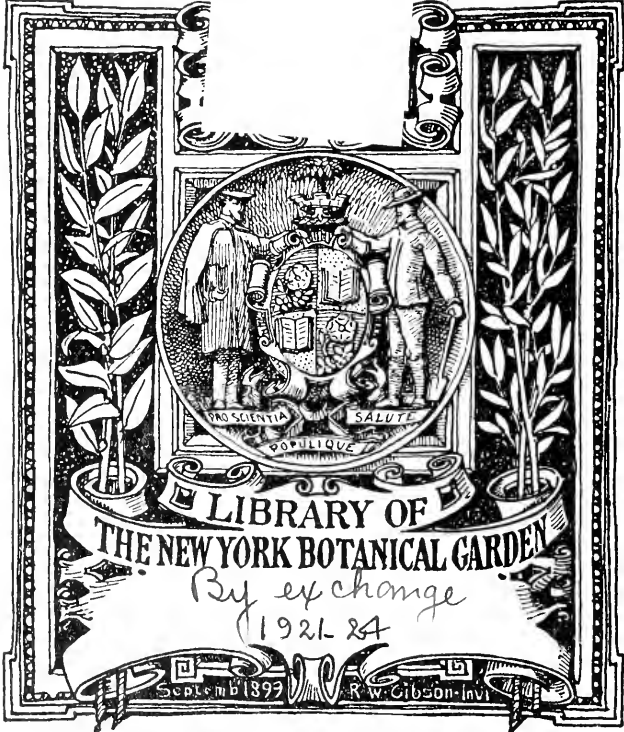


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R. W. GIBSON-INV.

Journal

of the

Horticultural Society of New York

Vol. III, Nos. 1 and 2



FEBRUARY and
MAY 1921

EDITED BY THE SECRETARY

GEORGE V. NASH

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Journal
of the
Horticultural Society of New York

INCORPORATED 1902

Vol. III, No. 1 Issued Quarterly FEBRUARY & MAY, 1921 Free to Members
By subscription \$1.00 per year

EDITOR'S NOTE

In view of the fact that the Journal is so far behind its publication, owing to various troubles in the way of printer's strikes, etc., it has been decided to issue two double numbers.

The first will be a combination of the Journals for February and May, the second of those for August and November. In this way we hope to bring the magazine up to date once more.

THE FALL SHOW

The Annual Fall Show, known commonly as the Chrysanthemum Show, was held at the American Museum of Natural History, by permission of the trustees, November 4 to 7, 1920. The exhibits were installed during the early part of the 4th, the judging taking place at 4 in the afternoon. In the evening from 7 to 10, a private view of the exhibition was held for the members of the Society, of the American Museum of Natural History, and of the affiliated organizations.

The displays were arranged in the foyer and the north and west halls. In the foyer were the large chrysanthemum plants, the ferns, other large plants, and a fine collection of Nerines in the west end. In the north hall were the orchids, and in the west hall the remainder of the exhibits.

While the display of chrysanthemum plants was not as large

as in some former years, nor the size as great, there were some excellent examples of the art of the horticulturist. For a specimen bush any color, the first prize went to Mrs. Wm. D. Guthrie, Locust Valley, N. Y., Jos. A. Winsock, gardener, for a fine specimen of Mrs. H. R. Pearson, 9 feet in diameter. A plant of the same variety, 8 feet in diameter, secured the second prize for Miss A. De Lamar, Glen Cove, N. Y., Jas. McManus, gardener. A plant of Lady Lydia, unusually convex, 5 feet in diameter, gave the third prize to Mr. Wm. B. Thompson, Yonkers, N. Y., Andrew Strachan, gardener. In the class for a bush plant, anemone or single, the first prize was awarded to Miss De Lamar, for a plant 5 feet in diameter, the second going to Mr. Thompson, for a specimen about $4\frac{1}{2}$ feet in diameter. A superb standard plant of Mrs. H. R. Pearson won for Miss De Lamar the first prize in that class; this plant was a little over 5 feet tall and had a diameter of about $6\frac{1}{2}$ feet. Mrs. Guthrie won the second prize in this class for a plant of The Bard nearly 6 feet high and with a spread of a little over 5 feet. Mrs. Guthrie also won first prize for a fine plant of The Bard, in the class for an odd-shaped bush; this specimen was 9 feet wide and 6 feet high.

In the classes for cut chrysanthemum blooms, non-commercial growers, the following awards were made. In the classes for stems not less than 2 feet: for 6 white, Mrs. Guthrie, first, Miss De Lamar, second, both exhibiting Laura Pockett; for 6 pink, Miss De Lamar, first, with Wells' Late Pink; for six yellow, Miss De Lamar, first, with Jas. Fraser, Mrs. F. A. Constable, Mamaroneck, N. Y., Jas. Stuart, gardener, second; for six red, Miss De Lamar, with Wm. Mease; for six any other color, Miss De Lamar with Mrs. H. S. Firestone. A fine vase of one or more varieties, arranged for effect, other foliage permitted, secured the first prize for Mrs. Payne Whitney, Manhasset, N. Y., George Ferguson, gardener.

For ten vases, ten varieties, three blooms of each, Mrs. Guthrie won the first prize with: Pres. Everitt, Yellow Turner, Louisa Pockett, Mary Mason, Mendon, Wm. Waite, Wm. Turner, Firestone, and Odessa. For a collection of twenty varieties, one of each, Mrs. Payne Whitney was awarded the

first prize; this collection contained: Mrs. Leslie Lewis, Jas. Fraser, W. H. Waite, Corp. John F. Piper, Mrs. G. Drabble, Nerissa, Yellow Turner, Laura Pockett, F. S. Vallis, Francis Schiffe, Wm. Rigby, seedling Greentree, Artiste, Rose Pockett, F. S. Firestone, Wm. Turner, Earl Kitchener, seedling Harbor Hill. For a collection of ten varieties, one of each, Mrs. Guthrie won first with: Nagiras, Pres. Everitt, Mendon, Wm. Turner, Laura Pockett, Rigby, Mrs. F. Traendly, Firestone, Nerissa, Yellow Turner. Mr. D. E. Oppenheimer, Yonkers, N. Y., A. Macdonald, gardener, won first for a collection of five varieties, one of each. Mrs. Payne Whitney won first prize for a collection of singles, twelve varieties; for a collection of pompons, twelve varieties; for a collection of anemones, six varieties, disbudded; and for a vase of pompons, disbudded.

In the classes for cut chrysanthemum blooms, commercial growers, the following awards were made. For a vase of twenty blooms, one variety, Chas. H. Totty Co., Madison, N. J., first. For a collection of twenty varieties, one of each variety, the first prize was awarded to the Chas. H. Totty Co. For a collection of pompons, twenty varieties, and for a collection of singles, twenty varieties, the Chas. H. Totty Co. secured first prizes.

The dinner table decorations were to be staged for 1 P. M. on Sunday; chrysanthemum flowers only to be used, the table to be set for eight persons, and any appropriate foliage permissible. There were only two entries for this, and but one filled. The first prize went to Mrs. Payne Whitney.

There was an interesting display of cut roses in the classes for non-commercial growers. In the classes for eighteen blooms: Mrs. Guthrie won first for white, Mr. Howard Cole, Madison, N. J., W. R. Fowkes, gardener, second; for the red, Mr. Cole won first, Mrs. F. A. Constable, second; for the dark pink, Mr. Cole secured first, Mrs. Guthrie, second; for flesh or light pink, both exhibiting Ophelia, Mr. Cole, first, Mrs. Guthrie, second; for any other color, Mr. Cole, first with Sunburst. A vase of fifty assorted roses, arranged for effect, won for Mrs. Guthrie the first prize.

In the classes for cut roses, commercial growers, the following

awards were made. In the classes for fifty blooms: for red, Mr. F. R. Pierson, Tarrytown, N. Y., first; for dark pink, Mr. Pierson, first, Mr. L. B. Coddington, Murray Hill, N. J., second; for flesh or light pink, Mr. Coddington first, Chas. H. Totty Co., second. For a new meritorious rose not in commerce Mr. Pierson received a silver medal.

The classes for carnations were all for non-commercial growers. The prizes awarded were as follows, for vases of eighteen. Mrs. Payne Whitrey won first prizes for white with Matchless, for Enchantress shade with Laddie, for scarlet with Belle Washburn, for crimson with Princess Dagmar, for yellow with Yellow Prince, and for variegated with Benora. A silver medal was won by the Chas. H. Totty Co. for a new variety not in commerce.

Mr. Wm. B. Thompson won first prize for a group of greenhouse foliage and flowering plants, arranged for artistic effect, to occupy 150 square feet. Crotons were used on the back and sides, with a Cocos on each back corner and a dracaena in each front corner. In the background were chrysanthemum plants and some magnificent specimens of *Clerodendron fallax*, with a band of variegated *Stevia* in front of this. Other plants used were pink begonias, small crotons, small plants of *Clerodendron*, *Adiantum*, *Begonia rex*, variegated pine-apple, *Gladiolus primulinus*, *Lilium auratum*, *Phoenix Roebelenii*. The only discordant notes were two tall plants of magenta *Celosia*, the color not harmonizing with the general color scheme. The Society's silver cup, valued at \$100, was part of the first prize.

Mr. F. R. Pierson set up a fine display of the varieties of *Nephrolepis exaltata*, which won the first prize. The varieties represented were: *elegantissima*, *viridissima*, *superbissima*, *elegantissima compacta*, a sport of *superbissima*, *Scottii*, *Victoria*, *muscosa*, *Elmsfordi*, *Verona*, a sport of *Victoria*, a sport of *muscosa*, *Scholzeli*, a sport of *viridissima*, and *Piersoni*.

Mr. Pierson exhibited a fine plant of *Cibotium Schiedeii* for which he received the first prize. For a specimen of any other fern Mr. Thompson won first, Mr. Pierson second.

There were some excellent orchids shown. Mrs. Paul Moore, Convent, N. J., Jas. T. Sisley, gardener, won first prize for a

single plant in the non-commercial classes. In the classes for commercial growers Lager & Hurrell, Summit, N. J., secured first prize for a collection of 64 plants. The Jos. Manda Co., West Orange, N. J., won first for three plants in three varieties. They also won the sweepstakes prize for the best orchid plant exhibited, with a fine specimen of *Arachnanthe Lowii*. Lager & Hurrell won the silver medal for a new variety not yet in commerce. The Jos. Manda Co. won first prize for a collection of 45 vases of cut orchids.

The vegetable exhibits attracted much attention. For Brussels sprouts, 1 qt., Miss M. Valentine, New Canaan, Ct., A. V. Carver, gardener, won first, and Mrs. Payne Whitney second with Long Island Improved. For cauliflower, three heads, Miss Valentine won first. For celery, six heads, Miss Valentine won first, Mr. H. F. Kean, Elberon, N. J., David Gustafson, gardener, second. For lettuce, three heads, Mr. Kean secured first prize, Mrs. Payne Whitney second, with Black-seeded Butter. For twelve onions Mrs. Payne Whitney won first with Yellow Globe. Mrs. Payne Whitney was awarded first prize for six parsnips, exhibiting Hollow Crown, and Miss Valentine second. Twelve tomatoes, Carters Sunrise, won the first prize for Mrs. Payne Whitney, who also won first prize for three varieties of potatoes, twelve of each, with Green Mountain, Rural New Yorker, and Irish Cobbler. In the open for all classes for the largest and best collection, not less than thirty kinds, arranged for effect, Miss M. Valentine won first, with thirty two kinds, and Mrs. Payne Whitney second with, thirty kinds.

For a collection of apples, six varieties, five of each, S. M. & A. Colgate, Orange, N. J., Wm. Reid, gardener, won first; the kinds shown were Northern Spy, Falswater, Twenty Ounce, Delicious, and N. W. Greening. Two bunches of black greenhouse grapes, Barbarossa, secured the first prize for Mr. Chas. S. Smith, Stamford, Ct., Anton Pedersen, gardener.

The following special prizes were awarded:

Mrs. F. A. Constable, for a collection of Nerines in pots, gold medal.

Carmelo Baiano, of the Convalescent Soldiers Garden School,

New York Botanical Garden, for chrysanthemum and begonia plants, cultural certificate and cash.

Miss A. De Lamar, for two bush chrysanthemum plants and one standard chrysanthemum plant, cash.

Joseph Manda Co., for display of twenty-five plants of *Cypripedium insigne* Sanderae, cash.

Herman Manitisch, Rockville Centre, N. Y., for a basket of sweet peas, a sport of Rose Queen, certificate of merit.

Mills & Co., Mamaroneck, N. Y., display of dahlias, cash.

Mrs. Paul Moore, for a plant of *Cypripedium insigne* Sanderae, cash.

A. N. Pierson, Inc., Cromwell, Ct., display of seedling chrysanthemums, certificates of merit to nos. 456, 458, 461, 466, and 498.

F. R. Pierson, for display of ferns, cash.

Julius Roehrs Co., Rutherford, N. J., for a collection of about forty orchid plants, cash.

Chas. H. Totty Co., for five vases of roses, cash.

J. W. Weaver & Son, Highland, N. Y., for a collection of apples, silver medal and cash. The display consisted of a tray each of Ben Davis, R. I. Greening, Baldwin, and Northern Spy, and five each of the following varieties, exhibited on plates: Westfield, Alexander, Northern Spy, McIntosh, Yellow Bellflower, Stayman Winesap, Gano, Ralls Janet, Lady Sweet, Tolman Sweet, Sutton, Ramsdell Sweet, Ben Davis, Yellow Transparent, Roxbury, Baldwin, Maiden Blush, Wolf River, Oldenburg, R. I. Greening, and Gravenstein.

Mrs. Payne Whitney, twelve vases anemone chrysanthemums, cash.

PROCEEDINGS OF THE SOCIETY FROM OCTOBER 1920 TO MAY 1921.

The following meetings have been held by the Society at the American Museum of Natural History.

October 20, 1920, 8:15 P. M.—Lecture by Mrs. Charles H. Stout. "How to Grow the Finest Dahlia Blooms."

November 17, 1920, 8:15 P. M.—Lecture by Miss Marion Coffin. "Garden Harmony and Succession in Planting."

December 15, 1920, 8:15 P. M.—Lecture by Mr. Richard Rothe. "Rock Gardens."

January 19, 1921, 8:15 P. M.—Lecture by Mrs. B. Hammond Tracy. "Gladioli and their Culture."

February 16, 1921, 8:15 P. M.—Lecture by Mr. Herbert K. Job. "How to Attract and Propagate Wild Birds."

March 16, 1921, 8:15 P. M.—Lecture by Mr. C. U. Hunn.

April 20, 1921, 8:15 P. M.—Lecture by Wm. A. Hutcheson. "The Flower Garden."

May 14, 1921, 2 P. M.—Annual meeting of the Society at the New York Botanical Garden.

May 14-15, 1921,—Exhibition of Plants and Flowers in co-operation with the New York Botanical Garden.

THE INTERNATIONAL FLOWER SHOW

The Annual Spring Flower Show was held at the Grand Central Palace, March 14 to 20, 1921, under the auspices of the Horticultural Society of New York and the New York Florist's Club. The show was very successful, both artistically and financially, and was visited by great crowds of interested and appreciative spectators.

The arrangement of the main floor was an improvement over that of the previous year. A wide circle ran from the main entrance almost the whole depth of the building, with the leading features of the show arranged on either side, while a broad walk, arched at intervals with climbing roses and other vines, gave the effect of a long vista through the centre. The approach was filled on either side with two delightful exhibits made by private growers, each one a joy to the eye of the beholder. Mr. Adolph Lewisohn (John Canning, gardener) occupied 500 sq. ft. with a beautifully arranged display of flowering plants backed by shrubs and tall cedars and containing a large proportion of annual flowers at their best. *Gypsophila elegans*, sweet peas, stocks, primroses, *Clarkias*, *Anemones*.

annual Chrysanthemums, Freesias, pansies etc., vied with each other in producing a dainty, airy effect. This exhibit won the gold medal offered by the Garden Club of America for the best exhibit in the Show.

On the opposite side was the garden of Mrs. Payne Whitney (George Ferguson, gardener) with a central bed of *Primula malacoides*, surrounded by a pathway. On the outside was a charming border of *Dicentia spectabilis*, *Spireas*, Roman hyacinths, Tulips and Daffodils, against masses of *Rhododendrons*, *Azaleas* and other taller growing plants.

The four garden groups on the main floor were the centre of interest to most people and they certainly showed evidence of the most careful thought and preparation.

The garden of John Scheepers, Inc., which carried off the first prize, was the most striking in design, being laid out in strictly formal style. Tall Cedar trees of irregular height formed a sombre background which was lightened by the airy branches of shrubs such as flowering cherries, *Forsythia*, lilac, etc., placed between, while a low hedge around the avenue sides permitted a good view of the garden. A small pool with a fountain formed the centre of the lawn, at the four corners of which were placed four small Irish Yew trees, and in each corner of the lawn was a large bed of blue hyacinths with smaller beds of yellow tulips between, forming a most pleasing color contrast. A walk of white pebbles separated this lawn from the outside border of Darwin tulips exquisitely arranged to shade into each other. Four box trees marked the corners, while a stone seat and statue added to the restful and dignified appearance of the garden.

The garden of F. R. Pierson, Tarrytown, N. Y., was of an entirely different type. It featured not only a garden, but the house to which the garden belonged, with all its accessories, leaving practically nothing lacking to complete a perfect picture. This was accomplished by the use of a painted background from which the garden sloped gently toward the observer. The base planting around the house was admirably done. *Andromeda floribunda* and lilac were used, shaded by charming little Silver birches just coming into their Spring foliage. A dainty little

rock garden near the house, from which steps led into the rose garden at one side, was a delightful feature. On the other side was a miniature water-garden with water trickling into it from the rocks in a most convincing manner.

The garden of Julius Roehrs & Co., Rutherford, N. J., was called "The Idle Hour," and, with its inviting stone seat and restful planting, seemed to justify its name. The entrance was at one corner, and a curving pathway led the visitors past the superb specimens of Blue Spruce, Junipers and other conifers, the groups of Rhododendrons, Azaleas, Japanese Holly and Magnolias, past the outcropping stone set with *Iris pumila*, violets and lilies-of-the-valley and the tall clumps of lilac, into a small greenhouse filled with choice flowering and ornamental plants, and so to the outside world again.

Last but not least comes the garden of Bobbink and Atkins of Rutherford, N. J., and theirs was still a different conception, in fact it would be difficult to find four more different gardens than the four staged at the Show. This garden featured a brilliant display of Azaleas posed against a background of Cedars and Rhododendrons, which formed an excellent foil for the gay colored fore-ground. A footpath led to a Wistaria covered arbor at the back and the remainder of the garden was filled with beds of Lilacs, Deutzias, *Kalmia Latifolia*, *Pyrus Japonica*, Polyantha and Hybrid Tea Roses, forming a pleasing effect.

The display staged by the Department of Parks, N. Y., was also one of the features of the Show, with tall palms and ferns forming a back-ground for the masses of lilies, azaleas and cinerarias, daffodils and hyacinths.

Another especially good exhibit was that of Wm. Boyce Thompson, Yonkers, N. Y., which included *Dracaenas*, *Caladiums* and other semi-tropical plants, showing some of the finest *Crotons* ever staged in New York.

BIRD BATHS

The Bird Bath Competition, open only to the Garden Club of America, was a most interesting and original exhibit, nothing like it having been seen at any former Show. Some eight or nine Clubs competed, each one having a distinctive arrange-

THE HORTICULTURAL SOCIETY OF NEW YORK

ment of the little garden which was a pleasing accompaniment to the Bird Bath featured. The silver cup was awarded to the Garden Club of Somerset Hills, N. Y., the exhibit consisting of a bird bath overhung by a weeping Acacia. The Short Hills Garden Club won the silver medal for a most artistic little pool with the nude figure of a kneeling boy peering into the water. This Club also won the gold medal offered by Max Schling. The other exhibits were all meritorious, showing originality and care in preparation and knowledge of the art of garden designing.

TABLE DECORATIONS

This competition was very keen among the private growers and brought out some clever and beautiful arrangements. Mrs. H. McK. Twombly of Madison, N. Y., won the first prize with a delightful arrangement of Lady Hillington roses with Farleyense fern and Selaginella.

ORCHIDS

Julius Roehrs Co., Rutherford, N. Y., and Joseph Manda Co., South Orange, N. J., made large displays of orchid plants. Excellent plants were shown in the smaller classes by Lager and Hurrell, Summit, N. J., George E. Baldwin Co., Mamaroneck, N. Y., and J. B. Duke, Somerville, N. Y., who received several special prizes for new seedlings. A special award of a gold medal was made to A. N. Cooley, Pittsfield, Mass., for an enormous *Cattleya* seedling called Clothe, variety General Pershing. Fine exhibits of cut orchids were made by Joseph Manda Co. and A. N. Cooley.

ROSES

First Prizes were taken by Duckham Pierson Co., with 100 Hadley, F. R. Pierson Co. with 100 Russell and 100 Hoosier Beauty, Florex Gardens with 100 Ophelia, Joseph H. Hill Co. with 100 Premier, Joseph Heacock Co. with 50 Crusader, Traendly & Schenck with 50 Ward, Wm. Vert with 50 Sunburst, Joseph Heacock with 50 Dunlop, A. N. Pierson with 50 Pilgrim, Noe & Ruzicka with 100 American Beauty, Florex Garden with

100 Columbia, F. R. Pierson with 100 Scott Key. Silver Medals were awarded for the best undisseminated seedlings as follows—F. R. Pierson for 25 pink, Joseph H. Hill Co. for 25 white, Noe and Ruzicka for 25 red.

The Tea Garden was as usual a centre of attraction and did a thriving business. It was beautifully decorated with evergreens festooned over the walls and pillars and with subdued colored lights.

An exhibit of a city yard "before and after" created much interest—half of it represented the usual city yard filled with tin cans, papers and rubbish—the other half showing the rejuvenated yard with a small fountain in the centre, vines hiding the unsightly fence, pots of clipped box and window boxes of gay flowers.

SPECIAL EXHIBITS

John Scheepers Co. received a gold medal for the only pure white Amaryllis ever flowered and exhibited in the United States.

A. L. Miller attracted much attention with his wonderful plants of *Philadelphus virginialis* with flowers two inches across.

Mrs. F. A. Constable (James Stuart, gardener) was awarded a gold medal for a display of Acacias and Clivias. Mrs Constable also showed a fine collection of Cyclamen plants.

Edward Gillett's Flower and Fern Farm showed an interesting collection of strictly native plants, which received a gold medal.

Daniel Guggenheim exhibited a most charming little bulb garden, which received a gold medal.

Bobbink and Atkins' rock garden was very much admired and was awarded a gold medal.

Max Schling, the only retailer to exhibit, showed many of his unusual and artistic creations.

A pan of the dainty little Japan lily, *Lilium Rubellum*, was shown by H. H. Burns, Madison Ave., N. Y. C.

The only vegetable exhibit in the show was that staged by Mrs. Charles M. Schwab, Lorretto, Pa. (H. Ireland gardener) which was awarded a gold medal.



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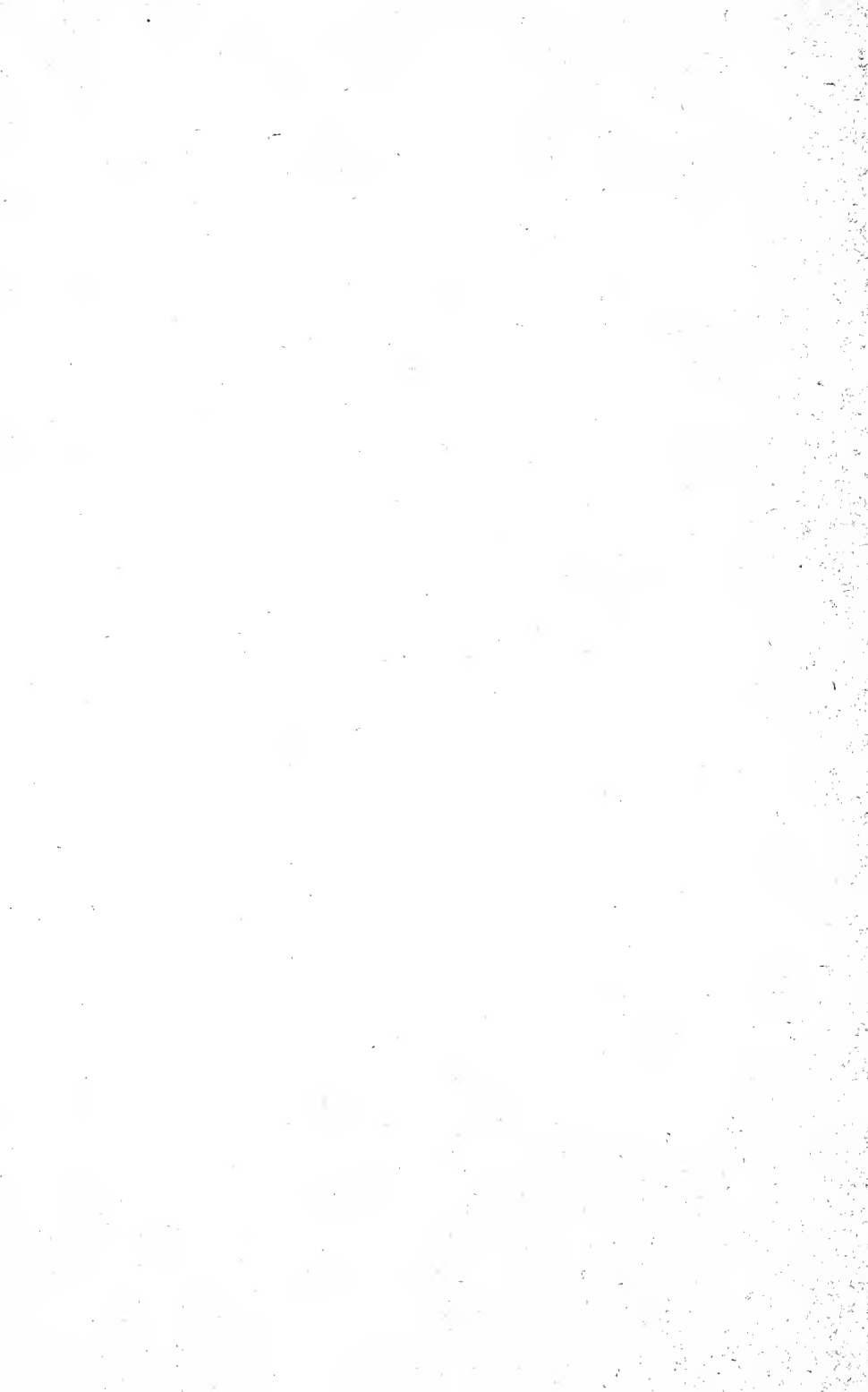
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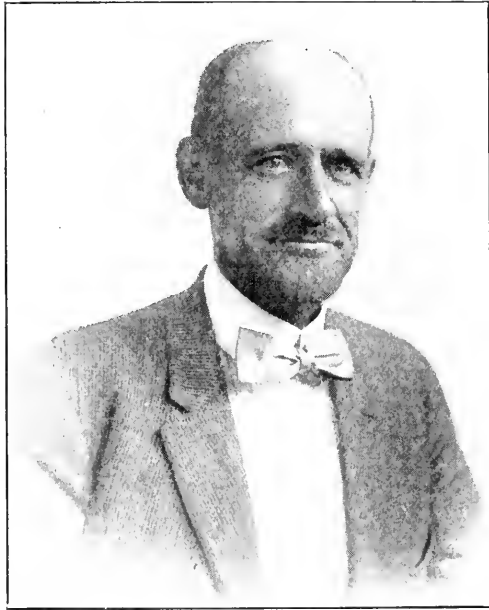
MRS. GEORGE V. NASH

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Geo. N. Wash.

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INCORPORATED 1902

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GEORGE VALENTINE NASH

The New York Botanical Garden and the Horticultural Society of New York have sustained a grievous loss in the death on July 15th, 1921, of Mr. George Valentine Nash, Head Gardener and Curator of the Plantations. He had served the Garden continuously since 1896, first during its preliminary organization, as a General Assistant, next during 1900, as Curator of the Plantations, then during twenty years as Head Gardener, to which title that of Curator of the Plantations was added in 1921. He thus took a very important part in the bringing together of the collections of living plants and in their installation and maintenance.

Mr. Nash was born in Brooklyn, New York, May 6, 1864. Much of his boyhood was spent at Clifton, New Jersey, where his father conducted a horticultural business, in which he was employed, specializing in roses and in water plants; his attention was thus early drawn to Botany and he was fortunate in coming about the year 1888 under the influence of the eminent Dr. George Thurber, for many years editor of the American Agriculturist, a profound botanical student and an enthusiastic collector, especially of grasses. Mr. Nash quite naturally inherited Dr. Thurber's interest in grasses, receiving from him a large part of his extensive grass herbarium, and this interest continued for many years, until his other duties forced it to one side. He diligently studied the wild plants of New Jersey, and he became a member of the Torrey Botanical Club in 1891; at about this time my acquaintance with him commenced; for several years thereafter he brought specimens to me for identification, and during this period he determined to take the first opportunity

which offered to enter botanical science as a profession. He gradually succeeded in accomplishing this through various errands and commissions, not free from discouragement, but he was very persistent. His most noteworthy effort in this direction was his collecting of botanical specimens in sets for sale, in Central Florida, during parts of the years 1894 and 1895; he studied these large and important collections at the herbarium of Columbia College with some help from me, and the sets, containing specimens of many rare species, were sold to good advantage, enabling him to continue his botanical studies. The opportunity came for a remunerative position when the work of the New York Botanical Garden was initiated in 1896.

His first important errand as an employee of the Garden was in 1901, when, after an invitation by Sir William Thiselton-Dyer, Director of the Royal Botanic Gardens at Kew, England, we sent him to that institution for study, and to select a large number of living plants duplicated in the Kew Collections, for the formative collections in The Bronx; this accession was very important, including over 1000 species, and many of the plants obtained there by Mr. Nash at that time are still living with us. In the autumn of 1901 he accompanied Dr. John K. Small to Florida and they collected over 1200 specimens of living plants, with many museum and herbarium specimens. On a second European trip in 1902 he studied and obtained plants in exchange from the Botanical Gardens at Kew, Edinburgh, Cambridge, Brussels, Paris, Utrecht, and other institutions, over 1500 species in all. He made important and successful collecting expeditions to Haiti in 1903, to the Bahamian Islands, Inagua and Little Inagua in 1904, with Mr. Norman Taylor, and to Haiti and the Turks Islands in 1905, again with Mr. Taylor.

The development of the plant collections of the New York Botanical Garden, their botanical identification, labeling and recording, the accumulation of herbarium specimens of the plants cultivated, public lectures and demonstrations, and replies to inquiries for information about plants have fully occupied Mr. Nash's time in recent years. With Dr. Barnhart he has edited "Addisonia" since the commencement of that periodical in 1916; he has personally superintended the newer plantations of roses, gladioli and other horticultural features, and he gave much attention to the orchid collection. Since May, 1909, he has been

Secretary of the Horticultural Society of New York, has edited its Journal and taken a prominent part in its exhibitions.

His contributions to the literature of Botany and of Horticulture number over 180 titles, the most extensive being his contributions of descriptions of grasses to "North American Flora," and his successive annual reports as Head Gardener of the New York Botanical Garden published in its Bulletin; his writings cover a very wide range of plant knowledge.

He is commemorated in Botany by the genus *Nashia* of the Verbena Family, dedicated to him by Dr. Millspaugh, and by several species of West Indian and Floridian plants, first made known by his exploration work.

N. L. BRITTON.

EXTRACT FROM THE MINUTES OF THE SCIENTIFIC DIRECTORS OF THE NEW YORK BOTANICAL GARDEN AT THEIR MEETING OF OCTOBER 8, 1921.

WHEREAS: Mr. George Valentine Nash, for many years Head Gardener of the New York Botanical Garden, died on July 15th, 1921.

RESOLVED: That the Scientific Directors of the New York Botanical Garden deeply deplore the loss of a highly esteemed and much beloved associate.

RESOLVED: That the foregoing preamble and resolution be entered upon the minutes of the Directors, printed in the Garden *Journal*, and that a copy be sent to his bereaved family.

RESOLUTION ADOPTED BY THE DIRECTORS OF THE HORTICULTURAL SOCIETY OF NEW YORK:

The members of the Horticultural Society of New York regret having to record the death of Mr. George V. Nash, who for a number of years did such efficient work as Secretary, in keeping the records, and editing the publication, and we herewith wish to express our appreciation of his services in building up the Society, arranging for the scientific lectures, and the able manner in which he conducted the numerous exhibitions.

We wish also to convey to Mrs. George V. Nash and family, our sincere sympathy, and direct that this resolution be entered upon the minutes of the Society and that a copy be sent to Mrs. Nash.

MEMORIAL BY THE BOTANICAL SOCIETY
OF AMERICA

GEORGE VALENTINE NASH

The death of George Valentine Nash, which occurred on July 15, 1921, in New York City, came as a great surprise and shock to his many friends, and caused them deep sorrow. He had been a member of our Society since 1917 only, but his name has been for many years a familiar one in the literature of American botany.

Mr. Nash was born in Brooklyn, New York, May 6, 1864, and in early manhood he was trained in practical horticulture as his father's business associate. When, in 1896 he entered the service of the newly organized New York Botanical Garden, he was already known as a specialist in grasses and as an observant field-botanist. He brought to his new work that rare combination of qualifications, a knowledge of horticulture, both practical and scientific, and a taste for taxonomic botany.

Throughout the twenty-five years of his connection with the New York Botanical Garden, he exerted a strong influence upon the development of the collections of living plants in that institution. During the same period he gave many lectures and published numerous papers on horticultural and botanical topics. He had been one of the editors of "Addisonia" since the establishment of that journal in 1916.

In 1901 and 1902 Mr. Nash visited Europe in the interests of his institution; and in the years 1903-05 he made several expeditions to the Bahamas, Haiti, and neighboring islands. Prior to his West Indian explorations, he had visited Florida several time for the purpose of making botanical collections. In later years his duties as Head Gardener kept him in New York most of the time. He was a remarkably diligent, indefatigable, and fruitful worker, and all who knew him realize the seriousness of the loss that American botany has suffered through his untimely decease.

John Hendley Barnhart	}	Committee
Arthur Hollick		
Marshall A. Howe		

RESOLUTIONS PASSED BY THE NEW YORK FLORISTS' CLUB

WHEREAS, we the members of the New York Florists' Club with deep sorrow received the announcement of the death of our beloved member, George V. Nash.

Not only his friends but the entire craft has lost in him an indefatigable worker. His deep knowledge in horticulture, in botany and his ever ready willingness to give his knowledge to others made him beloved by all who knew him, and the interest and assistance he has shown and given to all instructive horticultural and floricultural enterprises at exhibitions and otherwise, made him an outstanding figure in his chosen profession.

Therefore, be it

RESOLVED, that we, the members of the New York Florists' Club, tender to the family of our late member our heartfelt sympathy in their bereavement, and be it further

RESOLVED that these resolutions be spread upon the minutes of the club and a copy thereof forwarded to his family.

MAX SCHLING
JOHN CANNING
JAMES STUART

PROCEEDINGS OF THE SOCIETY

May 14. Annual Meeting of the Society.

May 14, 15. Flower Show in connection with the Annual Meeting.

June 4-5. Rose and Peony Show.

August 20-21. Gladiolus Show.

September 24-25. Dahlia Show.

ANNUAL MEETING, MAY 14, 1921

The Annual Meeting of the Society was held on Saturday, May 14, 1921, 4:30 P. M. in the office of the Secretary, Mansion New York Botanical Garden, the president presiding. There was a quorum present.

The minutes of the annual meeting of May 8, 1920, were read and approved.

The terms of the seven directors elected at the annual meeting in May 1918, having expired, nominations were called for, for their successors, to be elected for a term of three years. The following nominations were made:

THE HORTICULTURAL SOCIETY OF NEW YORK

N. L. Britton	F. R. Pierson
T. A. Havemeyer	John Scheepers
George V. Nash	Mrs. Samuel Sloan
F. R. Newbold	

No other nominations being made, a resolution was passed closing the nominations.

The secretary was unanimously authorized to cast an affirmative ballot for the election of the above nominees for a term of three years. This was done, and they were declared elected.

Dr. N. L. Britton was nominated to succeed himself as delegate to the Council of the New York Academy of Sciences. He was unanimously elected.

The following election officers for the annual meeting to be held in May, 1922, were unanimously elected:

Tellers—K. R. Boynton, H. W. Becker.

Alternates—Henry Hicks, E. Fardel.

There being no further business before the Society, the meeting adjourned at 5 P. M.

GEORGE V. NASH,
Secretary.

TWENTY-FIRST ANNUAL REPORT OF THE BOARD OF DIRECTORS

PRESENTED MAY 14, 1921

The membership of the society is now 912, as follows: Patrons, 4 Sustaining Members, 8; Life Members 181; Annual Members, 691; Associate Members, 26; Corresponding Members, 2. The additions during the year have been: 8 life members, 112 annual members and 6 associate members; making a total of 126. The losses have been; by death 13, of which 4 are life members and 9 annual members: by resignation 8; dropped on account of non-payment of dues, 18, making a total of 40. The net gain in membership for the year therefore is; life members 4; annual members 77; associate members, 5; making a total of 86.

At the meeting of the Board of Directors on June 12, 1920, in accordance with the constitution and by-laws, officers of the society for the ensuing year were elected from the membership of the Board, as follows:

THE HORTICULTURAL SOCIETY OF NEW YORK

President: T. A. Havemeyer

Vice-President: N. L. Britton, Jas. W. Cromwell, E. B. Southwick.

Treasurer: F. R. Newbold.

Secretary: George V. Nash.

Chairman of the Board: F. R. Pierson.

The permanent fund is now \$41, 247. 93.

The following meetings have been held by the society, those from May to September at the New York Botanical Garden, the remainder at the American Museum of Natural History.

May 8, 1920. Annual meeting. A lecture in the Garden course by Dr. W. A. Murrill, "Class motives in Primitive and Egyptian Decorative Art."

June 12. A lecture in the Garden course by Mr. John C. Wister. "The History and Development of the Iris."

Aug. 21. A lecture in the Garden course by Dr. W. A. Murrill, "How to Know, Gather and Cook the Puffballs."

Sept. 25. A lecture in the Garden course by Dr. M. A. Howe on "Dahlias and their Culture."

Oct. 20. A lecture by Mrs. Chas. H. Stout on "How to grow the largest Dahlia Blooms."

Nov. 17. Lecture by Miss Marion C. Coffin on "Garden Harmony and Succession in Planting."

Dec. 15. Lecture by Mr. Richard Rothe on "Rock Gardens."

Jan. 19, 1921. Lecture by Mrs. B. Hammond Tracy on "Gladioli and their Culture."

Feb. 16. Lecture by Mr. Herbert K. Job on "How to Attract and Propagate Wild Birds."

March 16. Lecture "Mr. C. E. Hunn on Propagation and Care of Shrubbery."

April 20. Lecture by Mrs. Wm. A. Hutcheson on "The Flower Garden."

The following exhibitions were held, those from May to September at the New York Botanical Garden. The remainder, except the Spring Show, at the American Museum of Natural History.

May 8 and 9, 1920. In connection with the annual meeting.

May 22 and 23. A special exhibition.

June 12 and 13. Rose and Peony show.

THE HORTICULTURAL SOCIETY OF NEW YORK

August 21. Gladiolus show.

Sept. 25. Dahlia show.

November 4-7. Annual Fall Show.

March 14-20, 1921. The annual spring show at the Grand Central Palace. The society maintained a booth at this show for the accommodatation of members and friends.

The New York Botanical Garden offered the premiums for the shows held at that institution, from the income of the Wm. R. Sands fund.

The following meetings of the Board of Directors were held; at the New York Botanical Garden, May 8, June 12, Aug. 21, and Sept. 25; at the American Museum of Natural History, November 5 and December 31; at the Grand Central Palace, March 19.

On June 15, 1920, a conference was held at the American Museum of Natural History, the object being to take some action in reference to quarantine order No. 37 of the Federal Horticultural Board. Horticultural Societies, Garden Clubs, and others took an active part in this conference, which was arranged by the Massachusetts Horticultural Society, the Pennsylvania Horticultural Society, and the Horticultural Society of New York. A circular reporting upon this has been mailed to all members of the society.

A list of the membership and the report of the treasurer are appended to these minutes.

GEORGE V. NASH,
Secretary.

F. R. PIERSON,
Chairman.

Patrons

Dinsmore, Mrs. W. B.	Trevor, Miss Emily
Huntington, Archer M.	Trevor, Mrs. J. B.
Senff, Mrs. Charles H.	

Sustaining Members

Allen, Mrs. F. H.	Mackay, Clarence
Bliss, Miss S. D.	Perkins, Mrs. George W.
Garrison, C. M.	Forest, Mrs. Mortimer
Langier-Villars, Countess de	

Life Members.

Adams, Edward D.	Cross, Mrs. R. J.
Adriance, H. B.	Cutting, Mrs. Bayard
Agnew, Cornelius Rea	Davenport, Mrs. Ira
Ames, Miss Mary	Davis, Charles H.
Armstrong, Dr. S. T.	Davis, Gherardi
Auchincloss, Mrs. E. S., Jr.	Deering, Charles
Bacon, Mrs. Robert	Delafield, Mrs. John R.
Baker, Mrs. George F., Jr.	Delafield, Maturin L.
Baldwin, S. Pretiss	Delano, Moreau
Barnhart, Dr. John Hendley	Detmer, Julian F.
Berwind, E. J.	Dillon, C.
Billings, Miss E.	Dimock, Mrs. Henry F.
Blair, Mrs. C. Ledyard	Dodge, Mrs. Cleveland H.
Bliss, Mrs. William H.	Dommerich, L. W.
Blumenthal, George	Doubleday, Russel
Brown, Geo. McKesson	du Pont, Irene
Brown, Mrs. Harold	Edge, Mrs. C. N.
Burden, Mrs. Henry	Eidlitz, Otto M.
Burk, Louis	Emmet, Herman Le Roy
Burrage, Albert C.	Emmons, Mrs. Arthur B.
Burton, F. V.	Faber, Eberhard
Callender, W. R.	Field, Wm. B. Osgood
Campbell, Mrs. Ina	Fitzsimons, Mrs. Paul
Cannon, Henry W.	Ford, James B.
Carhartt, Hamilton	Foulke, J. B.
Carlson, Carl Oscar	French, Amos Tuck
Carnegie, Mrs. Andrew	Frick, Childs
Chanler, Mrs. Louis S.	Garvan, Francis P.
Chapin, Mrs. Chas. M.	Gould, George J.
Chapin, Chester W.	Guggenheim, Simon
Chapin, S. B.	Haggin, L. T.
Chubb, Percy	Harkness E. S.
Coddington, L. B.	Harkness, Mrs. Edw. S.
Coe, W. R.	Harrah, Charles J.
Colgate, W.	Hawkes, McDougall
Constable, Mrs. F. A.	Henshaw, A. M.
Cottinet, R. L.	Hitchcock, Francis R.

THE HORTICULTURAL SOCIETY OF NEW YORK

Hoffman, Mrs. Chas. F.	Olcott, Dudley
Hoyt, Theodore	Parrish, James C.
Hurd, Miss Laura	Peabody, G. F.
Iselin, Adrian	Peters, S. T.
Iselin, C. Oliver	Phipps, Henry C.
Iselin, Columbus O'D.	Phipps, Howard
Iselin, Mrs. Ernest	Pierson, F. R.
James, Mrs. Arthur Curtiss	Popp, P. W.
James, Mrs. Henry	Potter, Miss B.
Jennings, Oliver G.	Pratt, Mrs. George D.
Johnstone, Mrs. H. R.	Pyne, Mrs. M. Taylor
Jones, Mrs. Pembroke	Pyne, Mrs. Percy R.
Kidder, Nathaniel T.	Redmond, Henry S.
King, Miss Ellen G.	Richardson, Mrs. George H.
Koehne, Robert	Riker, John J.
Lane, Edward V. Z.	Robinson, Nelson
Lanier, Charles	Roche, Mrs. Burke
Lehman, S. M.	Roebing, Mrs. John A.
Lewis, Mrs. Frederic Elliott	Roehrs, Julius
Lewis, Mrs. Reginald M.	Roger, John
Lewis, Reginald Minturn	Roland, Thomas
Lewis, Wadworth Russell	Roosevelt, Mrs. James
Loew, Mrs. William Goadby	Rubens, Horatio S.
Love, Jno. N.	Sands, Daniel C.
Macdonald, Jas. A.	Satterlee, Herbert L.
MacMillin, Emerson	Satterlee, Mrs. Herbert L.
Markoe, Mrs. John	Scheepers, John
Marshall, Louis	Schwarzenbach, R. J. F.
Marwick, James	Seton, Mrs. A.
McLean, Mrs. J.	Smythe, F. W.
Michie, Alex.	Stevens, Miss Mary C.
Mills, A. G.	Stillman, C. C.
Mills, Ogden	Stoeckel, Mrs. Carl
Morgan, J. P.	Stokes, Miss O. E. P.
Morgan, Mrs. J. P.	Stone, Miss E. J.
Morris, Newbold	Stuart, James
Newbold, F. R.	Stumpp, G. E. M.
Nichols, Mrs. Wm. Gilman	Taylor, William R.

Thompson, Chas. G.	Webb, Mrs. W. Seward
Thompson, Mrs. Frederic F.	Webster, Hamilton Fish
Thompson, Wm. B.	Webster, Mrs. Sydney
Timolat, James G.	Welch, Patrick
Tod, Robert E.	White, Mrs. Henry
Troy, J. H.	Whitney, Mrs. Payne
Underwood, F. D.	Willets, Elmore A.
Untermeyer, Samuel	Wilson, Mrs. M. Orme
Vanderbilt, F. W.	Wise, Edmond E.
Van Gerbig, Mrs. Barend	Wister, John C.
Warburg, Felix M.	Woerishoffer, Mrs. Anna
Warburg, Paul M.	Young, John
Warren, Mrs. John Hobart	Zabriskie, Geo. A.
Washburn, Thomas, G.	Ziegler, William, Jr.
Waterbury, John I.	

Annual Members

Abbott, Mrs. T. J.	Avery, Ledyard
Abel, Dr. L. Hosford	Bailey, Frank
Adams, Henry S.	Baldwin, Mrs. Austin R.
Adams, Mrs. John Dunbar	Baldwin, G. E.
Aldrich, Mrs. J. Herman	Bambach, Chris
Aldrich, Mrs. Richard	Barber, Mrs. T. H.
Aldridge, Mrs. W. H.	Barclay, Mrs. James L.
Alexander, Douglas	Barnes, Miss Katherine M.
Alexandre, Mrs. John E.	Barnhart, Dr. J. H.
Allen, Miss Mary	Barron, Leonard
Allen, Phillip	Barton, Edward R.
Allien, Mrs. Frederick	Battin, Mrs. A.
Anderson, Wm. C.	Battle, Mrs. Geo. Gordon
Andrews, W. H.	Becker, H. W.
Arend, Francis J.	Behrend, Dr. Otto F.
Arnold, Mrs. Glover C.	Belmont, August
Atkins, F. L.	Bendheim, A. D.
Atwater, Mrs. W. C.	Bentley, Miss Mary L.
Auchincloss, Mrs. Edgar S.	Benziger, Bruno
Auchincloss, Mrs. Hugh D.	Biddle, Miss Harriet L.
Auchincloss, James C.	Bieschke, A.

- Bissell, Miss Mary C.
 Bixby, Willard G.
 Black, Mrs. Robert C.
 Blagden, Mrs. Linzee
 Bliss, Mrs. Walter P.
 Bloomingdale, Samuel J.
 Blum, Mrs. H. C.
 Blumenthal, Hugo
 Bobbink, L. C.
 Boddington, Arthur T.
 Boden, Paul B.
 Bonner, G. T.
 Bonties, Mrs. H. P.
 Booth, N. E.
 Boughan, B. A.
 Bowdoin, Miss Edith C.
 Boynton, K. R.
 Brayton, Mrs. H. A.
 Breitenbach, Miss Jennie Y.
 Brewster, Mrs. Walter S.
 Brightman, Mrs. H. I.
 Brill, Dr. A. A.
 Brinckerhoff, A. F.
 Brinsmade, Chas. Lyman
 Bristol, John I. D.
 Britton, Dr. N. L.
 Brown, Franklin Q.
 Brown, Robert T.
 Browning, Mrs. J. Hull
 Bulkley, Duncan
 Bunker, William
 Burchard, Mrs. Anson W.
 Burden, Mrs. Arthur Scott
 Burkham, Miss Caroline T.
 Burnett, E. R.
 Burns, Wm. J.
 Bush, Irving T.
 Butler, Arthur W.
 Butler, Mrs. N. M.
 Butterworth, John T.
 Caesar, Henry A.
 Calman, Henry L.
 Cammann, H. H.
 Cammann, Miss I. M.
 Candee, Lyman
 Canning, John
 Carlebach, Emil
 Carlebach, Walter M.
 Carlisle, G. Lister, Jr.
 Carlisle, Mrs. G. Lister, Jr.
 Carrington, Wm. T.
 Cathcart, Miss J. R.
 Chapman, Mrs. John J.
 Chase, Miss Jessie
 Chatillon, Mrs. George H.
 Chauncy, Miss Emily H.
 Chaves, Jose E.
 Childs, Mrs. John Lewis
 Clark, Mrs. Bruce
 Clark, Chas. W.
 Clarkson, Mrs. Banyer
 Clayburgh, Albert
 Cochran, G. D.
 Coffin, C. A.
 Coffin, Miss Marion C.
 Cohen, Mrs. Julius Henry
 Cohen, Max
 Cole, Frederic A.
 Coleman, Miss E.
 Colon, George Edward
 Comstock, Mrs. A. W.
 Conor, Mrs. C. H.
 Conreid, Mrs. R. G.
 Cook, C. S.
 Cooper, Mrs. Marin Le Brun
 Cottenet, Miss F. M.

THE HORTICULTURAL SOCIETY OF NEW YORK

Cowl, Mrs. Clarkson	Duer, Mrs. John Beverly
Cowles, Mrs. Wm. S.	du Pont, Mrs. Coleman
Crane, F. D.	Du Pont, Henry F.
Cravath, Mrs. Paul D.	Duxbury, Paul C.
Crawford, William	Dwight, Mrs. M. E.
Crimmins, Mrs. Thomas	Dworetzky, M.
Cromwell, Jas. W.	Eaton, Mrs. Frederick H.
Cross, Miss M. R.	Ebel, M. C.
Cross, Mrs. W. Redmond	Eckart, Edmund
Crunden, Mrs. Robert H.	Edgar, Mrs. H. L. R.
Cullman, Mrs. Joseph F.	Edgar, Mrs. Newbold Le Roy
Curtin, Mrs. C. Clark	Edie, Richard, Jr.
Curtis, G. Warrington	Ehret, George
Cuyler, Miss Eleanor de Graff	Eidlitz, Mrs. Robert
Dard, Chas. A.	Eisman, Max
Davenport, Mrs. H. J.	Elliott, Howard
Davies, J. Clarence	Erlanger, Abraham
Dawes, Mrs. Lewis	Erlanger, Milton S.
De Forest, H. W.	Eshelman, Mrs. C. M.
Delano, Wm. Adams	Evans, Jackson
De Lanoy, Wm. C.	Evans, S. M.
de Rham, Mrs. Chas., Jr.	Evarts, A. W.
Dery, D. George	Everitt, John W.
Dewes, A.	Exton, H. E.
Dickey, Mrs. C. D.	Fairchild, Benjamin T.
Dieterich, C. F.	Fardel, E.
Dodge, Francis P.	Farrand, Mrs. Max
Dodsworth, Mrs. M. J.	Fels, Mrs. Joseph
Dommerich, S. W.	Ferguson, Mrs. Farquhar
Dommerich, Otto L.	Ferguson, George
Donoho, Mrs. Ruger	Fischer, William H.
Doubleday, Mrs. Frank Nelson	Fletcher, Mrs. Peter
Doughty, Mrs. W. H.	Floyd, Mrs. W. T.
Douglas, Mrs. Walter	Forbes, L. G.
Draper, Chas. A.	Foulk, Theodore
Draper, Dr. W. K.	Fowler, Mrs. R. L., Jr.
Draper, Mrs. W. K.	Fox, Miss Alice Bleecker
Du Bois, Mrs. M. B.	Fox, Mrs. Mortimer J.

THE HORTICULTURAL SOCIETY OF NEW YORK

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|-------------------------------|------------------------------|
| Fraser, Miss J. K. | Haven, Miss Frances A. L. |
| Fraser, Miss S. Grace | Haven, Mrs. J. Woodward |
| Freeman, Mrs. H. G. | Hawk, Mrs. William Samuel |
| Frelinghuysen, Mrs. Frederick | Hawthorne, Mrs. Charles W. |
| Frissell, A. S. | Hazard, Mrs. R. G. |
| Frothingham, John W. | Hazen, Mrs. Charles Downer |
| Fuld, Felix | Heide, Henry, Jr. |
| Gaillard, Mrs. W. D. | Henderson, Chas. |
| Gallatin, Mrs. R. Horace | Hendrickson, I. S. |
| Geer, Mrs. Walter | Hershey, Andrew H. |
| Giatras, George | Hewitt, Mrs. L. W. |
| Gibson, Robt. W. | Hickok, James L. |
| Goddard, Mrs. Morrill | Hicks, Henry |
| Gottheil, Mrs. Paul | Hicks, John M. W. |
| Gotthelf, Charles | Hill, Mrs. Robt. C. |
| Graydon, Mrs. Clendenen | Hinckley, Mrs. Samuel N. |
| Greenough, John | Hirschhorn, Fred |
| Gribbel, Mrs. John | Hiss, Mrs. Nelson |
| Griffin, Mrs. Edwin C. | Hitch, Mrs. Frederick Delano |
| Griffin, W. V. | Hodenpyl, Anton G. |
| Griffith, Miss M. E. | Hoe, Richard M. |
| Griffith, Miss Susan D. | Hoe, Mrs. Robert R. |
| Griswold, Mrs. Chester, Sr. | Holbrook, Mrs. Edward |
| Guinzburg, Mrs. Victor | Hollaman, R. G. |
| Gurnee, Miss Bell | Hooper, Mrs. Newlin |
| Hague, Mrs. Arnold | Housman, Clarence J. |
| Hamersley, L. Gordon | Howard, Mrs. Frederick T. |
| Hamilton, Miss Eliz. Stewart | Howe, Richard F. |
| Hamilton, Mrs. Wm. Pierson | Howe, Walter B. |
| Hardenbergh, Mrs. W. P. | Howe, Mrs. Walter B. |
| Harmon, Mrs. F. Denham | Howell, M. D. |
| Harper, Dr. R. A. | Hoyt, Miss Elizabeth S. |
| Harris, Alfred | Hoyt, Miss Virginia Scott |
| Hartling, John | Hunt, Thomas |
| Hastings, Thomas | Huntington, F. J. |
| Havemeyer, H. O. | Huntington, H. E. |
| Havemeyer, T. A. | Huntington, Mrs. Robert |
| Havemeyer, Mrs. T. A. | Hupfel, A. C. G. |

THE HORTICULTURAL SOCIETY OF NEW YORK

Hurd, Dr. Lee M.	Kean, Mrs. Hamilton Fish
Hurd, Lee M., Jr.	Keller, Albert
Hurrell, Henry	Kellogg, Mrs. Morris
Hurst, Mrs. Albert E.	Kelsey, F. W.
Hutcheson, Mrs. Wm. A.	Kennedy, Mrs. H. Van Rensselaer
Huyler, Frank DeK.	Kennedy, Mrs. John S.
Hyde, Mrs. Clarence M.	Ketcham, Miss Ethel B.
Hyde, Courtney	Kieger, Emil L.
Hyde, E. Francis	Kilsheimer, Mrs. James B.
Inglis, Wm.	King, Mrs. Edward
Irwin, Roman J.	King, Frederic R.
Iselin, Mrs. Adrian	King, Miss Isabella C.
Iselin, Mrs. Columbus O'D.	King, Le Roy
Iselin, Miss Georgine	Kingsford, Miss Margaret S.
Iselin, Lewis	Kissel, Mrs. Gustav E.
Iselin, Mrs. William E.	Knight, Thomas
Iselin, Wm. E.	Knoedler, Roland F.
Isreal, Leon	Krower, Louis
Jacobus, Martin R.	Kunhardt, H. R.
Jacquelin, Mrs. H. T. B.	Kunz, Dr. Geo. F.
James, Mrs. Walter B.	La Bar, Mrs. Eugene S.
James, Mrs. Wortham	Ladenburg, Mrs. Adolf
Jenkins, Alfred W.	Lager, John E.
Jennings, Miss Annie B.	Lahodny, A.
Jennings, Robert E.	Lancashire, Mrs. J. Henry
Jennings, Walter	Landman, Miss M. V.
Jernigan, Dr. G. F.	Lang, Henry
Johnston, John F.	Lapham, Mrs. John J.
Jones, Mrs. Cadwalader	Lasar, Mrs.
Judson, Henry I.	Lawrence, Hiram V.
Jungbluth, Karl	Laying, Mrs. Jas. D., Jr.
Kahle, Miss Julie	Ledoux, Mrs. Albert Reid
Kahn, O. H.	Lee, J. W., Jr.
Kahn, Mrs. Robert J.	Leeds, Mrs. Warner M.
Kane, Mrs. De Lancy	Legg, George
Kane, Mrs. John Innes	Leo, Brother
Karsten, Louis	Leonard, Mrs. Frank E.
Kean, Miss Elizabeth	

THE HORTICULTURAL SOCIETY OF NEW YORK

- | | |
|------------------------------|----------------------------|
| Le Roy, Dr. Louis C. | Mantner, Mrs. Louis L. |
| Lester, A. Edward | Markle, Mrs. John |
| Levi, Mrs. Albert A. | Marquand, Mrs. Henry |
| Levine, Edmund J. | Marston, Edward S. |
| Levor, G. | Masters, Francis R. |
| Levy, Ephraim B. | Matheson, Mrs. Harriet T. |
| Lewis, Mrs. Herman E. | Matheson, W. J. |
| Lewis, M. H. | May, Harry O. |
| Lewisohn, Adolph | Mayer, Dr. Henriette |
| Lexow, Mrs. Allan | Mayer, R. deL. |
| Linane, James | Merrill, Mrs. Payson |
| Livermore, Mrs. John R. | Metcalf, Mrs. Jas. |
| Livingston, Miss Anne P. | Meyer, Mrs. Eugene, Jr. |
| Livingston, Mrs. Goodhue | Mielke, Henry |
| Lowenthal, Mrs. Julius | Miller, A. L. |
| Loewi, Hugo V. | Miller, E. S. |
| Loines, Miss Hilda | Miller, Dr. George N. |
| Lovell, Miss Frances B. | Mills, Frederic C. |
| Lowes, Mrs. Clarence M. | Mitchell, Mrs. John Murray |
| Ludington, Mrs. Chas. M. | Mitchell, Mrs. Wm. |
| Luke, David L. | Mohlman, Mrs. Louise C. |
| Lybrand, Mrs. Wm. M. | Molleson, George A. |
| McAlpin, Dr. D. H. | Monod, Mrs. E. D. |
| McAlpin, Mrs. D. Hunter, Jr. | Montgomery, Mrs. Henry Eg- |
| McAlpin, George L. | linton |
| McCagg, Louis B. | Moore, Clement |
| McEwen, Mrs. Alfred | Morgan, Miss Anne |
| McIlhenny, E. A. | Morgan, Miss Caroline L. |
| McKnight, Mrs. T. H. B. | Morgan, Mrs. Gerald |
| McVickar, Mrs. Edward | Morgan, Mrs. J. S. Jr. |
| Maas, M. A. | Morgan, Mrs. Junius S. |
| MacDougal, Dr. D. T. | Morris, Dr. Robt. T. |
| MacDougall, Mrs. Edward A. | Mosle, Mrs. A. Henry |
| MacKenzie, Kenneth | Muendel, Miss Christina |
| Mager, Mrs. F. Robt. | Mulford, Edwin H. |
| Manda, A. J. | Muller, Carl |
| Manda, J. A. | Munson, C. W. |
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ANNUAL REPORT OF TREASURER

MAY 1, 1920 TO APRIL 30, 1921

LIFE FUND ACCOUNT

Receipts

Balance May 1, 1920.....	\$35,982.61
Life Membership and Sustaining Dues.....	525.00
Interest Investments.....	2,124.32
International Flower Show, 1920.....	700.00
International Flower Show, 1921	
On Account	\$2,000.00
Expense Booth.....	84.00
	<hr/>
	1,916.00
	<hr/>
	\$41,247.93

THE HORTICULTURAL SOCIETY OF NEW YORK

Investments

Broadway Savings Inst. account.....	\$6.51
Poughkeepsie Savings Bank account 1.....	1,391.44
Pck. Savgs Bk. a-c 2. Wm. Barr. Memorial Fund....	672.84
100 War Savings Stamps:	
Series 1918.....	419.00
Series 1919.....	415.00
5m Buf. Roch. & Pitsg. 4½% Equipt. Trust Series E.	5,000.00
6m Illin's Steel Debt. 1940 4½%.....	5,457.50
6m Am. Can Co. Debt 1928 5%.....	6,005.00
5m Mich. Cent. Eqt. Trust Series E. 1925 6%.....	5,030.33
5m Texas Co. Short Term 1932. 7%.....	4,946.88
5m Western Electric Short Term, 1925, 7%.....	4,937.50
5m B. F. Goodrich Co. Short Term 1925 7%.....	4,912.50
	<hr/>
	\$39,194.50
Cash balance in Bank.....	2,053.43
	<hr/>
	\$41,247.93

GENERAL ACCOUNT

Receipts

Cash balance May 1, 1920.....	\$1,009.83
Fruit Tree Fund Balance 1920.....	271.75
Fruit Tree Fund 1921.....	25.00
Annual Dues.....	3,198.00
Fund No. 12 Nov. Show.....	1,691.00
Sale Publications.....	2.00
Interest on Loans.....	22.57
	<hr/>
	\$6,220.15

Expenditures

Petty Cash, Secretary.....	\$500.00
Petty Cash, Treasurer.....	65.60
Journal account.....	307.35
Prizes account.....	1,358.48
Medals account.....	209.90
Salary account, Secretary.....	1,000.00

THE HORTICULTURAL SOCIETY OF NEW YORK

Lectures account.....	379.16
Expenses account office.....	484.56
Expenses account, general.....	182.60
Expenses account, shows.....	335.70
Expenses account Embargo Com.....	1,000.00
	<hr/>
	5,823.35
Cash Balance in Bank.....	396.80
	<hr/>
	6,220.15
Actual Cash in Bank account.	
Life Fund account.....	\$2,053.43
General account.....	396.80
	<hr/>
Bal. as per Pass Book April 30, 1921.....	2,450.23

Respectfully, submitted,

FREDERICK R. NEWBOLD,

Treasurer.

Audited by Thomas M. Lynch, Pub. Acc.

