

## EDITORIAL SUMMARY.

HOW DO PARASITIC INSECTS DETECT THEIR PREY?—A variety of opinions have been expressed as to the means by which ichneumon flies and other parasitic insects discover the living objects upon which they seek to deposit their eggs. Some have inferred that this is done by sight, others by smell, or by the operation of some peculiar sense unknown to us. The rapid movements of some of the Hymenopterous parasites which attack caterpillars would lead one to suppose that the sense of touch is an agent, if not the sole agent. These flies may be noticed running rapidly up and down leaves and twigs, with vibrating antennæ and palpi, sometimes going over very nearly the same ground again and again, which they would hardly do if they chiefly depended upon their eyes; and were any odour given forth which led them to their victims, these flies would hardly wander about in the manner we see. It is quite possible they may detect even the larvæ of Tortrices by the feel of the leaf enclosing these, though the larvæ themselves are screened.—*J. R. S. C. in Hardwicke's Science Gossip.*

ANTS AND "THE TAINT OF THE HAND."—In *Nature*, July 24, Mr. James D. Hague, writing on the habits of ants, attributes their dislike to the place across which a finger has been drawn to "the taint of the hand."

Now, sir, I have frequently drawn a line with a piece of chalk across the track of ants, and observed in them the same symptoms of dislike as Mr. Hague's ants showed to the finger-mark.

I have also drawn a small circle with chalk around one or more ants, who will seek a spot untouched by the chalk through which to make their escape; but should there be no such opening, they will presently cross the circle. If, however, this enclosure be made upon a perpendicular wall, &c., they will frequently drop to the ground rather than walk across the line.

Now, as I have never observed this same dislike—exhibited by dropping—of the "taint" when ants have been running over my hands, and as the chalk-line has the same effect as the finger-mark, may it not be something else than the "taint of hand" to which the ants object when their usual track is interfered with?—*G. E. E., Nature.*

We quote the following from the excellent "Entomological Record," by Prof. Townend Glover, in the monthly report of the Department of Agriculture, Washington, for October, at the same time thanking our

esteemed friend for his kindness in sending us so regularly this valuable report :

“GRAPE-VINE BORERS.—Mr. Fred. J. Kron, of Albemarle, North Carolina, in a letter to the Department, complains bitterly of the injury done to all varieties of grape-vines by the grape-vine borer, *Ageria polistiformis*, described and figured in former reports of the Department (1854, p. 80, and 1867, p. 72). Mr. Kron states the insect has destroyed for him one hundred and seven varieties of grapes, derived from the Luxembourg, in Paris, including some five thousand vines ; and adds that there is but one variety that has, so far, defied its ravages, and that is the Scuppernong, which flourishes in the midst of the devastation caused by the borer, all round it. Mr. Kron likewise stated that he found a Phylloxera on Clinton root, and adds : “The insect has been noticed here for more than thirty years,” but he does not complain of its doing much injury.”

“In connection with this last-named insect, so destructive to the grape-vines of France, Mr. Gaston Bazille, vice-president of the Agricultural Society of Herault, publishes a remedy for the Phylloxera, which is translated and republished by Mr. Charles V. Riley, in the New York *Tribune*, as follows :”

“Three holes are made around the injured or infested vines, varying the depth according to the nature of the soil, but generally  $2\frac{1}{2}$  feet. These holes were made in the experiments reported by means of a pointed iron bar and a heavy maul. A tube, with a funnel attached, is placed in the hole, two ounces of sulphuret of carbon are poured into the tube, which is then closed with a cork. The vapor of the sulphuret of carbon permeates the soil and impregnates all the roots of the vine. The gas engendered (though not the case with the liquid) is not fatal to the vine, but is sure death to the insects. Four ounces of the liquid has been found sufficient for an ordinary vine ; but sprinkling on the surface must be carefully avoided, as it is in such a case very injurious to the vine, whereas a pound may be used in the soil without injury to the roots.”

