

within fifty yards of the house was struck, the upper part of the trunk and several of the branches to the end being stripped of their bark, but the lower part of the trunk showing no sign of passage of the lightning.

THOMAS DARLEY.

York, England, July 21.

That Hessian Fly Parasite.

THE item concerning the introduction of a European parasite of the Hessian-fly into this State which is going the rounds of the press, and which I notice you have copied in your issue of July 17, was unauthorized, and is in some respects inaccurate.

The parasites were not obtained originally from the Smithsonian Institution, but were sent me by Dr. Riley, the entomologist of the United States Department of Agriculture, several other entomologists, as I understand, having received them at the same time. This was, in short, an experiment of the Division of Entomology, and not my own.

The parasite is *Semiotellus nigripes*, and, like our native species of the same genus, infests the larva, not the egg.

S. A. FORBES.

Champaign, Ill., July 20.

Information Wanted.

CAN I learn through the columns of *Science* how to interpret the indications of the thermometer with bulb blackened and inclosed in an exhausted glass case?

Are there any accepted formulæ for this so-called solar radiation thermometer, and where can one find the literature of the subject?

F. C. VAN DYCK.

New Brunswick, N.J., July 20.

BOOK-REVIEWS.

The History of Human Marriage. By EDWARD WESTERMARCK. New York, Macmillan. 8°. \$4.

THIS is one of the most elaborate works on the history of social institutions that we have met with. The author is lecturer on sociology in the University of Finland at Helsingfors, yet his book was written by himself in English, which is to him a foreign language. He modestly tells us in his preface that, as originally written, the book contained some un-English expressions, which were corrected by his English friends; but the ease and clearness of the style show that he is a master of the art of expression, and make his work far more interesting than works on such subjects are apt to be. The word "human" in the title of the book is tautological; for there is no marriage known to us except the human, and Mr. Westermarck's attempt to show that the mating of animals is the same thing as marriage is by no means successful. Marriage is a moral institution, and therefore cannot exist except among moral beings; and Mr. Westermarck's failure to duly appreciate the moral aspects of his subject is the principal defect of his work.

As a descriptive history of marriage, however, in the many forms it has assumed, the work could hardly, in the present state of our knowledge, be surpassed. It opens with a discussion of the proper method to be pursued in this and similar inquiries, as to which the author is more prudent than some writers have been. He remarks that "nothing has been more fatal to the science of society than the habit of inferring without sufficient reasons from the prevalence of a custom or institution among some savage peoples that this custom, this institution, is a relic of a stage of development that the whole human race once went through" (p. 2). It was high time to sound this note of caution, and we trust that other inquirers into early history will give heed to it. Having settled on his method of investigation, Mr. Westermarck goes on to present the different phases of his subject, such as the antiquity of marriage, the hypothesis of promiscuity among primitive peoples, the influence of affection and sympathy, the forms of marriage, the ceremonies attending it, and many other matters pertaining to the marriage relation. He shows a very wide as well

as intimate knowledge of the facts, so far as they have been discovered, and both his facts and his arguments will have to be considered by all who may write on the subject hereafter.

His opinions on certain fundamental points are at variance with those of most previous writers, and hence his work is likely to give rise to some controversy. He rejects the hypothesis that promiscuous intercourse was once everywhere prevalent, and his arguments on this point deserve careful attention. In some of his other theories he does not seem to us quite so fortunate. For instance, he maintains that there was in the earliest times a human pairing season similar to that of animals, the sexual passion being dormant the rest of the year; yet he brings no adequate evidence to support this view, and hardly any evidence at all. Again, in speaking of the prohibition of marriage among near kindred, he remarks that savages could hardly have known that such marriages are physically injurious to the race, and so he attempts to account for the prohibition by the principle of "natural selection." He thinks that "there was no doubt a time when blood relationship was no bar to sexual intercourse. But variations, here as well as elsewhere, would naturally present themselves; and those of our ancestors who avoided in-and-in breeding would survive, while the others would gradually decay and ultimately perish" (p. 352). But what we want to know is why some of our ancestors avoided such breeding while others did not; and it is no answer to this question to tell us that, after the two customs had been established, the one prevailed over the other. But whatever may be thought of some of Mr. Westermarck's theories, his work will be indispensable to all students of the early history of mankind.

Justice. By HERBERT SPENCER. New York, Appleton. 12°. \$.25.

THIS is intended to form the fourth part of Mr. Spencer's "Principles of Ethics," of which only the first part had previously appeared. Only the earlier chapters of the book deal with the general principles of justice, the bulk of it being devoted to their application. We cannot say that in our opinion the work is a success, the author's fundamental ideas being vague and inconsistent. His attempt to show that there is such a thing as "animal ethics" is hardly worth discussing; but when he comes to treat of human justice he lays down as its fundamental principle a proposition which will meet with little acceptance from philosophers. He maintains that "each individual ought to receive the benefits and the evils of his own nature and consequent conduct; neither being prevented from having whatever good his actions normally bring to him, nor allowed to shoulder off on to other persons whatever ill is brought to him by his actions" (p. 17). Now according to this rule, if a man in consequence of his own mistake meets with an accident that disables him, it is just for other men to leave him to perish; but most people would say it was unjust.

Mr. Spencer afterward modifies this principle somewhat by the provision that no man shall interfere with the freedom of others; and thus he reaches what he calls "the formula of justice," which is as follows: "Every man is free to do that which he wills, provided he infringes not the equal freedom of any other man" (p. 46). This is a familiar principle of the common law; and it is rather surprising to see it presented in this work as if it was something novel. It is by no means sufficient, however, as a universal rule of justice, as Mr. Spencer himself finds when he comes to deal with the rights of children; for if children were left to themselves merely, without help or interference from older persons, they would die. Accordingly Mr. Spencer falls back upon another principle, namely, the necessity of preserving the species, which makes it the duty of the parents to support and protect their offspring. Thus he lays down two quite distinct principles of justice, and he nowhere takes the trouble to reduce them to one nor to show how they are to be reconciled with each other. He fails, too, as all the associationists have failed, to account for moral obligation. Why should I refrain from infringing the freedom of others if it happen to be for my advantage to infringe it? and why am I bound to preserve the species? Mr. Spencer scarcely touches this question in the body of his