



## III.—Notes on Cambrian Faunas.

By G. F. MATTHEW, LL.D.

Earlier "notes" were published in these Transactions in 1897-98 and '99.

(Read May 27, 1902.)

No. 5. OBOLOID SHELLS OF THE CAMBRIAN SYSTEM IN CANADA  
AND THEIR RELATIONSHIP.

Much has been done of late years to make known to us the type of Eichwald's genus *Obolus*, and especially through the monograph on this genus prepared by Michwitz. Through his writings we now know the main points of the internal anatomy of that genus as presented in the type species *O. Apollonis* and its variety *Quenstedti*, and can see how easily it might be misunderstood from the older representations of its form and internal features.

Depending, as the palæontologists have had to in the first case, on external features as the means of determining the genus, a number of species have been referred to *Obolus*, which, when better known, were found to exhibit important points of difference, these were chiefly in the moulding of the interior surface of the valves.

Of this moulding of the interior, the most distinctive markings are those which indicate the points of attachment of the muscles that move the valves, and the impressions of the main trunks of the circulatory system. Much variation was found in these two sets of markings, showing radical differences in the arrangement of the internal parts of the animal. Yet the more obvious characters of the external form, and the surface markings of the valves, are those which must necessarily first be used in assigning the species to its genus.

We propose in this brief note to point out some distinctions which have been made out from a knowledge of the internal characters of the shells of the *Oboli* of the Cambrian System in Canada; and indicate some possible relations to other genera of shells that have been assigned to the genus *Obolus*.

The species are referred to in succession, taking the oldest first, and continuing with those that are found in successively higher horizons in the Cambrian.