

# SCIENCE

ELEVENTH YEAR.  
VOL. XXII. No. 568.

DECEMBER 22, 1893.

SINGLE COPIES, TEN CENTS.  
\$3.50 PER YEAR, IN ADVANCE.

## CONTENTS.

Current Notes on Anthropology --No. XXXVI. Edited by D. G. Brinton.....	337
Fall Meeting of the Alabama Industrial and Scientific Society.....	338
Alabama Geological Survey.....	338
The Centimetre Gramme Second and the Cen- timetre Dyne Second Systems of Units and a New Gravitational Experiment. Reginald A. Fessenden.....	339
The "Glacial Period" Proved as a Necessary Consequence of the Earth's Movements. Major General J. C. Cowell.....	341
A Segregation of Fresh-Water Fishes. Theo- dore Gill.....	345
Biological Investigation in Botany. J. Chris- tian Bay.....	345
Letters to the Editor:	
The Imaginary Race of Canstadt or Nean- derthal. Julien Fraipont.....	346
Molothrus Ater and His Hostesses. Neil F. Posson.....	347
Protection of Birds from the Boys. C. D. McLouth.....	347
Bird Notes. Willard N. Clute.....	348
Postage on Natural History Specimens. W. Hague Harrington.....	348
A Dictionary of Scientific Terms. Walter C. Kerr.....	349
Notes and News.....	349

### "Odd" Apparatus.

In preparing for "stock taking" we find some 200 pieces of odd or shopworn physical instruments that must be sold promptly to make room for new goods.

Price being a secondary consideration, we have placed these instruments at very low figures; often a mere fraction of first cost; and solicit immediate correspondence with all who can use such apparatus.

We are sincere in believing this offer unusually important, and upon request will mail to any address descriptive circular No. 480, which gives full particulars.

**QUEEN & CO., Incorporated,**  
Scientific Instrument Makers,  
Philadelphia, U. S. A.

Send for Abridged General Catalogue No. 219.

**MINERALS.** New Store.  
New Stock.  
New Departments.  
Send for our "Winter Bulletin," recently issued.  
Minerals, Gems, Microscopical Sections, Fine Lap-  
idary Work.

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

**GERMANIA** A monthly magazine for the study  
of the German language and litera-  
ture, is highly recommended by college professors  
and the press as "the best effort yet made to assist  
the student of German, and to interest him in his  
pursuit." Its BEGINNERS' CORNER furnishes every  
year a complete and interesting course in German  
grammar. \$2 a year. Single copies 20 cents. P. O.  
Box 151, Manchester, N. H.

### A BOOK OF FLOWERS AND FLOWER LORE.

Thirty parts of **Meehans' Monthly**; two volumes; containing 30 colored plates, by PRANG, of Wild Flowers and Ferns; with numerous copper and wood engravings, and 288 pages of reading matter. A text book for the flower lover, artist, botanist, and all students of nature. Edited by the well known authority, **Thomas Meehan**. A work worthy of a place in any library. Elegantly printed. Handsomely bound. Sample part and descriptive circular free.

THOMAS MEEHAN & SONS, Station G.,  
Germantown, Phila.

### Entomological Catalogues.

By W. F. KIRBY, F. Z. S., F. E. S.; Assistant in  
Zoological Dept. British Museum (Natural His-  
tory) S. Kensington, etc., etc.  
Synonymic Catalogue of Diurnal Lepidoptera with  
Supplement, pp. VIII. 883. (1871-1877.) £1 9s 6d.  
The Supplement Separately, pp. VIII. 691-883 (1877-  
88) 8s 6d.  
Synonymic Catalogue of Lepidoptera, Heterocera,  
Vol. I. Sphingides and Bombyces, pp. XII. 951. (1892.)  
£2 2s 0d net.  
Synonymic Catalogue of Neuroptera Odonata,  
pp. X. 202 (1890.) 16s.

ONLY 200 COPIES PRINTED.

LONDON. GURNEY & JACKSON,  
1 PATERNOSTER ROW.  
(MR. VAN VOORST'S SUCCESSORS.)

### 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 LOWN and HENRY BOOTH:  
12°. \$1.

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

### DELSARTE SYSTEM OF ORATORY.

A Book of over 600 pages of great value to all  
Delsartians, teachers of elocution, public speakers,  
singers, actors, sculptors, painters, psychologists,  
theologians, scholars in any department of science,  
art and thought.

Price, \$2.50, postpaid.

EDGAR S. WERNER, Publisher,  
108 East 16th Street, - - - New York.

### Littell's Living Age,

THE ONLY WEEKLY ECLECTIC.  
1844. 1893.

"The Oldest and the Best."

It selects from the whole wide field of  
EUROPEAN PERIODICAL LITERATURE  
the best articles by

THE ABLEST LIVING WRITERS

In every department of  
Literature, Science, Politics and Art.  
OPINIONS.

"Only the best has ever filled its pages; the best thought rendered in the purest English. Nothing poor or unworthy has ever appeared in the columns of THE LIVING AGE."—*The Presbyterian, Phila.*

"Considering its size, it is the cheapest of literary periodicals, and no collection of magazine literature is complete without this foremost of eclectics."—*Educational Courant, Louisville, Ky.*

"It is one of the few periodicals which seem indispensable. . . . It contains nearly all the good literature of the time."—*The Churchman, New York.*

"The fields of fiction, biography, travel, science, poetry, criticism, and social and religious discussion all come within its domain."—*Boston Journal.*

"To read it is itself an education in the course of modern thought and literature."—*Buffalo Commercial Advertiser.*

Published WEEKLY at \$8.00 a year, free of postage.

Club Rates.—For \$10.15 THE LIVING AGE and SCIENCE will be sent for a year, postpaid.

Rates for clubbing THE LIVING AGE with other periodicals will be sent on application.

Sample copies of THE LIVING AGE, 15 cents each. Address,

Littell & Co., 31 Bedford St., Boston, Mass.

### LIGHT, HEAT AND POWER.

THE INDEPENDENT GAS JOURNAL  
OF AMERICA.

PUBLISHED MONTHLY AT PHILADELPHIA.

Subscription, \$3.00 per year.

1,000,000  
young mothers need

## Babyhood

The highest authority  
on the care of children, deal-  
ing with food, dress, instruction, etc.  
One hundred physicians write for it.  
"It will save the child an illness, the  
mother many a sleepless night."

"Worth its weight in gold."—Boston Transcript.

**\$1.00 a Year**

Babyhood Publishing Co., New York.

# Science

ns-22 (568)

*Science* ns-22 (568), 337-349.

ARTICLE TOOLS

<http://science.sciencemag.org/content/ns-22/568.citation>

PERMISSIONS

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

---

*Science* (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. The title *Science* is a registered trademark of AAAS.

Copyright © 1893 The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works.