

Scribner's Magazine is the result of extended observation, especially in the West and South-west, where Mr. Spears made a journey at the time of the Oklahoma boomer excitement. It is illustrated from photographs made by the author of some very unique frontier dwellings. There has been a great deal of discussion during late years in regard to shortening college courses, and higher university work. Professor Josiah Royce of Harvard, in an article in the same number on "Present Ideals of American University Life," makes a plea for the raising rather than lowering of the university standard, and sets forth the past and present college methods, showing the lines on which he thinks the great American university of the future should work. In the same issue of the magazine Mr. James Ricalton, writing of the wonderful old ruins of monuments and shrines at Anuradhapura, the City of the Sacred Bo-Tree in Ceylon, says: "From the days of the mound builders down to the Eiffel tower, man has shown himself to be a monument-erecting being; the Christians have their cathedrals, the Mohammedans have their mosques, and the Buddhists have their shrine-tombs, designated differently in different countries as pagoda, tope, and dagoba. The pagodas of China are entirely dissimilar to those of Burmah, and the dagobas of Ceylon are quite unlike those in either country; yet all serve the one purpose of relic sepulture. They are not altogether a thing of the past; they are still erected near the temples; but those of modern construction are small and unimportant when compared with those that

have withstood biennial monsoons for two thousand years; even their half-buried ruins are stupendous."

—It will be remembered that the edition of "Catalogue of Minerals and Synonyms," by Thomas Egleston, Ph.D., which was originally published by the government, was soon exhausted, and that a new edition was promised by John Wiley & Sons, New York, some months since if sufficient subscriptions should be received to justify the expense. This new edition is now received. This catalogue was commenced in 1867 for use in arranging the collections of the School of Mines of Columbia College, but the press of other duties caused such delays that practically a new catalogue was begun and finished twenty years later; and it is this that is given to the public. The need of a collection of synonyms has been shown by the quick way in which the government edition was seized upon, and we doubt not the New York publishers will be duly rewarded for bringing out this new edition (\$2.50).

—In Stewart's "Plane and Solid Geometry," just published by the American Book Company, there are several features worthy of notice. One prominent feature is the close adherence to the principle of association, each book treating of only one subject, and each section of one subdivision of the subject. Another good feature is the system of so grading the exercises and presenting them in such order that their successive solution should tend to

Publications received at Editor's Office,
Aug. 5-Sept. 1.

- ANDERSON, E. L. The Universality of Man's Appearance, and Primitive Man. Edinburgh, Douglas (Cincinnati, Clarke). 28 p. 8°. 25 cents.
DOWIE, M. M. A Girl in the Karpathians. New York, Cassell. 301 p. 12°. \$1.50.
EGLESTON, T. Catalogue of Minerals and Synonyms. New York, Wiley. 378 p. 4°. \$2.50.
LANGLEY, S. P. Experiments in Aerodynamics. Washington, Smithsonian Inst. 115 p. f°. 10 cents.
RICKOFF, A. J. First Lessons in Arithmetic. New York, American Book Co. 150 p. 12°. 36 cents.
SETH, James. Freedom as Ethical Postulate. Edinburgh, Blackwood. 48 p. 8°. 10 cents.
SMITH, J. Bucknall. A Treatise upon Wire, Its Manufacture and Uses. New York, Wiley. 347 p. 4°. \$3.
STEWART, S. T. Plane and Solid Geometry. New York, American Book Co. 406 p. 12°. \$1.12.
WINSLOW, I. O. The Principles of Agriculture for Common Schools. New York, American Book Co. 152 p. 12°. 60 cents.

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.

THIRD EDITION.

THE FAULTS OF SPEECH

BY

A. MELVILLE BELL,

Author of "Visible Speech," etc., etc.

The Faults of Speech is a Self-Corrector and Teacher's Manual, for the removal of all Impediments and Defects of Articulation.

60 Cents.

* * Sent postpaid on receipt of price,

N. D. C. HODGES, 47 Lafayette Place, N. Y.

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.

"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.

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

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.

cause a constant growth in the power of thought, analytic and synthetic. It may be noted also that a definite plan is followed with respect to diagrams: lines mentioned in the statement, for instance, are solid, unless planes intervene; while all additional lines, mentioned in the construction, are dotted, the more important lines being heavier than those of lesser importance. Moreover, the diagrams and their demonstrations, throughout the volume, are invariably so placed that they may both be seen without turning a leaf — either on the same or on facing pages.

