

with generalities and seeks to separate facts from principles acquired by hypothetical speculations as well as to define precisely the meaning of terms employed. A methodical and rapid presentment is made of the laws of combination, of chemical equivalence, the atomic theory, of crystallographic laws, and of thermo-chemistry. It is shown that the atomic theory, a beautiful structure in itself, might still be done away with without in any degree undermining the laws of chemical equivalents. Great pains have been taken with the second part of the book, which deals with the metalloids as is evidenced in the exactness of the facts recorded. Original memoirs have in each case been consulted and when there has been doubt or contradiction the authors have verified their decision by actual experiment. So also with those portions treating of industrial chemical processes, modern and practical usage have alone been given passing over former processes in a few words as of historic interest only. This is a relief from the custom of many authors who through lamentable ignorance deceive the student with descriptions of processes as impossible as they are false. In short the features of the work are, an eminently successful departure from accepted notions of chemical text-books, a suppression of old and hoary errors which have descended through these same text-books from our ancestors to the present day, new methods of treatment and new illustrations. Some of the French scientific periodicals have predicted for the "Lecons de Chimie" "a place among the classics which will be as lasting as it is well merited" and such praise we feel confident will be accorded by all who peruse the work.

CHARLES PLATT.

NOTES AND NEWS.

ACCORDING to the State Board of Health of Michigan, the statistics of sickness have demonstrated the law that generally influenza (la grippe) is quantitatively related to the atmospheric ozone—the more ozone the more influenza; and the law that remittent fever is inversely related—the more ozone the less remittent fever. The unusual amount of ozone, the increase of influenza and the falling off of remittent fever shown in the State Board of Health Bulletin for the week ending November 18 illustrate these general laws.

—Bulletin No. 48 of the National Museum contains the collected writings upon Myriapods by the late Chas. H. Bollman. The volume is edited by Dr. Underwood, who also contributes an excellent list of the literature of the N. A. species. The writings of Mr. Bollman are given in their order as published in *Entomologica Americana*, Proc. of United States National Museum, and other publications, and include also many articles which were ready for the printer at the time of Mr. Bollman's death. These latter will be especially valuable to the student of N. A. Myriapods, as they include articles upon the "Classification of the Myriapoda" and a catalogue of the N. A. species. Mr. Bollman described sixty-five species new to N. A., nearly all of which will stand, and when we consider that he was not yet twenty-one years of age at the time of his death we can but regret that he was not spared for further work. The volume just published by the Museum is by far the best work on N. A. Myriapods that has appeared since Wood's paper in 1865.

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For exchange.—Skins of *Aegialites nivosa*, *Ereunetes occidentalis*, *Aunnodramus Ardingi*, *A. rostratus*, *Chamara rasciata henshawi*, etc., for native or foreign skins with full data. Send lists. A. W. Anthony, 2042 Albatross st., San Diego, California.

I have a Beck New National monocular microscope, accessories, microtome, mounting material and a large number of fine slides. Will exchange the whole or in part for a first class type-writer or photograph outfit. A. C. Gruhlke, Waterloo, Ind.

Offered sidebloom eggs of *Bulimus oblongus* and exotic land and freshwater shells in exchange for Helices not in collection. Send lists to G. K. Gude, 5 Gresbach Road, upper Holloway, London, England.

Would like to exchange 100 specimens of Canadian Indian Relics for a photo outfit. E. J. Waters, 33 Hoffman St., Auburn, N. Y.

Wants.

A GEOLOGIST thoroughly conversant with the geology of the Southern States desires an engagement. Has complete knowledge of the economic geology of Iron, Coal, Lignite, as well as Clay and Kiesel. Five years' experience with Geological Surveys. Address K., 509 West Sixth Street, Austin, Texas.

WANTED.—Tuckerman's Geneva Lichenum and Carpenter on the Microscope, Wiley's Introduction to the Study of Lichens. State price and other particulars. Richard Lees, Brampton, Ont.

WANTED.—Icones Muscorum by W. D. Sullivan, with or without Supplement, but both preferred. Address, stating price and condition of books, Dr. G. N. Best, Rosemont, N. J.

WANTED.—A copy of Mascart & Joubert's Lessons in Electricity and Magnetism, Vol. I. Address R. W. Clawson, Vanderbilt University, Nashville, Tennessee.

CHEMIST.—Graduate of a polytechnical school, and studied photographic chemistry in Germany and Austria. Situation teaching or in analytical or experimental laboratory. M. B. Punnett, Rochester, N. Y.

