EXPLANATION OF PLATES XXXI. & XXXII.

PLATE XXXI.

- Fig. 1. Asaphus platycephalus, Stokes .- Underside, showing the legs: a bsuture through the doublure; c, c, eavities on each side of the hypostoma; d, d, tubercles on the pygidium; ff, cephalic doublure; l, l, the two lobes of the hypostoma; m, position of the mouth; n, n, n, n, n, initial three legs.
- Fig. 2. Transverse ideal section through the thorax: a, b, the doublure of the pleure; p, position of the Panderian organ. The dotted line from b to bindicates the contour of the ventral surface.
- Fig. 3. Ideal section through the head, cutting off the points of the hypostoma, l, l, in a plane passing through the eyes : 1, 2, position of the 1st and 2nd pairs of legs.

Fig. 4. Section through the tail of a small specimen, showing the doublure, ff.

- Fig. 5. Three pleurse restored, showing the position of the Panderian organ at
- p; a, b, portion of the plenne removed. Fig. 6. Supposed leg of Trilobite, figured by Eichwald : a, natural size; b, enlarged.

PLATE XXXII.

- Fig. 1. Asaphus platycephalus,-Side view of the specimen which shows the legs, somewhat restored. The dotted line, a b, represents the position of the plane of the ventral surface nearly.
- Fig. 2. Dorsal view of the same; the dotted lines indicate the position of the hypostoma and legs.
- Fig. 3. Calymene senaria .- Section through the axis of the thorax : u, junction of head and tail; b, back of the head; c d, hypostoma; e, end of the tail: f_i a body showing structure. Fig. 4. A group of the small bodies in fig. 3, enlarged 8 diameters.

Fig. 5. The organic body seen at f in fig. 4, enlarged 3 diameters.

Discussion.

Mr. WOODWARD had carefully examined Mr. Billings's specimen, and agreed with him in considering that there was undoubted evidence of the presence of walking-appendages under the thorax. The presence of such limbs might à priori have been expected; and the nature of the test suggested that the Trilobites were walking rather than swimming forms of Isopods. The branchiæ had probably been under the telson; and this would account for its large development. It was not more surprising to find highly organized Trilobites than it was to find such highly organized crustaceans as Pterugotus, Eurypterus and Slimonia in the same beds.

Prof. RUPERT JONES, Principal DAWSON, and Sir WM. LOGAN made some remarks, more especially on Protichnites and Climactichnites-the latter having been explained as galleries of Trilobites, by Prof. Jones, when first exhibited in England.