connection between the undeniably interesting facts related and that "material connection" between the bodies of our universe, which he claims to have discovered. Whatever may be the real nature of that connection — and we doubt if our author has hit upon it — these facts will, unquestionably, be found perfectly consistent with it, and a part of it; but a thousand other schemes than this may be produced by the poetic imagination of the author in science into which these facts may also be worked, and it remains, most likely, for direct investigation, with all the aid of the most perfect modern apparatus and methods, to finally determine solutions of the still numerous problems of contemporary science. The Greek methods of speculation and non-scientific imagination are not of much promise where a "material connection" between the bodies of the solar and other systems of the universe is the subject-matter of investigation. The machinery of the universe must probably be ultimately revealed by expert and practised mechanicians.


A little book on a very elementary portion of the science of mechanics, as here treated, but an excellent treatise for beginners. Professor Worthington has made his process of instruction a most practical and sensible one — giving first a statement of the facts and data as developed by experiment and then deducing the laws of mechanics applying to the case and finally applying those laws and the equations expressing them to the solution of problems. Such applications are well illustrated by considerable numbers of well-chosen examples. This method of treatment is certainly well suited to the instruction of young students, and we are not sure that it is not the best for older ones in many cases in which the opposite course of enunciating the law and later illustrating it and deducing constants by experiment. We observe that the new term, "torque," is accepted by the author and that he also adopts the "pound" and the conventional distinction pound for force and lb. for mass. We are not sure that either is needed or desirable; but fashion and convention have so much influence in science as in modes de Paris. They have probably come to stay, like the barbarous nomenclature of the electricians; but, in this book, the frequent use of the "engineers, or gravitation" units, as its author calls them, will go far toward relieving the mind of its readers of those misapprehensions and confusions which so constantly arise in the study of the older text-books.


This large and handsomely made book contains the line of work proposed for use in the elementary instruction of the technical schools, especially those of engineering. The exercises given are those which have proved successful, during twenty years of experience, by its author. They are intended to train eye, hand, and judgment as well. "The artifices and offensively stage machinery of descriptive geometry" is kept out of sight as far as possible, although they are not considered entirely useless, nevertheless. Maxims, bits of condensed wisdom, are sprinkled throughout the work, as "Pendulum light, pencil clear," etc. "Make haste slowly," and are clearly the result of long experience and a fruitful observation. The methods are excellent, the manner of doing the work no less satisfactory; and the whole constitutes one of those rare treatises on a technical subject which can only be produced by an author who is wise in the principles of his craft and experienced, practically, in their application to the actual, live problems of the profession in which he is an expert. The principles of projection, the laying-out of curves, and the construction of problems in connection with the design and adaptation of gearing to its work, illustrate especially the advantage possessed by the author in the present case. This is an admirable work, and author and publishers are alike entitled to great credit.

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

Horsford Chemical Works, Providence, R. I.

Beware of Substitutes and Imitations.

For sale by all Druggists.

The American Geologist for 1893.

Edited by Prof. S. Calvin, University of Iowa; Dr. E. W. Clapp, Bucolic College; John Eversman, Lafayette College; Dr. Terrill Parner, Philo. Hark. Soc.; Prof. F. W. Griswold, Colorado College; Prof. C. W. Goodsell, Emory College; Survey; Dr. James A. Garfield, President; Hon. W. M. D. Knowlton, U. S. National Museum; Joseph B. Tyrell, Geol. Surv. of Canada; K. O. E. Ulich, Minnesota Geological Survey. R. O. L. C. W. Tenn. and University of Minnesota. Now in its Xth volume. $5.50 per year. Sample copies, 30 cents. Address

THE GEOLOGICAL PUBLISHING CO., Minneapolis, Minn.
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.

FOSSIL RESINS.

This book is the result of an attempt to collect the scattered notices of fossil resins, exclusive of those on ozone. 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

12mo. 81.

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

TITLES OF SOME ARTICLES PUBLISHED IN SCIENCE SINCE JAN. 1, 1893.

Aboriginal North American Tea.

Adelie, Arachnida; description of.

Anthemis, Ring, the tomb of.

Anthropology, Indian children.

Architectural Exhibition in Brooklyn.

Arts and Crafts, improvement in Domestic Fabrics.

Artesian Wells in Iowa.

Asteromyia.

Bacteria, Some Uses of.

Birds breeding at Hanover, N. H.

Botanists, American and Nomenclature.

Bryophytes and Ceramides.

Calyptrata, Insects found embedded in these.

Canal Turnpike, The teaching of.

Communications, News Notes on.

Coral Reefs of the Great Barrier Reef.

Cotton, the growth of.

Cucumis, The history of.

Deaf, Higher Education of.

Diamonds, Origin of.

Diseases, Arsenical.


Domestic Fabrics, Preservation of.

Eyes, Certain Optical Principles of.

Fossils, Notice of New.

Genus, Artificial, of a Nomenclature in.

Glacial Beds, Origin of.

Golden, Katherine E., Agriculture, Iowa.

Grasses, Homoptera.

Grasses, Insects in.

Gree, Healing.

Gross, John, Deaf, Higher Education of.

Habitat, The Historical.

Hemiptera, The Mouth, the Structural.

History, of the Ancient Volcanic Wars.

Hyposis among the Lower Animals.

Indian Occupancy of New York.

Influences, Recent Delineating the Germs of Insects in.

Investments in Foreign Countries, How to Protect.

Inventions and Manufacturers Association.

Iowa Academy of Sciences.

Japanese, Notes on.

Killer, Bales.

Klamath Nation, Linguistics.

Laboratory Training, Aim of.

Lewis II, Carvill, Work on the Glacial Phenomena.

Lightning, New Method of Protecting Buildings from.

Lincoln Bicentennial.


MacDonald, Arthur, Washington, D. C.

Macmillan, David, Bastian, London.


Machten, E. H., Ohio.

Mudge, John, Massachusetts, Massachusetts.

Mills, Joseph, Michigan, Michigan.

Morphological Study of.

Ornithology, Bird, a brief History.

Passage Office Building, The.

Ptycholecostoma Bay, Notes on the Perforality of.

Pic's House, A.

Pocket Gopher, Extermination of.

Polarization, Direct Radiating.

Psychological Laboratory at Toronto.

Psychological Training, The Need of.

Pterodactyls, A.

Bio-Culture in Japan, Mexico and the United States.

River, Evolution of the, in Nebraska.

Scientific Alliance, The.

Sierrus and the Sturgeon.

Star Photography, Notes on.


Stars, The, in Mr. White's Notes on the Great Plain.

Teaching of Science.

Trees, The New Saber Toothed, from Kansas.

Trees, Timber, Western Vegetation of.

Types of Insects and Their Food, The.

Vegetation and Weather, Variations in.

Weeds, Insectivorous, the Experiences of.

Weeds, American.

Willow, A, Recent Analysis of.

Wind-Storms and Trees.

Wings, The, the Sophisticated French.

Zoology in the Public Schools of Washington, D. C.

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.

FOSSIL RESINS.

This book is the result of an attempt to collect the scattered notices of fossil resins, exclusive of those on ozone. 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

12mo. 81.

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