WANTED.—A recent college graduate to assist in editorial work on Science. Those seeking large emoluments need not apply. N. D. C. Hodges, 874 Broadway, New York.

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FAMOUS VOYAGERS AND EXPLORERS.—\$1.50.

Mrs. BOLTON has added to her *Famous* series of books another and an unusually interesting volume, "Famous Voyagers and Explorers." It is hardly comprehensive, as it gives the biographies of only a few typical explorers—Marco Polo, Columbus, Magellan, Raleigh, and the more prominent of our modern American explorers. Doubtless such names as the Cabots, Sir Humphrey Gilbert, De Soto, Cartier, Nansen and others are reserved for a second volume. Mrs. Bolton has a gift for this sort of writing, and she has here brought together a large amount of deeply interesting matter which otherwise could only be obtained by reading through a dozen or more separate volumes. The book is illustrated with several portraits.—*Boston Transcript*.

OUR GREAT WEST.—\$2.50.

THE contents of the volume appeared serially in *Harper's Magazine* and *Harper's Weekly*, in which periodicals they attracted wide attention and favorable comment. Their importance fully justified their republication in a more permanent form. The book affords a more minute insight into the present condition of the West than can be found elsewhere. What it tells is the result of personal experience, fortified by information obtained from the best-informed and most reliable men in the localities under discussion, and set forth with admirable clearness and impartiality. It is a work to be read and pondered by those interested in the growth of the nation westward, and is of permanent standard value.—*Boston Gazette*.

STATESMEN.—\$2.00.

In the preparation of this work Noah Brooks has aimed to present a series of character sketches of the eminent persons selected for portraiture. The object is to place before the present generation of Americans salient points in the careers of public men whose attainments in statesmanship were the result of their own individual exertions and force of character rather than of fortunate circumstances. Therefore these brief studies are not biographies. Mr. Brooks had the good fortune of personal acquaintance with most of the statesmen of the latter part of the period illustrated by his pen, and he considers it an advantage to his readers that they may thus receive from him some of the impressions which these conspicuous personages made upon the mental vision of those who heard and saw them while they were living examples of nobility of aim and success of achievement in American statesmanship.

MEN OF BUSINESS.—\$2.00.

W. O. STODDARD, who has just written a book published by the Scribners, on "Men of Business," tells

how the late Senator Stanford chopped his way to the law. "He had grown tall and strong," says Mr. Stoddard, "and was a capital hand in a hay-field, behind a plough, or with an axe in the timber; but how could this help him into his chosen profession? Nevertheless, it was a feat of wood-chopping which raised him to the bar. When he was eighteen years of age his father purchased a tract of woodland; wished to clear it, but had not the means to do so. At the same time he was anxious to give his son a lift. He told Leland, therefore, that he could have all he could make from the timber, if he would leave the land clear of trees. Leland took the offer, for a new market had latterly been created for cord-wood. He had saved money enough to hire other choppers to help him, and he chopped for the law and his future career. Over 2,000 cords of wood were cut and sold to the Mohawk and Hudson River Railroad, and the net profit to the young contractor was \$2,600. It had been earned by severe toil, in cold and heat, and it stood for something more than dollars.—*Brooklyn Times*.

ORTHOMETRY.—\$2.00.

IN "Orthometry" Mr. R. F. Brewer has attempted a fuller treatment of the art of versification than is to be found in the popular treatises on that subject. While the preface shows a tendency to encourage verse-making, as unnecessary as it is undesirable, the work may be regarded as useful so far as it tends to cultivate an intelligent taste for good poetry. The rhyming dictionary at the end is a new feature, which will undoubtedly commend itself to those having a use for such aids. A specially interesting chapter is that on "Poetic Trifles," in which are included the various imitations of foreign verse in English. The discussion of the sonnet, too, though failing to bring out fully the spiritual nature of this difficult verse form, is more accurate than might be expected from the following sentence: "The form of the sonnet is of Italian origin, and came into use in the fifteenth [*sic*] century, towards the end of which its construction was perfected, and its utmost melodious sweetness attained in the verse of Petrarch and Dante." In the chapter on Alliteration there are several misleading statements, such as calling "Piers the Plowman" an "Old English" poem. In the bibliography one is surprised not to find Mr. F. B. Gummere's admirable "Handbook of Poetics," now in its third edition. In spite of these and other shortcomings, which can be readily corrected in a later issue, this work may be recommended as a satisfactory treatment of the mechanics of verse. A careful reading will improve the critical faculties.—*The Dial*.

Any of the above books will be sent prepaid on receipt of the publisher's price, less ten per cent. The same discount will be allowed on any new book, not a text-book.

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