

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

work, but in the appendix he gives a few words to the subject in reply to a critic; yet he shows but a vague conception of what the problem is, and fails as completely as Mill did to solve it.

From the nature of Mr. Spencer's "formula of justice" it will be inferred that his work relates mainly to legal and political justice, and this is the case. Having obtained his formula, he proceeds to deduce from it the principal legal rights that men enjoy in civilized society, such as the right to physical integrity, the right of property, the right of free motion and locomotion, the right of free speech, etc.; and though his deduction is not in all cases quite satisfactory even to himself, it is in the main a success, except, as above stated, in the case of children. He next proceeds to deal with the constitution and functions of the state, and devotes several chapters to a reiteration of his views on the proper limits of state interference with the liberty of the individual, but without presenting anything new. Mr. Spencer's work will be welcomed by those who agree with his extreme individualistic views; but we doubt if it will contribute much to the ethics of the future.

AMONG THE PUBLISHERS.

THE J. B. Lippincott Company, Philadelphia, announce as in press "The Natural History of Man, and the Rise and Progress of Philosophy," a series of lectures delivered by Alexander Kinmont, A.M.

— Professor Arthur Sherburne Hardy has gone abroad for a year, and may, perhaps, go round the world.

— Professor Lyon G. Tyler of William and Mary College has in contemplation a political history of Virginia, for which he has already accumulated a large amount of material.

— H. H. Johnston is writing a book on Livingstone and Central African exploration, which will be illustrated from original drawings by Mr. Johnston and from photographs.

— "I desire to enter a plea for the child," says Henry Sabin in his book, "Organism and System" (Bardeen); "to recall the almost forgotten fact that the supreme object of the child's education is the child himself. Organization and system are but means to an end. 'What is the machine for?' finds its answer in the value of the product."

— The article upon "University Extension and its Leaders," which Professor Herbert B. Adams of the Johns Hopkins University prepared for the July number of the *Review of Reviews*, has been honored by receiving the first prize offered by the regents of the University of New York for an article upon university extension. The English edition of the *Review* last year offered a prize of \$1,500 as a three-year college scholarship to the English girl who should pass the best examination in contemporary history and politics, the examination to be based upon articles and discussions appearing in the *Review* from January to December, 1890, inclusive. The award has recently been made, and in the American edition of the *Review* for August there appears an account of the prize and its award, together with portraits of the two young ladies between whom the first prize was divided, and of two others who won the second and third prizes. The "Progress of the World," in the August number, opens with a discussion of Chicago and the World's Fair, from the pen of Dr. Albert Shaw.

— The recent issues of the "Papers of the American Historical Association" contain some articles of interest. The double number for January and April has a paper by Mr. John Jay on the "Demand for Education in American History," in which he presents the well-known arguments for the necessity of such education, but without adding anything new. Mr. Charles M. Andrews discusses "The Theory of the Village Community" in a way that will not be gratifying to the school of Freeman and Maine; for he shows their views as the democratic constitution of the early communities has no real basis in fact and very little support from analogy. Mr. W. H. Mace has an article on the "Organization of Historical Material," which will doubtless be

suggestive to young historians, though it contains nothing specially novel. There is also an interesting paper on Bismarck's career, with others on various topics. The July number contains a long and elaborate account of "The Fate of Dietrich Flade," who was a judge in the Rhenish town of Trier, and was put to death in 1589 for the then heinous crime of witchcraft. Professor Burr in this article, however, makes it pretty certain from newly discovered evidence that Flade's death was really due to the malice of his personal enemies. This number also has articles entitled "The Philosophic Aspects of History" and "Is History a Science," neither of which sheds much light on the subject, and closes with a paper by Mr. J. G. Bourinot on "Canada and the United States," in which the author takes strong ground against annexation. The "Papers" are published by Putnam at four dollars a year.

— Messrs. Macmillan & Co. announce that they are now issuing a new edition of "The Cambridge Shakespeare." This well-known text was originally published in 1863-6. It has been for many years out of print, and second-hand copies have only been procurable at high prices. A new and revised edition has long been contemplated, but has been postponed in order that Mr. W. Aldis Wright (the surviving editor) might go carefully over the whole work in the light of the most recent textual criticism of Shakespeare. This has now been done, and it is hoped that the Cambridge edition, which may now be considered as in its final form, may be found most satisfactory.

— Messrs. Funk & Wagnalls, publishers, announce that their new "Standard Dictionary of the English Language" will probably be issued early in 1892. In a recent presentation of the plan of the work, now well under way, the publishers state that it will embody many new principles in lexicography, and will contain nearly twenty-two hundred folio pages, with over four thousand illustrations made expressly for it. It will contain some two hundred thousand words. Among the hundred or more editors on the staff of the new dictionary we find the names of Professors F. A. March, Simon Newcomb, N. S. Shaler, W. B. Dwight, Thomas H. Huxley, E. E. White, F. Max Müller, and Daniel G. Brinton; also Otis T. Mason, Dr. T. Mitchell Prudden, Rear-Admiral Luce, Gen. O. O. Howard, Benson J. Lossing, Hon. Carroll D. Wright, Anton Seidl, Henry M. Stanley, H. H. Bancroft, Robert Grimshaw, Alfred Ayres, and Alexander Graham Bell. Among the chief distinguishing characteristics of the work, as set forth in the prospectus, are the following. In the definition of a word the most common meaning is given first, preference being given to the "order of usage" over the historical order; for showing the pronunciation a "scientific alphabet" is used, which has been prepared and recommended by the American Philological Association and the American Spelling Reform Association; disputed pronunciations and spellings are referred to a committee of fifty leading philologists, writers, and speakers; a committee of five representative scholars will pass upon all new words admitted; strictly obsolete and dialectic words, and such foreign words as are rarely used, are placed in a glossary in the appendix; handicraft terms are grouped under the various trades, the more important being also given in their vocabulary places. The German double hyphen is used in compound words; and the different parts of each science are so treated that the student can easily trace the definition of all its branches, and have before him the full meaning of the science; that is, while the terms belonging to each branch or subordinate branch of a science are defined in their proper vocabulary places, the references to their superior and subordinate branches are so given that the definition of the science as a whole can easily be traced and collected, and when so collected will be found by the student to be a full and harmonious exposition of the entire science.

— From Allyn & Bacon, publishers, Boston, we have received "Primary Batteries," a well arranged and practical little volume of nearly two hundred pages, by Henry S. Carhart, A.M., professor of physics in the University of Michigan. Notwithstanding the many works on electrical topics that have made their appearance in the past few years, the particular branch of the subject covered by Professor Carhart's book has been comparatively neglected, the