

than the ventral. Among the Pierinæ, the pupæ of some of *Pieris*, as *Rapa* and the *Napi* group, have a tolerably flat ventral surface, others of the same genus do not. And *Neophasia*, *Anthocharis*, *Callidryas*, *Terias*, *Colias*, *Nathalis*, all which I know well, have anything but a flat ventral surface. Among the Nymphalinæ, many of the genera have no such surface, as *Argynnis*, all the *Vanessinæ*, *Limenitis*, etc., etc. The *Heliconinæ* do not. And, admittedly, the *Satyrinæ* have pupæ "among the most rounded in the whole family." Moreover, among many of the *Satyrinæ* the dorsal side is as much flattened as the ventral. The supremacy of the *Satyrinæ*, and with them the *Nymphalidæ*, cannot be proved from the shape and conditions of the pupa any more than from the papillae.

The third prime feature consists in the extreme degree of atrophy of the fore legs of the imago. The *Hesperidæ* have six walking, useful legs; the *Papilionidæ* the same number. The *Nymphalidæ*, however, have in both sexes but four walking legs, the first pair being deformed, atrophied, useless for walking, and, so far as is known, for any purpose whatever. It is exactly the sort of phenomenon not very infrequently seen in the genus *Homo*, but here a crippled or atrophied limb has never become a hereditary character. It certainly would not be regarded as a mark of elevation. How atrophy of the legs originated in the butterflies no one can tell, but perhaps by accident in a single member of the type form, and became perpetuated in a family. In the *Lycaenidæ*, we are told, *But.*, 254—"All the legs of the female are alike, but the front legs of the male are variously aborted." In the *But.*, N. E., 203:—"As soon as we approach the *Lycaenidæ*, we notice signs of an approaching abortion of the fore legs, but only in the male;" described as slight; but is greater in the *Lemoniinæ*. It affects both sexes in the *Nymphalidæ*, but not in one of the sub-families, the *Libytheinæ*. These have six good legs in both sexes. And, in the *Satyrinæ*, the deformity is the most extreme of all. Indeed, unless the front pair of legs should drop off, it is not easy to see what more could be done in that direction. A disfigurement is not generally regarded as a sign of beauty, though tastes do differ. In certain valleys in Switzerland, he who can show the most enormous goitre is the pride of the district. Atrophy of limb, if it prevails throughout a family, may properly be held to be a mark of degradation. It is a phenomenon not confined to any particular order of