date a certain number of those obscure problems which concern the nature and therapeutic value of mineral waters. One of the most original memoirs produced at the congress was that of Dr. Schlemmer, on microbes and thermal waters. According to the author, there is found a certain number of microbes in these waters; but, far from offering any danger, the microbes of mineral waters seem, on the contrary, to possess beneficial properties. It is thus that in certain springs of Vichy, Chantemesse and Frémont have isolated a micrococcus possessing a most pronounced digestive power on albuminoid alimentary substances, which it transforms into peptones. With the knowledge of this fact, it will be seen that it is impossible to imitate this natural mineral water by the aid of the bicarbonate of soda. No artificial chemical combination would be capable of conferring on a water this microorganic life, any more than of conferring upon it the electro-dynamism of telluric elaboration. The origin of the gases contained in the mineral waters was well demonstrated by Dr. Labat. He stated that whether they proceed from the air or from watery vapor, or whether they are manifestations of the soil or of volcanoes, the gases do not ordinarily play a preponderating $r\hat{o}le$ in the curative action of mineral waters. Nevertheless, nitrogen is an agent distinctly sedative and anti-catarrhal; sulphuretted hydrogen, a modificator of the skin and of mucous membranes; carbonic acid, an excitant of the blood-vessels and nerves. It is capable, for instance, of arousing the languishing functions of the digestive mucous membrane.

BOOK-REVIEWS.

The Life-Work of the Author of Uncle Tom's Cabin. By FLO-RINE THAYER MCCRAY. New York, Funk & Wagnalls. 12°. \$2.

THIS book contains both a biography of Mrs. Stowe and an analysis of her principal works. It is written with the approbation of the Stowe family, who have supplied information on certain points. It contains much that is interesting, and, so far as facts go, gives a fair picture of Mrs. Stowe and her work. But it is marred by an overflow of "gush," which is neither pleasing nor improving to the reader. Mrs. McCray is so enthusiastic over her theme that she can hardly write soberly, even in the most commonplace passages, and some of the most ordinary personages assume in her eyes the character of heroes. Thus, she says that certain sermons on intemperance by Lyman Beecher "shook the world," and that Professor Stowe on another occasion "spoke eloquently and with magnetic force," and "stood forth a commanding figure upon the arena of the world's advancement." Of course, Mrs. Stowe herself is still more highly lauded. The book is a handsome one, but is marred by bad punctuation and by frequent misspellings, such as "Arabian Knights," "Thomas Carlisle" for "Thomas Carlyle," Henrick Heine" for "Heinrich Heine," etc. Still the work has an interest from its subject, and also from the sincerity and earnestness of its author.

Hypnotism: Its History and Present Development. By FREDERIK BJÖRNSTRÖM, M.D. Tr. by Baron Nils Posse, M.G. New York, Humboldt Publ. Co. 8°. 75 cents.

THE general aspects and methods of hypnotism may be now regarded as sufficiently well understood to make a detailed review of the contents of a general résumé of the subject unnecessary. As, however, the available literature of standard merit in English is small, and much of this is in the way of translations, it may be useful to call attention to the present essay of an eminent Swedish physician, especially as its general accessibility will provide it with a large body of readers. The work is purely expository in character, and offers about as convenient an introduction to the subject as we have in English. The topics are well selected, the points clearly stated, and the whole fairly represents the present status of investigation upon this vexed phenomenon. A general historical introduction is followed by a chapter defining the ordinary hypnotic condition, according to various authorities. The method of hypnotizing and the stages of hypnotism are next interestingly discussed. The so-called "unilateral hypnotism" is needlessly honored with a special chapter, though the physical and the psychical effects of

hypnotism are more satisfactorily treated in succeeding chapters. As is proper, most space is given over to the phenomena of suggestion; in which, however, the selection of cases is not as judicious as it might be, considering the needs of the general reader. The concluding chapters treat of hypnotism as a remedial agent, as a moral remedy, in relation to the law, and, finally, its abuses and dangers. Considering the short space at command, the topics are fairly presented except the last, which concerns itself rather uselessly with Parisian methods of deceiving the credulous. The chief defect of the work, however, lies in its placing too nearly on a par views and theories the evidence for which is still regarded by the most able investigators as very different. This is true of the "hemi-hypnotic" phenomena; but it is still truer of the "mental suggestion," or telepathic experiments, to which entirely too much space is devoted. This somewhat uncritical treatment of the outlying fields of hypnotism is certainly the chief defect of the work. In spite of this, however, the work is a valuable addition to the easily accessible literature of the topic, and can safely be placed in the hands of the general reader, especially if he bring to the reading of it the understanding that the views expressed are partly individual, and partly prematurely positive.

Practical Electric Bell Fitting. By F. C. Allsop. London and New York, Spon. 12°. \$1.25.