HOW TO SEND OBJECTS THROUGH THE POST.—I am often grieved on reading your “notices to correspondents,” to see the complaints of articles being received in such a “smashed” state as to be useless; and in your num-

ber for this month it is recommended to enclose them in a tin box to withstand the energy of the post-office officials. But even that is not safe; for though the said box itself may not be broken by the tremendous whack the said officials usually lay on, yet still, very delicate objects inside may be injured by concussion. In short, there is a better way, by which I have sent microscopic objects hundreds of miles and numerous times, without the slightest injury. It is as follows: It is quite a mistake to place stamps upon the box itself. They should be fixed to one of the common luggage labels, which is then attached to the box by a reliable piece of string, so as to separate it from the box by about two inches. The "official" may then whack away at the luggage label to his heart's content, and no harm be done. In this case the box need not be strong; and, to prove this I now send, for your acceptance, a very fine specimen of the *Chirodota violacea*, popularly known as "Pharaoh's chariot-wheels." The containing box, you see, is purposely slight; and yet, I will venture to say, you will receive the slide uninjured; and, if so, I hope you will inform your readers of the fact, and draw their attention to the impropriety of placing their stamps on the box. I will merely add that by the "common luggage label" I mean those made of paper pasted on cloth, and having a small ring at one end. They are sold by the dozen at almost every stationer's shop. I must add that I do not claim the merit of the invention. It is by no means new, but, nevertheless, does not appear to be known to many. One more remark. The address should be written (as you see I have) on the label itself; and, though not absolutely needful, it is a good plan to wrap the box in black paper, which prevents all temptation to stamp it, as in that case the stamp will not be seen.—*H. U. J.*

[Our correspondent is quite right. His frail box reached us safely, and we cannot but be glad of the post-office energy which has happened so fortunately for us!—*Ed. Science Gossip.*

We heartily concur in the remarks of H. U. J. It is most grievous to have fine specimens so ruthlessly smashed, as we sometimes receive them, beyond any possibility of recognition. We are glad to state that this method of attaching a stout paper-and-cloth label, which we know in this country as a tag, and putting the address and stamps on it, instead of the box, has already been adopted by some of our correspondents. We received a few days since from a friend in San Francisco a box containing several

delicate moths, which packed with this provision, reached us unhurt.

Having given at pp. 199, on the authority of the "Gardener's Monthly" for October, some remarks on Phylloxera said to have been made by Mr. C. V. Riley, we gladly make room for the following correction in the "Monthly" for November, just at hand :

"PHYLLOXERA—CORRECTION.—Friend Meehan : In your October issue, speaking of some remarks of mine before the Academy of Natural Sciences, you have the following, the italics being mine :

Prof. Leidy inquired of Mr. Riley the true position of the insect in scientific classification ; Prof. Riley replied that it was not yet well settled. *Its appearance brought it somewhere near the aphids, but it did not have successive broods from one impregnation ; aphids did.* In this respect it approaches *coccus*. He thought it between the two families.

I am sure I said no such foolish thing. What I did say was that the insect belonged to the sub-order *Homoptera*, and that while it was at present classed with the plant-lice (*Aphididæ*) it bears close relation to the bark-lice (*Coccidæ*). *Phylloxera* multiplies agamically, like all the *Aphididæ*, and therefore does produce successive broods from one impregnation.

Yours truly, C. V. RILEY."

#### BOOKS RECEIVED.

- Die Larven von Ascalaphus, von Dr. H. Hagen, 8vo., pp. 64.  
 On the larvæ of the Hemerobina, by Dr. H. A. Hagen, 8vo., pp. 6.  
 On the Butterflies of Anticosti, by Aug. R. Grote, 8vo., pp. 1.  
 Report on Pseudoneuroptera and Neuroptera of North America in the Collection of the late Th. W. Harris. By H. A. Hagen, 8vo., pp. 39.  
 Revision of the Genera and Species of the Tribe Hydrobini, by George H. Horn, M.D., 8vo., pp. 20.  
 Revision of the Several Genera of Meloidæ of the United States, by George H. Horn, M.D., 8vo., pp. 29.  
 Contributions to Entomological Bibliography up to 1862, by Albert Muller, F.L.S. Nos. 1 and 2. 8vo., pp. 24.  
 Catalogue of the Pyralidæ of California, with Descriptions of new Californian Pterophoridæ, by A. S. Packard, jr., 8vo., pp. 15. (From Ann. Lyc. Nat. Hist., N. Y., vol. x, No. 9, 1873.)  
 Le Naturaliste Canadien, Sept., 1873.  
 Nature, to October, 1873.  
 Monthly Reports of the Department of Agriculture, August, September and October.  
 Bulletin of the Buffalo Society of Natural Sciences, vol. i, No. 3, Aug., 1873.  
 Scottish Naturalist, April, July, October, 1873.