

A short notice of the specimen was drawn up and read before the Natural-History Society of Montreal in 1864. Publication, however, was delayed, partly because I hoped to obtain additional evidence, but principally because I wished to have the specimen first exhibited to the Geological Society, and examined by as many of the Fellows as possible. Feeling somewhat apprehensive that it would be difficult to persuade geologists and paleontologists into the belief of the existence of trilobitic legs by figures and descriptions alone, I thought it better to wait until the paper and the specimens could be laid before the Society at the same time.

During the six years that have elapsed, a vast number of Trilobites have passed through my hands, but nearly all of them in a fragmentary condition. Among such, I am satisfied, we may seek in vain for any traces of locomotive organs. We can only expect to find them in perfect or nearly perfect specimens. These latter, considering the prodigious multitude of these animals that must have existed in the Silurian and Devonian seas, are not abundant fossils; at least they are not so in our Canadian rocks. For example, during the twenty years that I have collected fossils, I do not believe that I have seen fifty specimens of *A. platycephalus* with the head, thorax, and pygidium all in connexion. We have had a number of those belonging to the provincial collection cut up and polished, without any success whatever. They were not the best ones, but they were as perfect as was the subject of this notice before it was split apart. There are others in the collection which may have the underside preserved; but we do not like to sacrifice them. Although no additional evidence of the existence of limbs was discovered, several points in the structure of other parts were ascertained, which will be described further on. As Sir W. E. Logan is about visiting London, and has kindly offered to take charge of this paper, and will also take the specimens with him, I shall delay publication no longer.

## 2. Discovery of the Panderian Organ\* in several American species of *Asaphus*.

The evidence afforded by the specimen above described, and others of which I have made sections, proves that in the genus *Asaphus* the underside was not flat, but somewhat concave. In the head, on each side of the mouth, there was a cavity like that which occurs in the existing king crab—*Limulus Polyphemus*. The position of these cavities is at *c c*, in Pl. XXXI. fig. 1. They are partially filled up in the specimen; but I have ascertained their depth to be about five lines in another individual of the same size. The ends of the plexuræ projected downwards a short distance below the level of the sternum. The pygidium was also concave at the sides, with a portion along the middle, holding the intestine, convex. This structure can be seen, in part, by examining the slab from which the specimen

\* Dr. Volborth calls the organs in question "*die Pander'schen Organe*," a term of which I heartily approve, as, if generally adopted, it will permanently associate Dr. Pander's name with his discovery.