THIS treatise on the fitting-up of electric bells and the apparatus necessary therefor supplies just the information on the subject that would naturally be needed by the average workman. Beginning with the proper way to join two pieces of wire, it goes carefully through all the ramifications of the subject, explaining, in a manner not easily misunderstood, each step, by means of well-worded text and a sufficient number of illustrations. The author shows that he not only thoroughly understands his subject, but that he knows how to treat it clearly and exhaustively without saying a word too much. Much of the thoroughness of the treatise is due, no doubt, to the manner in which it first appeared, or, rather, to the way in which it grew from that part of it which first appeared. The work was first published as a series of papers in a technical journal, and their favorable reception induced the author to re-issue it in book form, taking the opportunity to revise it according to the light gained by the comment and criticism accorded it in its serial form. Much additional matter was added also, the result of numerous questions addressed to him on the subject from time to time.

The points treated are grouped as follows. The first chapter is devoted to wiring, soldering, and joining wires, and earth connections. This is followed by a chapter on pushes, pulls, contacts, and switches, and another on bells, relays, and indicators. Batteries and the magneto bell have each a chapter devoted to them, followed by one on connecting-up. The last two chapters treat of the localizing of faults and of portable sets of apparatus. The book contains nearly a hundred and fifty explanatory engravings.

Proceedings of the Society for Psychical Research. Pt. XIV. June, 1889. London, Soc. Psych. Research. 8°.

THE varied contents of this issue testify to the vigorous activity of the society in the directions inaugurated in former publications. The most interesting and novel contribution is upon the curious phenomena of crystal-vision, an account of which will appear elsewhere in Science. The president's address is very brief, and contains hardly more than a report of progress, with renewed protests against misinterpretation of the society's work. A paper by the late Edmund Gurney, completed by F. W. H. Myers, treats of apparitions occurring soon after death, and in part refers the frequency of such apparitions to the emotional disturbances connected with the decease of a friend, and in part considers the matter as of super-normal significance. It cannot be said that any essential advance is made in the present discussion of cases. Mr. Myers also writes suggestively, though with a disproportion of introduction to thesis, upon the Dæmon of Socrates, explaining this vexed question as the appearance of the unconscious mind of Socrates through the medium of spoken language, just as the subconscious "strata of personality" reveal themselves in automatic writing. In the supplement we have an account of some very heterogeneous and unsatisfactory experiments in various fields of psychic research made at Pesaro, and a review of a recent German work on hypnotism. The society has decided to collect a library in honor of the late Mr. Gurney, to contain works in the special fields of his labors. A catalogue of the library is appended, and contributions are invited.

AMONG THE PUBLISHERS.

- THE J. B. Lippincott Company will soon publish "As You Like It," forming the eighth volume of the new variorum Shakspeare edition, edited by Dr. Horace Howard Furness. This edition of Shakspeare throws much light on these dramas, and gives an interesting compendium of what has been written about
- Houghton, Mifflin, & Co. will publish shortly "Standish of Standish," a story of the Plymouth Colony, by Mrs. Jane G. Aus-
- D. Appleton & Co. have nearly ready "Five Thousand Miles in a Sledge - Midwinter's Journey across Siberia," by Lovel F. Gowing; and David A. Wells's new work, "Recent Economic Changes, and their Effect on the Production and Distribution of Wealth and the Well-being of Society."
- Fleming H. Revell, Chicago and New York, publishes this week a series of thirty maps and plans of the entire world as known in Scripture. The series is entitled "Revell's Biblical Wall Atlas," and was prepared by T. Ruddiman Johnson, who has availed himself of the results of the latest geographical research, including the recent surveys of the Palestine Exploration Fund, together with every benefit of the most accurate modern scholarship.
- The next edition of the "Naturalists' Directory" (Boston, S. E. Cassino) will be issued early in 1890. Any list of the names of scientific men that are not already represented in the work will be thankfully received. While the new edition will be as complete as possible in American names, it has been thought best to exclude from the lists of foreign countries the names of all persons who do not reply to the blanks or letters sent them, thus making it a more useful exchange list. Unless a sufficient number of subscribers is received to meet the expense of publication, the book will not be
- The September Bulletin of the Ohio Agricultural Experiment Station contains five articles discussing the results of experiments in preventing the injuries of the plum curculio, striped cucumber-beetle, currant-worm, and various other injurious insects, and also an important experiment with remedies for potato-rot. These experiments were carried on by the entomologist and botanist of the station, Clarence M. Weed, and the bulletin is illustrated with numerous original engravings. It will be sent free to any Ohio farmer who requests it. The address of the experiment station is Columbus, O.
- Babyhood for November opens up the question of how to meet the increasing demand for intelligent nursery-maids. It is a subject in which all mothers of young children are interested, and the methods proposed by Babyhood for raising the standard of nurse-

girls deserves careful consideration. No less important to parents is the warning as to growing pains given by Dr. J. Lewis Smith. "Nursery Cookery," "Nursery Helps and Novelties," may be mentioned among the topics discussed in the current number.

