

Explanatory.

Relations of prehistory to history and to anthropology, both physical and ethnological.

Systematic.

1. Introductory. History of the science. Sources of information, literary and monumental, with critical estimates of their values.

2. Methodical presentation. Geographical and ethnic divisions. Factors of evolution, as discovery, borrowing, alteration, descent. Special forms, as language, religion, law, family, government, clothing, food, ornament, commerce, etc.

3. Typological presentation. Models of workshops, houses, fortresses, altars, sepulchres; also weapons, tools, utensils, etc.; their use and development.

4. Historical presentation. First, with reference to natural history, the origin, races, varieties and migrations of men; second, cultural history, as the stone, bronze and iron ages; the palæolithic and neolithic periods; proto-historic culture; dawn of civilization, etc.

This scheme appears to offer a comprehensive plan for bringing the science before a class.

MIGRATION OF THE AZTECS.

The Society of Geography and Statistics of the Republic of Mexico has just issued a second edition of a work by its first secretary, the licentiate Eustaquio Buelna, entitled "Peregrinacion de los Aztecas, y Nombres Geograficos Indigenas de Sinaloa."

The first edition was published in 1887, and received a certain measure of praise on account of the new material it offered concerning the tribes and languages of north-western Mexico. This has been added to in the present edition, and in this respect it is welcome; but that the author has seen fit to expand and illustrate his theories on the pre-historic migrations of the Aztecs, is to be regretted, as he does but disseminate under the name of the society various exploded errors.

When, for instance, shall we hear the last of the "Atlantis?" Over and over again, its existence has been disproved, but it is ever rising in the minds of those who do not know what time o' day it is in science. How often

must it be shown that the name "Atlantic" has nothing to do with "Aztlan" or "Aztalan," but is a Berber word meaning "mountain." Yet Buelna repeats and adopts these eighteenth century etymologies. Our faith in his acquirements in the Nahuatl language wanes considerably when we find him (p. 323) deriving the word *nahuatl* from *nahui*, four, and *atl*, water, for it is elementary that the terminal *tl* is dropped in composition. Of course, the "Toltecs" figure largely, although their existence as a nation has been disproved.

It cannot be said that Senor Buelna has approached this part of his subject with the requisite knowledge of its literature; and one cannot but regret that he seems unacquainted with the voluminous writings of Buschmann on the proper names and languages of Sinaloa and Sonora.

NOTE ON CROTALUS ADAMANTEUS.

February 22, students while out collecting birds shot a diamond rattlesnake, *Crotalus adamanteus*, Beau., that measured five feet ten inches in length and nine inches around the thickest portion of the body. From the glossiness of the scales it is thought that it had recently moulted. There were only five rattles and a button present, which seems quite remarkable for such a long reptile. If I am not mistaken, such large animals of this species usually have more.

These animals, though once quite abundant, are becoming quite uncommon. The demand for their skins and rattles to make into Florida has done much to destroy this venomous animal. The skin is made into belts and neckties, while the rattles are used for sets on the ties and elsewhere.

P. H. ROLFS.

Fla. Agr. Coll., Lake City, Fla.

BOOK-REVIEWS.

Le Lait PAR P. LANGLOIS. Paris, Gauthier-Villars et Fils, Quai des Grands-Augustins, 55. 188p. 8c.

La Biere PAR L. LINDET. Paris, Gauthier-Villars et Fils, Quai des Grands-Augustins, 55. 206p. 8c.

THE above treatise on Milk, by P. Langlois, Chief of the

AMERICAN SCIENCE SERIES.

BARKER'S PHYSICS.	Advanced course.
REMSEN'S CHEMISTRY.	3 courses.
PACKARD'S ZOOLOGY.	3 courses.
MARTIN'S HUMAN BODY.	3 courses.
WALKER'S POLITICAL ECONOMY.	3 courses.
NEWCOMB & HOLDEN'S ASTRONOMY.	2 courses.
BESSEY'S BOTANY.	2 courses.
JAMES'S PSYCHOLOGY.	2 courses.
SEDGWICK & WILSON'S BIOLOGY.	

HENRY HOLT & CO., 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.

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.

Physiological Laboratory of the Faculty of Medicine of Paris, is divided into two parts—the first treating the subject theoretically, the second from the technical standpoint. Beginning with a chapter on chemical composition, the author proceeds with a discussion of the phenomena of coagulation, of milk secretion, and of the varying composition of different milks. A chapter each is devoted to woman's milk and to cow's milk, while others treat of the digestibility of milk, infant alimentation, and milk micro-organisms. The technical portion treats of milk analysis and adulteration. Under the first head is given in detail the admirable method used at the Municipal Laboratory of Paris, as well as the methods of Grandeau, Quesneville, and Adams. The various rapid methods are discussed in detail, and excellent means for the preservation of milk suggested. The book is new and a welcome addition to our literature on the subject.

Dr. E. Lindet, in his work on Beer, has produced a manual valuable to all interested in Brewing, either as a scientific study or from the purely technical view. The last half of the book is devoted to the practical process of brewing, following in main the procedure adopted in France, the limitations of the book preventing a more general discussion. The first part, however, is of wide interest, treating in an attractive and scientific manner Earley, Malt, Yeast and Hops, of the processes of saccharification, and of alcoholic fermentation. A shorter preliminary chapter touches upon the legislation and statistics regarding beer. The book does not impress one as a mere compilation from more exhaustive authors, but is distinctly a treatise upon the state of the science at the present hour, and is a most convenient book for reference.

