April 4, 1901.*

The 160th regular meeting was held at the residence of Dr. T. N. Gill, 1608 Q street N.W. Dr. Dyar occupied the chair, and in the absence of the Recording Secretary Mr. Ashmead was appointed Secretary *pro tem.*

—The first paper was by Dr. Dyar, and was entitled:

TO WHAT SPECIES SHOULD THE NAME ACRONYCTA HAMAMELIS GUENÉE BE APPLIED?

By Harrison G. Dyar.

Guenée gives a comparative description of the moth and a description and figure of the larva under the name *hamamelis*. We have a rather rare species feeding on the witch hazel (*Hamamelis virginica*) in the larval state which agrees with Guenée's larva. It feeds only on this plant, and no other species of Acronycta so feeds to my knowledge. Therefore it would have been eminently proper if the name had been retained for this species. However, Grote, who became our first authority on the North American Noctuidæ, applied the name to an oak-feeding species and named the witch-hazel feeding one *subochrea*. After this, confusion grew apace. Butler identified *subochrea* Grote with *impleta* Walker. Smith, who succeeded Grote as the authority on our Noctuidæ, accepted that determination, but referred both names to *brumosa* Guenée (the larva of which, according to Guenée, is the oak-feeding species called *hamamelis* by Grote). Finally, after a visit to the British Museum and an examination of Guenée's "types," Smith overturned all previous determinations applying the name *hamamelis* to *afflicta* Grote (another oak-feeding species), restoring *subochrea* Grote to the witch-hazel species and proposing a new name (*inclara* Smith) for the oak species called *hamamelis* by Grote. *Brumosa*, which should by the larva apply to this species (*inclara*), is referred to *persuasa* Harv., a species not yet known in the larva.

The name *hamamelis* Guenée has therefore been applied first to *inclara* Smith, and lastly to *afflicta* Grote. In my opinion it is referable to neither, but to the witch-hazel species (*subochrea*). As to *afflicta*, Guenée's description positively contradicts that species. *Afflicta* has pale hind wings, and Guenée says that those of *hamamelis* are "comme chez *rumicis*," that is, dark gray. As to *inclara*, the description is nearer, and it is very conceivable how Grote, not knowing the larva, could have made this ref-

* The minutes of this meeting were lost.—Publication Committee.

erence. Guenée, however, says his species is very near to *rumicis*, with the same design and nearly the same colors, and this is strikingly true of the witch-hazel species (*subochrea* Grote), whereas *inclara* Smith certainly differs somewhat in design. Guenée's so-called types in the British Museum should not weigh against his descriptions. The descriptions were published fifty years ago and are the ultimate standard, whereas the "types," after transportation and arrangements, are only now invoked. Therefore, I conclude that *Acronycta hamamelis* Guenée should be applied to the Hamamelis Acronycta, and the disagreeable misapplication of the name may be hereafter avoided.

—The last paper was by Prof. Cook, and entitled:

EVOLUTIONARY INFERENCES FROM THE DIPLOPODA.*

By O. F. Cook.

A large proportion of evolutionary arguments and theories have been based upon studies of the characters and habits of such groups as the mammals, birds, insects, and flowering plants. Among these higher organisms there are many acute struggles for existence, and many striking specializations and adjustments to environment have been discovered. As primary evidence of extensive adaptation we have the fact of great diversity in habits and habitats among the members of each of these classes of organisms, and it has naturally been supposed that in some manner still unexplained the varied conditions and the selective influences of the ever present competition have induced the changes responsible for the existing variety of form and structure.

As a test or "control" of such inferences no better experiment could have been devised than the Diplopoda or "thousand-legged worms," a class of animals of great antiquity, some Carboniferous types not differing greatly from those of the present day. Since the Coal Period the insects have sought openings in all parts of creation, and have accomplished the most complex and wonderful adaptations to other animals and plants and to each other. They have distributed themselves over the whole earth, not excepting the air and water. The conservative diplopod, on the contrary, has shown no such enterprising tendencies. His ancestors chewed for a livelihood on Sigillarian stumps of Nova Scotia, and though the Sigillarias have been extinct for ages his predilection for rotten

* The inferences here presented were afterward summarized and formulated as "A Kinetic Theory of Evolution." (*Science*, N. S., XIII, 969-978, June 21, 1901.)