an examination of the relation between the specimen and the original tree.

From the curvature of the growth rings it would appear that the tree-at the time of injury-had a diameter of about eighteen inches. The relationship of parts is shown in figure 1, where C represents an end view of the specimen (Fig. $3 C^1$), in relation to the growth rings of the tree: D shows the intruded mass as exposed on a line of section passing through the center of D^1 (Fig. 3). The slope of the cleft shows the line of incision to have had the direction given by the line in figure 1, from which it is evident that the incision was a somewhat deep one, and that our specimen came from one end of it. It is also obvious that this injury must have been inflicted in the winter, or at least before the growth for the season began, since the intruded mass is part of the ring formed at A (Fig. 1), and B, B¹ (Figs. 2 and 3). In Fig. 3, the left-hand side of the incision represents the basal portion of the cut. Whether the original cleft was filled throughout by the new growth, or whether this was only partial, cannot be determined from the specimen before us.

"ON BURROWS AND TRACKS OF INVERTEBRATE ANI-MALS AND OTHER MARKINGS IN PALÆOZOIC ROCKS."

BY SIR J. WILLIAM DAWSON, LL.D., F.R.S., F.G.S.

This paper, which is illustrated by photographs and drawings, indicates some new facts in connection with the markings produced by the burrows and tracks of animals, and other causes. *Rusichnites* and *Cruziana* are regarded, like *Climactichnites* and *Protichnites*, as representing probable burrows or tracts of Crustaceans and Chætopod worms, *Scolithus canadensis* is shown to be a cylindrical burrow, with accumulations of earthy castings at its mouth. The relation of these burrows to the forms known-as *Scotolithus*,

¹ From Proceedings of London Geological Society.