

As soon as the first specimens were dry, I sent examples to Prof. Riley, who determined them as *Attacus cinctus* Tepper, first described and figured in the "Bulletin of the Brooklyn Entomological Society for January, 1883."

One fact in connection with these specimens struck me as singular, viz., that not one of my thirty or more pupæ were parasitized. With us so large a proportion of Bombycid pupæ, under natural conditions, are destroyed by *Ichneumonidæ* and by *Chalcis* and *Tachina* flies, that I confidently expected to get something new in this line also.

Mr. Tepper's types were collected in Southern Arizona, but he does not tell us the species of tree on which they were found. Neither was Mr. Mendenhall quite certain that he had been correctly informed concerning the Mexican tree from which he made *his* collection. Consequently the food plants and larval history of this magnificent species still remain to be investigated by some entomological explorer in southern latitudes.

CITHERONIA REGALIS, HUBNER.

BY FREDERICK CLARKSON, NEW YORK CITY.

In a late number of this journal, Mr. Hamilton makes some criticisms upon an article contributed by me to the January number, having reference to the transformations of this moth. That article was prepared having regard, as a matter of course, to the climate of this locality, and as the specimens referred to were developed in the one season, the question of variation of temperature was not under consideration. That the transformation of the pupa can be furthered or delayed by atmospheric conditions, is well established; a warm room developing the imago at an earlier period than natural, and an ice-house holding it in check over one season, to be developed when restored to the climatic influence of another. My point was, from facts ascertained by rearing in confinement, with surroundings as near natural as possible, that the period of pupation, whether early or late, did not create an earlier or later development of the imago, which commonly occurred at the end of May. The history of the transformation of this moth under natural conditions, would be more satisfactory than that which results from rearing in confinement, and I regret that my town residence in winter denies me this study. That extraordinary

seasons further or hinder the advent of insects, is undoubtedly true, but as a general rule their time-table is quite as exact as the migratory birds.

I think it may be problematical as to whether the pupa remains beneath or upon the surface of the ground during the winter. My experiments, after having made the most natural provision at hand, have resulted in the pupa appearing upon or near the surface, and I would add that I find by my records that a larva obtained the previous season to that mentioned in the article already referred to, transformed in the same manner, the moth appearing on the 28th of May. My theory, in the absence of more essential data, is that the pupa of this moth, in its natural state, seeks the surface and finds security under the winter leaves. I have read with much pleasure what Mr. Hamilton writes with regard to this question, but it seems to me that the only satisfactory test, other than natural, would be in the use of soil common to the growth of the hickory, as that which is the most likely habitat of this species at this period of its history, giving to the pupa when thus conditioned the full service of all climatic changes. The provision as recommended by Mr. Hamilton is somewhat in agreement with what I have stated. He writes: "Take two parts of sandy loam, such as is used by plasterers, and one part of black friable soil from the woods, mix together * * and when the larva disappears cover over with a layer of moss, and then the pupa will not come to the surface." This effectually imprisons the pupa, and it becomes a matter of curious enquiry if the larva, in order to transform, could have selected a spot similarly conditioned.

ON TROGODERMA ORNATA, PHYSONOTA UNIPUNCTATA
AND TANYSPHYRUS LEMNÆ.

BY JOHN HAMILTON, ALLEGHENY, PA.

Trogoderma ornata. Since the publication of the remarks in vol. 15, p. 91, more has been learned concerning this pest. That it disclosed without entering the earth was eventually made evident by several of the beetles being found in a large, close box, just emerging. Why they should disclose in a large box and not in a small one was not very obvious. At last the thought occurred that hygrometric differences in food and atmosphere might account for it. Having some of the larvæ reared in a small wooden pill box, at the usual time for pupation some of these were placed