— A third edition has recently appeared of Frazer's "Tables for the Determination of Minerals." This book is based, as is well known to many *Science* readers, on one by Weisbach, which was first published in 1866. The purpose is to aid the student in determining minerals by their physical properties as distinguished from the chemical reactions which they give. That it is possible so to arrange tables that it shall be in the main possible, by their use, for the student to determine a mineral from its color, lustre,

streak, hardness, crystalline form, and cleavage, has been shown by the reception which this book has had through its various editions. Many know how much that was antiquated in chemical science has clung to the text books of mineralogy, and it was one of Dr. Frazer's aims in the production of this new edition of his "Tables" to eliminate all of this old and substitute formulas, etc., more in accordance with the present state of chemical science. The book is well known, so it seems unnecessary to commend it to our readers more than by saying that this edition is to a great extent quite new (Philadelphia, Lippincott).

— The American Book Company has published "The Principles of Agriculture for Common Schools," by J. O. Winslow. This is quite a departure from the usual run of school books, and will interest many who wish to see the elements of science taught in the schools. The book is not limited to what would usually be called agricultural science, but contains snatches from all branches of science which have a bearing on agriculture.

Exhaustion

Horsford's Acid Phosphate.

The phosphates of the system are consumed with every effort, and exhaustion usually indicates a lack of supply. The Acid Phosphate supplies the phosphates, thereby relieving exhaustion, and increasing the capacity for labor. Pleasant to the taste.

Dr. A. N. KROUT, Van Wert, O., says: "Decidedly beneficial in nervous exhaustion."

Dr. S. T. NEWMAN, St. Louis, Mo., says: "A remedy of great service in many forms of exhaustion."

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.

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, 47 Lafayette Pl., N. Y.

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.



Old and Rare Books.

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

Speech Reading and Articulation Teaching.

By A. MELVILLE BELL.

Price, 25 Cents.

Practical Instructions in the Art of Reading Speech from the Mouth; and in the Art of Teaching Articulation to the Deaf.

[This Work—written at the suggestion of Miss Sarah Fuller, Principal of the Horace Mann School for the Deaf, Boston, Mass.—is, so far as known, the first Treatise published on "Speech Reading."]

From Principals of Institutions for the Deaf.

"Admirable in its conciseness, clearness and freedom from technicality."

"The simplicity and perfection of this little book."

"Full of exact and helpful observations."

"A very interesting and valuable work."

"The rules are clearly given and will be of great utility."

"Every articulation teacher should study it."

"A model of clearness and simplicity, without having any of the puzzling symbols that trouble the common mind."

"The exercises given in speech-reading from the lips are especially interesting, and of great importance to the student of phonetics."

— *Modern Language Notes.*

** The above work may be obtained, by order, through any bookseller, or post-free on receipt of price, from

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



DO YOU INTEND TO BUILD?

If you intend to build, it will be a mistake not to send for "SENSIBLE LOW-COST HOUSES," now arranged in three volumes. In them you will find perspective views, floor plans, descriptions, and estimates of cost for 105 tasteful, new designs for houses. They also give prices for complete Working Plans, Details, and Specifications, which enable you to build without delays, mistakes or quarrels with your builder, and which any one can understand. Vol. I. contains 35 copyrighted designs of houses, costing between \$500 and \$1800. Vol. II. contains 35 copyrighted designs, \$1800 to \$3000. Vol. III. contains 35 copyrighted designs, \$3000 to \$9000. Price, by mail, \$1.00 each, or \$3.00 for the set.

"COLONIAL HOUSES," a volume showing Perspectives and Floor Plans of houses arranged in the inimitable style of the Colonial Architecture, and having all modern arrangements for comfort. Price, \$2.00.

"PICTURESQUE HOUSES FOR FOREST AND SHORE":—This shows Perspectives and Floor Plans of new designs for Summer Cottages, which are romantic, convenient, and cheap. Price, \$1.00, by mail.

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

A NEW MONTHLY THE INTERNATIONAL JOURNAL OF MICROSCOPY AND NATURAL SCIENCE.

THE JOURNAL OF THE
POSTAL MICROSCOPICAL AND WESLEY
NATURALISTS' SOCIETIES.

Edited by ALFRED ALLEN and Rev.
WILLIAM SPIERS.

