too much of heredity here? No doubt its importance cannot be exaggerated. But if, as the author admits, "the early appearance of the sympathies depends upon an early development of mental functions which are properly dormant until later in life," may not the cruelty of children be an incident of ignorance, and not due to the entire absence of pity? As admitted, pity is a state of mind which belongs to the reflective stage of consciousness, when we are able to compare ourselves with others, and, in however indistinct a form, to apply the method of doing as we would be done by. It is quite possible that children know nothing about the pain they inflict by cruelty and torture. They may be governed in their conduct by much the same curiosity that prevails to permit vivisection, and most probably never inflict pain for the sake of creating suffering. Blind Tom, when a boy, used to pinch and torment his brothers and sisters until they cried, and all for the sake of the pleasure he himself received from a new and peculiar kind of sound, his mind being interested in all sounds alike, and passing no intellectual or moral judgments upon their occurrence. It is no doubt much the same with most children until their experience enables them to realize a 'solidarity' of interests between themselves and others. Then they will begin to show sympathy and to shrink from producing pain, not because it is hereditary, but because social environment exerts such a pressure in favor of learning the consequences and moral significance of our actions. At the same time heredity cannot be ignored. But the phenomena of cruelty and pity are much more complex than heredity, while including it. Besides, it may be misleading to say that "the emotion of pity appeared late in the history of the race;" for it may not have been so much the sympathies that appeared late as the extent of their application. So of the individual. Pity may be instinctive, but the complicated range of circumstances which require its exercise may demand more knowledge and experience than are possible to childhood. Indeed, children may very early begin to cry from sympathy at the spectacle of suffering in others, when conscious of it, but are indifferent to its infliction upon animals, most probably because they do not realize any thing about it. Pity will show itself, then, in proportion to the extension of their knowledge of what is reciprocal to their own interests or sense of pain. Hence may we not say of sympathy, both in the race and in the individual, what T. H. Green said of humanity in comparing Greek and modern civilization; namely, that the standard of conduct in this respect was the same to the Greek as to us, but that more persons are to-day included in the right to be judged by it? That is, "the conviction of the brotherhood of all men does not bring a new conception of what is due towards those who have claims upon us, but a new view of the range of persons who have such claims." Certainly it seems a little violent to suppose the absence of sympathy altogether because the extensive conditions under which it is exercised at present were wanting in the earlier history of the race or of the individual.

J. H. H.

The Purslane-Worm (Copidryas Gloveri Grote).

DURING the past season the entire State of Kansas has suffered an invasion of caterpillars of a species not previously known to exist except upon the plains of Colorado, New Mexico, Arizona, and western Texas. This insect has occurred in such numbers as to suggest to many of our citizens the idea of spontaneous generation, and the writer has received many inquiries indicating alarm lest it should prove to be a new edition of the real 'army-worm,' and become a great crop-destroyer in the year 1888. Such fears, however, are entirely groundless. I have not been able to make the caterpillars eat any thing but purslane; and the insect may be regarded as a friend rather than a foe, since its chief mission in life appears to be the destruction of one of our most troublesome weeds.

The eastward progress of this species reminds one of the similar advance of the Colorado potato-beetle. My first acquaintance with it was made in August, 1884, at Deming, New Mex., nearly twelve hundred miles from Lawrence, where I captured some twenty of the moths during my summer collecting-expedition. They were attracted by the lamps at the station-hotel of the Atchison, Topeka, and Santa Fé Railroad Company. They proved to be a rare species in collections, and were in great demand among my entomological correspondents. My next acquaintance with this insect was from two specimens of the moth captured at the electric lights in Emporia, Kan., by my student-friend and assistant, Mr. V. L. Kellogg. Professor Popenoe of Manhattan observed the caterpillars and bred the moth in 1886. Emporia and Manhattan are each about a hundred miles west from Lawrence, and the first observed appearance of the species at the latter place was in 1887. It remains to be seen whether the purslane-destroyer will become acclimated in a moister and colder climate than that of its original habitat. If it succeeds in adapting itself to its new environment, it may push on to the Atlantic seaboard, and delight the farmers and gardeners of the whole country by assisting to exterminate the hated 'pursley.' If not, it will disappear from view, as did a certain New Mexico butterfly (*Colias Mexicana*), which appeared suddenly in Kansas in large numbers in November, 1875, and has not since been observed in the State, having been unable to survive the first winter. Inasmuch as this latter immigrant has already survived one Kansas winter in safety, it is probable that it will become a permanent resident.

I would offer the following explanation of the fact that this insect, indigenous to the Far-Western plains, should so long have delayed its invasion of Kansas and its possible 'march to the sea.' Its native food-plant being a Western species of purslane (*Portulaca retusa* Engelmann), it did not extend beyond its original habitat until the building of the Atchison, Topeka, and Santa Fé Railroad had resulted in the western extension of our common Eastern purslane (*P. oleracea* L.). As soon as the Eastern purslane reached the home of the Far-Western species, forming a sufficiently continuous connection, the purslane caterpillar, finding the two plants equally palatable, began its eastward march. In precisely the same way the Colorado potato-beetle, having for its original food-plant a wild Western species of *Solanum* (*S. rostratum*), began its journey to the Atlantic just as soon as the cultivated potato (*Solanum tuberosum*) was extended westward to meet the wild *Solanum*, commonly called the Texas thistle and Santa Fé burr.

To the entomologist it will be interesting to know that the scientific name of the purslane moth is *Copidryas Gloveri*. It was described by A. R. Grote in 1868 as belonging to the genus *Euscirrhopterus*, but at a later date it was placed by him in the new genus *Copidryas*. Mr. Herman Strecker has referred it to the genus *Eudryas*, but the peculiarities of the caterpillar, hitherto unknown, confirm the propriety of separating it from that genus. It belongs to the family *Zygænidæ*, and is a near relative of the 'beautiful wood-nymph' (*Eudryas grata*) and the 'eight-spotted forester' (*Alypia octomaculata*). As both the latter species feed upon the foliage of the grape-vine, it would not surprise me to find the purslane-worm occasionally making use of the same food-plant. I do not, however, apprehend any serious danger of making such a discovery.

F. H. SNOW.

University of Kansas,
Lawrence, Kan., Oct. 10.

Queries.

15. IS THE TRUMPET-CREEPER POISONOUS? — I should be very glad to hear of any positive evidence in regard to the alleged poisonous property of the trumpet-creeper (*Tecoma radicans*). This beautiful vine is very abundant in this neighborhood, and there seems to be a pretty general belief that it is poisonous to the touch, the effect being like that of the poisonous *Rhus*. I have not, however, been able to get hold of any well-authenticated cases of poisoning from this plant. A child of my acquaintance was said to have been poisoned from handling it, but it is not at all certain that the eruption was not a return of a slight cutaneous affection from which the child had suffered shortly before. Such cases as this prove nothing, nor, on the other hand, does the fact that I, and others, have handled the plant with impunity. Our immunity may have been due to our individual constitutions. Every one knows, of course, that there are plenty of people who are not at all susceptible to *Rhus*-poisoning, and yet no one would hesitate to call either species of *Rhus* a very poisonous plant. As far as I can learn, the poisonous property of the trumpet-creeper is not generally recognized by botanists. I shall be very glad to hear what the experience of other people has been with this plant.

JOHN MURDOCH.

Smithsonian Institution, Oct. 12.