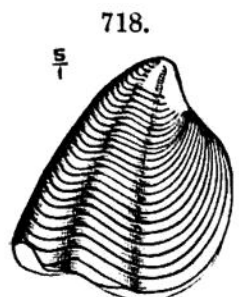


Under Fig. 715 are figures of the young Trilobite at different stages of growth, as made out by Walcott—all magnified three times excepting *a'*, which is the stage *a* magnified 15 times. In this young stage the thorax has but one thoracic segment, and this has a short spine on the back; the following five segments are abdominal. The other figures (*b* to *i*) have an increasing number of thoracic segments. Walcott figures 12 of these stages of growth below the adult, and nine are here reproduced. Beecher has observed a still younger stage having no thoracic segment, represented, magnified 30 times, in Fig. 717.

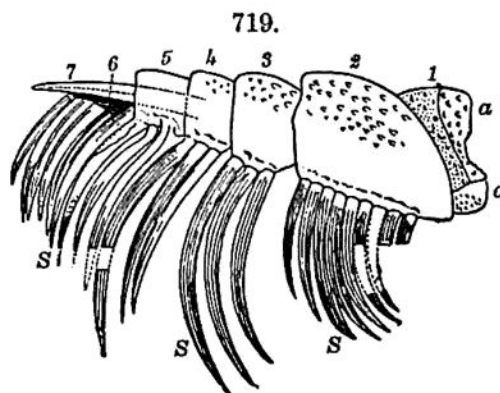
Other genera of Trilobites of this epoch are *Ceraurus*, *Acidaspis*, *Proetus*, *Dalmanites*, and *Cyphaspis*.

Besides Ostracoids of several genera, there were also the first known species of the Barnacle or Cirriped tribe—the *Turrilepas Canadensis* Woodward. The specimen figured (Fig. 718), representing one of the pieces of the shell, was from near Ottawa, Canada.

The Utica slate has afforded the first specimens of the Eurypterids—species remotely related to Crustaceans, and peculiar in having five pairs of large legs projecting either side of the head whose basal joints serve as jaws (page 556). Fig. 719 represents a leg of one of the pairs; and as it is half the natural size, the whole animal was probably more than a foot long. Its fringe of spines aided it in swimming, and perhaps also in securing its food. Entire specimens of other species of the tribe are shown on pages 556, 564.



718.
CIRRIPEDS. — Fig. 718, *Turrilepas Canadensis*, a single plate ($\times 5$).



719.
Fig. 719, Leg of *Echinognathus Clevelandi*.
Walcott.

Characteristic Species.

1. Trenton Epoch.

1. **Spongiozoans.** — *Receptaculites Oweni* H., characteristic of the Galena limestone, with *R. globularis* H., *R. Iowensis* Owen. *Astylospongia parvula* Bill., near Ottawa City, Canada; *Brachiospongia digitata* (Fig. 642) is from a paper by C. E. Beecher, which is illustrated by 6 plates, published by the Peabody Museum of Yale College. The species was first described and figured by Troost in 1839; named *Scyphia digitata* by D. D. Owen in 1858, and *Brachiospongia Roemerana* by Marsh in 1867. Beecher also describes in the same paper two other species of Sponge under the generic name *Strobilospongia*; they occur with the preceding. The most recent observations of Rauff make the supposed relations of the *Receptaculites* to the Sponges very doubtful.

2. **Actinozoans.** — Fig. 644, *Streptelasma corniculum* H., *S. profundum* Con., Trenton limestone; *S. apertum* B., Black River limestone. Fig. 645, *Columnaria alveolata* Goldf., Black River limestone, and Trenton; *C. Halli* Nicholson, Kentucky; *C. calicina* Nicholson,