

and sometimes, when the edges of the carapace touched the bottom, with lateral furrows. In this way the animals were able to swim with some ease and rapidity, and on one occasion I observed an individual, confined in a tub of water, raise itself from the bottom and swim around the tub at the surface in search of a way of escape. Lastly, the young *Limuli* were fond of hiding themselves by burrowing in the sand. They did this by pushing the anterior rounded end of the carapace under the sand, and then vigorously shovelling out the material from below with their feet, so that they gradually sank under the surface, and the sand flowed in upon them till they were entirely covered. If carefully removed from the hollow they had made, this was found to be ovoid or hoof shaped in form and bilobed, not unlike the curious hollows (*Rusophycus Grenvillensis* of Billings) which I have supposed to be burrows of *Trilobites*.

I thus found that the common King-crab could produce a considerable variety of tracks and burrows comparable with those which have been named *Protichnites*, *Climactichnites*, *Bilobites*, *Cruziana*, *Rusichnites*, etc. ; and that the kind of markings depended partly on the differences of gait in the animal, and partly on the circumstances in which it was placed ; so that different kinds of tracks do not always prove diversity in the animals producing them.

The interest of this investigation as applied to *Limulus* is increased by the fact that this creature is the near ally of *Trilobites*, *Eurypterids* and other Crustaceans which were abundant in the earlier geological ages, and whose footprints are probably among the most common we find on the rocks.

Lastly, on this part of the subject, it is to be observed that many other marine animals, both crustaceans and worms, make impressions resembling in general character those of *Limulus*. In addition to those already mentioned, Nathorst and Bureau have shown that various kinds of shrimps and lobster-like Crustaceans, when swimming rapidly by successive strokes of