

not have many large trees, and possibly do not date from many scores of years back. The Island of Culebra, a small island lying to the east of Puerto Rico and belonging to it, is said to be covered by virgin forests. There are several species of tree ferns on the island, always occurring at some distance back from the coast—and on the northern slope, so far as observed. They rarely surpass twenty feet in height.

Meadows have to be made, and for this a crab grass and a festuca or fescue-grass are used. The former is a good strong grass for the meadow and also makes an abundant, excellent, high-green hay. The hay could be imported into New York at a less cost than the inferior hay from up in the State, and could be brought into the market still fresh in the winter and early spring. The fescue is a better grazing grass and grows with great rapidity and to great height when it can support itself on shrubby vegetation. Cattle graze in it up to the brisket, and in protected places along the fences it is often seen from ten to fifteen feet high.

MARK W. HARRINGTON.

#### THE BOTANICAL SOCIETY OF AMERICA.

THE sessions of the 5th annual meeting of the Society were held on Friday and Saturday, August 18th and 19th, in Townshend Hall. The meeting was called to order by the retiring President, Dr. N. L. Britton, who then resigned the chair to the President-elect, Professor L. M. Underwood.

Officers elected for the ensuing year were :

President: Professor B. L. Robinson, Harvard University.

Vice-President: Professor B. D. Halsted, Rutgers College.

Secretary: Professor G. F. Atkinson, Cornell University.

Treasurer: Dr. Arthur Hollick, Columbia University.

Councillors: Professor D. P. Penhallow, McGill

University, and B. T. Galloway, U. S. Dept. of Agriculture.

New members elected were :

Professor J. M. Macoun, Canadian Geological Survey.

Dr. W. J. Beal, Agricultural College of Michigan.

Dr. C. F. Millspagh, Field Columbian Museum.

Dr. M. A. Howe, Columbia University.

On Friday evening the retiring President, Dr. N. L. Britton, delivered a public illustrated address in the chapel of University Hall, on : 'Report of Progress of the Development of the New York Botanical Garden.'

The following papers were read at the several sessions of the Society, in addition to which a number of others were read by title :

'Apetaly and Dioeciousness.' Professor C. E. Bessey, University of Nebraska.

'Symbiosis and Saprophytism' Dr. D. T. MacDougal, New York Botanical Garden.

'The Effect of Centrifugal Force upon the Cell.' Professor D. M. Mottier, University of Indiana.

'The American Species of *Arisæma*.' Dr. N. L. Britton, New York Botanical Garden.

'The Classification of Botanical Publications.' Professor Wm. Trelease, Missouri Botanical Garden.

ARTHUR HOLLICK,

*Secretary pro tem.*

#### SCIENTIFIC BOOKS.

*Naturalism and Agnosticism.* The Gifford Lectures delivered before the University of Aberdeen in the years 1896-1898. By JAMES WARD. Two volumes. The Macmillan Co. 1899.

The purpose of Ward's two volumes is not to defend scientific naturalism from the implication of agnosticism, but to show that the only way to escape from the 'determinism' of the naturalist is through philosophical idealism. The book is able and thoughtful and original, and one which all students of science would do well to study. For this reason I shall make no attempt to present a summary of its contents, although I shall try to call the attention of those who have read the book to a point of view which is very different from that of the author.