

*MEETING OF MARCH 2nd, 1885.*

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Mr. P. H. van Diest read a paper upon the recent earthquake phenomena in Spain, and gave descriptions of various shocks. He also referred to similar shocks on the coast of the Southern States. He remarked upon the desirability of forming seismographical societies in countries subject to earthquakes, and the careful study of the phenomena preceding shocks.

Mr. F. F. Chisolm presented crystallized and massive specimens of ruby silver (proustite) and polybasite from the mines of the Manhattan Company, Austin, Nevada, and also described the occurrence of lead ores in Downieville, Nevada. The ores are: anglesite, cerussite, wulfenite, pyromorphite, and galena, with calamine, sphalerite and pyrite. These ores are apparently deposited by hot springs, and the mines are now abandoned by the owners on account of the low grade and refractory character of the ores.

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*MEETING OF JUNE 1st, 1885.*

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NOTES ON THE OCCURRENCE OF GOSLARITE IN THE  
"GAGNON" MINE, BUTTE CITY.

BY RICHARD PEARCE.

The mineral is found in some old workings at the 400-foot level. It appears on the surface of the walls of the level in beautiful tufts, curving downward, sometimes three and a half inches in length. It is often associated with sulphate of copper. Its presence may be accounted for by the decomposition of a cupriferous zinc blende which has been found in the mine in great abundance. From the peculiar appearance of the blende in this mine I am inclined to believe that it is an amorphous variety of wurzite. I have never been able to find the slightest evidence of the usual crystalline form of sphalerite, although I

GOSLARITE IN THE "GAGNON" MINE, BUTTE CITY. 13

have taken considerable pains to look for it during the last six years; on the other hand, I have found quite a number of crystals of wurzite, a specimen of which I presented to the Society some two years ago.

The specimen of goslarite differs somewhat in appearance from the description given in Dana's System of Mineralogy, and in other works on Mineralogy. It occurs in long, silky, needle-shaped crystals, having almost the appearance of the finer varieties of amianthus.

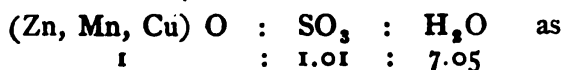
A determination of the ZnO and SO<sub>2</sub> by Mr. O. J. Frost showed the following result:

ZnO	28.00
SO <sub>2</sub>	27.60
H <sub>2</sub> O	44.40 (by difference.)
	100 00

Through the kindness of Mr. W. F. Hillebrand I have been able to obtain from him a more finished analysis of the mineral. The following are his results, with remarks upon the atomic composition of the mineral:

SO <sub>2</sub>	28.09
H <sub>2</sub> O	43.93
CuO	0.12
(Mn. Fe) O	0.30
ZnO	27.56 (Difference.)
	100 00

The atomic ratio is, for



Six molecules of water escape at 100°C.