

each its portion, and convey it to the stem from which they issue; analogous, in this respect, to the polypes, which unfold and expand their tentacles for a similar purpose. Ivy planted against a wall or trunk of a tree supports itself by innumerable radicles; but I once saw a plant reared as a standard which sent forth none. This seems analogous to some animal instincts, which, depending upon circumstances, may be called *conditional*; as when, in the case of a sterile queen, the bees do not, as usual, massacre the drones.*

There is another parallelism between the plant and the animal, especially the insect, which appears to prove that their instincts are ruled by the same physical agent; I mean their *hybernation*. In extratropical countries, or a great proportion of them, as the year declines, and the amount of heat, received from its great fountain, is diminished by the shortening of the days, the deciduous trees and shrubs cast their leaves, plants of every description cease more or less their growth, and all vegetable nature seems to become torpid. At the same period, and under the influence of the same cause, the decrease of the amount of caloric, several of the higher animals, all the reptiles, as well as nearly the whole world of insects, retire from the exercise of their wonted instincts, and conceal themselves, some under the earth, and others under bark, under stones, in crevices, moss, and similar hiding places, where they take their winter's sleep, till a more genial temperature whispers to them—*Awake*—and they return to their several employments. This effect in both the plant and the animal, seems to spring from the same *physical* cause—the periodical lowering of the temperature; so that heat appears to be the *plectrum*, and the organization of the animal, the strings it

* Introd. to Ent. ii. Lett. xx.