

plants of *Asclepia Syriaca* by the roadside, and, if the season be a good one, he will hear a concert that will probably be new to him. The performers usually found taking part in such entertainments in Canada are the Sphinges—*cinerea*, *kalmia*, *gordius*, *sordida*, *hyale*, with "stars" of lesser magnitude. As the creatures recede from and approach the auditor's stand-point, he will be able to mark very fine *diminuendo* and *crescendo* effects.

The wings of bees and other Hymenopterous insects are provided with catches, which unite them on either side of the insect, so that, while beating the air in flight, the two present but one resisting surface. Observing wings such as these, hooked together, clean cut, stoutly nerved, and free from scales and feathers, and comparing them with those of owl moths, which are loose, ample, and heavy with scales, we can understand how it is that their vibrations produce a clear, musical note, which strikes the ear, whilst those of the latter fail to do so.

The subject of colour, as regards insects, presents an interesting field, in which comparatively few investigations have yet been made. Many unsolved problems meet the explorer at the very entrance. How is it, for instance, that the chlorophyll, in the pulp and juices of leaves, having passed through the digestive organs of a caterpillar with the nourishment that is assimilated to the substance of the creature, eventually develops into the gorgeous hues and brilliant metallic embellishments which so frequently adorn the imago? What physiologist or chemist will make this clear to our perception?

Attention has been drawn to the fact that the insects that feed on the silk-weed (*Asclepia Syriaca*) are generally coloured black and yellow or black and red. But who can tell us why it is that the chrysalis which succeeds the caterpillar of *Danais Archippus* is not of these hues, but of a delicate pale green?

That God has wonderfully ordered things, so that the colour of insects shall be a safeguard to them, is apparent to the most casual observer. Some instances of this providential care are more than usually interesting. The caterpillar of *Sphinx quadricornis* feeds upon the elm. The leaves of the elm, when slightly injured, have a tendency to curl up longitudinally, and the ribs of the leaf, which are prominent on the under side, become, in the curled portions, very conspicuous. The larva of *Sphinx quadricornis* is exactly the colour of the leaf, and has transverse markings that are the very counterparts of its ribs. This resemblance is remarkable enough, but there is a further development which is perfectly marvellous. As the season advances the curled portions of the elm leaves become sere and dead, and *S. quadricornis* also changes its colour, and takes a rusty brown hue.

There is a genus of insects called *Ennomos*, the various species of which are known in England as the "Thorns." We have in Canada a fine representative of the family in *Ennomos magnaria*. The insects appear in their perfect state late in the autumn—our own species (*E. magnaria*) appears in October. The interesting particular that I wish to mention is, that in colour they all resemble "the yellow leaf" that is characteristic of the season of their appearance.

The English peacock butterfly (*Vanessa Io*), the American polyphemus moth, and some others of the Lepidoptera, present in each instance, when displayed, the appearance of a mask. When disturbed, the insects have, moreover, the trick of closing and expanding their wings, which makes their *touch-me-not* grimness more striking. As the tiger has been known to turn tail at the sudden opening of an umbrella, so the troublesome child, or the busy titmouse would be likely to start back at the sudden presentation of the expanse of wing, with its eye-like spots and formidable markings. The flash of the metallic spots on the "fritillaries" and the changeful sheen of the purple emperor (*Apatura Iris*) may also act as deterrents against attacks of predatory birds.

The pleasing contrasts and exquisite harmony of colouring that are met with, not only in the diurnal Lepidoptera, but in the night-flying species also, exemplify the truth that "the works of the Lord are great, sought out of all them that have pleasure therein." It is marvellous to find the most brilliant and attractive hues in insects that seldom, if ever, meet the eye of the ordinary observer. Indeed, many an insect fails to reveal its glories to the unassisted vision at any time. It is only through the microscope that the richness of its velvet dress, or the hyaline splendour of its gauzy wings is made apparent.

With what
eager flight it
white clover;
to the hive!
in its haunts!
of the Cicada,
riction of the
produced by
are of a reed
different sizes,
grand insect
st Cecidomyia
of its minute

l with the jar
st such a jar
the creature
nd disturbed,

d with insect
is closing in,
amongst the