

handle an angular, instead of a rounded shape and to press together the pointed horns of the crescent, till they incline towards each other, and the convex, or sharpened edge, is elongated into a semi-ellipse, cut in the line of its shortest diameter, in order to produce the complete form of the *Cephalaspis*. The head, compared with the body, was of great size — comprising fully one third the creature's entire length. In the centre, and placed closely together, as in many of the flat fish, were the eyes. Some of the specimens show two dorsals, and an anal and caudal fin. The thin and angular body presents a jointed appearance, somewhat like that of a lobster or trilobite. Like the bodies of most of the ichthyolites of the system, it was covered with variously formed scales of bone; the creature's head was cased in strong plates of the same material, the whole upper side lying under one huge buckler — and hence the name *Cephalaspis*, or buckler-head. In proportion to its strength and size, it seems to have been amply furnished with weapons of defence. Such was the strength and massiveness of its covering, that its remains are found comparatively entire in arenaceous rocks impregnated with iron, in which few other fossils could have survived. Its various species, as they occur in the Welsh and English Cornstones, says Mr. Murchison, seem “not to have been suddenly killed and entombed, but to have been long exposed to submarine agencies, such as the attacks of animals, currents, concretionary action,” &c.; and yet, “though much dismembered, the geologist has little difficulty in recognizing even the smallest portions of them.” Nor does it seem to have been quite unfurnished with offensive weapons. The sword-fish, with its strong and pointed spear, has been known to perforate the oaken ribs of the firmest built vessels; and poised and directed by its lesser fins, and impelled by its