

combinations as a continuous history. All of this daring proposal leads, of course, to a scientific revolution similar to that accomplished by Lamarck, Darwin, and Haeckel in biology. And this, we have to keep recalling, is not the work of a tyro, but of a *savant* recognized and honored as such in the front rank of physicists the world over. We grant that only those in that rank, and gifted also with rare powers of generalization, can competently weigh the evidence and appreciate the theory which the industry of a long life has presented in these volumes. It is a theory which certainly must wait for final completion; but as a working hypothesis, in the absence of any other, it is a unitizing, completing scheme of nature, invaluable as a suggesting power, and as a centre around which the results of scientific observation and experiment may be intelligently gathered, and then held as parts of one mighty world drama. It may be further said, that, however the author may come short of present sufficient evidence of his hypothesis, he has rendered very dubious, if not wholly untenable, the old notions of matter, and of all chemistry based upon the atomic hypothesis. Hereafter we are to have neither an atom nor a vacuum, but a continuous world of continuous matter, with all of its world creative changes and combinations accounted for by a continuous law formulated in a nomenclature expressive of that unity. The realization of this dream of Newton, Huygens, Young, and their many patient followers, of whom our author is one, would certainly be the crowning glory of our race. To date the solution of both the vital and the material worlds in the same century

would seem to be pressing Father Time too rashly of late; and he may properly leave us to evolve through another century before we reach the sufficient evidences of the true theory of ether and matter, suns and worlds.

T. B. WAKEMAN.

AMONG THE PUBLISHERS.

A COMPREHENSIVE life of Gen. Sherman is about to be published and sold through agents by Hubbard Brothers of Philadelphia.

— John Wiley & Sons announce as in preparation "Ordnance and Gunnery," by Capt. Henry Metcalfe, U.S.A.

— Macmillan & Co. have just published "The Fossil Insects of North America, with Notes on some European Species," by Dr. Samuel H. Scudder. The work is in two volumes, with sixty-three plates and numerous illustrations in the text. These volumes, of which only one hundred copies are issued, form the most extensive work of the kind ever published. Over eight hundred and fifty species are described, most of them being figured on the lithographic plates. The descriptions include, with two or three exceptions, all the fossil insects ever described from North America, besides a large number now first published. Besides the merely descriptive matter, the general student will find essays on the classification, distribution, and geological sequence of the different groups. The term "insects" has been used in a broad sense to include myriapods and arachnids, as well as hexapods, or true insects.

A SYSTEM OF EASY LETTERING.

By J. H. CROMWELL, Ph.B.

Twenty-six different forms of Alphabets. The space to be lettered is divided into squares, and with these as a guide the different letters are drawn and inked. Price, 50 cents, postpaid.

E. & F. N. SPON, 12 Cortlandt Street, New York.

AMERICAN HERO-MYTHS.

A Study in the Native Religions of the Western Continent.

By D. G. BRINTON, M.D. 8°. \$1.75.

THE CRADLE OF THE SEMITES.

By D. G. BRINTON, M.D., and MORRIS JASTROW, JR. Ph.D. 8°. 30 cents.

N. D. C. HODGES, 47 Lafayette Pl., New York.

FOR SALE.—

Sutton's "Volumetric Analysis" (1886)
\$3.75.

Miller's "Chemical Physics"
(Wiley, 1874),

Miller's "Inorganic Chemistry"
(Wiley, 1873),

Miller's "Organic Chemistry".
(Longmans, Green & Co., 1880.)
(3 vols.), \$6.

Roscoe & Schorlemmer's "Treatise on Chemistry"

(Vol. I., Vol. II. Parts 1 and 2, Vol. III. Parts 1 and 2), 1878-84.
(5 vols.), \$16.80.

The price does not include express charges.

SCIENCE BOOK AGENCY
47 Lafayette Place, New York.

Old and Rare Books.

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

"The Week, one of the ablest papers on the continent."—*Descriptive America.*

THE WEEK,

A Canadian Journal of Politics, Literature, Science and Art.

PUBLISHED EVERY FRIDAY.

\$3.00 per Year.

\$1.00 for Four Months.

THE WEEK has entered on its EIGHTH year of publication, greatly improved in every respect, rendering it more worthy the cordial support of every one interested in the maintenance of a first-class literary journal.

The independence in politics and criticism which has characterized THE WEEK ever since its first issue will be rigidly maintained; and unceasing efforts will be made to improve its literary character and increase its attractiveness as a journal for the cultured home. Many new and able writers are now, or have promised to become, contributors to its columns, and the constant aim of the Publisher will be to make THE WEEK fully equal to the best literary journals in Britain and the United States.

