the broken ends of his ribs that Cambrian trilobites possessed the same ability.\* Therefore it must have happened very recently in his life history or all traces of the accident would have been removed. But if it happened such a short while ago the chunk must have been removed by a foe more voracious if not actually larger than himself and we are apparently justified in assuming the presence in the Lower Cambrian seas of animals capable of inflicting such an injury. The only other explanation is that he became pinned beneath material dropping from an overhanging ledge, and an apparent crowding and dwarfing of the ribs immediately adjacent to the cut lends a degree of plausibility to the idea that they were bruised at the same time.

So far as we can judge from the present appearance of the edges of the wound it was comparatively clean cut, and made by a jaw capable of cutting not only at the extreme tip but for some distance along each side, for the ribs next in front and back of the one in the middle are cut off diagonally. A Sidneyia-like crustacean (see figure 2) could hardly be expected to clip so symmetrical and clean a section. If we were to hazard a guess we would say that the most reasonable conclusion would be t'at it was the work of a fish. These, the earliest known vertebrates, are not known from rocks earlier than those of the immediately overlying system, the Ordovician, but ancient rocks are growing daily more responsive and such a guess is far within the range of probability.

## PROGRAMME OF WINTER LECTURES, 1917-1918.

December 18, 1917-"Two Years in N. E. Greenland." Mr. Frits Johansen, Naturalist on the "Danmark" Expedition, 1906-1908. January 8, 1918-"Mobilizing the Forests for War and Peace." Mr.

Robson Black, Secretary of the Canadian Forestry Association. January 22, 1918-"Diseases of Domestic Animals." Dr. S. Hadwen,

Pathologist, Dept. of Agriculture, Ottawa.

February 5, 1918-"Local Snakes, Frogs and Salamanders: Their Relation to Agriculture." Mr. Clyde L. Patch, Victoria Memorial Museum, Ottawa.

February 19, 1918-"Fishing and the Canadian Fisheries, with Special Reference to the Atlantic Coast." Mr. W. A. Found, Superintendent of Fisheries, Ottawa.

March 5, 1918-"The Fur Seals." Mr. James M. Macoun, C.M.G.,

Victoria Memorial Museum, Ottawa.

March 19, 1918—"Naturalists and Tropical Diseases." Major J. L. Todd, Ottawa, lately Professor of Parasitology, McGill University. At the conclusion of this lecture the ANNUAL MEETING of the Club will be held.

<sup>\*</sup>Perhaps the quickness of this recovery in these early forms is the reason for the perfection of the forms which have hitherto been discovered.