

2. **AMPLIPENS** (from *amplus* large and *penna*).

- a. *Lepidopters*.—Perterrestrial. Permaturative.
- b. *Homopters*.—Perterrestrial. Prematurative.
- c. *Trichopters*.—Semiaquatic. Permaturative.

3. **ATTENUATES, or NEUROPTERS.**

- a. *Apipenniforms*.—Perterrestrial. Permaturative, or prematurative.
- b. *Amplipenniforms*.—Perterrestrial, or semiaquatic. Permaturative, or prematurative.
- c. *Perattenuates, or Typical Neuropters*.—Semiaquatic. Prematurative.

II. Ptero-metasthenics, or Elytropters.

- a. *Coleopters*.—Mostly terrestrial. Permaturative.
- b. *Hemipters*.—Mostly terrestrial. Prematurative.
- c. *Orthopters*.—Terrestrial. Prematurative.
 - α. *Cursors*.
 - β. *Ambulators*.
 - γ. *Saltators, or Typical Orthopters*.

III. Thysanures, or Apters.

Lepismians and *Podurians*.

I. PTERO-PROSTHENICS, or CTENOPTERS.

1. **Apipens**.—The structures among Apipens are compact, comparatively uniform in proportions, and with rather narrow limits as to size, much narrower than in the Amplipens, Coleopters or Orthopters. The species are strongly pteroprosthenic, the anterior wings being much the larger. The wings are essentially of one type of form and texture, and are well described by the term *apiform*; they are free from scales and other defunctionating appendages or impediments, and are rapid in motion; in the second subdivision the posterior pair is wanting, and in the third, both pairs. The species are almost all perterrestrial. All are permaturative, and, with a few exceptions, they are so in the highest degree (Char. VI, A, α, p. 12).

a. *Hymenopters*.—The Hymenopters are the most uniform in shape or size of Apipens. The integuments are firm, the parts neatly adjusted and all well-proportioned. Among them, there are no imitations of the forms in other tribes, while they are extensively copied after—a characteristic peculiar to a type of the very highest grade.³ The mouth has a suctorial lip for feeding;

³ This point is well presented in a recent paper on "*Synthetic Types in Insects*," by A. S. Packard, Jr., (*Jour. Boston, Soc. Nat. Hist.*, 1863, pp. 590-603). The author observes, on page 591, "the clear-winged *Sesia* [Lepidopter] imitates the humble-bee in its form and flight; the different species of *Ægerians* [Lepidopters] simulate members of nearly every hymenopterous family, as we can see when recalling such names as *apiformis*, *vespiformis*, *philanthiformis*, *tiphiciformis*, *scoliaciformis*, *sphéciformis*, *chrysidiformis*, *cynipidiformis*, *formiciformis*, *ichneumoniformis*, *uroceriformis*, and *tenthrediniformis*. So also other *Ægerians* resemble different family forms of Diptera, as seen in the names of *culiciformis*, *tipuliformis*, *bibio-*