

cal contrivance for the depositing of food, or hatching of eggs ; for these purposes, spaces between the stones, sticks, &c. found within, are adopted.

This absence of mechanical arrangement in their dwellings accords well with their known predaceous habits.

Their sallies are usually made towards night, and in cloudy days. Should they be detained abroad till late in the morning of a sunny day, they construct for their protection against the heat, arches over their path, of earth, agglutinated by a fluid secreted from their mouths. Should their course lie through thick grass or projecting substances, the arch will be wanting, or more or less imperfect, depending on the degree of shelter thus afforded.

That this arch is designed to protect them against the heat, may be inferred from its absence in cloudy or rainy days. Such is their extreme sensitiveness, that, when exposed to the direct rays of the sun, especially if the heat be increased by reflection from surrounding surfaces, they expire in the space of two minutes. Even with the arch, when far from their domicile, they will retire in the middle of the day to the thick grass, and there regale themselves in the shade till the decline of the sun, when their work is renewed with characteristic vigor.

In migrating, protection is afforded to their pupæ and young, by an arch constructed of the bodies of the larger class, or soldiers. Their mandibles and legs are so curiously locked and intertwined, that a complete and formidable covering is presented ; at such times individual soldiers will be seen on the outside, acting as guards and scouts, while others of the same class are within, apparently performing the part of superintendents and commanders. In case of alarm the arch is instantly broken, and the soldiers are seen running about in the most confused and hurried manner, with their jaws extended and antennæ working in all directions, thus presenting a highly angry and ferocious aspect. Should the alarm prove false, the victory be won, or danger passed, the arch is quickly renewed, the main column brought again to order, and their march resumed in all the regularity of intellectual, military discipline. Their paths present a beaten appearance, with freedom from all moveable obstructions.

As to their relation sustained to the economy of the community, they may be divided into three classes. It is the office of the first, or largest, which may be called the soldiers, to defend the community, attack and disable the prey. Their mandibles have long and slender points, well adapted to penetrate, and by their strongly falcate shape, to hold fast the objects of attack.

The second class frequently act as aids to the first, but their chief office evidently is, to lacerate the prey and reduce it to a portable condition. Their mandibles are flatter than those of the first, sharp, and have their teeth more developed.

The third are comparatively of very small size, and have their mandibles developed in a manner similar to those of the second class. These sustain chiefly the relation of *carriers*, and, perhaps, *with the second class*, may be properly denominated *laborers*. This diminutive size of the laborers is seen also among the Termites, or White ants, while the soldiers are comparatively of gigantic form.

There is occasionally an interchange of offices among these different classes, as when an individual is found inadequate to accomplish his task ; but it is very evident to an observer, that in general, they sustain the relation to the community above described.