

two figures, was submitted to Agassiz during his recent brief stay in Edinburgh, and that he as readily recognized in it the species of the two kinds which it exhibits, as he had previously recognized the species of the originals in the limestone.

Agassiz, in the course of his late visit to Scotland, found six species of the *Pterichthys** — three of these, and the wings of a fourth, in the collection of the writer. The differences by which they are distinguished may be marked by even an unpractised eye, especially in the form of the bodies and wings. Some are of a fuller, some of a more elongated, form; in some the body resembles a heraldic shield, of nearly the ordinary shape and proportions; in others the shield stretches into a form not very unlike that of a Norway skiff, from the midships forward. In some of the varieties, too, the wings are long and comparatively slender; in others shorter, and of greater breadth: in some there is an inflection resembling the bend of an elbow; in others there is a continuous swelling from the termination to the shoulder, where a sudden narrowing takes place immediately over the articulation. I had inferred somewhat too hurriedly, though perhaps naturally enough, that these wings, or arms, with their strong sharp points and oar-like blades, had been at once paddles and spears — instruments of motion and weapons of defence; and hence the mistake of connecting the creature with the Chelonia. I am informed by Agassiz, however, that they were weapons of defence only, which, like the occipital spines of the river bull-head, were erected in moments of danger or

* Agassiz now reckons ten distinct species of *Pterichthys* — *P. arenatus*, *P. cancriformis*, *P. cornutus*, *P. major*, *P. Milleri*, *P. latus*, *P. oblongus*, *P. productus*, *P. testudinarius*, and *P. hydrophilus*; of these, nine species belong to the Lower, and one — the *Pterichthys hydrophi-*
— to the Upper Old Red Sandstone.