

journey of some twelve inches in length, and there it found and closed another leaf. This made three cases by this one small larva. The day after it took possession of the third case, I found it dead, with a cocoon by its side. It would seem as if a premonition of what was to happen impelled these parasitized larvæ to make extraordinary preparations for their final resting places, and I have constantly observed that an unusual amount of spinning had been done, coating the inside of the case thickly, where dead larvæ were found. These cases are closed more carefully than others, so that on inspection it is difficult to find an aperture which would admit anything. I have seen no other parasite about *Atalanta* larvæ than the fly, *Apateles gelechiæ*, and a single cocoon of this, when found, has always rested by the side of a larva of second stage, and no other.

The question may be asked, when does the fly deposit the egg which leads to the destruction of the larva? It is not laid in the egg, for if it was no larva would emerge therefrom. Butterfly eggs are often stung by parasite flies so minute as to be scarcely discernible, and from the egg, a few days later, will issue several similar flies, each about .02 inch long. I apprehend that our larva is stung by this fly just after it has come from the egg, and before it has made for itself a case, for except at this little interval of time, the leaf is closed. And when a hole is eaten in the side, the netting spoken of, would apparently suffice to keep out this particular enemy. In the next stage there is no such close protection, and probably not much need of it, for I have not found an *Atalanta* larva infested at any stage after the second. Accordingly, after the first stage there is nothing to screen the holes made in the case, the nerves being eaten as well as the substance of the leaf, and I have never been able to find a web, or threads extended across the opening. When the whole outer end of the case is devoured, as sometimes happens in second and third stages, there is nothing to prevent any enemy entering.

The fly then stings the larva, most likely at the very beginning of the existence of the latter, deposits in the body a single egg, and from that there is hatched a grub which feeds on the fatty portion of the larval interior, avoiding any vital organ, till at the close of the second larval stage it has devoured nearly all but the mere shell, and is itself then full-grown, and eats its way out of the side of the dying larva. Presently this grub has encased itself in a cocoon of its own spinning, a white cylinder, .15 inch long, and there it lies by the remains of the caterpillar, in the tomb