in form from the phalanges both of Lizards and Whales; and derive, from their increase of number, and change of dimensions, an increase of elasticity and power. The arm and hand thus converted into an elastic oar or paddle, when covered with skin, must have much resembled externally the undivided paddle of a Porpoise or Whale. The position also of the paddles on the anterior part of the body was nearly the same; to these were super-added posterior extremities, or hind fins, which are wanting in the cetacea, and which possibly make compensation for the absence of their flat horizontal tail: these hind paddles in the Ichthyosaurus are nearly by one half smaller than the anterior paddles.\*

\* In the *Ornithorhynchus*, also, the membranous expansion, or web of the hind feet, is very much less than that on the fore foot.