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Journal

of the

Horticultural Society of New York

Vol. III, No. 5



FEBRUARY
1922

EDITED BY THE SECRETARY

MRS. GEORGE V. NASH

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INTELLIGENCER PRINTING CO.
LANCASTER, PA.



Journal of the Horticultural Society of New York

INCORPORATED 1902

Vol. III, No. 5 Issued
Quarterly

FEBRUARY, 1922

Free to Members
By subscription \$1.00 per year

FALL SHOW.

The Annual Fall Show of the Society was held in the American Museum of Natural History, November 3rd-6th inclusive. The exhibition was opened on the evening of the first day from 7 to 10 P.M., especially for the members of the Society and members of the affiliated organizations at the Museum.

The exhibition, with the exception of the large Chrysanthemum plants, was of pre-war standard, and in some instances even exceeded former excellence. The cooperation of the Garden Club of America was a decided addition to the show, their exhibits adding something different from the usual professional gardener or commercial exhibits. There were ten table decorations from as many Member Clubs, no two of them alike, and a number of groups of cut chrysanthemums arranged for effect. The first prize for the table decorations, a silver cup, offered by the Treasurer of the Horticultural Society, was won by the Bedford Garden Club. The second and third prizes, silver and bronze medals offered by the society, were won by the Garden Club of Washington, and the Rye Garden Club respectively.

In the class for Collection of outdoor Chrysanthemums, Mrs. Bancroft Gherardi carried off the first prize, the Society's silver medal, and Mrs. Charles H. Stout the second prize, the Society's bronze medal.

Silver and bronze medals offered by the Society were also awarded in the Class for Collection of indoor grown Chrysan-

themums, first prize to Mrs. Harold I. Pratt, and second prize to Mrs. Richard Colt.

Miss Alice DeLamar, Glen Cove, L. I., carried off all but one of the first prizes for Specimen bush Chrysanthmums—the first prize in Class A, 1, being awarded to W. B. Thompson, Yonkers, N. Y., who took second prize in the three other classes, Miss DeLamar taking second in Class A, 1.

In the Classes for large cut blooms, the principal exhibitors were: Mrs. W. D. Guthrie, Mrs. Harold I. Pratt, Mrs. Payne Whitney, H. L. Parson, Mrs. F. A. Constable, Miss Alice DeLamar, Mrs. W. Redmond Cross, and Howard Cole. Some wonderful specimens were exhibited, notably Louise Pockett, white, and Vermont, pink, both specimens of the Japanese incurving type.

The Single Anemone and Pompon types were exceedingly well represented by the following exhibitors:

NON-COMMERCIAL

Mrs. Payne Whitney, Mrs. Harold I. Pratt, and Mrs. Charles Mallory.

COMMERCIAL

Charles H. Totty and The Springfield Floral Co.

The group of Cut Blooms arranged for effect, covering 100 square feet, and provided for by the William Barr Memorial Fund, brought out two splendid exhibits, Mrs. F. E. Lewis winning first prize, and Mrs. Payne Whitney the second.

The prize of \$50 offered by the President of the Garden Club of America for a new meritorious variety of Chrysanthemum not in cultivation, was won by Clarence Mackay, with a seedling of Robert Pulling \times Golden Champion.

The Class for Table Decoration brought out three exhibitors, Wm. Boyce Thompson taking first prize, Mrs. Payne Whitney second, and Mrs. S. D. Brewster third.

Although there was nothing different or new in these arrangements, all three being nearly alike, they were tastefully arranged, and different flowers were used in each exhibit.

Cut roses and carnations were strongly represented, especially

in the Commercial Classes. The principal exhibitors and prize winners in these sections were:

ROSES

Private growers—Mrs. W. D. Guthrie, Countess Mildred Holnstein, Howard Cole, Mrs. L. U. Skidmore.

Commercial growers—Charles H. Totty, F. R. Pierson, L. B. Coddington.

CARNATIONS

Private growers—Mrs. Payne Whitney, Mrs. F. E. Lewis, James Fraser.

OPEN to ALL

New and Meritorious Variety not in Commerce.

Silver medal won by Patten and Co.

There was only one entry for the Group of Greenhouse Plants, but this exhibit was well worthy of the first prize which it received and was put up by W. B. Thompson, of Yonkers, N. Y.

Orchid Plants were a feature of the Show this year and the collection of Julius Roehrs Co., Lager & Hurrell, George E. Baldwin & Co., and Joseph A. Manda Co., were each worthy of a first prize.

Special mention must be made of the wonderful collection of *Cypripedium insigne* staged by the Joseph A. Manda Co. This exhibit consisted of about two hundred and fifty plants, arranged with palms and ferns, and was probably the finest exhibit of this orchid ever seen anywhere. It was easily awarded the Society's silver cup for the Grand Sweepstake Prize as the Best Exhibit in the Show.

Wm. B. Thompson took first prize for twelve plants of *Begonia*, *Gloire de Lorraine* type. Miss Alice DeLamar second.

Samuel Untermeyer took first prize for fine specimens of *Cibotium*, *Adiantum*, and *Goniophebiium*, while F. R. Pierson won first prize for a fine collection of *Nephrolepis exaltata* and its varieties.

In the non-commercial Class for vegetables, Mrs. Herbert L. Pratt took first prize, Mrs. Payne Whitney second, for best

collections arranged for effect, while in the largest class, open to all, Mrs. Herbert L. Pratt again took first prize, Miss Myra Valentine second.

The one exhibit of apples by a commercial grower is worthy of mention. This exhibit was one of the best in the Show and consisted of a number of standard varieties, tastefully displayed. It was put up by J. W. Weaver and Son, Highland, N. Y.

Mrs. F. A. Constable's special display of Nerines attracted no little attention, partly on account of the rarity of these bulbous plants, which, as they come under the embargo of Quarantine No. 37, are likely to be scarce for years. The collection was awarded a special prize.

The most novel exhibit of the Show, and one that attracted a great deal of attention, was a very large and fine collection of Celosias, by Mrs. W. D. Guthrie. The peculiar flowering, and the odd and beautiful colors of these plants, kept a crowd around them all the time. The display was awarded a special prize of a silver cup.

The following special prizes were awarded by the Committee:—
Howard Phipps, Westbury, L. I.

Chrysanthemums—Display of seedling Anemones and Pompons—\$5.00

Miss Mary Bell, 171 Bell Ave., Bayside, L. I.

Specimen plant of *Clerodendron fragrans*—Double variety—
Certificate of Merit.

W. A. Manda, South Orange, N. J.

Collection of New and Rare Plants—Gold Medal.

Dahlia mandiana—Certificate of Merit.

A. N. Pierson, Cromwell, Conn.

Chrysanthemums—New Pompon, "New York"—Silver Medal

Geo. E. Baldwin and Co., Mamaroneck, N. Y.

Collection of Orchids—Gold Medal.

Joseph A. Manda, West Orange, N. J.

Display of *Cypripedium insigne Sanderi*—Special Prize, \$100.

Display of Orchids—\$25.

Bobbink and Atkins, Rutherford, N. J.
Display of *Taxus cuspidata capitata*—\$25.

F. Heeremans, Elm Court Farms, Lenox, Mass.
Chrysanthemum—New and Meritorious Variety not in commerce—\$10.

N. Harold Cottam, Wappingers Falls, N. Y.
Collection of apples—\$5.

PROCEEDINGS OF THE SOCIETY.

The Horticultural Society, in cooperation with the Garden Club of America, gave a series of afternoon lectures on horticultural subjects, at the American Museum of Natural History. These lectures were given on the third Tuesdays of the months of January, February, March, and April, and had an average attendance of over two hundred people. The lectures and their subjects were as follows:

January 17th—Japanese Flower Arrangement—Miss Mary Averill.

February 21st—The Arnold Arboretum—Mr. Loring Underwood.

March 21st—Herbaceous Perennials—Mr. Henry E. Downer.

April 18th—English Garden Methods—Miss Mary R. Jay.

A resume of Miss Averill's lecture is printed in this issue.

RESUME OF LECTURE ON JAPANESE FLOWER ARRANGEMENT.

Japanese Flower Arrangement is the only branch of Japanese art that has no traces of foreign origin. Most matters of Japanese art have come through China. Japanese Flower Arrangement has been practised for centuries, but was brought to its present-day form in the latter part of the fifteenth century through Yoshimasa, who conceived the idea of representing three elements in every arrangement of cut flowers, namely, Heavens, Man, Earth; and from this has evolved the present system. These principles take different names in the different

schools but hold the same relative positions and heights in all schools and in all arrangements.

The central or highest spray in the group is the Heavens, the next in height is the Man and the lowest is the Earth. These three principles can be arranged in two distinct styles known as In and Yo, or otherwise masculine and feminine, or right and left. In this country we attach little importance to the style of the arrangement. The style merely suggests where the arrangement is to be placed; but in Japan a feminine arrangement can never be placed conspicuously whereas a masculine arrangement can be used on any occasion.

This idea of applying a distinction of sex is closely adhered to, not only in flower arrangement but in landscape gardening. The colors of flowers are given sex distinctions which indicate their position in regard to height and prominence in the arrangement.

It is difficult to realize how important a place flowers hold in the everyday life of the Japanese, but it is a fact that the Japanese manage to derive wide gratification from flowers and to utilize them more effectively as features of public pleasure than any other people. Everyone knows how they delight in their open air flower fetes: no one is too old to make, in the cherry blossom season, a long pilgrimage to see this flower in some historic spot where it will appear to great advantage. All events are heralded by flowers.

On entering a Japanese house the initiated could tell at once the season of the year, whether a guest was expected, if coming by land or sea, and a hundred other every day occurrences.

In all well regulated houses in Japan a flower receptacle shaped like the crescent moon is used to represent the phases of the moon or the days of the month. By the way the flowers are placed in this holder, at a glance one can tell as readily as by our calendars the day of the month.

This art, coming to Japan as it did with Buddhism and practised by the Buddhist priests, was developed in order to prolong the lives of plants and flowers, and was a natural development of the Buddhist desire to preserve animal life.

The supports in which the flowers are placed were also de-

signed with the same object in view as have been the vases. The vases are wide opened at the mouth, which allows the oxygen of the air to enter and help purify the water, and are not pressed closely together at the top as our vases are. The colors of the vases are subdued and inconspicuous so as in no way to detract from the beauty of the flower but only enhance its charm.

The flowers are placed in the vases in two kinds of supports. In the upright vases a forked stick is used, which passes across the mouth of the vase or holder, and each flower is passed through this opening one at a time. In the low, flat receptacles the lead flower holders are used, as in Japan in the low receptacles they only arrange water growing or bulbous plants, and these require the stems pressed on the bottom of the receptacle in order to prolong their life.

The Japanese spend more time in selecting the material with which they are to work than time on placing it in the vase. What at first to us is deceiving in this style of arrangement is the fact that the Japanese try to represent the whole, while we are content that a branch remains a branch. Where we gather a few flowers and put them in a vase in which they remain a few or part of the whole, the Japanese at once considers where and how the plant grew and represents the whole complete. This is why they strive so hard to bring all the sprays into a unity at the base or just above the surface of the water, forming what they call the parent stalk.

This is what gives strength to all this arrangement. They consider the surface of the water in the vase as the surface of the soil from which the artificial group sprang. Not only flowers but branches of trees lend themselves admirably to this style of arrangement, and the Japanese are taught to make one branch simulate the entire tree from which it has been gathered.

There is nothing more needed in the rush of this century than time taken for the pursuit of something beautiful and it is interesting that in Japan when people are nervously ill and doctors fail, patients are often advised to devote so many hours a day to flower arrangement, with the most wonderful results in calming and composing their nerves. It also teaches concentration and proportion. One learns to discriminate in the selection of what

THE HORTICULTURAL SOCIETY OF NEW YORK

is truly beautiful, which means of course much careful elimination. Whereas we rather begrudge a half hour spent with something beautiful in the way of art a Japanese feels that no day has been complete without almost worship of some natural beauty, or beauty of art.

MARY AVERILL.



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Journal

of the

Horticultural Society of New York



Vol. III, No. 6

MAY
1922

EDITED BY THE SECRETARY

MRS. GEORGE V. NASH

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Journal
of the
Horticultural Society of New York

INCORPORATED 1902

Vol. III, No. 6 Issued
Quarterly

MAY, 1922

Free to Members
By subscription \$1.00 per year

THE SPRING SHOW

The ninth International Flower Show was held in the Grand Central Palace during the week of March 13th-19th, 1922, and broke all records for both exhibits and attendance. Several times during the show the doors had to be closed for some time until the throngs of people thinned out enough to allow of more admissions. The exhibits were many and varied, and there was keen competition in many classes.

The show was arranged on much the same plan as that of 1921, except that one missed the dainty little rose arches over the center walk. The stairway was decorated with huge palms and Bay trees from Bobbink and Atkins, and from Wadley and Smythe, who exhibited for the first time this year. The first exhibits, as one entered the hall, were those of W. B. Thompson, Yonkers, N. Y., Andrew Strachan, Superintendent, and Mrs. Payne Whitney, Manhasset, L. I., George Ferguson, Supt. Both were attractively laid out in the form of gardens, covering five hundred square feet, and contained many kinds of garden flowers, as well as *Primula obconica*, *malacoides*, and other tender plants.

The four big gardens were, as usual, the center of interest, and were even more diversified and interesting than before. That of Julius Roehrs and Co., which carried off not only the Gold Medal, but also the Sweepstakes of the Garden Club of America, was primarily a collection of plants and shrubs suitable for

rock gardens. Tons of tufa were used for the foundation and the plants comprised almost every known variety of shrubs and plants that can be grown in rocky places, from the Cedars that formed the background, down to the fine specimens of *Cypripedium spectabile* and *C. acaule* in the foreground.

In sharp contrast to this overflowing display was that of F. R. Pierson, Tarrytown, N. Y. This was not only a real garden, but a series of gardens, having everything but the house to make a delightful place to live in. A fine lawn sloped down from the mass planting of trees and shrubs about the imaginary house to the clipped hedge in front. A stone path at one side led through a hedge to the most charming little bulb garden, filled with blue and white hyacinths, daffodils, and tulips, and backed by a quaint stone wall. At the right the lawn sloped down to a miniature water garden, with lilies and other water plants in full bloom, while a restful rustic summer house was almost concealed in the shrubbery back of the bulb garden.

Bobbink and Atkins, Rutherford, N. J., featured Azaleas in their garden, which was laid out in more or less formal style. Excellent specimens of *Azalea Indica* and other types filled the oblong beds, while the big border at the back was formed by dense masses of flowering Crabapple, *Azalea Mellis*, *Rhododendrons*, etc. On the extreme left a white summer house, embowered in Rambler roses, sheltered a small playing fountain surrounded by ferns. This firm also exhibited a marvellous rock garden, rivalling the larger one of Julius Roehrs in number and variety of rock plants, all of which were plainly labelled. It was really intended more as an exhibit of plants that could be grown in rocky soil, rather than a true garden, although it was laid out as such.

A rose garden, pure and simple, was the idea of A. N. Pierson, Cromwell, Conn., and it was excellently carried out. A gravel path led back to a circular summer house gay with festoons of Paul's Scarlet Climber. On either side of this path were formal beds surrounded by turf, and filled with a fine selection of roses, from the little *Polyanthas* in front to the plants of *Ophelia*, *Mme. Butterfly*, *White Killarney*, *Sunburst*, etc., sloping toward the back ground of specimen Conifers, *Rhododendrons*, and *Azaleas*.

The garden of Wadley and Smythe, Yonkers, N. Y., was on a vast and dignified scale. Placed as it was, at the extreme rear of the hall, one seemed on entering to be transported in a moment to some remote part of the tropics. Giant orange trees and Bay trees, palms, oleanders, and trailing vines, formed a veritable jungle overhead, while standard Geraniums, Fuchsias, Lantanas, and Heliotropes carried out the tropical note. The whole exhibit was original and unlike anything else in the show, and deserved credit for the way it was carried out. The plain labels, while in no way detracting from the beauty of the exhibit, were of distinct educational value.

ROSES

The display of cut roses on Tuesday was of fine quality, although limited in extent. A vase of choice American Beauties was shown by Gude Brothers, Washington, D. C. The vase of Souvenir Claudius Pernet exhibited by Charles H. Totty, N. J., was well worthy of the gold medal awarded to this wonderful yellow rose. The roses of the Duckham Pierson Co. showed wonderful culture. Two very striking vases were the Francis Scott Key of F. R. Pierson and the Dark Pink Columbia of A. N. Pierson.

The prize for decorative groups staged by commercial growers on Wednesday was won by Traendly and Schenck, New York, in close competition with the exhibit of F. R. Pierson, Tarrytown, and A. N. Pierson, Cromwell, Conn.

The central feature of this display, was a large vase of Francis Scott Key. This was surrounded by vases of Premier, Double White Killarney, Crusader, Ophelia, and Columbia. In front were three low vases of Mrs. Aaron Ward. Palms, ferns and ivies were used to set off the roses.

A. N. Pierson and Co. received second prize for a handsome exhibit of 12 vases of Dark Pink Columbia, Double White Killarney, Premier, Mme. Butterfly, Pilgrim, and Crusader, with which Cibotiums, Farleyense, and other ferns were used.

F. R. Pierson showed 900 fine specimen roses arranged in tall Japanese vases set about with Adiantum and crested ferns. The varieties were Francis Scott Key, Premier, Crusader, Ophelia, Columbia, Butterfly, and Mrs. F. C. Henderson.

On Friday there were staged smaller vases of roses by commercial growers, which brought out some good exhibits, notably those of American Beauties by Paul Pierson, Briar Cliff, New York. The Bedford Flower Co. took first prize with 50 Pilgrims in the class for undisseminated pink, A. N. Pierson first with Double White Killarney for 100 undisseminated white, and L. B. Coddington, Murray Hill, N. J., first for 100 Hadley.

In the private classes, Mrs. H. McK. Twombly carried off first prizes in all the five classes entered. Countess Mildred Holnstein was awarded a silver medal for a deep yellow seedling.

CARNATIONS

The first prize for Display of Carnations covering 150 square feet, was won by the Springfield Floral Co., which took many other prizes also. Other prize winners were LeCluse and Le Cluse, Harry O. May, Scott Brothers, Strouts Inc., S. J. Goddard, and Wm. C. Haas, and in the classes for private growers, Mrs. Payne Whitney, Manhasset, L. I., Mrs. Arnold Schlaet, Saugatuck, Conn., Mrs. W. D. Guthrie, Locust Valley, L. I., Mrs. L. L. Dunham, Madison, N. J., Mrs. Robert Mallory, Port Chester, N. Y., Mrs. F. A. Constable, Mamaroneck, N. Y., and Mrs. F. E. Lewis, Ridgefield, Conn., were all prize winners.

The prize for 150 blooms was won by Joseph E. Widener, Elkins Park, Pa., William Kleinheinz, Supt.

ORCHIDS

The display of orchids was perhaps the finest ever seen in New York, both in variety and quality. The display would have been better, perhaps, from an artistic standpoint, with a little more foliage of some kind as a background, however "good wine needs no bush." A. N. Cooley, Pittsfield, Mass., took first prize, in the class for cut orchids covering 50 square feet, with a wonderful group of Cymbidiums, Cattleyas, Cypripediums, etc., James E. Widener, Elkins Park, Pa., taking second prize. A. N. Cooley also won in the classes for six and twelve orchid plants, respectively, besides showing some wonderful single plants such as Cattleya Chiftoni Magnificent and General Pershing, the latter

having no less than nine blooms. James Duke, Somerville, N. J., A. Miles, Supt., showed a fine group of *Oncidiums*, *Cattleyas*, *Cypripediums*, etc., and also received a gold medal for *Odon-toda Vuystekie* and a silver medal for a huge hybrid *Cattleya* Mrs. Harding.

In the commercial exhibits, the Joseph Manda Co., West Orange, N. J., was an easy winner in the class for 100 square feet of cut blooms, showing many new and interesting things. Their new gold medal *Lou Henry Hoover*, with 13 clear yellow blooms, held its first flower from Christmas to the time of the show, a wonderful record for its keeping qualities. A gold medal was also awarded to a giant *Cymbidium* hybrid with 5 spikes.

G. E. Baldwin, Mamaroneck, N. Y., and Lager and Hurrell, Summit, N. J., staged many interesting varieties of *Cattleyas*, *Cymbidiums*, *Cypripediums*, etc. Lager and Hurrell also staged a special group of plants including *Lycastes* and a quaint little *Vanda* called *Marinata*.

Julius Roehrs staged a special group of plants near his rock garden, covering 300 square feet, and containing many fine things. Among those were *Princess Mary*, the new pure white *Cattleya* hybrid; *Ypres*, Dr. McDonald, A. C. Burrage, and *Emperor Frederic*.

The group of *Azalea indica* staged by Bobbink and Atkins attracted much attention; it was too fine a collection to have been in such an obscure position, and many people had trouble in finding it.

James Stuart, Superintendent for Mrs. A. A. Constable, scored his usual success with the finest showing of *Cyclamen* plants that could possibly be seen anywhere. He also showed a most beautiful and artistic arrangement of *Kentias*, *Acacias*, and *Cliveas*.

A. L. Miller was well represented in many classes, his exhibits of plants on the main floor was full of interesting things such as *Deutzias*, *Andromedas*, *Acacias*, flowering *Crabs*, *Buddleias*, *Genistas*, *Abutilons*, etc. He also showed the new *Bourgain-villea* *Crimson Lake*.

The collection of *Kurume Azaleas* shown by Henry A. Dreer

was the only exhibit of these plants in the show. Fine plants, covered with bloom were shown in the varieties Peach Blow, Snow Flame, Christmas Cheer, Pink Pearl, Apple Blossom, Cherry Blossom and Daphne.

Madsen and Christensen, Woodridge, N. J., showed splendid plants of Genistas and Marguerites.

Much credit is due the private growers for their exhibits of new and striking things. The lilies of Mrs. Percy Chubb, the Schizanthus of Albert Millard, Mrs. F. A. Constable, Mrs. F. E. Luckenbach and Mrs. Richard Colt, the Cyclamen of Mrs. F. A. Constable and D. Guggenheim, the Primulas of Mrs. Luckenbach, Mrs. W. D. Guthrie, and Miss Alice De Lamar, to say nothing of the many exhibits of palms, ferns, bulbs, etc., reflected much glory on the growers, and added greatly to the beauty and interest of the show.

An account of the exhibit of the Garden Club of America at the International Flower Show, written by Mrs. Robert C. Hill, follows this article.

EXHIBIT OF THE GARDEN CLUB OF AMERICA.

The Exhibit of the Garden Club was staged on the second floor on the Lexington Avenue side. It was divided into three sections.

Miniature Gardens contest.

Japanese Floral arrangements.

Dinner and Luncheon table arrangements.

Miniature Gardens. As models of gardens were an entirely new departure for the Club very few restrictions were made. The trays were not to be over three feet square and the scale either one eighth or one quarter of an inch to the foot.

The first prize (a painting by Frank Galsworthy given by Mrs. Bacon) was awarded to Mr. Charles Pepper, member at large, for his superb model of the Villa Gamberaia Garden in Florence.

The second prize went to Mrs. Robert Bacon, North Country Club, for her Ideal American Garden, consisting of open lawn

with large central oak tree, rose garden, hardy border, Wild-garden, orchard, tennis-courts, etc. This model adhered to the date of May twentieth, and only flowers and shrubs which are in bloom at that time were colored.

The third prize was won by Mrs. Joseph Cotton, of the Bedford Club, for a small walled garden of great charm, planted with hardy plants and containing a semi-circular pool.

The other entries were a house and garden by Miss Mary Rutherford Jay; Spanish Garden by Miss Margaret Whitehead, of Pittsburgh; Hedged Flower-garden by Mrs. William Carey, of New Canaan Club; Bermuda Quarry Garden by Mrs. Samuel Ordway, of Easthampton Club; Small home Garden with Swimming Pool by Mrs. Henry Chappell, New Canaan Club; Lawn Garden and terraced border by Mrs. E. A. Le Roy, Somerset Hills Club; House and Informal Garden by Mrs. Francis G. Lloyd, Somerset Hills Club.

JAPANESE ARRANGEMENTS

First prize: Won by Mrs. Littleton of the Fauquier Loudoun Club, Va.

An arrangement of *Strelitzia Regina* in Bronze receptacle.

Second prize: Won by Mrs. Seton Lindsay of South Side Garden Club.

A graceful arrangement of Cedar set in blue and white bowl.

Third prize: Won by Mrs. Robert Mallory, Jr., of Rye Garden Club.

A simple arrangement of *Iris Tingitana* in a square white dish. There were about ten entries in this class.

DINNER AND LUNCHEON TABLE DECORATIONS

There were a surprising number of entries in the Table Decoration classes. Certainly during the last few years this form of decoration has taken its place among the arts. There were some twenty dinner tables shown on Monday to Thursday and for the rest of the week even a larger number of Luncheon tables took their place. The latter were, on the whole, much prettier and better done than the dinner tables but they were all most original and interesting and created a great deal of interest and discussion.

The judges for this class were Miss T. deT. Hawley; Mrs. Frederick Culver and Mrs. Wood (of Wood, Edey and Slater).

Dinner Tables (no glass nor small silver was allowed).

First prize: Won by the Phillipstown Garden Club of Garrisons-on-Hudson. Color scheme amber, lemon and orange. The cover was of ecru lace and the candlesticks, compotes and vases of antique amber glass. The arrangement was a medium high and gracefully balanced one of Gerbera, Ranunculus Polyanthus, Narcissus, orange Olivia and bronze pansies.

Second prize: Won by Garden Club of Cleveland, Ohio. Color scheme yellow, blue and mauve. The cover was a square of cream filet and oblong doilies to match. Two empire candlesticks and vases to match of cut glass and Ormulu blended well with the creamy white and gold of the Cauldon plates. Two high arching arrangements of Acacia, Spanish Iris and Blue Laceflower were set at the corners.

Third prize: Won by the Philadelphia Club. Color scheme, dull turquoise blue, lemon-yellow and white. Beautiful Italian cloth of turquoise blue linen, low silver candalabra, octagonal bowl and plates of old French white china, with a narrow border of the turquoise blue; the flowers were a low mixed feathery arrangement of Acacia, orange Tulips, single Calendulas, Poet's Narcissus, with a low band of Forget-me-nots falling over the edge of the bowl.

The other clubs competing in this class were Rye Garden Club, South Side L. I. Club, Washington Conn., Garden Club of Montgomery and Delaware Counties, Bedford Club, Newport, Greenwich, Princeton, Hartford, Conn., New Canaan, East Hampton Garden Club and Morristown Club.

LUNCHEON TABLE DECORATIONS

First prize: Phillipstown Club. Color scheme, soft buffs, yellows and blue. A small oblong centerpiece and doilies of warm primrose-colored Italian linen and Italian pottery plates in dull buff; green and blue coloring toned in well with the balanced, rather high arrangement of yellow and blue Spanish Iris and buff and mauve Freesias, and extra large blue Cornflowers placed rather low in the composition.

Second prize: Won by Southampton. L. I., Garden Club, Color scheme, red, white and blue. An oblong runner of dark French blue linen and oblong doilies with finely crochet red and grey edge showed off the quaint Quimper plates, soup bowls and square bowl shaped vase with an open arrangement of blue Spanish Iris, blue Lace-flower, yellow Ranunculus, scarlet Caen Anemones and white Narcissus.

Third prize: Won by Ridgefield Garden Club. Color scheme, pale mauve and violet. Square centerpiece and doilies of heavy Italian linen. Plates and low goblet-shaped vase of sage-green Italian pottery. Most unusual arrangement of light blue Laceflower, dark Violets and mauve Tulips.

Washington, Conn., Club and New Canaan, Conn., Club received V. H. C. The other clubs competing in this class were East Hampton; Lenox, Middletown, Conn., The Weeders of Phila., North Country, L. I., Amateurs Club of Baltimore, Philadelphia Garden Club, Morristown Club, Montgomery and Delaware Counties, Rumson, N. J., Greenwich, Rye, Short Hills, Princeton, and Newport, R. I.

NOTICE

The Annual Gladiolus Exhibition of the Horticultural Society will be held in the Museum building of the New York Botanical Garden, on Saturday and Sunday, August 19th and 20th, 1922, from 10 A. M. to 5 P. M.

The schedule has been much enlarged, and prizes are offered in many classes, including several for Garden Clubs, which are especially invited to compete. Copies of the schedule may be had on application to Mrs. George V. Nash, New York Botanical Garden, Bronx Park, New York City, or to the office of the Society, 598 Madison Ave., New York City.

HARDY HERBACEOUS PERENNIALS

This group of plants is at the present time favored with a wide measure of popularity, and representatives are to be found in practically every garden today. This is not at all surprising

to those familiar with the good qualities of these so-called "Old-fashioned Hardy Flowers," and it is safe to say that no other class of flowering plants will give as much pleasure in return for the time and care bestowed upon them. Then too, the introduction of improved forms stimulates enthusiasm. When we compare the latest varieties of Iris, Columbine, Peony, Larkspur, Phlox, and Aster, with the real old-fashioned types, we see the wonderful development that has been brought about by the skilled work of the hybridist. We see them made use of in various ways to suit different purposes. Some are well placed in the rock garden, others can be used to good purpose in the shrub border to give color late in the season. The most interesting arrangement to plan and care for, is when they are grouped together in a border in such manner as to maintain a succession of bloom throughout the growing season. This calls for good judgment in the selection and arrangement of the different types. Habit of growth, season of bloom, and color, must all receive due consideration.

Most kinds adapt themselves readily to varied conditions of soil and location, although in some cases the question of hardiness is related to these local conditions. Few of them are really happy if standing all winter with "wet feet" in poorly drained soil.

The keystone to success under any condition is the thorough preparation and enrichment of the soil. No amount of fertilizer added after can make up for the lack of deep and thorough cultivation in the beginning. Loosen up the soil two feet deep, the extra labor involved will be amply repaid in the better growth of the plants. At the same time dig in a good dressing of well decayed manure, or leaf-mold, which will improve the physical nature of the soil as well as supply plant food. In an established border a dressing of sheep manure or bone meal lightly forked in early in the spring is most beneficial.

The soil ought to be in good friable condition at the time planting is done, and for several reasons I prefer to do this in early autumn rather than spring. The question of dividing and replanting should be determined by the character of the plant itself. Such plants as Peonies, Dicentra, Dictamnus and

the Oriental Poppy (which transplants best in August) are best left undisturbed as long as they are in vigorous condition. On the other hand such kinds as *Phlox* and *Aster* can well be divided each year.

In the matter of winter protection plants are often literally smothered to death because of the mistaken idea that they need protection from cold. No covering is needed until the ground is frozen, and a covering of stable litter, dry leaves, or pine needles loosely shaken over three or four inches thick will suffice. Do not be deceived by the first warm day in March into removing all the covering. It is safer to proceed cautiously with this. There are so many kinds to choose from that the selection of a limited planting list is largely a matter of personal taste. Patches of spring-flowering bulbs planted throughout the border add greatly to its attractiveness early in the season and do very well when treated this way.

The following perennials all have good qualities to recommend them and are grouped according to average height. The time of flowering mentioned is approximate and will vary according to location and weather conditions.

DWARF

Arabis albida, white. April to May. The double form is more lasting and good for picking.

Alyssum saxatile compactum, yellow. April to May. Very showy.

Phlox subulata Nelsoni, white. G. F. Wilson, lavender; vivid, rose. May. Does well in poor soil.

Phlox divaricata, deep lavender. May. Does well in partial shade. Growth slender, needs cutting back after flowering.

Saxifraga crassifolia, deep rose. April to May. Robust looking plant with large leathery leaves.

Polemonium reptans, blue. May. Makes a dense mat of growth.

Veronica gentianoides, light blue. May. Does well in partial shade and moist soil.

Viola cornuta G. Wermig, blue. In flower all season. Does well in sun or partial shade.

- Iberis sempervirens*, white. May. Evergreen.
Iris cristata, light blue. May.
Aster alpinus, purple. May.
Armeria maritima Laucheana, deep rose. May and June.
Dicentra eximia, pink. May to July.
Lychnis viscaria splendens, rose pink. May and June.
Cerastium tomentosum, white. June.
Dianthus deltoïdes, pink. June.
Dianthus plumarius Excelsior, rose-pink; Her Majesty,
double white. June.
Linum flavum, yellow. June to August.
Campanula carpatica, blue. July and August.
Anothera missouriensis, yellow. June to Sept.
Veronica incana, deep blue. June, July. Silvery foliage.
Stokesia cyanea, blue. July to Sept.
Sedum spectabile roseum, rose. August, Sept.

EIGHTEEN INCHES TO THREE FEET

- Doronicum excelsum*, yellow. May.
Aquilegia chrysantha, yellow. May to July.
A. long spurred hybrids, various colors. May and June.
Trollius. Orange Globe, deep yellow. May. Prefers moist soil.
Dicentra spectabilis, rose. May. Does well in partial shade and moist soil.
Iris siberica Orientalis, deep blue; Snow Queen, white. June.
Iris germanica, various colors. May to June. There are so many fine varieties that the most satisfactory way is to have a separate plot for Iris. They can be used to advantage also in front of the shrub border.
Paeonies, various colors. May and June. Best treated as suggested for Iris.
Pyrethrum hybridum, various colors. June. Best results from plants of named varieties of which there are both single and double.
Linum perenne, blue. May to Sept. Flowers open only in the morning.
Papaver orientale Mrs. Perry, salmon pink; Perry's white.

May, June. Dies down at mid-summer, best time to transplant.

Hemerocallis Dumortieri, deep yellow; *H. flava*, lemon-yellow. June. *H. Thunbergii*, bright yellow, late July. These thrive in sun or shade and in dry or wet soil.

Lupinus polyphyllus, blue; *albus*, white; *Moerheimi*, pink. June.

Coreopsis grandiflora, yellow. June to Oct.

Oenothera fruticosa Youngii, yellow. June to August.

Heuchera sanguinea, red. June, July.

Dictamnus albus, white. June.

Anthemis tinctoria Kelwayi, yellow. June to Oct.

Achillea ptarmica Perry's white, double flowers. June to Oct.

Gaillardia grandiflora, yellow and red. June to Oct.

Campanula persicifolia, blue; *C. p. alba*, white. June, July.

Delphinium chinense, deep blue. June and Sept.

Campanula latifolia macrantha, purple-blue. June, July.

Iris laevigata, various colors. June, July. The Japanese Iris needs deep cultivation and enrichment of the soil.

Gypsophila paniculata, white. July. The double form is especially desirable.

Geum, Mrs. Bradshaw, scarlet. June, July.

Lysimachia clethroides, white. July, August.

Platycodon grandiflorum, blue. *P. g. album*, white. July, Aug.

Pentstemon barbatus Torreyi; orange scarlet. July, Aug.

Phlox, many varieties in various colors. July, Oct.

Scabiosa caucasica, light blue. July, Sept.

Chrysanthemum maximum King Edward, white. Aug.-Sept.

Rudbeckia speciosa, orange yellow. Aug.-Sept.

Funkia subcordata, white. Aug., Sept.

Statice latifolia, lavender. Aug., Sept.

Veronica subsessilis, deep blue. Aug., Sept.

Anemone japonica alba, white; *A. j.*, Whirlwind, white, semi-double; *A. j.*, Queen Charlotte, pink, semi-double. Sept., Oct.

Aconitum Fischeri, pale blue. Sept., Oct.

THREE TO SIX FEET HIGH

Anchusa itatica, Dropmore variety, deep blue; Opal, light blue. May, July. Winter kills in heavy soil, easily propagated from root cuttings.

Delphinium belladonna, pale blue. Numerous hybrids in various shades of blue. June and Sept.

Clematis recta, white. June, July.

Thalictrum glaucum, yellow. June, July.

Heliopsis Pitcheriana, yellow. July, Aug.

Physostegia speciosa, pink. Aug., Sept.

Artemisia lactiflora, creamy white. Aug., Sept.

Rudbeckia subtomentosa, yellow. Aug., Sept.

Echinacea purpurea, reddish purple. July, Sept.

Centaurea macrocephala, pale yellow. July, Aug.

Chrysanthemum uliginosum, white. Aug., Sept. Needs moist soil.

Liatris pycnostachya, rosy purple. Aug.

Helenium autumnale superbum, yellow. Aug., Sept.

H. a. rubrum, bronzy-red. Aug., Sept.

Helianthus mollis, lemon yellow. Aug., Sept.

H. multiflorus maximus, yellow. Aug., Sept.

H. orgyalis, yellow. Sept., Oct.

Aconitum Wilsoni, blue. Sept.

Salvia azurea grandiflora, blue. Sept.

Boltonia latisquama, pale pink. Sept.

Aster or Michaelmas Daisy. Many kinds in various shades of blue, pink, and white. This genus illustrates well the work of the plant breeder in the development of improved forms from one of our native plants.

This by no means exhausts the list of good perennials, but enough have been named to form a good representative collection, which should prove to be a source of perennial joy.

H. E. DOWNER.



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of the

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Nos. 7 and 8



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1922

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NEW YORK
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ISSUED QUARTERLY

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SPECIAL NOTICE. The sudden death of the Secretary, G. V. Nash, has necessitated several changes in the routine work of the offices and among other things a delay in the preparation of material for this number of the *Journal*, which now appears as the combined issues of August and November. With the combined activities of the individual members of a newly formed "Journal Committee" this organ of the Society should take on a new importance. This Committee trusts that the members will unite in making their "Journal" a depository of much interesting horticultural material and especially as relating to New York horticulture. Contributions and notes of interesting observations are solicited.

The Society has lost through death during the year May 1, 1921, to April 30, 1922, the following members:

Mr. Eudera D. Snyder

Mr. A. D. Bendheim

Mrs. Arnold Hague

Mr. Theodore Roberts

Dr. Daniel M. Stimson

Miss Gertrude L. Hoyt

Mr. C. A. Tatum

Mrs. C. Gouverneur Weir

NOTES OF PROGRESS

A BEGINNING has been made towards a reference library of horticulture. The leading weekly and monthly gardening periodicals are regularly placed on file for the convenience of members who may wish to consult them, and a few reference books, encyclopedias, etc., have been acquired as the nucleus of a working library on horticulture. The Directors hope that mem-

APR 10 1923

bers will avail themselves of the opportunity thus begun, to unite their efforts in making additions to the library. Books of reference and of historical interest in floriculture, etc., are particularly desired at this time.

A BUREAU OF INFORMATION has been established with the object of putting at the service of the membership at large the special knowledge of the expert horticulturists in the organization. This service will be handled through the Society's office by mail and it is hoped that it will become a valuable feature of the Society's work, in rendering practical aid to those members who desire special information in any particular detail of the activities of the garden or greenhouse.

THE growing activities of the Society and our steadily increasing membership having called for better facilities in the offices at 508 Madison Ave., New York City, arrangements have been made for increased space where the interests of the membership may be better served.

COMMITTEES FOR 1922-23

The Directors have made appointments of the following special and standing Committees for the term 1922-23.

EXECUTIVE COMMITTEE: Mrs. Harold I. Pratt, *Chairman*, Mrs. Arthur W. Butler, Mr. T. A. Havemeyer, Mr. F. R. Pierson, Mr. F. R. Newbold.

FINANCE COMMITTEE: Mr. T. A. Havemeyer, Mr. F. R. Pierson, Mr. F. R. Newbold.

LECTURE COMMITTEE: Mrs. Samuel Sloan, *Chairman*, Mrs. Robert C. Hill, Mr. Leonard Barron.

EXHIBITION COMMITTEE: Mr. James Stuart, *Chairman*, Mrs. George V. Nash, *Secretary*.

JOURNAL COMMITTEE: Mr. Leonard Barron, *Chairman*, Dr. E. B. Southwick, Mrs. Elizabeth Peterson.

LIBRARY COMMITTEE: Mrs. Robert C. Hill, *Chairman*, Mrs. Arthur W. Butler, Mr. Henry I. duPont.

ADVISORY COMMITTEE TO FLOWER SHOW: Mr. William A. Delano, *Chairman*, Mrs. Harold I. Pratt, Mrs. Samuel Sloan, Mrs. William A. Hutcheson, Mrs. Robert C. Hill.

ARRANGEMENTS FOR THE SESSION 1922-23

LECTURES. At the American Museum of Natural History, 77th St. and Central Park West, at 3:30 P. M.

November 9, 1922, THE WAY TO THE GOOD SMALL GARDEN, By Mr. Fletcher Steele. This lecture with slides is presented for circulation to the Federation of Women's Clubs by the secretary of The Garden Club of America.

December 14, 1922, COUNTRY PLACES OF OLD NEW YORK (Illustrated), By Mr. R. Schermerhorn, Jr.

January 11, 1923, THE ROSE IN AMERICA (Illustrated), By Mr. J. Horace McFarland

February 8, 1923, THE FUTURE OF NUT CULTURE—NEW METHODS OF GRAFTING (Illustrated), By Dr. Robert T. Morris.

March 8, 1923, ITALIAN GARDENS AND FOUNTAINS (Illustrated), By Signora Olivia Rossetti Agresti.

April 12, 1923, FLOWERS OF SOUTH AFRICA (Illustrated), By Mr. E. H. Wilson.

EXHIBITIONS:

1922, Nov. 9, 10, 11, 12, Annual Chysanthemum Show and Fall Exhibition (Museum of Natural History).

1923, March 12-17 International Flower Show (Grand Central Palace).

Special admission ticket will be issued to members.

Summer arrangements will be announced in the February *Journal*.

Note. All Lectures and Exhibitions of the Society except as noted are open free to the public.

TESTIMONIAL TO MR. NEWBOLD

ON JUNE 20, 1922, the Directors of the Horticultural Society of New York gathered in the Board Room of the Executive Office at No. 598 Madison Avenue for the regular June meeting. There was an air of expectancy and mystery enhanced by the presence of many lovely flowers, and a large attendance of the Board.

On a motion to adjourn the business meeting, more flowers ap-

peared, and then more, until the room looked as if a miniature Flower Show was being staged. Then Mr. Scheepers made a few well-chosen remarks of introduction, and Mr. Pierson followed with an expression of appreciation of the work and unselfish service of Mr. Frederic Rhinelander Newbold, Treasurer of the New York Horticultural Society since its inception and presented to Mr. Newbold a beautifully engrossed illuminated testimonial, enclosed in a hand-tooled leather case, together with

We, the undersigned, wish to convey to
 FREDERIC RHINELANDER NEWBOLD
 Treasurer of the Horticultural Society
 of New York since its inception in 1900,
 our appreciation of his generous and
 unsparing services.
 Through the farsighted policy which he has
 advocated, the Society has developed from
 a small beginning into a source of nation-
 wide interest and stimulating influence to
 the increasing thousands who enjoy its exhibitions.
 1922 This testimonial is presented as an expression
 of our esteem and affectionate regard inspired
 by the years of happy association in which
 each one of us has had a share; and it is
 our earnest hope that the leadership which
 in so modest a spirit has so far advanced
 the cause of horticulture in this country, may
 continue for many, many years to come.

a very handsome Tiffany watch and chain, the Directors present applauding vigorously and pressing close in order to add a personal word of appreciation. Mr. Newbold responded in his own modest, sincere way, and received the congratulations of his friends looking rather dazed but happy. It was a charming expression of a very deep and genuine appreciation of the unusual qualities of Mr. Newbold which have made his service in the interests of New York's horticulture a permanent monument to his name. The illuminated address which is reproduced on the preceding page has the following signatures:

T. A. Havemeyer	John Canning
N. L. Britton	Daniel Guggenheim
James W. Cromwell	Isaac S. Hendrickson
Edmund Broncks Southwick	Joseph Manda
Edw. S. Harkness	F. R. Pierson
Adolph Lewisohn	James Stuart
George N. Miller	Charles H. Totty
Clement Moore	Robert T. Brown
John E. Lager	Henry Hicks
George T. Powell	Percy Chubb
Julius Roehrs	John Scheepers
John H. Troy	Katherine C. Sloan
Robert Simpson	Anna R. Butler
Frederick L. Atkins	Harriet Barnes Pratt

THE COMMITTEE ON HORTICULTURAL QUARANTINE

The Committee on Horticultural Quarantine was created by the action of a mass meeting of horticultural interests called jointly by the Horticultural Society of New York, the Massachusetts Horticultural Society, and the Pennsylvania Horticultural Society, held in the American Museum of Natural History, New York City, on June 15, 1920, and participated in by representatives of the following organizations or institutions:

- American Association of Nurserymen
- American Dahlia Society
- American Forestry Association
- American Gladiolus Society
- American Rose Society
- American Society of Landscape Architects
- Horticultural Society of Chicago
- Horticultural Society of New York
- Indiana State Horticultural Society
- Kansas State Horticultural Society
- Massachusetts Horticultural Society
- Michigan State Horticultural Society
- Minnesota State Horticultural Society

THE HORTICULTURAL SOCIETY OF NEW YORK

Newport (R. I.) Horticultural Society
New York Federation of Horticultural Societies and Floral Clubs
North Shore Horticultural Society (Lake Forest, Ill.)
Pennsylvania Horticultural Society
Rhode Island Horticultural Society
Texas State Horticultural Society
Arnold Arboretum of Harvard University
Baltimore Florists' Club
Garden Club of America
Garden Club of Cincinnati, O.
Garden Club of Flushing, N. Y.
Garden Club of Philadelphia
Gardeners' and Florists' Club of Boston
National Association of Gardeners
New Canaan (Conn.) Garden Club
New Rochelle (N. Y.) Garden Club
New York and New Jersey Association of Plant Growers
New York Florists' Club
Society of American Florists and Ornamental Horticulturists
Womens' National Farm and Garden Association
The Florists' Exchange (trade paper)
The Garden Magazine (a journal of amateur horticultural interests)
Julius Roehrs Co.
New England Nurserymen's Association

The meeting was organized to study and, if deemed necessary, to act upon the situation brought about by less than one year of the administration of Quarantine Order No. 37—a regulation formulated by the Federal Horticultural Board and promulgated by the Secretary of Agriculture under the Plant Quarantine Act of 1912.

After the presentation of critical papers submitted by the Massachusetts Horticultural Society and the Arnold Arboretum and a general and lengthy discussion by the majority of those present—a discussion of which the tenor was that, as being interpreted and administered, the Quarantine was arbitrary, inequitable, unwarrantably severe and an unjustifiable obstacle in the path of American horticultural progress—a General Committee was formed including one delegate from each of the organizations, etc., represented. From this an Executive Committee was selected with J. Horace McFarland of Harrisburg, Pa., as Chairman. The other members being:

ALBERT C. BURRAGE, Massachusetts Horticultural Society.
JAMES BOYD, Pennsylvania Horticulture Society.
FREDERICK CRANFIELD, Wisconsin State Horticultural Society.
HENRY F. DUPONT.
MRS. FRANCIS KING, Woman's National Farm and Garden Association.
Dr. GEORGE T. MOORE, Director, Missouri Botanical Garden.
FREDERIC R. NEWBOLD, Horticultural Society of New York.
MRS. PERCY TURNURE, Garden Club of America.

E. C. VICK, American Dahlia and American Sweet Pea Societies.

JOHN C. WISTER, American Iris and American Rose Societies.

T. A. HAVEMEYER, Horticultural Society of New York—who was chosen treasurer of the Committees.

Subsequently, the president of the Garden Club of America delegated Mrs. FRANCIS B. CROWNSHIELD as an alternate for Mrs. Turnure upon the occasion of the latter's absence in Europe.

At first Mr. William P. Rich (who had served as temporary secretary at the organization meeting) was retained as secretary of the Committee. Later Mr. Vick acted as secretary for a time, since when three paid secretaries have been employed in succession, namely, Herbert W. Schlaffhorst, W. M. Stockbridge, and E. L. D. Seymour. During part of 1922, the Committee also retained as Washington representative Mr. Elisha Hanson, formerly secretary to Senator Medill McCormick of Illinois.

The efforts of the Committee were first directed toward the preparation of a statement and request for modification of the rulings, to be presented to the Federal Horticultural Board, and to be based upon actual cases of what might be considered unfair or discriminatory treatment of importing nurserymen, florists, etc. After considerable investigation and loss of time, the course was found impracticable on account of the unwillingness of the individuals to supply the essential, specific testimony.

The Committee then directed its attention at the fundamental inequities of the situation as they affect the amateur, scientific, professional, and educational interest in horticulture, making representation through communications and personal conferences, first with the Federal Horticultural Board and then with the Secretary of Agriculture.

A formal statement reviewing the situation and making certain specific recommendations was thus presented to Secretary Henry C. Wallace personally at an interview on January 20, 1922, and again at the public Quarantine Conference called by him on May 15 of the same year. Shortly afterward, careful legal study having indicated that Quarantine 37 was apparently operating beyond the limits of authority conferred by the Act of 1912, a formal legal opinion to this effect was, with the consent of Secretary Wallace, submitted to and argued before the Solicitor of the Department of Agricultural, members and counsel of the Federal Horticultural

Board appearing at the same time in opposition. Several weeks later the Secretary made partial but indefinite answer to the statement twice presented to him, and at the same time conveyed the opinion of the Department's Solicitor sustaining the attitude of the Federal Horticultural Board but referring to the actual necessity and propriety of the particular regulations of the quarantine as determined by the "administrative judgment and discretion of the Secretary."

This opinion being simply that of a lawyer and, moreover, of the lawyer who, in the course of his official duties in the Department had already approved the quarantine, is not viewed by the Committee as necessarily final or conclusive. Neither does the Committee feel that the legal aspects or the broader, fundamental questions involved have been in any way taken out of the field of further consideration by authoritative, unprejudiced minds. In this belief the Committee was represented also at the bulb conference called by the Federal Horticultural Board on October 30, 1922, at which the chairman of the Committee simply reiterated the main recommendations previously submitted and pointed out the obvious intent of Congress in passing the Act of 1912 as expressed in the report of the Congressional Committee that examined the Act.

In this same belief the Committee is continuing to observe, study and keep abreast of developments with, at all time, the rights and interests of those horticultural activities which it represents, and the constitutional rights of American citizens, as its paramount concerns. It may here be emphatically stated that the Committee does not and never has criticized, questioned or disputed the desirability of a proper and effective quarantine, or other essential, sane regulations under the Act of 1912; but that it objects to the interpretation of the Act whereby the Federal Horticultural Board (in fact, though the Secretary of Agriculture in name) has assumed and exercised powers that in its judgment are proving prejudicial to the best interests of American horticulture.

Nov. 24, 1922.

E. L. D. Seymour, *Secretary*.

PRESERVATION OF NATIVE NEW ENGLAND PLANTS

A Society for the Preservation of Native New England Plants has been formed under the auspices of the Garden Club of America and the Massachusetts Horticultural Society.

Its object is to encourage and educate the people of New England to protect native plants and wild flowers from destruction, to cut them only with care and discrimination, leaving the rarer specimens to multiply themselves, and to spread a knowledge of their habits and cultural requirements among the community at large.

This Society plans to provide free lectures, hold exhibitions, plant wild flower sanctuaries, and to spread knowledge and love of wild plants, believing that once the people have learned about them they will become their guardians and stop their rapid extermination.

At present the native Laurel is in great danger, being used in immense quantities in decorations at all seasons of the year, but especially at Christmas time. For example, one yard of "Laurel rope" contains twenty years' growth of a large plant. In New England motorists have already destroyed great quantities of this, one of the most beautiful shrubs of America.

Many wild flowers which twenty years ago were common are now seldom found, and unless the people are willing to protect rare and easily exterminated species they will soon be lost to New England. For example, the Magnolia or Sweet Bay has from overpicking practically disappeared from the swamp in the town of Essex County, Massachusetts, to which it gave its name and which was the only place in New England where this fragrant flower grew naturally. The annual membership is placed at \$1.00 with Junior members (under eighteen years) no dues, except 10 cents for a button of the Society. Sustaining Members pay \$5.00 or more.

Further information may be had from Mrs. S. V. R. Crosby, c/o Massachusetts Horticultural Society, 300 Massachusetts Avenue, Boston, 17, Massachusetts.

The accompanying cartoon (reproduced by courtesy of *Life*) carries its own significance.



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THE WILD FLOWER GATHERERS
(From *Life*)

Extracts from Proceedings of the Society

TWENTY-SECOND ANNUAL REPORT OF THE BOARD OF DIRECTORS
(Presented May 13, 1922)

The membership of the Society is now 1,124 as follows: Patrons, 6; Life, 196; Sustaining, 8; Annual, 889; Associate, 25.

The additions for the year have been: Patrons, 1; Life, 17; Sustaining, 4; Annual, 241.

The losses by death have been 8, of whom 3 were Life Members and 5 Annual Members, by resignation 13, making a total of 21.

The real gain in membership therefore is: Patrons, 1; Life, 14; Sustaining, 4; Annual 223; making a total gain of 242 members.

At the meeting of the Board of Directors on June 4th, 1921, in accordance with Constitution and By-laws, offices of the Society were elected as follows:

President	Mr. T. A. Havemeyer
Vice Presidents	Dr. N. L. Britton Mr. James W. Cromwell Dr. E. B. Southwick
Secretary	Mr. George V. Nash
Treasurer	Mr. F. R. Newbold
Chairman, Board of Directors	Mr. F. R. Pierson

The Society held meetings as follows, at the New York Botanical Gardens:

May 14th, 1921—Annual Meeting and Election of Officers.

June 4th, 1921—Sea Gardens of the Tropics—Lecture by Dr. M. A. Howe.

August 20th, 1921—Evergreens and How to Grow Them—Lecture by Mr. K. R. Boynton.

September 24th, 1921—Dahlias and Their Culture—Lecture by Dr. M. A. Howe.

At the American Museum of Natural History, 3:30 P. M. each day lectures have been given as follows:

January 17th, 1922—Japanese Flower Arrangement—By Miss Mary Averill.

February 21st, 1922—The Arnold Arboretum—By Mr. Loring Underwood.

March 21st, 1922—Herbaceous Perennials—By Mr. Henry E. Downer.

April 18th, 1922—English Garden Methods—By Miss Mary R. Jay.

The Board of Directors held meetings at the New York Botanical Garden: May 14th, 1921, June 4th, 1921, September 24th, 1921; and at the office of the Society, 598 Madison Avenue, New York: August 9th, 1921, November 1st, 1921, January 11th, 1922, February 8th, 1922, March 11th, 1922, April 12th, 1922.

Exhibitions of plants and flowers were held as follows:

At the New York Botanical Garden:

May 14-15—Spring Show in connection with the Annual Meeting.

June 4-5—Rose and Peony Show.

August 20-21—Gladiolus Show.

September 24-25—Dahlia Show.

At the American Museum of Natural History:

November 4-7—Annual Fall Show.

At the Grand Central Palace:

March 13-18—International Flower Show.

The New York Botanical Garden offered the premiums for the shows held at that institution from the income of the William R. Sands Fund.

BERTHA W. NASH, *Acting Secretary.*

TREASURER'S ANNUAL REPORT

Season 1921-22

May 1, 1921 to April 30, 1922

1 Bal. May 1/21.....	\$41,247.93	18 Permanent %	\$ 7.39
7 Life Memb. %	1,275.00	23 Wm. Baar Fd.	700.00
14 Interest %	2,410.20	23 Pk. Savg. Bank %...	58.83
16 1921 Intl. Show.....	1,264.19	24 French Bds.	5,700.00
40 Prof. & Loss % by		24 Nia. Falls Pow. Co. .	5,700.00
pro.	245.00	25 Ill. Steel Co.	5,457.50
	<hr/>	25 Alum. Co. of A.....	4,975.00
	\$46,442.32	25 Manati S. Co.	5,003.75
Less Expse. %	22.00	25 Intl. Paper Co.	4,228.75
	<hr/>	27 Mich. Centl.	5,030.33
	\$46,420.32	27 B. F. Goodrich Co....	4,912.50
		26 W. S. S. Due 1920...	419.00
		26 W. S. S. Due 1924...	415.00
			<hr/>
			\$42,608.05
		28 Loan to Genl. %	2,500.00
			<hr/>
			\$45,108.05
		38 Bal. Cash %	1,312.27
			<hr/>
			\$46,420.32
	<hr/>		
	46,420.32		

Life Fund a/cs

General Accounts

204 Cash %—Bal. May		53 Petty Cash % Treas.\$	361.06
1/21	\$ 100.05	61 Petty Cash % Secy..	400.00
204 Fruit Tree Fd. Bal...	296.75	67 Journal %	245.56
57 Interest %	21.42	71 Booth % '22	210.00
168 Sales % Journal	5.50	76 Prizes %	2,335.15
199 Nov. Show Fd. No. 13	1,350.00	82 Medals %	367.84
200 Intl. Show Fd. No. 14	618.50	89 Vases %	408.50
201 Intl. Show 22 Expse. %	263.75	92 Salary % Secy.	1,000.00
233 Dues %	4,249.00	99 Lecture %	291.94
264 Loan % Bank	1,500.00	105 Expse. % Shows	941.14
Loan % L. Fd.....	2,500.00	109 Expse. % Genl.	191.50
	<hr/>	110 Expse. % Office	2,138.54
	\$10,904.97	112 Rent Office %	1,100.00
		115 Furniture %	373.94
		201 Expse. % Intl. Show.	187.25
			<hr/>
			\$10,552.42
		208 Bal. cash %	352.55
			<hr/>
		April. 30/22.....	\$10,904.97

Actual Cash in Bank

L. F. Bal.	\$1,312.27
Fruit Tree Fd.....	296.75
Genl. % Bal.	55.80
	<hr/>
	\$1,664.82

AWARDS AT THE GLADIOLUS SHOW

At the Gladiolus Show, held in the Museum of the New York Botanical Garden August 19 and 20, 1922, awards were made as follows:

Class 1. Largest and best collection of named varieties, covering not less than 150 sq. ft., not less than 25 varieties, correctly named—1st Prize, John Lewis Childs, Inc. 2nd Prize, John Scheepers, Inc. 3rd Prize, H. M. Barrett & Son.

Class 2. Largest and best collection of named varieties, *Primulinus* Hybrids, covering not less than 50 sq. ft.—1st Prize, Maurice Fuld, Inc. 2nd Prize, C. Keur & Sons. 3rd Prize, John Scheepers, Inc.

Class 3. Vase of 12 spikes, White, one variety—1st Prize, John Lewis Childs, Inc. 2nd Prize, J. A. Kemp.

Class 4. Vase of 12 spikes, Red, one variety—1st Prize, John Lewis Childs, Inc. 2nd Prize, Mills & Company.

Class 5. Vase of 12 spikes, Crimson, one variety—1st Prize, John Lewis Childs, Inc. 2nd Prize, Mills & Company.

Class 6. Vase of 12 spikes, Pink, one variety—1st Prize, Mills & Company. 2nd Prize, John Scheepers, Inc.

Class 7. Vase of 12 spikes, Yellow, one variety—1st Prize, John Lewis Childs, Inc. 2nd Prize, J. A. Kemp.

Class 8. Vase of 12 spikes, Blue or Lavender, one variety—1st Prize, John Scheepers, Inc. 2nd Prize, C. Keur & Sons.

Class 9. Vase of 12 spikes, Purple, one variety—1st Prize, John Lewis Childs, Inc.

Class 10. Vase of 12 spikes, any other color, one variety—1st Prize, Charles F. Fairbanks. 2nd Prize, Mills & Company.

Class 11. Vase of 12 spikes, Lemoinei type, one variety—1st Prize, John Lewis Childs, Inc.

Class 12. Vase of 12 spikes, *Primulinus* Hybrids, one variety—1st Prize, John Lewis Childs, Inc. 2nd Prize, Maurice Fuld, Inc.

Class 13. Vase of 12 spikes, Ruffled, one variety—1st Prize, John Lewis Childs, Inc. 2nd Prize, C. Keur & Sons.

Class 14. Vase of 20 spikes, any variety, not in commerce previous to 1922—1st Prize, J. A. Kemp.

Class 15. Best vase or basket arranged for effect, other flowers and foliage may be used—1st Prize, The Dahlia Farm. 2nd Prize, J. A. Kemp.

Class 23. Three vases, three varieties, three spikes each, Red—1st Prize, John Lewis Childs, Inc. 2nd Prize, C. Keur & Sons.

Class 24. Three vases, three varieties, three spikes each, Pink—1st Prize, John Lewis Childs, Inc. 2nd Prize, J. A. Kemp.

Class 25. Three vases, three varieties, three spikes each, White—1st Prize, J. A. Kemp. 2nd Prize, John Lewis Childs, Inc.

Class 27. Three vases, three varieties, three spikes each, Yellow—1st Prize, John Lewis Childs, Inc. 2nd Prize, C. Keur & Sons.

Class 28. Three vases, three varieties, three spikes each, any other color—1st Prize, John Lewis Childs, Inc. 2nd Prize, C. Keur & Sons.

Class 33. Three vases, three varieties, three spikes each, Yellow—1st Prize, John Lewis Childs, Inc. 2nd Prize, C. Keur & Sons.

Class 35. Best plain petaled seedling not exhibited previous to 1922—1st Prize, George J. Joerg. 2nd Prize, J. A. Kemp.

Class 36. Best ruffled seedling not exhibited previous to 1922—1st Prize, George J. Joerg. 2nd Prize, C. Keur & Sons.

Class 37. Best *Primulinus* seedling not exhibited previous to 1922—1st Prize, George J. Joerg. 2nd Prize, H. M. Barrett & Son.

THE HORTICULTURAL SOCIETY OF NEW YORK

Special. Collection of Caladiums, Louis Piantin. Display of Grapes, Louis Piantin. Display of 34 varieties of Gladiolus, Walter H. Rice. Display of Primulinus Hybrids, Wayside Gardens Company. Display of Gladiolus, Thomas Coggers.

Most comprehensive exhibit by a non-commercial grower, E. M. Sanford. Display of Gladiolus by an amateur, E. M. Sanford.

Most comprehensive exhibit by commercial grower, John Lewis Childs, Inc.

Sweepstake. For best exhibit in the show, John Lewis Childs, Inc.

AWARDS AT THE DAHLIA SHOW

At the Annual Dahlia Show, held in the Museum of the New York Botanical Garden, September 22-24, 1922, the following awards were made:

Class 1. Largest and best collection of named varieties, not less than six types and 50 varieties, covering not less than 150 sq. ft. Flowers on short stems. 1st Prize, Miss Myra Valentine. 2nd Prize, Alfred E. Doty. 3rd Prize, C. L. Alling.

Class 2. Vase of singles, 12 blooms, one or more varieties, long stem. 1st Prize, Mills & Company. 2nd Prize, Alt F. Clark. 3rd Prize, David M. Benford.

Class 3. Vase of Collarette, 12 blooms, one or more varieties, long stems—1st Prize, C. L. Alling. 2nd Prize, Alt F. Clark. 3rd Prize, David M. Benford.

Class 4. Vase of Peony-flowered, 12 blooms, one or more varieties, long stems—1st Prize, Mills & Company. 2nd Prize, Clarence F. Nordman. 3rd Prize, David M. Benford.

Class 5. Vase of Cactus, 12 blooms, one or more varieties, long stems—1st Prize, Clarence F. Nordman. 2nd Prize, Mills & Company. 3rd Prize, Alfred E. Doty.

