will, in the first instance, appeal especially to British students, but from one point of view they may still more court the attention of students elsewhere, for, when specimens are unattainable, good descriptions and figures are an exceedingly welcome substitute. Every one must value the facilities for work provided by the elaborate synoptic tables.

Those who can remember the devotion to natural history of the late Mr. Wilson Saunders and the vast and admirable collections of insects which he accumulated from all parts of the world, may be disposed to believe that his son, the author of the present work, was born as well as bred an entomologist. The name of Edward Saunders, to those acquainted with his lifelong studies and with his previous writings, will be an ample guarantee that in this book also they will find the most conscientious accuracy and all the thoroughness of treatment that the subject admits. It is commonly reported in England that the revenue officers of the United States levy duty upon meteorites which descend from the sky, but probably the hemiptera pass the frontier without the least regard to tariffs, or quarantine regulations, or laws against the importation of destitute aliens. How little, then, can the free-trade precincts of Great Britain and Ireland hope to defy the invasion of any new bug that may choose to enter! But, at any rate, the collector who finds within those precincts one of the Heteroptera that has not been described in the volume now under review, may well suspect that it has been recently introduced into them from without.

In a work so sumptuously printed one may be permitted to wonder why there is no index to the plates and why no references are given in the text to the excellent figures which those plates contain. As a matter both of good taste and convenience it would surely also have been better to give in full the names of authorities, instead of such abbreviations as Muls. and Put. for Mulsant and Puton. The reader may find a chance of guessing that Boh. and Fall. stand for Bohemann and Fallen, but Lap. and Spin. and Duf. find no explanation within the four corners of the book itself. The title, "Hemiptera Heteroptera," is quite

justified by the usage of other authors, and Hemiptera seems really a better title than the alternative Rhynchota, but in the division of the order into Heteroptera and Homoptera it is very unsatisfactory that the names applied to the suborders should have the same termination as that appropriated to so many orders of the Insecta. A protest may be made, too, against the use, now becoming common, of the word "asymmetrical." Those who are discontented with "unsymmetrical" ought to write "asymmetric," and be pedantic at both ends of the word. From misprints and similar blemishes the volume is very agreeably free, although there is some obscurity in the account of Corixa, which is said to contain twenty British species divided into four subgenera, whereas the synoptic table shows six subgenera and twenty-five species, to which a twenty sixth is doubtfully added in the descriptions.

The zeal of collectors will be stimulated to find again such prizes as Aradus Lawsoni and Pygolampis pidentata, or the greenish black Prostemma guttula, with scarlet legs and elytra, and antennæ pitchy brown. But the study of the group has more to commend it than the tantalizing rarity of some of the species. It is no little advantage that a great many of them are on the contrary common and easy to obtain. They do not, it is true, flaunt themselves in mid-air like butterflies or birds, but rather keep themselves quiet on trees and various lowlier plants, in mosses, in ponds, and other retreats, from all of which they can without much difficulty be induced to come forth. The search for Hemiptera is pleasantly united to the observation of plant-life, and when a collection has been made, the curious shapes and bright colors of the specimens are likely to be associated with treasured memories of holiday excursions, fair scenes, and delightful rambles, that have been enlivened by this quest. Few of those who make themselves acquainted with Mr. Saunders' volume will continue to despise the Hemiptera, and few of those who take any deep interest in the Hemiptera will care to be without Mr. Saunders' volume. THOMAS R. R. STEBBING.

Tunbridge Wells, England.

Dyspepsia

Dr. T. H. Andrews, Jefferson Medical College, Philadelphia, says of

Horsford's Acid Phosphate.

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

It reaches various forms of Dyspepsia that no other medicine seems to touch, assisting the weakened stomach, and making the process of digestion natural and easy.

Descriptive pamphlet free on application to Rumford Chemical Works, Providence, R. I.

Beware of Substitutes and Imitations.

For sale by all Druggists.

Exchanges

[Free of charge to all, if of satisfactory character. Address N. D. C. Hodges, 874 Broadway, New York.]

For sale or exchange. — I have a few copies of my translation of "Strasburger's Manual of Vegetable Histology, 1887," now out of print, which I will send post-paid for \$3 or for one dozen good slides illustrating plant or animal structure. Address A. B. Hervey, St. Lawrence University, Canton, N. Y.

The undersigned has the following specimens to exchange for crystals of any eastern or foreign localities or Indian relies: tin ore, metacinnabarite, stibnite, garnierite, calenanite, hanksite, ulexite, rubellite, lepidolite, blue and green onyx, Cal. pineite, aragonite on chalcedony, cinnabar, double refracting spar, clear and clouded, and others. J. R. Bush, care of General Delivery, Los Angeles, Cal.

