

length, to our surprise, we observed a transparent drop to exude from one of the aphides, which was immediately lapped up by the ant, who then advanced to the next individual, and repeating it with its antennae, obtained a similar supply of the sweet secretion. This strange transaction we watched for some time, until every aphid had been taxed for food in the same manner, when the ant proceeded to collect the contributions of a fresh colony.

In conclusion, it will not be amiss to offer a few observations upon the eggs of insects in general. They are of several shapes; cylindrical, oval, oblate-spheroidal, sugar-loafed, prismatic, bottle-shaped etc., besides, which, in several instances, they are ornamented with ribs, tiles, or hexagonal net work, which surpass the most delicate sculpture of human art. For what purpose such infinity of form, and elegance of design are expended upon so insignificant and minute an object as the egg of an insect, may well excite our inquiry, and baffle the keenest penetration. But when we contemplate for a moment, the ineffable harmony which pervades the universe, and radiates, like a beam of light, our little globe;—that eloquent beauty, which, differently revealed to our senses, whether through the symmetrical combination of curved lines, the euphony of sound, or the grandeur of accordant motion, is essentially the same;—it may be deemed an inseparable quality of nature—is it not an attribute of God? It would be wiser in our unsuccessful efforts, to trace the application, which such diversity of structure would imply, to the purposes of inscrutable Providence, to console ourselves with the belief, that *nothing ever was made in vain!*

The eggs of some insects are furnished with a valve, or lid at one end, to facilitate the escape of the larva from its confinement; and in a few species, as the law-fly, ant, etc., the egg attains sensible growth, during the process of hatching, which, as in birds, is accelerated by heat. However, exposure to the greatest severity of winter, or the most intense artificial cold does not affect the vitality of insect eggs, nor are they observed to freeze in consequence.—What is this mysterious principle, this *vis ritae*, which only awaits the concurrence of favourable circumstances to stimulate its latent properties into action,* and which, when in most

powerful operation, the slightest injury can destroy?

The fecundity of insects is very great compared to other animals. The spider lays 1,000 eggs in a season; a gall insect will produce 5,000 at a time; a bed-bug, in twelve months, may be the progenitor of 21,909,026 offspring; while the queen of the white ants produces, in the same time, the surprising number of 31,536,000 eggs.

To the theory which some naturalists have advanced, that the atmosphere is filled with numberless ova of insects, it has been objected that the impregnated eggs of all known species are heavier than air; indeed, the specific gravity is such that, upon experiment, they immediately sink in water; although some can scarcely be seen with the naked eye, from their extreme tenuity. Besides, it seems inconsistent with the remarkable care with which insects deposit their eggs and provide for their security by gluing them down, or covering them with a thick web, as an additional protection from accidental removal or atmospherical influence. But when we consider the infinite minuteness of microscopic animalculæ, the myriads of creatures which our limited researches, wonderful as they are, may not have yet discovered, it can hardly be considered incredible that multitudes of unseen animals may inhabit, as their peculiar element, the atmosphere that floats around us; and perform all their actions independent of the solid earth. It would require no great effort of the imagination to suppose that such would intrust their ova, as fishes do their spawn, to the fluid in which they exist, and that they arrive at maturity in the same medium.

What a forcible contrast does the present season yield to the vivid associations of the summer time. Now, while the pen is recording these thoughts, the cold, dead mantle of winter is clasping, as a shroud, the leafless tree and the ice-bound stream. From the mute earth there comes no sound of rejoicing; the grasshopper's song and the horn of the warrior bee are like the imaginary music of a half-forgotten dream; the withering storm-gusts of the winter wind are sweeping through the aisles of the forest, awakening within the breast a sense of utter desolation. But let the blast roar on—let the snow-wreathes creep and curl upon the stems of the hardy pines, for as sure as the revived rays of the sun will, ere long, chase away every vestige of their tyranny, so certain is it that each particle of imprisoned ground beneath, every branch, bough and trunk

* A grain of wheat, from the wrappings of an Egyptian mummy, has been made to germinate after an interval of three thousand years; and seeds are found ontombed alive in solid rocks, where they must have remained for ages.