Class 6. Vase of Hybrid Cactus, 12 blooms, one or more varieties, long stems—1st Prize, F. P. Quinby. 2nd Prize, C. L. Alling. 3rd Prize, Clarence F. Nordman.

Class 7. Vase of Decorative, 12 blooms, one or more varieties, long stems—1st Prize, F. P. Quinby. 2nd Prize, Mills & Company. 3rd Prize, David M. Benford.

Class 8. Vase of Show, or Hybrid Show, 12 blooms, one or more varieties, long stems—1st Prize, C. L. Alling. 2nd Prize, Alfred E. Doty. 3rd Prize, Clarence F. Nordman.

Class 9. Vase of Pompon, 12 blooms, one or more varieties, long stems—1st Prize Clarence F. Nordman. 2nd Prize, Mills & Company. 3rd Prize, C. L. Alling.

Class 10. Display of Dahlia blooms covering not less than 50 sq ft., arranged for effect, other foliage may be used. 1st Prize, Mills & Company. 2nd Prize, Clarence F. Nordman.

Class 11. Best vase red dahlias, 12 of one variety, long stems—1st Prize, David M. Benford.

Class 12. Best vase white dahlias, 12 of one variety, long stems—1st Prize, Mrs. Henry R. Mallory. 2nd Prize, C. L. Alling. 3rd Prize, Clarence F. Nordman.

Class 13. Best vase yellow dahlias, 12 of one variety, long stems—1st Prize, C. L. Alling.

Class 14. Best vase Pink Dahlias, 12 of one variety, long stems—1st Prize, C. L. Alling. 2nd Prize, David M. Benford. 3rd Prize, Alfred E. Doty.

THE HORTICULTURAL SOCIETY OF NEW YORK

Class 15. Best vase variegated dahlias, 12 of one variety, long stems—1st Prize, David M. Benford.

Class 16. Best vase of any other color dahlia, 12 of one variety, long stems—3rd Prize, Alt F. Clark.

Class 17. Vase of Dahlias arranged for effect—1st Prize, Alfred E. Doty. 2nd Prize, Mrs. Henry R. Mallory.

Class 18. Basket of Dahlias arranged for effect—1st Prize, Clarence F. Nordman. 2nd Prize, John C. Latham.

Class 19. Centerpiece for table—1st Prize, Mills & Company.

Class 20. Best Collection of seedling not exhibited previous to 1922, not more than 12 varieties, long stems—1st Prize, Mrs. Charles H. Stout.

Class 21. Best decorative seedling, long stem—Mrs. Stephen Van Hoesen, Mrs. Charles H. Stout, Mr. Charles A. Searle, Mr. C. L. Alling.

Class 24. Best display of named varieties, to cover not less than 75 sq. ft., not less than 25 varieties, flowers on short stems—1st Prize, Mrs. Seabury C. Mastich.

Class 25. Vase of singles, 8 blooms, one or more varieties, long stems—1st Prize, Mrs. Robert Mallory.

Class 27. Vase of Peony-flowered, 8 blooms, one or more varieties, long stems—1st Prize, Mrs. Robert Mallory.

Class 28. Vase of Cactus, 8 blooms, one or more varieties, long stems—1st Prize, Mrs. Seabury C. Mastich.

Class 29. Vase of Hybrid Cactus, 8 blooms, one or more varieties, long stems—1st Prize, Mrs. F. A. Constable. 2nd Prize, Mrs. Robert Mallory. 3rd Prize, Mrs. Seabury C. Mastich.

Class 30. Vase of Decorative, 8 blooms, one or more varieties, long stems—1st Prize, Mrs. F. A. Constable. 2nd Prize, F. P. Quinby. 3rd Prize, Mrs. Robert Mallory.

Class 32. Vase of Pompon, 8 blooms, one or more varieties, long stems—1st Prize, Mrs. Henry R. Mallory.

Class 33. Vase of 25, arranged for effect, other foliage may be used—1st Prize, W. G. Pollak.

Class 37. Vase of Peony-flowered, 5 blooms, one or more varieties, long stems—1st Prize, W. A. Smallhorn. 2nd Prize, Mrs. A. E. Thatcher. 3rd Prize, Mrs. Maude E. Peckham.

Class 38. Vase of Cactus, 5 blooms, one or more varieties, long stems—1st Prize, W. A. Smallhorn. 2nd Prize, Mrs. Ida A. Thomas.

Class 39. Vase of Hybrid Cactus, 5 blooms, one or more varieties, long stems—1st Prize, W. A. Smallhorn.

Class 40. Vase of decorative, 5 blooms, one or more varieties, long stems—1st Prize, W. A. Smallhorn. 2nd Prize, F. P. Quinby.

Class 41. Vase of Show or Hybrid Show, 5 blooms, one or more varieties, long stems—1st Prize, Mrs. Ida A. Thomas.

Class 42. Vase of Pompon, 5 blooms, one or more varieties, long stems—1st Prize, Mrs. Ida A. Thomas.

Class 43. Best and most meritorious exhibit by an amateur—W. A. Smallhorn.

Class 45. Collection of Hardy Annuals, not less than 12 vases and 12 varieties—1st Prize, Mrs. Henry R. Mallory.

Class 46. Collection of Hardy Perennials, not less than 8 vases and 8 varieties—1st Prize, Mrs. Henry R. Mallory.

Specials: Vase of Chrysanthemums, Mrs. Henry R. Mallory. Special vase of Miss Myra Valentine, Mills & Company. Basket of Seedlings, Mrs. Maude E. Peckham. Vase of Dahlias, Mrs. W. G. Welch.

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Journal

of the

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ISSUED QUARTERLY

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ACTIVITIES OF THE SOCIETY

AT THE CHRYSANTHEMUM SHOW

THE program of the opening day of the Chrysanthemum Show, held at the American Museum of Natural History, November 9th to 12th, was made momentous by the coöperation of the Japan Society with the Horticultural Society of New York.

The Japanese Consul, Hon. K. Kamasaki, formally opened the show at the private view on the evening of November 9th, Dr. E. B. Southwick, Vice-President of the Horticultural Society presiding.

The Consul made a very interesting address touching on the friendly relations between the two great nations, drawn together on this particular occasion by their common love of flowers. He very whimsically spoke of an incident which occurred while viewing the exhibit prior to the formal opening. He was standing admiring a particularly lovely group of Chrysanthemums and was asked if Japan grew them so large. He shook his head and said, "While the Chrysanthemum is the national flower of Japan, I must say, in your American vernacular, 'My hat is off to you for size and beauty.'"

Dr. Southwick then presented Mr. Henry W. Taft, President of the Japan Society, who made a very gracious speech touching on the friendly relations between America and Japan.

Dr. George F. Kunz, a member of both societies, announced that a new seedling Chrysanthemum had been named "Princess Nagako" in honor of the princess of that name soon to become the bride of Crown Prince Hirokito. Mrs. Harold I. Pratt presented

a beautiful sheaf of these flowers to the Japanese Consul in the name of the Horticultural Society of New York.

Among those present were: Mr. Henry W. Taft, Mr. Eugene C. Worden, Mr. and Mrs. B. L. Dunbar, Mr. Melville E. Stone, Mr. Imafura, Mr. Sherai, Mr. Tamura, Mrs. Harold I. Pratt, Mrs. Samuel Sloan, Mrs. Robert C. Hill, Mrs. Arthur W. Butler, Mrs. Samuel Seabury, Mr. F. R. Pierson, Mr. James W. Cromwell, Mr. William Delano, Mr. John Scheepers.

THE COMING SPRING FLOWER SHOW

THE Tenth International Flower Show to be held from March 12th to 17th inclusive at Grand Central Palace, New York, promises to be the largest ever held.

Five large gardens are to be exhibited this year, a gain of one over the 1922 exhibit, being done by F. R. Pierson, of Tarrytown, N. Y., Bobbink & Atkins, Rutherford, N. J., A. N. Pierson Company, Cromwell, Conn., John Scheepers, Inc., 522 Fifth Avenue, New York, and Julius Roehrs Company, Rutherford, N. J.

From advice at the present time it looks very much as if Orchids will take an unusually prominent part, four large groups each covering about 400 square feet being planned for.

A novel feature, sure to attract much attention, to be introduced this year is arrangements of Hardy Azaleas.

The cut Roses, always a feature of the show, will be finer than ever, a competition to be staged the first day, a repetition to take place on Friday.

Daily attractions are as follows:

Monday—All the Groups and the Flowering Plants, Bulbs, cut Roses, etc.

Tuesday—Cut Roses from the private growers.

Wednesday—Display of cut Roses, commercial growers. Dinner Table Decorations of Roses of the private growers.

Thursday—Carnation Day, during which there will be large displays of Carnations by both commercial and private growers; Dinner Table Decorations also of Carnations by private growers.

Friday—Rose competition repeated as on Monday. Sweet-pea Day, both commercial and private growers' competition; table decorations of Sweet-peas by private growers.

Saturday—Dinner Table Decorations by private growers; Miscellaneous Flowers not staged during any other day.

The Garden Club of America classes look very interesting, their little gardens last year attracting such attention that at times the passageway was entirely blocked. These are to be repeated this year, also a suburban planting from which we look for some original and constructive ideas.

There are also competitions in suburban planting schemes:

- A. A house and garage to be placed on an interior lot with a frontage of 75 feet and a depth of 150 feet and grounds practically and attractively planted. Model to be built on tray 20 inches by 40 inches.
- B. A house and garage to be placed on an interior lot with a frontage of 75 feet and a depth of 150 feet and grounds practically and attractively planted. Open to individual members and members-at-large of The Garden Club of America who are landscape architects. Exhibit to be staged by noon on March 12th and kept up for the duration of the show.

“THE AMATEUR” IS DEFINED

Attention is called to the action of the directors at the meeting of January 10th, 1923, when it was resolved that for the purposes of exhibition of the Horticultural Society of New York the word “amateur” shall mean “a person who does not propagate for purposes of selling,” and it is hoped that this ruling may have wide adoption by other organizations.

FLOWER SHOWS FOR SUMMER AND FALL

At the meeting of the directors on January 10th, 1923, it was resolved that arrangements be made for flower shows to follow the International in March—a Tulip show in the New York Botanical Gardens sometime in May, and at the same place exhibitions in proper season of Gladiolus and Dahlias. The Peony show and the regular fall Chrysanthemum show to be held in the Museum of Natural History. The exact dates have yet to be determined.

WHERE GARDENING HELPS CITIZENSHIP

THE Avenue A Gardens in New York have well passed the experimental stage. Started a few years ago with only a few plots, there were last year under cultivation by children of the tenements six hundred small gardens and several community gardens for the production of crops on a larger scale.

Few New Yorkers and fewer visitors to New York ever see Avenue A. It is not a bit like Avenue 5, better known as Fifth Avenue. The magnificent shops and residences which line the latter are replaced on Avenue A by coalyards, machine shops, ex-breweries, things of that sort, and tenements, especially tenements. The side streets which cross Avenue A reek with tenements. And wherever there are tenements there are children—lots of children.

Those children, such of them as survive in their surroundings, are going to be American citizens. What kind of American citizens they are going to be depends largely upon what they are doing with themselves now. If their play-time, in New York or in any other city, is spent in the streets or backyards, left to their own devices and bad suggestion, it's a fair wager they won't turn out very well.

Almost all children like to have a try at gardening. Whether they keep on liking to garden depends a good deal on the success of their early experiments. When once they see something of their own planting beginning to grow, the liking is established and that child has acquired an interest in life which is far more promising for its future than stoning cats, robbing fruit-stands, or corner loafing.

The gardens are located on grounds loaned by the Rockefeller Institute at Sixty-fifth Street. When the Plant, Flower and Fruit Guild undertook this venture, the three city blocks had been a dumping ground for the builders of the Institute. The boys of the neighborhood were organized to clear the ground of the mass of sticks and stones. A neighboring stableman gave the gardens the needed fertilizer. Six hundred gardens, each 5 x 10 feet, were mapped out for the children. Besides these there were community plots for bigger crops on shares, and plots for families. A woman superintendent and a man gardener attend to the organiza-

tion, instruction, and supervision. The children who have had a year's experience are enlisted to show the beginners; both mutual help and the spirit of competition do much to produce results. The applicants are more numerous than the plots, and there is always a long waiting-list.

Persons who subscribe the ten dollars needed for the upkeep of one of these gardens have the right to name it. Many of the gardens have been named in memory or honor of relatives and friends of the donors and others have been named with a view to stimulating the fancy or the curiosity of the child gardeners. Among these latter are The Peter Pan Garden, The Kipling, The Alice in Wonderland, The See-It-Grow, The Guinevere, and others similar.

Checks for ten dollars or multiples of that amount may be sent to The Plant, Flower and Fruit Guild, 70 Fifth Avenue, New York City.

THE WAY TO THE GOOD SMALL GARDEN

BY FLETCHER STEELE

MEMBER, AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS

Lecture held at American Museum of Natural History,
Thursday, November 8th, 1922.

(*Mrs. Harold I. Pratt, presiding.*)

THE way to the good small garden is through good design. Good design means first listing the several features of a place as one lists the rooms before planning a house. Then locating each feature or sub-division according to the rule of common sense without regard to the fashions or usage of the day, which are often wrong. By sub-division is meant house and garage as well as entrance yard, garage drive, laundry yard, lawn, tennis court and flower garden. Everything will go where most practical and convenient.

Among other things reason will dictate are economical use of the land and a regard for privacy. There is no sense in troubling to make and maintain a garden that is not used. Nobody would use a garden that was public or exposed. Every sub-division must be separated and screened not only from the street, but from other parts of the place, just as each room of the house is separated from the street and other rooms by walls, doors and curtains.

In every move of location, separation and, finally, decoration, careful thought must be given to sightliness and comfort, with due regard for economical use of the land and orderly location of each sub-division for practical convenience and sightliness, the result will always be agreeable, and usually charming.

A picket fence was used for privacy by all Colonial builders to shut off the street from the grounds. Fences went out of fashion when the mansard-roof period came in at the lowest ebb of sense and taste in American building. The argument, which was probably suggested by a real estate dealer, was and is that streets look better where lots are unfenced. This excuse has no weight with anyone who compares the old fenced-in village streets of New

England with the modern suburb. The old street with its fences is **more beautiful**. Moreover, the fenced-in yards have a certain hospitable fascination that bare, obvious lawns cannot rival. They seem to tell us that within lives an old-fashioned American family in comfort and dignity.

The best place for the garden proper and outdoor living quarters of the home is usually behind the house which separates it from the street. Hedges, walls or trellises shut it off from the neighbors and from the service quarters such as laundry yard and garage of the same grounds.

If the area is very small, perhaps the owner cannot avoid throwing together the little lawn and laundry yard. In that case the first care must be put on extreme neatness and "good housekeeping" out of doors together with every encouragement for luxuriant growth of the few flowers, vines and shrubs that can be given place in the effort to screen out what is ugly, and give privacy and sightliness.

Where there is a little, but not much more room, it will probably be wise to combine lawn and flower garden. Usually in that case there will be an open grass plot surrounded by beds of flowers and shrubs. When there is room, the lawn and garden will be separated from each other. The lawn will be kept green and in part shady. The garden will be sunny and gay in comparison.

A porch and the living rooms of the house should look onto lawn and garden. Too often they are located on a noisy, dirty street while the best exposure on the quiet garden is used for kitchen and pantries. This is not common sense. There is no reason why the kitchen cannot be put on the street side as the more clever house-builders and architects are beginning to realize.

Moreover, when building it is obvious that the nearer the house is set at one side or one end of the lot, the more room there will be on the other side for private lawns and gardens. It is almost invariably a mistake to put the house in the middle of the lot well back from the street. On the service side, only enough room should be left for the practical uses of service drive and yard. Anything more is wasteful, not economical, use of the land.

There can be no rule about the character of the design when it comes to decoration. Many men like many things. One good

school urges the use of axes, straight lines and geometrical curves in making the pattern of paths, beds and planting. Others believe in free curves, and groups or individual shrubs and trees, in the endeavor to work out interesting pictures composed on irregular balance as are the pictures of nature. Both are good, though irregular balance is more difficult to achieve and is apt to look meaningless for a long time.

The simple old American way was to be guided by common sense in a compromise between the two schools, using long, straight paths and beds where they were easy to build; hitching up the slopes with stone walls if desirable. All was planted with glorious masses of flowers. It was cozy and inviting from one year's end to the other. And the more true the modern garden is to American traditions the more sure we are to find that it is secluded from the highway, convenient and practical to use and maintain. Above all it is orderly in the relation of its varied features. It may be in effect rather haphazard. But it shows continuous thought and love for growing things. It is always beautiful.

The lecture was accompanied by a series of explanatory stereopticon slides.

COUNTRY PLACES OF OLD NEW YORK

By RICHARD SCHERMERHORN, JR.

FELLOW, AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS

Lecture held at American Museum of Natural History,
Thursday, Dec. 14th, 1922.

MANY years ago Manhattan was an isle of gardens. Indeed, even not more than a generation ago, there were numerous gardens on Manhattan Island. Time was when there were many beautiful and stately country seats scattered throughout the Island, from Greenwich Village on the west side and Stuyvesant Village on the east side, to the northern limits of Manhattan.

They were different from the country estates of to-day, as we think of the most representative on Long Island and in Westchester County. There is much splendor and magnificence in the latter, and we are apt to compare them to their great advantage with the older ones of our personal recollection, whose origin dates back to the seventies or perhaps even the fifties. Once in a while, however, we discover a country seat that has remained to us since the very early generations, and though there may remain but few traces of its former character, and we know that much of its early beauty has departed, nevertheless, something is there that calls for a second glance, and we feel an atmosphere about it that lends attraction and stimulates imagination. In other words, there are superior characteristics of these old estates that our new ones do not possess, and these have not necessarily to do with age, but, on the other hand, with harmony and scale and fitness.

The old Colonial mansions had the truest kind of scale. They were mainly simple in design, but their architectural detail was nevertheless rich in every particular. There is no doubt also that the selection of the site of these mansions and the treatment of their landscape surroundings were given very particular attention. Perhaps, the wonderful old growths of forest trees, which existed in those days, helped this fitting and framing of the site and surroundings. Perhaps the wide choice offered in the selection of site was another reason, but I am inclined to believe that the

principal reason these early homes were so successful, artistically, was because the taste of the period was superior and the appreciation of artistic things more thoroughly genuine.

There was a high state of culture and refinement among the people of New York during the period just previous to the Revolution. The leading families of English descent were of gentle birth, and, possessed of fine instincts, the appreciation of beautiful things was quite natural. Those of Dutch ancestry were perhaps not so lively in their artistic sense, but nevertheless the Dutch always possessed good taste and high intelligence and their work showed evidences of it. English ideas and expressions of art were followed to a large extent at this period (1750-84), though the Dutch influence was still followed to a moderate degree, both in architecture and gardening.

During the very early days of Manhattan, the Dutch, as a nation, had attained great distinction in the art of cultivating fruits and flowers. This interest and facility were naturally transmitted to this country, and gardens containing fruits and flowers, as well as vegetables, were important adjuncts of the American Dutchman's home. The 17th century gardens of New Amsterdam were perhaps not elaborate or ornate and did not follow complicated patterns (as in the French gardens of that time), but they were laid out in regular and formal lines and were meant to live in as well as to work in, and summer houses and arbors were features. Then, as the citizens of New Amsterdam, later New York, began to acquire wealth, expression of it began to show in their dwellings and grounds. As the styles changed in the mother country, so they changed in America.

The first New York City country seats of importance originated apparently at about the middle of the 18th century. What is now known as the Georgian type of architecture (and to some extent Queen Anne) was prevalent, although the Dutch type was also quite common. Previous to this period, formal design in gardens and country seats had been the vogue in Europe for a long period, but a change had begun, and toward the end of the 18th century the informal style had become popular. The earliest American country estates therefore showed evidences of formal design in the layout of gardens and general pleasure grounds,

though after the Revolution, the informal and picturesque English park was more frequently copied. The estates along the upper Hudson, most of which were laid out after 1820, followed the latter style. But the estates on Manhattan Island, between 1750 and 1800 made much of their gardens, and while they showed strong American characteristics in retaining many of the rough and rugged features, there is certainly no question that real design, executed with superior taste, entered into their development.

Situated in the midst of virgin forest groves, the first task was that of thinning out the woodland and the creation of lawns and meadows. The long approach driveway was carefully studied and made a distinctive feature, with well designed gateway at the main highway and rows of trees carefully planted along the entire course. The gardens of these country places occupied very large areas and consisted of flower, fruit and vegetable gardens, generally located in conjunction with each other, though often some distance from the house. Fruits were cultivated with great care and interest and experimenting with exotic plants was quite a fad. Men of wealth were able to acquire substantial libraries and there were excellent books on landscape gardening in those days as well as on architecture. The carpenters and builders then were usually master-builders, with a fine sense of proportion and scale.

The age of the botanical garden did not become mature until toward the middle of the 19th century, but William Prince established a nursery in Flushing, Long Island, as early as 1737, which became of much general use, although the firm specialized in fruit trees and did not form a collection of ornamental material which amounted to much until late in the 18th century. André Michaux (1746-1802) a French botanist, established a botanical garden at Bergen, New Jersey, in 1785 (known as the "Frenchman's Garden") and began the collection and cultivation of American plants, and also imported material from Europe.

It is not certain just to what extent professional talent was used in the improvement of country estates of the period. Previous to the Revolution, and undoubtedly later, there are instances where wealthy owners sent to Europe for some master gardener or architect to assist them in the development of their property. During the Revolution came from France with Lafay-

ette, Pierre L'Enfant (1755-1825), a cultivated engineer and architect. He designed many buildings in America, laid out country places and gardens and became principally noted for his plan of Washington, D. C. His artistic abilities were pronounced.

Joseph Ramee (1764-1842), a noted French architect, came to this country in 1811, remaining until 1816, and made plans for many country places and towns in this country (including New York State), his most noted work, perhaps, being that of the design of Union College, Schenectady.

André Parmentier (1780-1830), a talented master gardener, arrived here in 1824 from Belgium and established a botanical garden in Brooklyn. This was a great success and his reputation spreading, he made plans for country places not only in the locality of New York but also in the South and in Canada.

Michaux, while primarily a botanist, was a man of culture and wide experience (an early tradition was to the effect that he was the lost Dauphin of France, son of Louis XVI) and it is known that he was consulted in the laying out of country places and gardens. The garden of the Old Varick Estate, "Prospect Hall," in Jersey City was well known in its day and was said to have been designed by Michaux.

Major L'Enfant was well known in New York. He was the architect for the Old City Hall on Wall Street and also made plans (which were never carried out) in 1790 for the development of a large then suburban section to the northward of the city limits and extending from Greenwich to Corlear's Hook on the East River, patterned to a certain degree from the Regent's Park in London.

There must have been practitioners of local origin also, and though the particular reputation of a certain Theophilus Hardenbroeck, "practical surveyor and architect," has not come down to us, nevertheless his advertisement in an early New York newspaper (1757) to the effect that he designed "pavilions, summer houses, garden seats and greenhouses" is most interesting. Undoubtedly, there were others of his profession. That there was at this period, therefore, real professional and artistic talent in landscape gardening seems to be more or less evident, and there is no doubt that the owners of country seats availed themselves of

this, and that our impressions of the superior qualities of many of these old estates are not based on sentiment alone.

A visitor to Manhattan in 1748 (Kalm, the Swedish naturalist) has left behind him a delightful description of his impressions. He was astonished at its elegance and beauty. He found it extremely pleasant to walk in the town for "it seemed quite like a garden, the shade trees were plentiful, the birds sang sweetly from their branches and the frogs chanted so merrily in the Elm and Locusts that one could hardly hear one's self speak." The streets were narrow and most of them paved, and the houses a mixture of Dutch and English architecture. The chief trees were the Locust and Water Beech and there were also Lime-trees and Elms in the sidewalks. He states: "One seldom meets with trees of the same sort adjoining each other, they being, in general, placed alternating." On the tops of the gentlemen's houses were balconies, where long views of the bay were obtained.

As late as the end of the Colonial era, the tree-lined streets of the city were a feature and the streets were well paved and clean, another visitor, in 1775, leaving word that "on Broadway nearly all the houses had rows of trees in front of them and were encircled by pleasant gardens." At the end of the Revolution, however, came a period where the upbuilding of the city was attended with difficulties and the parklike conditions were more difficult to adhere to and the problems of sanitation more involved.

In 1789 an ordinance was passed forbidding the planting of trees in the thickly populated sections, except in front of churches and public buildings, as it was considered detrimental to public health.

At the end of the readjustment following the Revolution, the natural prosperity of the country began to assert itself and a new class of landed proprietors appeared. The shipping business was still a principal source of wealth and there were many citizens who had accumulated considerable means and lived in comparative luxury. The old aristocracy of the period of the English rule had pretty well disappeared, so many having been loyalists, and the large manorial estates had dwindled in size and in substance. Those of Manhattan of means and prominence were principally of the old Knickerbocker set, in most cases descendants of the

early Dutch settlers. They were a substantial lot and lived in dignity and propriety though perhaps without as much pomp and show as had existed in the earlier era. There were then (early 19th Century) many country estates on the East and Hudson Rivers and a few on Long Island. The City began to gradually creep up toward the north, and to be in the country meant to be a little further away from the Battery than a generation earlier.

Timothy Dwight writes of Manhattan in 1820 as follows: "Art has here beautified the surface and enriched the soil throughout the southern half of the island. . . . about six miles of the northern end are little cultivated. The remainder is set at small distances with cheerful habitations, with well stocked gardens and neat enclosures; while the heights and many of the lower grounds contain a rich display of gentlemen's country seats, connected with a great variety of handsome appendages. No part of the United States has such a numerous collection of villas within so small a compass, nor is any ride in the country made so cheerful by the hand of art as the first six miles on the Bowery Road."

The dwellings and country seats that were built during this period up to 1840, at least, were undoubtedly genteel and in good taste. The era of deterioration seems to have begun somewhere near the middle of the Century, reaching its maximum height of bad design, bad art and bad taste in the sixties and seventies. The character of society itself changed and perhaps has never been quite the same since. An old New Yorker writing in 1870 remarks of the olden time as follows: "There was in that day none of the show and glitter of modern times; but with many of the (New York) families. . . . (there was) an elegance which has never been rivaled in other parts of the country," adding again in a concluding paragraph as if to particularly impress the fact upon his readers: "One thing is certain—that there was a high tone prevailing at that time which is now nowhere seen." Perhaps it may be more or less natural to look back upon the old times as the best times, but nevertheless this cannot be wholly sentimental, as the style and feelings of the times are quite naturally expressed in the quality of art existing and most appreciated at the period. Architectural and landscape design of the present day have progressed far above that of the past two or three generations. As a

profession, architecture has become firmly established and individual architects are doing work far superior to that of the period 1850-90, and the same may be said of landscape architects. But there are still lessons to be learned from the very early times.

The location and general character of the early New Amsterdam homes and their gardens are interestingly shown on Castello Plan of New Amsterdam in 1660. Lieut. Ratzler's map of 1767 shows very well the country estates and gardens of that period. The following are brief descriptions of the estates shown on Ratzler's map, which may further help us to form some idea of their character.

Along the shore of the East River was the road to Greenwich Village and to this road a number of large country seats connected. The first of importance was that of Abraham Mortier, later to be known as Richmond Hill, the residence of Aaron Burr. This estate was purchased by Mortier in 1760, who soon after erected the mansion. In 1776 it was occupied by General Washington and in 1784 by John Adams, Vice-President. From 1797 to 1812 the property was held by Aaron Burr, who lived there in luxurious style. According to all accounts, this was a most beautiful estate. A letter from Abigail Adams in 1789 reads as follows: "The house . . . is situated upon a hill, the avenue to which is interspersed with forest trees, under which a shrubbery rather too luxuriant and wild owing to its having been deprived, by death some years since, of its original proprietor, who kept it in perfect order. In front . . . the noble Hudson rolls its majestic waves . . . beyond . . . rises the fertile country of the Jerseys. On the right hand an extensive plain presents us with a view of fields, covered with verdure and pasture full of cattle. On the left, the city opens to us, intercepted only by clumps of trees and some rising ground, which seems to heighten the beauty of the scene by appearing to conceal a part. In the background a large flower garden, enclosed with a hedge and some very handsome trees, on one side of it a grove of pines and oaks."

The Warren Estate (later Van Nest) was located not far from Richmond Hill, the mansion near the intersection of Charles and Bleecker Streets. This was built by Capt. Peter Warren (later Sir Peter Warren, Vice-Admiral of the Royal Navy) about 1740

and he made of it a summer home. The estate in all comprised about 300 acres, and was laid out like an English Park on a "scale of considerable magnificence," the house standing in a grove of magnificent Locust-trees. Immediately about the house was a hedge which grew to large proportions, and a double row of old Sycamores formed an avenue all the way down the slope to the river. In 1819, the homestead, included within the square bounded by Bleecker, Fourth, Perry and Charles Streets, was acquired by Abraham Van Nest, whose family occupied it until 1850. It was two miles beyond the city limits. Oliver Delancey, whose estate adjoined Warren's, was a brother-in-law to the latter. His estate was a fine one, but was confiscated after the Revolution and partitioned, Delancey having been a loyalist and a Brigadier General in the British Army.

The next estate of importance further north, of which traces were left to a fairly late day, was that of Chelsea, acquired about 1750 by Capt. Thomas Clarke, a veteran officer in the provincial service. He built a house, which was burned shortly before his death, near the banks of the East River and 9th Avenue and 23rd Street. His widow rebuilt the mansion and at her death in 1802, it, with a portion of the original property, passed to Bishop Moore, and in 1813 to his son, Clement C. Moore (author of "The Night Before Christmas"). The grounds of this mansion were said to have been "terraced and beautiful" and for many years and as late as 1825, it stood there the only house in the vicinity. In 1853 it was demolished.

In 1759, Hon. John C. Vandenheuvcl, a Dutch Governor of Demecara, who came to New York to escape the fever, purchased 400 acres along the Hudson in upper Manhattan and established a country seat. His dwelling was located at 79th Street between Broadway and West End Avenue. It was vacated during the Revolution and later passed through many hands, eventually coming into the possession of a Mr. Burnham, who used it as a road-house, and as which it was well known and popular. It was torn down in 1905.

The country seat of Charles Ward Apthorp was purchased by him about 1764, when the mansion was built and named "Elmwood." It was sold in 1799 and in 1828 became the property of

Col. Herman Jauncey Thorne, who maintained it in fine style. It was disposed of by the latter in 1859 and after degeneration in many ways was demolished in 1888. The mansion was located between 91st and 92nd Streets, near the Hudson and was of a superior type of architecture.

Near the centre of the island was the estate of Nicholas Bayard, near what is now the intersection of Grand Street and Broadway. This occupied a high elevation overlooking the upper part of the City, with fine gardens on the south and a shaded drive leading from the Bowery Lane (near Broome St.) to the mansion. The property was purchased by the Bayards about 1748 and disposed of in 1798 to James Delacroix who established the Vauxhall Garden on the property.

East of the Bayard estate and on the Bowery Lane was the seat of James Delancey, son of Stephen Delancey. He was Chief Justice of the Colony in 1733 and Lieut. Governor in 1753, his death occurring in 1760. The mansion was near what is now the corner of Delancey and Chrystie Streets. This was a fine property with its semi-circular entrance gateway, its magnificent shade trees and extensive gardens.

Another attractive country seat located near the centre of the Island, not far north of Delancey's, was that of Andrew Eliot, which he purchased in 1766. The mansion was located near the present corner of 10th Street and Broadway, connected with the Bowery Lane, the property extending from the Bowery west to Fifth Avenue and containing 21 acres. Eliot served as Acting Governor of the Province from 1780 to 1783 and had laid out very beautiful grounds about his mansion. Soon after the evacuation of the British, in 1783, the property passed to "Baron" Poelnitz and in 1790 to Capt. Robert R. Randall, a merchant and shipmaster, who at his death in 1801 bequeathed it for the founding of a Sailor's Snug Harbor.

On the East River there were a number of substantial Colonial Country Estates. That of Peter Stuyvesant extended along the river and comprised what would now be the greater portion of the 11th, 16th and 17th wards, the mansion on the river bank near the corner of 17th Street and 1st Avenue. His gardens were extensive and elaborate and he kept about 50 Negro slaves working on

the grounds, which were highly cultivated. In later years, the country seats of Peter G. Stuyvesant and Nicholas W. Stuyvesant were located on the same property, the former east of 1st Avenue, between 8th and 9th Streets, and the latter between 13th and 16th Streets and Avenue A and 1st Avenue (in 1816). This part of the island was long known as Stuyvesant Village.

In 1747, John Watts, son of Robert Watts, purchased a farm of 130 acres which he named "Rosehill," after the ancestral seat of Watts in Scotland. The property was bounded by 21st Street on the south, the East River on the east, and stretched along the Post Road to a considerable distance to the north. A broad avenue from the mansion lined with beautiful Elms, extended from the Post Road, the entrance gateway being about the present corner of 28th Street and 4th Avenue.

The district of Murray Hill is named after the Colonial estate of Robert Murray. The mansion faced Kingsbridge Road and commanded a fine view of Kip's Bay and Turtle Bay and the East River. The lawn contained beautiful trees and an avenue of graceful Elms lined the driveway approach to the house. The mansion was burned in 1835. John Murray, son of Robert, maintained a country home on a part of his father's estate in later years, and in 1876, the house was still standing on the southeast corner of 37th Street and 5th Avenue. Lindley Murray, the grammarian, another son, built a country seat soon after the Revolution on the shores of the East River, which he named "Bellevue," and which is now the site of Bellevue Hospital. This was a very beautiful estate, the following being an extract from a description: "At the back of the mansion is a large garden, and beyond this, pleasant and fertile fields which afford pasturage for the cattle."

Not far above Murray Hill was the seat of William Beekman, the mansion near the present corner of 1st Avenue and 50th Street.

Much further to the north and far up in Harlem near 160th Street and Edgecombe Avenue was the Roger Morris mansion, later known as the Jumel Mansion. This house was built by Lt. Col. Roger Morris, Loyalist, for his wife Mary Philipse about 1765. Morris was an officer in the British Army and had been

a personal friend of Washington, having fought with him in the French and Indian War. This estate was ample in extent and had extensive gardens. Morris occupied the mansion until 1775, when he was obliged to vacate it on account of his status as Loyalist. After the Revolution the house passed through various hands, and in 1810 was purchased by Stephen Jumel, a prosperous French merchant doing business in New York, the property then including 36 acres of land. Jumel restored the house to its original condition, including the Colonial gates and gatehouses. He died in 1832 and in 1833 his widow married Aaron Burr. This is the only Colonial mansion of consequence on Manhattan Island that still exists. It is of superior architectural design and is now owned by the City of New York and maintained as a park and museum. It is a pity, however, that no competent attention has been given to restoring the grounds to a semblance of their original landscape characteristics.

The early half of the 19th Century witnessed the development of many new country seats along the East and North rivers. As the city grew, the countryside became more remote and the northern end of Manhattan became more popular for country residence. Along the old Bloomingdale Road on the west side of New York, were very many substantial and beautiful country estates, among which the most prominent were the Stryker Estate, "Rosedale," near the foot of West 53rd Street, the McVicker Estate at West 84th Street, the Nicholas Jones Estate, "Woodlawn," at West 106th Street, and the Meier Estate, "Willow-Bank," at West 118th Street, in all cases the dwellings being near the shore of the Hudson.

The McVicker Estate was said to be in its day one of the finest country places in America, covering an area of sixty acres and being approached by a winding drive over one half mile in length. In 1832, "Woodlawn" was described by a European visitor as being "perhaps the loveliest of them all, where within a space of sixteen acres, every variety of garden scenery may be found." "Willow-Bank" was described as having been laid out in a formal style, according to the taste of the times and abounding in fruit trees and gardens. The other estates of the period along the North River were as follows: the Ward Estate at 59th Street and 10th Avenue,

the seats of Horace Waldo and Richard Schieffelin at West 90th and 91st Streets, the Weyman place at West 93rd Street, the Valentine Mott place at West 96th Street, the Humphrey Jones place at West 101st Street, Whitlock at West 120th Street, Buckley at West 112th Street and the Audubon Estate at West 156th Street, all of these places bordering the Hudson. The "Grange," built by Alexander Hamilton about 1800, stood further back from the river, about half way between the Hudson and the Harlem near 140th Street. Hamilton planted a grove of thirteen Gum trees about a year before his death, supposed to represent the thirteen original states of the Union. These remained until a late day. As the city grew the mansion became crowded out, and was finally removed a short distance to its present location on the east side of Convent Avenue.

The East River was also lined with attractive country seats in the early part of the 19th Century, most of them above 59th Street. A number of the old houses, sadly dilapidated, remained between 80th and 96th Streets up to about 1905, but within the past generation all have gone but two, the Gracie House at 89th Street now on the grounds of Carl Shurz Park and the Prime House on the grounds of St. Joseph's Orphan Asylum at 90th Street. The Gracie House was one of the most noted. The original dwelling was remodelled by Archibald Gracie in 1813, and many distinguished people were entertained there. Other important estates of the period in this locality were those of the Rhinelanders, Astors, Crugers, Schermerhorns, Jones, etc.

To enter into a description of the old country places of New York State in general is beyond our present province. Yet there are samples of the latter remaining, where there are practically none on Manhattan Island, so a brief description may be proper. Beginning with the early settlement of New York, one finds much said about the manorial estates. These estates were originally granted to those individuals who would guarantee to settle a colony on them. Very few were successful, in fact, only one was really so, and that was the Van Rensselaer Estate, which comprised most of what is now Albany and Rensselaer Counties in upper New York. Further to the south was Livingston Manor which occupied the greater part of what is now Columbia County,

and below this in the Rhinebeck Precinct (now Dutchess County) the Beekmans maintained large holdings.

The next estate to the south of importance was the Van Cortlandt Estate in upper Westchester County, the old Manor house still existing in the town of Croton. Philipse Manor in southern Westchester County was another large grant though it passed from the Philipse family at an early date, on account of the Tory tendencies of members of the family at the time of the Revolution. These were the largest and most prominent manorial estates of old New York, and their manor houses and the mode of living of their owners was relatively imposing. There is left little trace of them at the present day. There is an old Van Rensselaer Manor House (of late years called "Forbes Manor" and now occupied by a Catholic school) opposite the City of Albany. Several of the Livingston homes are still in existence and quite well kept up. Rhinebeck became the favored spot for many private country places, and Philipse Manor House has been preserved by the City of Yonkers as a Town Hall. There are still many fine old estates along the Hudson River and they possess a character all of their own, and seem to differ greatly from those of the present day.

There are at least two purposes, besides that of casual interest or furnishing scattered glimpses of our "Little Old New York," and these are, first, to call to attention the fact that the taste and sense of our forefather's are worth studying and that "nouveau art" may not always be of the best or most enduring character; and second, to call to attention also the fact that our old places are passing very rapidly and that there has been little effort to preserve them. Only a scattering few remain in Manhattan, where a generation ago there were at least dozens. Then there are others whose preservation is but imperfectly accomplished such as the Jumel mansion and the Van Cortlandt Mansion at Kingsbridge.

The preservation of old traditions, of old customs, of old mansions and their surroundings is closely connected with the preservation of true patriotism, which every country needs.

The lecturer illustrated his remarks by stereopticon slides.

THE ROSE IN AMERICA

By J. HORACE MCFARLAND

EDITOR, AMERICAN ROSE SOCIETY'S "ANNUAL"

Lecture held at American Museum of Natural History,
Thursday, Jan. 11th, 1923

(*Mr. Leonard Barron, presiding.*)

THE Rose is distinctly a world plant, in evidence in many species all over the Temperate Zone. It is natural in America, where the "wild" Roses are in many species, varying in the estimation of botanists from as few as thirty to more than a hundred. Yet we know little of it from the standpoint of the natives.

The Rose is the oldest cultivated plant, having been named "the Queen of Flowers," tradition says, in Athens nearly twenty-six hundred years ago. It has impressed itself on the world's languages so that the same sound virtually will bring the rose reaction in English, French, German, Danish, Norwegian, Italian, Portuguese, Spanish, Russian, Latin, Swedish, Dutch and Bohemian.

America is awakening to the Rose, as may be judged in the statement that practically ten million of Rose plants were sold within the limits of the United States in 1922, and more than a hundred millions of cut Roses did their beautiful duty. Nevertheless, we have taken our Rose fashions from abroad, the most of the varieties current being European in their origin and raised from European and Asiatic natives. Of 588 varieties deemed worthy in the last official catalogue of the National Rose Society of England, but 26 are of American origin. Of 497 Roses originated in America since George Washington's time, as set forth in "The American Rose Annual for 1922," barely one hundred are yet in commerce, and while 140 new Roses were introduced in all the world last year, but 5 were of American origination.

Our hybridizers, however, are now at work. In the field of greenhouse Roses, Messrs. Hill, Montgomery, Towill, Clark, Dunlap and Scott have been doing wonderful things, while the achievements of the two lamented members of the American Rose Society, M. H. Walsh of Woods Hole, Mass., and Dr. W. Van

Fleet of the Department of Agriculture, Washington, D. C., have been of real advantage.

I want to take my hearers across the continent in a quick Rose journey, peeping into American gardens from coast to coast. I show you Roses as they grow outdoors in New Hampshire and Massachusetts; in Connecticut where they were first made available in a notable municipal Rose-garden; on Long Island, where *Rosa rugosa* shows its power to flourish beautifully in the sands of the sea; in the old Van Cortlandt Manor garden, where the Roses are at least a hundred years old; in Philadelphia, in Harrisburg, in Washington, and on south, seeing now the Roses not hardy north, in Magnolia and Thomasville, with a quick side journey to Indianapolis and Kansas City, a delightful diversion to Detroit, and then a jump to the coast, where up and down California, Washington and Oregon the Rose is indeed queen. In Portland, Oregon, we see the reason for that city being "the City of Roses."

It seems worth while to consider the wild Roses that are available to us, whether they come from the United States or elsewhere. I am glad to introduce to you, therefore, *Rosa setigera*, *R. lucida*, *R. multiflora*, *R. spinosissima*, and four of the splendid new Chinese introductions brought in by E. H. Wilson; namely, *R. multi-bracteata*, *R. setipoda*, *R. Moyesii* and *R. Hugonis*. These Roses lovely in themselves, will aid in making the larger American gardens more beautiful.

It seems desirable that you should know something of the work that American hybridizers have done. Jackson Dawson, the great gardener long gone to his rest, who made the Arnold Arboretum blossom, has produced a number of splendid Roses. Alexander Montgomery, Jr. is responsible for Hadley, Mrs. C. H. Russell and Pilgrim, and I have mentioned M. H. Walsh, whose Excelsa, Evangeline, Paradise, and Milky Way are of great loveliness and value as hardy climbers.

James A. Farrell, under the inspiration of that fine old botanist, Josiah Hoopes, produced Climbing American Beauty, Christine Wright, and Purity. We owe Radiance, undoubtedly the most satisfactory American-bred hybrid tea, to John Cook, of Baltimore, who has done other good things, particularly in his production of Francis Scott Key.

E. G. Hill is sometimes called "the grand old man of Rose culture," and so he is. His Columbia, Mme. Butterfly, and Premier are wonderful inside, and some of his Roses, particularly Columbia, have escaped to the garden. His brilliant son, Joseph H. Hill, gives us just now Sensation, which provides us with a sensation in its rich depth of crimson-scarlet, matched in no other Rose.

In Europe as well as in America the standard hardy climber at this moment is either American Pillar or Dr. W. Van Fleet, and the gifted hybridist of that name, whose death almost a year ago we yet deeply regret, has provided us with Alida Lovett, Silver Moon, Bess Lovett, and other splendid and substantial garden Roses, either treated as climbers or as standards.

I am glad to show a few of Dr. Van Fleet's productions not yet named. A notable hybrid between *R. Moyesii* and *R. Wichuraiana* is "W. M. 5," and a no less notable new Rose is "W. S. 18," in which the blood of *R. Soulicana* has been used. The lovely *R. Hugonis* is combined with many Roses to great advantage. A new race of Roses is in evidence in "W. C. 237," not yet named, which is presumed to be on the way toward Dr. Van Fleet's ideal of a "dooryard Rose," good anywhere and good to look at even when out of flower. The one Rose of this series which is now approaching commercial relationship has been named Mary Wallace, in compliment to the daughter of the Secretary of Agriculture. Of this I am glad in conclusion to show you a picture as evidence of the way in which it will make a very lovely low hedge, while at the same time being available as an individual garden plant or as a beautiful climber.

The Rose is in America, and it will gain in America as we who love it join ourselves in and through the American Rose Society toward more knowledge and better culture.

The lecture was abundantly illustrated by a magnificent lot of colored stereopticon slides.

EXTRACTS FROM PROCEEDINGS OF THE SOCIETY

DIRECTORS' MEETING, NOVEMBER 8, 1922

F. F. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING

Members elected:

ANNUAL: Miss Sophie F. Baylor, Miss Marquenta Mergentine, Mrs. William A. Jenner, Miss Anne Ingersoll, Mr. Harry D. West, Mrs. Herman A. Heydt, Miss E. L. McLean, Mr. Charles W. Halsey, Mr. Edward P. Tysen, Mr. Edward Plaut, Mr. Richard A. Strong, Mr. Arthur J. Cote, Mrs. Harry G. Haskell, Mrs. Otto H. Kahn, Mr. J. E. Aldred, Mrs. Azariah Eddy, Mrs. Henry S. Humewell, Mrs. W. C. Spruance, Miss Helen C. Burnham, Mrs. E. A. LeRoy, Mr. Edward L. Ballard, Mrs. J. P. Cotton, Mr. Crosby Gaige, Miss L. R. Edgar, Mr. J. W. Cowperthwait, Mr. Louis M. Josephthal, Mr. Livingston Rutherford, Mrs. E. L. Rafferty, Mrs. W. S. Peters, Dr. F. C. Hollister, Mr. F. Hoyer, Mrs. Sturgis Coffin, Mrs. Leopold Frederick, Mr. Arthur Iselin, Mrs. J. D. Schoonmaker, Mr. Morris Andur, Mrs. C. D. Fraser, Mr. Henry S. Hunnewell, Miss Johanna Bluen, Mrs. A. W. Erickson, Miss Alice W. Wilcox, Mrs. George H. Clapp, Mrs. George A. Goss, Mrs. Chellis Austin.

SUSTAINING: Mr. William Maxwell.

LIFE: Miss Cornelia Horsford, Mrs. Bayard Thayer, Mr. Edward Guild Wyckoff, Mr. Robert W. Bliss, Mr. C. C. Stillman, Mrs. John T. Pratt.

TRANSFERS FROM ANNUAL TO LIFE MEMBERSHIP: Mr. Henry W. deForest, Miss M. I. Henderson.

A committee (Mr. Havemeyer, Mr. Scheepers, Mr. Atkins and Mr. Brown) was appointed to consult with a like committee of the Pennsylvania and Massachusetts Horticultural Societies, on the subject of "New Seedlings" called to attention by Mr. John C. Wister in a letter under date of November 1st.

DIRECTORS' MEETING, DECEMBER 13, 1922

F. F. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING

Members elected:

ANNUAL: Miss Gladys Waterbury, Miss Mary W. McCallam, Mrs. Charles N. Hewitt, Mr. Arthur Herrington, Miss Adelia A. Dwight, Mrs. Joseph McK. Speer, Mrs. William Rand, Mr. George H. Bissinger, Mrs. Albert Krippendorf, Mr. H. W. Maxwell, Mr. W. Redmond Cross, Mr. Howard Mansfield, Miss Rose Dougan, Mrs. David Stuart, Mrs. Morris Rutherford, Mrs. G. B. Gordon, Mr. F. W. McMillan, Mrs. F. P. Solley, Mrs. H. Scoville, Miss Helen Cruikshank, Mr. V. E. Kilpatrick, Mr. Oscar R. Lichtenstein, Mrs. Theodore Boettger, Mr. Arthur H. Sulzberger, Mr. F. H. Bennett, Miss Lucy Howe, Mrs. Charles T. Jenks, Mrs. John A. Mitchell, Mrs. Ex. Norton, Mrs. Sheffield Phelps, Mrs. John William Scott, Miss Bessie G. Stillman, Mrs. Arthur Turnbull, Miss Louise Van Ingen, Mr. Ludwig Vogelstein, Miss E. Redmond, Mrs. Edward R. Stetinius, Mr. Horace Havemeyer, Miss Margaret Lawrence, Mrs. John H. Love, Mrs. C. A. Perkins, Mrs. Bancroft Gherardi, Mrs. Joseph T. Tower, Mrs. Garrett B. Kip, Mrs. William J. Crittenden, Mrs. A. H. Scholle, Mr. Franklin Murphy, Mrs. George Gordon King, Mrs. F. H. Baetjer, Mr. Raymond Bill, Mrs. Ferdinand Jelke, Mrs. F. S. Willock, Mrs. Hamilton Webster, Miss Marie Bowen Chapin, Mr. T. F. Donahue, Miss Elizabeth S.

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Cooley, Miss Emma W. Calkins, Mrs. S. W. Childs, Mr. William C. Endicott, Mr. M. D. Follin, Mr. Augustus Gerdes, Mrs. Augustus Gerdes, Miss Anne Remsen Webb, Mrs. E. Dimon Bird, Mrs. William T. Blodgett, Mrs. Charles deRham, Mrs. John A. Dix, Mrs. George R. Dyer, Mrs. John Evans, Miss Margaret Hendrie, Mrs. Jefferson Hogan, Miss Katherine deB. Parsons, Mrs. Richard M. Saltonstall, Mrs. Samuel Seabury, Miss Clara F. Stillman, Miss Anne H. Van Ingen, Baroness Von Ketteler, Miss Edith W. Tiemann, Miss Ida T. L. Schwarz, Mrs. William R. Peters, Mrs. Herman Hirsch, Mrs. Frank B. Keech, Mr. A. Millard, Mr. William G. Willcox, Mrs. S. A. Brown, Mrs. Francis U. Stearns.

SUSTAINING: Mr. James McManus, Mr. C. Oliver Iselin.

LIFE: Mr. William Willis Reese, Mr. Frank Gilbert Martin, Mr. J. S. Cullinan, Mr. George H. Hazen, Miss Marion Roby Case, Mrs. William Mitchell, Mrs. Watson Freer, Mrs. William Church Osborn, Mr. William Church Osborn.

TRANSFERRED FROM ANNUAL TO LIFE: Mr. Carl H. Pforzheimer, Mr. Samuel Sloan, Mrs. William C. Atwater, Mrs. H. L. R. Edgar, Mrs. William Willis Reese, Dr. George N. Miller.

RESIGNATION, accepted with regret: Miss R. B. Fisher.

By unanimous approval the Executive Secretary was requested to write a letter of thanks to Mr. J. B. Foulke of the American Museum of Natural History expressing the deep appreciation of the Board of Directors of this Society for the courtesy and attention extended us during the November Flower Show.

The chair appointed Mr. Newbold and Mr. Havemeyer a committee to meet Mr. Kilpatrick of the School Garden Association relative to a plan outlined by Mr. Kilpatrick for the benefit of the school children.

DIRECTORS' MEETING, JANUARY 10, 1923

THE PRESIDENT, MR. T. A. HAVEMEYER, IN THE CHAIR

The following members were elected:

ANNUAL: Mrs. A. P. Culver, Miss Hattie Barns, Miss Isolin Barns, Mr. E. R. Burnett, Mrs. J. W. Tweksbury, Mr. John D. Wilson, Mr. Ethan Allen, Miss Dorothy Bailey, Mrs. Russell Tyson, Mrs. Herman Langzettel, Mr. L. J. Muller, Mr. George Wood, Mr. Arnold F. Riegger.

It was voted that the Society give a Tulip Show, both indoor and outdoor, at the Botanical Gardens about the middle of May. A Gladiolus and Dahlia Show also to be held at Botanical Gardens; and the Peony and Fall Shows to be held at the American Museum of Natural History, dates to be decided later.

It was resolved that for the exhibitions of the Horticultural Society of New York an "Amateur" is

"A person who does not propagate for the purpose of selling,"
and that the Massachusetts and Pennsylvania Horticultural Societies be asked to approve a similar ruling for use in all their schedules and programs.

It was resolved to extend an invitation to the American Pomological Society to hold its next meeting with the H. S. N. Y. at the American Museum of Natural History.

THE HORTICULTURAL SOCIETY OF NEW YORK

AWARDS AT THE CHRYSANTHEMUM SHOW

The exhibition was held at the American Museum of Natural History, Nov. 9 to 12, 1922, awards being as follows:

Chrysanthemums—Plants—Open to All

Class A. 1. Specimen bushes, any color, any type—1st Prize, Mr. W. B. Thompson. 2nd Prize, Mr. Samuel Untermyer. 3rd Prize, Miss Alice DeLamar.

Class A. 2. Specimen standards, any color, any type—1st Prize, Mrs. Herbert L. Pratt. 2nd Prize, Miss Alice DeLamar. Special, Mr. W. B. Thompson.

Class A. 3. Specimen odd shapes, any color, any type—1st Prize, Miss Alice DeLamar.

Class A. 4. Group of Chrysanthemum plants covering 100 sq. ft., arranged for effect, any foliage plants permitted—1st Prize, Mrs. Payne Whitney.

Chrysanthemums—Cut Flowers—for Non-Commercial growers. Stems not less than 2 ft.

Class A. 5. Six white—1st Prize, Mr. Samuel Untermyer. 2nd Prize, Mrs. Herbert L. Pratt.

Class A. 6. Six pink—1st Prize, Mrs. F. A. Constable. 2nd Prize, Mrs. Herbert L. Pratt.

Class A. 7. Six Yellow—1st Prize, Mr. Samuel Untermyer. 2nd Prize, Mrs. Harold I. Pratt.

Class A. 8. Six red—1st Prize, Miss Alice DeLamar.

Class A. 9. Six any other color—1st Prize, Mrs. Herbert L. Pratt. 2nd Prize, Miss Alice DeLamar.

Class A. 10. Vase of one or more varieties, arranged for effect, any other foliage permitted. Exhibitor may supply his own vase—1st Prize, Mrs. Redmond Cross. 2nd Prize, Mrs. Percy Chubb. Special, Miss Alice DeLamar.

Stems Eighteen Inches.

Class A. 11. Ten vases in ten varieties, three blooms of each—1st Prize, Mrs. F. E. Lewis. 2nd Prize, Mrs. Percy Chubb.

Stems not over 15 inches, all named kinds.

Class A. 12. Collection of 12 varieties, one of each—1st Prize, Mr. W. B. Thompson. 2nd Prize, Mrs. F. E. Lewis.

Class A. 13. Collection of six varieties, one of each—1st Prize, Mrs. Herbert L. Pratt.

Five Terminal Sprays to one vase, not less than five flowers to a spray.

Class A. 14. Collection of singles, 12 varieties—1st Prize, Mrs. Herbert L. Pratt. 2nd Prize, Mrs. Harold I. Pratt.

Class A. 15. Collection of Pompons, 12 varieties—1st Prize, Mrs. Payne Whitney. 2nd Prize, Mrs. Charles Mallory.

Class A. 16. Vase of singles, 12 varieties—1st Prize, Mrs. Redmond Cross. 2nd Prize, Mrs. Harold I. Pratt.

Class A. 17. Vase of Pompons, 12 varieties—1st Prize, Mrs. Charles Mallory. 2nd Prize, Mr. John T. Pratt.

Class A. 18. Collection of Anemones, 6 varieties, 6 blooms each—1st Prize, Mrs. Payne Whitney. 2nd Prize, Miss Alice DeLamar.

THE HORTICULTURAL SOCIETY OF NEW YORK

William Barr Memorial Fund Prize.

Class A. 19. Group of cut blooms arranged for effect, covering 100 sq. ft., any foliage permitted—1st Prize, Mrs. Payne Whitney. 2nd Prize, Mrs. F. E. Lewis.

For Commercial Growers

Class A. 20. Vase of 20 blooms, one variety—1st Prize, Charles H. Totty Company.

Class A. 21. Collection of twenty varieties, one of each variety—1st Prize, Charles H. Totty Company.

Class A. 22. Collection of Pompons, twelve varieties—1st Prize, Charles H. Totty Company.

Class A. 23. Collection of Singles, twelve varieties—1st Prize, Charles H. Totty Company.

Dinner Table Decoration, Open to All.

Class A. 24. Table to be set for eight persons. Any kind of flowers and foliage may be used—1st Prize, Mrs. Payne Whitney. 2nd Prize, Mr. Samuel Untermyer. Special, Mrs. Redmond Cross.

Roses—Cut Flowers—for Non-Commercial Growers

Class B. 2. Eighteen Red—1st Prize, Mr. Howard Cole.

Class B. 3. Eighteen Pink—Columbia Shade—1st Prize, Mr. Howard Cole. 2nd Prize, Mr. Theodore R. Hoyt.

Class B. 4. Eighteen Light Pink—Ophelia Shade—1st Prize, Mrs. F. E. Lewis. 2nd Prize, Mrs. Charles Mallory.

Class B. 5. Eighteen Dark Pink—Premier Shade—1st Prize, Mr. Howard Cole. 2nd Prize, Countess Holnstein.

Class B. 6. Eighteen Yellow—1st Prize, Mrs. F. E. Lewis. 2nd Prize, Countess Holnstein.

Class B. 7. Vase of fifty assorted, arranged for effect—1st Prize, Countess Holnstein. 2nd Prize, Mrs. F. E. Lewis.

For Commercial Growers

Class B. 8. Fifty White—1st Prize, F. R. Pierson.

Class B. 9. Fifty Red—1st Prize, F. R. Pierson.

Class B. 10. Fifty Pink—Columbia Shade—1st Prize, L. B. Coddington. 2nd Prize, F. R. Pierson.

Class B. 11. Fifty Light Pink—Ophelia Shade—1st Prize, F. R. Pierson. 2nd Prize, L. B. Coddington.

Class B. 12. Fifty Dark Pink—Premier Shade—1st Prize, F. R. Pierson.

Class B. 14. New Meritorious variety, not in commerce—Silver Medal, Charles H. Totty Company.

Carnations—Cut Flowers—for Non-Commercial Growers.

Class C. 1. Eighteen White—1st Prize, Mrs. H. M. Tilford. 2nd Prize, Mrs. F. E. Lewis.

Class C. 2. Eighteen Enchantress Shade—1st Prize, Mrs. H. M. Tilford. 2nd Prize, Mrs. Charles Mallory.

Class C. 3. Eighteen Winsor Shade—1st Prize, Mrs. Payne Whitney.

Class C. 4. Eighteen Lawson Shade—1st Prize, Mrs. H. M. Tilford. 2nd Prize, Mrs. Payne Whitney.

Class C. 5. Eighteen Scarlet—1st Prize, Mrs. H. M. Tilford.

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Class C. 6. Eighteen Crimson—1st Prize, Mrs. Charles Mallory. 2nd Prize, Mrs Payne Whitney.

Class C. 7. Eighteen Yellow—1st Prize, Mrs. F. E. Lewis. 2nd Prize, Mrs. H. M. Tilford.

Class C. 8. Eighteen Variegated—1st Prize, Mrs. F. E. Lewis. 2nd Prize, Mrs. Payne Whitney.

Open to All.

Class C. 9. For a new meritorious variety, not in commerce—Silver Medal, Patten & Company.

Foliage and Decorative Plants—for Non-Commercial Growers.

Class E. 1. Group of Greenhouse Plants—1st Prize, Miss Alice DeLamar. 2nd Prize, Mr. W. B. Thompson.

Class E. 2. Group of Greenhouse Plants—for commercial growers—1st Prize, W. A. Manda.

Class E. 3. Collection of fall fruiting shrubs and trees—1st Prize, Mr. Samuel Untermyer. 2nd Prize, Mrs. F. H. Allen.

Class E. 5. Display of Begonias, Gloire de Lorraine type, twelve plants—1st Prize, Mr. W. B. Thompson. 2nd Prize, Mrs. J. P. Morgan.

Class E. 6. Collection of *Nephrolepis exaltata* and its varieties—1st Prize, F. R. Pierson. 2nd Prize, W. A. Manda.

Class E. 7. Specimen of *Cibotium Schiedei*—1st Prize, Samuel Untermyer. 2nd Prize, Miss Alice DeLamar.

Class E. 8. Specimen of *Adiantum*—1st Prize, Mrs. Charles Mallory. 2nd Prize, Miss Alice DeLamar.

Class E. 9. Specimen of *Goniophlebium subauriculatum*—1st Prize, Miss Alice DeLamar.

Class E. 10. Specimen of a Staghorn fern—1st Prize, Mr. E. E. Smathers. 2nd Prize, Miss Alice DeLamar.

Class E. 11. Specimen of any other fern—1st Prize, Mr. E. E. Smathers. 2nd Prize, Miss Alice DeLamar.

Orchids—Plants—Open to All.

Class H. 1. Collection not less than twenty-five species and varieties—1st Prize, Lager & Hurrell. 2nd Prize, Julius Roehrs Company.

Class H. 2. Collection of Hybrids, not less than twenty plants—1st Prize, Clement Moore. 2nd Prize, Julius Roehrs Company.

Class H. 3. Six Plants, six varieties—1st Prize, Lager & Hurrell.

Class H. 4. Three plants, three varieties—1st Prize, Lager & Hurrell.

Class H. 5. One plant—1st Prize, Theodore R. Hoyt. 2nd Prize, Clement Moore.

Class H. 6. For a new meritorious variety, not in commerce—Silver Medal, Clement Moore.

Orchids—Cut Flowers—for Commercial Growers.

Class H. 7. Collection not less than twenty-five vases—1st Prize, Joseph Manda Company.

Vegetables, For Non-Commercial Growers.

Class V. 1. Collection, fifteen kinds, arranged for effect—1st Prize, Mrs. Herbert L. Pratt.

Class V. 2. Brussels Sprouts, 1 quart—1st Prize, Mrs. Herbert L. Pratt.

Class V. 4. Cauliflower, three heads—1st Prize, Mrs. Herbert L. Pratt.

Class V. 5. Celery, six heads, any one variety—1st Prize, Mrs. Herbert L. Pratt.

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- Class V. 6. Lettuce, three heads—1st Prize, Mrs. F. H. Allen.
Class V. 7. Onions, twelve—1st Prize, Mrs. Herbert L. Pratt.
Class V. 8. Parsnips, six—1st Prize, Mrs. Herbert L. Pratt.
Class V. 10. Tomatoes, twelve—1st Prize, Mrs. Herbert L. Pratt.
Class V. 12. Largest and best collection, not less than thirty kinds, arranged for effect—1st Prize, Mrs. Herbert L. Pratt.

Fruit, For Non-Commercial Growers.

- Class W. 1. Collection of Apples, six varieties, five of each—1st Prize, Mrs. Harold I. Pratt. 2nd Prize, Mrs. Herbert L. Pratt.
Class W. 2. Collection of Pears, four varieties, five of each—1st Prize, Mrs. Herbert L. Pratt.
Class W. 4. White Grapes, greenhouse, two bunches—1st Prize, Miss Alice DeLamar.
Class W. 5. Black Grapes, greenhouse, two bunches—1st Prize, Mrs. Havemeyer. 2nd Prize, Miss Alice DeLamar.

