

THE

American Entomologist.

VOL. 2.

ST. LOUIS, MO., SEPT.—OCT., 1869.

NO. 1.

The American Entomologist.

PUBLISHED MONTHLY BY
R. P. STUDLEY & CO.,
104 OLIVE STREET, ST. LOUIS.

TERMS.....Two dollars per annum in advance.

EDITORS:

BENJ. D. WALSH.....Rock Island, Ill.
CHAS. V. RILEY, 221 N. Main Street.....St. Louis, Mo.

WHY NOXIOUS INSECTS INCREASE UPON US.

It is an old and a very true remark, that the various insects that afflict the Gardener and the Fruit-grower are year by year becoming more numerous and more destructive. One principal reason for this result is sufficiently obvious. The continual tendency of modern improvement is to concentrate vegetable gardens and fruit farms in certain peculiarly favorable localities, instead of scattering them evenly and uniformly over the whole country. Hence every injurious insect that troubles the Gardener and the Fruit-grower has an abundant supply of such vegetation, as forms a suitable nidus for its future offspring, close at hand, instead of having to search for it with much labor over an extensive surface of country. Such insects are therefore enabled by this means to increase and multiply with greater ease and greater rapidity. Upon precisely the same principle, if you scatter over the surface of a whole county the amount of shelled corn that is just sufficient to feed a certain gang of hogs, and compel them to seek it out and pick it up every day of the year, they will not thrive so well nor multiply so fast, as if you feed out the very same amount of corn to them in a ten-acre lot, day after day for a whole year.

To a gentleman in Arkansas, who had expressed the opinion that that State was the best in the Union for the peach and the grape, and that Illinois was not naturally adapted to the culture of fruit, Dr. E. S. Hull recently replied in the following masterly manner. We copy from the *Journal of Agriculture* for August 14, 1869:

SIR—Your confidence in the superior adapta-

bility of your soil and climate will probably not be maintained after a few years' experience. Just in proportion as you increase improved fruits, just in that proportion will fruit insects and fruit and fruit tree diseases increase with you. A recognition of this fact will each year, as you multiply your orchards, become more and more apparent. Your Hale's Early peaches, at first, will be free from rot, your pear trees measurably exempt from pear tree blight, your vines free from vine hoppers, the grapes free from grape codlings and rot, etc., etc. From some cause, not yet well understood, all or nearly all young vineyards are for the first few years of fruitage, free from rot, and then ever afterwards subject to it. The same is true of cherry, peach, and plum rot. Therefore to those engaging in horticultural pursuits, a knowledge of the several difficulties likely to be encountered should be recognized, and so far as known the remedies for each difficulty must be promptly applied.

In this State, or in certain portions of it, many persons believe that horticulture is undergoing a great revolution, and ultimately that the business will be mainly in the hands only of the well-informed—those who understand and promptly apply the proper means. In view of known facts and observations, made during the past twenty-three years in this part of the West, and further South, I am convinced that all sections alike must recognize as facts these statements.

Here the matter seems to have dropped. Nobody has thought of accusing Dr. Hull of being an atheist and a blasphemer, because he has said that the more you multiply your orchards, and the more you increase improved fruits, the more will bugs and other kinds of destructive organisms multiply and increase upon you. Nobody, in fact, has even gone so far as to insinuate that, simply because he has written the letter which we have printed above, he leans towards Socinianism, or Arianism, or Erastianism, or any of the other fine shades of *ism*, whereby heterodoxy (whatever that may be) differs from orthodoxy.

Now, mark how one man is allowed to steal a horse with impunity, and another man may not even look over the hedge without being thrown into jail for it. Henry Ward Beecher, in one of his contributions to the *Ledger*, recently expressed the following sentiments; and turn them which way you will, they merely

amount to the very same doctrine recently promulgated by Dr. Hull, and—we are almost afraid now to avow it—firmly believed in by ourselves; namely, that the larger the masses may be in which you grow any crop, the more will destructive organisms prey upon it:

The only way to exterminate the Canada thistle is to plant it for a crop, and propose to make money out of it. Then worms will gnaw it, bugs will bite it, beetles will bore it, aphides will suck it, birds will peck it, heat will scorch it, rains will drown it, and mildew and blight will cover it.

