

Va., would be caused to fluoresce by the heat of the hand, and that a similar variety had been described as occurring from Penandrea, Cornwall, England. He had cut a small stone of this substance, and had passed it around the rooms of the Academy of Sciences, the stone emitting a phosphorescence during the entire time. Mr. Kunz exhibited a copy of Sir Francis Reed's "Experimentala Naturæ" (Amsterdam, 1685), which contained a plate showing eight of these so-called cobra-de-capello stones, to which were attributed the power of curing the bites of serpents and other venomous bites. Mr. Kunz also exhibited specimens of tabasheer, the variety of opal found in the joints of the bamboo, which strikingly resembled in its appearance, and also in its power of absorbing an equal weight of water, the variety of hydrophane described by him from a Colorado cavity, stating at the same time that the *oculus mundi* of the gem-writers of the sixteenth to the eighteenth century was evidently this tabasheer, which is powdered by the natives, and used as a medicine.

— C. O. Boutelle, H. L. Whiting, and B. A. Colonna, a committee of the assistants of the United States Coast and Geodetic Survey, announce, on behalf of themselves and their associates, that they intend to ask the President of the United States to appoint Dr. Benjamin Apthorp Gould of Cambridge, Mass., as superintendent of the Coast and Geodetic Survey. Dr. Gould is no stranger to the Coast Survey. From 1851 to 1868 he was attached to the work, and for nearly fourteen years was in general charge of all its telegraphic longitude parties. Between 1853 and 1867 eleven printed reports bear his name. The first telegraphic determination of the difference of longitude between Greenwich, England, and Cambridge, in New England, was under his general charge, and he personally superintended the observations at the eastern end of the cable, near Foilholerum, in Ireland. Soon after this last great work of 1866-67, he left the country to found an astronomical observatory, and educate native astronomers at Cordova, in the Argentine Republic. What he has done for astronomy in the southern hemisphere during the thirteen years of his stay there, has been well set forth in the "Proceedings of the National Academy of Sciences," at its session in April, 1888, in Washington, when the Watson gold medal was awarded to him for his distinguished and successful labors.

— At the Academy of Sciences, Paris, March 4, remarks accompanying the presentation of a work entitled "Introduction à l'étude de la Chimie des anciens et du moyen âge," were made by M. Berthelot. This work forms a sequel to the author's "Origines de l'Alchimie" and "Collection des anciens Alchimistes grecs," thus completing a series of historical researches which fully establish the true character of the old philosophic doctrines, methods, and practices, which were hitherto supposed to be mainly absurd and fanciful, but which must henceforth enter into the scheme of historical evolution of the positive sciences. Here M. Berthelot gives a full description and translation of the Leyden papyrus of Egyptian origin, the oldest extant treatise on chemistry. The signs, notations, and appliances of the ancient alchemists are also described and reproduced by the photogravure process.

— Capt. Moore, of H.M.S. "Rambler," has lately described in a paper read before the China Branch of the Royal Asiatic Society, and summarized in *Nature*, the appearance and effects of the remarkable "bore" which often occurs in Hangchow Bay. This dangerous visitor is the result of the struggle between the advancing tide in the great estuary and the current of the river. Capt. Moore and his officers on several occasions observed the progress of the wave, and their investigations may be summarized as follows: The rate at which the bore travels varies from ten to about thirteen miles per hour. The height of the bore rarely exceeds 12 or 14 feet; and broken water, in which no small boat could live, follows it for some distance. With the passing of the wave the tide rises many feet in a few seconds; in one instance, observed by Capt. Moore, it rose from 9 feet 4 inches below, to 4 feet 7 inches above, mean level. The rush of the bore was so strong that the force of the waves breaking against the broadside of the "Rambler" sent the water into the mizzen chains, and the spray on to

the poop. The junks in that region are protected by platforms with narrow steps cut in the sides. To the north of the estuary is a great sea-wall, built to protect the surrounding country from being flooded by these great tidal waves. It is thirty-five miles long, and it is strengthened, where the bore strikes most strongly, by an elliptical stone buttress, 253 feet long by 63 feet wide. Behind this the junks are drawn up for shelter.

— A test-piece of Mullens silicated iron, has stood a compression of 120,000 pounds per square inch. It finally broke in the same manner as specimens of stone do. It contained a very large proportion of silica.

— The latest news from the Sudan encourages the hope that Emin Pacha has successfully resisted the Mahdi, and makes it probable that Osman Digma's report of his surrender was solely a trick to prevent the English from action at Suakim. A despatch dated from Cairo, March 23, says that Mahommed Beraivi, who has arrived here from Omdurman, reports that Sheik Senoussi's forces occupied Darfur and Kordofan, and expelled the dervishes. In July last, Mahommed Beraivi accompanied an expedition of six thousand Mahdists which proceeded in steamers and barges against Emin Pacha. He states that Emin defeated the dervishes near Bor, killing most of them, and capturing their steamers and much ammunition. A despatch of the following day adds that Emin was reported to be in good health, and that all his people and some European travellers were with him in Bahr-el-Gazal.

BOOK-REVIEWS.

Profit Sharing between Employer and Employee. By NICHOLAS P. GILMAN. Boston and New York, Houghton, Mifflin, & Co. 12°. \$1.75.

THIS is an elaborate history of profit-sharing, beginning with the initiation of the system in France by Leclair, and tracing its development in Europe and America to the present time. The author shows a deep interest in his subject, and gives evidence of painstaking industry in the study of the facts. His work is well written and well arranged, and presents as exhaustive an account of the subject as any reader will be likely to want. Though Mr. Gilman is a firm and even enthusiastic believer in profit-sharing as a cure for the industrial evils of the age, he does not fail to recount those experiments with the system that have failed, as well as those that have succeeded. He does not confine himself however, to the mere history of the system, but discusses its value and its relations to the present wages system on the one hand, and to that of co-operation on the other. Co-operation, he thinks, is not destined to succeed, except under specially favorable circumstances, because the laborers are not willing to pay a sufficient salary to their manager to secure the best talent. Profit-sharing, on the other hand, leaves the management where it is now, while it furnishes the means, as Mr. Gilman thinks, to reconcile the laborers to their position. How far these views are correct, time alone can tell; but we would point out that the *Maison Leclair*, which the author chiefly relies on as an example of profit-sharing and its benefits, is really a co-operative society, somewhat different from the ordinary type, but none the less really co-operative. The workmen, or a certain portion of them, own one-half the capital, the two managing partners owning the remainder; and when one of the managing partners dies, or retires from the firm, the workmen who are shareholders choose his successor. Part of the profits are divided among all the workmen, whether they own capital or not; but this is only one of the distinguishing features of the *Maison*, that of co-operation being quite as prominent. We shall be glad to hear that Mr. Gilman's work meets with a ready sale.

Deductive Logic. By ST. GEORGE STOCK. London and New York, Longmans, Green, & Co. 16°. \$1.25.

THIS is an ordinary treatise on formal logic, with no considerable deviations from the usual type. The author says that before publishing the work he submitted it to the criticism of a friend, who advised him to strike out some new matter which the manuscript contained, and that he did so, retaining only a few novelties. Those