As heretofore, PROF. GOLDWIN SMITH will, from time to time, contribute articles. London, Paris, Washington and Montreal letters from accomplished correspondents will appear at regular intervals. Special Ottawa Letters will appear during the sessions of Parliament.

THE WEEK being the same size as "Harper's Weekly," is the largest paper of its class on the continent.

SEND FOR FREE SAMPLE COPY.

C. BLACKETT ROBINSON, Publisher,
5 Jordan St., Toronto, Canada.

THE AMERICAN GEOLOGIST FOR 1891 AND BIEN'S NEW ATLAS OF THE METROPOLITAN DISTRICT,

will be given to New Subscribers to the GEOLOGIST for \$25.00 (which is the regular price of the Atlas alone), if ordered through the GEOLOGIST.

For other premiums see the GEOLOGIST for Nov., Dec., and Jan. Address

THE GEOLOGICAL PUBLISHING COMPANY,
Minneapolis, Minn.

THE BOTANICAL GAZETTE.

A monthly illustrated journal of botany in all its departments.

25 cents a number, \$2.50 a year.

Address PUBLISHERS BOTANICAL GAZETTE,
Crawfordsville, Ind.

Publications of the University of Pennsylvania.

SERIES IN

Philology, Literature and Archæology.

Vol. I. now ready.

1. Poetic and Verse Criticism of the Reign of Elizabeth. By Felix E. Schelling, A.M., Assistant Professor of English Literature. \$1.00.
2. A Fragment of the Babylonian "Dibbarra" Epic. By Morris Jastrow, Jr., Ph.D., Professor of Arabic. 60 cents.
4. The Gambling Games of the Chinese in America. Fán tán and Fák kóp piú. By Stewart Culin, Secretary of the Museum of Archæology and Palæontology. 40 cents.

Ready at an early date.

3. a. *Ἡ πόλις* with the Accusative. b. Note on a Passage in the Antigone. By William A. Lamberton, A.M., Professor of the Greek Language and Literature. 50 cents.

In preparation.

The Terrace at Persepolis. By Morton W. Easton, Ph.D., Professor of Comparative Philology.
An Aztec Manuscript. By Daniel G. Brinton, M.D., Professor of American Archæology and Linguistics.

A Monograph on the Tempest. By Horace Howard Furness, Ph.D., LL.D.

Recent Archæological Explorations in New Jersey. By Charles C. Abbott, M.D., Curator of the American Collections.

Archæological Notes in Northern Morocco. By Talcott Williams, A.M., Secretary of the Museum of Egyptian Antiquities.

a. On the Aristotelian Dative. b. On a Passage in Aristotle's Rhetoric. By William A. Lamberton, A.M., Professor of the Greek Language and Literature.

A Hebrew Bowl Inscription. By Morris Jastrow, Jr., Ph.D., Professor of Arabic.

The Life and Writings of George Gascoigne. By Felix E. Schelling, A.M., Assistant Professor of English Literature.

The Papers of this Series, prepared by Professors and others connected with the University of Pennsylvania, will take the form of Monographs on the subjects of Philology, Literature, and Archæology, whereof about 200 or 250 pages will form a volume.

The price to subscribers to the Series will be \$1.50 per volume; to others and subscribers, \$2.00 per volume.

Each Monograph, however, is complete in itself, and will be sold separately.

It is the intention of the University to issue these Monographs from time to time as they shall be prepared.

Each author assumes the responsibility of his own contribution.

N. D. C. HODGES,

Agent for United States, Canada and England,

47 Lafayette Place, New York, N. Y.

BOOKS: How to get them. If there is any book or pamphlet that you want, write to the Science Book Agency, 47 Lafayette Place, New York.

— E. & F. N. Spon of this city have issued their catalogue for 1891, of books relating to civil and mechanical engineering, arts, trades, and manufactures. It contains 118 pages, and is illustrated.

— Every person interested in the higher education would be interested in the article on "The Growth of New England Colleges," by Professor Arthur M. Comey of Tufts College, which appears in the *Educational Review* for March. It appears to revolutionize the discussion regarding the shortening of the college course, for it contradicts by statistics one basis of the affirmative argument; viz., that college attendance in New England has not kept pace with population. Other articles are one on "The Primary School in the Middle Ages," by Brother Azarias of De

Lasalle Institute; the concluding part of "The Herbartian System of Pedagogics," by Professor Charles De Garmo; one embodying the latest philosophical generalizations regarding "The Psychological Study of Children," by Professor Joseph Jastrow; and discussions of "The Pronunciation of Greek," by G. C. Sawyer; "The Results of the Prussian Commission on School Reform," by Henry Wood; and "Imagination in Mathematics," by Larkin Dunton.

