

one half of the outer surface is smooth, proving that it was covered to that extent by the adjoining scute.*

Elliptical and circular dermal bones, having the under surface flat, and the upper convex, with a conical tubercle, were first noticed in the specimen of the *Hylæosaurus*, figured *Wond.* Pl. IV.; and I have since discovered similar scutes associated with other remains of that extraordinary reptile; reduced figures of two specimens are represented in *Lign.* 140, figs. 1, 3.

The structure of these bones is very remarkable; upon closely inspecting the under side, or the surface exposed by a transverse fracture, very minute osseous spicula, decussating each other at right angles, are distinctly seen; as shown in *Lign.* 140, fig. 1^a. In fig. 1^b, a thin slice of the same, highly magnified, and viewed by transmitted light, displays medullary canals, with very fine lines radiating from them. The peculiar character of this organization consists in the disposition of the straight bony spicula; an appearance which first attracted my attention when developing the original specimen of the *Hylæosaurus* (see *Geol. S. E.* p. 327.), and led to the discovery of some perfect bones, which otherwise would have been destroyed. This structure closely resembles that presented by the ligamentous

* A full description of the dermal bones of all the British fossil reptiles will be found in *Brit. Assoc. Report* for 1841.