These volumes form part of the *Encyclopédie Scientifique des Aide-Mémoire*, published under the direction of M. H. Léauté, Member of the Institute of France. This publication, which is distinguished by its practical character, is moreover scientific in its accuracy and in the authoritative

names which appear upon the title pages. When complete (it has been published at the rate of thirty or forty volumes a year since Feb., 1892,) there will be about 300 volumes uniform in binding and embracing the entire domain of applied science; Mechanics, Electricity, Engineering, Physics, Chemistry, Agriculture, Biology, Medicine, Surgery and Hygiene. In each case the most competent men have been selected to treat of their respective specialties, and while within the limits of an octavo volume of 200 pages it is necessary to leave out much of interest, still the authors of those works which it has been my pleasure to read have accomplished much in their difficult condensation, treating of their subjects in a fluent manner and omitting nothing essential. Each volume is terminated with a bibliography which enables the reader to pursue to its source any particular line of study.

C. P.

—The American Book Company have just issued a revised edition of William Swinton's "School History of the United States," the first edition of which appeared some twenty years ago. As the author is now dead, the revision of the work has been done by the editorial department of the Company, and the history has been continued to the present time. The book is well printed, and contains many maps and illustrations. Another book from the same house is a series of "Exercises in Greek Prose Composition," based on the first four books of the *Anabasis* and prepared by William R. Harper, President of the University of Chicago, and Clarence F. Castle, assistant professor of Greek in the same institution. The Company have also issued two volumes of their "English Classics for Schools," one of them containing three of Emerson's essays, and the other being an edition of Matthew Arnold's "Sohrab and Rustum," with an introduction giving a sketch of his life and writings and some other matter useful to the student.

Delicious Drink.

Horsford's Acid Phosphate
with water and sugar only,
makes a delicious, healthful and
invigorating drink.

Allays the thirst, aids digestion,
and relieves the lassitude
so common in midsummer.

Dr. M. H. Henry, New York, says:
"When completely tired out by prolonged wakefulness and overwork, it is of the greatest value to me. As a beverage it possesses charms beyond anything I know of in the form of medicine."

Descriptive pamphlet free.

Rumford Chemical Works, Providence, R. I.
Beware of Substitutes and Imitations.

EXCHANGES.

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

I wish to exchange a New Model Hall Typewriter, price \$30, for a Daylight Kodak, 4x5 preferred. George A. Coleman, Dep't. Agric., Div. of Ornithology, Washington, D. C.

Exchange—The undersigned is desirous of obtaining correspondents interested in macro-lipidoptera, in Alaska, the far Western, Southwestern and Southern States. Will also exchange rare lepidoptera for entomological literature. Levi W. Mengel, Reading, Penn.

Wanted to exchange—Medical books, Obstetrical Transactions, London, Works of Sir J. Y. Simpson, Beck's Medical Jurisprudence. Handbook for the Physiological Laboratory, by Burnton, Foster, Klein and Sanderson, Quain's Anatomy, and about fifty others. Catalogues given. Want Geological, Botanical and Microscopical books in exchange. Dr. A. M. Edwards, 11 Washington St., Newark, N. J.

A complete set of Bulletins of U. S. Geological Survey, various reports and bulletins of surveys of Missouri, Arkansas, Minnesota, Alabama, Illinois, New York, Pennsylvania, Indiana, Ohio and Texas; iron ores of Minnesota; Wailes' Agriculture and Geology of Mississippi (rare). To exchange for periodicals and books on Entomology or for Lepidoptera. Rev. John Davis, the Deanery, Little Rock, Ark.

For sale or exchange.—A complete set of the report of the last Geological Survey of Wisconsin. T. C. Chamberlin, geologist. It consists of four large volumes, finely illustrated, and upwards of forty large maps and charts. Will sell for cash or exchange for a microscope. Address Geo. Beck, Platteville, Wis.

I have a fire-proof safe, weight 1,150 pounds which I will sell cheap or exchange for a gasoline engine or some other things that may happen to suit. The safe is nearly new, used a short time only. Make offers. A. Lagerstrom, Cannon Falls, Minn., Box 857.

Wants.

WANTED.—A position as teacher of Biology, by an experienced teacher, a college graduate with four university post-graduate courses in the Sciences. Good endorsements, and eighteen years' experience. Address A. N. Somers, La Porte, Ind.

WANTED.—Assistant in Nautical Almanac office, Navy Department. The Civil Service Commission will hold an examination on August 15 to fill a vacancy in the position of assistant (computer) in the Nautical Almanac office. The subjects will be letter-writing, penmanship, trigonometry, rudiments of analytical geometry and calculus, logarithms, theory and practice of computations, and astronomy. Each applicant must provide himself with a five-place logarithmic table. The examination will be held in Washington, and if applications are filed in season, arrangements may be made for examinations in the large cities. Blanks will be furnished upon application to the Commission at Washington.

DRAFTSMEN WANTED.—The Civil Service Commission will hold examinations on August 15 to fill two vacancies in the War Department; one in the position of architectural draftsman, salary \$1,400, the other in the position of assistant draftsman, Quartermaster General's office, salary \$1,200. The subjects of the architectural draftsman examination are letter-writing, designing specifications and mensuration, and knowledge of materials; of the assistant draftsman examination they are letter-writing, tracing, topographic drawing and projections. The examination will be held in Washington, and if applications are filed in season, arrangements may be made for examinations in the large cities. Blanks will be furnished upon application to the Commission at Washington.

A YOUNG man who has been through the course in mathematics in Princeton University, wishes some tutoring this summer. Rates reasonable. Address P. H. Westcott, Cramer's Hill, Camden Co., N. J.

A GRADUATE of an American Polytechnic institution and of a German University (Göttingen), seeks a position to teach chemistry in a college or similar institution. Five years' experience in teaching chemistry. Address Chemist, 757 Cary St., Brockton, Mass.