

Under the carapace are several pairs of jointed limbs differing in size and form. The two anterior are small and peculiarly formed claws, used apparently in manipulating the food. The four next are larger in size, and are walking feet, each furnished with two sharp points which form a pincer for holding. The last pair is much larger and stronger than any of the others, and armed not only with a pair of pincers, but with four blunt nail-like points. Under the abdomen are flat swimming feet, as they have been called, each composed of a broad plate notched and divided in the middle. When at rest these lie flat on each other, but they can be flapped back and forth at the will of the animal.

Let us now see what use the creature can make of these numerous and varied pedal appendages, and for distinctness' sake we shall call the anterior set thoracic and the posterior abdominal. When placed in shallow water on fine sand it walked slowly forward, and its tracks then consisted of a number of punctures on the sand in two lines. If, however, the water was very shallow or the sand very soft or inclined upward the two edges of the carapace touched the bottom, making a slight furrow at each side; and if the tail was trailed on the bottom, this made a third or central furrow. When climbing a slope, or when placed at the edge of the water, it adopted another mode of locomotion, pushing with great force with its two posterior limbs, and thus moving forward by jerks. It then made four deep marks with the toes of each hind limb, and more or less interrupted marks with the edges of the carapace and the tail. In these circumstances the marks were almost exactly like those of some forms of the Protichnites of the Potsdam sandstone. When in sufficiently deep water and desirous to escape, it flapped its abdominal feet, and then swam or glided close to the bottom. In this case, when moving near the soft bottom, it produced a series of transverse ridges and furrows like small ripple marks, with a slight ridge in the middle;