CONTENTS OF JULY NUMBER:

Parasitic Fungi Affecting the Higher Animals.
The Distance of the Stars.
Infusoria, Protozoa, etc., Practical Methods of Preparation.
The History of the Microscope.
Our Young Naturalists' Page—
A Curious Want of Fear in a Pair of Robins.
Leap Year.
Aspect of the Heavens—July, 1891.
Collectors' Notes for July.
Natural History Notes.
The Poison of Toads.
Effect of Light on Spines.
Protective Mimicry in Spiders.
The Phenomenon of Autotomy in Certain Animals.
Wesley Scientific Society.
Reviews.

\$1.75 Per Year.

To Science subscribers, \$1.00 for one year.
" " " 50 cents for six mos.

Sample Copies 10 cents.

PSYCHE.

A Journal of Entomology, published monthly by the Cambridge Entomological Club. \$2.00 per year, \$5.00 per volume of three years. Volume VI. began in January, 1891. Back volumes for sale at \$5.00 each. Volume I. sold only in complete sets.

THE WINNIPEG COUNTRY;

OR,

ROUGHING IT WITH AN ECLIPSE PARTY.

BY

A. ROCHESTER FELLOW.
(S. H. SCUDDER.)

With thirty-two Illustrations and a Map.
12°. \$1.50.

"The story is a piquant, good-humored, entertaining narrative of a canoe voyage. A neater, prettier book is seldom seen."—*Literary World*.
"This is a sprightly narrative of personal incident. The book will be a pleasant reminder to many of rough experiences on a frontier which is rapidly receding."—*Boston Transcript*.
"The picture of our desolate North-western territory twenty-five years ago, in contrast with its civilized aspect to-day, and the pleasant features of the writer's style, constitute the claims of his little book to present attention."—*The Dial*.

READY SOON.

THE LABRADOR COAST.

A Journal of two Summer Cruises to that region; with notes on its early discovery, on the Eskimo, on its physical geography, geology and natural history, together with a bibliography of charts, works and articles relating to the civil and natural history of the Labrador Peninsula.

By ALPHEUS SPRING PACKARD, M.D., Ph.D.
8°, about 400 pp., \$3.50.

NEW BOOKS. JUST PUBLISHED FOSSIL RESINS.

This book is the result of an attempt to collect the scattered notices of fossil resins, exclusive of those on amber. The work is of interest also on account of descriptions given of the insects found embedded in these long-preserved exudations from early vegetation.

By CLARENCE LOW and HENRY BOOTH.
12°. \$1.

THE AMERICAN RACE:

By DANIEL G. BRINTON, M.D.

"The book is one of unusual interest and value."—*Inter Ocean*.
"Dr. Daniel G. Brinton writes as the acknowledged authority of the subject."—*Philadelphia Press*.
"The work will be of genuine value to all who wish to know the substance of what has been found out about the indigenous Americans."—*Nature*.
"A masterly discussion, and an example of the successful education of the powers of observation."—*Philadelphia Ledger*.

Price, postpaid, \$2.

BY THE SAME AUTHOR. RACES AND PEOPLES.

"The book is good, thoroughly good, and will long remain the best accessible elementary ethnography in our language."—*The Christian Union*.
"We strongly recommend Dr. Brinton's 'Races and Peoples' to both beginners and scholars. We are not aware of any other recent work on the science of which it treats in the English language."—*Asiatic Quarterly*.

"His book is an excellent one, and we can heartily recommend it as an introductory manual of ethnology."—*The Monist*.
"A useful and really interesting work, which deserves to be widely read and studied both in Europe and America."—*Brighton (Eng.) Herald*.
"This volume is most stimulating. It is written with great clearness, so that anybody can understand, and while in some ways, perforce, superficial, grasps very well the complete field of humanity."—*The New York Times*.

"Dr. Brinton invests his scientific illustrations and measurements with an indescribable charm of narration, so that 'Races and Peoples,' avowedly a record of discovered facts, is in reality a strong stimulant to the imagination."—*Philadelphia Public Ledger*.

"The work is indispensable to the student who requires an intelligent guide to a course of ethnographic reading."—*Philadelphia Times*.

Price, postpaid, \$1.75.

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 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.

READY SOON.

THE RADIOMETER.

By DANIEL S. TROY.

This will contain a discussion of the reasons for their action and of the phenomena presented in Crookes' tubes.