Table Decorations.

Open to Garden Clubs or Members of Garden Clubs.

Centerpiece, vase or baskets for luncheon table. Any flowers or foliage. Center cloths, candlesticks, or other accessories may be used, but no glasses or flat silver. Tables four feet in diameter, with dark, polished tops—1st Prize, Rye Garden Club. 2nd Prize, North Country Garden Club.

Specials.

- Seedling Chrysanthemum Collection—Charles H. Totty Co.
New Seedling Princess Nagako—Charles H. Totty Co.
Yellow Doty Chrysanthemum—John Lewis Childs.
Aeroplane Express America to Japan—Miss E. McKinney.
Sweet Potatoes—Mrs. Edward Holbrook.
Sweet Peas—Herman Mamitsch & Son.
8 Blooms Seedling Chrysanthemums—Clarence H. Mackay.
6 Vases Seedling Anemones—Clarence H. Mackay.
-

ACCESSIONS TO THE LIBRARY

The Directors take this opportunity of acknowledging the receipt of many gifts of books for the Society's library, and hereby extend the thanks of the Society to those members and friends who have so generously responded to the brief announcement recently made public. A complete record of the volumes thus made available for general use of members will be made in the "Journal," and further accessions, from time to time, will be acknowledged as they are made.

It is hoped that members will coöperate to make the Society's library a unique and very valuable reference collection of gardening books.

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I give and bequeath to *The Horticultural Society of New York*_____

for_____

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Journal of the Horticultural Society of New York

ISSUED QUARTERLY

VOL. III, No. 10.

MAY, 1923

Free to Members; By Subscription \$1.00 a Year

ACTIVITIES OF THE SOCIETY

IMPRESSIONS OF THE FLOWER SHOW

THE outstanding feature of the 1923 Show held in the Grand Central Palace, March 12 to 17, was its uniform excellence. From front to rear and from side to side there were no weak spots, no scaling down in quality or merit of display.

There were five great gardens, one more than ever before, and all dissimilar. Surely no more ambitious nor better executed bulb garden has ever been projected upon the floor of any show than the Scheepers Garden. It was admirably proportioned and superbly finished. Perhaps it went a little far in infinity of detail as, for example, in the use of colored stones, which seemed to belong to a former period. It was truly lavish and thereby in somewhat marked contrast to the quiet restraint and calm restfulness which characterized the garden of the same exhibitor, two years back.

The F. R. Pierson (Tarrytown) Garden was a natural gem, such as would be possible in hundreds of gardens in springtime, and surpassed all previous efforts of this exhibitor. The selection and disposition of the material that composed this garden, the skill, care, and forethought demanded, the sacrifice of valuable greenhouse space involved in its preparation are factors possibly not appreciated nor even thought of by the average observer, but when, as they should be, they are taken into proper consideration, they are a striking tribute of munificence and high enterprise.

Rose Gardens have been staged at every show, and the Crom-

MAY 5 1923

well Gardens, specializing in this flower, have always been thus represented. They, too, surpassed themselves and their 1922 garden in design and planting. The quality of stock was the best yet, eminently practical and a veritable triumph over seasonal obstacles.

The Azalea Garden of Bobbink & Atkins was truly spectacular and registered a magnificent comeback of a flower that has been sadly missed from recent shows since Quarantine 37 went into effect. Here again was an example of constructive forethought and commendable enterprise. This is a big country and such an Azalea garden is a manifest possibility throughout a large southern area. Our visitors come from far and wide and to some of them this garden must have been an inspiration.

The Roehrs Co. Garden was a daring innovation in a northern show. Its open-air adaptability may be very circumscribed, but it suggested something more than this. Glass houses are built to shelter tropical plants and are usually filled with an heterogeneous collection. Here was a suggestion of how to display a little bit of tropical plant life contiguous to a northern home. It certainly made a strong appeal and was admirably conceived and executed.

From its first inception the Show has fostered the Rock Garden. How the exponents of this type of gardening have progressed! First we had heaps of rocks and a few packets of flowers. Both Bobbink & Atkins' and the Roehrs Co. Rock Gardens of the 1923 Show were worthy of reproduction as a permanency under appropriate conditions.

The gardens from the private greenhouses of Mr. William Boyce Thompson and of Mrs. Payne Whitney were gay and redolent of "the flowers that bloom in the spring," perhaps more decorative than practical, but there is no gainsaying that they were popularly appealing and fully deserved the high meed of praise the public accorded them.

The Orchid section showed a marked advance over previous years, but only the Roehrs exhibit manifested an attempt to break away from stereotyped methods of display.

Roses in all their glory and fragrance were truly regal, in numbers and quality eclipsing all previous displays. It was a commendable change for the better to have Roses staged on the open-

ing day and by repeating the competition in mid-week a fresh and striking display of this flower was maintained from start to finish.

Tulips, Hyacinths, Daffodils and other varied spring flowers featured the mezzanine floor and in numbers, variety, and quality these also marked a distinct advance.

Detailed reports of the exhibits appeared in the *Florists' Exchange* during the time of the show.

THE GARDEN CLUB OF AMERICA EXHIBITS

THE cöoperation of The Garden Club of America at the International Flower Show is gratifying indeed. Each year this becomes a bigger and more interesting feature, the table decorations and the suburban gardens being a big attraction. On Monday, Tuesday, and Wednesday the Economy Luncheon Table Decorations were placed under the following requirements:

CLASS IV

Luncheon Table Decorations

A. Luncheon Table Arrangement of flowers, foliage and fruit alone or in combination with reference to beauty and economy. Four plates may designate the places; no knives, forks, spoons or candlesticks may be used, but other accessories allowed.

First Prize—Gold Medal. International Flower Show.

Second Prize—Silver Medal. International Flower Show.

Third Prize—Bronze Medal. International Flower Show.

Scale of points by which the above class is to be judged:

Inexpensiveness of exhibit.....	40
Perfection of arrangement.....	20
Color harmony.....	20
Proportion	20

The artistic sense and ingeniousness of the exhibitors were challenged by the 40 points given to economy. Mrs. Robert C. Hill and Mrs. Samuel Seabury, both of the East Hampton Garden Club, took First Prize in this class.

This table had on it a set of filet crochet doilies, one in the centre and one under each plate, the edges having a design of yellow, lavender and green copied from work made by an old gentleman of eighty, Mr. Marshall Fry; orange-tinted plates with small Chinese oatmeal bowls, the inside of which was a beautiful shade of green, almost Nile, a small border of the same green on the outside of

the plates. The orange tint on the plates, by the way, was put on by the exhibitors, the original color when bought being magenta. The expensive item of this table was the glasses which were of fine green glass, wide to within about an inch of the bottom with a short, wide stand. The fluted centrepiece matched the other china in design and decoration. Tulips and Mignonette were the flowers used.

Second Prize: Mrs. Ruthven A. Wodell, Summit, N. J. Garden Club of Summit. This table had purple-striped linen edged with a darker shade of purple wool edging; terra-cotta plates with oatmeal bowls to match, and centre bowl of same crockery. Calendulas and Mignonette.

The Third Prize was won by Mrs. Lansing Powers of the Rye Garden Club. The covering of this table consisted of two runners of theatre gauze crossing each other with a border of yellow and green wool ending in a conventional design. Deep green Italian plates, the centrepiece a plain wood chopping bowl with the edge painted the same color as the plates. Glasses of clear amber, very graceful lines, broad at top and tapering down within two inches of table, then flaring out for their base; four small wooden chopping bowls painted the same as centre, which was between a green and a turquoise-blue. Floral decorations, shaded Calendulas.

One table done by Mrs. Rollin Saltus, President of the Bedford Garden Club, received Honorable Mention. A whole cloth of theatre gauze having a two-inch hem done with a design of bright-colored woolen threads, the corners ending in a little design and finished with a wool tassel. Small, plain yellow kitchen pie plates matching up with two jelly moulds, the latter standing on what looked like teak wood stands, but which really came from the five- and ten-cent store. The centrepiece was a plain yellow kitchen mixing bowl on the same kind of a stand, and two small caster cups matching with the remainder of the china and also having this good-looking little stand. The floral decorations were Tulips and Jonquils, the result being very unusual and very good to look at.

CLASS IV

B. Luncheon Table Arrangement of any flowers, fruit, and foliage alone or in combination. Tables five feet in diameter will be furnished by the committee. Other tables if desired may be furnished by exhibitor. Four

THE HORTICULTURAL SOCIETY OF NEW YORK

plates may designate places; no knives, forks, spoons or candlesticks may be used but other accessories allowed.

First Prize—Gold Medal. New York Florists' Club.
 Second Prize—Silver Medal. New York Florists' Club.
 Third Prize—Bronze Medal. New York Florists' Club.

Scale of points by which the exhibit is to be judged:

Perfection of arrangement.....	20
Color harmony.....	20
Relation to receptacle.....	20
Proportion	20
Originality	20

First Prize: Mrs. Henry O. Taylor, President Middletown Garden Club. This table was indeed the most distinctive on the floor. Whole cloth of theatre gauze trimmed with yellow and black wool. The pottery on this consisted of four plates with a yellow and black design done in a long diamond pattern. Glasses of what looked like pewter ware without stems. Small individual fruit plates with the same yellow and black decoration. Centre-piece a dark bowl on a pedestal-like vase filled with fruit. Calendulas as decoration.

Second Prize: Mrs. S. S. Wheeler, President Somerset Hills Garden Club. There was no cloth on this table, as Mrs. Wheeler used Lowestoft china and followed out the custom of the day in which this china was made. Lowestoft china is immensely valuable and has never been successfully imitated. The last of this was made in 1800, and the china fans, of course, were more than gratified by this lovely table.

Third Prize: Miss Anne Remsen Webb, East Islip, L. I. South Side Garden Club.

On this table was beautiful Italian pottery in brilliant blue, with glasses in the shape of horns of plenty. The glasses lifted out of a little stand and were of very deep blue glass. It was very unusual and would have very few imitators.

Particular mention must be made of one of the tables done by Mrs. Duncan Brent who used for a tablecloth a veil of fine old lace worn by her great-great-grandmother, and upon which were two silver epergnes and plates of silver-tinted glass, Primulas and a few Pussy Willows supporting gray Moss were draped over this silver. The consensus of opinion was that it was "ethereal." The word surely described it as no other can. Great regret was ex-

pressed because through the fault of the express company these materials reached the Grand Central Palace too late for the judging but the exhibit was awarded a special prize by the committee.

SUBURBAN PLANTING

This proved to be one of the great successes of the show. The problem was given thus:

A. A house and garage to be placed on an interior lot with a frontage of 75 feet and a depth of 150 feet and grounds practically and attractively planted. Model to be built on tray 20 inches by 40 inches. Scale—One-quarter inch to one foot.

Each exhibitor started with a little white plaster house and garage, all the same, supplied by the office. The results which were returned in these little plantings were truly surprising. Thirty-eight in Class 3A (amateurs), and two in Class 3B (professional) of these little plantings were finished and placed on exhibition. To stand behind and "listen in" to the various remarks of all classes of people was an education in itself and one can safely say that many ideas and much inspiration were carried from the Palace after seeing what was accomplished in these classes.

Prize No. 1—Mrs. Henry W. Chappell, Garden Club of New Canaan.

Broad side of house toward the street, porch back toward the garden. House cream colored stucco with light blue blinds and gray roof. The front of this lot is a paved courtyard with high cement fence almost even with house, leaving a path on extreme left running back to vegetable garden. Large flower garden in centre of lot shaded by trees, and a second garden in back raised with two pairs of stairs. A large portion of this second garden is given to roses, a pergola running through covered with them. The vegetable garden in the back runs the entire width, surrounded by an old-fashioned fence painted an attractive green, the remainder of the sides having the same cement fence as across the front.

Second Prize—Mrs. William H. Cary, Garden Club of New Canaan. This was a green stucco house with bright green cement walls filled with hollow tile, very pretty little iron gates, and a brick path entirely encircling the house. Garage several feet from left rear, covered with Wistaria. The whole centre of this lot is

used for flower garden with a small vegetable garden in rear separated by hedge. Fruit and Oak trees.

Third Prize—Mrs. George Fraser, Morristown Garden Club. Narrow side of house toward the street. The house is of stucco with green roof and blinds. The porch faces the garden. The house is set back, the garage in the front almost even with the house, and a cement wall closing in the distance between the house and garage, shutting out the public completely from the front. On the other side of the house the same kind of a wall which extends around the sides and back. Low hedge across the front, leaving a view from the street to the plot in front of the house. Kitchen on left convenient to clothes yard. Lawn the entire width of lot with a small space reserved for flower garden beautifully planted with perennials. A stone walk leads from the grass plot into the vegetable garden, with a path running across the lot. Fruit trees.

Highly Commended—Mrs. William A. Lockwood, East Hampton Garden Club. The broad side of house on street. White shingles, gray roof and green blinds. The garage on extreme right back of lot. A road running right to the garage between which are a small yard and a compost heap. The centre of this lot is the flower garden and directly in back, separated by an open rail fence, the vegetable garden. The fruit trees in blossom in this garden are very attractive. A picket fence surrounds the vegetable garden and a hedge the rest of the lot. Kitchen on right-hand rear of house, a clothes yard adjoining.

THE FLOWER SHOW

[The following editorial which appeared in the *New York Times* of March 18, 1921, immediately after the Spring Flower Show, is reprinted for the benefit of our membership.]

No one could long be a pessimist in the presence of such a splendor of flowers as has filled the Grand Central Palace these last few days. If Solomon in all his glory was not arrayed like a single lily of the field, what comparison is to be found for the masses of color which have been made to blossom from like root and stalk under human cultivation? Man has been enjoined by the Great Teacher to forget his anxiety about tomorrow and to

fortify his little faith by beholding how the wild flowers are clothed. But the moral of the Flower Show is that if a man can in coöperation with the Creator work such miracles in the culture of flowers, what ought he not to do in the cultivation of the faculties of children or even in the improvement of his own perennial self?

But quite aside from the moral, the sheer enjoyment of these flowers (which will doubtless find their way into hospitals, schools and the homes of the shut-ins before they are "cast into the oven") makes for a paradisiacal state so long as they last and leaves a wholesome memory of color and perfume that will last longer than the flowers themselves. A flower show would be the last place on earth in which to start a riot or to blaspheme an enemy. It was because of this effect of flowers in "destroying all contaminations" that Buddha put first among his seven shops in the "City of Righteousness" and in the "Street of Earnest Meditations" a flower-shop; for this was the list of his shops: a Flower-shop, a Perfume-shop, a Fruit-shop, a Medicine-shop, an Herb-shop, an Ambrosia-shop, a Jewel-shop—and a General-shop.

Into the Flower-shop one is commanded by Buddha to go and "buy a subject for meditation." And if there is one thing we need in our Western urban life more than another, it is that for which Buddha's Flower-shop furnished delectable subjects—meditation. So is "deliverance" promised even from the muck and refuse of New York streets, far from Eden and Buddha's City, where children beg for tickets to see the gardens, far more beautiful than the one could have been in the midst of which our scriptural ancestors were placed and from which they were driven forth to earn their bread in the sweat of their faces. Through a culture of which the Flower Show gives but the exquisite simile, man finds his way toward another paradise.

FORTHCOMING EVENTS

Annual Meeting and May Flower Show,

May 11th, 12th and 13th, at the New York Botanical Garden.

Peony Show,

June 9th and 10th, at the American Museum of Natural History.

Gladiolus Show,

August 3d, 4th and 5th, at the New York Botanical Garden.

Dahlia Show,

September 21st, 22d and 23d, at the New York Botanical Garden.

TOO MANY VARIETIES

LAST winter the Horticultural Societies of Pennsylvania, New York and Massachusetts feeling that the Horticultural interests of the country were being injured by the introduction each year of hundreds of seedlings under new names which were neither superior to nor distinct from existing varieties, appointed a committee to consider this problem. The Committee met in New York on March 15th, 1923, and after a thorough discussion of the whole problem adopted the following resolution:

"This Committee feels that all Horticultural interests are being injured by the introduction each year of hundreds of seedlings under new names which are neither superior to nor distinct from existing sorts; and they believe that this tendency to introduce new things is increasing yearly and constitutes a serious menace to Horticulture in this country.

This Committee believes that the Massachusetts, New York and Pennsylvania Horticultural Societies, being among the oldest and foremost organizations in Horticulture, should take the lead in bringing this state of affairs to the attention of all gardeners, both amateur and professional. It believes that this condition of affairs must be thoroughly understood by the public before a remedy can be found."

The Committee wishes to call this resolution to the attention of

all Horticultural Societies. It believes that if this resolution is approved and adopted by a number of the leading organizations it will act as a check upon the evil.

After sufficient time has elapsed to receive suggestions from all Society publications the individuals interested in this problem or committee will meet again to consider what further steps may be taken.

JOHN C. WISTER
Acting Chairman of the Committee.

**COMMITTEE FOR THE INTERNATIONAL
FLOWER SHOW, 1924**

(Appointed on April 11th, 1923)

F. R. Newbold
T. A. Havemeyer
James Stuart
Joseph A. Manda

F. R. Pierson

John Canning
F. L. Atkins
John Scheepers
Julius Rochrs

THE FUTURE OF NUT GROWING

BY ROBERT T. MORRIS, M. D.

Lecture given in the American Museum of Natural History,
Thursday, February 8, 1923.

(*Mr. Leonard Barron, presiding.*)

WHENEVER I bring up the topic of nut culture in casual conversation at the Clubs or elsewhere, the response usually consists of some trivial comment. This means that the public is not as yet awake to the seriousness of a new frontier of agriculture in which millions of dollars are already invested. The subject of nut culture relates definitely to the food supply of tomorrow.

Huxley said that all other problems are effaced in the presence of the monster over-population.

Malthus in 1798 in his "Principles of Population" said that excepting for three special checks the human species would increase beyond its food supply. When men of the first-rate mentality of Huxley and of Malthus go so far astray the rest of us should take warning and try hard to avoid becoming prophets.

With our present-day knowledge of nut culture at hand we assume that over-population would be impossible excepting as a social matter, to say nothing of the practically untouched potential of the tropics and of circum-polar areas in the way of food supply. Over-population as a social matter is demonstrated in painful object lessons in China and India. People crowd there because they like to do so in response to primitive gregarious instinct. It is simply a matter of choice with them.

In China and in India there are wild tigers and wild apes. These countries can never be really over-populated until the wild ape is obliged to take to the hoe. Practically every acre over which tigers range can be made to yield nut crops for man and his domestic animals in such lavish supply that export of food products beyond the needs of the people would yield large revenue.

Nut crops furnish the essentials of diet in the way of starches, oils, and proteins. They are destined to stand with food supply

as the automobile now stands in relation to transportation. Dependence upon nut crops for basic food supply is already an established fact in many parts of the world. In some parts of southern Europe and of northern Asia, the chestnut crop constitutes a chief food supply. In a large area of central Asia the trap or water chestnut is depended upon for bread-making purposes. Pine nuts (*Araucaria*) constitute a staple diet in some of the mountain regions of South America. We know about coconuts for Pacific Islanders. Acorns from grafted Oak trees and chestnuts from grafted Chestnut trees furnish important food supplies for man and his domesticated animals in Spain. We are all familiar with the mast feeding of cattle, pigs and turkeys in this country. An immediate widespread adoption of nut culture then is to mean simply an extension of what is already established. Civilized countries having reached various degrees of limitation of cereal crops and of herds may now turn to exploration of some of the new frontiers in food supply.

Japan with territory that is now under her control might practically supply the world with food if she were to turn battleship money over to her Agricultural Colleges and give the Colleges power to go into action. In our own country almost any farmer who cares to raise the mortgage upon his farm tomorrow may do so with nut crops for which a wide open market is hungry. Prairie farmers and mountain farmers are both included in this idea.

Malthus described three principal checks to over-population. War, pestilence, and famine. To-day we may assume that two of these are practically controllable and that two important checks to increase of population must of necessity remain, namely, war and cultural limitation. Both of these belong to the natural history of our species, and only one of the two was understood by Malthus. Let us examine the matter for a moment of digression from the main topic in the interest of points that are really germane to it.

Steam transportation, unknown to Malthus, disposed of part of the famine question because of its introduction of the distribution factor. Aside from the matter of distribution the occurrence of famine may be almost wholly eliminated by way of change in food raising.

Pestilence we now understand to be a microbe question. The subject dealt with in terms of the microbe has allowed civilized people to lose their feeling of helplessness in relation to epidemics of disease.

Warfare must remain because it is fundamental to the behavior of our species. The idea of a League of Nations represents a concept of high order, but Mr. L. P. Jacks reminds us that we cannot have a durable league of nations because that would mean a league of governments. Governments being political in nature are not at all equally capable of obliging their people to fulfill obligations placed upon them politically. Politicians who obtain control in courts and in republics represent a class given to clan activities. For their own purposes they make use of herd instinct which we commonly call patriotism. They direct it into a kinetic of combative nationalism and then call out their gunmen of armies and navies. "America first," "Deutschland ueber alles," "Britannia rules the waves" are all fight-producing tools of the politician, to say nothing of the later effect of the Treaty of Versailles which will leave people of different nations looking forward to warfare as rapidly as they can store up money to pay for it.

An essential factor in population check not considered by sociologists in general is what we may call cultural limitation. Breeders of animals and of plants are familiar with the observation that varieties of plants or animals when subjected to processes of cultivation reach cultural limitations and then run out. They cease to become productive and a decadent variety is followed by an ascendant variety. Man as a cultivated animal responds to this natural law and the people of his various cultural periods run out, to be replaced by others.

Notwithstanding the checks furnished by warfare and by cultural limitation, human population of this world is due to increase enormously. We can take care of it all. From the circum-polar regions we shall have new supplies of meat provender furnished by reindeer, bison, mountain sheep, musk oxen, ptarmigans, and hares as rapidly as man systematically removes the natural wild enemies of this food supply. He will simply give the proper sort of attention to predatory species. The tropics with their almost untouched riches in land for production of vast food supplies are

standing ready for the coming of the advanced agriculturist. The waters of the earth will furnish limitless supplies of fish when the fish breeder and protector are given power and freedom of action. This afternoon we are to concern ourselves chiefly with examination of some of the features of nut culture.

Incidentally we may remark that the raising of nut crops has important relation to the shortage of labor question. Large incomes may be obtained from nut crops with a small amount of physical labor as compared with that required for tilling, cultivation and annual seeding of the soil. For the most part nuts will be derived from trees and shrubs, although annual crops of peanuts will be raised more and more upon boll weevil cotton lands. The water chestnut may be added to other income producers from wet lands which are now being unwisely drained by promoters. For the southern regions the pecan tree has already become a most important revenue producer and it promises to remain in that category. On the Pacific slope Persian walnuts, almonds and hazels are already earning millions of dollars for the orchardists annually. In the East the chestnut crop had obtained such proportions that incomes of several thousand dollars per year were obtained from many Pennsylvania orchards until the blight appeared. Blight-resistant varieties, however, are now being introduced and chestnut growing will again become an important industry.

The Shagbark and Shellbark Hickories with their various hybrids are to become popular with eastern nut growers and some of the exotic Hazels and cultivated Black Walnuts will be given dignified attention within the next decade. All through the great prairie region abandoned wheat and corn lands may be made to raise orchards of nut trees of various kinds, grafted Black Walnuts of superior varieties taking the lead perhaps at the outset.

When we speak of using abandoned wheat and corn lands for this purpose, it is not to be assumed that nut trees are not happier and still more contented in the midst of plenty. They all appreciate good feeding and all will purr when petted. On the other hand they will stand conditions of neglect better than such conditions would be tolerated by annual plants or by most of the cultivated fruit trees. Abandoned hillside sheep pastures and rocky

lands of New York, New England and Pennsylvania may be made to raise nut crops of greater value than any crops which have previously been carried upon these hillsides when they were at their best.

There seems to be a prevalent opinion that nut trees require a long time for coming into profitable bearing. This is an old-fashioned idea not expressed by well-informed people to-day. In olden times before we possessed grafted and cultivated kinds of nut trees, the Hickory or Walnut or Chestnut tree was obliged to enter into competition with other plants in the wild. It had to struggle for sunshine, food, and moisture. When thus left to care for itself a good many years of time were required before the tree came into bearing.

Now-a-days grafted trees given the advantages of cultivation sometimes begin to bear in the following year after they are set out, or top-worked. The question of profitable bearing, however, is another matter. Profitable bearing of cultivated nut trees may be placed in parallel with profitable bearing of cultivated apple trees. The Yellow Transparent Apple, for example, may begin to bear in the year after it is set out, while the Northern Spy may require twelve years before beginning to bear. The Yellow Transparent Apple tree may begin to bear profitably four years after it is set out and the Northern Spy Apple may begin to bear profitably twelve years after it is set out. Precisely the same thing may be said of cultivated nut trees. Some varieties of the Persian Walnut are very capricious in their demands for the right kind of soil and climate. Other kinds, less aristocratic put up with many adverse conditions. Among the Black Walnuts we now have half a dozen varieties cultivated because of exceptional qualities. Nut growers are actively looking for more new kinds of Black Walnuts with thin shell, good cleavage, and high quality, regardless of size. The number of Shagbark and Shellbark Hickories and their hybrids which are now being grown already make a rather formidable list in the nurseryman's catalogue. The Chestnut group includes a very large range of kinds. We have the large, coarse kinds which are used for cooking purposes and on the other end of the line delicious little Chinquapins. There are now many hybrids between the different kinds, selected because of

combination of good qualities. Everyone in this country who has a dooryard should at least grow a couple of Chinquapin bushes of the sort which is hardy as far north as Massachusetts.

Some of the hybrid Chestnuts which are quite blight resistant even though not wholly immune may bear heavy crops for several years before becoming disabled and that time may be extended by the gardener who trims out blight as fast as it appears. Some of the Hazels constitute the most beautiful of shrubs or small trees and belong in the decorative group where they combine the Greek ideal of beauty with usefulness.

A most interesting new field is being widely opened with the hybridizing or crossing of different kinds of nut trees for the purpose of bringing out desirable qualities in progeny. This is a fascinating work which appeals to almost everyone with a speculative turn of mind. It is very pretty and delicate work of the sort which would appeal particularly to women who love trees.

[At this point Dr. Morris showed upon the screen a series of slides illustrating nut trees of various kinds.]

Our Department of Agriculture of late years has given close attention to the subject of nut culture and it had been my intention to use a series of slides loaned by the Bureau of Pomology and at the disposal of horticulturists who wish to address audiences on the subject of nut culture. Through some mishap my Washington slides did not arrive in time for this afternoon's programme and I am showing slides prepared by Dr. William C. Deming and Professor J. Russell Smith sent to me at the last moment by Doctor Deming.

Following the demonstration upon the screen let us now take upon the question of nut-trees grafting. For centuries the almond has been grafted readily and it has furnished a chief income-producing crop in some of the parts of the world. Methods of propagation of the Hazels have allowed cultivated varieties of Hazel species to assume an important position in European, Asiatic and African agriculture. Grafting of the Chestnut belongs to old-established procedure. On the other hand, grafting of Walnuts and Hickories, belonging to two of our most important tree families, has been so difficult that work in this field has progressed spasmodically and more or less unsatisfactorily. A study of the

reasons for this difficulty has led to the introduction of quite a new principle.

Let me show a melting apparatus devised particularly for grafting purposes. It is a transformed lantern arranged in such a way that the temperature of the paraffin may be adapted to varying conditions of weather. Application of this new principle allows easy grafting of "difficult" species and it has opened up a vast new field for the grafting of fruit trees in general and for ornamental trees, and for practically all trees in fact. The new principle allows almost anybody to graft almost any sort of tree at almost any time of the year. We apply melted paraffin to all parts of a graft, covering buds and all as well as the wound. It prevents desiccation or drying of the graft, which so often occurred before cell union had taken place under older grafting methods. Furthermore, melted paraffin fills interstices in which sap formerly collected and fermented at times. That feature is now out of the way. Paraffin being translucent allows the actinic ray of light to set chlorophyll into activity. The chlorophyll element is the most important one relating to cell growth in the higher plants.

[Examples of various forms of grafting of the Shagbark Hickory and Apple were now passed about in the audience.]

Curiously enough, some of the expert horticulturists have been very slow to take up new grafting methods. I presume it means that the safety of an established habit is commendable within its limitations. Some Hickory and Walnut scions were sent to a friend in the West with the request that they be kept out of the hands of his gardener and given to some youth who was to follow certain instructions. A year or so later this friend, a very busy man, was asked about the success of the grafting. He replied that it had been a failure and his gardener thought it was due to some fault with the scions. My friend was reminded that he had been warned against putting the grafts in the hands of his gardener and advised to put them in charge of a boy who was to follow instructions. He replied immediately, "Oh, my gardener is a very experienced man," to which I responded, "That was the trouble." Visualize, if you please, a picture of a fine, old, dependable Scotch gardener taking up a quite new idea at the request of a man with whom he was unacquainted!

We have at the present time in this country the National Nut Growers' Association devoted to the development of the commercial side of the business, the Western Associations doing commendable work and the Northern Nut Growers Association which includes many of the experimenters as well as practical nut growers. Membership in the Northern Nut Growers' Association costs only \$2.00 per year and subscription to the *American Nut Journal* costs the same, but the two may be combined for \$3.25 which is about the cost of one good dinner at a New York hotel. A dinner is soon gone, but the membership and subscription last for a whole year. Members of the audience will wish to take advantage of this combination for themselves or for some friend who would like to pay off the mortgage of his farm. They may send their names to Mr. James S. McGlennon, President of the Northern Nut Growers' Association or to Mr. R. T. Olcott, Editor of our *Journal*, both of Rochester, New York.

A number of our agricultural periodicals are taking increased interest in matters relating to nut growing and *The Garden Magazine* is forwarding the subject under the enthusiastic supervision of Mr. Leonard Barron.

Nut trees belong among the beautiful trees as well as among the useful ones. Appreciation of that fact has led to their adoption of late years in ever-increasing numbers for roadside planting and for public parks. At the moment there is controversy over the question whether the Pecan or the Black Walnut should be chosen as our national tree. Each side has advocates carrying the convincing manner that goes with righteous conviction. Aside from the commercial aspects, and anything so gross as the Food Supply question, the growing of Nut trees in the garden will furnish pleasure to all who enjoy the doing of things that are a little out of the ordinary.

Nut growing is now carried out on a very large scale in some parts of the country with thousands of acres devoted to the subject. On the other hand, many a farmer may be put in the way of adding such a profitable side line to the regular farm crops and herds that he will keep his head above water by holding on to the side line.

The future of nut growing does not include the idea that we

must dispose of nice tender lamb chops or juicy tenderloin steak smothered with onions or other delicious things which already lead us merrily to the table. It means only that we are to have limitless addition of more good things with corresponding reduction in the cost of living and at the same time less strenuous reaching out for new land.

SUBSEQUENT NOTE:

The boll weevil may prove to be a godsend if it increases to the point of driving cotton raisers to the tropics, and obliging our southern planters to become wealthier than they are at the present time. In the tropics the Cotton plant is a tree. Annual seeding, fertilizing, and tillage then become unnecessary for the Cotton crop. The poorest of our present cotton lands will produce great yields of Persimmons and Hybrid Chestnuts. The richest of our cotton lands will produce great yields of Pecans and Peanuts. The Persimmon stands close to the Date in food value. Seedless varieties may now be obtained from nurserymen.

Hybrid Chestnuts, while not wholly immune to the blight, are sufficiently resistant to furnish abundant crops for years.

The Pecan nut has more food value than beef and large new Peanut values have been unfolded and brought into view during the past decade.

ITALIAN GARDENS AND FOUNTAINS

BY OLIVIA ROSSETTI AGRESTI
(of Rome)

Illustrated lecture given in the American Museum of Natural History, Thursday, March 8, 1923.

(*Mr. Geo. T. Potzvell, presiding.*)

THE lecturer gave an historical description of the growth of Italian Gardening and of the development in type and detail which expressed the changing ideals through the centuries.

Signora Agresti's first slide showed gardens of the classic period, particularly those of Pompeii, with their complete restoration, always considered as part of the house an unroofed court or out-of-door room, with fountains, statues and green foliage.

During mediaeval times, the gardens were mainly reduced to those in monasteries and convents. The need of medicinal herbs for healing the sick, and of vegetables and fruits for the table, gave but limited space for flowers. Many gardens of this type were shown within beautiful cloisters and notably that at Monreale, Palermo, and that of the garden in Rome which is now used as the National Museum.

In the fourteenth century, with the growing wealth of the merchants and guildsmen, came a revival of the art of gardening throughout Italy, and in the fifteenth and sixteenth centuries were built the beautiful villas and gardens of the Renaissance, which have been a joy to succeeding generations.

The villa, both buildings and grounds, represented the creative work of one artist, resulting in unity of plan. Always considering the garden an open-air extension of the house, the whole was carefully placed in relation to the surrounding landscape, usually upon the slope of a hill. Sections were planned for the colder season with protection from the winds and other sections for the heat of the summer, with formal gardens and long terraces, usually with an outlook over the valley, at a commanding point, for the garden was a place to look out from as well as to enjoy within.

Two types of villas came into being, and illustrations of these were shown with ground plans and detail. Those usually found in Tuscany, for example, where the owner lived in his home throughout the year and cultivated the farm lands which came up adjacent to the villa, usually the simple rectangular plan of house of modest proportions, but beautiful and planned for daily family use. Nearer Rome, another type of villa was built, the lordly pleasure house for the Roman nobles who took out from the city large parties of guests and entertained lavishly with fêtes and outdoor pageants. The gardens of Caprarola, Villa Lante and others were examples of this period.

The triumph of the skilful use of water was especially emphasized, the art of movement, whether in the cascades, the long water ramps, or the fountains of many intricate designs. Three essential elements—evergreens, stone, and water—were always found in the typical Italian gardens. The beds of flowers, as in England or the United States, were impossible on account of the Italian climate with its intense summer heat. There were many views of the villas at Frascati and Tivoli, which illustrated with rare beauty this use of water in Italian gardens. Of this same period also were shown many of the finest fountains of Rome, whose unlimited supply of water from the mountains was often a source of marvel to the visitor.

There followed in the eighteenth century the rococo style and the gradual decline of Italian gardening under French and English influences.

The speaker felt that each country had its own special treatment for country estates, which should be preserved, and that it was a mistake to attempt to transfer to another country those elements of beauty which had been assembled with reference to an entirely different climate; thus English gardens with the long, wide stretches of turf and flowers for England, and Italian gardens under the intense blue of the Italian skies.

Among the many beautiful views shown, mention may be made of avenues of stately Cypress trees at various villas, the ancient ones at Villa d'Este and those at Rome said to have been planted by Michael Angelo; the Boboli Gardens and their cool, refreshing shade under interlacing trees as one enters from the heat of the

streets of Florence; the beauty of white statuary against a green background of trees or clipped hedge; the charm of vistas; as, for instance, that focussing the dome of St. Peter's, as seen from the Villa Medici; the Vatican Gardens; those on the Palatine Hill where flowers and plants of old Roman days are being reassembled; stately entrance gates to country villas, and glimpses into courtyards of city palaces with central fountain and surrounding green of Ferns and Palms.

Among the modern fountains shown, one of special interest was that which was opened the year Italy went into the war, an aqueduct, one of the longest in the world, from the west side of the mountains to the east, cutting through sixty miles of tunnel, bringing the water to "thirsty Apulia."

Following this account of the beauty of the past, for which Italy is famous, Signora Agresti closed with a brief description of the service looking toward the future, which Italy is now rendering in the midst of these ancient surroundings. In the Borghese Gardens, a hilltop, which includes the house of Raphael, close by the entrance from the Piazza del Popolo, has been given by the municipality of Rome and the building erected by the King, from his private purse, for the International Institute of Agriculture—a world clearing-house for agricultural information. The idea was brought by David Lubin of California, and on the initiative of the King, this organization has been established, of which sixty-four nations of the world are now members, in the hope that greater righteousness in economic relations may help remove causes for war and so lead toward world peace.

FLOWERS OF SOUTH AFRICA

BY E. H. WILSON, M. A., V. M. H.

Assistant Director, Arnold Arboretum.

Illustrated lecture given in the American Museum of Natural History, Thursday, April 12, 1923.

(*Mr. Leonard Barron, presiding.*)

SOUTH AFRICA is a land of sunshine and the climate generally is cooler than that found in similar latitudes in the northern hemisphere. It teems with lovely plants suitable for our greenhouses and outdoor gardens of the warmer states. Indeed, "Cape Plants" as they are called, rank among our indispensable garden material. Our Nerines, Freesias, Gladiolus, Clivias, Strep-tocarpus, Zonal and Regal Pelargoniums are all derived from plants native of the Cape of Good Hope. Thus our debt to the southern tip of Africa is very considerable yet it is comparatively light to what it ought to be.

Cape Town is the usual landing place of visitors to South Africa and there is no better place to commence our inquiry into the floral resources of the country. The city is charmingly situated along the shores of Table Bay with Table Mountain rising behind the town in a sheer precipice cutting the skyline with a jagged horizontal front two miles in length. The Cape promontory with its bold head-lands stretches some forty miles south to Cape Point. A narrow, sandy neck separates Table and False bays and joins the promontory to the mainland. Around Cape Town the Stone or Table Pine (*Pinus pinea*) of Italy and the Cluster Pine (*Pinus pinaster*) of southwestern Europe have been planted in quantity and form magnificent avenues and groves. Near by are fine plantations of the Monterey or Insignis Pine (*Pinus radiata*) of California. Many other trees, notably the common Oak of Europe (*Quercus robur*) and various Eucalyptus have been extensively planted and it is astonishing how luxuriantly all these exotic trees flourish. The isthmus of shifting sands dividing the bays has been made available for residential purposes by the planting of

Maram Grass (*Ammophila arundinacca*) and *Acacia saligna*, a West Australian Wattle. The wild flora of the Cape promontory is remarkable for its wealth and diversity. Proteas and Heaths, succulents and bulbous plants, shrubs and herbs in a riot of species flourish. The unique Silver Tree (*Leucadendron argenteum*) and several other plants are known to grow wild nowhere else. On dripping rock walls high up on Table Mountain flourishes *Disa uniflora* its flower five inches across with bright scarlet sepals and pink labellum perhaps the most spectacularly beautiful terrestrial Orchid in the world. And there, too, grow the lovely *Anemone capensis* with finely divided leaves and white, suffused with pink, blossoms each three inches across and the fine Everlasting, *Helichrysum vestitum*, whose white heads imported into this country and Europe are much used by florists to whom they are known as "Capes." The sandy flats have a flora peculiarly their own and where the soil is acid Heaths in endless variety crowd the land. What native trees there are are relegated to the ravines and slopes where they find protection from the winds. Forests are an infrequent feature of the landscape throughout the Cape of Good Hope.

Apart from the very cold regions of the globe, every country can boast of a general miscellany of trees, shrubs and herbs noteworthy for the beauty of their flowers. The Cape is no exception and in addition possesses four well-marked types each of sufficient merit to make the country remarkable. These four types—succulent plants, bulbous plants, Proteas and Heaths—dominate the floral features of the Cape of Good Hope. Heaths, bulbous and succulent plants are found in other parts of the earth though in less variety but the florious Proteas are peculiarly South African. Brilliant inflorescences are characteristic of the Cape flora and in this respect the only region in the world with which fair comparisons can be made is West Australia. In both lands proteaceae, a family of endless variety of forms, is a striking floristic feature. What the genus *Banksia* is to West Australia that of *Protea* is to South Africa, yet this genus is even less known in American gardens than is *Banksia*. Proteas are common in the immediate vicinity of Cape Town as well as throughout the whole of the coastal plateau, a few species are found in the more elevated and drier regions to the north. Some like *Protea grandiflora* are

trees of moderate size, others like *Protea amplexicaulis* and *Protea cordata* almost hug the ground but the vast majority are bushes from six to ten feet tall with erect stems and huge, terminal, handsome heads of flowers. Such heads consist of very many elongated relatively simple flowers having no petals but with colored calyx and bracts enclosed and nestling within serried rows of tall colored scaly, more or less erect, floral bracts—nests of colored, fluffy down guarded by projecting stamens and pistils suggesting the quills of a fledgling Bird of Paradise.

Overflowing with honey are the pink and white heads of *Protea mellifera* and striking are those of *Protea speciosa* with tufts of black hairs on the tips of the inner involucre bracts, but none are finer than the glossy-leaved *Protea cynaroides*, common and widespread from Cape Town to Grahamstown in the east. The involucre bracts of this species vary from nearly white to silvery rose; the heads are from ten to twelve inches across and the plants anything from one to ten feet tall. It favors rocky places and to come suddenly upon this plant in blossom, to look down into its wondrous beauty as it nestles amid rocks, is a delight never to be forgotten. It has been my good fortune to see either under cultivation or on their native heaths nearly all the known flowers of exceptional merit. I have a generous meed of praise for each and every one but in my judgment the most handsome inflorescence in the world is that of *Protea cynaroides* on its native heath.

In elegance, beauty, and wealth of blossoms, the Cape Heaths are not excelled by any group of shrubs the world over. Their loveliness is fascinating, their charm irresistible. Their variety is seemingly infinite and every month of the year sees them bearing flowers in thousands. In size they vary from prostrate mats to sturdy bushes from five to ten feet tall and as much in diameter. They are mostly social plants and often clothe acres and square miles of the countryside like their near relative, the Heather of the Scots moors. They grow on sandy flats, in swamp places and on bleak, rock-strewn mountain slopes. Their clustered, multicolored flowers are of every hue and often each flower combines two or more color-schemes. In many the stamens are prominent and conspicuously colored. In size the flowers vary from tiny bells or urns each no larger than a pin's head to tubes an inch or

more long. Some have the flowers clustered at the ends of the shoots, in others they clothe nearly the whole of the current season's growth. All have small leaves and twiggy branches and are extraordinarily floriferous. These we may consider generic characters but in diversity of form and in color of flowers Mother Nature has frolicked with the Cape Heaths as with no other genus of shrubs. My visit to the Cape happened in the autumn—the off season for Heaths—yet I collected in blossom more than one hundred species and saw millions of plants laden with flowers. A scientist must not gush but the strongest adjectives in our language—or any other language—would not exaggerate the beauty of the *Ericas* of the Cape of Good Hope.

With the garden-lover of from fifty to one hundred years ago, Cape Heaths made the Cape famous. He knew, admired and grew these plants to perfection in the crudely heated greenhouses of the day. In Andrews's four-volume work entitled "Heaths," published 1802-30, colored plates of 288 species and varieties are given. All are drawn from plants which flowered in the British Isles. One nursery firm, that of Lee & Kennedy of Hammersmith, grew 228 kinds and these are listed by Andrews. With the decline of indoor gardening in Europe and what little there ever was in this country and the specialization which has increased so greatly with the development of modern greenhouses, Cape Heaths, except a few of the toughest sorts, have become lost to gardens. Never the easiest of subjects to grow successfully in pots they required skillful handling and more attention than the modern gardener either could or would give them and this, as much as change of fashion, caused their wholesale disappearance from northern conservatories. In California the few species remaining thrive luxuriantly out of doors and had gardens flourished in the neighborhood of San Francisco half a century ago we should not have to deplore the loss of the Heaths of the Cape. In Bailey's "Cyclopedia" thirteen Cape species of *Erica* are enumerated and a dozen others with several hybrids are mentioned in small type. This emphasizes the poverty of our gardens. Of the few now grown *E. melanthera* with small, rose-colored flowers each with prominent black anthers, is perhaps the most common. Others are *E. ventricosa*, with flowers of varied colors, *E. formosa* and

E. persoluta with white and *E. hyemalis* with pink and white flowers. The last-named is probably a form of *E. perspicua*. The yellow-flowered *E. Cavendishiana* and *E. Wilmoreana* with pink-tipped, white flowers, are of hybrid origin. The first Cape Heaths introduced into cultivation were *E. marifolia* and *E. concinna*, seeds of which were received at Kew in 1773.

Succulent plants are usually looked upon as the curiosities of the vegetable world. The modification of leaves and stems, whereby they serve as reservoirs largely for the storage of water, and the peculiar external tissues which aid in this conservation, give them a remarkable appearance. The two great regions of the world of succulents are Mexico with the adjacent southwestern United States and South Africa. Each has its own types but superficially they look much alike. The Cacti and Agaves of America have Euphorbias and Aloes with their relatives as their South African analogues. The species of Aloe are legion. A majority of them are low plants of one or few unbranched stems, many form an assemblage of stems, and may be termed bushes, a few like *A. ciliaris* are scandent and several are tall trees. Their leaves are brittle and easily broken and are filled with sap containing a bitter principle; they are usually armed along the margin and often curiously mottled and barred. All have orange to scarlet flowers which are produced in great profusion and the South African Aloes in bloom are one of the floral sights of the world. The giants of the family are *A. Bainesii* and *A. dichotoma*, which have branching stems and are often from thirty to forty feet tall. A good many species are in cultivation and those who garden in the warm, dry spots of this country would be well advised to add increasingly these plants to their collections. Where the climate is to their liking they require little or no attention.

And what shall be said of the Cape bulbs? The variety is very great and their garden value of immense importance. To the Cape we owe our Freesias, Nerines, Vallotas, Ixias, Lachenalias, Watsonias, Sparaxis and Babianas; also the lesser-known Hæmanthus, Buphane, Brunsvigia, Albuca, Cyrtanthus, Antholyza and others; the well-known *Crinum capense*, *Ornithogalum thyrsoides*, *Galtonia candicans*, the superb Belladonna Lilly, and, to cut

the list short, *Gladiolus*, including the species from which the hybridist has evolved our garden races of *Gladioli*. These well-known names are a sufficient reminder of our indebtedness. Of none, not even *Gladiolus*, have the full uses been made and many have been quite neglected. All are remarkable for the brilliancy of their blossoms but not a few are shy to flower under our gray northern skies.

Most of the Cape bulbs are found in the dried, rocky parts, but the *Watsonias* are partial to acid soils and the different species of *Gladiolus* are found under a variety of climatic conditions. Certain species like *G. alatus*, *G. cuspidatus* and *G. angustus* are confined to the western part of the Cape where winter rains prevail; others like *G. purpureo-auratus* and *G. dracocephalus* to Natal with its heavy summer rains; a few, like *G. psittacinus* and *G. Saundersii* are common to both regions. Some, as for example, *G. cardinalis* and *G. splendens*, are native of those parts where the annual rainfall is fairly equally distributed but is not excessive. Lastly there is *G. primulinus*, a child of the mist, whose home on the banks of the Zambesi River is constantly bathed in the spray from the wonderful Victoria Falls, which are four hundred feet high and a mile wide.

The familiar Calla or Arum Lily (*Zantedeschia aethiopica*) is common in swampy places and alongside rivers from the Cape Province northward to central Africa and so, too, is a pretty, blue-flowered Waterlily (*Nymphaea stellata*), likewise the well-known *Cyperus utilis* and the Cape Pond Weed (*Aponogeton distachyum*). Under a variety of conditions the Lion's Tail (*Leonotis Leonurus*) flourishes, but more particular are the Parrot Flowers, *Strelitzia regina*, *S. augusta* and *S. parvifolia*, relatives of the Banana but with crest-like, brilliant inflorescences rich in honey and much visited by birds.

Among the riches of the Cape flora it is difficult to pick and choose judiciously, but I think this miscellany may be brought to an end by mention of a group, more familiar the world over perhaps than any individual plant yet referred to, namely the common "Geranium" and "Pelargonium" of gardens. The parents of the bedding Geranium, Ivy-leaf Geranium and show Pelargonium are Cape plants and so, too, are the scented-leaf Geraniums. It is

permissible to admire the latter to-day but their gay-flowered relatives are somewhat taboo. Because we have greatly abused these cheery, good-natured plants, made them gross and coarse, over-planted them, set them in ill-suited places, Fashion decrees that, for the nonce, they be frowned up. But Fashion is a fickle tyrant and it is only a matter of time when she will again smile on old friends. Rightly used, the "Geranium" in its varied forms is one of the most useful classes of plants known to gardens and fie on those who blame a plant for their own misuse of its beauty and value.

The lecture was abundantly illustrated by stereopticon slides largely made from photographs taken by Mr. Wilson during his recent visit to South Africa.

EXTRACTS FROM PROCEEDINGS OF THE SOCIETY

DIRECTORS' MEETING, FEBRUARY 13, 1923

F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING.

The following members were elected:

ANNUAL: Mrs. Nellie B. Allen, Mr. Thomas Cogger, Miss Elizabeth Achelis, Mrs. E. H. Harriman, Miss Emily Exley, Mrs. C. P. Coleman, Mr. E. L. D. Seymour, Mr. James Stevens, Mr. Eugene H. Angert, Mr. W. Peck McCaffray, Mrs. G. L. McAlpin, Mrs. W. Peck McCaffray, Mrs. Peter B. Wyckoff.

RESIGNATIONS, accepted with regret: Mrs. Frank E. Leonard, Mr. Edward J. Nally.

DIRECTORS' MEETING, MARCH 20, 1923.

F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING.

The following members were elected:

ANNUAL: Mrs. Winthrop Chanler, Mrs. James C. Rea, Mrs. Samuel T. Cushing, Mrs. B. Arthur Aycrigg, Mrs. Walter Rothschild, Miss Maude M. Wilson, Mr. Henry A. Schroeder, Mrs. Renovia W. Sampson, Mrs. Roswell Miller, Mrs. Ramsay Hogue, Miss Josephine B. Hall, Mrs. C. L. W. Eidlitz, Mrs. Dudley Roberts, Mrs. E. B. Cassatt, Mrs. Charles C. Benedict, Mrs. Edwin P. Bond, Miss Gertrude C. Welsh, Mrs. Charles Biberian, Mr. Benton E. Adams, Mr. R. Rochrs, Mrs. William A. Bonnell, Mrs. C. I. Stralem, Mr. Elliott Averett, Jr., Mr. Robert B. Baird, Mrs. Henry M. T. Beekman, Miss M. C. Courtney, Miss Helen Richards, Miss Clara Richards, Mr. Thomas Wilson, Mrs. H. W. Chappell, Mrs. G. S. Huntington, Mrs. Elbridge L. Adams, Mrs. Oscar R. Houston, Miss Betty Collamore, Mrs. Harriet Lewis Sharp, Mrs. Marshall O. Terry, Mrs. Walter Beck, Mr. Walter Beck.

LIFE: Mr. John Aspergren, Mrs. Frederic S. Lee, Mrs. George C. Fraser, Mrs. James J. Goodwin, Mr. Frederic S. Lee.

BENEFACTOR: Mrs. Richard T. Auchmuty.

RESIGNATIONS, accepted with regret: Mrs. F. Denham Harmon, Mrs. G. E. Paul.

Resolved that the president, Mr. T. A. Havemeyer, write a letter of thanks to the New York *Times* for the splendid editorial on the International Flower Show appearing in that paper of Sunday, March 18th, 1922. [This appears elsewhere in this issue of the *Journal*.]

AWARDS AT THE INTERNATIONAL FLOWER SHOW

March 12-17, 1923

Plants in Flower—Private Growers

Class 1. Acacia, 3 plants, one or more varieties—1st Prize, Mrs. F. A. Constable.

Class 2. Acacia, specimen, any variety—1st Prize, Mrs. F. A. Constable.

Class 3. Amaryllis, 12 plants—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. F. A. Constable.

Class 4. Amaryllis, 6 plants—1st Prize, Mrs. E. F. Luckenbach. 2nd Prize, Mrs. F. A. Constable.

Class 5. Azalea, specimen, any color, not less than 3 ft. in diameter—1st Prize, Miss Alice DeLamar. 2nd Prize, James A. Macdonald.

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- Class 6. Azalea, 3 plants, any color—1st Prize, Mrs. E. F. Luckenbach. 2nd Prize, James A. Macdonald.
- Class 7. Bougainvillea, specimen—1st Prize, Mrs. B. G. Work.
- Class 8. Buddleia, 3 specimens—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. B. G. Work.
- Class 9. Chorizema, specimen—1st Prize, General Howard S. Borden. 2nd Prize, Mrs. Nathan Straus.
- Class 10. Cineraria, hybrid, 6 plants—1st Prize, Mrs. B. G. Work. 2nd Prize, Samuel Untermyer.
- Class 11. Cineraria stellata, 6 plants—1st Prize, William Boyce Thompson. 2nd Prize, C. E. Mitchell.
- Class 12. Cineraria stellata, specimen, any type—1st Prize, William Boyce Thompson. 2nd Prize, C. E. Mitchell.
- Class 13. Cyclamen, 25 plants, arranged for effect, decorative plants permitted—1st Prize, Mrs. F. A. Constable. 2nd Prize, Mrs. Daniel Guggenheim.
- Class 14. Cyclamen, 6 plants—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. F. A. Constable.
- Class 15. Cytisus, specimen, any variety—1st Prize, Mr. John T. Pratt. 2nd Prize, General Howard S. Borden.
- Class 17. Fuchsia, 1 standard specimen—1st Prize, Mrs. F. A. Constable.
- Class 18. Geraniums, 3 specimens—1st Prize, Miss Alice DeLamar.
- Class 19. Geranium, 1 standard specimen—1st Prize, Miss Alice DeLamar.
- Class 20. Heliotrope, 3 standard specimens—1st Prize, Miss Alice DeLamar.
- Class 21. Hydrangea, 3 plants, not less than 8-inch pots—1st Prize, Mrs. E. F. Luckenbach.
- Class 22. Hydrangea, specimen, not less than 8-inch pot—1st Prize, Miss Alice DeLamar. 2nd Prize, Mrs. E. F. Luckenbach.
- Class 23. Imantophyllum, specimen—1st Prize, Mrs. F. A. Constable.
- Class 24. Lilac, 6 plants—1st Prize, Mrs. Harold I. Pratt.
- Class 25. Marguerite, specimen—1st Prize, Mrs. E. F. Luckenbach. 2nd Prize, Miss Alice DeLamar.
- Class 26. Nemesia, 6 plants—1st Prize, Duncan McIntyre. 2nd Prize, Mrs. F. A. Constable.
- Class 27. Primula malacoides, 12 plants—1st Prize, Mrs. E. F. Luckenbach. 2nd Prize, J. W. Harriman.
- Class 28. Primula obconica, 12 plants—1st Prize, Mrs. Payne Whitney.
- Class 29. Primulas, 6 plants in variety—1st Prize, Mrs. Payne Whitney. 2nd Prize, Col. H. H. Rogers.
- Class 30. Rhododendron, 3 plants, not less than 3 ft. in diameter—1st Prize, Mrs. Daniel Guggenheim.
- Class 31. Rhododendron, specimen, not less than 4 ft. in diameter—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. Harold I. Pratt.
- Class 32. Schizanthus, 3 plants—1st Prize, William Boyce Thompson.
- Class 33. Schizanthus, specimen—1st Prize, William Boyce Thompson.
- Class 34. Spirea or Astilbe, 6 plants—1st Prize, Mrs. E. F. Luckenbach.
- Class 35. Wistaria, specimen—1st Prize, James A. Macdonald. 2nd Prize, Mrs. Daniel Guggenheim.
- Class 36. Any other specimen flowering plant—1st Prize, Miss Alice DeLamar. 2nd Prize, Mrs. F. H. Allen.
- Class 37. An exhibit, covering 500 sq. ft., arranged as a garden, suitable accessories permitted—1st Prize, William Boyce Thompson. 2nd Prize, Mrs. Payne Whitney.

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Palms and Foliage Plants—Private Growers.

- Class 50. *Areca lutescens*, specimen—1st Prize, Mrs. F. A. Constable.
Class 51. Bay Trees, 2 plants, specimens—1st Prize, Mrs. E. F. Luckenbach.
Class 52. *Croton*, 12 plants, broad-leaved varieties—1st Prize, Miss Alice DeLamar. 2nd Prize, Mrs. Daniel Guggenheim.
Class 53. *Croton*, 12 plants, narrow-leaved varieties—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Miss Alice DeLamar.
Class 54. *Dracaena*, 3 plants—1st Prize, Miss Alice DeLamar. 2nd Prize, Mrs. E. F. Luckenbach.
Class 55. *Kentia Forsteriana*, specimen, single or bushy—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. F. A. Constable.
Class 56. *Kentia Belmoreana*, specimen, single or bushy—1st Prize, Mrs. F. A. Constable.
Class 57. *Phoenix Roebelenii*, specimen—1st Prize, Mrs. F. A. Constable.
Class 58. Palm, other than above, specimen, single or bushy—1st Prize, Mrs. F. A. Constable.
Class 59. Any specimen foliage plant, not less than 10-inch pot or tub—1st Prize, Samuel Untermyer. 2nd Prize, Mrs. F. A. Constable.
Class 60. Group of foliage plants, with Orchids permitted, collection covering 200 sq. ft., arranged for effect—1st Prize, William Boyce Thompson.

Ferns—Private Growers.

- Class 70. *Asparagus*, specimens, any variety—1st Prize, Miss Alice DeLamar. 2nd Prize, Mrs. E. F. Luckenbach.
Class 71. *Adiantum Farleyense*, or *Farleyense* type, specimen—1st Prize, Mrs. H. McK. Twombly. 2nd Prize, Mrs. E. F. Luckenbach.
Class 72. *Adiantum*, any other variety, specimen—1st Prize, Miss Alice DeLamar. 2nd Prize, Mrs. Daniel Guggenheim.
Class 73. *Cibotium Scheidei*, specimen—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Samuel Untermyer.
Class 74. *Goniophlebium sub-auriculatum*, specimen—2nd Prize, Col. H. H. Rogers.
Class 75. *Nephrolepis exaltata Bostoniensis*, or any of its sports—1st Prize, Mrs. E. F. Luckenbach. 2nd Prize, Col. H. H. Rogers.
Class 76. Stag's Horn Fern, specimen—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, James A. Macdonald.
Class 77. Fern, any other variety not otherwise specified—1st Prize, Miss Alice DeLamar. 2nd Prize, C. E. Mitchell.

Bulbous Plants—Private Growers.

- Class 80. Freesias, white, 12 pots or pans—1st Prize, J. W. Harriman. 2nd Prize, Mrs. Bertram H. Borden.
Class 81. Freesias, colored, 6 pots or pans—1st Prize, John T. Pratt. 2nd Prize, Mrs. Harold I. Pratt.
Class 82. Hyacinths, white, three 10-inch pots or pans—1st Prize, C. E. Mitchell. 2nd Prize, Mrs. Bertram H. Borden.
Class 83. Hyacinths, pink, three 10-inch pots or pans—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, James A. Macdonald.
Class 84. Hyacinths, red, three 10-inch pots or pans—1st Prize, Mrs. Payne Whitney. 2nd Prize, James A. Macdonald.
Class 85. Hyacinths, light blue, three 10-inch pots or pans—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, James A. Macdonald.

Class 86. Hyacinths, dark blue or purple, three 10-inch pots or pans—1st Prize, James A. Macdonald. 2nd Prize, Mrs. Payne Whitney.

Class 87. Hyacinths, yellow, three 10-inch pots or pans—1st Prize, James A. Macdonald. 2nd Prize, Mrs. Bertram H. Borden.

Class 88. Lilies, 12 pots, any varieties—1st Prize, Mrs. George S. Dearborn. 2nd Prize, Mrs. Harold I. Pratt.

Class 89. Lily of the Valley, three 10-inch pots or pans—1st Prize, John T. Pratt. 2nd Prize, Mrs. Payne Whitney.

Class 90. Narcissus, 6 varieties, large Trumpet varieties, six 10-inch pots or pans—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Mrs. Daniel Guggenheim.

Class 91. Narcissus, all other types, 6 varieties, six 10-inch pots or pans—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Mrs. Daniel Guggenheim.

Class 92. Tulips, single early, 6 distinct varieties, six 10-inch pots or pans—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. Bertram H. Borden.

Class 93. Tulips, double, in variety, six 10-inch pots or pans—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. Bertram H. Borden.

Class 94. Tulips, Darwin, distinct varieties, twelve 10-inch pots or pans—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Mrs. Payne Whitney.

Class 96. Tulips, all other May flowering, distinct varieties, twelve 10-inch pots or pans—1st Prize, Mrs. Bertram H. Borden.

Class 97. For the best collection of Lilies, in varieties in pots, not to exceed 50 sq. ft. Ferns for decorative effect permitted—Special Prize, Mrs. Harold I. Pratt.

Orchid Plants—Private Growers.

Class 100. Twelve plants in variety, decorative plants permitted—1st Prize, Col. H. H. Rogers.

Class 101. Six plants in variety, decorative plants permitted—1st Prize, Col. H. H. Rogers.

Class 102. Orchids in variety, 3 plants—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Col. H. H. Rogers.

Class 103. Brasso-Cattleya, or Brasso-Laelia, 1 plant—1st Prize, Col. H. H. Rogers.

Class 104. Cattleya, Laelia, or Laelia-Cattleya Hybrid, 1 plant—1st Prize, Col. H. H. Rogers.

Class 105. Specimen plant, any variety—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Col. H. H. Rogers.

Cut Orchids—Private Growers.

Class 106. Collection of Cut Orchids covering 50 sq. ft., decorative greens permitted—1st Prize, A. N. Cooley.

Orchid Plants—Special Classes.

Class 107. Group of plants in variety covering 100 sq. ft., decorative plants permitted, arranged for effect—1st Prize, James B. Duke.

Class 108. Collection of Hybrids, 25 plants, decorative plants permitted—1st Prize, James B. Duke.

Cut Roses—Private Growers.

Class 112. 18 Columbia—1st Prize, Mrs. F. A. Constable. 2nd Prize, E. E. Smathers.

Class 113. 18 Premier—1st Prize, Mrs. H. McK. Twombly.

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Class 116. 18 Ophelia, or any of its sports—1st Prize, Mrs. H. McK. Twombly. 2nd Prize, Mrs. F. A. Constable.

Class 117. 18 any red variety—1st Prize, Mrs. L. P. Child.

Class 120. 18 any other disseminated variety, yellow—1st Prize, J. Insley Blair. 2nd Prize, Mr. H. McK. Twombly.

Class 121. 25 one or more varieties, to be shown in one vase—1st Prize, Mrs. H. McK. Twombly. 2nd Prize, Mrs. L. P. Child.

Carnations—Private Growers.

Class 130. 25 white—1st Prize, J. Insley Blair. 2nd Prize, George F. Baker.

Class 131. 25 light pink, exclusive of Laddie—1st Prize, E. E. Smathers. 2nd Prize, Mrs. Arnold Schlaet.

Class 133. 25 red or scarlet, to include all shades generally classed in these colors—1st Prize, J. Insley Blair. 2nd Prize, L. L. Dunham.

Class 134. 25 crimson, to include all shades known as crimson or maroon—1st Prize, Mrs. Robert Mallory. 2nd Prize, Miss S. D. Bliss.

Class 135. 25 white variegated—1st Prize, George Grant Wilson. 2nd Prize, George F. Baker.

Class 136. 25 yellow or yellow variegated—1st Prize, Mrs. F. E. Lewis. 2nd Prize, L. L. Dunham.

Class 137. 25 Laddie—1st Prize, J. Insley Blair. 2nd Prize, Mrs. F. A. Constable.

Class 138. 25 Carnations, any color, one variety, exclusive of Laddie—1st Prize, J. Insley Blair. 2nd Prize, Mrs. Robert Mallory.

