

as the dark larva can be seen through the transparent shell. The larva eats its way through the top or side of the egg, and sometimes makes its first meal from the shell, devouring more or less of it. The larvæ which go into lethargy directly from the egg seem to eat nothing but the shell before they descend to the base of the plant and range themselves for a long sleep. In this way behave all the larvæ of the larger Argynnis, of the fall brood, when there are two broods; so do the larger Satyrids, as *Alope*. Other larvæ hibernate after 2nd and 3rd moult, usually the 3rd, as the smaller Argynnis, *Myrina* and *Bellona*, Phyciodes, Melitæa, Apatura. Others hibernate at any stage where cold weather catches them, as *Colias*. Mr. Mead found hibernating larvæ of *Colias* under boards, in Illinois. In the arctic regions, the larvae of *Colias* never can reach chrysalis the same season in which the eggs are laid. Indeed, I do not see why larvæ might not be frozen for an indefinite period and come to life at last when weather was favorable. I have found that the best way to keep hibernating larvae in confinement alive through the winter months is to freeze them in the ice house, or in a snow-bank. The loss, after six months of this treatment, has been very light; whereas before I tried this method, very few and frequently no larvæ at all could be got through. They died from mould in the cellar, or from heat if in the house; if out of doors, they moved about on warm days and perished from starvation. I have found small paper boxes excellent to keep them in, druggists' pill boxes. And these are set in a tin box and placed directly on the ice. The rough surface of the box allows good foot-hold to the larvæ, and the boxes have not moulded. I carried some 60 larvæ of *M. Phaeton* through last winter, and with them larvæ of *Ap. Flora*, all of which were half-grown, or past the third moult, with no loss to speak of. And Argynnis *Diana*, *Cybele*, *Satyrus Alope*, and other species, which hibernate direct from the egg, have been carried with trifling loss. And the later the larvæ are left on ice the healthier they seem to be. It is better to rouse them when the weather is settled and mild, than earlier, when violent changes of temperature will occur. Most larvæ pass four moults, but in case of hibernating larvæ, there is an additional moult. So that the summer brood of a species, as of Apatura, will have four, while the winter brood will have five, three before hibernating and two after it. Great care is necessary with the young caterpillars. Many species are apt to wander, and must be confined from the first, but others, as *Limenitis*, move very little, and may be trusted to remain always at