

the extremity of the abdomen, or the lip, or both, and by this means unites bits of sticks, pebbles, etc., into a portable case or sheath for itself.

All entomological writers acknowledge that the Trichopters resemble Lepidopters. They have so much the aspect of some Phalænids, that they were called *Mouches papillonacées* by Reaumur; and the larves, according to De Geer, are closely like caterpillars in internal organization. Other Lepidopteroid characteristics mentioned by different authors are observed in the rudimentary condition of the mandibles, the structure of the legs, the faculty of spinning fibres possessed by the larve, the portable larval sheath closely imitating those of the larves of many Tineids and the Psychids. One genus of Phryganeans is named *Hydropsyche* in allusion to the resemblance, and Newman transferred the genus *Psyche* from the Lepidopters to the Trichopters. The species naturally constitute a hypotypic group to the Amplipens. The hypotypic division of a terrestrial group often consists of aquatic or semiaquatic species. Although the Trichopters are generally united to the Neuropters, they are always placed to one side in a group by themselves, on account of their wide divergence from that type. The parallelism between the subdivisions of Amplipens and those of the Amplipenniforms on page 22, further sustains our arrangement.

3. Attenuates, or Neuropters.—The Neuropters are mostly long-amplificate, being generally slender in body, wings and legs; they are also widely diverse in shape and size. The wings are membranous, but are sometimes partly colored; they are often equal; the posterior are sometimes even the larger, but sometimes also much the smaller, and occasionally obsolete. In a few species both pairs are wanting. The mouth, unlike that of the Lepidopters and Homopters, but like that of most of their *larves*, is not suctorial but mandibulate. Among the species there are perterrestrial and semiaquatic kinds, and also permatulative and prematurative.

Two of the subdivisions of Neuropters appear to be representatives severally of those of Apipens and Amplipens, and may accordingly be named the *Apipenniforms* and *Amplipenniforms*. The third includes the *typical* Neuropters, the species which stand most widely apart from the other tribes of Insects.

a. Apipenniforms.—The Apipenniforms show their relation to the Apipens, both in their structure and habits, the higher species being related to the Hymenopters, through the Ants, and the lower to Dipters, through the Tipulids. Like Apipens, also they are all perterrestrial, although not all permatulative. The two subdivisions are (1) the *Termitideans* (White-Ant group) or Hymenopteroid species whose Ant-like habits are well-known; and (2) the *Panorpideans* or Dipteroid species, having the mouth