## Proceedings of the Mineralogical Society for the Month of January.

The fifth annual meeting of the Mineralogical Society of the College of Ottawa was held on December 30th, 1885, when the election of officers took place, and the objects and prospects of the Society were discussed.

On January 5th, 1886, the regular work was resumed. Rev. Father Marsan, O.M.I., read a paper on "Silicates and their place in the mineral kingdom," in which he advocated the quite novel proposition that the silicates should be considered as a sub-kingdom. He treated the subject in a masterly manner, and in the discussion which followed disposed of the principal objections which were brought forward. Mr. W. Herckenrath read a paper on the "Mineralogy of Pliny," showing the great strides in advance made by the science since Pliny's time. Mr. D. A. Campbell gave a series of experiments illustrating the coloration of flame. Prof. Macoun, who was present at this meeting, highly praised the objects of the society and laid special stress on the importance of acquiring a knowledge of sciences by practical experiments such as he had witnessed.

On January 13th Mr. Wade Smith read an interesting paper on "sponges," and showed that though apparently quite foreign to mineralogy, they had in reality a close relation with that science. Rev. Bro. Maloney read a paper on the "Twelve Stones of the Essen." By the novel way in which he treated it he made a comparatively dry subject very interesting. Mr. C. C. Delaney followed with experiments showing the action of acids on limestone.

On February 13th Bro. Maloney continued his paper on the "Twelve Stones of the Essen." Mr. D. Phalen successfully performed several experiments illustrating the methods of testing for metals in solution. Rev. Prof. Marsan read an essay on the "lustre of minerals," which elicited an animated discussion.

## BOOK NOTICES.

PRACTICAL AND ANALYTICAL CHEMISTRY: A complete course in Chemical Analysis. By Henry Trimble, Ph.G., Professor of Analytical Chemistry in the Philadelphia College of Pharmacy. P. Blakiston, Son & Co., Philadelphia.

This book supplies a want which has long been felt in institutions, where but a limited time can be devoted to the study of analytical chemistry. Most treatises on this subject are too comprehensive for an elementary course; and the result in many instances has been the elimination of analytical chemistry from the programmes of classical courses. Such a step is certainly to be regretted, as chemistry cannot be properly understood, nor students interested in it, when the subject is presented in its least practical aspect. A work was needed, elementary, yet sufficiently complete to give an exact notion of the science, and to enable the student to pursue afterward, if he so desired, a higher course of qualitative and quantitative analysis. This end has been secured by the present publication, which gives due prominence to every fundamental operation, and the most important confirmatory reactions. The whole work is written in a clear and concise style; tables are most conveniently placed at the end of each chapter, and the clear and beautiful type, distinct headings and neat illustrations, make it a very attractive text-book.

*Practical Treatise on Hydraulic Mining in California*, with Description of the Use and Construction of Ditches, Flumes, Wrought Iron Pipes and Dams; Flow of water on heavy grades and its Applicability, under high-pressure, to mining; by AUG. J. BOWIE, JR., Mining Engineer, New York; D. Van Nostrand, 23 Murray street, 1885. pp. 313.

This handsomely printed and thoroughly illustrated work meets a want in an adequate manner and we welcome it publication. As a reference both for superintendents and engineers in charge of or undertaking hydraulic mining enterprises, it can but prove invaluable; supplying as it does, information based on the results of experience under almost every possible emergency in mining engineering, coupled with descriptions of the various mechanical appliances requisite under every possible condition. The tables which Mr. Bowie furnishes give the dimensions and cost of all the notable ditches and flumes in California; area and weight of wrought iron pipes generally employed; flow of water through pipes, with a mass of statistics regarding the operations of well known hydraulic mining operations.

*The Determination of Rock-Forming Minerals* by DR EUGEN HUSSACK, Private Docent in the University of Graz; translated by EASTUS G. SMITH, PH.D. Professor of Chemistry and Mineralogy of Beloit College, Wisconsin. New York: John Wiley and Sons, 1886.