But does Henry Ward Beecher, after publishing such shocking sentiments, escape with as much impunity as his more fortunate compeer, Dr. E. S. Hull, of Alton, Ills.? Quite the contrary! Forthwith a writer in the *Christian Intelligencer*, signing himself "Puritan," is down upon the reverend gentleman like a thunderbolt, accusing the poor man of "veiled profanity," and arguing the question in the following lucid and certainly most original manner:

These bugs, beetles, aphides, heat, rain, and mildew, are the messengers of God. If they are sent—they are on an errand for God! Now, if the above extract has a point, it is that when mankind plant a crop of any kind of grain or seed, *God takes a malicious pleasure in defeating such schemes.*

Excellent! Most admirable logician! But why not attack the Illinois layman as well as the New York clergyman? "Just in proportion," says Dr. Hull, "as you increase improved fruits and multiply your orchards, just in that proportion will fruit insects and fruit and fruit-tree diseases increase with you." What is that but saying, that when mankind try to grow large quantities of extra fine fruit, "*God takes a malicious pleasure in defeating such schemes?*" At him, "Puritan!" Seize him by the throat and worry him to death! The Illinois State Horticulturist is clearly guilty of the most abominable "veiled profanity."

But it seems that "circumstances alter cases," and "the case being altered alters the case," and to parody the language of Shakspeare—

What in the layman's scientific truth
That in the parson is rank blasphemy.

For up to this day, though we always read the *Christian Intelligencer* and all the other religious newspapers with the most commendable perseverance, we have not noticed any attack in any of their columns upon the Alton philosopher—whether from the pen of "Puritan" or of any other anonymous scribbler—such as that which has been recently hurled upon the devoted head of Henry Ward Beecher.

That our readers may not suppose that Mr. Beecher is unable to fight his own theological

battles and has hired us, in default of a better ally, to defend him against the murderous thrusts of "Puritan," we shall close this article by quoting his most conclusive and logical reply to this most absurd and irrational attack:

This is exquisite! If mildew attacks my grapevine, it is on an errand for God, and if I sprinkle it with sulphur as a remedy, I put brimstone into the very face of God's messenger! When it rains—is not rain, too, God's messenger?—does "Puritan" dare to open a blasphemous umbrella, and push it up in the very face of this divine messenger? When a child is attacked by one of "God's messengers"—measles, canker-rash, dysentery, scarlet fever—would it be a very great sin to send for a doctor on purpose that he might resist these divine messengers? There are insects which attack man, against one of which we set up combs, and against another sulphur. "Nay," says "Puritan." "If they are sent, they are on an errand for God," and it is profanity to have recourse to fine tooth combs and sulphurous ointments in order to defeat the expressed will of God.

TORTOISE-BEETLES.

"Tortoise-beetles!" the reader will perhaps exclaim, "Why, this picture that you give us in the margin is not a beetle at all, but a true veritable mud-turtle! Beetles, as you have told

[Fig. 1.]



Colors—Brown-black and yellowish.

us time and again, have got *six* legs, and this fellow has got only *four*, two on each side of his body, which, as with other mud-turtles, are evidently used as swimming-paws." Nevertheless, kind reader, this is a true beetle, and if you were to turn him upside down, you would see that he has got, on the lower surface of his flattened body, six very distinct pale-colored legs, though they are so short that they scarcely project when stretched out at full length beyond the thin crust which, as with a mud-turtle, projects from his body all round him. What you take for swimming-paws are not paws at all, but mere patches of dark opaque color on the thin projecting semi-transparent shell. If you refer to the drawing which we gave in our last number of the Mottled Tortoise-beetle (Fig. 179), you will see that that species has two such patches of dark color, representing the front swimming-paws, while those which represent the hind paws are entirely absent. Nor is this a mere fortuitous circumstance, dependent upon variation and what gardeners call "sports." You may take a thousand specimens of either species, and you will find that our species, which is termed the Clubbed Tortoise-beetle (*Deloyala clavata*, Oliv.), always seems to have