sentatives of which feed upon mosses. The only fossil moss heretofore recorded from the United States is Lesquereux's *Hypnum Haydeni*, now believed to be instead a species of *Lycopodium*. Fragments from the Pleistocene have been reported from Canada. The species described this evening is probably the first distinct American species. Thirty or more foreign fossil *musci* have been described, many of them members of *Hypnum*, many of them of *Harpidium* and of *Sphagnum*. To this genus *Sphagnum* belongs the only fossil moss as yet known in fruit, a Tertiary specimen preserved in brown iron ore.

Discussion followed regarding the reasons for the rarity of moss fossils, Dr. Underwood, Dr. Britton, Mrs. Britton and the Secretary participating. Dr. Hollick said that, besides the negative reasons presented by lack of extensive search and by the small size of the plant in question, an important reason for the scarcity of moss-remains is the fact that mosses do not shed their leaves. Small plant-remains in Carboniferous rocks occur not in place, but in débris. Were moss-leaves deciduous there would have been greater chance of their accumulation and preservation in such masses of driftage.

The second paper, by Dr. L. M. Underwood, was entitled 'The Species of *Botrychium* of the *B. ternatum* Group.' The paper, which will soon be published, was accompanied by numerous specimens and followed by discussion at length of the principal Eastern representatives, especially of *B. intermedium*.

Mrs. Britton followed with remarks on the Muhlenberg collection of mosses recently transferred from the Philosophical Society of Philadelphia to the Philadelphia Academy of Sciences. They are preserved exactly as Muhlenberg left them, even to the replacing of a knothole. The plants are wrapped in leaves torn from Testaments printed in Low Dutch. With each specimen is preserved the number he had originally given it, the number he had used in sending it to Hedwig, and the name given it by Hedwig.

The bulk of Muhlenberg's ferns went to Willdenow at Berlin.

Among the collections at the Academy of Sciences in Philadelphia, besides those of Schweinitz, Sullivant, Nuttall and Darlington, is that of Pursh, whose herbarium is still a series of scattered sheets, neither mounted nor classified, but with labels supplied in his own hand.

Dr. Britton announced the recent purchase, by the N. Y. Botanic Garden, of the herbarium and botanical collections of Professor Lewis R. Gibbs, of Charleston, S. C., through his daughter, Miss Maria R. Gibbs. The herbarium of Elliott is in bad preservation and much of it gone entirely. The Gibbs herbarium is deemed of special value as illustrative of Elliott's plants.

Edward S. Burgess,
Secretary.

Engelmann Botanical Club.

The Club met on June 23d at the St. Louis Medical College, fourteen members present.

Mr. Walter Kirchner read a paper on fossil plants of Florissant, Colorado, and exhibited a number of specimens, several of them being new species.

Mr. J. B. S. Norton made a report of the field meet held at Cliff Cave, six miles south of St. Louis, on June 4th. The locality was a wooded ravine with limestone cliffs next the river and some upland woods. The woods may be characterized by *Hydrophyllum Canadense*, *Aralia quiquefolia* and *Carex latifolia*. The character of the limestone out-crop formation may be represented by *Celtis pumila*, *Dodecatheon media*, *Agave Virginica*, *Tecoma radicans*, the latter covering the cliffs. Specimens of the *Agave* with red spotted leaves very close to var. *tigrina*, and compound leaves of *Vitis cinerea*, were exhibited.

J. B. S. Norton,
Acting Secretary.

NEW BOOKS.

Biological Lectures Delivered at the Marine Biological Laboratory of Woods Holl, 1896–7. Boston, Ginn & Co. 1898. Pp. 242.

The Play of Animals. Karl Groos. Translated by Elizabeth L. Baldwin. New York, D. Appleton & Co. Pp. xxvi+341. $1.75.

The Doctrine of Energy. B. L. L. London, Kegan, Paul, Trench, Trubner & Co., Ltd. 1898. Pp. 108. 2s. 6d.