For sale or exchange.—A private cabinet of about 200 species of fossils, well distributed geologically and geographically. Silurian, about 40; Devonian, about 50; Carboniferous, about 50; others, about 30. Frank S. Aby, State University, Iowa City, Ia.

Frank S. Aby, State University, 10wa City, 1a.

For exchange.—Minerals, fossils, F. W. shells, land shells, native woods, Indian relies, two vols. of Smithsonian reports, odd numbers of scientific magazines, copper cents, etc., for good minerals not in my collection, good arrow and spear-heads and natural history specimens of all kinds. Correspondence solicited with list of duplicates. G. E. Wells, Manhattan, Kan.

For sale or suitable exchange.—A spectrometer made by Fauth & Co., Washington, D. C., according to the plan of Prof. C. A. Young. This instrument is suitable for the most advanced investigations and determinations. Cost originally \$700 and has been used but little. Will be disposed of at a considerable reduction. Address Department of Physics, Ohio University, Athens, O.

I will send British land and fresh-water shells in return for those of America, any part, sent to me. I have at present about fifty or sixty species, with many varieties. W. A. Gain, Tuxford, Newark, England.

The Biological Department of Hamline University desires to offer microscopic slides of animal tissues, or whole animals, in exchange for first-class fossils. Address correspondence to Henry L. Osborne, Hamline University, Hamline, Minn.

Kindty mention "Science" in writing to Advertisers.

Wants.

CAN any one inform me as to the age to which cats have lived? I have one twenty years old. Edward D. Webb, 132 W. Eighty-first St., New York.

WANTED — Second-hand. Foster's Physiology, Balfour's Comparative Embryology, Claus & Sedgwick's Zoology, Flower's Osteology of Mammalia, Vine's Physiology of Plants. Please state editions and prices asked and address Richard Lees Brampton, Ontario, Canada.

WANTED.—American Journal of Conchology, seven volumes. Parties having these for sale will please address the undersigned, stating condition and price. R.Ellsworth Call, Louisville, Ky.

A GRADUATE ENGINEER will give instruction evenings in geometry, trigonometry and surveying, mechanics, physics, mechanical drawing and general engineering construction. Five years experience in field and editorial work on engineering journal. References furnished. C. S. H., 102 Tribune Building, New York.

WANTED.—By well-qualified and experienced science master and associate of the Royal School of Mines, London, aged 26 (at present in England), a mastership in technical college or university for any of the following subjects: Engineering sciences, geology and mineralogy, physics, chemistry and metallurgy, etc., etc. Can provide excellent references and credentials. Apply, J. G., 17 Sussex St., Rochdale, England.

A GRADUATE of the University of Pennsylvania and a practical mineralogist of twenty years' experience desires to give his services and a cabinet of 25,000 specimens, all named, with about the same number of duplicates, in minerals, crystals, rocks, gems, fossils, shells, archeological and ethnological specimens and woods to any institution desiring a fine outfit for study. The owner will increase the cabinet to 50,000 specimens in two years and will act as curator. Correspondence solicited from any scientific institution. J. W. Hortter, M.D., Ph.D., San Francisco, Cal., General P. O. Delivery.

POPULAR MANUAL OF VISIBLE SPEECH AND VOCAL PHYSIOLOGY.

For use in Colleges and Normal Schools. Price 50 cents Sent free by post by

N. D. C. HODGES, 874 Broadway, N. Y.

Hernold, Constable & Co.

Lyons Silk and Wool Fabrics, ARMURE GLACE

Plain Colored Vrille, Nicoise, VELOUTINE, BENGALINE, CRISTAL.

New and charming effects are brought ou with OMBRÉ, FLAMMÉ, and GLACÉ combinations.

> WHITE for WEDDING GOWNS.

LIGHT COLORS

for EVENING WEAR.

Broadway & 19th st. NEW YORK.

THE

American Bell Telephone COMPANY.

95 MILK ST., BOSTON, MASS.

This Company owns the Letters Patent granted to Alexander Graham Bell, March 7th, 1876, No. 174,465, and January 30, 1877, No. 186,787.

The Transmission of Speech by all known forms of ELECTRIC SPEAKING TELEPHONES infringes the right secured to this Company by the above patents, and renders each individual user of telephones, not furnished by it or its licensees, responsible for such unlawful use, and all the consequences thereof and liable to suit therefor.

New Store. New Stock. New Departments. MINERALS.

Send for our "Winter Bulletin," recently issued. Minerals, Gems, Microscopical Sections, Fine Lapidary Work.

GEO. L. ENGLISH & CO., Mineralogists, Removed to 64 East 12th Street, New York.

