

to the atmosphere an "epidemic constitution." The influence of weather would be measured by its effect in providing an environment suitable to germ development. Thus moist weather, whether bleak or warm, would be found conducive to the spread of contagia, and so it is. This fact has often been attested by the extension of cholera, diarrhoea, and the exanthemata. A warm and dry day, on the contrary, tends to check morbid action of an infectious kind. This fact is susceptible of more than one explanation. We may, on the one hand, says *Lancet*, regard it as a consequence of the absence of that germ-fostering condition—humidity; on the other, we cannot fail to be reminded that dry warmth and sunshine give the signal for an exodus from many crowded homes, for their freer ventilation, and consequently for diminution in the intensity of contagia. The exact value of weather changes in regard to this class of diseases, however, still is and must for some time remain *sub judice*. As for the ailments more usually associated with these changes—those, for example,

more commonly known as inflammatory—the connection is here much more evident, and also in all likelihood, more direct. The association of pneumonia, bronchitis, asthma, and rheumatism with bleak and wet weather is too invariable to permit of our doubting its reality apart from any suggestion of septic agency.

—Mr. Kelway, according to *Industries*, has introduced an exceedingly simple system of signalling at night. A board is provided with incandescent lamps arranged so that different sets form different letters. If the letter N is wanted, for instance, a key is pressed which lights all the lamps which go to form this letter, and so on. The machine can be worked like a typewriter. Signalling by this means corresponds with the use of the black-board in the daytime, but is, of course, much more rapid, and at the same time more easily followed. It is, of course, incomparably more rapid than any system of flash signalling, and is easy to read.

# A Tonic

## Horsford's Acid Phosphate.

A most excellent and agreeable tonic and appetizer. It nourishes and invigorates the tired brain and body, imparts renewed energy and vitality, and enlivens the functions.

Dr. EPHRAIM BATEMAN, Cedarville, N. J., says:

"I have used it for several years, not only in my practice, but in my own individual case, and consider it under all circumstances one of the best nerve tonics that we possess. For mental exhaustion or overwork it gives renewed strength and vigor to the entire system."

Descriptive pamphlet free.

Rumford Chemical Works, Providence, R. I.

Beware of Substitutes and Imitations.

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

## 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.

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

## ESTERBROOK'S STEEL PENS.

OF SUPERIOR AND STANDARD QUALITY.

Leading Nos.: 048, 14, 130, 135, 239, 333

For Sale by all Stationers.

THE ESTERBROOK STEEL PEN CO.,

Works: Camden, N. J. 26 John St., New York.



**SLIDE-RULE Perpetual Calendar.**—This novel application of the slide-rule principle shows, in an instant without study or calculation, a complete Calendar for any month from the Year 1 till the end of Time. Sample, 25 cts. JEROME-THOMAS CO., 47 LAFAYETTE PLACE, NEW YORK.

## HANDBOOK OF METEOROLOGICAL TABLES.

By ASST. PROF. H. A. HAZEN.

127 pp. 8°.

Professor Waldo says: "I heartily recommend them to all workers in meteorology, and do not see how any of our American meteorologists can afford to be without a copy."

Professor Symons of London says: "They are unquestionably valuable helps, which must be kept handy, and replaced when worn out."

Price, postpaid, \$1.

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

## 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.

**MINERALS.** CABINET SPECIMENS. COLLECTIONS FOR BLOWPIPE ANALYSIS. Largest and finest stock in U. S. 100pp. Illustrated Catalogue, paper bound, 15c.; cloth bound, 25c. GEO. L. ENGLISH & CO., Mineralogists, Removed to 733 & 735 Broadway, New York.

## PATENTS

For INVENTORS. 40-page BOOK FREE. Address W. T. Fitzgerald, Attorney at Law, Washington, D.C.

Old and Rare Books.

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



## 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 \$5000. 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 show 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, 874 Broadway, New York.

## 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 G. 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 Tallegewi 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, 874 Broadway, New York.

# Arnold, Constable & Co. EMBROIDERIES.

SPRING and SUMMER styles of EMBROIDERIES will be opened this week.

Broadway & 19th St.  
NEW YORK.

## 1892.

We have made unusual preparations for the Opening Season of 1892.

This is the time for Receptions, Weddings, and Anniversary festivities which call for Evening Dress. Good Taste and Fashion require for such events the use of Silk Fabrics.

Our Stock includes every known style of these goods, from the lightest Gauze to the wide Silk of heaviest Cord.

We shall be glad to answer any inquiry regarding prices and styles, and to send samples whenever the desired fabric is definitely stated.

James McCreery & Co.,  
Broadway and 11th St.,  
New York.



# LINENS.

Art Embroidery Linens, Linens for the Bed-room, Dining-room, or Kitchen, in large assortment.

Linen Goods have been our specialty for nearly forty years, and there is no desirable linen article or fabric which may not be found in our stock.

We gladly send samples of such of our goods as can be sampled. To get some idea of the range of goods we keep, write for catalogue.

James McCutcheon & Co.,  
THE LINEN STORE,

64 & 66 West 23d 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 Method of Protecting Property  
from Lightning.

# The Lightning Dispeller.

Price, \$20 to \$30.—According to size.

The Patent Lightning Dispeller is a conductor specially designed to dissipate the energy of a lightning discharge,—to prevent its doing harm,—placing something in its path upon which its capacity for causing damage may be expended.

No recorded case of lightning stroke has yet been cited against the principle of the Dispeller. So far as known, the dissipation of a conductor has invariably protected under the conditions employed.

Correspondence solicited.

AGENTS WANTED

The American Lightning Protection Company,  
United Bank Building, Sioux City, Iowa.

# A TEMPORARY BINDER

for *Science* is now ready, and will be mailed postpaid on receipt of 75 cents.



This binder is strong, durable and elegant, has gilt side-title, and allows the opening of the pages perfectly flat. Any number can be taken out or replaced without disturbing the others, and the papers are not mutilated for subsequent permanent binding. Filed in this binder, *Science* is always convenient for reference.

Temporary binders of the same description but without side title, to fit any paper or periodical of ordinary size, will be mailed postpaid on receipt of price as given below. In ordering, be sure to give the name of paper or periodical and style of binder.

8 to 12 inches long, cloth,	\$0.50;	leather,	\$0.60.
12 " 14 " " " "	60	"	75.
14 " 17 " " " "	75	"	1.00.
17 " 19 " " " "	1.00	"	1.25.

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