Class 139. Vase of Carnations, not to exceed 150 blooms. One or more varieties may be used. Decorative green of any kind, ribbon and any other accessories may be used, as long as Carnations are the predominant feature. It is intended to give the exhibitor the widest latitude in making this display. Vase to be supplied by the exhibitor. Quality of bloom, artistic arrangement, and general effect to be considered in making award—1st Prize, Mrs. F. E. Lewis. 2nd Prize, Mrs. Payne Whitney.

Sweet Peas—Private Growers.

Class 141. Display of Sweet Peas, covering 25 sq. ft. Quality of bloom, artistic arrangement, and general effect to be considered in making award—1st Prize, Mrs. W. R. Cross. 2nd Prize, Mrs. F. E. Lewis.

Class 142. Collection of six varieties, 25 sprays of each—1st Prize, Mrs. F. E. Lewis. 2nd Prize, Stuyvesant Fish.

Class 143. 100 sprays, one or more varieties, arranged for effect, greens permitted—1st Prize, Mrs. F. E. Lewis. 2nd Prize, Mrs. S. H. Gillespie.

Miscellaneous Cut Flowers—Private Growers.

Class 150. Acacia, 12 sprays—1st Prize, Mrs. B. G. Work.

Class 151. Amaryllis, 12 spikes—1st Prize, Mrs. E. F. Luckenbach.

Class 153. Antirrhinum, 12 spikes, pink—1st Prize, Mrs. Percy Chubb. 2nd Prize, Miss Alice DeLamar.

Class 154. Antirrhinum, 12 spikes, white—1st Prize, Mrs. Payne Whitney. 2nd Prize, Clarence H. Mackay.

Class 155. Antirrhinum, 12 spikes, yellow—1st Prize, Mrs. Harold I. Pratt.

Class 156. Anthurium, 12 flowers—1st Prize, E. E. Smathers.

Class 157. Calendulas, 25 flowers—1st Prize, E. E. Smathers. 2nd

Prize, Mrs. S. H. Gillespie. 2nd Prize, Mrs. Henry R. Mallory.

Class 158. Callas, 12 flowers, yellow—1st Prize, Mrs. E. F. Luckenbach.

Class 159. Callas, 12 flowers, white—1st Prize, Charles W. McAlpin. 2nd Prize, Henry Morley.

Class 160. Flowering shrubs, 12 sprays, one or more varieties—1st Prize, E. E. Smathers. 2nd Prize, Miss Alice DeLamar.

Class 161. Freesias, 25 sprays, white—1st Prize, Mrs. Ridley Watts. 2nd Prize, John T. Pratt.

Class 162. Freesias, 25 sprays, colored—1st Prize, John T. Pratt. 2nd Prize, Mrs. Harold I. Pratt.

Class 163. Lilac, 12 sprays—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Mrs. Harold I. Pratt.

Class 164. Lilies, 12 spikes—1st Prize, Mrs. B. G. Work. 2nd Prize, Mrs. Harold I. Pratt.

Class 165. Mignonette, 12 spikes—1st Prize, Mrs. Percy Chubb. 2nd Prize, George F. Baker.

Class 166. Stocks, 12 spikes, one or more varieties—1st Prize, Mrs. John A. Topping. 2nd Prize, Mrs. Percy Chubb.

Class 167. Tulips, 25 flowers, single—1st Prize, Mrs. Harold I. Pratt. 2nd Prize, Mrs. Bertram H. Borden.

Class 168. Tulips, 50 flowers, single—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Mrs. E. F. Luckenbach.

Class 170. Vase cut flowers, not otherwise provided for—1st Prize, Mrs. E. F. Luckenbach. 2nd Prize, Mrs. Harold I. Pratt.

Class 171. Wall Flower, 12 spikes, any color—1st Prize, George F. Baker. 2nd Prize, Mrs. Henry R. Mallory.

Dinner Table Decorations—Private Growers.

Class 180. Table and accessories to be furnished by Flower Show Management. Table to be set for eight. Roses the only flower to be used in this decoration—1st Prize, Mrs. H. McK. Twombly. 2nd Prize, Mrs. Percy Chubb. 3rd Prize, Mrs. Edward Holbrook.

Class 181. Carnations the only flower to be used in this decoration—1st Prize, Mrs. Nathan Strauss. 2nd Prize, Mrs. H. McK. Twombly. 3rd Prize, Mrs. Payne Whitney.

Class 182. Sweet Peas exclusively. Other foliage than Sweet Peas may be used—1st Prize, Mrs. Ridley Watts. 2nd Prize, Mrs. H. McK. Twombly. 3rd Prize, Mrs. Payne Whitney.

Class 183. Miscellaneous flowers other than those permitted in the other classes for table decorations—1st Prize, Mrs. John A. Topping. 2nd Prize, Mrs. Nathan Strauss. 3rd Prize, Mrs. Ridley Watts.

Plants in Flower—Commercial Growers.

Class 192. Azalea indica, group covering 150 sq. ft., arranged for effect—1st Prize, Bobbink & Atkins.

Class 193. Azaleas, border arrangement, 8x20, any types, other than indica, hardy foliage plants permitted—1st Prize, Bobbink & Atkins.

Class 195. Genista, 3 plants—1st Prize, Madsen & Christensen. 2nd Prize, Bobbink & Atkins.

Class 196. Genista, 1 plant specimen—1st Prize, Madsen & Christensen.

Class 197. Genista, 3 standard specimens—1st Prize, Madsen & Christensen. 2nd Prize, Bobbink & Atkins.

Class 200. Lilac, 6 specimen plants—1st Prize, Bobbink & Atkins.

Class 201. Marguerite, 6 plants—1st Prize, Madsen & Christensen.

Class 202. Marguerite, specimen—1st Prize, Madsen & Christensen.

Palms and Foliage Plants—Commercial Growers.

- Class 214. Box Trees, pyramidal, 2 plants—1st Prize, F. R. Pierson.
 Class 218. Twelve trained Ivies—1st Prize, Bobbink & Atkins.

Ferns—Commercial Growers.

- Class 225. Adiantum Farleyense or its types, six plants, not less than 8-inch pots or pans—1st Prize, A. N. Pierson, Inc.
 Class 226. Nephrolepis, specimen, any variety—1st Prize, F. R. Pierson.
 Class 227. Cibotium Schiedeii, specimen, not less than 12-inch pot or tub—1st Prize, F. R. Pierson.
 Class 228. Ferns, collection, not less than 50 plants—1st Prize, F. R. Pierson.
 Class 229. Fern, specimen, any other variety—1st Prize, F. R. Pierson.

Bulbous Plants—Commercial Growers.

- Class 236. Lilium, 25 pots, one or more varieties—1st Prize, F. R. Pierson. 2nd Prize, A. L. Miller.
 Class 240. An exhibit of Orchids in bloom covering 300 sq. ft., decorative plants and suitable accessories permitted. This exhibit may contain 20 vases of cut Orchids not to exceed three sprays of one species to a vase—1st Prize, Lager & Hurrell. 1st Prize, Joseph Manda Company. 1st Prize, Julius Roehrs Company.
 Class 241. 12 Hybrid Orchid plants—1st Prize, George E. Baldwin. 2nd Prize, Julius Roehrs Company.
 Class 242. Specimen Orchid plant—1st Prize, Julius Roehrs Company.

Roses in Pots and Tubs—Commercial Growers.

- Class 255. Climbing, red, specimen—1st Prize, A. N. Pierson, Inc.
 Class 256. Climbing, pink, specimen—1st Prize, A. N. Pierson, Inc.
 Class 257. Climbing, white, specimen—1st Prize, A. N. Pierson, Inc.
 Class 259. Any single variety, specimen—1st Prize, A. N. Pierson, Inc.

Cut Roses—Commercial Growers.

- Class 265. 50 American Beauty—1st Prize, Briarcliff Greenhouses.
 Class 266. 50 Butterfly or any Ophelia sports—1st Prize, Duckham-Pierson Company. 2nd Prize, F. R. Pierson.
 Class 267. 50 Columbia—1st Prize, L. B. Coddington. 2nd Prize, Traendly & Schenck.
 Class 268. 50 Francis Scott Key—1st Prize, F. R. Pierson. 2nd Prize, Traendly & Schenck.
 Class 269. 50 Hadley—1st Prize, Joseph Heacock Company. 2nd Prize, L. B. Coddington.
 Class 270. 50 Ophelia—1st Prize, Duckham-Pierson Company. 2nd Prize, Traendly & Schenck.
 Class 271. 50 Premier—1st Prize, Traendly & Schenck. 2nd Prize, Duckham-Pierson Company.
 Class 272. 50 white Killarney or any white sport of same—1st Prize, Joseph Heacock Company. 2nd Prize, Duckham-Pierson Company.
 Class 273. 50 Crusader—1st Prize, Traendly & Schenck. 2nd Prize, Duckham-Pierson Company.
 Class 274. 50 Mrs. Aaron Ward—1st Prize, Traendly & Schenck. 2nd Prize, L. B. Coddington.

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- Class 275. 50 Pilgrim—1st Prize, Joseph Heacock Company. 2nd Prize, John Welsh Young.
Class 276. 50 Sunburst—1st Prize, William Wade Vert.
Class 278. 50 any other disseminated variety, pink—1st Prize, F. R. Pierson. 2nd Prize, A. N. Pierson, Inc.
Class 280. 50 any other disseminated variety, yellow—1st Prize, F. R. Pierson.

Display Cut Roses—Commercial Growers.

Class 285. Display of Cut Roses, covering 300 sq. ft., and containing not less than 500 nor more than 1,000 blooms. Decorative green of any kind, including plants, permitted. Quality of bloom, artistic arrangement, and general effect and variety to be considered in making award—1st Prize, Traendly & Schenck. 2nd Prize, A. N. Pierson, Inc. 3rd Prize, F. R. Pierson.

Cut Roses—Commercial Growers.

Staged Thursday, March 15th.

- Class 290. 50 American Beauty—1st Prize, Briarcliff Greenhouses.
Class 291. 50 Butterfly or any Ophelia sports—1st Prize, Duckham-Pierson Company. 2nd Prize, Traendly & Schenck.
Class 292. 50 Columbia—1st Prize, Traendly & Schenck. 2nd Prize, A. N. Pierson, Inc.
Class 293. 50 Francis Scott Key—1st Prize, Traendly & Schenck. 2nd Prize, F. R. Pierson.
Class 294. 50 Hadley—1st Prize, L. B. Coddington.
Class 295. 50 Ophelia—1st Prize, Duckham-Pierson Company. 2nd Prize, Traendly & Schenck.
Class 296. 50 Premier—1st Prize, Traendly & Schenck. 2nd Prize, A. N. Pierson, Inc.
Class 297. 50 White Killarney or any white sport of same—1st Prize, Duckham-Pierson Company. 2nd Prize, A. N. Pierson, Inc.
Class 298. 50 Crusader—1st Prize, Traendly & Schenck. 2nd Prize, F. R. Pierson.
Class 299. 50 Mrs. Aaron Ward—1st Prize, Traendly & Schenck. 2nd Prize, L. B. Coddington.
Class 300. 50 Pilgrim—1st Prize, Traendly & Schenck.
Class 301. 50 Sunburst—1st Prize, William Wade Vert.
Class 303. 50 any other disseminated variety, pink—1st Prize, F. R. Pierson. 2nd Prize, A. N. Pierson, Inc.
Class 305. 50 any other disseminated variety, yellow—1st Prize, F. R. Pierson.
Class 306. 25 any undisseminated variety—Silver Medal, A. N. Pierson, Inc.

Carnations—Commercial Growers.

- Class 310. 100 White—1st Prize, LeCluse & LeCluse. 2nd Prize, Scott Brothers.
Class 311. 100 light pink, exclusive of Laddie—1st Prize, A. Demeusy. 2nd Prize, Doerr & Sons.
Class 312. 100 dark pink—1st Prize, Hartje & Elder. 2nd Prize, Julius Chevalley.
Class 313. 100 red or scarlet, to cover all shades generally included in

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those colors—1st Prize, Harry O. May. 2nd Prize, James W. Wagner. 2nd Prize, Springfield Floral Co.

Class 315. 100 white variegated—1st Prize, Scott Brothers.

Class 317. 100 Laddie—1st Prize, Heather Dell Farm. 2nd Prize, Samuel J. Goddard.

Class 318. 50 any new variety not in commerce—Silver Medal, Springfield Floral Company. Silver Medal, Hartje & Elder.

Carnations—Commercial Growers.

Class 319. Display of Carnations covering 150 sq. ft. of space and containing not less than 1,000 nor more than 1,500 blooms. Decorative green of any kind, including plants, permitted, quality of bloom, artistic arrangement, and general effect to be considered in making award—1st Prize, The Springfield Floral Company.

Sweet Peas—Commercial Growers.

Class 330. Display of Sweet Peas covering 100 sq. ft., arranged for effect—1st Prize, W. Atlee Burpee Company

SPECIAL

Open Class 500. An exhibit covering 1,200 square feet. This exhibit may include lawns, flower beds, gardens, shrubbery borders, rose beds, bulb beds, or any exhibit that the artistic ability of the exhibitor may suggest, as the widest latitude will be allowed in this class. Special gold medals will be awarded for special merit in this class—Awards to: Julius Roehrs Company, Bobbink & Atkins, A. N. Pierson, John Scheepers, Inc., F. R. Pierson.

Special Prizes Offered by
Zandbergen Brothers, Walkenburg, near Leiden, Holland, and
Oyster Bay, N. Y.

Private Growers.

Class 600. Collection of Hyacinths, 8 distinct varieties, 10-inch pots or pans—1st Prize, James A. Macdonald. 2nd Prize, Mrs. Harold I. Pratt.

Class 601. Darwin Tulip Louis de Valliere, 8-inch pots or pans—1st Prize, James A. Macdonald.

Class 602. Collection of Tulips, new race, flowering between Darwin and early Tulips—1st Prize, Mrs. Daniel Guggenheim.

Special Prizes Offered by
A. Frylink & Sons, of Huntington, Long Island and
Sassenheim, Holland.

Private Growers.

Class 605. 4 varieties of Single Early Tulips, 10-inch pots or pans—
4 varieties of Double Early Tulips, 10-inch pots or pans—
1st Prize, Mrs. Daniel Guggenheim.

Class 606. 6 varieties of Darwin Tulips, 10-inch pots or pans—1st Prize, James A. Macdonald. 2nd Prize, Mrs. Bertram H. Borden.

Class 607. 4 varieties of Narcissi, large Trumpet Daffodils, 10-inch pots or pans—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. Bertram H. Borden.

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GOLD MEDALS

Rock Garden—Bobbink & Atkins.
Display of Sweet Peas—W. Atlee Burpee Company.
Brasso-Laelia Cattleya "Snowden"—A. N. Cooley.
Gold Medal of The Architectural League of New York, Tropical Garden—Julius Roehrs Company.
Special Gold Medal of the Bulb Growers' Association—John G. Scheepers, Inc.
Scheepers' Gold Medal for Achievement in Bulb Culture—Mrs. Daniel Guggenheim, Mrs. Bertram H. Borden.

SILVER MEDALS

Naturalistic Garden—Julius Roehrs Company.
Cattleya Fournierii—James B. Duke.
Group of Blooming Plants—A. L. Miller.
Group of Spirea Reevesi Flora Plena—S. A. F. & O. H. Silver Medal—A. L. Miller.
12 Acacia Plants—Mrs. F. A. Constable.

BRONZE MEDALS

The Architectural League of New York—bronze medal—Informal Garden—F. R. Pierson.

SWEEPSTAKE MEDAL

Gold Medal, presented by the Horticultural Society of New York, to be awarded to the member of The Garden Club of America whose entries score the highest number of points in all exhibits throughout the Show—Mrs. F. A. Constable.

CERTIFICATES OF MERIT

Group of Stocks—John T. Pratt.
1 Vase White Salvia—Col. H. H. Rogers.
1 Begonia Lorrain—Col. H. H. Rogers.
Cymbidium—James B. Duke.
Sweet Pea King Tut—W. Atlee Burpee Company.
Imantophyllum, 18 plants—Mrs. F. A. Constable.

CONTRIBUTIONS INVITED

THE Directors invite the coöperation of the members of the Society in furthering the interests of the *Journal*. In particular it is hoped that members will contribute papers for publication, and especially that they will work together to make the *Journal* fully representative of horticultural records for New York.

FORM OF BEQUEST

I give and bequeath to *The Horticultural Society of New York*_____

for_____

PUBLICATIONS OF THE SOCIETY

Journal, Quarterly. Subscription price, \$1.00 a year; free to members.

Memoirs VOL. I. Proceedings of the International Conference on Plant Breeding and Hybridization, New York, 1902, price, \$2.00.

VOL. II. Proceedings of the International Conference on Plant Hardiness and Acclimatization, New York, 1907, price, \$2.00.

Address: Office of the Society, 598 Madison Ave., New York, N. Y.

THE HORTICULTURAL SOCIETY OF NEW YORK

INCORPORATED, 1902

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Issued July 20, 1923

Journal

of the

Horticultural Society of New York

Vol. III,
No. 11



AUGUST
1923

Free to Members; By Subscription \$1.00 a Year

Publication Office
GARDEN CITY, L. I., N. Y.

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COMMITTEES 1923-24

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Journal
of the
Horticultural Society of New York

ISSUED QUARTERLY

VOL. III, No. 11.

AUGUST, 1923

Free to Members; By Subscription \$1.00 a Year

ACTIVITIES OF THE SOCIETY

TO OUR MEMBERS

THE Directors wish to thank the members for the way they have stood behind the Society in the matter of increased dues. It perhaps is not necessary to go into detail as to how our expenses have increased in the last few years, notwithstanding which we have made big strides in returns to our members. Our many shows, free to the public, our splendid lecture course, also free to the public, and our season ticket to the International Flower Show at Grand Central Palace each year, to which all our members are entitled, are assets of no mean value to horticultural lovers. As we all know, the cost of everything, labor in particular, whether it is scientific or manual, has risen, the continued coöperation of our members indicating an understanding of this which is very much appreciated by our Board as it insures against the elimination of any of our activities, as we feel we would have no moral right to exist did we reduce our educational program and our fight for the advancement of horticulture. The past three years have given us much encouragement, and our hope is that eventually America will be more like England, every "bit" of earth a garden, not a "backyard."

IT IS hoped that members of the Society will lend their aid in making the *Journal* of particular value to the horticultural interests of New York. Contributions from members are invited, especially with reference to experiences that bear directly on the horticultural and gardening problems in the region of the Society's activities.

TWENTY-THIRD ANNUAL REPORT OF THE BOARD OF DIRECTORS

PRESENTED MAY 12TH, 1923

THE Council reports unusual interest in the Society for the past year, the membership now being 1352—having had 25 deaths during the year, 21 resignations and 20 dropped because of delinquency in dues—leaving a net gain for the year of 260 members of which there are 37 Life, 5 Sustaining, 1 Patron and 263 Annuals.

At a meeting of the Board of Directors on June 21, 1922, in accordance with the Constitution and By-laws, officers of the Society were elected as follows:

President:	T. A. Havemeyer
Vice-Presidents:	N. L. Britton J. W. Cromwell E. B. Southwick
Honorary Vice-Presidents:	E. S. Harkness Adolph Lewisohn George N. Miller Clement Moore George T. Powell
Chairman of the Board:	F. R. Pierson
Treasurer:	F. R. Newbold
Secretary:	Mrs. Arthur W. Butler
Executive Secretary:	Mrs. Elizabeth Peterson

The Board of Directors have held monthly meetings at the office of the Society, 598 Madison Avenue, with the exception of July and August when a recess was called for these months.

The following lectures were given at the American Museum of Natural History, 77th Street and Central Park West:

November 9th, 1922—The Way to the Good Small Garden—
By Mr. Fletcher Steele.

December 14th, 1922—Country Places of Old New York—
By Mr. Richard Schermerhorn, Jr.

January 11th, 1923—The Rose in America—By Mr. J. Hor-
ace McFarland.

February 8th, 1923—The Future of Nut Culture—By Dr. Robert T. Morris.

March 8th, 1923—Italian Gardens and Fountains—By Signora Olivia Rossetti Agresti.

April 12th, 1923—Flowers of South Africa—By Mr. E. H. Wilson.

The following Flower Shows were held during the year:

Iris Show—June 3-4 in coöperation with the American Iris Society.

Gladiolus Show—August 19-20—New York Botanical Garden.

Dahlia Show—September 22-24—New York Botanical Garden.

Chrysanthemum Show—November 9-12—American Museum of Natural History. The Japan Society coöperated with us in this show.

International Flower Show—March 12-17—Grand Central Palace. In coöperation with the New York Florists' Club.

The Society was represented on the Committee of Horticultural Quarantine at their meetings on May 15, 1922, August 4, October 30, 1922, January 11, 1923.

In coöperation with the Massachusetts and Pennsylvania Horticultural Societies, a committee was appointed on request of Mr. John Wister, with Mr. Wister as chairman, to work toward the elimination of placing too many new seedlings on the market, such seedlings having no horticultural value to justify new classification.

Our representation at the Third Annual Conference on State Parks in Indiana was made by Mrs. Samuel Sloan.

New York Botanical Garden offered part of the premiums for the shows held at that institution from the income of the William R. Sands fund.

Respectfully submitted,

ANNA R. BUTLER
(Mrs. Arthur W. Butler)
Secretary,

THE HORTICULTURAL SOCIETY OF NEW YORK

TREASURER'S ANNUAL REPORT

Season 1922-23

May 1, 1922 to April 30, 1923

Credits

Life Fund Accounts

Balance May 1, 1922.....	\$40,420.32
Life Membership %.....	3,125.00
Interest on Income %.....	2,705.28
Prof. & Loss % by prof. on sale of bds.....	771.20
	<hr/>
	\$53,021.80
Less Agency % Bkrs. Tr. Co.....	45.82
	<hr/>
	\$52,076.07

Flower Show a/cs

Profits Intl. Fl. Show 1922.....	\$6,338.10
Fund Nov. Show 1922.....	2,310.00
Fund Intl. Show 1923.....	630.00
	<hr/>
	\$ 9,287.10

Office a/cs

Balance Cash % May 1, 1922.....	\$352.55
Dues % 1922-23.....	4,040.00
Int. on Bank deposits.....	89.10
	<hr/>
	\$14,377.81

Debits

Saving Bank %.....	\$797.10
Investments Bonds at cost.....	46,807.50
	<hr/>
Loan to Genl. % 1921-22	4,000.00
	<hr/>
	\$51,604.60
Cash % Balance.....	1,371.38
	<hr/>
	\$52,076.07

Flower Show a/cs

Medals % for cups, medal & certif.....	\$562.75
Prizes.....	2,930.00
Expc %.....	1,160.85
Petty Cash % Exh. Com; Secy.....	232.39
Salary % Exh Com; Secy.....	1,000.00
Vases & Tables %.....	523.93
Intl. Show 1922.....	302.50
Intl. Show 1923.....	83.10
	<hr/>
	\$ 6,804.52

Lecture, Journal & Library a/cs

Lectures.....	\$620.00
Journal.....	600.30
Library.....	3.00
	<hr/>
	\$ 1,229.30

Office a/cs

Petty Cash %.....	550.00
Expense %.....	998.49
Rent %.....	1,600.00
Salary % Exec. Secy.....	2,000.00
	<hr/>
	\$ 5,148.49
Expense % General....	266.60
Furniture %.....	494.50
Int. % Int. on bank loan.	11.50
	<hr/>
	\$ 5,921.09
	<hr/>
	\$13,951.91
Cash % Balance.....	422.90
	<hr/>
	\$14,377.81
Total Cash Balance L. fd. General %.....	1,371.38
	<hr/>
	\$ 1,704.28

Obituary

*Great regret is expressed for our loss by death
of these members*

May 1, 1922 to May 1, 1923

Mrs. Glover C. Arnold
Mr. Chester W. Chapin
Mr. C. S. Cook
Mrs. W. B. Dinsmore
Mrs. Chester Griswold
Mr. Theodore R. Hoyt
Miss Elizabeth Kean
Mrs. Warner M. Leeds
Mrs. G. Levor
Mr. George L. McAlpin
Mr. Emerson McMillan
Mr. Edwin S. Marston
Mrs. John E. Parsons
Mrs. Theodore Peters
Mrs. George D. Pratt
Mr. W. H. Remick
Mr. E. L. Rogers
Mr. Richard Schildbach
Mr. Rush Taggart
Mrs. John B. Trevor
Mrs. Frederick S. Van Beuren
Mr. M. H. Walsh
Mrs. J. Hobart Warren
Mrs. Sidney Webster
Mr. Patrick Welch

ACCESSIONS TO THE LIBRARY

TITLE	AUTHOR
Wild Flowers of New York—Parts 1 & 2	Homér D. House
Illustrated Flora of the Northern States and Canada—Volumes 1, 2 & 3	Britton & Brown
The Ferns of North America—Volumes 1 & 2	Daniel Cady Eaton
Flora of Bermuda	N. L. Britton
The Cactaceae—Volumes 1, 2 & 3	N. L. Britton & J. N. Rose
Johnson's Gardeners' Dictionary	J. Fraser & A. Hem- sley
Standard Cyclopedia of Horticulture—6 volumes	L. H. Bailey
American Rose Annuals—1916-1923	Edited by J. Horace McFarland
<i>Presented by Dr. Robert T. Morris</i>	
Nut Growing	Robert T. Morris
<i>Presented by Mrs. Charles H. Stout</i>	
The Amateur's Book of the Dahlia	Mrs. Charles H. Stout
<i>Presented by Mrs. Albert Reid Ledoux</i>	
The Floral Magazine & Botanical Reposi- tory	Published by D. & C. Landreth
<i>Loaned by Mr. Frederic R. Newbold</i>	
How to Know the Wild Flowers	Mrs. William Starr Dana
The Shrubs of Northeastern America	Charles S. Newhall
The Trees of Northeastern America	Charles S. Newhall
A Book About Roses	S. Reynolds Hole
A Book About Roses (revised)	S. Reynolds Hole
Roses and How to Grow Them	Leonard Barron
The Rose	S. B. Parsons
The Amateur's Rose Book	Shirley Hibberd
New and Rare Plants	Shirley Hibberd

The Amateur's Greenhouse & Conservatory	Shirley Hibberd
The Fern Garden	Shirley Hibberd
The Fern Paradise	Francis George Heath
Handbook of Ferns	K. M. Lyell
Ferns of Kentucky	John Williamson
British Ferns and Their Allies	Thomas Moore
The Nature Printed British Ferns—Vol- umes 1 & 2	Thomas Moore
The Clematis	Thomas Moore & Geo. Jackman
Orchids for Everyone	Charles H. Curtis
The Orchids of New England	Henry Baldwin
Orchid Grower's Manual	Benjamin Samuel Williams
My Garden	Alfred Smee
Rural Life of England	W. Howitt
Eversley Gardens and Others	Rose G. Kingsley
The Garden's Story	George H. Ell- wanger
Every Day in My Garden	Virginia E. Ver- planck
McIntosh's Gardener—Volumes 1 & 2	Charles McIntosh
Villas and Cottages	Calvert Vaux
Gray's New Manual of Botany of the Northern United States	Asa Gray
Gray's School and Field Book of Botany	Asa Gray
The Floral World and Garden Guide	Published by Groom- bridge & Sons
Greenhouse Construction	L. R. Taft
New Creations in Plant Life	W. S. Harwood
Annals of Horticulture in North America for the Year 1893	L. H. Bailey
Downing's Fruits & Fruit Trees of Amer- ica	A. J. Downing
Tree Pruning	A. Des Cars
The Vegetable World	Louis Figuier
Ferns of Tropical Florida	John K. Small

THE HORTICULTURAL SOCIETY OF NEW YORK

Continuous Bloom in America	Louise Shelton
<i>Loaned by Miss Frances Benjamin Johnston</i>	
Sun-dials and Roses of Yesterday	Alice Morse Earle
Old Time Gardens	Alice Morse Earle
The Book of Old Sundials and Their Mottoes	Launcelot Cross
A Woman's Hardy Garden	Helena Rutherford Ely
The Garden of a Commuter's Wife	Published by Gros- set & Dunlap
A Tour Round My Garden	Alphonse Karr
My Summer in a Garden	Charles Dudley Warner
How to Lay Out a Garden	Edward Kemp
My Kalendar of Country Delights	Helen Milman (Mrs. Caldwell Crofton)
In the Garden of Peace	Helen Milman (Mrs. Caldwell Crofton)
In the Garden of Delight	John Richardson
The Book of Garden Design	Charles Thonger
A Garden Rosary	Agnes Edwards
Garden Planning	W. S. Rogers
Content in a Garden	Candace Wheeler
The Garden Muse	William Aspenwall Bradley
Corners of Grey Old Gardens	Published by T. N. Foulis
Garden Mosaics	Alfred Simson
A Book About the Garden and the Gardener	S. Reynolds Hole
Let's Make a Flower Garden	Hanna Rion
A Garden in the Suburbs	Mrs. Leslie Williams
The Joyous Art of Gardening	Frances Duncan
All the Year in the Garden	Edited by Esther Matson
Joy's of the Garden	Compiled by Sidney J. Shaylor
Kew Gardens	Described by A. R. Hope Moncrieff

Gardening for Ladies and Companion to the Flower Garden	Mrs. Loudon
The Lady's Book of Flowers and Poetry	Edited by Lucy Hooper
Art Out-of-doors	Mrs. Schuyler Van Rensselaer
Old Fashioned Gardening	Grace Tabor
Making a Garden to Bloom This Year	Grace Tabor
Making a Bulb Garden	Grace Tabor
Making the Grounds Attractive With Shrubbery	Grace Tabor
Suburban Gardens	Grace Tabor
A Garden Lover's Birthday Book	Compiled by Alfred H. Hyatt
A Book of Old-world Gardens	Edited by Alfred H. Hyatt
A Book About Gardens	Selected by Alfred H. Hyatt
Name This Flower	Gaston Bonnier
Flora Symbolica	John Ingram
Flowers: Their Language, Poetry & Sentiment	Published by Porter & Coates
Flowers: Their Moral, Language and Poetry	Edited by H. G. Adams
The Language and Poetry of Flowers	Published by Pott, Young & Co.
According to Season	Mrs. William Starr Dana
In Praise of Gardens	Temple Scott
Every Lady Her Own Gardener—Volumes 1 & 2	Louisa Johnson
The Home Garden	E. L. D. Seymour
The Voice of the Garden	Compiled by Lucy Leffingwell Cable Bikle
Garden Memories	Published by T. N. Foulis
A Flower Anthology	Selected by Alfred Rawlings

Gleanings in Old Garden Literature	W. Carew Hazlitt
The Garden's Story or Pleasures and Trials of an Amateur Gardener	George H. Ellwanger
The Time of the Singing of Birds	Published by Henry Frowde
High Tide—Selected Poems	Mrs. Waldo Rich- ards
The Melody of Earth	Selected and arrang- ed by Mrs. Waldo Richards
Bible Flowers	Rosemary A. Cotes
Old Fashioned Flowers	Maurice Maeterlinck
First Steps to Botany	James L. Drum- mond
Botanique de la Jeunesse	Published by De- launay
Nature Pictures by American Poets	Selected and edited by Annie Russell Marble
Curiosities of Indo-European Tradition and Folk-Lore	Walter K. Kelly
Flora's Interpreter and Fortuna Flora	Mrs. Sarah Josepha Hale
Familiar Garden Flowers—1st & 2nd Series	Figured by F. Ed- ward Hulme Described by Shir- ley Hibberd
The American Flower Garden	Neltje Blanchan
Nature's Garden	Neltje Blanchan
The Seasons in a Flower Garden	Louise Shelton
Continuous Bloom in America	Louise Shelton
Beautiful Gardens in America	Louise Shelton
The Garden Month by Month	Mabel Cabot Sedg- wick
The Flowers I Love	Selected by Edward Thomas
Ye Gardeyne Book	Arranged by Jennie Day Haines
The Garden That I Love	Alfred Austin

- Landscape Gardening
 Curtis' Botanical Magazine—Vol. 1—1833
 Lectures on Botany—Volumes 1, 2 & 3
 —1805
 Picturesque
 Essays on the Picturesque—Volumes 1
 & 2
 English Pleasure Gardens
- The Garden Year Book
 The Flower Art of Japan
 European and Japanese Gardens
- The Herball
- An Introduction to the Study of Land-
 scape Design
- Illustrated Dictionary of Gardening—
 Divisions 1, 2, 3 & 4
 Historic Houses and Their Gardens
- The Famous Parks & Gardens of the
 World
 The Gardens of England
- Italian Gardens
 Flora's Dictionary
- In Love's Garden
 The Flowers and Gardens of Japan
- Plant Lore, Legends and Lyrics
 Flowers and Flower Lore
 Naturgeschichte des Pflanzenreichs—
 (Nature Stories of the Plant World)
 Gartenkunst und Garten Sonst und Jetzt
 (Garden Art and Gardens Past and
 Present)
- A. J. Downing
 William Curtis
 William Curtis
 Sir Uvedale Price
 Sir Uvedale Price
 Rose Standish Nich-
 ols
 Nellie Burget Miller
 Mary Averill
 Published by Henry
 T. Coates & Co.
 Gathered by John
 Gerarde
 Henry V. Hubbard
 & Theodora Kim-
 ball
 Edited by George
 Nicholson
 Edited by Charles
 F. Osborne
 Published by T. Nel-
 son & Sons
 Edited by Charles
 Holme
 Charles A. Platt
 Published by Field-
 ing Lucas, Jr.
 John Cecil Clay
 Described by Flor-
 ence Du Cane
 Richard Folkard, Jr.
 Rev. Hilderic Friend
 Dr. G. H. von Schu-
 berts
 H. Jager

- Encyclopedia of Gardening
 The Garden Book of California
- Judith's Garden
- Design in Landscape Gardening
- A Garden in Pink
- The Story of Gramercy Park 1831-1921
- The Wild Garden
- Popular Names of British Plants
- Studies in Gardening
- Nature in a City Yard
- Little Gardens
- Myths and Legends of Flowers, Trees,
 Fruits and Plants
- Our Early Wild Flowers
- Our Garden Flowers
- Our Native Trees and How to Identify
 Them
- Flower Fables and Fancies
- Nature Study and Life
- Gardens Ancient and Modern
- Pot-Pourri from a Surrey Garden
- More Pot-Pourri from a Surrey Garden
- The Folk Lore of Plants
- The Floral Symbolism of the Great Masters
- A Garden of Pleasure
- Seven Gardens and a Palace
- Garden Guide—The Amateur Gardeners'
 Handbook
- English Plant Names
- The San Diego Garden Fair
- Flower Lore and Legend
- The Formal Garden in England
- J. C. Loudon
- Belle Summer
 Angier
- Mary E. Stone Bas-
 sett
- Ralph Rodney Root
 & Charles Fabens
 Kelley
- Blanche Elizabeth
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- Mrs. C. W. Earle
- Mrs. C. W. Earle
- T. F. Thiselton Dyer
- Elizabeth Haig
- E. V. B.
- E. V. B.
- Published by A. T.
 De La Mare Co.
- John Earle
- Eugen Neuhaus
- Katharine M. Beals
- Reginald Blomfield
 & F. Inigo Thomas

EXTRACTS FROM PROCEEDINGS OF THE SOCIETY

DIRECTORS' MEETING, APRIL 11, 1923

F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING.

The following members were elected:

ANNUAL: Mrs. Henry O. Taylor, Mrs. J. O. Ayer, Mrs. J. E. Coyle, Mr. Henry K. Goetchius.

RESOLVED: (Moved by Mr. Cromwell), that we investigate the practicability of ornamentation of the grounds in front of the American Museum of Natural History by the members of The Horticultural Society of New York. The Chairman appointed Mr. Cromwell, Mrs. Sloan and Dr. Southwick to confer with the Museum authorities to see what can be done in this direction.

DIRECTORS' MEETING, MAY 12, 1923

F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING.

The following members were elected:

ANNUAL: Miss C. B. Neely, Mrs. E. J. Port, Mr. Henry J. Eckstein, Mrs. Aaron Ward, Mr. O. S. Reimold, Mr. Francis Guerrlich, Mrs. Schieffelin Coleman, Mr. Henry Goddard Leach, Mr. James Hartig, Mr. M. M. Lisso.

TRANSFERRED FROM ANNUAL TO LIFE: Mrs. W. Redmond Cross, Miss Edith Newbold.

RESIGNATION, accepted with regret: Mr. Lawrence G. White.

Resolved: That Mr. Leonard Barron be requested to submit plan by which we may cooperate with the National Wild Flower Committee next spring, under the leadership of Mrs. N. Britton of the New York Chapter.

Resolved: That owing to the increase in expense of all the activities of the Society, the Board of Directors recommend to the Society at its Annual Meeting the amendment of Article VII of the Constitution to read as follows: "Each Annual member shall pay to the Treasurer annually the sum of \$10.00. Members may become Life members by paying \$100.00 at any one time.

DIRECTORS' MEETING, JUNE 13, 1923

TRANSFERRED FROM ANNUAL TO LIFE MEMBERSHIP: Mrs. Charles Stout, Mrs. R. Horace Gallatin, Miss Ethelyn McKinney, Mr. Harbeck Mills, Jr., Miss Caroline L. Morgan, Mr. C. W. Scott, Miss Mary R. Cross, Miss Theodora Wilbour, Mrs. P. S. duPont, Mrs. G. Lister Carlisle, Jr., Mrs. Walter P. Bliss, Mr. Wallace R. Pierson, Miss Elizabeth S. Hoyt, Mr. Roman J. Irwin, Mr. William J. Matheson, Mr. Clement Moore, Mrs. Isaac Untermeyer, Mr. Courtney Hyde, Mrs. Edward Holbrook, Mrs. John Gribbel, Mrs. Robert C. Black, Mr. Thomas Smidt, Mr. L. H. Somers, Miss Georgine Iselin, Mrs. A. Murray Young, Mrs. Walter Brewster, Mrs. Hamilton F. Kean, Miss Mary R. Jay, Mrs. Robert Cade Wilson, Mr. Alfred W. Jenkins, Mrs. S. Van R. Crosby, Mrs. William R. Mercer, Mr. J. E. Spingarn, Mr. Max Eisman, Mrs. Henry M. Tilford, Mr. Joseph Stroock, Mrs. H. I. Brightman, Mrs. William M. Lybrand, Mrs. R. de L. Mayer, Mrs. Charles W. McKelvey, Mr. Albert Keller, Mr. Seth L. Pierrepont, Mrs. S. A. Thompson, Mrs. J. R. Strong, Mrs. John H. Love, Mrs. Ruger Donoho, Miss Maude Wetmore, Mrs. Frederick M. Taylor, Mr. William I. Walker, Miss Florence L. Pond, Mrs. Theodore Boettger, Miss Anna P. Livingston, Mrs. Reinhard Siedenburger, Mrs. R. G. Hazard, Mr. Charles A. Wimpfheimer, Mrs. W. Emlen Roosevelt.

THE HORTICULTURAL SOCIETY OF NEW YORK

ELECTION OF OFFICERS FOR THE ENSUING YEAR:

President: T. A. Havemeyer, New York City.

Vice-Presidents: N. L. Britton, J. W. Cromwell, William Boyce Thompson.

Honorary Vice-Presidents: E. S. Harkness, Mrs. Payne Whitney, Adolph Lewisohn, Mr. Clement Moore, George T. Powell.

Chairman, Board of Directors: F. R. Pierson.

Treasurer: F. R. Newbold.

Executive Secretary: Mrs. Elizabeth Peterson.

Secretary: (left vacant until the September meeting)

COMMITTEES WERE APPOINTED AS FOLLOWS:

Finance: Mr. T. A. Havemeyer, Mr. F. R. Newbold, Mr. F. R. Pierson.

Lecture: Mrs. Samuel Sloan, Chairman; Mrs. Robert C. Hill, Mr. Leonard Barron.

Exhibition: Mr. James Stuart with the right to name his own committee.

Journal: Mr. Leonard Barron, Chairman; Dr. E. B. Southwick, Mrs. Elizabeth Peterson.

Library: Mrs. Robert C. Hill, Chairman; Mrs. Samuel Sloan, Mr. Henry E. duPont.

RESOLUTION ADOPTED

On motion of Mr. Cromwell, that Mr. Pierson, Mr. Havemeyer and Mr. Newbold be appointed a committee of three to choose a new manager for the Gladiolus and Dahlia Shows, and to report to the Board in September.

AWARDS AT THE MAY FLOWER SHOW

May 11-13, 1923

Open to all—Cut Flowers

Class 3. Collection of herbaceous plants, to cover fifty square feet—1st Prize, Mr. H. P. Rogers.

Class 4. Collection of Shrubs and Trees, to cover seventy-five square feet—1st Prize, Mrs. Frederick H. Allen.

Class 6. Twenty-four vases of Orchids in variety—1st Prize, Lager & Hurrell.

Plants

Class 7. Twelve Calceolarias, large-flowering—1st Prize, Mrs. B. G. Work. 2nd Prize, Mr. George F. Baker.

Class 8. Twelve Calceolarias, small-flowering—1st Prize, Mrs. F. A. Constable.

Class 10. Six Pelargoniums—1st Prize, Mrs. F. A. Constable.

Class 12. Twenty-five Calla Elliottiana—1st Prize, John Lewis Childs, Inc.

AMATEURS

Class 16. Collection of Tulips, to cover fifty square feet—1st Prize, Mrs. Frederick H. Allen.

Class 18. Six vases of Tulips, six varieties, five blooms to a vase—1st Prize, Mrs. Frederick H. Allen.

Class 19. Vase of Tulips in variety, twenty-five blooms—1st Prize, Mr. George F. Baker. 2nd Prize, Mrs. Frederick H. Allen.

Class 20. Six vases of Narcissus, six blooms to a vase—1st Prize, Mrs. Frederick H. Allen.

THE HORTICULTURAL SOCIETY OF NEW YORK

Class 21. Collection of herbaceous plants, to cover twenty-five square feet—1st Prize, Mrs. Frederick H. Allen.

Class 22. Collection of Shrubs and Trees, to cover fifty square feet—1st Prize, Mrs. Frederick H. Allen.

Class 25. One vase of Antirrhinum, not less than ten spikes—1st Prize, Mr. Clarence H. Mackay. 2nd Prize, Mrs. Robert Mallory. 3rd Prize, Mr. George F. Baker.

Class 26. Twelve vases of Orchids in variety—1st Prize, Mr. George F. Baker.

SILVER MEDALS

Carnations—Mrs. Robert Mallory.

Carnations—Mr. Clarence H. Mackay.

SPECIAL MENTION

Collection of Hyacinths—Mrs. Frederick H. Allen.

Sweet Peas—Mrs. L. N. Skidmore.

SPECIALS

Hydrangeas—Mrs. Robert Mallory.

Special—Mrs. F. A. Constable.

Dahlias—Mrs. John T. Pratt.

Lupins—Mrs. L. N. Skidmore.

Roses—Mrs. L. N. Skidmore.

Tomatoes—Mrs. L. N. Skidmore.

Ferns—F. R. Pierson.

AWARDS AT THE PEONY SHOW

American Museum of Natural History, June 9-10, 1923

Open to all

Class 1. Best display of Peonies to cover 200 square feet. Any or all types—1st Prize and Silver Medal of The Horticultural Society of New York, Cedar Hill Nursery. 2nd Prize, John Lewis Childs, Inc. 3rd Prize, Bobbink & Atkins.

Class 2. Collection of fifty named varieties, double, one flower of each—1st Prize, Howe-Underhill Co. 2nd Prize, Bobbink & Atkins.

Class 3. Collection of twenty-five named varieties, double, one flower of each—1st Prize, Cedar Hill Nursery. 2nd Prize, Cottage Gardens Co.

Class 4. Collection of twelve named varieties, double, one flower of each—1st Prize, Cottage Gardens Co. 2nd Prize, Howe-Underhill Co.

Class 5. Collection of twelve named varieties, single and Japanese, one flower of each—1st Prize, Cottage Gardens Co. 2nd Prize, Cedar Hill Nursery.

Class 6. Collection of six named double varieties, white, three flowers of each—1st Prize, Cottage Gardens Co. 2nd Prize, John Lewis Childs, Inc.

Class 7. Collection of six named double varieties, dark pink, three flowers of each—1st Prize, Cottage Gardens Co. 2nd Prize, Wyomissing Nursery Co.

Class 8. Collection of six named double varieties, light pink, three flowers of each—1st Prize, Cottage Gardens Co. 2nd Prize, Mr. Charles E. Hoyt.

Class 9. Collection of six named double varieties, red or crimson, three flowers of each—1st Prize, Cottage Gardens Co. 2nd Prize, Cedar Hill Nursery.

Class 10. One specimen bloom, any variety—1st Prize, Movilla Gardens. 2nd Prize, S. G. Harris.

Class 11. Six specimen blooms, any variety, long stems—1st Prize, Movilla Gardens. 2nd Prize, Howe-Underhill Co.

Amateurs

Class 12. Best display of Peonies to cover 100 square feet. Any or all types—1st Prize and Silver Medal of the American Peony Society, Mr. Howard Phipps. 2nd Prize, Mrs. Henry Rogers Mallory. 3rd Prize, Mr. T. F. Donahue.

Class 13. Collection of twenty-five named varieties, double, one flower of each—1st Prize, Mr. Charles E. Hoyt. 2nd Prize, Mr. T. F. Donahue.

Class 14. Collection of twelve named varieties, double, one flower of each—1st Prize, Mr. Charles E. Hoyt. 2nd Prize, Mr. Eugene W. Howe.

Class 15. Vase of six blooms; pink, one variety—1st Prize, Mr. Eugene W. Howe. 2nd Prize, Mr. John T. Pratt.

Class 16. Vase of six blooms, white, one variety—1st Prize, Mr. Charles E. Hoyt. 2nd Prize, Mr. Eugene W. Howe.

Class 17. Vase of six blooms, red, one variety—1st Prize, Mr. Charles E. Hoyt. 2nd Prize, Mr. T. F. Donahue.

SPECIALS

Display of *Aquilegia* hybrids—Mrs. F. A. Constable.

Display of Tree Peonies, Iris and *Eremurus robustus*—Cedar Hill Nursery.

Collection of Seedlings, Dutch Iris—Flowerdale Bulb & Plant Co.

Display of Lemoine Philadelphus, *Aquilegia* and Tree Peonies—Wyoming Nurseries Company.

Collection of Cut Orchids—Lager & Hurrell.

CERTIFICATES OF MERIT

Iris laevigata alba purpurea—Mr. J. A. Kemp.

Tree Peony *Madame Louis Henry*—Cedar Hill Nursery.

FLOWER SHOW FIXTURES

Gladiolus Show

August 3d, 4th and 5th, at the New York Botanical Garden.

Dahlia Show

September 21st, 22d and 23d, at the New York Botanical Garden.

Chrysanthemum Show

November 8th to 11th, at American Museum of Natural History.

International Flower Show, 1924

March 17th to 24th, Grand Central Palace, New York.

PUBLICATIONS OF THE SOCIETY

Journal, Quarterly. Subscription price, \$1.00 a year; free to members.

Memoirs Vol. I. Proceedings of the International Conference on Plant Breeding and Hybridization, New York, 1902, price, \$2.00.

Vol. II. Proceedings of the International Conference on Plant Hardiness and Acclimatization, New York, 1907, price, \$2.00.

Address: Office of the Society, 598 Madison Ave., New York, N. Y.

THE HORTICULTURAL SOCIETY OF NEW YORK
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Send ya. 1924

Journal of the Horticultural Society of New York

Vol. III.
No. 12



NOVEMBER
1923

Free to Members; By Subscription \$1.00 a Year

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GARDEN CITY, L. I., N. Y.

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Office and Library:

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THE INTERNATIONAL FLOWER SHOW, 1924

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Journal
of the
Horticultural Society of New York

ISSUED QUARTERLY

VOL. III, No. 12.

NOVEMBER, 1923

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ACTIVITIES OF THE SOCIETY

MR. NEWBOLD BECOMES SECRETARY

THE members of the Horticultural Society of New York will learn with much pleasure that Mr. Frederic R. Newbold who so diligently served the Society from its inception as treasurer now becomes also secretary.

In thus combining the two offices with the one person the directors have but acknowledged the fact that for a long time past the chief burden of operating the Society's affairs has fallen on the shoulders of its devoted friend and charter member, Mr. Frederic R. Newbold, to whom the present status of the standing of the Society and the operation of the International Flower Shows has been very largely due. The members are to be congratulated on the fact of Mr. Newbold's acceptance of the office and it is further hoped that every member will rally to the support of their newly elected secretary.

CONTENTS OF THE JOURNAL

IN THE hope of further developments and improvements of the Society's *Journal* the present issue which concludes Volume III carries with it a complete list of contents to all the numbers that have been published up to and including the present. Again the directors ask the active support of the membership in furthering the interest of the *Journal*. Members are invited to contribute letters or accounts of their experiences in gardening

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activities and especially with regard to the behavior of plants, etc., in the New York area. With the hearty support of the members the *Journal* can easily be made to assume an important place as a vehicle for the records of gardening activities and experiences. Especially the members are asked to contribute notes on their observations during the past year.

PROGRAMME OF EVENTS

November 8-11, 1923, at the American Museum of Natural History, 77th Street and Central Park West. Fall Chrysanthemum Show.

Private view for members November 8th, from 7 to 10 P. M.
Friday to Sunday free to the public.

December 13, 1923, at the American Museum of Natural History, at 3:30 P. M.

Lecture: "Rock Gardens," illustrated.

By MR. MONTAGUE FREE, Horticulturist, Brooklyn Botanic Garden, Brooklyn, N. Y.

January 10, 1924, at the American Museum of Natural History, at 3:30 P. M.

Lecture: "Progress of Garden Design in America," illustrated.

By MR. FERRUCCIO VITALE, Landscape Architect.

February 14, 1924, at the American Museum of Natural History at 3:30 P. M.

Lecture: "Good Fruits for the Home Garden," illustrated.

By DR. U. P. HEDRICK, Horticulturist, New York State Agricultural Experiment Station, Geneva, N. Y.

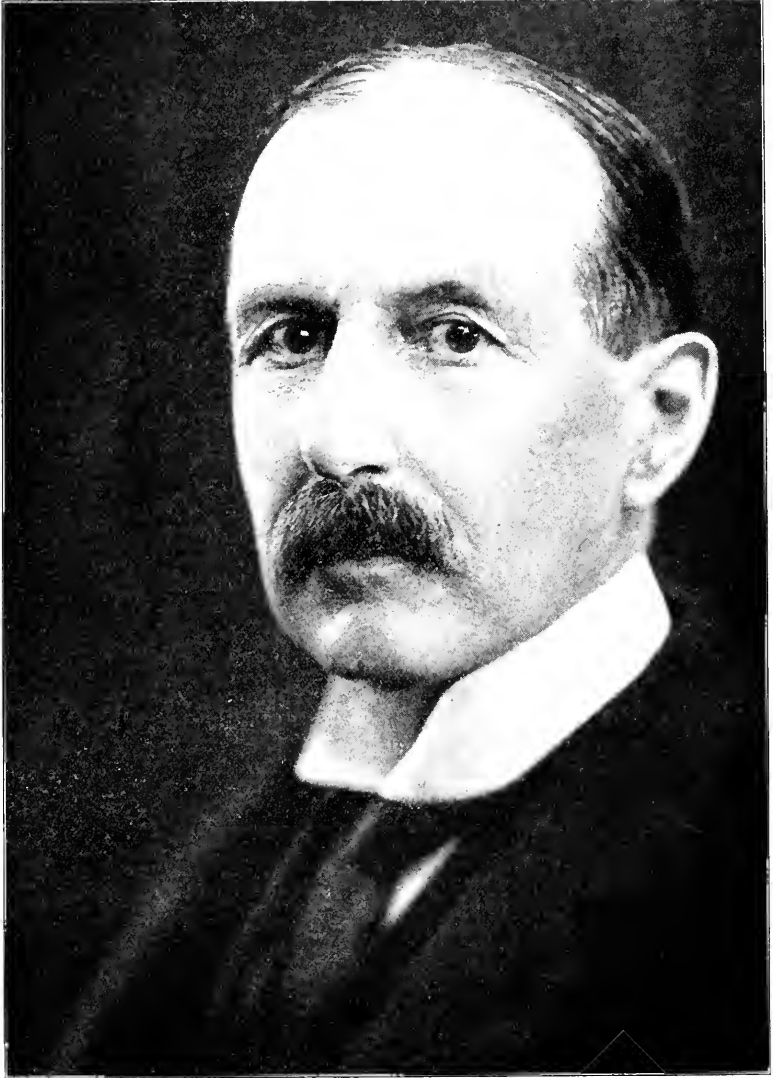
March 17-22, 1924, at Grand Central Palace, Lexington Avenue & 46th Street, New York City.

Eleventh Annual International Spring Flower Show

April 10, 1924, at the American Museum of Natural History at 3:30 P. M.

Lecture: "Preliminary Studies in the Use of Artificial Light in the Growth of Plants," illustrated.

By PROF. HUGH FINDLAY, B. Sc. Ag., A. M., Department of Agriculture, Columbia University, New York.



FREDERIC RHINELANDER NEWBOLD

Continuously Treasurer of the Society from its beginning and also Secretary since October 17, 1923

AMENDMENT TO THE CONSTITUTION

At the Annual Meeting, May 12, 1923, it was voted that Article VII of the Constitution be amended to read as follows:

"Each Annual Member shall pay to the treasurer annually the sum of \$10.00. Members may become Life Members by paying \$100.00 at any one time."

NATIONAL STATE PARK CONFERENCE

AT THE third conference on the National State Parks held at Turkey Run Park, Indiana, May 7th, 8th and 9th, Mrs. Samuel Sloan represented the Horticultural Society of New York. About two hundred people were present, which included representatives appointed by the governors of the states and associations interested in the preservation of forest and wild life. The conference is organized to be a clearing-house for all information tending to the protection of parks and stimulation of interest in their establishment.

The session was opened with a welcoming address by the Hon. Warren T. McCray, Governor of Indiana.

The reports of the work for the establishment of State Parks, forestry and wild flower preservation were intensely interesting and gratifying to those whose love and work for the things of nature brought them to the Third National Conference at Turkey Run Park, the message accruing from it, the State Wide Park Plan, the preservation of historical spots and the beautifying of the surroundings of historical marks which mean more than just stones set in the highway—they are symbols of an idea which should be clothed in such beauty as to stamp our reverence for the accomplishments of the past and our hope for continued effort toward the inspiration and work of the future.

ACCESSIONS TO THE LIBRARY

Loaned by Miss Frances Benjamin Johnston.

(Continued)

Sweet-scented Flowers and Fragrant Leaves	Donald McDonald
Salad for the Solitary	Published by Lamport, Blakeman & Law
The Language of Flowers	Robert Tyas
Flower Lore	Published by Belfast, McCaw, Stevenson & Orr
The Little Garden	Mrs. Francis King
Pages from a Garden Note-Book	Mrs. Francis King
The Well-Considered Garden	Mrs. Francis King
The Amateur Garden	George W. Cable
Joy in Gardens	Mary Elizabeth Brown
With the Wild Flowers	Maud Going
Alpine Flora of the Canadian Rocky Mountains	Stewardson Brown
The Florists' Manual	Published by Henry Colburn
Wild Flower Preservation	May Coley & Chas. A. Weatherby
Encyclopedia of Gardening	Walter P. Wright
Alpine Flowers and Rock Gardens	Walter P. Wright
The Chronicle of a Cornish Garden	Harry Roberts
Plant Names—Scientific and Popular	A. B. Lyons
Field Book of American Wild Flowers	F. Schuyler Mathews
In a City Garden	J. R. Aitken
A Garden of Simples	Martha B. Flint
Walks and Talks of an American Farmer in England	Frederick L. Olmstead
Gleanings on Gardens	S. Felton
Herbarium Leonardi Fuchsy	
Wet Days at Edgewood	Donald G. Mitchell
The Shadow of the Flowers	From the poems of Thomas Bailey Aldrich

Home and Garden	Gertrude Jekyll
Annuals and Biennials	Gertrude Jekyll
Our Sentimental Garden	Agnes & Egerton Castle
Herbals	Agnes Arber (Mrs. E. A. Newell Ar- ber)
Garden Design in Theory & Practice	Madeline Agar
Studies of a Plant-Lover	Elizabeth Williams Perry
The Small Place	Elsa Rehmann
A White Paper Garden	Sara Andrew Sha- fer
Memories of Gardens	Alexander Innes Shand
Garden-Craft, Old and New	John D. Sedding
My Garden	Louise Beebe Wilder
Color Standards and Color Nomenclature	Robert Ridgway
Botanical Names for English Readers	Randal H. Alcock
Vick's Flower & Vegetable Garden	James Vick
A Dictionary of Modern Gardening	George William Johnson
A Garden of Peace	F. Frankfort Moore
A Guide to the Wild Flowers	Alice Lounsberry
The Book of Tea	Okakura-Kakuzo
Messages of Flowers	Compiled by George H. O'Neill
Gardening Don'ts	Marion Chappell
More Gardening Don'ts	Marion Chappell
Stately Homes of California	Porter Garnett
American Rose Annuals 1916-1922 incl.	Edited by J. Horace McFarland

Presented by Mrs. Herman A. Heydt

Apples of New York, Vols. 1 & 2	Professor U. P. Hedrick
Cherries of New York	Professor U. P. Hedrick
Peaches of New York	Professor U. P. Hedrick

EXTRACTS FROM PROCEEDINGS OF THE SOCIETY

DIRECTORS' MEETING, OCTOBER 17, 1923

MR. F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING.

Elected as ANNUAL MEMBER: Mr. James Boyd.

TRANSFERS FROM ANNUAL TO LIFE MEMBERSHIP: Mr. M. D. Follin, Mrs. Richard Aldrich, Mr. Charles L. Brinsmade, Mrs. Conde R. Thorn, Miss Grace G. Lyman, Mr. Oscar Liechtenstein, Miss Emily Tuckerman, Mr. William Inglis, Mrs. Samuel Fuller, Mrs. John R. McGinley, Miss Fanny Norris, Mr. T. F. Donahue, Mr. J. Keur, Mr. G. E. Baldwin, Dr. F. D. Crane, Miss Anne Depew Paulding, Mrs. John B. Trevor, Mr. J. A. Manda, Miss Bertha Pagenstecher, Mrs. S. A. Brown, Mr. L. J. Muller, Mr. Robert Simpson, Mr. John E. Lager, Mrs. Henry W. deForest, Mrs. Peter Fletcher, Mrs. Carl S. Petrasch, Mrs. Eberhard Faber, Dr. H. A. Gleason, Mrs. Harry L. Hamlin, Dr. L. Hosford Abel.

The Chairman of the Exhibition Committee, Mr. James Stuart, reported the personnel of his committee as follows:

R. T. Brown	I. S. Hendrickson	C. H. Totty
John Canning	J. E. Lager	J. A. Manda
H. A. Gleason	A. J. Manda	John Scheepers

Mr. Frederic R. Newbold was elected secretary of the Society.

Resolved: That the treasurer be and is hereby authorized to make an appeal to the membership in order to underwrite the extremely heavy list of premiums for the Fall Show.

AWARDS AT GLADIOLUS SHOW

New York Botanical Garden, August 3-5, 1923

Open to All

Class 1. Largest and best collection of named varieties, covering one hundred and fifty square feet, not less than twenty-five varieties, correctly named—1st Prize, John Lewis Childs, Inc.

Class 2. Largest and best collection of named varieties, *Primulinus* Hybrids, covering fifty square feet, not less than ten varieties, correctly named—Gold Medal, John Lewis Childs, Inc.

Class 3. Vase of twelve spikes, White, one variety—1st Prize, John Scheepers, Inc. 2nd Prize, J. A. Kemp.

Class 4. Vase of twelve spikes, Red, one variety—1st Prize, John Scheepers, Inc. 2nd Prize, Charles B. Webb.

Class 5. Vase of twelve spikes, Crimson, one variety—1st Prize, John Scheepers, Inc. 2nd Prize, John Lewis Childs, Inc.

Class 6. Vase of twelve spikes, Pink, one variety—1st Prize, John Scheepers, Inc. 2nd Prize, John Lewis Childs, Inc.

Class 7. Vase of twelve spikes, Yellow, one variety—1st Prize, John Scheepers, Inc. 2nd Prize, John Lewis Childs, Inc.

Class 8. Vase of twelve spikes, Blue or Lavender, one variety—1st Prize, John Scheepers, Inc. 2nd Prize, John Lewis Childs, Inc.

Class 9. Vase of twelve spikes, Purple, one variety—1st Prize, John Scheepers, Inc. 2nd Prize, John Lewis Childs, Inc.

THE HORTICULTURAL SOCIETY OF NEW YORK

Class 10. Vase of twelve spikes, any other color, one variety—1st Prize, John Scheepers, Inc. 2nd Prize, John Lewis Childs, Inc.

Class 11. Vase of twelve spikes, Lemoinei type, one variety—1st Prize, John Scheepers, Inc. 2nd Prize, John Lewis Childs, Inc.

Class 12. Vase of twelve spikes, Primulinus Hybrids, one variety—1st Prize, Mrs. F. A. Constable. 2nd Prize, John Lewis Childs, Inc.

Class 13. Vase of twelve spikes, Ruffled, one variety—1st Prize, John Scheepers, Inc.

Plain Petal'd Varieties

Class 23. Three vases, three varieties, three spikes each, Red—1st Prize, John Lewis Childs, Inc.

Class 24. Three vases, three varieties, three spikes each, Pink—1st Prize, John Lewis Childs, Inc.

Class 25. Three vases, three varieties, three spikes each, White—1st Prize, John Lewis Childs, Inc.

Class 26. Three vases, three varieties, three spikes each, Purple—1st Prize, John Lewis Childs, Inc.

Class 27. Three vases, three varieties, three spikes each, Yellow—1st Prize, John Lewis Childs, Inc.

Primulinus Hybrids

Class 30. Three vases, three varieties, three spikes each, Pink—1st Prize, John Scheepers, Inc.

Seedlings

Class 35. Six spikes best new seedlings, any type—1st Prize—Silver Medal, Cedar Hill Nursery. Special Prize—Silver Medal, J. A. Kemp. Honorable Mention, George J. Joerg. Honorable Mention, E. M. Sanford.

For Non-Commercial Growers

Class 38. Vase of five spikes, Pink, one variety—1st Prize, Mrs. F. A. Constable.

Class 45. Vase of five spikes, Primulinus Hybrids, one variety—1st Prize, Mrs. F. A. Constable.

Special

Exhibit of unnamed Seedlings—Special Prize and Silver Medal, J. A. Kemp.

Vase of La Couronne—Special Prize, George J. Joerg.

Non-Competitive

Gold Medal.....	John Scheepers
Special Prize	E. M. Sanford
Special Prize	Cedar Hill Nursery

AWARDS AT DAHLIA SHOW

New York Botanical Garden, September 21-23, 1923

Open to All

Class 1. Collection of named varieties, not less than six types and fifty varieties, covering one hundred and fifty square feet. Flowers on short

stems—1st Prize, Miss Myra Valentine. 2nd Prize, C. Louis Alling. 3rd Prize, Alfred E. Doty. Special Prize, Mills & Company.

