

an Oregon junco (*Junco hyemalis oregonus*) and a Vigor's wren (*Thryothorus bewickii spilurus*) which were engaged in a spirited dispute. They made frequent passes at each other as they darted about the branches of a small tree, sometimes the junco and sometimes the wren being the aggressor. Presently a rufous hummingbird (*Trochilus rufus*) appeared upon the scene, and dashing fearlessly at the belligerents quickly put them both to flight. The wren came my way and alighted on a brush pile not ten feet distant, whither he was hotly pursued by the hummer. The latter overtaking him buzzed vigorously about his ears, while the wren with a fuddled demeanor endured it for a moment and then sought relief in the depths of the brush heap.

J. M. EDSON.

New Whatcom, Wash., Sept. 13.

NEW FIRE FROM THE LIGHTNING STROKE.

PROFESSOR O. F. COOK, of Huntington, L. I., who has returned from a journey in Liberia, gave the writer a most interesting account of a custom of the Golas of that country. The Golas apparently do not use fire sticks, but preserve fire carefully. When fire follows a stroke of lightning they hasten to secure a light from it, and putting out all the fires in the village, kindle them again from the new fire.

Lightning is very common in the Gola country, where in certain seasons there are five or six thunder storms in one day.

I regard this one of the most important contributions to the question of the origin of fire, and it shows an unexpected attitude towards the fire from lightning.

WALTER HOUGH.

U. S. National Museum, Oct. 17, 1893.

NOTES AND NEWS.

MR. L. C. WOOSTER, who for a year past has been in charge of the Kansas Educational Exhibit at the World's Exposition, has charge of the Science Department in the State Normal School of North Dakota at Mayville. Mr. Wooster has occupied a similar position in the Normal School at Whitewater, Wis.

—Mr. L. B. Avery, who for four years past has been at the head of the Science Department of the State Normal School at St. Cloud, Minn., has accepted the Presidency of the North Dakota State Normal at Mayville.

—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Senor Alvarenga, and amounting to about one hundred and eighty dollars, will be made on July 14, 1894, provided that an essay deemed by the Committee of Award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the Secretary of the College on or before May 1, 1894. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within it the name and address of the author. It is a condition of competition that the successful essay or a copy of it shall remain in possession of the College; other essays will be returned upon application within three months after the award.

—Two articles in the November number of the *Atlantic Monthly* will be of particular interest to teachers. These are Horace E. Scudder's "School Libraries," and Ernest Hart's "Spectacled Schoolboys."

BOOK-REVIEWS.

The Science of Mechanics. By DR. ERNST MACH. Translated by T. J. McCormack. Chicago, The Open Court Publishing Co., 1893. 534 p., 12 mo. \$2.50.

THIS interesting and learned work is the result of a mathematician's study of the historical development of the science of pure mechanics—the mechanics of the mathematician, as distinguished from the mechanics of the engineer and the artisan. It is a critical and historical exposition of the fundamental principles of mechanics as rendered by Archimedes, Leonardo, Ubaldi, and Stevinus, in earlier times, and by Guericke, Boyle, Galileo, Newton and their successors in recent times. The development of the principles of statistics by the ancients and the im-

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.

SOFTLY STEALS THE LIGHT OF DAY

when filtered through windows covered with

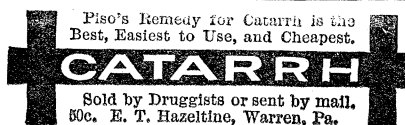
CRYSTOGRAPHS,

a substitute for Stained Glass that is inexpensive, beautiful, and easily applied.

20c. per square foot. Samples and catalogue, 10c.

CRYSTOGRAPH CO.,

816 North Broad St., Philadelphia.



BUILDING BOOKS.

DRAWING INSTRUMENTS.

1893 Catalogue

of Books on Building, Painting, and Decorating, also Catalogue of Drawing Instruments and Materials, sent free on application to

Wm. T. Comstock,
23 Warren St., New York.

RESTORE YOUR EYESIGHT

Cataracts, scars or films can be absorbed and paralyzed nerves restored, without the knife or risk. Diseased eyes or lids can be cured by our home treatment. "We prove it." Hundreds convinced. Our illustrated pamphlet, "Home Treatment for Eyes," free. Don't miss it. Everybody wants it. "The Eye," Glens Falls, N.Y.

Every reader of "Science" should subscribe for the

AMERICAN ARCHITECT,
THE OLDEST AND BEST

Architectural publication in the country. Interesting articles on architecture, Sanitation, Archaeology, Decoration, etc., by the ablest writers. Richly illustrated. Issued weekly. Send stamp for specimen copy to the publishers,

Ticknor & Co., 211 Tremont St., Boston.

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, NEW YORK.