

ENTOMOLOGICAL MISTAKES OF AUTHORS.

REV. THOMAS W. FYLES, F.L.S., SOUTH QUEBEC.

I lately took up Gage's Second Reader, authorized for use in the schools of Quebec, Manitoba, British Columbia and the North West Territories; and I opened it at the chapter entitled "How a Butterfly came." I was curious to know the value of the lesson in Natural History provided in this authorized work for the children of the provinces and territories named; and I read it carefully. The lesson tells that

"Late in September a lady saw a worm upon a willow leaf."

The worm is described; and a rude cut of it is given.

"The lady carried leaf and sleeper home. She took willow leaves for it to eat, put them all in a glass dish, and tied lace over it. In just one week her guest was gone; only a lovely green bag was left."

Here the bag is represented.

"It was just one inch long, was made very neatly, and looked much like a little bed or cradle. No stitches could be seen, and the seams had an edge like gold cord. Gold and black dots like tiny buttons were on it. The caterpillar had sewed himself in." . . . "Almost six weeks the little sleeper lay in his silken cradle. Early in November he burst the pretty green hammock." . . . "A lovely butterfly came out out. It had brown and golden wings, with stripes of black like cords on them, and a feathery fringe of white for each stripe. On the edges of the wings were white and yellow dots. The head was black and also had white and yellow dots on it."

Here comes a representation of a butterfly—decidedly a *Papilio*.

"The inside of the wings was darker; it was like orange-tinted velvet. All these changes were in less than two months."

The caricatures of the larva and pupa given, and the descriptions of the insect in its different stages, are faintly suggestive of *Danaus Archippus*; but *Archippus* feeds on *Asclepias*; and *Archippus* is not a *Papilio*. *Papilio Turnus* is, I believe, sometimes found on the willow; but the description and the cuts of larva and pupa are not even faintly suggestive of this species.

What insect is really meant in the lesson I am quite unable to determine; but this I can with confidence say: The Canadian child, who may be led by this chapter in the Second Reader to search the willows late in September, for banded worms two inches long, that will in a few days sew themselves into silken bags, out of which, in November, swallow-tail butterflies will come, will simply have its labor for its pains.

This wonderful lesson in Entomology upon "How a Butterfly Came" set me "a-thinking," and led me to make various mental and literary excursions. For example: I have accompanied poor "Tom" in Charles Kingsley's "Water Babies" to the "other-end-of-nowhere," and sat at the feet of "Mother Carey," and learned from her that the fairy who made butterflies was not nearly so clever as the fairy "who made butterflies make themselves." This lesson, I take it, was intended for a sly joke at the evolutionists, and suggests the question, How did the butterfly and other insects originally come?

The Egyptians told Herodotus that some living things were generated from the slime of the river and the sea; Pliny supposed that insects sprang from the dew falling upon leaves; Virgil thought that bees might spring from the corrupting bowels of slain beasts; Pietro Martire that "gnattes of divers kinds" were "ingendered of moyste heate"; Ashmole assured Pepys—at any rate Pepys tell us so in his "Diary" under date of April 23rd, 1661—that "many insects do often fall from the sky ready formed;" Swedenborg taught that worms are "procreated from the effluvia of the earth, and from the exhalation of vapors of vegetables, by which the atmospheres are impregnated;" and Du Bartas that God

"By his wise power made many creatures breed of lifeless bodies
So the cold humour breeds the salamander . . .
So, in the fire, in burning furnace springs
The fly *Perausta*."

All these worthies were mistaken—as much so as a very modern *savant* in the person of a little school-boy, who a few days ago told me gravely that "if I would put a horse-hair

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