

the base of the leaf, and spins threads across it. It is not difficult to bring the edges together, as the leaf is but partially opened, the edges being somewhat curled in. Within a few hours, the whole leaf will be found to be stitched in the manner which I will describe at one larval stage later. But an opening is not left at the tip for the larva to thrust out its head; nor does it begin at the tip and eat downward. That would apply to the larva from second moult onward. The young one eats the substance of the leaf within its case, at some distance from the tip, leaving the framework untouched. It makes its resting place quite close to the base, and there it will remain till after it has passed the first moult. The case at this stage is never so eaten that it does not afford protection to the larva, and protection at the youngest stage is most important, as it is then, if ever, that the little ichneumon-fly deposits its egg. The net-work of the frame of the leaf would seem sufficient to keep out many sorts of enemies. Most of the feeding is done at night. At last, some morning, the tenant will be found to have deserted its case, and to have shut itself up in one of the second pair of leaves, and it is now past the first moult. I experimented on several larvæ just past this moult. One was placed on the terminal leaf of a plant set in a flower-pot in my room. A few minutes later, it had descended to the second pair, and taken possession of one of them. Its first movement was to gnaw nearly through the mid-rib quite at the base of the leaf, and also to cut a hole on either side the rib at the break. The leaf was thus made to droop several degrees, and at the same time the sides moved closer together. Then spinning began. Threads were laid obliquely across the open space, one end fastened to the base of the leaf on one side, the other a little above the base. After the edges had been bound for a short distance in this way, a change was made and threads were spun directly across, and over the first ones, beginning at the base. One set of threads drew the edges, the other held them. Then the oblique threads were laid again, and the cross threads, and so on, alternating, till at 90 minutes from the start, sometimes working, sometimes resting, the little creature—.2 inch only—had closed half the length of the leaf. It had also spun some cross threads within, which would help hold the sides in place. Next morning the leaf was completely closed, and to get a view of the larva I had to slit the case with scissors. This was the usual mode at the younger larval stages, only that at the first, on the terminal leaf, the rib was not bitten nor were holes made at the base.