

is the mulberry leaf. After casting its skin three or four times, as its bulk increases, it becomes at length rather a large caterpillar, of a white colour, more or less tintured with blue or with yellow. The period of its existence in this state being arrived, it ceases to eat, and soon begins to form the silken ball which renders it so famous. On the first day of its work, it makes the web, or loose outward silk by which it fastens its nest to the branch, paper, or other substance that nature or art puts in its way. On the second day it begins to form its *folliculus* or ball; and on the third is quite hid by its silk.

At the end of ten days, the work is finished, and the transformation of the insect complete. In a state of nature, every thing now remains quiet till the pupa becomes a *phalena*, or moth: but where the insect is bred as an article of trade, the ball is taken from the mulberry tree in the condition at which it is now described to be arrived, and unwound within a proper time; because, if left to itself, the phalæna would pierce the way through, and destroy the silk.

As soon as the worms have produced their balls, or cocoons, they become an article of trade, for in those countries where silk is cultivated, few persons reel off their cocoons, but sell them to others, who make this operation a separate business. The silk, as formed by the worm, is so very fine, that if each ball, or cocoon, was reeled separately it would be totally unfit for the purpose of the manufacturer, in the reeling, therefore, the ends of several cocoons are joined and reeled together out of warm water, which, softening their natural gum, makes them stick together so as to form one strong smooth thread. As often as the thread of any single cocoon breaks or comes to an end, its place is supplied by a new one, so that by continually keeping up the same number, the united thread may be wound to any length; the single threads of the newly added cocoons are not joined by any tie, but simply laid on the main thread, to which they adhere by their gum; and their ends are so fine as not to occasion the least perceptible unevenness in the place where they are laid on. The apparatus for reeling consists merely of a small open kettle of water, under which is a fire to keep it hot, and a reel of a very simple construction.

SILK-WORM, or *bombyx*, a caterpillar which passes through the changes common to creatures of this class, and which, previously to its assuming the state of *pupa* or *chrysalis*, forms itself a bed of fine silk. This silk being regularly wound about the bag in which the pupa is contained, admits of being unwound with equal regularity, and is found to consist of a continued thread, equal in length, as it is computed, to six English miles.

From a small egg, of the size of an ordinary pin's head, proceeds a minute dark-coloured worm, the food of which