Class 2. Vase of singles, eighteen blooms, one or more varieties, long stems—1st Prize, Mrs. Robert Mallory. 2nd Prize, Mills & Company. 3rd Prize, A. F. Clark.

Class 3. Vase of Collarettes, eighteen blooms, one or more varieties, long stems—1st Prize, C. Louis Alling. 2nd Prize, Charles H. Totty Company. 3rd Prize, A. F. Clark.

Class 4. Vase of Peony-flowered, twelve blooms, one or more varieties, long stems—1st Prize, Mrs. F. H. Allen. 2nd Prize, Charles H. Totty Company. 3rd Prize, Mills & Company.

Class 5. Vase of Cactus, twelve blooms, one or more varieties, long stems—1st Prize, Alfred E. Doty. 2nd Prize, C. Louis Alling. 3rd Prize, Mrs. F. H. Allen.

Class 6. Vase of Hybrid Cactus, twelve blooms, one or more varieties, long stems—1st Prize, Alfred E. Doty. 2nd Prize, Mrs. Harold I. Pratt. 3rd Prize, Mills & Company.

Class 7. Vase of Decorative, twelve blooms, one or more varieties, long stems—1st Prize, Charles H. Totty Company. 2nd Prize, Miss Myra Valentine. 3rd Prize, Mrs. F. A. Constable.

Class 8. Vase of Show or Hybrid Show, twelve blooms, one or more varieties, long stems—1st Prize, Charles H. Totty Company. 2nd Prize, Mrs. Harold I. Pratt. 3rd Prize, C. Louis Alling.

Class 9. Vase of Pompons, eighteen blooms, one or more varieties, long stems—1st Prize, Mrs. F. H. Allen. 2nd Prize, Lester B. Linsley. 3rd Prize, C. Louis Alling.

Class 10. Display covering fifty square feet, arranged for effect, other foliage may be used—1st Prize—Silver Medal, Mrs. F. H. Allen. 2nd Prize—Bronze Medal, Mills & Company.

Class 11. Vase of Red blooms, twelve of one variety, long stems—1st Prize, Mrs. Albert Strauss. 2nd Prize, Charles H. Totty Company. 3rd Prize, Lester B. Linsley.

Class 12. Vase of White blooms, twelve of one variety, long stems—1st Prize, C. Louis Alling. 2nd Prize, Charles H. Totty Company.

Class 13. Vase of Yellow blooms, twelve of one variety, long stems—1st Prize, C. Louis Alling. 2nd Prize, Charles H. Totty Company. 3rd Prize, Alfred E. Doty.

Class 14. Vase of Pink blooms, twelve of one variety, long stems—1st Prize, C. Louis Alling. 2nd Prize, Lester B. Linsley.

Class 15. Vase of Vari-colored Dahlias, twelve of one variety, long stems—1st Prize, Mrs. William H. Truesdale. 2nd Prize, Charles H. Totty Company. 3rd Prize, Lester B. Linsley.

Class 16. Vase any other color Dahlia, twelve of one variety, long stems—1st Prize, C. Louis Alling. 2nd Prize, Alfred E. Doty. 3rd Prize, Lester B. Linsley.

Class 17. Vase of Dahlias, arranged for effect—1st Prize, Alfred E. Doty. 2nd Prize, Miss Rosalie Weikert. 3rd Prize, C. Louis Alling.

Class 18. Basket of Dahlias, arranged for effect—1st Prize, Miss Rosalie Weikert. 2nd Prize, Mrs. Walter G. Welsch.

Class 19. Centerpiece for table—1st Prize, Miss Rosalie Weikert. 2nd Prize, Mills & Company.

Class 20. Six blooms, new variety, any type, not exhibited previous to 1923—1st Prize & Certificate of Merit, W. H. Waite. 2nd Prize, C. Louis Alling. Certificate of Merit, Charles H. Totty Company.

Non-Commercial

Class 21. Display of named varieties, to cover seventy-five square feet, not less than twenty-five varieties, flowers on short stems—1st Prize, James A. Macdonald. 2nd Prize, Mrs. Harold I. Pratt. 3rd Prize, William J. Matheson.

Class 22. Vase of Singles, twelve blooms, one or more varieties, long stems—1st Prize, James A. Macdonald. 2nd Prize, Mrs. Harold I. Pratt. 3rd Prize, Mrs. W. F. Henchen.

Class 24. Vase of Peony-flowered, eight blooms, one or more varieties, long stems—1st Prize, Mrs. William H. Truesdale. 2nd Prize, Mrs. John A. Topping. 3rd Prize, Mrs. Robert Mallory.

Class 25. Vase of Cactus, eight blooms, one or more varieties, long stems—1st Prize, Mrs. W. F. Henchen. 2nd Prize, Mrs. William H. Truesdale.

Class 26. Vase of Hybrid Cactus, eight blooms, one or more varieties, long stems—1st Prize, Mrs. William H. Truesdale. 2nd Prize, Mrs. F. A. Constable. 3rd Prize, Mrs. Harold I. Pratt.

Class 27. Vase of Decorative, eight blooms, one or more varieties, long stems—1st Prize, Mrs. John A. Topping. 2nd Prize, Mrs. W. F. Henchen. 3rd Prize, Mrs. Robert Mallory.

Class 28. Vase of Show or Hybrid Show, eight blooms, one or more varieties, long stems—1st Prize, Mrs. Harold I. Pratt. 2nd Prize, Mrs. William H. Truesdale. 3rd Prize, Leo Ritter.

Class 29. Vase of Pompons, twelve blooms, one or more varieties, long stems—1st Prize, Mrs. F. H. Allen. 2nd Prize, Mrs. W. F. Henchen.

Class 30. Vase of twenty-five blooms, arranged for effect, other foliage may be used—1st Prize, Mrs. Harold I. Pratt. 2nd Prize, Mrs. F. H. Allen.

Amateurs Only

Class 31. Display of named varieties, not less than four types, twenty-five blooms, short stems—1st Prize, Leo Ritter. 2nd Prize, August E. Thatcher.

Class 32. Vase of Singles, five blooms, one or more varieties, long stems—1st Prize, Thomas P. Hollingsworth.

Class 33. Vase of Collarettes, five blooms, one or more varieties, long stems—1st Prize, Thomas P. Hollingsworth.

Class 34. Vase of Peony-flowered, five blooms, one or more varieties, long stems—1st Prize, Leo Ritter. 2nd Prize, Miss Maude M. Wilson.

Class 35. Vase of Cactus, five blooms, one or more varieties, long stems—1st Prize, Mrs. H. D. Thomas. 2nd Prize, Miss Maude M. Wilson.

Class 36. Vase of Hybrid Cactus, five blooms, one or more varieties, long stems—1st Prize, Miss Maude M. Wilson. 2nd Prize, Mrs. H. D. Thomas.

Class 37. Vase of Decorative, five blooms, one or more varieties, long stems—1st Prize, Leo Ritter. 2nd Prize, Mrs. H. D. Thomas.

Class 38. Vase of Show or Hybrid Show, five blooms, one or more varieties, long stems—1st Prize, Leo Ritter. 2nd Prize, Mrs. F. H. Allen.

Class 39. Vase of Pompons, five blooms, one or more varieties, long stems—1st Prize, Mrs. F. H. Allen. 2nd Prize, Mrs. H. D. Thomas.

For Garden Clubs Only

Class 42. Centerpiece for table, other flowers may be used, Dahlias to predominate—1st Prize, Mrs. F. A. E. Cott. 2nd Prize, Mrs. William L. Pierce, Jr.

Class 43. Vase for table, other flowers may be used, Dahlias to predominate—1st Prize, Mrs. Frank M. Chapman.

THE HORTICULTURAL SOCIETY OF NEW YORK

Open to All

Class 45. Collection of Hardy Annuals, twelve vases and twelve varieties—1st Prize, Mrs. A. J. Moulton. 2nd Prize, Mrs. F. H. Allen.

Class 46. Collection of Hardy Perennials, eight vases and twelve varieties—1st Prize, Mrs. F. H. Allen. 2nd Prize, Charles H. Totty Company.

Specials

Collection of Outdoor Flowers, arranged for effect—Mrs. F. H. Allen.

Exhibit of Gladiolus—Four Varieties—Mrs. A. J. Moulton.

Exhibit of Gladiolus—Mrs. Harold I. Pratt.

Display of Dahlias—Thomas P. Hollingsworth.

Basket Myra Valentine—Mills & Company.

Special Exhibit—Charles H. Totty Co.

Exhibit of Tuberosus Begonias—J. Keur.

Certificates of Merit

Vase of Dahlias—Mrs. W. F. Henchen.

36 Varieties of Dahlias—John Magee.

Silver Medal

Vase of Ambassador—Mrs. W. F. Henchen.

AWARDS AT THE CHRYSANTHEMUM SHOW AND FALL EXHIBITION

American Museum of Natural History

November 8-11, 1923

CHRYSANTHEMUMS—PLANTS

Open to All

Class 1. Specimen Bushes, any color, any type—1st Prize, Pembroke Estate. 2nd Prize, William Boyce Thompson. 3rd Prize, Mrs. F. H. Allen.

Class 2. Specimen Standards, any color, any type—1st Prize, Pembroke Estate. 2nd Prize, Mrs. Herbert L. Pratt.

Class 3. Specimen Odd Shapes, any color, any type—1st Prize, Dr. E. A. Campbell. 2nd Prize, Pembroke Estate.

Class 4. Twelve plants in variety, any types in pots not over 8 in.—1st Prize, Pembroke Estate. 2nd Prize, Samuel Untermyer.

Class 5. Six plants in variety, any types in pots not over 8 in.—1st Prize, Col. H. H. Rogers. 2nd Prize, Pembroke Estate.

CHRYSANTHEMUMS—CUT FLOWERS

For Non-Commercial Growers

Stems not less than 2 ft.

Class 6. Vase of one or more varieties, arranged for effect, any foliage—1st Prize, Mrs. H. M. Tilford. 2nd Prize, Mrs. W. Redmond Cross. 3rd Prize, W. R. Coe.

Stems 18 inches

Class 7. Ten vases in ten varieties, three blooms each—1st Prize, Mrs. Payne Whitney.

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Class 8. Five vases in five varieties, three blooms each—1st Prize, W. R. Coe. 2nd Prize, Samuel Untermyer. 3rd Prize, Pembroke Estate.

Class 9. Collection of 12 varieties, one each—1st Prize, William B. Thompson. 2nd Prize, J. Insley Blair.

Class 10. Collection of 6 varieties, one each—1st Prize, W. R. Coe. 2nd Prize, Pembroke Estate.

Five Terminal Sprays to one vase, not less than five flowers to a spray, stems not to exceed 18 in.

Class 11. Collection of Singles, 12 varieties—1st Prize, Miss Susan D. Bliss. 2nd Prize, Mrs. Payne Whitney.

Class 12. Collection of Singles, 6 varieties—1st Prize, Mrs. Paul Moore. 2nd Prize, Mrs. Herbert L. Pratt.

Class 13. Collection of Pompons, 6 varieties—1st Prize, Mrs. John T. Pratt. 2nd Prize, Mrs. H. M. Tilford. 3rd Prize, Mrs. Payne Whitney.

Class 14. Collection of Pompons, 12 varieties—1st Prize, Mrs. John T. Pratt. 2nd Prize, Mrs. Herbert L. Pratt.

Class 15. Vase of Singles, arranged for effect—1st Prize, Mrs. W. Redmond Cross. 2nd Prize, Dr. E. A. Campbell.

Class 16. Vase of Pompons, arranged for effect—1st Prize, Dr. E. A. Campbell. 2nd Prize, Mrs. Charles Mallory.

Class 17. Collection of Anemones, 6 varieties, 3 blooms each, stems not less than 24 inches—1st Prize, Mrs. E. E. Smathers. 2nd Prize, Mrs. Payne Whitney.

William Barr Memorial Fund Prize

Class 18. Group of cut blooms arranged for effect, covering 100 sq. ft., any foliage—1st Prize, Mrs. Payne Whitney. 2nd Prize, Otto H. Kahn.

For Commercial Growers

Stems not less than 15 inches, all named kinds

Class 19. Collection of 20 varieties, one of each variety—1st Prize, Charles H. Totty Company.

Class 20. Ten vases in ten varieties, 3 blooms to vase—1st Prize, Charles H. Totty Company.

Five Terminal Sprays to a vase, not less than five flowers to a spray, stems not to exceed 18 in.

Class 21. Collection of Pompons, 12 varieties—1st Prize, Charles H. Totty Company. 2nd Prize, F. R. Pierson.

Class 22. Collection of Singles, 12 varieties—1st Prize, Charles H. Totty Company.

ROSES—CUT FLOWERS

For Non-Commercial Growers

Class 23. Eighteen White—1st Prize, J. Insley Blair. 2nd Prize, Joseph P. Day.

Class 24. Eighteen Red—1st Prize, Mrs. H. M. Tilford. 2nd Prize, J. Insley Blair.

Class 25. Eighteen Pink—Columbia Shade—1st Prize, W. R. Coe. 2nd Prize, J. Insley Blair.

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Class 26. Eighteen Light Pink—Ophelia Shade—1st Prize, Mrs. F. A. Constable. 2nd Prize, Mrs. H. M. Tilford.

Class 27. Eighteen Dark Pink—Premier Shade—1st Prize, Joseph P. Day. 2nd Prize, Mrs. H. M. Tilford.

Class 28. Eighteen Yellow—1st Prize, Mrs. Roswell Eldridge. 2nd Prize, Countess Mildred Holnstein.

Class 29. Vase of 50 assorted, arranged for effect—1st Prize, W. R. Coe. 2nd Prize, Mrs. H. M. Tilford.

ROSES

For Commercial Growers

Class 30. Fifty White—1st Prize, F. R. Pierson.

Class 31. Fifty Red—1st Prize, L. B. Coddington. 2nd Prize, F. R. Pierson.

Class 32. Fifty Pink—Columbia Shade—1st Prize, L. B. Coddington. 2nd Prize, F. R. Pierson.

Class 33. Fifty Light Pink—Ophelia Shade—1st Prize, Charles H. Totty Company. 2nd Prize, F. R. Pierson.

Class 34. Fifty Dark Pink—Premier Shade—1st Prize, F. R. Pierson. 2nd Prize, Charles H. Totty Company.

Class 35. Fifty Yellow—1st Prize, Charles H. Totty Company. 2nd Prize, L. B. Coddington.

Class 36. New meritorious variety, not in commerce—Silver Medal, Charles H. Totty Company. Certificate of Merit, F. R. Pierson.

CARNATIONS—CUT FLOWERS

For Non-Commercial Growers

Class 37. Eighteen White—1st Prize, Mrs. H. M. Tilford. 2nd Prize, Pembroke Estate.

Class 38. Eighteen Enchantress Shade—1st Prize, Mrs. H. M. Tilford. 2nd Prize, George G. Mason.

Class 40. Eighteen Lawson Shade—1st Prize, Mrs. H. M. Tilford. 2nd Prize, George G. Mason.

Class 41. Eighteen Scarlet—1st Prize, Mrs. H. M. Tilford. 2nd Prize, George F. Baker.

Class 42. Eighteen Crimson—1st Prize, Mrs. Robert Mallory. 2nd Prize, W. R. Coe.

Class 43. Eighteen Yellow—1st Prize, Mrs. H. M. Tilford. 2nd Prize, L. L. Dunham.

Class 44. Eighteen Vari-colored—1st Prize, Mrs. H. M. Tilford. 2nd Prize, W. R. Coe.

Class 45. For a new meritorious variety, not in commerce—Silver Medal, J. Insley Blair.

FOLIAGE AND DECORATIVE PLANTS

For Non-Commercial Growers

Class 46. Group of greenhouse plants arranged for artistic effect, to occupy 100 sq. ft.—1st Prize, William Boyce Thompson.

Class 48. Collection of fall fruiting shrubs and trees. Cut branches arranged for effect, covering 25 square feet—1st Prize, Samuel Untermeyer. 2nd Prize, Mrs. Harold I. Pratt.

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Class 49. Display of Begonias, tuberous-rooted, 12 plants—1st Prize, Mrs. Whitelaw Reid. 2nd Prize, J. Insley Blair.

Class 50. Display of Begonias, Gloire de Lorraine type, 12 plants—1st Prize, William Boyce Thompson. 2nd Prize, Julius Roehrs Company.

Class 51. Collection of Ferns and varieties, to cover 100 sq. ft.—1st Prize, F. R. Pierson.

Class 52. Specimen of Cibotium Schiedei—1st Prize, Mrs. E. E. Smathers. 2nd Prize, F. R. Pierson.

Class 53. Specimen of Adiantum—1st Prize, F. R. Pierson. 2nd Prize, Pembroke Estate.

Class 54. Specimen of Goniophlebium subauriculatum—1st Prize, Mrs. E. E. Smathers. 2nd Prize, Col. H. H. Rogers.

Class 56. Specimen of any other fern—1st Prize, Mrs. E. E. Smathers. 2nd Prize, F. R. Pierson.

ORCHIDS—PLANTS

Open to All

Class 57. Collection, not less than twenty-five species and varieties, covering fifty square feet of table space—1st Prize, Lager & Hurrell.

Class 58. Collection of Hybrids, not less than twenty plants—1st Prize, Arthur N. Cooley. 2nd Prize, Julius Roehrs Co.

Class 59. Six plants, six varieties—1st Prize, Julius Roehrs Co. 2nd Prize, George E. Baldwin.

Class 60. Three plants, three varieties—1st Prize, Col. H. H. Rogers. 2nd Prize, Lager & Hurrell.

Class 61. One plant—1st Prize, Col. H. H. Rogers.

Class 62. For a new meritorious variety, not in commerce—Silver Medal, Clement Moore.

Sweepstake for the best variety of orchid—Silver Medal, Arthur N. Cooley.

Clement Moore Gold Medal. 1 Brasso Cattleya "B. C. Eleanor Rice"—F. Eugene Dixon.

VEGETABLES

For Non-Commercial Growers

Class 64. Collection, 15 kinds, arranged for effect—1st Prize, Mrs. Herbert L. Pratt. 2nd Prize, Mrs. Harold I. Pratt.

Class 65. Brussels Sprouts, one quart—1st Prize, Mrs. Herbert L. Pratt. 2nd Prize, Mrs. Harold I. Pratt.

Class 66. Cucumbers, two of any one variety—1st Prize, Mrs. Herbert L. Pratt. 2nd Prize, Mrs. Lewis P. Child.

Class 67. Cauliflower, three heads—1st Prize, H. L. Van Praag. 2nd Prize, Mrs. Lewis P. Child.

Class 68. Celery, six stalks, any one variety—1st Prize, H. L. Van Praag. 2nd Prize, Mrs. Herbert L. Pratt.

Class 69. Lettuce, three heads—1st Prize, Mrs. Lewis P. Child. 2nd Prize, Mrs. Herbert L. Pratt.

Class 71. Parsnips, six—1st Prize, Mrs. Harold I. Pratt. 2nd Prize, Mrs. Herbert L. Pratt.

Class 72. Pumpkin, one largest and best—1st Prize, Mrs. Herbert L. Pratt. 2nd Prize, Mrs. Harold I. Pratt.

Class 73. Tomatoes, twelve—1st Prize, Mrs. Herbert L. Pratt. 2nd Prize, Mrs. Edward Holbrook.

Open to All

Class 75. Largest and best collection, not less than thirty kinds, arranged for effect—1st Prize, Mrs. Herbert L. Pratt.

FRUIT

For Non-Commercial Growers

Class 76. Collection of Apples, six varieties, five of each—1st Prize, Pembroke Estate. 2nd Prize, Mrs. Herbert L. Pratt.

Class 77. Collection of Pears, four varieties, five each—1st Prize, Mrs. Herbert L. Pratt.

Class 78. Quinces, six, any one variety—1st Prize, Mrs. Herbert L. Pratt.

Class 79. White Grapes, greenhouse, two bunches—1st Prize, Mrs. H. M. Tilford.

Class 80. Black Grapes, greenhouse, two bunches—1st Prize, Mrs. H. M. Tilford. 2nd Prize, Pembroke Estate.

For Commercial Growers

Class 82. Best collection of Apples—Silver Dish, J. W. Weaver & Son.

DINNER TABLE DECORATIONS

Open to All

To be staged by 1 P. M., Sunday, Nov. 11th.

Class 83. Table to be set for eight persons. Any kind of flowers and foliage may be used—1st Prize—Silver Dish, Mrs. W. L. Pierce, Jr. 2nd Prize, Miss Clephane. 3rd Prize, Mrs. H. L. Gillespie.

TABLE DECORATIONS

Open to Garden Clubs or members of Garden Clubs

Class 84. Centerpiece, vase or baskets for luncheon table. Any flowers or foliage—1st Prize, Rye Garden Club. 2nd Prize, Millbrook Garden Club.

GRAND SWEEPSTAKE PRIZE

The Society's Silver Cup for the best exhibit in the show—Mrs. Herbert L. Pratt.

SPECIALS

Anthurium Andreanum Hybrids—Col. H. H. Rogers.

Fifty Square Feet Ferns and Cyripediums—Mrs. E. E. Smathers.

Display of Cyripediums Insigne Sanderæ—Joseph Manda Company.

Display of Cyclamen—Carl Grobba, Mimico, Ontario.

Collection of Pears, Swiss Chard, Brussels Sprouts, and White Pearl Potatoes—J. W. Weaver & Son.

Large vase of Louise Pockett Chrysanthemums—Mrs. H. M. Tilford.

Five Chrysanthemum Bushes—Mrs. F. H. Allen.

Collection of Evergreens—Bobbink & Atkins

Display of Pompons—Mrs. Charles Mallory.

Collection of Ivy—W. A. Manda, Inc.

Templar Rose. Certificate of Merit—Cromwell Gardens.

Collection of Pompon Chrysanthemums. Silver Medal—Cromwell Gardens.

Collection of Cacti. Silver Medal—W. A. Manda, Inc.

New White Begonia Miss Elizabeth Milbank. Silver Medal—Dr. E. A. Campbell.

Display of Cut Cattleya Veriflora. Silver Medal—F. Eugene Dixon.

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INCORPORATED, 1902

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Journal
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JULY, 1924

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ACTIVITIES OF THE SOCIETY

THE ELEVENTH INTERNATIONAL FLOWER SHOW

ANOTHER great Flower Show goes into the record and appraising it from the viewpoint of the popular verdict, as expressed in figures of attendance, it was a great success. To the critical observer, however, who makes a keen analysis of its component parts, there were weak spots which undoubtedly diminished its attractiveness as a whole, a passing condition which will undoubtedly be remedied.

The trade responded nobly as in preceding years. The deficiency was brought about by a lessened participation of the owners of private estates in the presentation of those large and colorful displays that have been staged in previous shows. It is to be hoped that ways and means will be found to stimulate a varied and extended presentation of large exhibits from private growers. The great features of the show were the Scheepers bulb garden, the Bobbink & Atkins rock garden and Azalea garden and the A. N. Pierson Rose garden, this last being probably the best and most satisfying contribution this firm has yet made.

The Acacias and Imantophyllums from the garden of Mrs. F. A. Constable were never so attractively shown as at this show and the group from Mrs. D. Guggenheim's estate was a striking massing of varied spring flowers.

In one respect at least this show surpassed all previous ones and that was in the quantity and quality of its display of bulbous flowers. Here, indeed, there was competition of the keenest kind, to

a degree and extent quite unexpected, resulting in an array of Tulips, Narcissi and Hyacinths, the like of which has never before been brought together. True, these splendid exhibits were crowded to an extent that diminished their outstanding merit, but the management could not foresee that they would come of such stature as to be inadequately provided for in the allotted space. It is no small task to assemble and properly provide for these smaller exhibits of which the management has little knowledge until they arrive a few hours previous to the opening of the show, but experience teaches and we may reasonably hope that apparent defects of this kind will be remedied in the next show.

The Orchid section was very weak. Perhaps the Orchid men were holding their best in reserve for the Boston great special May show of this flower. They will surely do better another year and present a more adequate display of this important group.

While, perhaps, the Show as a whole deteriorated a little, this cannot be said of the Garden Club of America section which was on the mezzanine floor.

There seems to be few things in recent years which have had such an appeal as the little gardens and houses entered in these classes. Class 1a—A house with adjustable dormer windows to be placed on lot 50x125 feet. These little samples of what might be done with a small piece of ground and a slim purse gave inspiration to hundreds of people, in fact one meets the result of the lessons learned at every flower show. A very interested member of the Society came to the Secretary at the Rose Show on June 20th at the American Museum of Natural History to say that he had duplicated one of these little miniatures with such gratifying results that he wanted us to know of his success. To Mrs. William A. Lockwood, Chairman of the Exhibition Committee of the Garden Club of America and a valued member of the Horticultural Society of New York, must go the credit, as well as to her committee who stood "at attention" all through the months of preparation and actual show time.

A word must also be said of Section 5, Class 1.—"A Niche in a Garden Wall" which was open to member clubs of the Garden Club of America. These were indeed enterprising in the extreme,

necessitating the help of carpenters and masons, to say nothing of the taste of the exhibitors themselves expressed in the planting and choice of materials used.

Flower arrangements are always interesting and as these changed each day, giving new color combinations, we had the assurance, not only of fresh flowers daily, but of new interest and the opportunity to study the ideas of various people as well as the constructive criticism of the judges.

Taking it as a whole the Garden Club of America had much to be proud of and has reason to be gratified by the fact that they have given lasting help and ideas to a great many people.

THE MAY FLOWER EXHIBITION

THE May Exhibition held at the Museum of Natural History, although not largely participated in, was at least instrumental in bringing out some exhibits of more than ordinary interest.

The outstanding feature was the Calceolarias of which there were five dozen pots shown, and they made a colorful display. Every exhibit was highly meritorious and found favor with the visiting public which rarely sees this flower:

Many flowering Tulips in great variety were the next most attractive feature and it was noted that many visitors scrutinized them closely in making selections of varieties they fancied.

In regard to these and in future displays of any flower in large variety, some better method should be devised of informing the public. The labels attached to each variety in accordance with rule 2 are quite inadequate as only those in the front portion of the exhibit can be seen and read.

It would be much better, and really helpful, if the names of all the varieties included in the exhibit could be plainly written upon a suitable card numbered in seriation, the vases just numbered to correspond to the card number, which card should be affixed to the table or a proper holder in the front of the exhibit.

Hydrangeas, Canterbury Bells and Pelargoniums were also shown in well flowered specimens.

In special exhibits those most noteworthy were a fine display

of *Rehmannia angulata* and *Phlox divaricata*, also Mrs. Mortimer J. Fox's demonstration of Lily raising from seed from the baby to the near adult stage. This exhibit might well stimulate more extended efforts in producing home grown Lily bulbs and the resultant healthy stock lead to a more general planting of Lilies in gardens.

PROGRESS OF HORTICULTURAL QUARANTINE COMMITTEE

FROM an amateur standpoint, and particularly that of the Society, very little of particular interest has transpired in regard to the Quarantine situation during the past year. The Committee on Horticultural Quarantine, on which the Society is represented, has held no meetings since April 23, 1923, when it held an informal conference with the Federal Horticultural Board in Washington. There were, however, no results from this conference beyond a further understanding of the point of view of the Federal Horticultural Board as already familiar to the members of the Society.

Nevertheless, as a result of the steadily increasing number of State quarantines and regulations, it has become more and more obvious that something must be done to prevent the complications that appear inevitable under the present policy. For this reason a conference of plant quarantine officials was held in Washington March 28th-30th, 1924, at which was drawn up the basis of an agreement upon which State and Federal officers proposed to formulate future activities. As this means simplification and more uniform regulation, it is distinctly to the advantage of all horticultural interests. The International situation (foreign importation) shows no change whatsoever.

The Department of Agriculture maintains its stand as to the necessity of the progressive exclusion of more foreign plant material. It has, however, promulgated no additional quarantine during the year—nor, on the other hand, has it indicated any intention of recalling the embargo on *Narcissi* and certain other bulbs scheduled for July 1st, 1926.



NEW MEDAL OF THE HORTICULTURAL SOCIETY OF NEW YORK
DESIGNED BY MR. JOHN GREGORY

Consequently the entire subject of Plant Quarantine deserves and requires the continual careful consideration of all interested in the promotion of American horticulture.

FLOWER SHOW FIXTURES

Gladiolus Show. August 22nd, 23rd and 24th (postponed one week from original dates on account of lateness of the season.) In Coöperation with the American Gladiolus Society at the American Museum of Natural History, 77th St. & Central Park West, New York City.

Dahlia Show. September 19th, 20th and 21st. At the American Museum of Natural History, 77th St. & Central Park West, New York City.

Chrysanthemum Show. November 6th, 7th, 8th and 9th. In coöperation with the Chrysanthemum Society of America at the American Museum of Natural History, 77th St. & Central Park West, New York City.

International Flower Show. March 16th to 21st, 1925. In co-operation with the New York Florists' Club at Grand Central Palace, New York.

REPORT VICTOR LEMOINE MEMORIAL FUND

We are very glad to report that the members of our Society have contributed \$384.50 toward the fund to perpetuate the name of this great hybridizer. This sum, however, does not indicate the total subscriptions of members of the Society, some of whom, having received the appeal direct or through other sources, have made independent donations.

To those who contributed we again extend our thanks. Just as soon as any definite information on this reaches us from the Central Horticultural Society of Nancy, France, the secretary will pass the information on to our members.

TWENTY-FOURTH ANNUAL REPORT OF THE BOARD OF DIRECTORS

PRESENTED MAY 10TH, 1924.

THE Council reports a very successful year for the Society, the membership now being 1,401, having had 14 deaths during the year, 91 resignations and 32 dropped for delinquency in dues, leaving a net gain for the year of 151 members, of which 97 are Life, 4 Sustaining and 50 Annual.

At a meeting of the Board of Directors on June 13, 1923, in accordance with the Constitution and By-Laws, officers of the Society were elected as follows:

President: T. A. Havemeyer.

Vice-Presidents: N. L. Britton, J. W. Cromwell, W. B. Thompson.

Honorary Vice-Presidents: E. S. Harkness, Adolph Lewisohn, Mrs. Payne Whitney, Clement Moore, G. T. Powell.

Chairman Board of Directors: F. R. Pierson.

Treasurer: F. R. Newbold.

Executive Secretary: Mrs. Elizabeth Peterson.

Exhibition Committee: James Stuart, with power to name his own committee.

Finance Committee: T. A. Havemeyer, F. R. Newbold, F. R. Pierson.

Lecture Committee: Mrs. Samuel Sloan, Mrs. Robert C. Hill, Leonard Barron.

Journal Committee: Leonard Barron, E. B. Southwick, Mrs. Elizabeth Peterson.

Library Committee: Mrs. Robert C. Hill, Mrs. Samuel Sloan, Henry F. duPont.

At a meeting of the Directors on October 17th, 1923, Mr. Frederic R. Newbold was unanimously elected secretary of the Society.

The Board of Directors have held monthly meetings at the office, 598 Madison Avenue, with the exception of July, August and September when a recess was called for these months.

The following lectures were held at the American Museum of Natural History, 77th St., & Central Park West:

December 13, 1923 "Rock Gardens" by Mr. Montague Free.

January 10, 1924 "Progress of Garden Design In America" by Mr. Ferruccio Vitale.

February 14, 1924 "Good Fruits for the Home Garden" by Dr. U. P. Hedrick.

April 10, 1924 "Preliminary Studies in the use of Artificial Light in the Growth of Plants" by Prof. Hugh Findlay.

Flower Shows were held on the following dates: May Flower Show, May 11th-13th, 1923, N. Y. Botanical Garden; Exhibition of Peonies, June 9th & 10th, 1923, American Museum of Natural History; Gladiolus Exhibition, August 3rd-5th, 1923, N. Y. Botanical Garden; Dahlia Exhibition, Sept. 21st-23rd, 1923, N. Y. Botanical Garden; Chrysanthemum Show, Nov. 8th-11th, 1923, American Museum of Natural History; International Flower Show, March 17th-22nd, 1924, Grand Central Palace in coöperation with the New York Florists' Club.

The secretary reports an unusual interest in these activities, the November Show being one of the largest ever held and second in attendance in the history of the Society.

In coöperation with other organizations we have been represented in the effort to protect the parks of New York against exploitation, our committee on Park Protection having gone to Albany on March 25th, 1924, and again attending in this city at the hearing on April 11th, 1924.

As voted at the Annual Meeting in 1923:

ARTICLE XII of the Constitution was amended to read as follows:

"Each Annual Member shall pay to the treasurer annually the sum of \$10.00. Members may become Life Members by paying \$100.00 at any one time."

Respectfully submitted,
FREDERIC R. NEWBOLD,
Secretary.

TREASURER'S ANNUAL REPORT

May 1, 1923 to April 30, 1924

LIFE FUND ACCOUNT CREDITS

By balance May 1, 1923	\$52,976.07	
Life Membership Account	5,525.00	
Interest account from bonds	3,198.80	
		\$61,699.87
Less Agency account care securities	25.91	
Less Interest to General Ac.	<u>3,000.00</u>	
		<u>3,025.91</u>
		58,673.96

GENERAL ACCOUNT CREDITS

By Balance Cash ac. May 1, 1923		422.90
Annual Dues	9,122.00	
Int. Flower Show Fund 1923	75.00	
Int. Flower Show Fund 1924	585.00	
November Show Fund 1923	2,090.00	
Int. Fl. Show Prof. ac. 1923	3,595.16	
Interest on bank deposits	121.05	
Income from Life Fund	3,000.00	
Loan from Life Fund	<u>500.00</u>	
		19,088.21
		<u>\$19,511.11</u>

OBITUARY

May 1, 1923 to May 1, 1924

Great regret is expressed for our loss by
death of these members :

Mrs. S. B. Brownell
Mr. Herman LeRoy Emmet
Mr. Charles Gotthelf
Mr. George J. Gould
Mr. Edward V. Z. Lane
Mrs. Charles H. Ludington
Miss E. L. McLean
Miss Emelie Ogden
Mr. William J. Riker
Mr. Julius Roehrs
Mr. Bernhard Schutz
Mr. Henry W. Shoemaker
Mrs. Frederick Thompson
Mrs. William L. Van Sinderen

ROCK GARDENS

BY MONTAGUE FREE, Horticulturist, Brooklyn Botanic Garden.
Lecture delivered December 13, 1923, American Museum of Natural History.

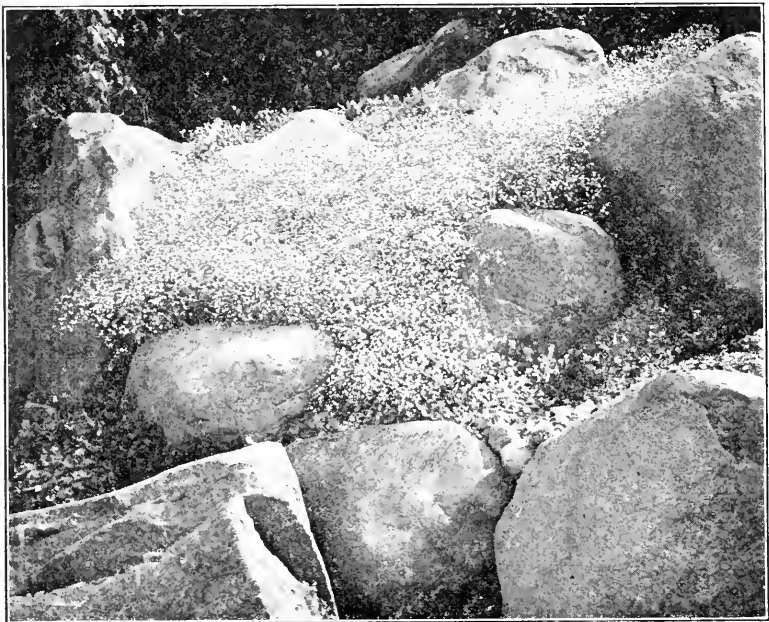
(*Mr. Leonard Barron, presiding*)

DURING a recent trip to England for the purpose of studying garden conditions, the fact was noted that in every garden visited alpine and rock plants were exhibited in some form or another. The popularity of alpine and rock gardening in England is not a passing fad as is proved by the fact that, as long as 10 or 15 years ago, rock gardening seemed to be at its zenith, and yet, since that time, there have been great advances especially along the lines of artistic construction and the introduction of new plants. Today rock gardening is more popular than it has ever been in the past. The beautiful results that can be obtained with an artistically planned rock garden and the fascinating interest of the alpine and rock plants that are used to embellish it, account for the popularity of this class of gardening in England, and the rapid strides that it is making in this country.

Rock gardens as we know them undoubtedly originated in order to provide proper cultural conditions and suitable settings for the plants of the high mountains. These aristocrats of the mountain tops need special treatment in order to enable them to thrive under cultivation in lowland regions of the temperate zone and this can best be provided in a rock garden. The thing to remember in the construction of an alpine and rock garden is that the majority of these plants require a soil that is gritty and well drained, for most of them resent stagnant water at the roots. In making a rock garden, therefore, one should provide perfect drainage and a sandy, porous soil to be used in filling in the spaces between the rocks. When a soil of this kind is used, it is easy, by the addition of crushed limestone, bluestone screenings, peat, or humus, as the case may be, to modify the soil in such a way as to make it suitable for the more pernickety plants. The purpose that the rocks serve in a rock garden is that of giving shelter, conserving moisture by preventing evaporation from the surface, and helping to keep the ground cool.

In the actual placing of the rocks one can be guided by the view of those who take the attitude that the all-important thing in a rock garden is the plants that it contains and that the arrangement of rocks is of little consequence, except in so far as it contributes toward the well-being of the plants; or one may take the point of view, which is perhaps the better one, that the arrangement of the rocks should be as natural, as pleasing, and as artistic as possible, consistent with providing suitable accommodations for the plants that the garden is to contain. Anyone contemplating the construction of a rock garden would be well advised to study rock arrangement as it occurs in nature and try to copy nature's methods of arranging rocks when making his rock garden.

One of the most satisfactory kinds of rock gardens is the ravine



Gypsophila repens var. *monstrosa*, in the Brooklyn Botanic Garden. A dwarf creeping plant growing 4 inches high and bearing white flowers

type. A very good illustration of this type is to be found in the Hanbury Garden at Brockhurst in Sussex. Here a large part of the garden was made by excavating in sandstone rock, thus forming a deep ravine with almost vertical sides, the crevices in the rocks afterward being filled with suitable soil and planted. The rock obtained in excavating was used to extend the garden, gradually getting away from the ravine idea until the rock garden became merged into the surrounding landscape.

Of an entirely different type is the rock garden at Friar Park, the country estate of the late Sir Frank Crisp. This is one of the largest and most pretentious rock gardens in existence, covering, as it does, several acres of ground. Over 7,000 tons of rock were used in its construction and many of the pieces weigh up to 12 tons. This garden is of the mound type, and a feature in it is a replica made to scale of the peak of the Matterhorn.

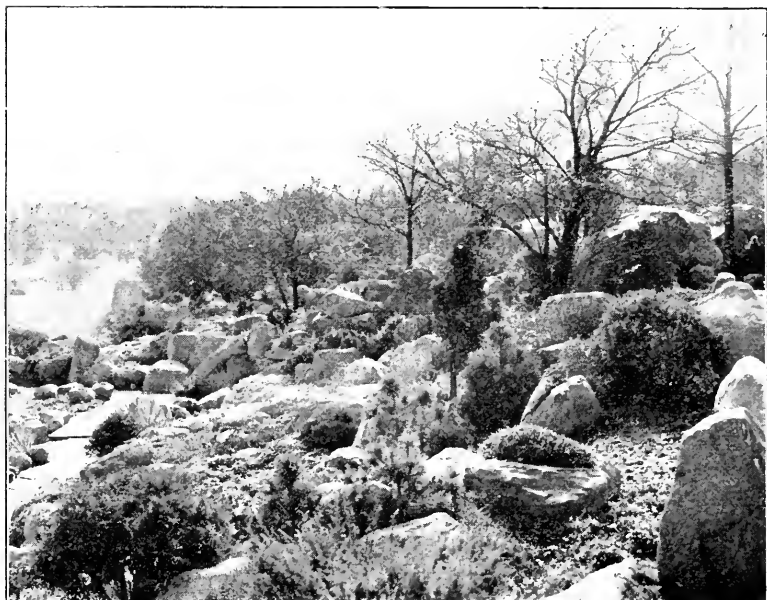
In the Brooklyn Botanic Garden rock garden, in which glaciated boulders are used, the general idea in construction was to simulate a rock-strewn slope such as one would be likely to find on a terminal moraine.

Other developments of the rock garden idea may be seen in the garden of Childerly Hall in Cambridgeshire where there is a pleasing rock arrangement of the flat type, the planting associated with it being of the herbaceous perennial order as well as the plants that one usually associates with the rock garden.

Alpines and rock plants can be used to good advantage in parts of the garden other than the rock garden proper. They are, of course, the plants *par excellence* for dry wall gardening and are well adapted for use in "pavement planting"—that form of gardening that uses plants in the crevices between flagstone walks. The problem of a satisfactory dividing line between perennial border and walk can often be met by using rocks and planting between them with alpines so that they become partly covered with vegetation. This has been done with great success in many gardens and notably so in Aldenham House Gardens where a gravel walk is separated from the border by a device of this nature, thus providing an informal and beautiful edging to the perennials.

It has been stated that the main reason for a rock garden ori-

ginally was to provide a home for alpine and rock plants. At the present time, however, most good rock gardeners are inclined to accept the late Reginald Farrer's definition of acceptable plants, which—"includes everything that will look well in a rock garden." If we accept this definition, there is no lack of material to draw from that will thrive in our climate.



In the Brooklyn Botanic Garden rock garden, in which glaciated boulders are used, the general idea in construction was to simulate a rock-strewn slope such as one would be likely to find on a terminal moraine

Amongst the easily grown rock plants one might mention many species of *Saxifragas*, such as *S. Cotyledon*, *S. cochlearis*, and *S. Macnabiana*, belonging in the group whose leaves show encrustations of lime, and which can be readily grown by planting them in well-drained soil in which there is a liberal mixture of broken limestone. The mossy varieties of *Saxifraga* are not difficult to grow

provided they are given a well-drained, stony soil with plenty of humus. The surface of the soil about the plants should be covered with small stones to prevent evaporation of moisture and to keep the ground cool.

The hardy pinks never look out of place in a rock garden provided that one excludes the florists' varieties. The most desirable of them all is the Glacier pink, *Dianthus neglectus*. This family contains many other excellent rock plants that can be grown with very little trouble, for example: *Saponaria ocymoides*, *Gypsophila repens*, several species of *Arenaria*, *Silene*, and *Cerastium*.

Of course, everyone with a rock garden will want to grow the Edelweiss and, fortunately, this can be readily accomplished by anyone with a well-drained soil, plenty of limestone and an open situation. If one has patience this interesting plant can be easily raised from seed, but one must not expect any very remarkable results the first year.

Following is a list of easily grown rock plants additional to those already mentioned:

Alyssum saxatile (Gold Dust). Fls. golden yellow, 1'.

Anemone Pulsatilla (Pasque Flower). Violet fls. covered with long silken hairs.

Aquilegia caerulea (Rocky Mountain Columbine). Blue and white fls. 1' to 2'.

Aquilegia canadensis. Scarlet fls. mixed with yellow. 1' to 2'.

Arabis albida fl. pl. Double white fls. 9".

Armeria maritima var. *Lauchiana*. More brightly colored than the common "Thrift."

Aster alpinus. Bright purple, daisy-like flowers.

Aubrietia, in var. Spreading prostrate plants. Colors rose, lavender, etc.

Campanula carpatica. Porcelain blue fls. erect on wiry stems, 9".

Campanula garganica. Blue fls., dwarf, spreading by underground stems. 4".

Campanula pusilla. Pale blue fls. 4"-6".

Cerastium tomentosum. Creeping species with gray foliage, fls. white, 6".

Dianthus—perennial species in var. (*D. neglectus* is especially good).

Gypsophila cerastioides Flowers white, red-veined, creeping habit. 4".

Gypsophila repens Dwarf creeping plant, white fls. 4".

Helianthemum vulgare vars. (Rock Rose) (Not reliably hardy north of Philadelphia) 9-12". Dwarf evergreen shrubs, brilliant fls. during summer.

Houstonia cærulea (Bluets. Quaker Lady).

Iberis sempervirens (Perennial Candytuft) 9"-12".

Iris cristata. Dwarf Iris with light blue fls.

Leontopodium alpinum (Edelweiss) 4"-12". Whitish floral lvs., fls. yellow, small.

Myosotis alpestris (Alpine Forget-me-not) Blue with yellow throat, 9".

Nicottergia rivularis (White Cup) White fls. yellow or rose throat, 3".

Phlox divaricata Lavender blue fls. 1".

Phlox subulata vars. White, pink, etc. 6".

Saponaria ocyroides Dwarf creeping habit, rose colored fls. 6"-9".

Saxifraga, mossy vars. White, pink flowers.

Sedum, dwarf vars. Various colors. 3"-12".

Sempervivum, in variety. Red and yellow fls. 6"-12".

Silene alpestris. White fls. 4"-6". Blooms in spring.

Silene Schafta Pink flowers. 4"-6". Blooms in fall.

Trollius laxus (Globe flower) Yellow or orange. 1'-2'.

Viola cornuta. Blue flowers, 6"-9". Blooms throughout summer.

Almost everyone, once they have started a rock garden, becomes fired with ambition to grow the more difficult and capricious alpine, and their cultivation is indeed one of the most fascinating features of rock gardening. Connoisseurs get unbounded pleasure from the successful cultivation of such treasures as, *Anemone ver-nalis*, *Campanula Allionii*, *Saxifraga Boydii*, *Asperula suberosa*, *Ramondia pyrenaica*, and others of a similar nature. Those who

have mastered the cultivation of the easily grown alpines should try the more difficult subjects. Many helpful hints on their cultivation can be obtained from such books as "The English Rock Garden," by Reginald Farrer, and "Adventures in My Garden and Rock Garden," by Louise Beebe Wilder.

PROGRESS IN GARDEN DESIGN IN AMERICA

BY MR. FERRUCCIO VITALE

Lecture given on January 10, 1924, American Museum of Natural History.

(*Mr. Leonard Barron, presiding*)

(Introduction to a display of lantern slides)

THE last thirty years of the artistic life of this country have been so interesting and so remarkable that to have been able to witness it, feeling, in a small measure, a part of it, has been a most delightful privilege. This period saw the gradual emerging of architecture, painting and sculpture from the chaos of the Victorian era, to the appreciation of classic order and of fundamental principles of design and saw the rebirth of one of the oldest among the arts, the art of landscape architecture.

With the latter we are here principally concerned and with the vast field of landscape design, whose function is the adaptation of land to human use and enjoyment. We shall confine ourselves to the progress of garden designs as typical, more evident and more easily appealing as a work of art. This progress has been indeed astounding and augurs well for its unlimited field and scope in the future. It is needless to say that the design of parks, parkways and playgrounds, park systems and that portion of city planning which falls properly within the sphere of the landscape architect, has made strides no less astounding.

The love of country life, apart from farming, is slow in growing in the normal development of people. It is the by-product of prosperity, which brings a certain degree of leisure and of those spiritual values which delight in peacefulness and in order and in the harmony of line and color. It becomes the yearning of large numbers when the standard of culture and taste rises considerably and when urban conditions become increasingly more difficult and antagonistic to physical and economic well-being. With country life comes the introduction of all forms of out-of-door sports contributing to mental and physical vigor, the familiarity with nature and its compositions, the desire to make one's surroundings attractive as well as useful. It generates, in other words, the appreciation of landscape design.

In the last thirty years all this has grown in America to a magic extent as shown by the number of suburban and country places, garden cities and country clubs constructed and by the growth of a vast literature in books and magazines devoted to country life and to house and garden architecture. It has made possible the establishment and recognition of a profession trained in and dedicated to the art of landscape design, which celebrates this month the twenty-fifth anniversary of its organization. It has promoted the garden club movement, which, from modest beginnings has spread all over the country and culminated with the formation of the Garden Club of America. Finally, it has fostered the appearance of well organized schools of landscape design in the universities, and definitely established landscape architecture as one of the fine arts represented in the highest institution of the country, among the Fellowships of the American Academy in Rome.

Of the work accomplished in garden design in the period of time under consideration we shall presently speak. It would be absurd to think that progress has been uniform and constant. The rapidity of the movement itself has prevented it by encouraging all sorts of people to enter the field, from the well meaning layman carried away by enthusiasm, to the calculating exploiter with goods to sell. But, on the whole, common sense is gaining, restraint follows upon the advance of taste and every good piece

of work done sets a standard and an example readily and eagerly followed by others.

When my interest in landscape design began twenty-five years ago, the profession was at its very beginning and the art known only to an exceedingly small public. Frederick Law Olmstead, Sr. had unquestionably established it by masterful work, and his sons and his associates were carrying on his tradition in public and private undertakings, while a handful of other men were endeavoring to obtain recognition through good professional work and unselfish educational efforts. But in the main, the public was satisfied with such ornamentation of grounds as the gardener, the nurseryman and the florist could supply. There was no idea of artistic composition. It was rather a question of grading for drainage, of planning for utility, or ornamenting for show and of planting as many trees and shrubs as possible, in order to present a collection of exotic materials. It was the age of the pergola and of the blue spruce. The age which is responsible for the development and growth of our nurseries producing trees and shrubs for the ornamental planter rather than for the composer of pictures.

In general, very little effort was made to stimulate the senses with well conceived arrangements of the materials which nature puts at the disposal of the landscape designer. There was little understanding of the art, which is one of expression and composition based upon the same eternal principles which govern the other fine arts. The media only differ. By skillful modeling of the ground surfaces, the artist prepares the foundation upon which he builds his composition. By adding to and subtracting from the existing vegetation, trees and shrubs, the size, color and texture of which do or do not harmonize with and contribute to the pleasing effects of the whole, he establishes the most important masses of his design. By devising means of approach and by providing the many utilitarian features of his problem in such fashion as not to intrude unduly upon artistic effects, he makes his work available for use and for comfort. Finally, by judicious control of skyline, by introduction of architectural or sculptural ornament, by the use of water in the many forms in which it delights the eye or the ear,

he makes his appeal to the senses and presents a completed work which reveals its unity, its balance, its fitness and a restrained sense of intricacy under varying conditions of distance, of light and atmosphere.

Are there more diverse, more subtle, and more worth while materials at the disposal of any other artist? Where is greater opportunity for self-expression and for service? The finer instincts of man can only be developed and utilized in a physical environment which acts and reacts upon our senses in a way to compel us to socially harmonious actions. The landscape architect, in collaboration with his brother artists, the painter, the sculptor, the architect, has the power to make such an environment, and we must labor industriously and incessantly so that he may be equipped to the utmost to utilize that power for the greatest good of the country. The call, therefore, is not for the engineer or the horticulturist only, but primarily for the artist with sufficient knowledge of engineering and horticulture to be able efficiently to execute his compositions.

What then is composition? It is the arrangement of the elements of design into an ordered whole. Our elements of design, as we have already seen, are the modeling of ground surfaces, the planting materials, architectural ornaments and sculpture, the skyline and the atmosphere.

The pleasure in the composition of a landscape depends on our appreciation of the ordered relations which exist among its parts. And this order consists of some similarity of physical characteristics among the parts or some harmonious space relations among them; that is, the separate objects in the composition must be harmonious in color, shape and texture and related to one another by repetition, sequence and balance.

The first and most evident result of this order is unity of design. And strongly contributing to this sense of unity and indispensable to human enjoyment is the segregation from its surroundings of the composition which one wishes to emphasize. The attention of the observer must not be dispersed but concentrated within the 20 degrees of vision given to our eye, so that in the same way in which the painter segregates his picture by means of a

frame, so must the landscape architect segregate his pictures by masses of planting or hedges, or walls or natural topographic conditions.

So then, the elements of design are order, or repetition, sequence and balance; harmony of color, shape and texture; segregation; all of which result in unity of composition. But to these technical qualities, which are indispensable and reveal in the work the artist's thorough familiarity with the tools of his craft, one must add a number of elements much more elusive, but exceedingly important, such as correctness of scale in relation to the surroundings, gentlemanly restraint and fitness. In other words one must consider to what an extent the garden design satisfies correctly the human need for which it is intended.

Now, if, in the light of the principles enumerated above, we review the progress of a generation, as represented by the work executed, we find that, on the whole, from a haphazard beginning, we have gradually proceeded to eliminate or greatly to reduce the appalling number of garden misfits so generally built in earlier times. The inconsequential, spotty, heterogeneous planting, innocent of group affinity, or fitness or even common sense, has given way to well devised compositions placed on ground correctly moulded to receive them. Size, shape, texture and color harmonize, and ornamentation is appropriate and restrained.

Last, but not least, there is a sense of social fitness in most of these modern gardens which makes them typically American and twentieth century rather than poor imitations of the products of the pomp and splendor of the exalted classes of an historic period which will never return. Gradually the genius of this country is asserting itself in the design of our gardens just as it asserted itself in our architecture and in painting and sculpture, by drawing inspiration from the finest world examples, by adhering to inviolable fundamental principles and by conceiving design in terms of the culture, social and economic needs of the America of today.

GOOD FRUITS FOR THE HOME GARDEN

BY DR. U. P. HEDRICK, New York State Horticulturist.

Lecture delivered February 14th, 1924, American Museum of Natural History.

(*Mr. Leonard Barron, presiding*)

THE selection of varieties of the different fruits is one of the perennial problems of those who maintain fruit gardens. Year after year, January and February bring the nurserymen's catalogues. Each succeeding year they are more sumptuous and alluring. The old-time catalogues with over-colored caricatures of fruits and none too truthful descriptions have evolved into beautifully and accurately illustrated horticultural magazines for the most part well edited and truthfully written. The nursery catalogues of today, as compared with those of yesterday, are tributes to a samer and more reliable nursery business and to more intelligent and better informed buyers of nursery stock.

What attitude should the fruit grower take toward the new fruits offered in these catalogues? Those whose calculations run to a sure and quick turnover of capital will not buy. To such, new fruits savor overly much of speculation. They see no immediate money to be made in new fruits. But those who grow fruit in the home garden and for their own pleasure and that of their friends may be justified in taking a different attitude. Is there justification for new fruits for the home garden? Let us see.

The history of fruit growing in America since 1800 is the greatest and is sufficient justification for planting new fruits. At that date almost none of the thousands of varieties of fruits now found in American orchards and gardens were grown; native plums, American grapes, American raspberries, blackberries, dewberries, cranberries, gooseberries, and strawberries were not cultivated in the United States.

Since the year 1800, 11 American species of plum, of which there are 433 pure-bred and 155 hybrid varieties; 15 species of American grapes with 404 pure and 790 hybrid varieties; 4 species of raspberries with 280 varieties; 6 species of blackberries with 86 vari-

eties; 5 species of dewberries with 23 varieties; 2 species of cranberries with 60 varieties and 2 gooseberries with 35 varieties; all told 45 species of American fruits with 2,226 varieties have been domesticated from wild plants found on this continent.

Besides these new fruits from our own country, the strawberry with its hundreds of varieties, Japanese plums, Kieffer-like pears, several new races of peaches, oranges, lemons, grape-fruits and many other sub-tropical fruits have been introduced. Without these fruits, all comparatively new, the American fruit garden would indeed be poverty stricken.

But we must add to these new fruits an even greater number brought to orchards and gardens by the introduction of new varieties of old fruits, as of apples, pears, peaches, plums and cherries. Had fruit growers for the past hundred years refused to plant new varieties, the niggardly and insignificant assortment of fruits and varieties grown in 1800, mostly exotics which will not thrive in our climate, would hardly make a fruit garden.

With this great array of new and old fruits and new and old varieties it may be argued that the limit of improvement in fruits is nearly reached. Not true! Most of our fruits are but one or few removes from the wild state. Every one of our commercial varieties is better characterized by its faults than by its merits. For examples the Baldwin, the standard apple in this state, is tender to cold, bears biennially, is subject to Baldwin spot, and is none too good in quality; Bartlett, our best known pear, is ravaged by blight, does not keep well, and is self-fertile; Elberta, the commonest peach, is wretchedly poor in quality and blossoms too early; and so, with every fruit to be named, faults may be pointed out.

With new discoveries in plant breeding, we are just at the beginning of improvement in fruits—on the first rung of a long ladder. We are not nearly as far along in the evolution of fruits as the florist is with flowers, good examples of improved flowers being roses, chrysanthemums and carnations. Greater improvement ought to be made in the next hundred years than was made in the last. Probably we shall not be growing a single variety of fruits on a large scale in the year 2024 that we now grow.

Let us look at another phase of this question of varieties. The objection is being urged that there are too many varieties of fruits. Nurserymen want to cut down the number of sorts they grow. Commercial fruit growers prefer to grow few rather than many sorts. Fruit dealers are urging fruit growers to plant fewer sorts because, they say, it is much easier to have a standard pack and to give quotations to wholesale and retail dealers if there are few varieties. This is a short-sighted policy. Fewer varieties mean in the long run a great curtailment of the pleasures in having a fruit garden. Planters of home gardens must not permit the so-called "standardization of varieties," whereby they are cut off from getting any but commercial sorts from nurserymen.

People who grow fruits for pleasure are already limited too much in the choice of sorts offered by nurserymen. Many good old kinds cannot be bought. There are not now enough sorts of any of our fruits to give the different colors, tastes, seasons, and to serve the several purposes for which fruits are grown. Nurserymen offer a most parsimonious assortment in comparison with what might be offered.

It is worth noting that in most food products variety is an asset. The candy maker, the ice cream maker, the pastry maker, all cater to variety. Of such staples as bread, cereals, and cheeses, the kinds are being increased rather than diminished. With all of these products variety is difficult to obtain, while with fruits it is easy. Yet the tendency among fruit growers is to cut down variety as if it were a liability instead of an asset.

Take the case of the apple. There are perhaps two hundred or more varieties of apples grown in the United States. Perhaps a thousand more sorts have been grown in the last century, or could be obtained from Europe. Yet only a score or thereabouts of the splendid array of delicious apples can be had from the average nurserymen. This means, of course, a curtailment in the pleasures of a home garden. No one will deny that many of the sorts now offered are not worth growing, but on the other hand, there are many choicely good apples that, with modern methods of spraying and orchard management, could be profitably grown. It is too bad that only red apples for the most part are now being planted.

There are good green and russet sorts that ought to be planted in the home garden.

Pears, perhaps better than the apple, illustrate the loss that gardens suffer in not having a greater variety. Bartlett, Seckel, and Kieffer are the leading sorts. The beautiful and delicious Bosc, Dana Hovey, Sheldon, Lawrence, Winter Nelis and scores of other notable sorts can seldom be found in recent plantings to the great loss of those who care for good fruits. Were they to be found, who can deny but that the demand for pears would be greater?

With the peach, conditions are even worse. We have with the peach the sordid spectacle of the whole country growing Elberta, wretchedly poor in quality and not particularly handsome, to the exclusion of the scores of better flavored and much handsomer peaches.

What has been said of the apple, pear and peach may be said of the cherry and plum. Montmorency and English Morello are about the only sour cherries grown. Napoleon, Schmidt, and Black Tartarian are the most usual sweet cherries found in Eastern orchards. The delectable Dukes, fit for dessert and culinary purposes alike, are now seldom grown, although there are a dozen or more varieties which ought to be grown. A few plums and prunes of large size, bright color, good shipping quality, and easily grown in nurseries have elbowed much better flavored sorts to the rear in the fruit market.

Concord, a good grape, but not the best, is now grown almost to the exclusion of other sorts. Nearly a thousand kinds of native grapes have originated in America. We are not doing justice to our splendid native grapes in discarding practically all but Concord as home and commercial sorts. There are red, green, and other black grapes that those who use grapes should know. There are earlier sorts and later sorts than Concord that would extend the season of grapes and add to the pleasure of growing this fruit.

So with the small fruits. These as well as the tree and vine fruits are various in flavors, colors, odors, tastes and seasons. To limit varieties of these, as with the larger fruits, means cutting down the pleasure of growing them. Those who grow fruits

ought to plant sorts which please all the senses gratified by fruits, to serve all the purposes served by fruits, and to be had in all the seasons in which the fruit can be had.

But how may the owners of fruit gardens know what sorts to choose from the catalogues that come to them? There are two ways in which the amateur fruit grower can meet the problem of horticultural novelties. He can rely upon the trustworthiness of the nurseryman and permit him, as the introducer, to be his guide; or, he can await the results of tests made by others—especially of tests made at the various experiment stations.

Many who plant fruits in the garden, even though now and then deceived, take great pleasure in growing new introductions. To such experimenters, I offer the following suggestions to guide them in determining what new fruits to look upon as promising and what ones to distrust, it being quite out of the question for any one person to try all.

SUGGESTIONS TO BUYERS OF FRUITS

The term "improved" added to the name of an old variety is a misrepresentation, pure and simple. Out of the score or more of fruits tested at the New York Agricultural Experiment Station sent out as "improved," not one has differed in any way from the original variety. Fruits propagated from cuttings or grafts remain substantially the same indefinitely.

The term "pedigree" is used by some nurserymen in a slightly different sense than "improved" but still with the inference that "pedigreed" varieties are in some way improved. Buyers of "pedigreed" stock should demand proof of the supposed superiority. Varieties of fruit are pure-bred in the most literal sense, their line of descent, barring a very occasional break, being absolutely unchangeable.

Occasionally there are breaks or bud variations in fruits. When it is proved that a variation is transmitted through budding or grafting, the new strain, possibly divergent enough to be a variety, may be of value. In the study of the history of several thousand varieties of fruits by the speaker, it does not appear that many sorts, not one out of a thousand, have originated as bud-variations.

A variety is not sufficiently well described to make it worth buying unless the merits and faults of the plant as well as of the product are depicted. In particular, the adaptabilities of a variety to soils and climates and its immunities to insects and fungi should be known before it is largely planted.

One should look with suspicion on varieties which are advertised as surpassing their kind in all respects. Most novelties, even the most worthy, are superior in but one of a few respects; as, in prolonging the season, in improvement of quality, in meeting some new climatic condition, in adaptability for some particular use, or, and most frequently, because of greater productiveness.

Varieties of worth may be more commonly expected in fruits domesticated but a short time, and therefore little improved, than in species long under cultivation and much improved; thus, American species of grapes give more new varieties than the Old World species; American plums are more variable than those of Europe; American raspberries, blackberries and strawberries are prolific of new sorts; the apple, quince, pear, cherry and peach, all old types, are relatively stable.

Old varieties are often reintroduced as novelties because of a variation of the type brought about by local influence; thus, the Green Newton of the Hudson, the Yellow Newton of Hood River, the Albemarle Pippin of Virginia, and the Five-Crowned Pippin of Australia, differ in all these regions; but brought together in any one place, all are the same.

It is best, if possible, to buy new fruits from the originator or introducer as these men are most likely to have the variety true to name, and, moreover, most deserve to reap the reward for bringing forth the novelty.

