

plates. The whole of these parts, though displaced by the flattening and wrinkling of the skin, are in good preservation, and show their characters in great perfection under the microscope. They are all black and shining as if carved in jet.

(5) Near this last portion of cuticle, and possibly belonging to it, are pointed and probably membranous appendages, marked on each side with rows of scales not overlapping, and each with a pore in its centre. The manner in which these appendages are bent and wrinkled, shows that they must have been soft, except at the tips, which seem to have been hard and horny, and they are arranged in series, as if originally placed along the sides of the neck or abdomen, or both. These appendages are represented in Pl. IV, figs. 31 and 32. A magnified representation of the point of one of them is given in fig. 33, and a small portion, still more highly magnified, in fig. 34. The use of these appendages it is not easy to conjecture. They remind us of the gular pouches of iguana, and of the lateral expansions of some geckos and of the *Draco volans*. Possibly they formed lateral parachutes, aiding the animal in moving over soft mud, or perhaps in leaping or swimming.

(6) Some other fragments appear to have belonged to a different species from either of the foregoing, and are represented in Pl. V. The best preserved specimen (Fig. 22), which is about one inch in length and half an inch in breadth, is covered with very small imbricated scales. It is crossed by six or seven obscure ridges, which both at the bottom and along a mesial line, projected into points covered with larger scales. A row of large scales with round pores, connects these along the lower side (Figs. 23 and 24.) If, as seems probable, this fragment belonged to the side of the trunk or tail, it would perhaps indicate a division of the sub-cutaneous muscles into an upper and lower band, as in the newts. A separate fragment, with transverse horny ridges (Figs. 26 and 27), and another with a longer lobe similar in structure to those above mentioned (Figs. 28 and 29), may perhaps be referred to the same animal. A larger patch of skin presents similar imbricated scales, but without a mesial line, and with an edging of larger scales (Fig. 25).

Six species of reptiles have left their bones in the repositories containing these remnants of cuticle. Of these, *Dendrerpeton Acanthodianum* was an animal of too great size to have been clothed with integument of this character and of such dimensions. *Hyl-*