

or two, there is nothing to indicate that it might not have come from an English or American printing office. Yet the whole of it, plates and text, is the product of a Japanese office. It is also a striking example of the extended use of the English tongue when a paper of this character appears in our language instead of French or German.

The paper is the result of several years of study by the author, and shows great industry and research. The Archæan is divided into an upper and lower division. In the former are placed the Gozaisho and Takanuki series, and in the latter the Laurentian. The Gozaisho series is estimated to have a thickness of 10,000 metres. The Takanuki series was found too distorted to estimate the thickness. Many details of sections are given, and there is also an extended discussion of the origin of the various rocks, and of their lithological characters. The paper is worthy the attention of students of the Archæan formations.

JOSEPH F. JAMES.

May 5.

*The Microscopical Examination of Potable Water.* By GEO. W. RAFTER. New York, D. Van Nostrand Company. 160 p. 18°. 50 cts.

THIS little book, forming No. 103 of the Van Nostrand Science Series, fully bears out the character of preceding volumes, and, like them, will be well received by all. The plain language used puts it at once within the limits of beginners in microscopical water analysis, and, at the same time, it affords a handy *résumé* of work done for the use of the professional student. Care has evidently been taken by the author to give as completely as possible "the state of the art" to the date of issue, and in this particular the book is in advance of some of its more pretentious rivals.

It is divided into two parts, the first treating the subject qualitatively, the second quantitatively, while appended is a bibliography of water examinations, both from the chemical and biological standpoint. These two fields of research, chemical and

biological, are each given their proper place throughout the volume, and, more fairly than is usually the case, the author believes them of equal value when in conjunction with a study of environment, and equally valueless when used alone. It has become a habit among biologists, latterly, to decry chemical methods altogether, while chemists, in their turn, have been rabid in their defence, hence the stand taken by Mr. Rafter is particularly refreshing, and the more so that he is eminently a biologist, and has arrived at his conclusions through calm reasoning. C. P.

#### AMONG THE PUBLISHERS.

WE have received from D. Appleton & Co., their "Guide Book to Alaska and the Northwest Coast," prepared by Eliza R. Scidmore. It gives a quite minute description of the whole coast of North America, from the Strait of San Juan de Fuca to the Aleutian Islands, with brief notice of the more northern portions of the great Alaskan peninsula. Though written for tourists, it is by no means confined to the superficial aspects of the country, but gives attention to the geographical features, the industries and commerce, the mountains and glaciers and the native tribes, presenting a larger amount of information than might be expected in a book of one hundred and fifty pages. Such a book is necessarily a compilation from various sources; but the author has evidently studied the best authorities, and has supplemented them by her own observations. The country described has certain special attractions for tourists, especially those of scientific proclivities, since the geological formations, the flora and the native inhabitants present some remarkable peculiarities. Many scientific observers, as well as other tourists, have already visited the region, especially its southern part; yet even now it is so little known that visitors who wish to see as much as possible there will find a guide-book indispensable. To such persons, therefore, this handy volume, which is well illustrated with maps and pictures, cannot fail to be useful.

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For sale.—Wheatstone Bridge wire, made to order, new and unused. Price, \$10. W. A. Kobbe, Fortress Monroe, Va.

For sale or exchange.—One latest complete edition of Watt's Dictionary of Chemistry, in fair condition; one thirty volume edition (9th) of Allen's Encyclopædia Britannica, almost new. Will sell cheap for cash or will exchange for physical or chemical apparatus. Address Prof. W. S. Leavenworth, Ripon College, Ripon, Wis.

Exchange.—One celestial, one terrestrial globe, one lunatettis and charts, celestial maps, diagrams and ephemeris from 1830 to 1893, astronomical works, all in good condition. Will sell cheap or exchange. Make offer. C. H. Van Dorn, 79 Nassau St., New York.

The Rev. A. C. Waghorne, New Harbor, Newfoundland, wishes to sell collections of Newfoundland and Labrador plants, all named by competent botanists. He is going on a missionary journey along the Labrador coast, from the middle of July till October, and in return for much needed aid towards (Episcopal) Church purposes in that region, will be glad to be of service to any botanists who may write to him. Letters posted in the U. S. up to July 1 will reach him at the above address, and if posted later will be forwarded.

For exchange.—I wish to exchange cabinet skins of Californian birds or mammals for any book on the following list, books if second-hand to be in good order. Manual of Vertebrates, fifth edition, D. S. Jordan; Nests and Eggs of North American Birds, Oliver Davis; Marine Mammals of the West Coast of North America, C. M. Scammon; The United States and Mexican Boundary Survey, Vol. II., Zoology, S. F. Baird. F. Stephens, Witch Creek, San Diego Co., Cal.

Minerals for exchange—John Holl. Rollo, Wilmington, Delaware.

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**WANTED.**—Second-hand copy of Ehrenberg's Radiolaria, Berlin, 1875. Selected diatom slides, cash or both in exchange. D. C. Lewis, M.D. Skaneateles, N. Y.

**WANTED**, as principal of a flourishing technical school, a gentleman of education and experience who will be capable of supervising both mechanical and common school instruction. Special familiarity with some technical branch desirable. Address, giving age, qualifications, etc., J. B. Bloomingdale, Fifty-ninth street and Third avenue, N. Y.

**WANTED.**—A young man as assistant in our microscopical department. Queen & Co., Philadelphia.

**THE** undersigned desires specimens of North American Gallinæ in the flesh for the study of their pterylosis. These species are especially desired: *Colinus ridgwayi*, *cyrtolox montezumae*, *deudragapus franklini*, *lagopus velchii*, *tymppanuchus cupido* and *pedicocetes phasianellus*. Any persons having alcoholic specimens which they are willing to loan or who can obtain specimens of any of the above are requested to communicate with Hubert Lyman Clark, 3922 Fifth Avenue, Pittsburgh, Pa.

**A** COMPETENT TEACHER of botany in college or university is open to engagement. Address L., Box 86, Rochester, Mich.