In concluding this phase of my subject, then, I hope that we can all agree that connoisseurs and amateur fruit growers want new varieties and many varieties for their gardens. They grow fruit for the love of the work. To them the orchard often exists for the new and rare things that they can put in it. Such fruit growing is a pleasant diversion and, in a broad way, a profitable one, through the knowledge obtained of varieties, for all planters of fruit. It is readily comprehensible that connoisseurs and amateurs

want all of the promising new varieties. We care not how much the discussion of new fruits may kindle the admiration and awaken the passion for collection in the connoisseur. The appeal in this case is to the palate and to the aesthetic senses and not to the pocketbook.

I want now to take the remaining, and the major part of the time that can be given for this talk for a discussion of the several fruits that might well be planted in a home garden.

(The following sorts were named and briefly discussed by the speaker. Most of the varieties mentioned were illustrated with colored plates.)

Apples: Yellow Transparent, Early McIntosh, Milton, Red Gravenstein, Wealthy, McIntosh, Fall Pippin, Cortland, Grimes Golden, Delicious, Spitzenburg, Yellow Newton.

Pears: Tyson, Clapp Favorite, Bartlett, Sheldon, Bosc, Seckel, Anjou, Winter Nelis.

Quince: Orange.

Peaches: Greensboro, Carman, Champion, Early Crawford, Elberta, J. H. Hale, Crawford, Salwey.

Nectarines: Hunter, Victoria.

Plums: Abundance, Burbank, Bavay, Bradshaw, Drap D'Or, French, Grand Duke, Italian Prune, Tennant, German Prune, Agen.

Cherries: Sweet: Seneca, Black Tartarian, Wood, Yellow Spanish, Napoleon, Windsor. Sour: Early Richmond, Montmorency, English Morello, Duke, Reine Hortense, Royal Duke.

Grapes: Portland, Brighton, Delaware, Worden, Concord, Niagara, Catawba.

Red Raspberries: June, Ontario, Cuthbert, Herbert, Empire.

Black Raspberries: Gregg, Plum Farmer.

Purple Raspberries: Columbian.

Blackberries: Eldorado.

Gooseberries: Poorman, Chautauqua.

Currants: Wilder, Fay, Prolific.

Strawberries: Premier, Beacon, Good Luck, Barrymore, Chesapeake, Marshall, William Belt, Progressive.

ELECTRIC LIGHT IN GREENHOUSE CULTURE

BY PROF. HUGH FINDLAY, Columbia University.

Lecture delivered April 10th, 1924, American Museum of Natural History.

(*Dr. E. B. Southwick*, presiding)

ONE of the first important records of an experiment to ascertain whether electric light exercised any decided effect upon the growth of plants was carried forward in 1880 by C. Wm. Siemens, D.C.L., LL.D., F.R.S., Mem.Inst.C.E.

The experiment started October 23, 1880 and continued until May 7, 1881.

In Dr. Siemens's paper, "Some applications of electric energy to Horticulture and Agricultural purposes," presented before the Royal Horticultural Society of London, reports that the electric light was capable of producing upon plants effects comparable to those of solar radiation. It further states that chlorophyll was produced by artificial light, and that bloom and fruit rich in color and aroma could be developed by its aid. Dr. Siemens claims that his experiment went on to prove that plants do not as a rule require a period of rest during the twenty-four hours of the day, but make increased and vigorous progress if subjected (in winter) to solar light during the night.

These experiments were carried on during six days of the week and not on Sunday. The plants used were peas, French beans, wheat, barley and oats, cauliflower, strawberries, raspberries, peaches, tomatoes, and vine crops. Various flowering plants were tested including roses, rhododendrons and azaleas.

It is interesting to contrast the following data tabulated by Dr. Siemens in 1880-81 with the present day reports.

(1) One pot: In the dark—Plant became pale yellow and soon died

(2) One pot: Electric light only—Plant not healthy, pale green.

(3) One pot: Daylight only—Plant deep green and vigorous.

(4) One pot: Daylight plus six hours of electric light—Plant superior in vigor, leaf dark rich green.

We should not leave this first experiment without giving one of the most important conclusions by Dr. Siemens:

"Periodic darkness evidently favors growth in the sense of elongating the stalks of plants, the continuous stimulus of light appears favorable for healthy development at a greatly accelerated pace, through all the stages of the annual life of the plant, from the early leaf to the ripening fruit. The latter is superior in size, in aroma, and in color to that produced by alternating light, and the resulting seeds are not at any rate devoid of re-germinating power."

We are also interested in the cost of these experiments. Dr. Siemens states that nine lights over three-fourths acre of glass cost 16 shillings per day.

While scientists in England, France and Germany were testing

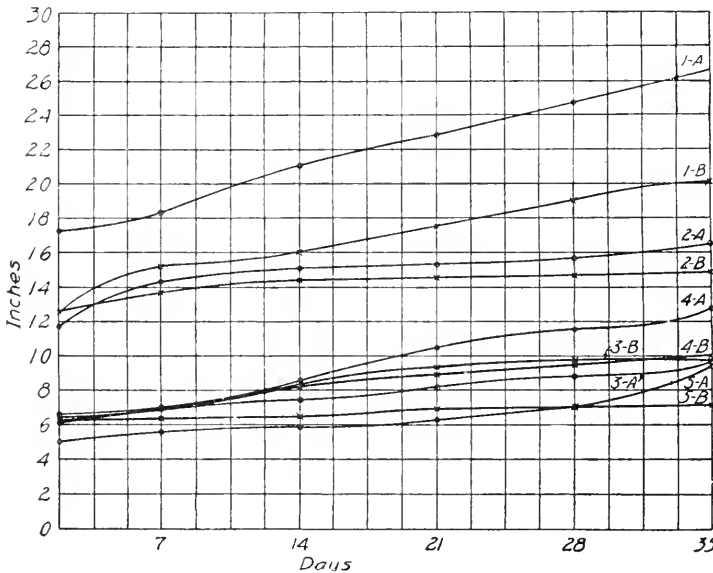


FIG. 1.—Growth curves for following plants—1-A and 1-B Ivy, 2-A and 2-B Boston Fern, 3-A and 3-B Calla Lilies, 4-A and 4-B Tradescantia or Wandering Jew, 5-A and 5-B Geranium (apple scented).

electric energy in the growth of plants, Dr. L. H. Bailey was carrying on some valuable experiments at Cornell from 1891 to 1893. Dr. Bailey in the following report, copied from his bulletins on electric experiments gives us not only the results of artificial light on the growth of lettuce but also a detailed report of the cost of lighting the greenhouses.

LIGHT ON LETTUCE

"Lettuce was greatly benefited by the electric light. We had found that under protected light the lettuce had made a better growth than in normal conditions. Lettuce of two varieties—Landreth Forcing and Tennis Ball or Boston Market—was transplanted onto bench No. 4 when the light started. Both varieties were planted in each house, and the plants were all alike; and all the conditions in the two compartments were kept as nearly alike as possible. Three weeks after transplanting (Feb. 5), both varieties in the light house were fully 50 per cent. in advance of those in the dark house in size, and the color and other characters of the plants were fully as good. The plants had received at this time $70\frac{1}{2}$ hours of electric light. Just a month later the first heads were sold from the light house, but it was six weeks later when the first heads were sold from the dark house. In other words, the electric light plants were two weeks ahead of the others. This gain had been purchased by $161\frac{3}{4}$ hours of electric light, worth at current prices of street lighting about \$7.00.

"This lettuce test was repeated and was watched very closely when the lamp was transferred to the compartment which had formerly been kept under normal conditions. The same results were obtained, and the differences between the two crops were so marked as to arrest the attention of every visitor. The electric light plants were in every way as good in quality as those grown in the dark house; in fact, the two could not be told apart except for their different sizes. The history of the plants is as follows: The seeds were sown in flats February 24th. Until March 17th they were grown under ordinary conditions, at which time they were set in their permanent positions in the two compartments. We began to pick lettuce from the light house April 30th, but the first

of equal size from the dark house was obtained May 10th. The electric light plants were therefore upon the benches 44 days before the first heads were sold. During this time there were 20 nights in which the light did not run, and there had been but 84 hours of electric light, worth about \$3.50. In order to compute the cost of growing lettuce by the aid of the electric light, it is necessary to know how far the influence of the light will extend. This we do not know; but the lamp exerted this influence throughout a house 20x30, and the results were as well marked in the most remote parts as they were near the lamp.

“The results obtained from lettuce suggest many questions, all of which must be answered by experiment. We need to know if there is any particular time in the life of the lettuce plant when the light has a predominating influence; if a mild light is as good as a strong one; if the failure of light during the moonlight nights is a serious drawback; to what distance the influence of the light extends; if the same results can be obtained by hanging the lamp over the house, instead of inside it, and by that means lighting several houses at once; if other plants can be profitably forced by means of electric light.”

In the third report upon Electro-horticulture in 1893, Dr. Bailey used several varieties of plants and has carefully told us the story of his year's work in the summary of Cornell Bulletin 42:

PART PLAYED BY GLASS

“1. The influence of the electric arc light upon greenhouse plants is greatly modified by the use of a clear glass globe or the interposition of a glass roof. Plants which are much injured by a naked light, may be benefited by a protected light.

“2. As a rule, plants are earlier under the electric light than when grown in ordinary conditions.

“3. The light can be suspended above the house with good effect.

“4. Lettuce is greatly benefited by the electric light. An average of five hours of light per night hastened maturity from a week to ten days at the distance of ten and twelve feet. Even at 40

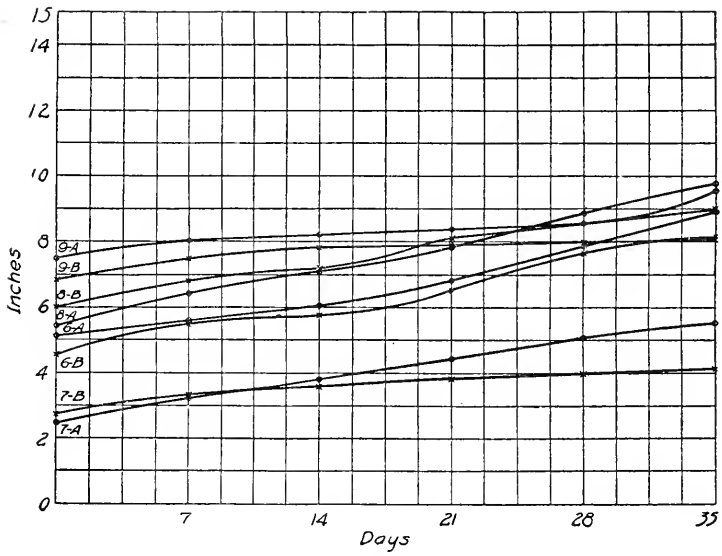


FIG. 2.—Growth curves for the following plants—
 6-A and 6-B Coleus (large leaf type).
 7-A and 7-B Coleus (small leaf type).
 8-A and 8-B Marguerites or Paris Daisies.
 9-A and 9-B Geraniums (S. A. Nutt).

feet, in only diffused light, the effect was marked. The light appeared to injure young, newly transplanted plants.

"5. Radishes were also benefited by the light, but not to a great extent. When the light was hung in the house, however, whether naked or protected by a globe, radishes were injured.

"6. Beets and spinach appeared to be slightly benefited by the light.

"7. Cauliflower under the light tended to grow taller than in ordinary conditions, and to make fewer and smaller heads.

"8. Violets and daisies bloomed earlier in the light house. This corroborates results obtained with flowers in our earlier experiment.

"9. The electric light does not appear to determine or modify the hours of growth of lettuce and some other plants which have been studied in this particular. Plants which are benefited, simply grow more rapidly during the customary periods.

"10. I am convinced that the electric light can be used to advantage in the forcing of some plants."

One of our next important experiments in America upon Electro-horticulture was carried on under the direction of J. L. R. Hayden and C. P. Steinmetz. The experiment was started December 13, 1916, and ended February 24, 1917, or 73 days.

Five-hundred watt gas-filled Mazda lamps were placed 36 inches above the ground and 17 inches apart.

While the following report is discouraging from an economic point of view yet it should not be overlooked that both of these engineers claim that high priced plants for Christmas and Easter, such as Poinsettias, Easter Lilies, might be raised economically under artificial light, but they do not hold out much hope for vegetable growers.

TIME SAVED FORTY-SIX PER CENT.

The following report is quoted from the General Electric Review of 1918:

"Artificial illumination has reduced the time required for the development of certain plants by 46 per cent.

"This means that under the influence of intense artificial illum-

ination the plants have grown and brought fruit in a little more than half the time required under the daylight alone, in other words, the artificial light causes about double the rapidity of growth and development.

"After harvesting about three quarts of string beans, or about 90 cents worth, an estimate of the power rate of 54 cents per kw-hr. was made and the beans actually cost \$167.00."

It seems that this experiment was not carried on with its economic worth kept in mind, and certainly in the light of past experiments there were too many lamps used on such a limited space and without consideration of the economic expenditure. Nevertheless the same report gives out the following:

"Assume, for instance, that the plants are in 6-in. pots. By proper arrangement one 500-watt lamp could illuminate a circle 6 ft. in diameter, thus accommodating 144 pots. Intense illumination for one week or seven days, 18 hours per day, would accelerate the development by about five days and would require 63 kw-hr. At 5 cents per kw-hr., this would cost \$3.15 or a little over 2 cents per pot, an expense which would be fully warranted economically if it makes the product salable at the high seasonal prices. Probably a materially higher cost for correcting a retardation of several weeks would be economical."

According to the Yearbook of 1920, United States Department of Agriculture, W. W. Garner and H. A. Allard carried on some valuable experiments. They found in some instances that plants were brought into flower and fruit by shortening the day at certain seasons. The Biloxi and Peking Soy-beans were used. The common wild aster when exposed to 7 hours of light daily was in bloom in 36 days, as against 122 days when exposed to light for the entire day. Other plants such as Lima Beans from Pennsylvania, ragweed, Chrysanthemums and others responded in a similar way to the soy-beans.

On the other hand, experiments show that some plants such as those that flower in the late spring and early summer do not require short days to reach the flowering stage. Among this group of plants are the winter annuals and many of our common vegetables.

The actual cost of these experiments did not figure in the report.

Professor G. T. Nightingale of the University of Wisconsin has given some interesting results in his paper "Light in Relation to the Growth and Chemical Composition of Some Horticultural Plants." 1922. Professor Nightingale combines short and long day test with the application of fertilizers. The following summary will give an idea of the results achieved in the Wisconsin University experiments:

ACTION ON CHEMICALS

"1. Nitrates may be stored by the plant until the proper conditions arise for synthesis to other forms of nitrogen.

"2. The presence of nitrates as such in the plant does not appear to affect materially the type of growth of the plant.

"3. Conditions resulting in a decrease of insoluble nitrogen and a still greater proportional decrease in carbohydrates resulted in a relatively high proportion of insoluble nitrogen to carbohydrates, producing a strongly vegetative and unfruitful plant.

"4. Conditions favoring the formation of an abundance of insoluble nitrogen and simultaneously an abundance of carbohydrates resulted in a vigorously vegetative and fruitful plant.

"5. Conditions resulting in a decrease of available soluble nitrogen without simultaneously decreasing the carbohydrates supply resulted in a very high proportion of carbohydrates to insoluble nitrogen and produced a weakly vegetative and unfruitful plant.

"6. It is inferred conditions resulting in a more or less complete limitation of carbohydrates and a simultaneous decrease in insoluble nitrogen, even though soluble nitrogen may be increased, probably would result in a weakly vegetative and non-fruitful plant. This condition was not found among those prevailing in the experiments discussed.

"7. It is possible that certain forms of soluble nitrogen may be as intimately associated with growth responses as are certain insoluble forms of nitrogen; no specific substances have been determined in this work.

"8. In the case of Tomatoes, light within the limits of a 6-hour day did not appear markedly to limit the synthesis of nitrates to

insoluble forms of nitrogen, providing there was present an available supply of carbohydrates.

“9. Buckwheat, Soybeans, Radish and Salvia of the varieties used, however, were limited in the synthesis of nitrates to insoluble forms of nitrogen by a 7-hour day as it occurred in the greenhouse, even though there was present an available supply of carbohydrates.

“10. A large degree of carbohydrates in Tomato plants already very high in carbohydrates was apparently coupled with decomposition of insoluble nitrogen even though there was no external supply of nitrates available to the plant.

“11. In the Tomato, insoluble nitrogen was not decomposed to nitrates.”

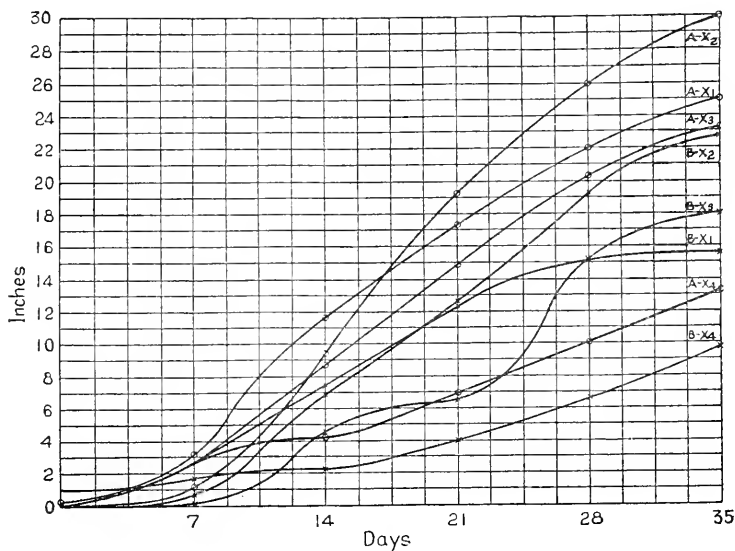


FIG. 3.—Growth curves for the following vegetable seedlings grown in pots—

- A-X₁ and B-X₁ Beans Stringless Green Pod.
- A-X₂ and B-X₂ Pea First-of-all.
- A-X₃ and B-X₃ Sugar Corn Golden Bantam.
- A-X₄ and B-X₄ Cabbage Early Jersey Wakefield grown in flats.

Professor R. B. Harvey, University of Minnesota, in his paper, "Carbohydrate Production and Growth in Plants Under Artificial Light," 1923, gives the most interesting results of his analysis. The following extracts are quoted from Professor Harvey's paper:

"We have made chemical analysis of the carbohydrates produced in plants at the various light intensities. The effect of continuous illumination is to cause the accumulation of large quantities of starch in the plants. Wheat grown in artificial light is full of starch. Buckwheat has so much starch that the grains may be easily pulverized in the hand.

"Nasturtiums produced in continuous artificial light are full of sugars so that the flowers keep for a longer time than flowers cut from plants grown outdoors. Cabbage leaves were found to contain one-third of their dry weight as starch and sufficient other easily hydrolysable carbohydrates to raise the quantity estimated as starch by the method of acid hydrolysis to 53 per cent. in one case. This is a much greater quantity of starch than found in green leaves grown in sunlight. In alternating day and night the quantity of carbohydrates in the leaf shows a periodic fluctuation corresponding to the period during which photosynthesis can occur. Growth also is fluctuating in its rate. When the light is continuous, photosynthesis is not stopped as in a period of darkness, and growth is uniform in rate.

TOO EXPENSIVE FOR VEGETABLES

"I do not believe that artificial light will be used in the near future for the growth of crop plants on a commercial basis. Yet I do believe that many rare and valuable flowers may be grown for the market out of their regular season by the use of electric light. Orchids and Water Lilies are most valuable when they cannot be supplied from cultivation in ordinary daylight. The use of artificial light will make the production of such plants possible at times when there is no competition. The best application of the method lies in the aid to plant breeders in hybridizing plants and in growing the progeny to maturity out of season and in a short time."

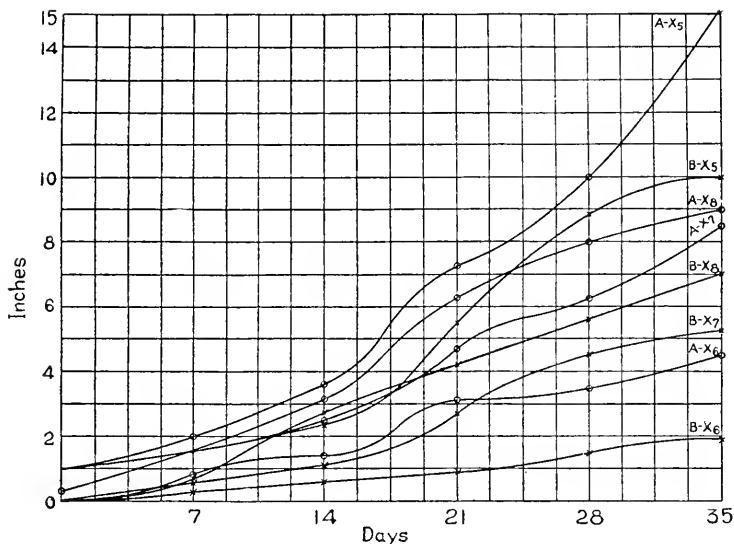


FIG. 4.—Growth curves for the following vegetable seedling plants grown in flats—
 A-X₅ and B-X₅ Tomato Chalk Early Jewel.
 A-X₆ and B-X₆ Celery White Plume.
 A-X₇ and B-X₇ Lettuce California Cream Butter.
 A-X₈ and B-X₈ Onion Yellow Globe Danvers.

The results obtained at Columbia University and described in "Preliminary studies in the Response of Plants to Artificial Light," Illuminating Engineering Society publication, 1923, show a marked increase of growth with plants treated with artificial light plus sunlight.

PROCEDURE OF TEST

Several thousand vegetable seedlings raised in flats and a large number of flowering plants started from cuttings, raised in pots, were placed under ten 500-watt, 110-volt Mazda C clear lamps.

Seed was planted in pots and flats on February 19, 1923, and the artificial light experiment started on March 1st, 1923 at 9 P. M. and was discontinued on April 4, 1923 (thirty-five days).

With each plant, flat or pot of seed tested under the lamps there were exact duplicates, tested under sunlight alone.

The ten 500-watt gas-filled Mazda lamps were hung in a row 36 inches above the surface of the bench. Each reflector-socket was arranged $1\frac{1}{4}$ ft. between sections so that the edges of the reflectors were approximately $\frac{1}{4}$ ft. from each other. The adjustment range was 1 to 8 ft. and was kept constant for 4 weeks at 36 inches above the bench. On account of the increased temperature during the day and the high temperature under the lights, the adjustment was made 4 ft. above the surface of the bench.

The lamps were kept burning continuously from 9:00 P. M. until 2:00 A. M. When reference to artificial light is made it should be understood that during the day the plants were exposed to the sun as were the check plants.

During the test, twelve days out of the thirty-five were cloudy.

The average maximum temperature of circulating air during the period of test was 91.3° F. for the test plants and 95.8° F. for the check, while the average minimum temperatures were 64.9° F. for the test plants and 73.7° F. for the check plants. In the rays of the lamps according to the Brown recording thermometers, the temperature averaged about 22° F. higher than the average range during the day, the maximum temperature being attained at 2 A. M. The root temperatures averaged 60.5° F. for the test plants and 57.5° F. for the check plants. These readings were taken at 9 A. M. before the plants were watered. The root temperature was raised about 8° F. when the lights were on five hours, as shown by readings taken at 2 A. M. All readings were taken with Fahrenheit and Centigrade thermometers properly calibrated and checked.

Records of the average height were taken weekly. Individual plants tend to vary materially when raised under the same conditions so that an average of each type of plant under the light was taken and also an average of the growth of the plant of each type under sunlight only.

Water was applied to the plants under the lamps on an average of 7 times per week, and the plants under normal light were watered 7 times per week. During the last week of the test the plants under the lamps were watered 9 times per week while the plants under normal light were watered 7 times per week.

Chemical tests of the plants for chlorophyl and starch contents

were made by Dr. A. M. Hageman, Chemical and Metallurgical Dept. Westinghouse Lamp Company.

In the case of both seedlings and flowering plants, the chlorophyll contents was the same in both groups of plants used in the experiment.

Only in the case of the Tomato plant was a complete determination made which showed 19.8 per cent. starch in the plants grown under normal conditions and 12.6 per cent. starch in the plants grown under forced conditions. Further analysis will be made before conclusions are drawn in regard to the chemical analysis of the plants under the artificial light.

THE HORTICULTURAL SOCIETY OF NEW YORK

PLANTS USED

Number of Pots

8	1-A	English Ivy (<i>Hedera helix</i>)
8	1-B	English Ivy (<i>Hedera helix</i>)
9	2-A	Boston Fern (<i>Nephrolepis</i>)
9	2-B	Boston Fern (<i>Bostoniensis</i>)
20	3-A	Calla-lilies (<i>Calla Aethiopica</i>)
22	3-B	Calla-lilies (<i>Calla Aethiopica</i>)
9	4-A	Wandering Jew (<i>Tradescantia fuscada</i>)
9	4-B	Wandering Jew (<i>Tradescantia fuscada</i>)
8	5-A	Geranium (Apple-Scented)
8	5-B	Geranium (Apple-Scented)
10	6-A	Coleus (Large Leaf Variegated)
10	6-B	Coleus (Large Leaf Variegated)
11	7-A	Coleus (Small Leaf Variegated)
11	7-B	Coleus (Small Leaf Variegated)
18	8-A	Marguerites (<i>Anthemis nobilis</i>)
18	8-B	Marguerites (<i>Anthemis nobilis</i>)
23	9-A	Geranium (S. A. Nutt)
29	9-B	Geranium (S. A. Nutt)

VEGETABLE SEED PLANTED IN 4-INCH POTS

Beans—Stringless Green Pod

Peas—First of All

Sugar Corn—Golden Bantam

VEGETABLE SEED IN FLATS

Cabbage—Early Jersey Wakefield

Tomatoes—Chalks Early Jewel

Celery—Golden Self Blanching

Celery—White Plume

Tomatoes—Bonnie Best

Lettuce—California Cream Butter

Onion—Yellow Globe Danvers

SUMMARY OF TESTS AT COLUMBIA UNIVERSITY

The results obtained from this experiment shows,

1—The use of the tungsten gas-filled Mazda C lamp has a beneficial effect on the growth of flowering plants started from cuttings.

2—The use of artificial illumination plus sunlight forces a more rapid growth of vegetable seedlings than similar seedlings under sunlight only.

3—The use of artificial light plus sunlight does not produce a weak, spindly growth of flowering and vegetable plants providing each plant is given sufficient space for normal growth, the proper soil, moisture and temperature conditions.

4—Flowering plants under artificial light bloomed approximately 8 days earlier than plants grown under sunlight only.

5—The chemical tests of the flowering plants and vegetable seedlings contained approximately the same amount of chlorophyll in both the plants under the lamps and those raised under sunlight only.

6—The economic value of this experiment to commercial growers depends upon the cost of engineering the project and in maintaining the installation at maximum efficiency to bring the evident effect of the artificial light on production.

OBSERVATIONS ON FALL PLANTING

H. E. DOWNER, POUGHKEEPSIE, N. Y.

WITH a late wet spring to contend with, such as we have experienced in 1924, the advantage of doing as much planting as possible in the fall is readily seen. Last October and November conditions in this locality were ideal for planting, and full use was made of the opportunity to steal a march on the spring rush by putting through a good planting program. The winter was less severe than usual, the thermometer rarely falling below zero, but the customary snow blanket was missing. A good one was supplied on the first of April, but too late to be appreciated. It was with unusual interest that the perennial beds especially were scrutinized when the winter covering was removed. Everything that had been transplanted was found to be alive and has since come along splendidly. The only thing amiss was a little displacement by the action of freezing and thawing, which was easily rectified. Amongst the things moved were the following: the Dropmore variety of *Anchusa italica*, Columbine, Larkspur, Scotch Pink, Sweet William, Shasta Daisy, Monkshood, Lupin, Funkia, Purple Coneflower, Phlox, Coreopsis, Gaillardia, Helonium, Aster, *Linum perenne*, *Viola cornuta*, *Veronica incana*, and *Campanula latifolia macrantha*.

Early in December several clumps of *Anemone japonica* were lifted for the purpose of taking root cuttings. The plants were divided and replanted and are all showing up well. In addition we have a good stock of young plants from the root cuttings. Early flowering *Chrysanthemums*, set out just before coming into flower, have also survived in an open border. The year before the same varieties were carefully placed in frames for the winter and the mice got them all! On the other hand, *Salvia uliginosa* and *S. farinacea*, which survived the very severe winter of the year before, succumbed this year, year old plants as well as the veterans. Evidently this was due to the absence of snow, as otherwise the covering was the same.

Good drainage, firm planting and a covering of light material

put on when it seems that winter has actually arrived are the chief factors in successful fall planting. Having plenty of pine needles I use these entirely for covering perennial beds and have never found anything else so good in every way.

Several plantings of Hybrid-tea and Polyantha Roses made in November and banked up with soil in December came through well and got away to a much better start than those planted in the spring. The exposed tops died back, but that was immaterial, as they would have been cut off anyhow.

For several years I have planted the ordinary run of deciduous shrubs in the fall and with unvarying success. This is not a unique experience by any means, but there are still many gardeners who confine their fall planting to spring-flowering bulbs. Most things, I believe, can be planted in the fall with good assurance of success. The advantages are at least three-fold: (1) better planting conditions, (2) less rush, and (3) a better start in the spring.

LEARNING FACTS ABOUT FLOWER GROWING!

SOMETHING ABOUT THE THOMPSON INSTITUTE FOR PLANT RESEARCH AND WHAT IT MEANS TO AMERICAN HORTICULTURE

BY E. L. D. SEYMOUR, New York

OF COURSE we have been learning things about growing plants for a good many years—in fact ever since Adam gave them their common names for which Linneaus was later to find scientific synonyms. But just as, even in this day of advanced knowledge, the Rockefeller Foundation and Institute are rendering invaluable service in the fields of animal and human investigation, so the Thompson Institute for Plant Research bids

fair to contribute immeasurably to our knowledge of plant life and plant culture.

To put it another way (and in the words of Director William Crocker of the Institute itself) its field is to be "the investigation of the fundamentals underlying plant growth and behavior." Therein, he explains, it takes the middle course between the botanical research activities of private colleges and universities (which are essentially pure science) and the work of the Federal and State investigational institutes which, of necessity, must devote most of their efforts to practical problems encountered in commercial phases of horticulture and agriculture. "We are not going to permit ourselves to be rushed off our feet by such practical considerations," he points out, "nor shall we let any basic truth go unscrutinized. But, on the other hand, wherever it appears warranted or desirable, we will be free to follow up lines of practical application as far as they can be pursued."

Now just what does this mean to horticulture? As a matter of comparative illustration, recently discovered "fundamental facts" about malaria are that it is caused by an organism which lives in and is transmitted by a species of mosquito, and that the extermination of that kind of mosquito effectually prevents the spread of the disease. Upon this basis has been built the modern system of malaria control and prevention. It is upon knowledge of such fundamentals that the solutions of all our problems rest—both those with which we are already familiar and those yet to be disclosed. We know the basic truths about wheat rust and its relation to the common Barberry; we know what causes the club-root of Cabbage and how it can be rendered impotent; we are rapidly learning why one Hydrangea bloom is pink and another blue—and with the knowledge we are becoming able to secure whichever result we want whenever we want it. But there are far more such questions unanswered than answered, and upon many of them depend the phenomena and conditions that often determine the success and prosperity of the commercial plantsman or the success and legitimate enjoyment of the amateur gardener and plant lover. To find these answers will be the work of the Thompson Institute and its investigators.

So much for what it means and can accomplish. Now for a "fundamental fact" or two as to what the Institute is and how it is going to function. Physically speaking it is going to consist of a group of laboratory and administration buildings, greenhouses, etc., located on nine acres of land in Yonkers, N. Y., adjoining the attractive grounds of the Hudson River Country Club, together with other outlying land available for experimental purposes as may be required. Its staff will include experts in all the realms of plant investigation and the related fields of biochemistry, entomology, phytopathology, physics, etc.

In the abstract, it represents the way in which Col. William Boyce Thompson, patron of various arts but an especially ardent and successful horticultural enthusiast, has decided to serve humanity. All those familiar with the International (New York) Flower Shows of recent years know Col. Thompson, by name at least, for the magnificent displays he has made there; hereafter plant lovers everywhere are likely to learn of him through the work of the institution that he has conceived, created, endowed and inspired. Destined to fill an important place among the really needed aids to human knowledge and development, it will stand as a monument to him—and also to the growth and mounting importance of horticulture in the modern scheme of things.

How long the idea has been formulating in Col. Thompson's mind is not mentioned; but in the fall of 1921 it was sufficiently mature to bring about the selection and installation as Director of Dr. William Crocker, then head of the Plant Physiology Department of Chicago University. For the next six months Dr. Crocker traveled over this country and Europe visiting the best establishments for horticultural and scientific research everywhere and studying the work that is being done in the plant field—and *how* it is being done. The latter point was especially important for the laboratory buildings—the first unit of which was begun about June, 1922 and will be in actual use early in October of this year—have since been designed and built with a view to including every known improvement and provision for every possible emergency, and avoiding every mistake heretofore made. Eventually four handsome, fireproof buildings will bound an imposing quad-

rangle on North Broadway just across from Col. Thompson's magnificent estate. The building that will form the southern boundary and that is now approaching completion is, however, typical of all of them and as it alone will accommodate thirty or more investigators, work should soon be under way in considerable volume.

As a matter of fact, one investigation of considerable interest to garden lovers is already being carried on in charge of Dr. L. O. Kunkel, the head of the Institute's pathological department. This is a study of Aster "yellows" which is causing such havoc among home gardens and commercial plantings. On the assumption that this disease, like some of the other "mosaic" maladies that resemble it, is carried by some insect pest, Dr. Kunkel is not only growing a field of Asters under various conditions and careful scrutiny, but is also maintaining groups of healthy and diseased plants in batteries of insect-proof shelters, in each of which he is rearing colonies of a particular kind of insect known to frequent Aster plants. At present these investigations are being pursued on part of the garden plot of the neighboring Country Club; later they will be continued in the greenhouses of the Institute.

Those greenhouses and the other laboratory facilities of the Institute buildings offer material for a series of articles that would warm the cockles of the heart of every reader interested in laboratory methods, technique and equipment. The individual research rooms for the various workers are each equipped with everything that the most ardent scientist could desire: a distilled water tap, outlets for gas, electricity (both 110 and 220 volt currents), high and low pressure steam, compressed air, suction (to create a vacuum) and cold air to provide for refrigeration nearly down to the zero point are distributed to every room from central sources. Certain rooms (and one of the greenhouses) have a piped supply of carbon dioxide gas (secured from the "washed" fumes of one of the boilers) while the chemical laboratories, in which painful accidents sometimes occur, are provided for just such emergencies with a special system of instantaneously operating sprinklers or showers.

Down in the labyrinthine basement are chambers where any

degree of refrigeration may be obtained for seed freezing work; in other dungeons equipped with batteries of 25,000 watt electric lamps and with the other conditions of humidity, temperature, etc. equally under control, plants may be grown in artificial light of any desired intensity up to about one-third maximum noonday sunlight. And here, in order to offset the relatively great heat induced by the use of such powerful lights, is found a remarkable arrangement of "water screens" through which the light must pass, and which are varied as to thickness and temperature so as to insure uniform conditions whatever the degree of lighting provided! Similarly in the greenhouse range: while all the houses are of the most modern construction, some of them are to be equipped with powerful electric lights that "daylight conditions" may be augmented; others, as already noted, will be provided with carbon dioxide distributors for stimulation purposes; while a final group, in which it is desired to grow plants in light from which certain spectral rays (such as the ultra-violet) have been removed, will be glazed with special, scientifically prepared, colored glass, and provided with a special system of artificial ventilation so that no faintest ray of sunlight will be able to enter. Truly the Thompson Institute laboratories seem to come as near providing control of the life forces of the universe as we are likely to come on this earth.

To the scientific workers and agencies elsewhere in this country and throughout the world the establishment of the Thompson Institute means much, for it is the idea of Col. Thompson, Director Crocker and the dual Boards of Directors that it shall coöperate with them in every possible way. Thus, under suitable arrangements, its exceptional facilities will be available for the use of the experts of other organizations of research; leaders in the fields to which it is to devote itself will be invited to make use of its materials and equipment in carrying out their studies of particular problems; and graduate students of special promise from the leading educational institutions will be given the almost priceless opportunity of extending their investigations, for a time or season, under conditions not to be duplicated anywhere in the world. In each case, of course, such an opportunity means much to the in-

dividual; but also it offers the possibility of the discovery of new facts, relationships, methods and motives that may prove of untold benefit to the world and to its horticultural activities and interests.

PROPAGATING THE LILIES

BY HELEN M. FOX, Peekskill, N. Y.

IT IS very easy to grow Lilies from seed. With the increasing difficulties in obtaining bulbs it is almost essential to provide one's own supply of Lilies.

Anyone desiring a collection of Lilies is advised to begin with a small number each of many varieties. This will enable him to discover the kinds that will do well in his garden. He may find that some of the Lilies as, for example, *auratum* and *tenuifolium* disappear after a few years. This may be caused by growing shade loving Lilies in the sun or planting Lilies requiring sand, in loam, or the reverse. Or the bulbs may spend the season splitting up into many small new bulbs and not send up any flower stalks for that reason. From my own experience I do not find that either lime or rotted cow manure spread over the surface of the soil harm the Lily bulbs.

The structure of the Lily perianth makes fertilization by hand very simple. Most Lilies set seed more certainly when the pollen comes from a flower on another plant of the same variety, rather than from the same plant or flower. When the stigma is sticky is the time to take a ripe anther from another Lily and lightly rub it against the stigma. If the pollination has been successful, after the perianth has fallen off, the seed pod stands up vertically. When the pod splits open the seed is ripe. I have collected seeds from *regale*, *tenuifolium*, *candidum*, *martagon album*, *canadense* and *superbum*. The *auratum* and *speciosum* ripen so late that I pick the pods off before they are ripe and allow them to mature in a dry medium warm room. The frost spoiled the seeds when the pods were allowed to ripen out of doors.

At the New York Botanical Gardens where an experiment on



Lily seedlings growing in the coldframe. Photographed May, 1924.

Lilies is being carried on by Dr. A. B. Stout, with the assistance of Miss Rusk, selfed seeds have also been obtained from many other varieties such as *Lilium henryi*, *humboldtii*, *philadelphicum* and many others. The Lilies are grown under glass. My list is short as I have only been working three years. All my work is done out of doors and with the help of cold frames.

Certain varieties of Lilies will often produce seed when fertilized with pollen from a different variety, though incompatible to pollen of their own kind. This is true of *Lilium tigrinum*. This Lily was found to give seed when crossed with *L. maximowiczii* at the Botanical Gardens. The cross has not bloomed yet.

The right pollen to give seed on *L. hansonii* and *L. testaceum* has not been found; pollen from species blooming earlier or later will have to be saved and experimented with.

Other ways of propagating Lilies, beside seeds are from bulbils and bulblets and bulb scales.

The *tigrinum* forms tiny black bulbils in the axils of the leaves. When these are planted they grow quickly and flower two years from the time of planting.

Just above the ground along the stem of the *speciosum* and many other Lilies, tiny bulblets are found. Bulblets are also often attached to the mother bulb. These also flower two years from the time they are planted.

Sometimes, instead of one or two shoots coming from a bulb it looks as if someone had dropped a packet of seed in that particular spot. When this happens it is wise to carefully dig up this bulb. It will be seen that a sprout has come from each scale. These scales with their sprouting stem and leaf can be pulled apart and planted separately and will in turn form new strong bulbs. Scales can be planted before this happens, too.

All my seeds are planted in flats six inches deep, filled with a mixture of two parts soil from the woods and one part sand. The flats are put in a cold frame and during the summer are shaded with slats and watered twice a day. In winter they are covered two feet deep with leaves and the glass is put over them. I found no difference in growth in seeds planted in the fall right after ripening and the seeds planted the following spring. *Canadense*

seedlings do not show above the ground the first year. It is important to keep the boxes weeded.

Though many attempts at crossing have failed, I have obtained crosses between

L. auratum x *speciosum album*

L. auratum x *speciosum rubrum*

They ought to be very lovely when they flower. In time it is hoped many new varieties will come into being.

One cross between *L. candidum* x *regale* seemed successful, but the *candidum* seed parent sickened and died before the seed could ripen.

It is no more difficult to grow Lilies than any other perennial. I spend much more time snipping, spraying and feeding my Roses than I do on my Lilies. Think of the work and time spent on the Dahlias.

One frequent cause of failure in growing Lilies is that the bulbs often arrive after the ground is frozen. The best way to overcome this difficulty is to plant these late comers in flats and winter them in the cold frame. Early in the spring as soon as the shoots are six inches high, lift them gently out of the flat and plant them out of doors. I plant the stem rooting Lilies eight to twelve inches below the surface of the ground to the top of the bulb. I always bed them in sand and place them on their sides.

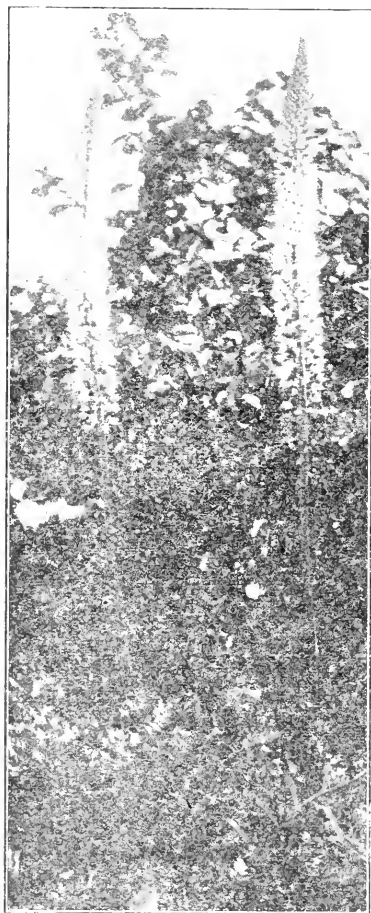
Many advantages will result from growing Lilies from seed: firstly, many new varieties; secondly, varieties better suited to local conditions of growth; and lastly as it is so simple to raise Lilies, it is possible for anyone to have them and this will add greatly to the beauty of this world of ours.

A WORD FOR THE EREMURUS

BY ALICE T. A. QUACKENBUSH, Cold Spring-on-Hudson, N. Y.

HOW vividly I remember unpacking a box of roots from my nurseryman and seeing three huge octopus-like things, carefully partitioned from the rest, with a note of warning tied to the inclosure urging care in handling. Eremurus roots! They were

planted in October, and the spring with its new experience seemed many weary months away. At that time, I did not know the plant's one bad habit; that it is slow in developing to the blooming point. I waited two impatient years before the first great bloom-stalk appeared and, further, went through a period of panic when the first season the leaves yellowed and died in midsummer. Now I have several husky plants grown from seed and find them quite hardy. The seed is slow to germinate, especially if bought from the seedsman. When taken directly from the plant and sown at once, it makes quite sizeable roots the first season.



Eremurus robustus grown from seed

Why is the Eremurus so little grown? It is a regal thing with blossom stalks growing quite eight feet high. Of the several species *E. robustus*, a pink, and *E. himalaicus*, a soft white, are quite hardy. They flower in June and are an arresting sight. A sandy loam

suits them best with a dressing of lime before and after bloom. Give them plenty of water during the growing period. They do not like to have their roots disturbed, yet they may be transplanted successfully by a careful gardener.

PICKLED DAHLIAS

A NEW METHOD OF WINTER STORAGE WHICH PROVED TO BE UNEXPECTEDLY SUCCESSFUL

By MRS. CHARLES H. STOUT, Short Hills, N. J.

THERE is probably no subject in horticulture over which more men and women disagree than the storage of dahlia roots during winter. Each of us has his or her pet method. I have mine, of course, but I also try whatever anyone else suggests. Thus it happened that when a Paterson grower, Mr. Charles E. Walker, made a suggestion that I try paraffin wax, I at once started on the new adventure.

Accordingly, I purchased ten pounds of paraffin, such as we had been using on top of jelly. The clumps, after being dug and ripened, were washed free of soil. They were carefully inspected for any signs of decay. Every tuber with broken neck and all bruised spots were removed. The old stock was entirely cut away, leaving the crown perfectly clean. When quite dry, several tubers of each clump were marked with its name, using an ordinary indelible copying pencil.

A large sauce pan was borrowed from cook and placed on a "slow" fire. The paraffin, put in piece by piece, was warmed until all became a transparent liquid, but not allowed to reach the boiling point. Each clump was then dipped in and out without a pause, the wax instantly forming a thin semi-transparent, whitish skin over the tubers.

Remembering the mistake of Achilles's mother, with its sad result when the arrow struck him in the heel, I turned the clumps about and gave each an extra dip where my fingers had kept them from entering the fluid in the first place.

The clumps selected for the experiment were rather small, concerning whose fate I cared little and which I felt sure could not be wintered over in the ordinary way. Some large clumps were divided as if it were already spring, each tuber being separately dipped.

When finished, all were placed together in an ordinary box, put away on a shelf in the storage room and forgotten until April. On lifting them out at that time, to my amazement I found that almost every clump had thrown up many long shoots. The wax was peeling off by the heaving of the tubers, and with the exception of two or three which had apparently not been carefully trimmed before waxing, all were thriving. At the present writing they are growing lustily in the garden as though nothing unusual had been done to them. A few, from plants which I had considered diseased last year, seem to be perfectly recovered—so far!

In comparing notes with growers throughout the Central and Eastern states I found that one trouble has caused severe losses this spring—crown rot. Tubers which had been set away apparently in prime condition last October were found to be useless in April.

During a normal season rapid growth takes place early in the year, slowing down as the days become cool and crisp in September. The sap gradually goes back to the root. The crown becomes firm, locking the food into the tubers where, going through a chemical change, they prepare themselves for next year's growth. When frost comes they are ready.

Our season last year was abnormal. The dahlia calendar was completely turned about. The first three months were so dry that plants were at a standstill most of the time. Stalks became woody and leaves scarcely developed. Then came the blessed rain. Plants which were not too far gone leaped into growth. At a time when they were luscious in leaf and stalk, sending out all their strength from the tubers to make up for lost time, Jack

Frost cut them down in an instant. Nature cannot withstand such onslaught, and many roots did not survive the blow.

Let us hope that such a season will not be repeated this year; but if it should so happen, let us try by artificial means to save this precious crown. It is my intention to use the wax treatment once more and shall be interested to try other means which may also be suggested.

THE CLONAL VARIETY IN HORTICULTURE

BY A. B. STOUT, New York Botanical Garden

NEARLY all the most important fruit crops, certain of the root and tuber crops, and a long list of the perennials familiar to the flower garden are propagated exclusively by vegetative means.

When the propagation is from roots as in the Sweet Potato, from tubers as in the Irish Potato, from the crown of the stem attached to the root as in the Dahlia, from bulbs or bulblets as in the Tiger Lily, from runners as in the Strawberry, or from cuttings as in the Grape, all the individuals (roots, stem, branches and all) of a variety are merely parts of one original seedling or bud sport. In the case of the propagation of the Apple, Peach, Plum, Cherry, Feijoa, Avocado, Orange, etc. by budding or by grafting the trunks and the branches grown from the inserted buds or scions of any one variety are all sister branches. Thus all the many plants of the Concord Grape are branches derived from one seedling and the tops of all the Baldwin Apple trees grown are the branches of one seedling plant. Except for bud variations that may have arisen in the course of the repeated propagations, all plants of the variety are inherently alike with a constitution that is identical. In a sense, the entire variety is really one plant. Such a variety is known as a *clonal* variety in distinction from a variety grown exclusively from seeds as is one of the annuals of the field and the flower garden. The distinction is readily evident and it is one of particular significance in regard to certain problems in the propagation, the culture, and the orchard management of crops.

There are two main advantages in clonal propagation. Usually it gives an easy and a quick means of propagation; for example it is by far much easier to obtain good plants from the runners of the Strawberry or from cuttings of the Grape than to grow them from seed. But a very important reason for propagating many horticultural crops by vegetative means is that the individual plants do not breed true to type from their own seed.

Undoubtedly hundreds of seedlings of the Concord Grape, of the Bartlett Pear, or of the Baldwin Apple could be grown without

one producing fruit sufficiently similar to that of the seed parent to be marketed with it as one variety. In fact the majority of such seedlings yield fruit of poor and inferior quality and are judged unworthy of propagation and cultivation. In the development of varieties it is of distinct advantage when the rare seedling of special merit can be propagated vegetatively. Very often such propagation (grafting, budding, cutting, layering, root division, etc.) is the only way the individual plant can be perpetuated and increased in numbers. The individual is thus kept in existence and multiplied so that it may be distributed to many growers over a wide area and for an indefinite period of time.

Evidently this very practical and important lesson was learned early in the cultivation of fruit plants, for the first Greek writers on horticultural matters record that the art of propagation by grafting and budding was then already well understood. It appears, however, that during the Middle Ages this art was practiced chiefly as a cult or guild secret and was regarded by the uninitiated as the exercise of magic—a view quite in keeping with the spirit of that time.

Even within the memory of persons now living, prominent horticulturists have considered that grafting and budding are malicious practices which are perversions of nature and injurious to the plants thus propagated. But it is now recognized that the art simply takes advantage of the natural processes in the healing of wounds in plants. The art of grafting and budding is now taught in horticultural schools of every rank. It is widely practiced. The tricks of the art and the secrets of the propagators' guild are now the common property of all.

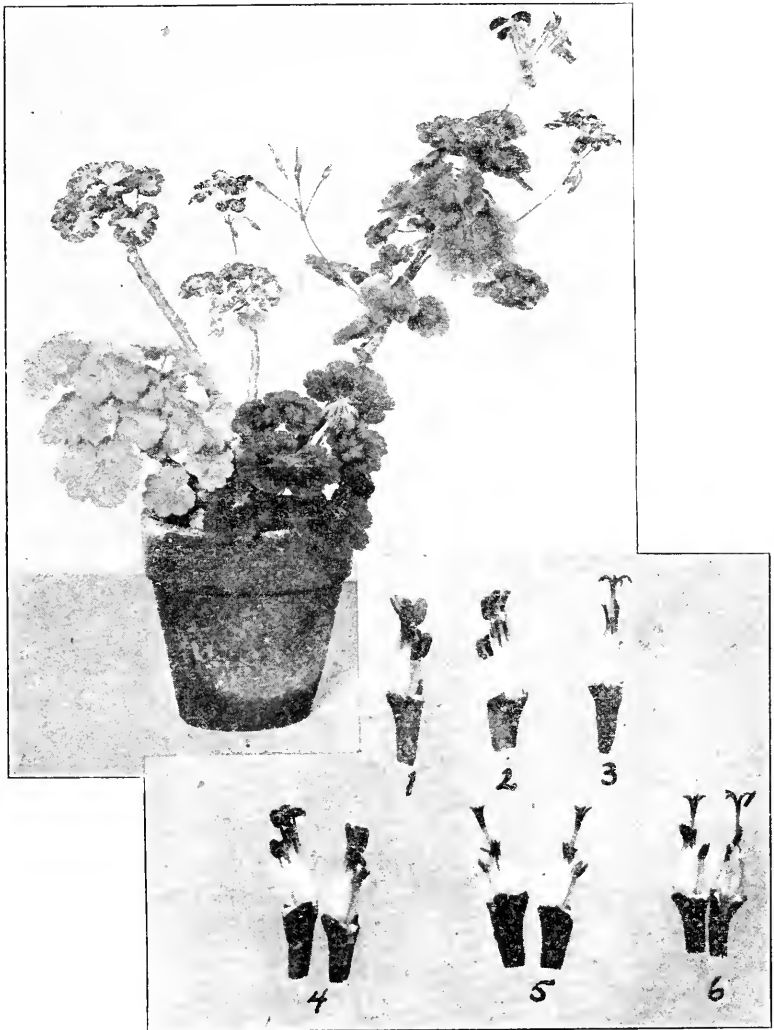
The merits of vegetative propagation of horticultural plants are now fully recognized. No one will advise a grower to plant an orchard of seedlings of the Apple, Pear, Orange, Lemon, Date, etc., or a vineyard of Grape seedlings. Also vegetative propagation simplifies the problem of developing new varieties. The problem in breeding is merely to obtain a seedling of merit; it is not then necessary to fix its type true to seed by long and laborious selection of seed progenies. The clonal variety immediately insures the greatest uniformity possible in propagation. The meth-

Two noticeable bud variations are here shown on one plant. The clonal variety of *Pelargonium* "Happy Thought" has a single large yellowish green blotch in the center of each leaf. From the plant of this type here shown there arose the pure green branch shown at the right and also the pure yellow branch shown at the lower left. By vegetative propagation such bud sports may give new clonal varieties. Such sports must be discarded in taking cuttings if the variety is to be kept true to name. The variety Happy Thought can only be kept in cultivation by vegetative propagation; none of its seed progeny show its type of variegation.

Bud variations are rather frequent in many varieties of both ornamental and fruit plants. They may involve changes in foliage, flowers, or fruits as to size, shape, color, or other quality.

In this variety, as in certain other single-flowered *Pelargoniums* and *Geraniums*, the flowers are not self-pollinating. The stamens of a flower shed pollen before the pistil is mature (compare 2 with 3). But usually the pistils of some flowers are ready for pollination while other flowers are shedding pollen so there is chance for close-pollinations and as these are compatible a single plant in isolation or a group of the same clonal variety will set fruit when insects carry pollen from flower to flower.

In certain other *Pelargoniums*, however, the flowers are imperfect with stamens aborted and only the pistils potent (as in 5 and 6). In such clonal varieties, fruit setting depends on cross-pollination from a different variety which has good pollen.



ods of vegetative propagation have become fully established in horticulture. The clonal variety has come to stay.

But clonal propagation involves and gives rise to certain problems and difficulties peculiar to itself. It has certain disadvantages, some of which may and do frequently defeat the very purposes for which the plants are grown. The horticulturist needs to recognize these, to understand them and to take measures to correct them, that the culture of clonal varieties of all the important fruits and perennial flowering plants may be made more nearly perfect in every detail.

PERFECTING MEANS OF PROPAGATION

For certain plants means of vegetative propagation remain to be discovered. Such a method has only recently been developed for the Para Rubber Tree and for the Papaya. Undoubtedly, in time, methods of clonal propagation will be learned for nearly all perennials that are cultivated.

Methods of vegetative propagation now in use for various plants can no doubt be improved. It may not be possible to find better general purpose stocks for the fruits long propagated by grafting—Apple on French Crab, Cherries on Mazzard and Mahaleb stocks, Plums on Myrobalan stock, etc.—but for many fruit crops there is undoubtedly much to be learned as to how to secure the most congenial relations between scion and root stock and between the branching system and the root system of these dual individuals that are grown as one plant. Perhaps this may be advanced by a further standardizing of root stocks through their vegetative propagation. These are problems incident to the arts of propagation. They are primarily matters requiring the attention of nurserymen and of those growers who propagate their own nursery stock.

BUD VARIATIONS

In propagating clonal varieties nurserymen and growers of fruit and garden plants should be on the alert to correct any tendency to bud variation by giving proper attention to selection of buds or branches for propagation so that the standard type of the



Several types of destructive degeneration or "mosaic" diseases are carried over in the tubers of diseased plants to the plants grown from them another year. They are perpetuated indefinitely by clonal propagation. These diseases may also be carried from diseased plants to healthy plants by insects and particularly by plant lice. Thus an entire strain or clone of a variety may become infected and if the disease becomes severe the crop may be a complete failure as was the case in the test plantings shown above.

variety may be maintained. There appears to be a greater need for such selection in certain types of fruit, as the orange, than in others (apples for example). In many of the variegated ornamentals bud sporting is frequent, but is usually so conspicuous that it is readily recognized and taken into account.

Bud variations are not to be confused with those differences in character of foliage or fruit which arise when plants of the same clonal variety are grown under varied climatic and cultural conditions. They are most apparent when one or more buds on a plant develop into branches with foliage or fruit that is unmistakably different from the rest of the plant and when the propagation from such a branch gives a new variety.

Usually bud variations give aberrant types poorer than the type from which they come. Many cut-leaved types of ornamentals, certain varieties with variegated foliage, certain types of flowers as in Roses and in Chrysanthemums have arisen as bud sports. But very few noteworthy improvements in fruits have thus been obtained.

Selection of buds or propagating wood from the best and the most typical individuals of a variety is a sound and safe method in all vegetative propagation. This is particularly a detail to be handled by nurserymen. In respect to this matter the grower is wholly dependent on the nurseryman.

DISEASES THAT ACCOMPANY CLONES

It is becoming very evident that a clone should always be kept free from diseases that are transmitted from branch to branch on to new plants of the clone. It has been rather generally considered that clonal varieties tend to "run out." That they may do this by transmitting various infectious diseases and perhaps physiological disorders has now become apparent. Especially is this the case with Potatoes in which several types of infectious diseases may be transmitted to a healthy plant and then carried in its tubers to the progeny grown from them. The successful growing of Potatoes, particularly, in the more southern states, has become in large degree dependent on securing for planting tubers of plants free from these diseases.



Success in growing potatoes depends first of all on the planting of tubers produced by plants free from mosaic diseases. Such "seed tubers" can be produced best in regions like northern Maine. There the cool summers favor a good growth of the plants and the crop matures at a time most suitable for immediate winter storage. Also aphids are less abundant than in warmer sections farther south so the spread of the disease in potato fields is less.

To control and eliminate these tuber-borne diseases the grower rigidly "rogues" plants showing signs of disease. He may also combat the aphids by sprays of nicotine solutions and by destroying all rose bushes in the immediate vicinity for it is upon the roses that certain of the potato aphids feed in early spring before the potato plants are available to them.

Many potato growers have rarely or even never seen fruits on potato plants. The plant is propagated by tubers, and it is the tubers that are used for food. The fruit is only of importance in the breeding for new varieties.

In cool-season areas like northern Maine all varieties usually bloom in profusion quite as shown in the above view. In warm-season areas they are decidedly non-blooming. But most varieties have imperfect flowers that yield very little or no viable pollen. Thus in a field of Irish Cobbler, a clonal variety, there is no chance for pollination and the plants are fruitless. When there is proper cross-pollination with one of the few perfect-flowered varieties then "seed balls" will be produced. If the potato were grown for its fruit, interplanting to provide for pollination would need to be considered as in certain clonal varieties of strawberries and grapes.

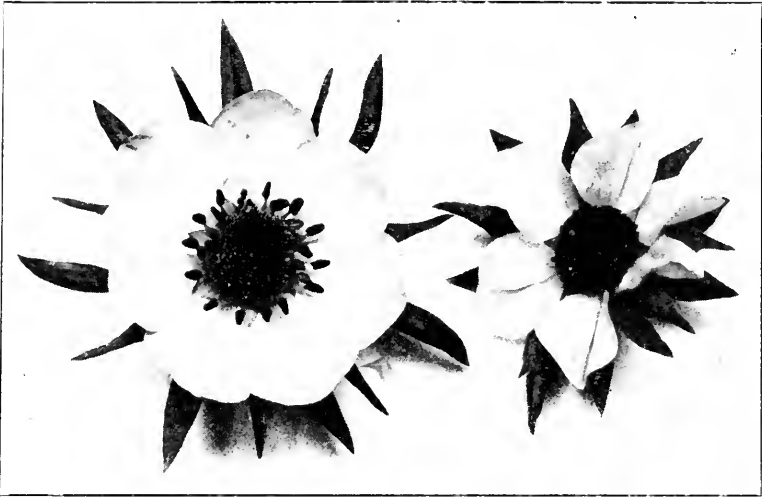
The recent advances in the knowledge of such diseases now make it very doubtful if vegetative propagation of itself ever leads to the "running out" of a clonal variety. The selection of healthy stocks in the various plants in which there may be yellows or mosaic disorders is becoming well recognized as a necessary procedure.

Rather special studies are needed to determine the nature of these diseases, the means of their transmission, and the methods of eliminating them in practical culture. Thus at the beginning the solution of these problems rests on the shoulders of the specialist in plant pathology. It remains, however, for the nurseryman and the grower to practice the means for control.

FRUIT PRODUCTION IN CLONAL VARIETIES

The horticulturist needs always to know when the growing of a clonal variety in solid blocks will of itself reduce fruit production through limiting the pollination required for the setting of fruit. It is the rule among the fruit crops grown at the present time that proper production of fruit depends on the development of seed. But the initiation of seed development depends (with few exceptions) upon intricate processes of fertilization which in turn depend upon a proper pollination. It happens that there are frequently special conditions that are inherent characteristics of certain clonal varieties which limit or prevent either pollination or fertilization after pollination whenever a plant stands alone or when there is a solid block of a single clonal variety.

There are so many conditions influencing the production of fruit that it is not always an easy matter to distinguish between those that are incidental, or purely environmental or cultural, and those which pertain to the needs of a variety for pollination. The former operate to limit production when all requirements for pollination are met. The latter operate to limit fruit bearing where all environmental conditions are fully favorable to high yields. The manifold and complex influences of climate, weather, culture, nurture, fungous diseases, insect pests, etc., are all of vital and immediate effect. They have always been matters of much concern to fruit growers. They always will be of much concern. But these are not factors for unfruitfulness that develop or become promi-



The absence of stamens in the flowers of a clonal variety of strawberry, as shown at the right above for a flower of the Crescent variety, clearly indicates the need for cross-pollination. Only varieties which have perfect flowers, as the Klondyke shown at the left, are self-pollinating and self-fruitful. Interplanting imperfect- with perfect-flowered varieties provides for the necessary cross-pollination. There are various grades of intersexes in strawberries aside from the two fruitful types here shown.

In the period of early strawberry growing, roughly from 1820 to 1855, it was very generally believed that the differences in the self-fruitfulness of varieties of the strawberry were induced by differences in culture and climate. Strawberry growing was a rather uncertain business until the imperfect type of flower was recognized as a character of certain clonal varieties and the practice of interplanting was established.

ment because of vegetative propagation. They are quite apart from the unfruitfulness that arises from lack of pollination or from lack of proper fertilization.

Among the many cultivated plants (and wild as well) there are various types of sterility; the non-blooming condition, sterility from hybridity, and sterility accompanying double flowers frequently render plants decidedly or fully sterile in the true sense of the term. Such plants may be grown as ornamentals and be propagated vegetatively. Their sterility, however, does not arise

because of vegetative propagation or because plants are grown either singly or in clonal blocks.

With these eliminations, we may now make the inquiry: When does the growing of a clonal variety *of itself* reduce the fruit production of which the variety is capable? The answers may be stated as follows, embracing three groups of conditions:

1. When the variety has flowers that are entirely or decidedly pistillate—a grade of intersexes rather frequent in many kinds of plants.
2. When adaptations prevent or limit *both* self- and close-pollination.
3. When self- and close-pollinations do *not* result in fertilization necessary for fruit setting.

