explanation had suggested itself to him early enough in 1899 to enable him to make a number of experiments that year, with a view to obtaining evidence in regard to it. This theoretical explanation, in short, is as follows: As is now admitted, in the process of fecundation (in some plants, at least) not only is there a union of one of the generative nuclei of the pollen tube with the egg nucleus, but also, there is a union of the second generative nucleus with the embryo-sac nucleus. As the endosperm develops from this nucleus thus fecundated, it is clearly a hybrid organism also. In other words, in the fecundation of the egg a hybrid sporophyte is produced, but at the same time the supporting gametophyte (the endosperm) is itself developed as a hybrid. This is possible because of the tardy development of the gametophyte tissue, which is so delayed that actually it is formed simultaneously with that of the sporophyte which it bears, and which it should precede.

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NEW YORK BOTANICAL GARDEN.

IMPROVEMENTS in the New York Botanical Garden are going steadily forward. A contract amounting to $22,000 for grading and roadways near the Museum is approaching completion, and a series of working greenhouses is now under construction in the eastern part of the Garden in a locality little frequented by visitors. These houses comprise two main ranges 20 by 60 feet, storage rooms, potting sheds and an independent heating plant, in which the open hot water system will be used.

The New York Central and Hudson River Railroad is building a new passenger station at the Bedford Park entrance to the Garden. The new station will be of stone and brick costing about $40,000. The offices will be located on the western side of the tracks, connected by a tunnel with the extensive passenger shelters and waiting rooms on the eastern side which open directly into the plaza. The name of the station will be changed to Bronx Park (Botanical Garden) upon completion of the new building which will save much confusion to visitors.

Professor L. M. Underwood spent the summer in investigations upon American ferns in the British Museum, Kew Gardens and the Cosson Herbarium in Paris. The Cosson Herbarium contains the Feé collection, formerly owned by Emperor Dom Pedro of Brazil. The Feé collection has the largest and best set of West Indian ferns in existence.

Other exploration work was carried out in connection with the Garden is as follows: Dr. Rydberg accompanied by Mr. F. K. Vreeland made extensive collections in the Sierra Blanca in southeastern Colorado; Dr. D. T. MacDougal explored the Priest River Forest Reserve, also carrying out investigations under a grant from the American Association; Dr. C. C. Curtis made a series of collections in western Wyoming, Professor F. E. Lloyd in cooperation with Professor Tracy visited the islands in the Mississippi delta; Messrs R. M. Harper and Percy-Wilson made collections in Georgia, and Dr. M. A. Howe investigated the marine and land flora of Bermuda and the coast of Maine, also carrying out the terms of a grant from the Peabody fund; Dr. and Mrs. N. L. Britton made a brief tour in the Adirondacks, securing many living specimens of alpine plants for the grounds.

Dr. N. L. Britton is now in Europe for the purpose of securing exhibits from the Paris Exposition and negotiating for the purchase of several herbaria.

Contributions for the conservatories have been received from many sources, the most valuable of which are those given by Miss Helen Gould, Mrs. F. L. Ames and Siebrecht and Son.

The fall lecture course now in progress has been announced as follows:

October 13th. 'Autumn Flowers,' by Mr. Cornelius VanBrunt.

October 20th. 'Evergreen Trees,' by Professor F. E. Lloyd.

October 37th. 'Freezing of Plants,' by Dr. D. T. MacDougal.

November 3d. 'Evolution of Sex in Plants,' by Professor L. M. Underwood.

November 10th. 'Poisonous Plants which Live in our Bodies, and how we contend against them,' by Professor H. H. Rusby.

November 17th. 'The Sedges,' by Professor N. L. Britton.