

sary for the formation of cellulose. It was found that when the cell contents were plasmolysed, the protoplasmic masses usually remained connected by protoplasmic threads. When these threads were broken, so that there was no possible connection with a mass of protoplasm containing a nucleus, no new cell walls were formed. If a protoplasmic mass was completely separated from the nucleus in its own cell it was found that the influence necessary for the formation of cell walls could travel from the adjacent cells by means of the protoplasmic connections. Simple contact without living protoplasmic connections was not sufficient to induce the formation of cell walls. If, however, the protoplasmic connections were not broken the influence of the nucleus was capable of traveling over a distance of several millimeters.'

EDWARD S. BURGESS,
Secretary.

NEW YORK ACADEMY OF SCIENCES—SECTION
OF GEOLOGY AND MINERALOGY,
MAY 16, 1898.

MR. GEO. F. KUNZ exhibited specimens of quartz crystals found in massive gypsum from Gallineo Springs, New Mexico, and announced the discovery of a new meteorite from Ottawa, Kansas.

The first paper on the program was by Professor D. S. Martin on 'The Geology of Columbia, South Carolina, and its Vicinity.' Professor Martin described the granitic and gneissic rocks of that region and their residual products. He also commented on the character of the Potomac, Lafayette and Columbia formations, which are well exposed in the railroad cuts to the south of the city.

The paper was discussed by Professor Dodge and Dr. Ries.

The next paper of the evening was by Professor Kemp, entitled 'Some Remarks on Titaniferous Magnetites.' The speaker discussed the formula of ilmenite, and stated that it was probably a mixture of FeOTiO_2 and $n\text{Fe}_2\text{O}_3$. The amount of titanium present in the titaniferous magnetites is very variable, running sometimes as high as 40% ; in the Adirondack areas it is 10-20% .

Magnetic separation has not yet proved successful for the elimination of titanium from these ores. Nearly all of the titaniferous magnetites show small amounts of MnO , Cr_2O_3 , CoO , NiO and MgO . The latter suggests the presence of spinel. SiO_2 and Al_2O_3 have also been found, and V_2O_5 has been recorded in a few instances. Professor Kemp suggested that these minor constituents might have some influence on the metallurgical behavior of the ore. Phosphorus and sulphur are very rare. The native and foreign occurrences of the titaniferous magnetites were also alluded to.

The paper was discussed by Professor Martin, Dr. Ries and Mr. Kunz.

HEINRICH RIES,
Secretary of Section.

BOTANICAL SEMINAR OF THE UNIVERSITY OF
NEBRASKA.

At the meeting of the Botanical Seminar of the University of Nebraska on April 23d papers were read as follows: 'Recent Investigation of the Cyanophyceæ,' by F. E. Clements; 'The Morphology of Ginkgo,' by C. E. Bessey; 'Hitchcock's Ecological Plant Geography of Kansas,' by Roscoe Pound; 'Cell Division in Ascomyceteæ,' by A. T. Bell.

At the meeting on May 21st the following papers were read: 'The Proper Conception of Plant Ecology and Plant Geography,' by Roscoe Pound; 'Vegetation Pressure,' by F. E. Clements; 'The Development of the Pistils of Alismaceæ, Ranunculaceæ and Rosaceæ,' by Ernest A. Bessey.

NEW BOOKS.

Revised Text-book of Geology. JAMES D. DANA.

Edited by WM. NORTH RICE. New York, American Book Co. 1898. Pp. ix+482.

La famille Néuropathique. CH. FÉRÉ. Paris, Alcan. 1890. Pp. 352.

A Manual of Quantitative Chemical Analysis.

E. F. LADD. New York, John Wiley & Sons. 1898. Pp. vi+82.

Political Crime. LOUIS PROAL. New York, D. Appleton & Co. 1898. Pp. xxii+355.

Die Zelle und die Gewebe. OSCAR HERTWIG. Jena, Gustav Fischer. 1898. Pp. viii+314. 7 Marks.