

INSECT LIFE.

A Lecture delivered before the Mechanics' Institute of Port Hope, Whitby, Newcastle, and Belleville,

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(From the Home Circle.)

Continued.

Most insects perish soon after they have deposited their eggs in suitable situations, with, in some cases, a supply of food to be ready for the young, the moment they leave the egg. This is not, however, the case with all; a species of bug, inhabiting the birch tree, keeps near her eggs, and collects and takes as much care of the young, when hatched, as a hen does of her chickens. The earwig does the same, an insect perfectly harmless, though the object of much dislike from the mistaken idea that it gets into the ear. The female earwig sits upon its eggs in the manner of a hen, until they are hatched; nor does her care then cease, the young ones run after her wherever she moves, and she continues to sit on them, and brood over them, with the greatest affection, for many days. If the young ones are disturbed or scattered, or if the parent be taken away from them, she will, on the first opportunity, collect them again, and brood over them as carefully as before, allowing them to push her about, and cautiously moving one foot after another, for fear of hurting them.

Every one must have remarked a small green insect that clusters in great numbers on the stalks and branches of rose bushes. Various species of them inhabit different vegetables, shrubs and trees, and wherever they are they do no good to the branches that nourish them. It is extraordinary what large sums of money depend on the circumstance of these Aphides, or *blights* being numerous or few in number, on the hop plant, especially. Like the weevil in the wheat, they are very small creatures, but they sometimes do an immense amount of damage. Is there not something humiliating to the natural pride of the human heart, in the thought, how much the comfort and prosperity of mankind depend upon insects of the most minute size and insignificant appearance. And yet does not this very fact show how entirely we, and the whole creation, are dependant on the will of the Mighty Creator and governor of all, who orders all things after the counsel of his own wise will, and who doth all things well. Who can resist his dependance.

power? but what creature need be alarmed at any danger, when Omnipotence is engaged on his behalf?

A singular circumstance respecting the Aphis is thus referred to by Mr. Robert Patterson, in his delightful little book on "the Natural History of the insects mentioned in Shakspeare's Plays":—

"On a fine day in September, I noticed a holly tree, on which a number of wasps were continually alighting, running rapidly over its leaves, and flitting from branch to branch. I sat down beside it, to endeavour to ascertain what peculiar attraction this tree possessed, and soon found that the wasps were not its only visitors. A number of ants were plodding quietly along the twigs and leaves, exhibiting by their staid and regular deportment a singular contrast to the rapid and vacillating movements of the wasps.— I now discovered that both ants and wasps were attracted by a substance which was plentifully sprinkled over all the leaves—the celebrated Honey-dew of the poets. This substance is a secretion deposited by the Aphis. The liquid they deposit is perfectly pure and as sweet as honey. The ants not only suck it up with eagerness, wherever it can be found, but they possess also the art of making the Aphis yield it, by patting them gently with their antennæ; and one particular species of ant is said to confine the Aphis in apartments constructed solely for that purpose, to supply them with food, to protect them from danger, and to take, in every respect, as much care of them as we should do of our cows."

Another writer, mentioning these curious insects, confirms this singular statement. He says "The other day I pulled up a large thistle that grew on an ant-hill, and thus I brought to light a whole colony of the white Aphis. I had long known of the great value which ants set on these little creatures; so I took down some dozens of them from the thistle root, amongst the ants, which were all as warm at the distance I had come to their dwelling. No sooner were the ants aware of the presence of the Aphis, than they began to fondle them with their legs, to tap them on the back with their antennæ, and to lick them with their tongues; they then took hold of them with their jaws, lifted them from the ground, and carried them, with the greatest care, off by one into the recesses of the nest. I walked by the same way about three hours afterwards, and found the nest all quiet and orderly, and not an Aphis to be seen; so

I went to work with my knife, and scraped down the side of the hill, and soon came to the Aphis; they were clustered together, on little bits of thistle root, which had been broken off in the ground, and they were attended by numbers of ants. When the ants found that their cattle were again in jeopardy, they drew them gently from the root, and carried them still further into the nest.

I have often watched an ant go from one Aphis to another, and stand behind each, and gently squeeze the body with its forelegs; the Aphis gave out a small drop of honey, as clear as crystal, which the ant instantly swallowed.

Among the insects of the most remarkable habits are the *secton beetles* whose instinct prompts them to lay their eggs in the bodies of dead animals, both for the sake of placing them in security, and also for providing the grubs with a sufficient supply of food when hatched. With great labor they bury the dead body in the ground previous to laying their eggs in it. If the body, be it a rat, mouse, bird, frog, or mole, be in a ploughed field, they have little trouble; but if on grass, or among stones, much labor is needed to draw it to a suitable place. The operation of burying is performed by the male beetle, the female mostly hiding herself in the body or sitting upon it, and allowing herself to be buried with it. The male begins by digging a furrow all around the animal, at the distance of about half an inch, turning the earth outside. His head is the tool used in this operation; it is held sloping outwards, and is exceedingly powerful. After the first furrow is completed, another is made within it, and the earth thrown into the first furrow, then a third is made, and so on, the earth rising in a rampart round the body, which gradually sinks. When this has been done sufficiently, the beetle pushes the earth into the grave, with its broad head downwards. Of the unwearying industry shown by these beetles some idea may be formed by the results of experiments conducted by M. Gleditch, who found that in 50 days, four beetles had interred in the small space of earth allotted to them, 12 carcasses; viz. 4 frogs, 3 small birds, 2 fishes, 1 mole, and two grasshoppers, besides the entrails of a fish, and two morsels of the lung of an ox. In another experiment, a single beetle buried a mole 10 times its own bulk and weight, in two days.

This great comparative strength of insects is remarkably shown in their