

Laboratory Training for Mining Engineers:
R. H. RICHARDS.

Operating Machine Tools by Electricity:
GEORGE RICHMOND.

First Principles in Architecture: WM. HENRY
GOODYEAR.

SOCIETIES AND ACADEMIES.

THE LINNÆAN SOCIETY.

THE Linnæan Society of New York City, in coöperation with the American Museum of Natural History, has arranged for a series of illustrated lectures to be given in the large lecture hall of the museum, on Tuesdays at 8 p. m. The lectures are:—
FRANK M. CHAPMAN, assistant Curator in the American Museum of Natural History. *A Trip through the Lesser Antilles.* Physical and Natural History of the Islands, their Products and Inhabitants. January 8.

HENRY FAIRFIELD OSBORN, Sc. D., Da Costa Professor of Biology, Columbia College. *The Great West, a Half Million Years Ago.* An account of our Continent when it was separated from South America and joined to Asia, and the Climate and Vegetation were Sub-tropical. February 5.

WILLIAM LIBBEY, JR., Sc. D., Professor of Physical Geography and Director of the E. M. Museum of Geology and Archæology, Princeton College, New Jersey. *Hawaii, the Paradise of the Pacific.* March 12.

FREDERICK W. PUTNAM, Professor of American Archæology and Ethnology in Harvard University, and Curator of Anthropology in the American Museum of Natural History. *Ancient Earthworks in the Ohio Valley.* April 2.

UNIVERSITY ARCHÆOLOGICAL ASSOCIATION.

The University Archæological Association of Philadelphia offers a course of lectures to be given at 4 p. m., in the Library building of the University of Pennsylvania, as follows:—

January 9.—MR. TALCOTT WILLIAMS, *Some Moroccan Relations.*

January 16.—DR. DANIEL G. BRINTON, *The Beginnings of the Fine Arts.*

January 23.—MR. HENRY G. BRYANT, *Notes on the Most Northern Eskimos.*

January 30.—DR. HARRISON ALLEN, *The Human Skull; what is its Place in a Museum of Archæology?*

February 6.—CAPTAIN RICHARD S. COLLUM, U. S. M. C., *The Evolution of Small Arms.*

February 13.—DR. DANIEL G. BRINTON, *Love Charms and Tokens.*

February 20.—MR. STEWART CULIN, *The Wand of the Conjuror.*

STEWART CULIN, *Secretary.*

THE ROCHESTER ACADEMY OF SCIENCE.

Program of Meetings, 1895.

January 14.—Annual Meeting; Election of Officers; Illustrated Paper by the President, PROF. H. L. FAIRCHILD, *The Geology of the Pinnacle Hills.*

January 21.—EMIL KUICHLING, *The New Conduit of the Rochester Water Works.*

January 28.—Popular Lecture, J. D. MAL-
LONEE, *The Structure of Rocks as Shown by Polarized Light.*

February 11.—J. STANLEY-BROWN, *The Pri-
bilof Islands and the Seal Industry.*

February 25.—J. EUGENE WHITNEY, *The
Depotism of the Plurality.*

March 11.—CHARLES H. WARD, *The Teeth
of Man.*

March 25.—PROF. W. W. ROWLEE, *The Evo-
lution of Seeds.*

April 8.—CHARLES WRIGHT DODGE, *Diph-
theria and Anti-toxine.*

April 22.—ADELBERT CRONISE, *The Panama
Canal.*

May 13.—RICHARD M. MOORE, *The Coleop-
terous Fauna of Rochester and Vicinity.*

May 27.—H. L. FAIRCHILD, *Glacial Lakes of
Western New York.*

June 10.—H. L. FAIRCHILD, *The Geology of
Irondequoit Bay.*

AMERICAN SOCIETY OF CIVIL ENGINEERS.

December 19.

MANSFIELD MERRIMAN, *The Strength and Weathering Qualities of Roofing Slates.*

This paper, which will be published in the transactions of the Society, about February 1st, gave an account of original physical and chemical tests of the properties of different slates.

GEOLOGICAL SOCIETY OF WASHINGTON.

January 9.

MR. J. S. DILLER, *Artificial wire silver, prepared by F. C. PHILLIPS.*

MR. G. P. MERRILL, *On the disintegration of the granitic rocks of the District of Columbia.*

MR. W. LINDGREN, *Characteristic features of the gold quartz veins of California, with specimens.* WHITMAN CROSS, *Secretary.*

THE BIOLOGICAL SOCIETY OF WASHINGTON.

January 12.

L. H. BAILEY, *The Plant Individual in the Light of Evolution.*

FREDERIC A. LUCAS, *Secretary.*

BOSTON SOCIETY OF NATURAL HISTORY.

January 14.

J. WALTER FEWKES, *The new fire ceremony at Walpi.* SAMUEL HENSHAW, *Secretary.*

THE NEW YORK ACADEMY OF SCIENCES.

SECTION OF BIOLOGY.

Exhibition of microscopical and lantern slides with notes on technique.

R. H. CUNNINGHAM, *On the Sources of Illumination for Photo-micrography.*

C. F. COX, *The Lantern Slides of MR. E. F. SMITH, F. R. M. S., of London, illustrating the latest Theories of Diatom Structure.*

O. S. STRONG, *Notes of new histological Nerve Methods.*

EDWARD LEAMING, *Exhibition of photomicrographic slides, bacteriological, neurological, biological.*

BASHFORD DEAN, *Secretary.*

THE NEW YORK ENTOMOLOGICAL SOCIETY.

January 15.

Meeting at American Museum of Natural History.

R. L. DITMARS, *Notes on a collecting trip through Connecticut.*

LEWIS H. JOUTEL, *Secretary.*

NEW BOOKS.

Radiant Suns. AGNES GIBERNE. New York, Macmillan & Co. 1894. Pp. vii+328.

Race and Language. ANDRÉ LEFÈVRE. New York, D. Appleton & Co. 1894. Pp. vi+424.

Die Samoanische Schöpfungs-Sage und Anschliessendes aus der Sudsee. ADOLF BASTIAN. Berlin, Emil Feller. 1894. Pp. 50.

Die Gross-Schmetterlinge Europas. PROF. ERNST HOFMANN. 2d Ed. C. Hoffmann. 1894. Pp. xl+24. M. 28.

Model Engine Composition with Practical Instructions to Artificers and Amateurs. J. ALEXANDER. London, Whittaker & Co.; New York, Macmillan & Co. 1894. Pp. viii+324. \$3.00.

Ein geologische Querschnitt durch die Ost-Alpen. A. ROTHPLETZ. Stuttgart, E. Schweizerbart. 1894. Pp. iv+268. M. 10.

Geotektonische Probleme. A. ROTHPLETZ, Stuttgart, E. SCHWEIZERBART. 1894. Pp. 175. M. 8.

Biological Lectures Delivered at the Marine Biological Laboratory of Wood's Hall, Boston. GINN & Co. 1894. Pp. 242.

Introduction to Chemical Analysis for Beginners. FR. RUDORFF. Translated from the Sixth Edition by CHARLES B. GIBSON and F. MENZEL. Chicago, The W. T. Keener Co. 1894. \$1.00.

The Etiology of Osseous Deformities of the Head, Face, Jaws and Teeth. EUGENE S. TALBOT, 3d Ed. Chicago. The W. T. Keener Co. Pp. xvi+487, \$4.