## LINGULA ASSOCIATED WITH LEPIDODENDRON.

By R. Etheridge, Junr., Curator.

The Rev. J. M. Curran recently presented to the Trustees some interesting specimens of a Lingula, associated with Lepidodendron, discovered by him near Orange, in beds that he believes to be of Upper Devonian age.

The remains of this *Lingula* are pressed and matted together in enormous numbers, forming a bed of some thickness, and extending over a considerable area, so forming an excellent horizon for geological work in the district in question.

The type is that of Lingula mytiloides, Sby., of the Carboniferous Period, and might pass for a large variety of it. valve has been sufficiently exposed from the matrix to afford the following details. Like those of L. mytiloides the convexity of the valves is lessened along the middle line longitudinally, widening as the surface so formed extends towards the front, the sharper declivities of the lateral portions giving rise to apparent angularities at the junction of the central and lateral surfaces, and assuming the appearance of radii. This feature in L. mytiloides is only partially shown in Davidson's figures of the latter,1 but better in those of L. credneri, Geinitz, also a Carboniferous form, and is still more apparent in one of Phillips' figures of L. mytiloides.3 It is also seen in L. punctata, Hall,4 of the Hamilton Group, in North America, and again in L. cuyahoga, Hall,5 although not to the same extent.

Only one Palæozoic *Lingula* has so far been described from our rocks, *L. ovata*, Dana, from the Upper Marine Series of Black Head, Illawarra, but this is of an entirely different type.

It will be seen from the foregoing remarks that the combination of characters yielded by this *Lingula* point either to a Devonian or Carboniferous facies, or to be more precise either of Upper Devonian or Lower Carboniferous age.

<sup>&</sup>lt;sup>1</sup> Davidson—Mon. Brit. Foss. Brach., ii., Perm. and Carb. Species, pt. 5 (4), 1861, pl. 48, figs. 29-30.

<sup>2</sup> Ibid, figs. 38-40.

<sup>3</sup> Phillips-Geol. Yorksh., pt. ii., 1836, pl. xi., fig. 17.

<sup>4</sup> Hall—Pal. N. York, iv., pt. 1, 1867, pl. i., fig. 6 a - g.

<sup>5</sup> Ibid, pl. i., fig. 5.