

in a serpentine manner. But of all the modes in which ova are disposed, that of the common Gnat is most deserving of our attention. This little creature, by means of its hind legs, fabricates a perfect boat of eggs, which floats upon the surface of the stream; although each egg is, separately, heavier than water, and it is only in a collected form that object can be achieved. These floating canoes contain from 250 to 350 eggs, of an oval shape, having their small ends uppermost, as the larvae when hatched issues from the lower part. But the most singular circumstance connected with this miniature life-boat is, that, though tossed about by the action of the waves, and exposed to the roughest weather, not one drop of liquid is ever found to enter the interior; therefore the upper ends of the eggs are kept continually dry. This extraordinary property is still unexplained, and continues a puzzling problem to philosophers and entomologists. Its solution may be suggestive of some application to the safety of the life-boat; nor should we despise such objects of study as beneath our investigation, when we consider that natural history presents one great museum of mechanical contrivance and philosophic adaptation, a tenth part of which it has not entered into our limited conception to discover; and that many inventions and improvements in the arts have been intimated by close observation and reflection, upon the wonderful phenomena revealed in the great scheme of the animal creation.

The lace-winged Fly (*Chrysopa reticula*) adopts a novel expedient to protect her eggs from the ravages of carnivorous grubs, as each is deposited at the end of a stalk formed of gluten, which is stretched out at right angles from a branch selected by the mother, to the fineness of a hair, and hardened in that position. These processes, similar in shape to the stamens of flowers, are arranged regularly on each side of the stem, and have the appearance of a natural appurtenance to the plant upon which they are found.

But among the numerous instances of maternal solicitude disclosed to the student of nature, that of a family called *Coccidae*, of which the insect furnishing the cochineil dye is a species, stands unparalleled; for here the very body of the animal provides a covering to shelter the future brood, being glued permanently over the group of eggs, and looking like an excrescence on the plants they frequent; indeed, the bark of some trees is covered with incalculable numbers of these, seeming, warts; which an ordinary observer would never

imagine to be the dried body of an insect. Upon raising up this covering, thousands of eggs are seen beneath, enveloped in a silky gum, which is generally moist and capable of extension into threads, upon separating a few ova from the mass.

We now come to those insects which are remarkable for securing an asylum for their ova, by excavating a hollow in the interior of different substances, or fabricating a nest of foreign materials; and here the traces of a superior intelligence are so strongly manifest, that, in the vast collection of astonishing facts which must create a feeling of wonder and admiration in the coldest breast, the mind knows not how to choose material for the purpose of illustration, where all equally argue the superintendence of divine power.

The mason-wasp bores into the hardest sand, clay, or brick, to provide a cell for her offspring, and she is careful to supply them with a store of grubs, or bees, that when they emerge from the egg, food may not be wanting; the better to effect this, the captives are not wholly deprived of life, but allowed to linger, without the power of extricating themselves, until the insects whose wants have thus been fondly anticipated are ready to devour them. The parent, after making such provision, effectually seals up the opening of the nest, and leaves them secure from the visit of their enemy, the Ichneumon. We may notice here the beautiful device by which the Mason Spider ensures the safety of her young. The nest, which is situated in the ground, and shaped like the finger of a glove, being furnished with a perfect lid, which, by means of an elastic hinge, shuts down quickly upon the ingress, or exit of the occupant.

The Mason Bee is similar to the above-mentioned wasp in her economy, except in substituting, for the live food of the latter, the pollen of flowers, for which they collect an abundant magazine for the benefit of posterity.

The Carder Bee builds a habitation of moss, which she cards with infinite labour, and is frequently met with in fields while mowing, in copses, &c. We have discovered these retreats amidst the moss-covered roots of our forest trees. In the interior are inclosed a number of brown, ovoid cells, which, however, are said to be the work of the young grubs when about to change into Auricles, from whence they are liberated, as perfect bees, by the aid of the parents; as otherwise they would be unable to gnaw through the tough texture of their envelope. These cells serve afterwards for deposits