— The principal topics discussed in *Babyhood* for March are "Size and Weight of Infants" (illustrated); "The Ideal Nursery;" "Intestinal Worms," a description of the symptoms which characterize their presence, and the treatment; and "Defects that can be Remedied or Prevented."

Dyspepsia

Horsford's Acid Phosphate.

In dyspepsia the stomach fails to assimilate the food. The Acid Phosphate assists the weakened stomach, making the process of digestion natural and easy.

Dr. R. S. McCOMB, Philadelphia, says:

"Used it in nervous dyspepsia, with success."

Dr. W. S. LEONARD, Hinsdale, N. H., says:

"The best remedy for dyspepsia that has ever come under my notice."

Dr. T. H. ANDREWS, Jefferson Medical College, Philadelphia, says:

"A wonderful remedy which gave me most gratifying results in the worst forms of dyspepsia."

Descriptive pamphlet free.

Rumford Chemical Works, Providence, R. I.

Beware of Substitutes and Imitations.

CAUTION.—Be sure the word "Horsford's" is printed on the label. All others are spurious. Never sold in bulk.

BOOKS: How to Exchange them for others. Send a postal to the SCIENCE exchange column (insertion free), stating briefly what you want to exchange. SCIENCE, 47 Lafayette Place New York.



MEANS

HEALTH, VIGOR, VIVACITY, GOOD MORALS.

Disinfection, to be effective, must be continuous. But one device, namely, the

SHERMAN "KING" VAPORIZER

meets this requirement. This apparatus consists of an iron vessel with a tightly fitting lid, held down with a screw, and inclosing a porous cup, which is saturated with a volatile disinfecting fluid. A small screw valve is arranged on the side of the case. Opening both lid and valve, a current of antiseptic vapor issues, carrying with it the volatile disinfectants.

Simple, Self-Acting, Inexpensive, and Infallible in operation; it absolutely purifies the schoolroom, hotel, dwelling, sleeping car, and all places within doors, however polluted. It is a powerful antiseptic, sterilizes disease germs, preventing infection, and removes all dangerous gases.

Three sizes, \$3.50, \$5.00 and \$8.00. Each Vaporizer sold is filled ready for use. No care except to replenish once in two months at a cost of 4 to 8 cents, according to size.

Illustrated Pamphlet Free. Address

LYON M'F'G CO.,

59 FIFTH AVENUE, NEW YORK,

Sole Agents for the World.

NOTICES.

Facts are stubborn things, as many a guilty wretch could testify who has tried to escape the meshes of accumulating evidence. So are they stubborn when they point conclusively to the superiority of a medical preparation. This is the office they perform for Scott's Emulsion, in so striking a manner that all ought to be convinced. Case after case might be cited of the early stages of consumption, bronchitis (both acute and chronic), and, in fact, all diseases of the respiratory organs, where Scott's Emulsion has effected a cure. Besides, in many cases, it has lessened the severity of the disease known as "la grippe." If you are subject to sudden colds have this valuable medicine on hand, for it is unwise to allow the cold to develop into something worse when the remedy may be so easily obtained. All families should keep it on hand.

PRIZE ESSAYS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

Practical Sanitary and Economic Cooking Adapted to Persons of Moderate and Small Means. By MRS. MARY HINMAN ABEL. 12mo, 182 pp. Cloth, 40 cents.

No. 1. Healthy Homes and Foods for the Working-Class. By Professor C. Vaughan, M.D. Ann Arbor, Mich. 8vo, 62 pp. Paper, 10 cents.

No. 2. The Sanitary Conditions and Necessities of School-Houses and School-Life. By D. F. Lincoln, M.D., Boston, Mass. 8vo, 38 pp. 5 cents.

No. 3. Disinfection and Individual Prophylaxis against Infectious Diseases. By George M. Sternberg, M.D., Major and Surgeon U.S.A. 8vo, 40 pp. Paper, 5 cents.

No. 4. The Preventable Causes of Disease, Injury, and Death in American Manufactories and Workshops, and the Best Means and Appliances for Preventing and Avoiding Them. By George H. Ireland, Springfield, Mass. 8vo, 20 pp. Paper, 5 cents.

The four essays (Nos. 1, 2, 3, 4) in one volume of nearly two hundred large octavo pages, thoroughly indexed. Cloth, 50 cents.

N. D. C. HODGES, 47 Lafayette Place, New York.



DO YOU INTEND TO BUILD?

The "Atlas of Sensible Low Cost Houses, with Supplement" (sent postpaid on receipt of \$2) will aid you, no matter what style of house you may intend to build.

N. D. C. HODGES,
47 Lafayette Place, New York.