Fact and Theory Papers

I. THE SUPPRESSION OF CONSUMPTION. By GODFREY W. HAMBLETON, M.D. 12°. 40c.

"The inestimable importance of the subject, the eminence of the author, and the novelty of his work, all combine to render the little treatise worthy of special consideration. . . . We heartily commend Dr. Hambleton's booklet, and wish there were more such works."—Editorial, *Boston Daily Advertiser*.

"The monograph is interesting in style, scholarly and well worthy of careful consideration. It is devoid of technical expressions, and can be easily read and digested."—*Pharmaceutical Era*.

II. THE SOCIETY AND THE "FAD." By APPLETON MORGAN, Esq. 12°. 20 cents.

"Mr. Morgan founds a sensible and interesting address upon a text furnished by a sentence from a young ladies' magazine; namely, 'Browning and Ibsen are the only really dramatic authors of their century.'"—*New York Sun*.

III. PROTOPLASM AND LIFE. By C. F. COX. 12°. 75 cents.

"To be commended to those who are not specialists."—*Christian Union*.

"Physicians will enjoy their reading, and find in them much food for thought."—*St. Louis Medical and Surgical Journal*.

"Mr. Cox reviews the history of his subject with knowledge and skill."—*Open Court*.

"It is of extreme interest."—*Medical Age*.

"Worthy of a careful perusal."—*Indiana Medical Journal*.

"An interesting and popular account of the tendencies of modern biological thought."—*Popular Science News*.

"All interested in biological questions will find the book fascinating."—*Pharmaceutical Era*.

"The author displays a very comprehensive grasp of his subject."—*Public Opinion*.

"Deserves the attention of students of natural science."—*Critic*.

IV. THE CHEROKEES IN PRE-COLUMBIAN TIMES. By CYRUS THOMAS. 12°. \$1.

Dr. Thomas has already presented to the public some reasons for believing the Cherokees were mound-builders, but additional evidence bearing on the subject has been obtained. A more careful study of the Delaware tradition respecting the Tallegwi satisfies him that we have in the Bark Record (Walam Olum) itself proof that they were Cherokees. He thinks the mounds enable us to trace back their line of migration even beyond their residence in Ohio to the western bank of the Mississippi. The object is therefore threefold: 1. An illustration of the reverse method of dealing with prehistoric subjects; 2. Incidental proof that some of the Indians were mound-builders; 3. A study of a single tribe in the light of the mound testimony. This work will be an important contribution to the literature of the Columbian discovery which will doubtless appear during the coming two years.

"A valuable contribution to the question, 'Who were the mound-builders?'"—*New York Times*.

"Professor Cyrus Thomas undertakes to trace back the evidences of a single Indian tribe into the prehistoric or mound-building age."—*N. Y. Sun*.

"An interesting paper."—*Christian Union*.

V. THE TORNADO. By H. A. HAZEN. 12°. \$1.

"The little book is extremely interesting."—*Boston Transcript*.

"A book which will find many readers. The chapter on 'Tornado Insurance' is of interest to all property-holders in the tornado States."—*Boston Herald*.

"The Tornado is a popular treatise on an important province of meteorology. In which science, the author, Professor Hazen of the United States Signal Service, may be regarded as an expert."—*Philadelphia Ledger*.

VI. TIME-RELATIONS OF MENTAL PHENOMENA. By JOSEPH JASTROW. 12°. 50c.

"All students of psychology will find the book full of interesting facts. Professor Jastrow's good qualities as a thinker and as a writer are too well and too widely known to require comment."—*Public Opinion*.

"A useful work for psychologists—as well as the general reader—by setting forth in brief and easily intelligible form the present state of knowledge in regard to the time required for the performance of mental acts."—*The Critic*.

VII. HOUSEHOLD HYGIENE. By MARY TAYLOR BISSELL. 12°. 75 cents.

"A sensible brochure."—*Brooklyn Eagle*.

"Practical and sensible."—*Public Opinion*.

"The advice and excellent information which it contains are tersely and intelligently expressed."—*Boston Medical and Surgical Journal*.

"Practical and simply written."—*Springfield Republican*.

"The best monograph on home hygiene."—*St. Louis Globe-Democrat*.

In Preparation.

VIII. THE FIRST YEAR OF CHILDHOOD. By J. MARK BALDWIN.

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