- "Origin and Formation of the Hebrew Scriptures," to be published soon by Lee & Shepard, Boston, is the indicative title of Lorenzo Burge's third volume bearing upon the human family in its origin, and in the general trend of the purposes of its creation, and its relation to the Creator, at the same time interpreting the Scriptures, and explaining their relation with mankind. Mr. Burge's previous works in this line of investigation are "Pre-Glacial Man and the Aryan Race;" and "Aryas, Semites, and Jews; Jehovah and the Christ." In his "Origin and Formation of the Hebrew Scriptures," the author presents the arguments as to when, where, under what circumstances, for what purpose, and by whom, were these Scriptures written, from the records of the eminent Persian nobleman and historian, Nehemiah, for many years governor of Palestine, from B.C. 445. The work includes an appendix containing prophecy sustained in the histories of Egypt, Assyria, and Babylon, and a review of what the author terms "radical views of the Bible." "The Heroes of the Crusades," by Amanda M. Douglas, announced by Lee & Shepard, is a history of the Crusades, and a story of the personal incidents and efforts of the Crusaders themselves.
- The Harvard Monthly (Cambridge, Mass.) enters on its fifth year with an appeal for increased support outside the college, because the editors believe that they can give graduates their money's worth. The purely literary side of the magazine is sufficiently known. In addition to this, events have led it more and more into the practical discussion of college questions. The editors purpose henceforth to recognize decisively this part of their field in the twofollowing ways. Heretofore they have accepted nothing shorter than formal articles. In the future, upon any subject which would concern a Harvard graduate or undergraduate as such, they will regularly open their columns to matter such as the *Century* might print under "Open Letters," or the *Nation* under "Correspondence." They will also begin to publish each month, with brief comment, a record of recent events deserving note; not a chronicle of the daily routine, but of whatever changes the daily routine, of college life, including in the latter word every thing from the broader aspects of athletics to the A.B. degree. In gathering the facts, the editors have been promised the aid of President Eliot, so that what information the paper gives will be authentic. All comment will be entirely the editors' own. These two changes will enable graduates at a distance to keep track of developments at Harvard, and so to do intelligent missionary work, and will also give them a better means than in the past of expressing their own views both on student life and on the college government. The editors wish eventually to make the Monthly the recognized organ of communication between alumni, members of the governing boards, and undergraduates. The value to the college of such a medium, it seems to them, would be very great. It depends on graduate support, both in subscriptions and in contributions, how quickly and how thoroughly they can accomplish this end.

Publications received at Editor's Office, Oct. 28.-Nov. 2.

Bell, A. M. Popular Manual of Vocal Physiology and Visible Speech. New York, N. D. C. Hodges and E. S. Werner; London, Trübner. 59 p. 16°. 50 cents. CORSON, H. An Introduction to the Study of Shakespeare. Boston, Heath. 377 p. 12°.

Jury, The. Vol. I. No. 1. w. Rochester, N.Y. W. M. Butler. 18 p. 4°. \$2 per year.

McCray, Florine Thayer. The Life-Work of the Author of Uncle Tom's Cabin. New York and London, Funk & Wagnalls. 440 p. 12°. \$2.

MYERS, P. V. N. Ancient History for Colleges and High Schools. Part I. The Eastern Nations and Greece. Boston, Ginn. 369 p. 12°. \$1.10.

Readers of Science

Corresponding with or visiting Advertisers will confer a great favor by mentioning the paper.

Old and Rare Books.

Catalogue No. 29 nearly ready. Will contain many scarce works pertaining to Natural History, Americana, out of print books, as a whole, interesting.

A. S. CLARK, 34 Park Row, New York City.

BACK NUMBERS and complete sets of leading Magazines. Rates low. AM. MAG. EXCHANGE, Schoharie, N.Y.

NOW IN PRESS.

"FORT ANCIENT."

A large work of 200 pp. with 35 full-page illustra-tions on the greatest of all Ohio Valley Earthworks, and similar enclosures. By Warren K. Moorehead, assisted by scientists

and similar enclosures.

By Warren K. Moorehead, assisted by scientists from Washington.

It is compiled from a careful survey and is correct in all details.

The entire summer was spent in surveying, excavating, photographing and preparing this work.

Fort Ancient consists of 18,712.2 feet of embankment, and in size, state of preservation and importance as an aboriginal fortification is unequalled in this country.

Price of book, \$2 00.

It will be ready for sale Dec. 1st.

Illustrated prospectus mailed free to any address.

Send for one.

WARREN K. MOOREHEAD, Smithsonian Institution, Washington, D.C. Published by Robt. Clarke & Co., Cincinnati.