Theodore Parker, the great Boston preacher, whose brave struggle for freedom in thought and deed has made his name a watchword of progress, left behind him a priceless legacy in the glowing passages of unpublished sermons which Rufus Leighton, his stenographer, gathered after his death into Lescons and the sermons which Rufus Leighton his stenographer, gathered after his death into Lescons and the sermons which Rufus and the sermons was a serious ser world of Man, a handsome volume of 430 large pages, with Parker's portrait. Cloth, \$1.25; paper, 50 cents, at the bookstores.

Liberty and Life, by E. P. Pow-ell, is a volume of clear, simple, eloquent discourses ex-plaining the changes in religious thought that are made necessary by the conclusions of modern science. To those who care for religion, but realize the absurdities of much in popular theology, Liberty and Life will be helpful—inspiring. Cloth, \$1.00; paper, 50 cents, at the bookstores.

UNITY A weekly journal of a religion that is rational and a rationalism that is religious. Thirty-two columns, including a ligious.

ism that is religious. Thirty-two columns, including a liberal sermon or lecture, a review of current events and a number of timely editorial and contributed articles.
UNITY'S motto is, "Freedom, Fellowship and Character in Religion." \$1.00 a year.

SPECIAL COUPON OFFER:

FOR 40 CENTS, with this coupon, we will send Unity ten weeks, on trial, and both the books named above.

FOR \$1.00, with this coupon, we will send Unity one year to a new name and both the books named above.

We pay postage on books. Remit by postal order or express money order at our risk.

Charles H. Kerr & Co., Publishers, 175 Dearborn St., Chicago. Send stamp for book catalogue.

Fact and Theory Papers

I. THE SUPPRESSION OF CONSUMPTION. By GODFREY W. HAMBLETON, M.D. 129, 40c.
II. THE SOCIETY AND THE "FAD."
By APPLETON MORGAN, Rsq. 12°. 20 ce ats.
III. PROTOPLASM AND LIFE. By C. F. COX. 12°. 75 cents.

IV. THE CHEROKEES IN PRE-CO LUMBIAN TIMES. By CYRUS THOMAS 12°. \$1. V. THE TORNADO. By H. A. HAZEN. TIME-RELATIONS OF MENTAL PHENOMENA. By JOSEPH JASTROW. 12° II. HOUSEHOLD HYGIENE. MARY TAYLOR BISSELL. 12°. 75 cents.

N. D. C. HODGES, Publisher, 874 Broadway, New York.

"For enlightened owners of gardens and wood-lands this journal is invaluable."—N. Y. Tribune.



Filled every week with original, entertaining and exact information from the best American and European authorities about trees, shrubs, flowers and fruits; the beautifying of home-grounds, roadsides and parks; the preservation of forests and of natural scenery, together with vigorous editorial treatment of topics within its field and illustrations of the highest artistic finish.

"The foremost journal of its class,"-Roston Her "The foremost journal of its class."—Boston Her ald "A capital specimen of pure literature."—
N. Y. Journal of Commerce. "The arbiter in matters of rural taste."—Boston Transcript. "Crisp and fresh text."—N. Y. Tribune. "Illustrations of rare excellenc."—Buffalo Courier. "Edited with signal ability."—Cin. Times-Star.

Published Weekly. \$4.00 a year.

Send for Specimen Copy of Garden and Forest and special net clubbing rates with other periodicals.

GARDEN AND FOREST PUBLISHING CO..

TRIBUNE BUILDING, NEW YORK.

THE MODERN MALADY; or, Sufferers from 'Nerves.'

An introduction to public consideration, from a non-medical point of view, of a condition of ill-health which is increasingly prevalent in all ranks of society. In the first part of this work the author dwells on the errors in our mode of treating Neurasthenia, consequent on the wide ignorance of the subject which still prevails; in the second part, attention is drawn to the principal causes of the malady. The allegory forming the Introduction to Part I. gives a brief history of particular and the malady. tory of nervous exhaustion and the modes of treatment which have at various times been thought suitable to this most painful and trying disease.

By CYRIL BENNETT.

12°, 184 pp., \$1.50.

N. D. C. HODGES, 874 Broadway, N. Y.

EXERCISE FOR BRAIN WORKERS.



Gladstone says time and money spent for physical culture pays better than any other investment. A few minutes' exercise night and morning means better health and longer life, but busy people can't go to a gymnasium. Our cabinet brings a complete exercising outfit right into your own room. Contains chest weights, rowingweights, lifting weights, dumb bells and clubs-adjustable for young and old—all prices. You Shoutders and Upper Back, good for Round Shoulders. can use one a week before buying

Chest-weights separate, \$4.50 and up. Physical Cul-TURE GUIDE, illustrated, 50 cts. Sent for half price to any one naming this paper.

WHITNEY HOME GYMNASIUM CO., Box D., Rochester, N. Y.