This manual designed especially for the use of students, places before English readers a description of the optical and other physical properties of minerals in a condensed, yet exhaustive manner not found elsewhere, with the methods of investigation and rock-forming minerals; there is also given a copious table of the bibliography of the subject as well as explanation of the numerous cuts. This work may be had through the business office of the *Financial and Mining Record*, New York.

**The Manufacture of Magnesium.**—The problem of producing the semi-precious metals at a low price is now very actively considered in France, and in this direction small works for making magnesium have been established at Corbeil. The most suitable lamp for burning wire of this metal is now the subject of investigation.

**The Poetsch System.**—The Poetsch system of freezing a water-bearing stratum for the purpose of sinking through it is to be applied in France to a shaft that has collapsed. This undertaking will be a peculiarly difficult one, and the result will be awaited with interest in all mining circles.

**Russian Manganese Mines.**—The Manganese mines of the Charapan District, 26 miles from the nearest railroad station, at Kwirila, Southern Russia, are growing in importance. In 1884, the output was 12,050 tons, and it is expected that during 1885 it will increase to 27,550 tons, of which 16,100 tons will be shipped from Batoum, and 11,150 tons from Poti. The bulk of the ore goes to England.

**A productive Australian Gold Quartz District.**—Charters Towers of Queensland, since the opening of its mines in 1872, has been steadily increasing in the yearly value of its quartz, crushing from 20,061 ounces of gold that year to 103,429 ounces for 1884, the value per ton of quartz crushed having been singularly uniform or about 1 ounce 13 dwts. 11 grains per ton.

## MINING NOTES.

NOVA SCOTIA.

Work at the Mount Uniacke mines progresses satisfactorily. The quartz carries gold in paying quantities, and a large amount of it can be mined at comparatively small cost from several lodes in the slate belt.

A good quality of fire-clay has been discovered at New Ross, also a manganese deposit of some extent. The distance from shipping point will, however, be a drawback to profitable mining.

Further work in the north cross-cut from the 150 foot level of the Coxheath copper mine has proved the existence of an additional vein four to five feet thick, the ore of which averages about 8 per cent copper.

During the year 1885 the Springhill mines raised 375,000 tons of coal. This is the largest output yet reached by any Nova Scotian mine, and it is anticipated that next year these figures will be greatly exceeded.

The Acadia and Vale Coal Companies of Pictou County have had meetings of their shareholders to complete the consolidation of all the companies operating in that district under one management.

The manganese deposit at Walton, owned by Messrs. Churchill, has proved to be more extensive than there was reason to expect. Some additional pockets have been met with which will doubtless yield a large quantity of high grade ore.

An unusually rich vein of gold-bearing quartz has recently been discovered on a property owned by Mr. C. B. Hilchey and others at Tangier, and the vein is now being thoroughly tested. Some of the quartz carries from 10 to 12 ounces of gold per ton, and it is expected the vein yield will be much above the average.

The exports of minerals from the province for the past two years have been, as nearly as can be at present estimated, as follows:

| | 1884. | 1885. |
|---|---|---|
| Coal (sales) | 1,261,650 tons | 1,250,000 tons |
| Gold | 16,060 oz. | 20,000 oz. |
| Iron ore | 51,845 tons | 50,000 tons |
| Gypsum | 111,068 " | 90,000 " |
| Manganese | 302 " | 250 " |
| Antimony | 600 " | 800 " |
| Limestone | 25,567 " | 24,500 " |
| Building stone | 780 " | 800 " |

MOOSE RIVER.—Twenty-five men are now mining in this district, most of whom are tributers. The principal work is being done on what is known as the Little North Lead. The crushing material is composed of slate and small quartz, the thickness varying from 8 to 15 inches, and the yield 6 to 15 dwt. per ton. The new lead which was discovered last November is being worked by Mr. Toquoy with five men. Eighteen tons of quartz from this lead have been put through the crusher, yielding 17 ounces of gold. The ten-stamp mill, which is run by water power, is kept busy night and day, and even with this it is found difficult to crush all the quartz that is being taken out.—*Critic.*