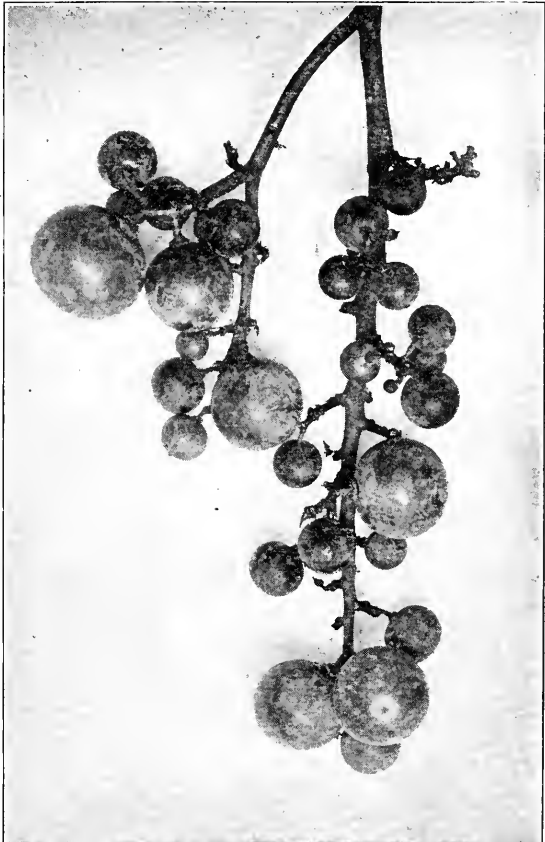
These may be discussed briefly and in the order given.

INTERSEXES IN FRUIT CROPS

The Dates, Figs, Persimmons, Papayas, Strawberries, and Grapes illustrate well the fact that among the numerous individuals of a species or a race there are often different degrees in the relative development of the two sexes in the flowers which affect the ability to self-pollinate. These are deviations from the perfect type of flower with loss of either pistillate or staminate potency, giving frequently numerous grades of *intersexes*. The ability to bear fruit is limited to those individuals or clonal varieties that are more or less potent in femaleness and in these there is the possibility of self- or close-pollination only when stamens or staminate flowers are also developed. Otherwise there is need for cross-pollination. In such plants the problems of fruit setting, as far as pollination is concerned, are solved either by hand pollination as in dates, by supplying pollen-bearing flowers together with the insects to carry the pollen as in the Smyrna Fig, by proper interplanting of pistillate with either male or perfect-flowered plants as for certain varieties of Strawberries and for Muscadine Grapes, or in the development of perfect-flowered and self-pollinating varieties as was done in the Strawberry and is now being done in the Muscadine Grapes.

The "poor" bunch of grapes shown here was due to scanty cross-pollination. The variety, known as Brighton, has flowers that produce no viable pollen. Hence setting of fruit on any vine of the clonal variety depends on cross-pollination. When this is inadequate there are many missing berries, small berries or none at all. Here the few large berries were from flowers that happened to be well cross-pollinated.

In grapes, the flowers indicate the pollinating ability of the plant or the clonal variety. Those with the male type (1, below) are not able to bear fruit; they can supply pollen; those with the perfect flower (2) are self-pollinating and self-fruitful; those with the imperfect type of flower (3) are self-fruitless and should be interplanted with perfect-flowered varieties that bloom at the same time. Then if insects perform the cross-pollination adequately there will be a set of full bunches.



A lesson in respect to this type of sterility may be learned from the recent experiences with the J. H. Hale Peach. Highly productive of excellent fruit in nursery and orchard trials when surrounded by other varieties, it was extensively advertised and heralded as "the million dollar Peach." When solid blocks of this clonal variety came to the age of yielding fruit it was found that many of the fruits were undersized, poorly colored and insipid, and that many such fruits fail to mature. Examination showed that the decided self-unfruitfulness of this Peach is due to its poor pollen. To obtain the good yields of fruit which this variety is capable of bearing it is necessary to interplant it with other varieties that yield good pollen in abundance. Peaches are as a rule perfect-flowered, self-pollinating and highly self-fruitful. This variety is hence an unexpected exception which arose and caused considerable financial loss to those who planted it in solid blocks.

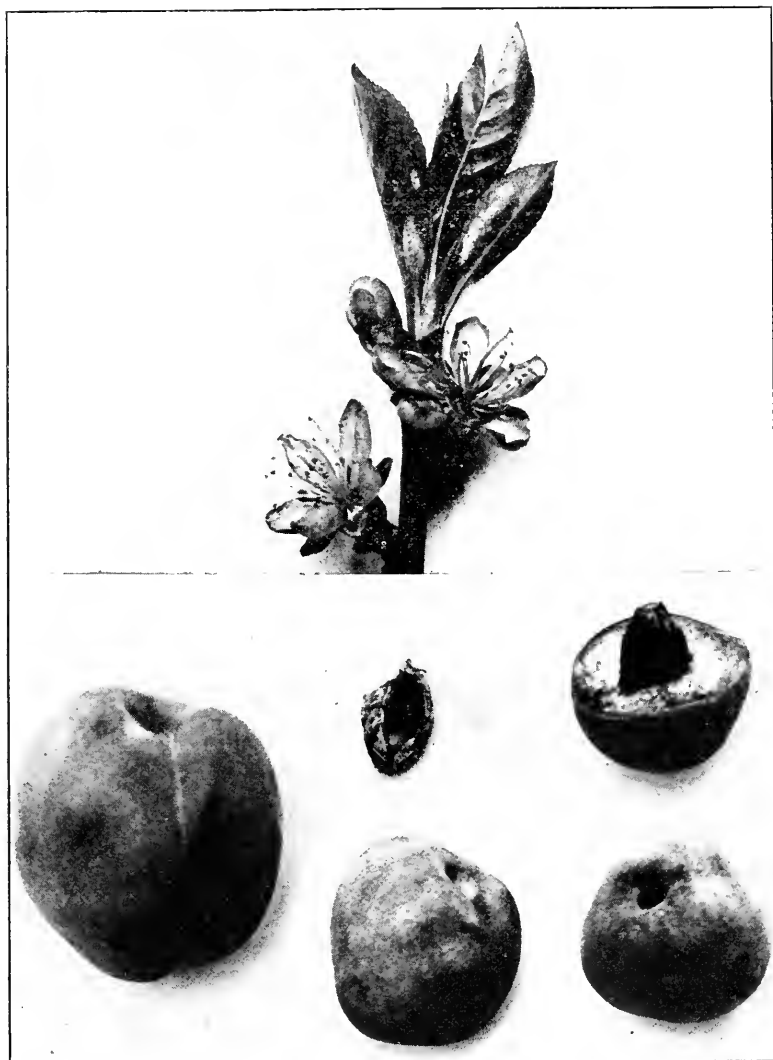
In general it may be said that self-unfruitfulness of an intersex plant or its clonal variety arises because its flowers are imperfect and do not supply viable pollen suitable for any sort of fertilization.

In certain cases, as for some varieties of Strawberries, an examination shows the absence of stamens. In other cases the stamens may be present, and may shed pollen, but adequate examination under a microscope together with tests for viability will readily reveal the impotent condition of the pollen.

ADAPTATIONS LIMITING SELF- AND CLOSE-POLLINATION

The mention of adaptations for cross-pollination naturally brings to mind the many varied and marvellous structural adaptations for "cross-pollinations" by insects. But no matter how complex these may be, as long as the flowers of the different individuals of a species are *alike* and as long as there are numerous flowers open on a plant at the same time structural adaptations of themselves do not prevent close-pollination (from flower to flower on the same plant or from plant to plant of a clonal variety.)

To take a seed-grown variety to illustrate this point, it is mechanically as easy for a bumble bee to carry pollen from the stamens of a flower on a Red Clover plant to the pistil of another



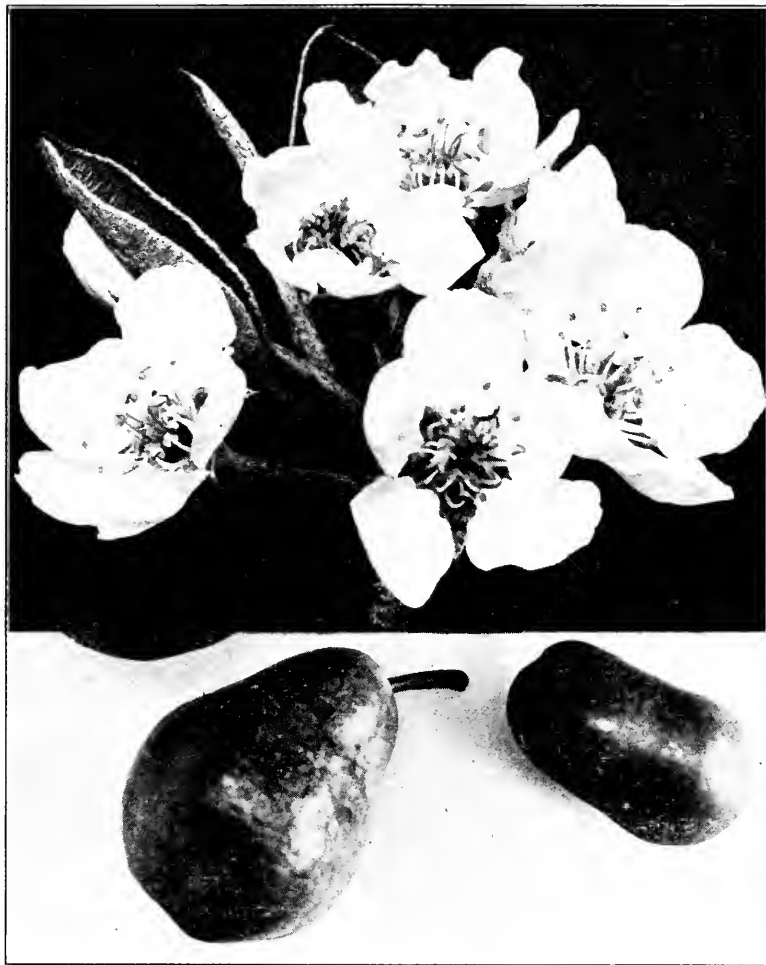
Above. The flowers of the J. H. Hale variety of peach appear to be perfect. But the stamens contain only poor pollen useless in fertilization.

Below. At left is shown a fine fruit of the J. H. Hale peach, the result of a proper cross-fertilization. At the right are several fruits of the same age as one shown at the left. These are the undersized fruits of poor flavor and with dead "kernels"; they result when this peach is grown by itself or in solid blocks.

flower on that same plant as it is to carry such pollen to a flower of another plant and the chances for doing so are greater. Adaptations which limit self-pollination do not necessarily restrict close-pollination. In such cases the agent effecting close-pollination becomes an important factor in pollination, but the planting in solid blocks of such a clonal variety does not complicate or limit the possibility of the action of this agent. With the adequate operation of the insects, either a single plant of the Red Clover, or a solid block planting with one clone of the Red Clover, or a planting with every plant a different seedling would be pollinated equally well. Without any action of insects there would be the same restriction in fruit setting, provided, of course, that the factor deciding the setting of fruit is solely that of pollination.

But structural adaptations may advance in complexity until close-pollination is also restricted. In certain Primulas, Lythrums, and Orchids there are different forms of flowers for individuals or for groups of plants. These are such that it is mechanically easier for insects to effect certain "legitimate" cross-pollinations. In such cases the exclusive growing of a clone having one form of flower tends to reduce pollination. It appears, however, that such a specialization does not exist to a marked degree in any of the important fruit crops at least in those grown in temperate regions or that have perfect flowers.

What has just been said regarding structural adaptations for cross-pollinations applies as well to those adaptations in which the pistils and stamens in individual flowers mature at different times (condition called dichogamy). In most plants, dichogamy prevents self-pollination but not close-pollination. Thus in the single-flowered types of the garden Geraniums the stamens of a flower shed pollen considerably in advance of the maturity of the pistil of that flower. But there are usually flowers of various ages after opening on the plant, so there is a chance for insects to carry pollen from flower to flower on a plant or from plant to plant of one clonal variety. There is, hence, a pollination problem and the action of insects is necessary to effect pollination, but the growing of a clonal variety does not make it the more difficult. In most fruit crops, Apple, Pear, Peach, etc., there is a partial dichogamy,



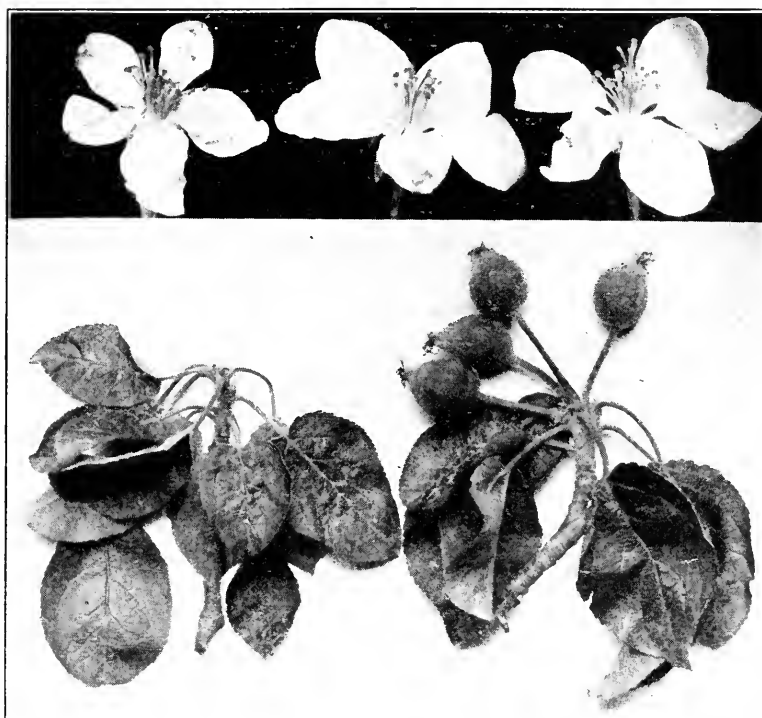
The flowers of the Bartlett pear are fully perfect; there is chance for abundant self- and close-pollinations, yet these fail to give a satisfactory yield of fruit. Usually no fruit sets to such pollination but sometimes small, irregular shaped, and poorly flavored fruits develop as shown at the right above. When properly interplanted so that compatible cross-pollinations are provided, fine fruits as shown at the left may be had. The growing of a solid block of the Bartlett pear, or of most other varieties as well, decreases the yield and the quality of the fruit produced is poorer compared with the yield when there is proper interplanting with other varieties.

but the pistil of a flower, as a rule, remains ready for pollination until after the pollen is shed from some of the anthers of the flower, so there is opportunity for self-pollination. Also in these fruits there are flowers of all stages of development open at the same time during most of the period of bloom, so there is abundant opportunity for close-pollination by action of insects. As far as pollination is concerned the clonal variety of such a plant may be planted in solid blocks.

But dichogamy may be so highly specialized that close-pollination is also restricted, as is the case with Avocados. In this plant the flowers are perfect, but each flower has normally two distinct periods of opening. The pistil of a flower is ready for pollination at the first time the flower opens, but it is only during the second period of opening, at least 24 hours later, that the pollen is shed. This prevents self-pollination. But the flowers of a tree, or of trees of a clonal variety, open and close together for each of the two periods of opening. Flowers of a kind in the same period "flock together" and this daily rhythmic synchrony restricts close-pollination. It will readily be seen that if all Avocados (seedlings, clonal varieties, etc.,) have the same daily sequence, cross-pollination among Avocados would likewise be restricted. But a survey of the varieties shows two main types of daily sequence. In one group of varieties pollen is shed in the forenoon and first-period flowers ready for pollination are open in the afternoon. In the other group the behavior of flowers is in the reverse order. The two types supplement each other. The time relations are wonderfully adapted for cross-pollination between individuals of the two groups. Solid block plantings of a clonal variety or mixed planting of varieties that have the same daily sequence of bloom will decrease the chances for pollination. The Avocado is a conspicuous case showing that the flower behavior of a new type of fruit crop and its requirements for pollination should always be determined before clonal varieties are planted in solid blocks.

WHEN SELF- AND CLOSE-POLLINATIONS DO NOT RESULT IN FRUIT

Self-fruitlessness exists in such clonal varieties as the Napoleon Cherry, the Bartlett Pear, the German Prune Plum and the



Fruit setting in apples depends on a pollination that gives a *compatible fertilization*. The flowers are perfect, they produce much viable pollen, and they are fully self- and close-pollinating. Yet some varieties are decidedly self-fruitless because the pollen fails to function in starting seed and fruit development. The pollen will, however, function in certain cross-fertilizations.

The flowers shown above are, from left to right, of McIntosh (self-fruitless), Baldwin (somewhat self-fruitful) and Wealthy (highly self-fruitful). There is nothing in the appearance of the flowers which indicates the differences in self-fertility.

Below shows a fruit spur of McIntosh that had been self-pollinated but on which no fruits set in contrast to a neighboring spur whose flowers were cross-pollinated and on which fruit has set.

A solid block planting of any self-incompatible variety of apple, or of any other clonal variety of fruit with this type of sterility, does not afford chance for cross-pollination; all the plants are merely branches from one plant. Such varieties should be interplanted with others which bloom at the same time and which are compatible in cross-fertilization. Here the fruit grower's problem is to provide for a pollination that is compatible.

Rhode Island Greening Apple and in many other varieties of these fruits. Each of these has perfect flowers with stamens fully developed and with pollen highly potent. Each is known to be capable of yielding heavy crops of fruit. There are no marked differences in the time of the development of the pistils and stamens of the individual flowers. The flower mechanism does not prohibit self-pollination even without insect visitations, but with such visitations close-pollination is amply provided for. And yet these self- and close-pollinations are not effective in fruit setting. There is what we may call an incompatibility in the processes of fertilization which follow pollination. Interplanting is hence necessary to provide for the pollinations which *do result in fertilization*. But there may also be cross-incompatibilities: two well-known varieties of sweet cherries, the Bing and the Napoleon, are reported to be not only self-incompatible but cross-incompatible as well.

It is to be noted that incompatibilities are not to be determined by an examination of the flower, or by any laboratory tests of the pollen, as pollen sterility in intersexes may often be determined, but only by the results of properly controlled pollinations combined with the results obtained in orchard plantings.

It is now evident that many varieties of Apple, Pear, Cherry, Plum, Blackberry, Almond, and Feijoa are self-incompatible to some degree. Certain varieties of these fruits, of which the Wealthy apple may be mentioned, appear to be rather highly self-compatible, but in many cases even these varieties will produce larger yields of better fruit when there is cross-fertilization.

During the past ten years, especially, evidence has been accumulating as to what varieties of our fruits are or are not self-fruitful. The evidence is very often conflicting and this has been accepted by most horticulturists as proof that "self-sterility is not a constant factor in any variety." It is said that "the same tree may be self-sterile at one time and self-fertile at another or the same variety may be self-fertile in one locality and self-sterile in another." Such behavior is credited to important varieties as the Kieffer and Bartlett pears and the Yellow Newton and Rhode Island Greening varieties of apples. No doubt in many instances other causes of

unproductiveness are wrongly attributed to self-incompatibility and also that cross-pollination may have occurred where it was not expected. It is not at all certain that the differences in fruit production observed in these cases were due to variations in the one factor of self-fertilization. But unless experience shows that a clonal variety of these much cultivated fruits is decidedly fruitful, the safe course for the grower is to interplant rather liberally.

Perhaps an important advance in horticulture will be the combining of a high degree of self-compatibility with high quality of fruit and other desirable qualities through further breeding of all of the various fruit crops in which incompatibilities are now marked. This would allow solid block plantings with the advantages in orchard management that this brings. It would make yields of fruits less dependent upon insect pollination in that the self- and close-pollinations would be sufficient.

But possibly the ultimate and most ideal goal of the horticulturist is to develop fruits like the Navel Orange which mature fruit without any pollination; the problems of pollination and fertilization are then entirely eliminated in the matter of securing yields of fruit.

It is to be emphasized that the abundant yields of fruit by a new seedling or by plants vegetatively propagated from it when grown in trial orchards or in nursery plantings when *surrounded by other varieties is no test for self-fruitfulness*. This simply shows that the plant or the clonal variety is able to *produce* fruit. Whether the plant is a female intersex, whether there are structural adaptations or dichogamy limiting both self- and close-pollinations or whether there are self-incompatibilities is not in the least revealed. There is no evidence from this as to what the pollination or fertilization requirements are or of how the variety will yield when planted alone or in solid blocks.

The ideal plant for vegetative propagation and for solid block planting from the standpoint of consistent yields of fruit is one that is *self-fruitful*. For it to be thus, it should have perfect flowers, there should be no structural or developmental adaptations that decidedly limit close-pollination at least and preferably self-pollination also, and the self- and close-pollinations should be

compatible in fertilization to the point of producing fruit. The characteristics of a variety in all these particulars should be fully determined before it is distributed and widely planted.

The four groups of horticultural problems briefly outlined above are those that are peculiar to vegetative propagation and to the growing of clonal varieties in solid blocks. They refer in part to the special problems of the nurserymen in their efforts to develop and to use the best methods of propagation and of maintaining varieties true to type; they refer to critical problems in fruit production which the grower frequently meets when he plants a clonal variety in solid blocks, and they refer to certain important phases in the breeding of new varieties for the quality of self-fruitfulness.

Clonal propagation now plays an important part in horticulture. It is destined to increase in importance. With due regard to their respective responsibilities, the breeders of horticultural plants, the nurserymen who propagate them for the trade, and the orchardists who grow these plants for their products can speed the day when the clonal variety presents no serious defect or at least gives rise to no problems that are not met.

EXTRACTS FROM PROCEEDINGS OF THE SOCIETY

ANNUAL MEETING

The Annual Meeting was held at the office of the Society, 598 Madison Avenue, New York, on Saturday, May 10th, 1924, at 3:30 P. M.

The following persons were elected Directors for a three year term:

Dr. N. L. Britton	Mr. T. A. Havemeyer
Mr. F. R. Newbold	Mr. F. R. Pierson
Mr. John Scheepers	Mrs. Samuel Sloan
Mr. Richardson Wright	

The recommendation by the Board of Directors for the creation of an Executive Committee for the transaction of the business of the Society when the Board was not in session was not approved.

Treasurer's report was read and accepted and placed on file.

Directors' report was read and accepted and placed on file.

DIRECTORS' MEETING, NOVEMBER 14, 1923 (MR. F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING.)

Elected as Annual Members: Mr. John Bister, Mr. John A. Murphy, Mrs. Christian deWaal, Miss J. C. Murray, Mrs. Frederick M. Godwin, Mrs. James L. Hawley, Mrs. F. M. Warburg, Mr. C. R. Meltor, Mr. S. Roger Mitchell, Mrs. Edgar F. Price, Miss Mary F. Bartlett, Miss M. Elizabeth Lester, Mr. Arthur A. Chelmers, Mr. William B. Hardin, Mrs. H. C. Hasbrouck, Mr. I. W. Drummond, Mrs. Alfred C. Bedford, Mrs. Frederick S. Wheeler, Mrs. Carll Tucker, Mrs. Franklin Stowe, Mr. R. Erbsloh, Miss Margaret Gilroy, Dr. H. M. Imboden, Dr. Marguerite T. Lee, Mrs. Harriet Weil, Mr. Thomas W. Lamont, Mr. Leo Ritter, Mr. Glenn F. McKinney, Mrs. R. G. Elbert, Mr. Julius Goshen, Mrs. Charles A. Chapin, Mr. Hobart J. Park, Mr. Noah W. Taussig, Mrs. William W. Farnam, Miss E. Schwarz, Mrs. Frank C. Littleton, Mrs. Charles N. Taintor, Mrs. E. C. Danforth, Mrs. H. C. Steers, Miss Estelle Whitfield, Miss Ethel DuBois, Miss Eleanor M. Chalfant, Mrs. F. B. Crowninshield, Dr. Lewis R. Morris, Mrs. W. C. Eustis, Mrs. E. Ward Olney, Mrs. Henry R. Mallory, Mrs. Caleb R. Stetson, Miss Alice R. Peters, Mr. J. Insley Blair, Mr. Kenneth MacKenzie, Mrs. George M. Laughlin, Jr.

Elected as Life Members: Miss Eva C. Putney, Mrs. Henry P. Tailer, Mr. Bernhard Liesching.

Elected as Sustaining Members: Mr. LeRoy Frost, Miss Marion R. Carhart, Mr. Joseph P. Day, Mr. Schuyler L. Parsons.

Deep regret was felt for the death of our member, Julius Roehrs, and the Chairman appointed Mr. Atkins, Mr. Manda and Mr. Hendrickson a committee of three to draw up a suitable set of resolutions expressing this regret.

The Board appointed one more member to the International Flower Show Committee to represent the interests of this Society. Mr. W. A. Manda, and the Secretary requested to ask a like appointment by the New York Florists' Club.

Mr. Newbold then read a letter from Mrs. Henry Fairfield Osborn, congratulating the Society on the success of the Chrysanthemum Show and offering a prize for the 1924 exhibition for the best *Claudius Pernet* Roses;

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also a message from Professor Osborn to Mr. Havemeyer, desiring his congratulations and appreciation to be extended to the Board of Directors of this Society on the success of the show and the pleasure given to him and his trustees.

The Secretary was requested to reply to Mrs. Osborn's letter, accepting the offer, and Mr. Havemeyer was requested to express to Professor Osborn the thanks and appreciation of our Board.

A recommendation from the Exhibition Committee to the Board of Directors was then read covering the request for a new medal. The chair appointed Mr. Wm. A. Delano, Mrs. Harold I. Pratt and Mrs. Robert C. Hill a committee of three to submit a new design for this medal, and if possible to have something ready for the next meeting.

It was resolved that Mr. Rudolph Roehrs be appointed to take the place of his brother, the late Julius Roehrs, on the International Flower Show Committee.

DIRECTORS' MEETING, DECEMBER 12, 1923

(MR. F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING)

Elected as Annual Members: Miss Elizabeth K. Lamont, Mrs. F. R. Kellogg, Mr. E. Beckett, Miss Julia Wray, Mrs. Thomas Thacher, Mrs. P. N. Gutlrie, Jr., Dr. Philip Van Ingen, Mrs. Helen Orr English, Mr. Adam Zobei, Mr. Sterling Postley, Mrs. Edwin W. Preston, Mrs. Percy H. Williams, Mrs. Francis McNeil Bacon, Mrs. Henry Bartol, Mr. Willard A. Fox, Mrs. Howard S. Borden, Miss Sarah Clephane, Mrs. Park M. Woolley, Mrs. Henrietta M. Pope, Mrs. William L. Pierce, Jr., Mr. B. A. Cushman.

Elected as Life Member: Mrs. Charles B. Alexander.

Resolved that a letter be written to Mr. Miller, President of the Borough of Manhattan, protesting against the continuation of Sixth Avenue through Central Park as this Society is opposed to any further infringement of our parks.

The Chair announced that Mr. W. A. Manda accepts his appointment to the International Flower Show Committee of 1924.

Resolved that the Society reaffiliate itself with the New York Federation of Horticultural and Floral Societies at the rate of \$25.00 per year.

DIRECTORS' MEETING, JANUARY 9, 1924

(MR. F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING)

Elected as Life Member: Mrs. Cooper Hewitt.

Elected as Annual Members: Mr. George Ferguson, Mr. James Bryant Roy, Mrs. Roswell Eldridge.

Mr. Leonard Barron was elected to take the place of Mrs. Samuel Sloan as chairman of the lecture committee with power to appoint his own committee.

Resolved, That the Journal be issued twice a year, thereby increasing the size of the volume and at the same time improving and making it a much more valuable asset, the next issue to be as of July, 1924.

A letter was read from Mrs. Samuel Sloan, conveying the approval of her Board in the cooperation of the Garden Club of America in our lecture course for next year.

DIRECTORS' MEETING, FEBRUARY 13, 1924

(MR. F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING)

Elected as Life Members: Mrs. Frederic G. Goodridge, Mrs. Lyman Delano, Mr. Martin R. Jacobus.

Elected as Annual Members: Mrs. John B. Bird, Mrs. John W. Paris,

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Mrs. Ernesto Fabbri, Mrs. William D. Morgan, Mrs. E. R. Hewitt, Mrs. Edwin S. Barbour, Miss Isabelle Pendleton, Mrs. J. Magee Ellsworth, Capt. V. H. Hurlstone Piper.

The Secretary read a letter of thanks from Mrs. Julius Rochrs for the set of resolutions tended her on the death of her husband.

Mr. Leonard Barron reported new Lecture Committee to be as follows: Leonard Barron, Chairman; Dr. N. L. Britton; Dr. C. Stuart Gager; Dr. E. B. Southwick; Mrs. Robert C. Hill.

The chair appointed a committee with Mr. Leonard Barron as chairman to work on a Horticultural Conference as suggested by Mr. Barron at a previous meeting.

DIRECTORS' MEETING, MARCH 12, 1924

(MR. F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING)

Elected as Life Member: Mrs. Thomas D. Thacher.

Elected as Annual Members: Mrs. L. K. Wilmerding, Mr. Robert Honeyman, Mrs. George Whitney, Mrs. Harlow Brooks, Mrs. Ernest W. Congdon, Mrs. H. W. Sibley, Mrs. R. Burnside Potter, Mrs. Ernest G. Stillman, Mrs. Fred Joel Swift, Mrs. Ernest G. Victor, Mrs. F. A. Vanderlip, Mr. Joseph C. Stobo, Mrs. Thomas D. Leonard.

Mr. T. A. Havemeyer reported that Mrs. Harold I. Pratt had chosen the 17th day of May on which to entertain the members of the Horticultural Society of New York at her place in Glen Cove. The chair thanked Mr. Havemeyer for the service rendered by him and his committee and discharged them.

It was resolved that we invite the American Gladiolus Society to cooperate with us in our Gladiolus Show to be held August 8th, 9th and 10th, 1924, at the American Museum of Natural History.

DIRECTORS' MEETING, APRIL 9, 1924

(MR. F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING)

Elected as Annual Members: Mrs. James R. Knapp, Mrs. Alphonzo Pelham, Mr. G. M. Borden, Mr. W. H. Waite, Mr. Charles Leavitt, Miss Lucy H. Kean, Dr. William Wheelock, Mrs. Charles Kaye, Miss Marion Davies, Mrs. William Procter, Mr. John W. Fuller, Mrs. Fred W. Payne, Mr. M. P. duPont, Mrs. K. D. Cheney, Mr. Pierre Lorillard, Mr. Lincoln Pierson, Mr. C. P. Coleman, Mr. Joseph Biehler, Mr. Robert H. Montgomery, Mr. Herbert L. Dillon, Mr. Roger Starr, Mr. N. W. Tilton, Mrs. E. Blauvelt, Mrs. Henry A. Colgate, Miss Alice E. Kingsbury, Mrs. John R. Demarest, Mrs. William Fellowes Morgan, Mrs. Claude Kress, Mrs. P. J. Kruesi, Mr. Edwin H. Brown, Mrs. Joseph H. Weinberg, Mrs. I. M. Leslie, Mr. Frank Howard Lloyd, Mr. Frank O. Johnson, Mrs. F. J. Godsol, Mrs. A. P. Shelton, Miss Lilian C. Alderson, Mrs. E. C. Gude, Mrs. Maurice Brill, Mrs. Charles V. Drew, Mrs. Henry R. Hoyt, Mrs. N. Hopkins Heft, Mrs. S. L. Newman, Mrs. John Greenough, Mrs. Henry Ford, Mrs. D. W. Flint, Mrs. Francis H. Adriance, Mrs. W. C. Webster, Mr. John F. Thibaut, Mr. Arthur Turnbull, Mr. Paul Fosdick, Mrs. A. B. Jenkins, Capt. H. H. Warfield, Mrs. Charles F. Cantine, Mr. R. L. Fowler, Mr. J. Macey Willets, Mr. Hugh F. Fox, Mrs. Alice B. Doscher, Mrs. Charles A. Eaton, Mr. Victor Morawitz, Miss M. E. Rowland, Miss Isabel S. Middleton, Miss Charlotte H. Miner, Mrs. Louise Augustin, Miss Irene Hayes, Mrs. Louise Endicott, Mrs. Charles Bradley, Mrs. Elizabeth Horner.

The chair appointed Mr. John Scheepers a committee of one to represent this Society at the International Flower Show of Haarlem, Holland in 1925.

A letter from Mr. W. B. Roulstone, chairman of the Parks and Play-

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ground Association was read notifying the Society of a meeting of the Board of Estimate on April 11th, at 10:30 A. M., and it was resolved THAT: The Horticultural Society of New York protest against the proposed encroachment of Central Park and that Mrs. Mortimer J. Fox be appointed to represent this Society with Mrs. Elizabeth Peterson as alternate.

Resolved, THAT: The Annual Meeting be held at the office, 598 Madison Avenue, New York City, the second Saturday in May (the 10th) as provided for in the Constitution.

It was decided that the Society conduct the 1925 International Flower Show in coöperation with the New York Florists' Club and that Mr. Young be so advised.

Mr. Havemeyer submitted a circular from the Central Horticultural Society of Nancy, France, which gave the details of a fund being created to erect a testimonial of Victor Lemoine and it was decided to issue a notice to our members giving those interested an opportunity to contribute to a sum to be donated in the name of the Horticultural Society of New York.

DIRECTORS' MEETING, MAY 10, 1924

(MR. F. R. PIERSON, CHAIRMAN OF THE BOARD, PRESIDING)

Elected as Annual Members: Mr. Arthur H. Deane, Mr. R. Herbert Crowell, Mrs. Charles G. Taylor, Mrs. William Hand, Mrs. Clarence E. Chapman, Mrs. L. A. Lehmaier, Mrs. Henry R. McLane.

Resolved, THAT: The Secretary notify the International Flower Show Committee that the Gold Cup of the Holland Bulb Growers Association is at their disposal to be offered as such prize and under such conditions as they may name under the terms of the agreement of the Holland Bulb Growers Association.

DIRECTORS' MEETING, JUNE 11, 1924

This being the first meeting of the Board after the Annual Meeting, Mr. Robert T. Brown took the chair.

Nominations being called for, Mr. F. R. Pierson was unanimously elected chairman of the Board of Directors.

Mr. Pierson then took the chair and the following elections took place.

President: Mr. T. A. Havemeyer.

Vice-Presidents: Dr. N. L. Britton, Mr. James Cromwell, Mr. William Boyce Thompson.

Honorary Vice-Presidents: Mr. E. S. Harkness, Mr. Adolph Lewisohn, Mrs. Payne Whitney, Mr. Clement Moore, Mr. George T. Powell.

Executive Secretary: Mrs. Elizabeth Peterson.

The chair made the following committee appointments:

Finance Committee: Mr. T. A. Havemeyer, Mr. F. R. Newbold, Mr. F. R. Pierson.

Lecture Committee: Mr. Leonard Barron, Chairman; Dr. N. L. Britton; Dr. C. Stuart Gager; Dr. E. B. Southwick; Mrs. Robert C. Hill.

Exhibition Committee: Mr. James Stuart, Chairman; Mr. R. T. Brown; Mr. John Canning; Mr. George Ferguson; Dr. H. A. Gleason; Mr. I. S. Hendrickson; Mr. James Kelly; Mr. John Lager; Mr. A. J. Manda; Mr. J. A. Manda; Mr. John Scheepers; Mr. Charles H. Totty; Mr. Arthur Herington, Exhibition Manager.

Journal Committee: Mr. Leonard Barron, Chairman; Mrs. Elizabeth Peterson; Dr. E. B. Southwick.

Library Committee: Mrs. Robert C. Hill, Chairman; Mrs. Samuel Sloan; Mr. Henry F. duPont.

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Horticultural Conference Committee: Mr. Leonard Barron, Chairman; Mr. John Scheepers; Dr. E. B. Southwick.

Horticultural Hall Committee: Mr. John Scheepers, with power.

Park Protection Committee: Mrs. Mortimer J. Fox, Mrs. Elizabeth Peterson, alternate.

1925 International Flower Show Committee: Mr. F. R. Pierson, Mr. T. A. Havemeyer, Mr. James Stuart, Mr. Joseph Manda, Mr. John Canning, Mr. F. L. Atkins, Mr. John Scheepers, Mr. Rudolph Roehrs, Mr. W. A. Manda.

Elected as Annual Members: Mrs. Philip W. Livermore, Mrs. Thomas T. Gray, Mr. George Heck.

New York Federation of Horticultural Societies and Floral Clubs letter was read inviting the Directors to the Field Days at Cornell University, June 25th and 26th. The chair extended this invitation to the Board with request that as many go as possible and Mr. Nehrling be notified of this action.

Telegram and letter from the American Gladiolus Society were read asking a postponement of the Gladiolus Show from August 8th, 9th and 10th to August 22nd, 23rd and 24th. Mr. James Stuart, Chairman of the Exhibition Committee invited discussion of the matter after which the Secretary was instructed to write Mr. Davis, secretary of the American Gladiolus Society, extending to them the courtesy of postponement to the 22nd if they so desired.

On motion by Mr. Stuart, unanimously carried, it was voted to award to Mrs. Harold I. Pratt the first impression cast from the Society's new medal for the exquisite poem of a garden which reflected so much taste, care and love.

AWARDS AT THE INTERNATIONAL FLOWER SHOW

March 17-22, 1924.
Held in the Grand Central Palace.

PLANTS IN FLOWER

Private Growers

- Class 1. Acacia, 3 plants, one or more varieties—1st Prize, Mrs. F. A. Constable.
- Class 2. Acacia, specimen, any variety—1st Prize, Mrs. F. A. Constable.
- Class 3. Amaryllis, 12 plants—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. F. A. Constable.
- Class 4. Amaryllis, 6 plants—1st Prize, Mrs. F. A. Constable.
- Class 4a. Anthurium, one specimen plant—1st Prize, R. F. Howe. 2nd Prize, Col. H. H. Rogers.
- Class 5. Azalea, specimen, any color, not less than 3 ft. in diameter—1st Prize, James A. MacDonald.
- Class 6. Azalea, 3 plants, any color—1st Prize, James A. MacDonald.
- Class 7. Bougainvillea, specimen—1st Prize, Bertram G. Work.
- Class 8. Buddleia, 3 specimens—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. A. J. Moulton.
- Class 10. Cineraria hybrid, 6 plants—1st Prize, Bertram G. Work. 2nd Prize, W. R. Coe.
- Class 11. Cineraria stellata, 3 plants—1st Prize, William B. Thompson.
- Class 12. Cineraria stellata, specimen, any type—1st Prize, Bertram G. Work. 2nd Prize, William B. Thompson.
- Class 13. Cyclamen, 25 plants, arranged for effect, decorative plants permitted—1st Prize, Mrs. F. A. Constable. 2nd Prize, William B. Thompson.
- Class 14. Cyclamen, 6 plants—1st Prize, Mrs. Daniel Guggenheim.
- Class 17. Fuchsia, 1 standard specimen—1st Prize, Col. H. H. Rogers. 2nd Prize, Mrs. Charles Mallory.
- Class 18. Geraniums, 3 specimens—1st Prize, John W. Masury. 2nd Prize, Mrs. John T. Pratt.
- Class 19. Geranium, 1 standard specimen—1st Prize, Mrs. H. R. Mallory.
- Class 20. Heliotrope, 3 standard specimens—1st Prize, Mrs. Charles Mallory.
- Class 21. Heliotrope, 1 standard specimen—1st Prize, Mrs. Charles Mallory.
- Class 22. Hydrangea, 3 plants, not less than 8 inch pots—1st Prize, Mrs. Payne Whitney.
- Class 23. Hydrangea, specimen, not less than 8 inch pot—1st Prize, Mrs. Payne Whitney.
- Class 24. Imantophyllum, specimen—1st Prize, Mrs. F. A. Constable.
- Class 25. Lilac, 6 plants—1st Prize, Mrs. Daniel Guggenheim.
- Class 26. Marguerite, specimen—1st Prize, John W. Masury. 2nd Prize, Mrs. Charles Mallory.
- Class 27. Myosotis, 6 plants—1st Prize, John W. Masury. 2nd Prize, Mrs. Payne Whitney.
- Class 28. Nemesia, 6 plants—1st Prize, John W. Masury. 2nd Prize, Mrs. E. Iselin.
- Class 29. Primula malacoides, 12 plants—1st Prize, John W. Masury. 2nd Prize, Mrs. Payne Whitney.
- Class 30. Primula obconica, 12 plants—1st Prize, Mrs. Payne Whitney. 2nd Prize, John W. Masury.

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Class 31. Primulas, 6 plants in variety—1st Prize, John W. Masury. 2nd Prize, Mrs. Payne Whitney.

Class 32. Rhododendron, 3 plants, not less than 3 ft. in diameter—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. Payne Whitney.

Class 33. Rhododendron, specimen, not less than 4 ft. in diameter—1st Prize, Mrs. Daniel Guggenheim. 2d Prize, Mrs. Payne Whitney.

Class 34. Schizanthus, 3 plants—1st Prize, William B. Thompson. 2nd Prize, Mrs. S. T. Peters.

Class 35. Schizanthus, specimen—1st Prize, George F. Baker. 2nd Prize, Mrs. S. T. Peters.

Class 37. Stocks, 12 plants, one or more varieties—1st Prize, A. L. D. Warner. 2nd Prize, Mrs. E. Iselin.

Class 38. Wistaria, specimen—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, James MacDonald.

Class 39. Any other specimen flowering plant—1st Prize, Mrs. H. M. Tilford. 2nd Prize, Col. H. H. Rogers.

Class 40. An exhibit of flowering plants, covering 300 sq. ft., ferns or other suitable accessories permitted. Orchids excluded—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. F. A. Constable.

Class 41. Display of Delphiniums—Special Prize, Mrs. John T. Pratt.

PALMS AND FOLIAGE PLANTS

Private Growers

Class 50. *Areca lutescens*, specimen—1st Prize, George F. Baker.

Class 53. *Dracaena*, 3 plants—1st Prize, William B. Thompson. 2nd Prize, Mrs. E. E. Smathers.

Class 54. *Kentia forsteriana*, specimen, single or bushy—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. E. E. Smathers.

Class 55. *Kentia Belmoreana*, specimen, single or bushy—1st Prize, Mrs. E. E. Smathers. 2nd Prize, Mrs. Daniel Guggenheim.

Class 56. *Phoenix Roebelenii*, specimen—1st Prize, J. B. Cobb Estate. 2nd Prize, Mrs. F. A. Constable.

Class 57. Palm, other than above, specimen, single or bushy—1st Prize, Mrs. E. E. Smathers.

Class 58. Any specimen foliage plant, not less than 10 inch pot or tub—1st Prize, William B. Thompson. 2nd Prize, Mrs. Daniel Guggenheim.

Class 59. Group of foliage plants, with Orchids permitted, collection covering 150 sq. ft., arranged for effect—1st Prize, William B. Thompson. 2nd Prize, Mrs. Daniel Guggenheim.

FERNS

Private Growers

Class 70. *Asparagus*, specimen, any variety—1st Prize, Mrs. E. E. Smathers. 2nd Prize, Col. H. H. Rogers.

Class 71. *Adiantum cuneatum*, or its types, specimen—1st Prize, Mrs. E. E. Smathers. 2nd Prize, James MacDonald.

Class 73. *Adiantum*, any other variety, specimen—1st Prize, J. B. Cobb Estate.

Class 74. *Cibotium Scheidei*, specimen—1st Prize, Mrs. E. E. Smathers. 2nd Prize, J. B. Cobb Estate.

Class 75. *Goniophlebium sub-auriculatum*, specimen—1st Prize, Mrs. E. E. Smathers. 2nd Prize, Col. H. H. Rogers.

Class 76. *Nephrolepis exaltata Bostoniensis*, or any of its sports—1st Prize, J. B. Cobb Estate. 2nd Prize, Mrs. E. E. Smathers.

Class 77. Stag's Horn Fern, specimen—1st Prize, James MacDonald. 2nd Prize, Mrs. E. E. Smathers.

Class 78. Fern, any other variety not otherwise specified—1st Prize, Mrs. E. E. Smathers. 2nd Prize, Mrs. Charles Mallory.

BULBOUS PLANTS

Private Growers

Class 80. Freesias, white, 12 six-inch pots or pans—1st Prize, J. W. Harriman. 2nd Prize, Mrs. Bertram H. Borden.

Class 81. Freesias, colored, 6 six-inch pots or pans—1st Prize, J. B. Cobb Estate. 2nd Prize, Mrs. John T. Pratt.

Class 82. Hyacinths, white, 3 ten-inch pots or pans—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. Bertram H. Borden.

Class 83. Hyacinths, pink, 3 ten-inch pots or pans—1st Prize, Mrs. John T. Pratt. 2nd Prize, Mrs. Payne Whitney.

Class 84. Hyacinths, red, 3 ten-inch pots or pans—1st Prize, Mrs. Harold I. Pratt. 2nd Prize, James MacDonald.

Class 85. Hyacinths, light blue, 3 ten-inch pots or pans—1st Prize, Mrs. J. P. Morgan's Estate. 2nd Prize, Mrs. Bertram H. Borden.

Class 86. Hyacinths, dark blue or purple, 3 ten-inch pots or pans—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Mrs. Harold I. Pratt.

Class 87. Hyacinths, yellow, 3 ten-inch pots or pans—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Mrs. Harold I. Pratt.

Class 88. Lilies, 12 pots, any varieties—1st Prize, Mrs. Harold I. Pratt. 2nd Prize, Mrs. John T. Pratt.

Class 89. Lily of the Valley, 3 eight-inch pots or pans—1st Prize, Mrs. H. M. Tilford. 2nd Prize, Mrs. J. P. Morgan's Estate.

Class 89a. Lily of the Valley, 3 twelve-inch pots or pans—1st Prize, Mrs. H. M. Tilford. 2nd Prize, Col. H. H. Rogers.

Class 90. Narcissus, 6 varieties, large Trumpet varieties, 6 ten-inch pots or pans—1st Prize, Mrs. Harold I. Pratt. 2nd Prize, Mrs. Bertram H. Borden.

Class 91. Narcissus, all other types, 6 varieties, 6 ten-inch pots or pans—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Mrs. Daniel Guggenheim.

Class 92. Tulips, single early, distinct varieties, 6 ten-inch pots or pans—1st Prize, Mrs. Payne Whitney. 2nd Prize, Mrs. John T. Pratt.

Class 93. Tulips, double, in variety, 6 ten-inch pots or pans—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Mrs. Payne Whitney.

Class 94. Tulips, Darwin, distinct varieties, 12 ten-inch pots or pans—1st Prize, Mrs. Payne Whitney. 2nd Prize, Mrs. Daniel Guggenheim.

Class 95. Tulips, Breeder, in variety, 12 ten-inch pots or pans—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. Payne Whitney.

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Class 96. Tulips, all other May flowering, distinct varieties, 12 ten-inch pots or pans—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. Payne Whitney.

THE ZANDBERGEN BROTHERS SPECIAL PRIZE

Class 97. Hyacinths, 8 distinct varieties, ten-inch pots or pans—1st Prize, Mrs. Harold I. Pratt. 2nd Prize, Mrs. Payne Whitney.

Class 98. Collection of Narcissi, best yellow, bicolor and white trumpet, Leedsi, Barri, Incomparable, Poeticus and Jonquil types, 2 ten-inch pots or pans of each—1st Prize, Mrs. Daniel Guggenheim. 2nd Prize, Mrs. Payne Whitney.

Class 99. Collection of new seedling Tulips, eight-inch pots or pans, 8 to 10 varieties that have not been shown more than once in previous New York International Shows—1st Prize, Mrs. Payne Whitney.

ORCHID PLANTS

Private Growers

Class 100. Twelve plants in variety—1st Prize, Col. H. H. Rogers.

Class 101. Six plants in variety—1st Prize, Col. H. H. Rogers.

Class 102. Three plants in variety—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Col. H. H. Rogers.

Class 103. One plant—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Col. H. H. Rogers.

Class 104. One Brasso-Cattleya or Brasso-Laelia—1st Prize, Col. H. H. Rogers.

Class 105. One Cattleya, Laelia or Laelia-Cattleya—1st Prize, Col. H. H. Rogers.

Class 106. One Cymbidium—1st Prize, Col. H. H. Rogers. 2nd Prize, Mrs. Bertram H. Borden.

Class 107. Three Oncidium in variety—1st Prize, Col. H. H. Rogers.

CUT ORCHIDS

Private Growers

Class 108. Twenty-five vases of Orchids in variety—1st Prize, A. N. Cooley.

ORCHID PLANTS

Special Classes

Class 109. Twenty-five plants in variety—1st Prize, Clement Moore.

Class 110. Twelve plants in variety—1st Prize, Clement Moore.

CUT ROSES

Private Growers

Class 117. 18 Butterfly, Ophelia, or sports of similar color—1st Prize, W. R. Coe. 2nd Prize, Countess Mildred Holnstein.

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Class 119. 18 Columbia—1st Prize, Mrs. F. A. Constable. 2nd Prize, Mrs. Lewis P. Child.

Class 121. 18 Mrs. Aaron Ward—1st Prize, Countess Mildred Holstein.

Class 122. 18 Any red variety—1st Prize, A. L. D. Warner. 2nd Prize, Mrs. Lewis P. Child.

Class 123. 18 Any white variety—1st Prize, Countess Mildred Holstein.

Class 126. 25 One or more varieties, to be shown in one vase—1st Prize, Countess Mildred Holstein. 2nd Prize, Mrs. Lewis P. Child.

CARNATIONS

Private Growers

Class 130. 25 White—1st Prize, Mrs. Arnold Schlaet. 2nd Prize, Mrs. H. M. Tilford.

Class 131. 25 Light pink, exclusive of Laddie—1st Prize, Mrs. Arnold Schlaet. 2nd Prize, Mrs. E. E. Smathers.

Class 132. 25 Dark pink—1st Prize, Mrs. F. E. Lewis. 2nd Prize, Mrs. H. M. Tilford.

Class 133. 25 Red or scarlet, to include all shades generally classed in these colors—1st Prize, Mrs. H. M. Tilford. 2nd Prize, Miss Susan D. Bliss.

Class 134. 25 Crimson, to include all shades known as crimson or maroon—1st Prize, Mrs. Robert Mallory. 2nd Prize, Mrs. Payne Whitney.

Class 135. 25 White variegated—1st Prize, Mrs. H. M. Tilford. 2nd Prize, George Grant Mason.

Class 136. 25 Yellow or yellow variegated—1st Prize, Mrs. F. A. Constable. 2nd Prize, Mrs. F. E. Lewis.

Class 137. 25 Laddie—1st Prize, George Grant Mason. 2nd Prize, Mrs. E. E. Smathers.

Class 138. Vase of Carnations, not to exceed 150 blooms. One or more varieties may be used. Decorative green of any kind, ribbon and any other accessories may be used, as long as Carnations are the predominant feature—1st Prize, Mrs. Percy Chubb. 2nd Prize, W. R. Coe. 3rd Prize, Mrs. F. E. Lewis.

SWEET PEAS

Private Growers

Class 141. Display of Sweet Peas, covering 25 sq. ft. Quality of bloom, artistic arrangement and general effect to be considered in making award—1st Prize, Mrs. W. R. Cross. 2nd Prize, W. R. Coe. 3rd Prize, Mrs. John T. Pratt.

Class 142. Collection of six varieties, 25 sprays of each—1st Prize, Mrs. S. H. Gillespie. 2nd Prize, W. R. Coe.

Class 143. 100 sprays, one or more varieties, arranged for effect, greens permitted—1st Prize, W. R. Coe. 2nd Prize, Mrs. S. H. Gillespie.

MISCELLANEOUS CUT FLOWERS

Private Growers

Class 150. Acacia, 12 sprays—1st Prize, B. G. Work.

Class 151. Amaryllis, 12 spikes—1st Prize, Mrs. F. A. Constable.

Class 152. Antirrhinum, 12 spikes, crimson—1st Prize, Mrs. Percy Chubb.

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Class 153. Antirrhinum, 12 spikes, pink—1st Prize, J. Insley Blair. 2nd Prize, Mrs. Percy Chubb.

Class 154. Antirrhinum, 12 spikes, white—1st Prize, Mrs. Payne Whitney. 2nd Prize, W. R. Coe.

Class 155. Antirrhinum, 12 spikes, yellow—1st Prize, Mrs. S. T. Peters. 2nd Prize, Mrs. Payne Whitney.

Class 156. Anthurium, 12 flowers—1st Prize, Mrs. E. E. Smathers.

Class 157. Calendulas, 25 flowers—1st Prize, Mrs. E. Iselin. 2nd Prize, Charles W. McAlpin.

Class 158. Callas, 12 flowers, yellow—1st Prize, Mrs. Daniel Guggenheim.

Class 159. Callas, 12 flowers, white—1st Prize, Charles W. McAlpin. 2nd Prize, C. E. Mitchell.

Class 160. Flowering shrubs, 12 sprays, one or more varieties—1st Prize, Mrs. E. E. Smathers. 2nd Prize, Mrs. Payne Whitney.

Class 161. Freesias, 25 sprays, white—1st Prize, Mrs. Percy Chubb. 2nd Prize, Mrs. Henry R. Mallory.

Class 162. Freesias, 25 sprays, colored—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, Mrs. John T. Pratt.

Class 163. Lilac, 12 sprays—1st Prize, Mrs. Bertram H. Borden.

Class 164. Lilies, 12 spikes—1st Prize, B. G. Work. 2nd Prize, Mrs. Harold I. Pratt.

Class 165. Mignonette, 12 spikes—1st Prize, W. R. Coe. 2nd Prize, Mrs. Percy Chubb.

Class 166. Stocks, 12 spikes, one or more varieties—1st Prize, Mrs. Percy Chubb. 2nd Prize, Mrs. John Topping.

Class 167. Tulips, 25 flowers, single—1st Prize, Mrs. Bertram H. Borden. 2nd Prize, B. G. Work.

Class 168. Tulips, 50 flowers, single—1st Prize, Mrs. Harold I. Pratt. 2nd Prize, Mrs. Bertram H. Borden.

Class 169. Violets, 200 blooms, single or double—1st Prize, Mrs. John R. Livermore. 2nd Prize, Mrs. Lewis P. Child.

Class 170. Vase cut flowers, not otherwise provided for, Orchids excepted—1st Prize, William R. Seymour. 2nd Prize, J. Insley Blair.

Class 171. Wall Flower, 12 spikes, any color—1st Prize, Mrs. E. Meyer, Jr. 2nd Prize, Mrs. Percy Chubb.

DINNER TABLE DECORATIONS

Private Growers

Class 180. Table and accessories to be furnished by Flower Show Management. Table to be set for eight. Roses the only flower to be used in this decoration—1st Prize, Mrs. Percy Chubb. 2nd Prize, Mrs. Ridley Watts. 3rd Prize, W. R. Coe.

Class 181. Carnations the only flower to be used in this decoration—1st Prize, Mrs. J. P. Morgan's Estate. 2nd Prize, Mrs. Percy Chubb. 3rd Prize, Mrs. Ridley Watts.

Class 182. Sweet Peas exclusively. Other foliage than Sweet Peas may be used—1st Prize, W. R. Coe. 2nd Prize, Mrs. Ridley Watts. 3rd Prize, Mrs. Percy Chubb.

Class 183. Miscellaneous flowers other than those permitted in other classes for table decorations—1st Prize, Mrs. Henry Mallory. 2nd Prize, Mrs. Edward Holbrook. 3rd Prize, Mrs. S. Stein.

Class 184. An exhibit covering 750 sq. ft. may include lawns, flower beds, shrubby borders, rose beds, bulb beds, or any exhibit that the artistic

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ability of the exhibitor may suggest, as the widest latitude will be allowed in this class. Special gold medals will be awarded for special merit in this class—Awards to: F. R. Pierson, A. N. Pierson, Inc., Bobbink & Atkins, John Scheepers, A. Kottmiller.

Open Class

Class 185. Collection of Lilies, in pots, not less than 50 sq. ft. Ferns for decorative effect permitted—1st Prize, Mrs. John T. Pratt. 2nd Prize, Mrs. Harold I. Pratt.

Open Class

Class 186. Best Orchid in the show—Gold Medal, A. N. Cooley.

ORCHID PLANTS IN FLOWER

Commercial Growers

Class 187. Twenty-five plants in variety—1st Prize, Edward H. Roehrs. 2nd Prize, Lager & Hurrell.

Class 188. Twelve plants in variety—1st Prize, Edward H. Roehrs.

Class 192. Twelve Hybrid Orchids in variety (Cattleya, Laelia-Cattleya, Brasso-Cattleya and Brasso-Laelia)—1st Prize, George E. Baldwin & Co. 2nd Prize, Edward H. Roehrs.

Class 193. Six Hybrid Orchids in variety (varieties same as in class of twelve)—1st Prize, Edward H. Roehrs.

Class 197. Six Cypripedium in variety—1st Prize, Lager & Hurrell.

Class 199. Six Dendrobium in variety—1st Prize, Lager & Hurrell.

PLANTS IN FLOWER

Commercial Growers

Class 205. Acacia, 3 plants, one or more varieties—1st Prize, Bobbink & Atkins.

Class 206. Acacia, specimen, any variety—1st Prize, Bobbink & Atkins.

Class 207. Azalea indica group, covering 150 sq. ft., arranged for effect—1st Prize, Bobbink & Atkins.

Class 208. Azalea mollis and pontica, covering 100 sq. ft.—2nd Prize, Bobbink & Atkins.

Class 209. Evergreen Outdoor Azaleas in bloom, covering 100 sq. ft.—1st Prize, Bobbink & Atkins.

Class 211. Genista, 3 plants—1st Prize, Madsen & Christensen.

Class 212. Genista, 1 plant specimen—1st Prize, Madsen & Christensen.

Class 213. Genista, 3 standard specimens—1st Prize, Madsen & Christensen.

Class 214. Hydrangeas, group covering 150 sq. ft.—1st Prize, Julius Roehrs Company.

Class 218. Marguerites, 3 plants—1st Prize, Madsen & Christensen.

Class 219. Marguerite, specimen—1st Prize, Madsen & Christensen.

ROCK GARDEN

Commercial Growers

Class 222. Rock Garden, covering space 15 ft. x 30 ft.; suitable accessories permitted—1st Prize, Bobbink & Atkins.

PALMS AND FOLIAGE PLANTS

Commercial Growers

Class 227. Bay Trees, standard, 2 plants—1st Prize, Bobbink & Atkins. 2nd Prize, Julius Roehrs Company.

Class 233. Twelve trained Ivies—1st Prize, Bobbink & Atkins.

Class 236. Phoenix Roebelenii, 1 plant only—1st Prize, Charles H. Totty Company.

FERNS

Commercial Growers

Class 240. Adiantum Cuneatum or its types, 6 plants, not less than eight-inch pots or pans—1st Prize, F. R. Pierson.

Class 241. Adiantum Farleyense or Farleyense type, six plants, not less than eight-inch pots or pans—1st Prize, A. N. Pierson, Inc.

Class 242. Nephrolepis, specimen, any variety—1st Prize, F. R. Pierson.

Class 243. Cibotium Scheidei, specimen, not less than twelve-inch pot or pan—1st Prize, F. R. Pierson.

Class 244. Ferns, collection, not less than fifty plants—1st Prize, F. R. Pierson.

Class 245. Fern, specimen, any other variety—1st Prize, F. R. Pierson.

BULBOUS PLANTS

Commercial Growers

Class 251. Lilium, 25 pots, one or more varieties—1st Prize, F. R. Pierson. 2nd Prize, A. L. Miller.

ROSES IN POTS AND TUBS

Commercial Growers

Class 255. Climbing, red, specimen—1st Prize, A. N. Pierson, Inc.

Class 256. Climbing, pink, specimen—1st Prize, A. N. Pierson, Inc.

Class 259. Any single variety, specimen—1st Prize, A. N. Pierson, Inc.

CUT ROSES

Commercial Growers

Class 265. 50 America—1st Prize, Traendly & Schenck. 2nd Prize, Duckham-Pierson Co.

Class 267. 50 Butterfly, Ophelia or sports of similar color—1st Prize, Duckham-Pierson Co. 2nd Prize, Traendly & Schenck.

Class 268. 50 Claudius Pernet—1st Prize, The Florax Gardens, Inc. 2nd Prize, Charles H. Totty Company.

Class 269. 50 Columbia—1st Prize, L. B. Coddington. 2nd Prize, Bedford Flower Company.

Class 270. 50 Commonwealth—1st Prize, A. N. Pierson, Inc.

Class 271. 50 Francis Scott Key—1st Prize, F. R. Pierson. 2nd Prize, L. B. Coddington.

Class 272. 50 Hadley—1st Prize, L. B. Coddington.

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Class 273. 50 Premier—1st Prize, Traendly & Schenck. 2nd Prize, Darien Greenhouses.

Class 274. 50 White Killarney or any white sport of same—1st Prize, Duckham-Pierson Co. 2nd Prize, F. R. Pierson.

Class 275. 50 Crusader—1st Prize, Traendly & Schenck. 2nd Prize, Duckham-Pierson Co.

Class 276. 50 Mrs. Aaron Ward—1st Prize, Traendly & Schenck. 2nd Prize, L. B. Coddington.

Class 277. 50 Pilgrim—1st Prize, Traendly & Schenck. 2nd Prize, John Welsh Young.

Class 278. 50 Sunburst—1st Prize, W. W. Vert.

Class 280. Any other disseminated variety, pink—1st Prize, F. R. Pierson. 2nd Prize, A. N. Pierson, Inc.

Class 283. Any new Rose not yet disseminated, whether of domestic or foreign origin—F. R. Pierson, Silver Medal. A. N. Pierson, Inc., Silver Medal.

DISPLAY CUT ROSES

Commercial Growers

Class 285. Display of cut Roses, covering 300 sq. ft., and containing not less than 500 nor more than 1,000 blooms. Decorative green of any kind, including plants, permitted—1st Prize, Traendly & Schenck. 2nd Prize, A. N. Pierson, Inc. 3rd Prize, F. R. Pierson.

CUT ROSES

Commercial Growers

Class 290. 50 America—1st Prize, F. R. Pierson. 2nd Prize, Duckham-Pierson Co.

Class 291. 50 American Beauty—1st Prize, Myers & Samtman.

Class 292. 50 Butterfly, Ophelia or sports of similar color—1st Prize, Duckham-Pierson Co. 2nd Prize, Traendly & Schenck.

Class 293. 50 Claudius Pernet—1st Prize, Charles H. Totty Co.

Class 294. 50 Columbia—1st Prize, L. B. Coddington. 2nd Prize, Bedford Flower Company.

Class 295. 50 Commonwealth—1st Prize, A. N. Pierson, Inc.

Class 296. 50 Francis Scott Key—1st Prize, L. B. Coddington. 2nd Prize, F. R. Pierson.

Class 297. 50 Hadley—1st Prize, L. B. Coddington.

Class 298. 50 Premier—1st Prize, Traendly & Schenck. 2nd Prize, Duckham-Pierson Co.

Class 299. 50 White Killarney or any white sport of same—1st Prize, Duckham-Pierson Co. 2nd Prize, Bedford Flower Company.

Class 300. 50 Crusader—1st Prize, Traendly & Schenck. 2nd Prize, Duckham-Pierson Co.

Class 301. 50 Mrs. Aaron Ward—1st Prize, Traendly & Schenck. 2nd Prize, L. B. Coddington.

Class 302. 50 Pilgrim—1st Prize, Traendly & Schenck.

Class 303. 50 Sunburst—1st Prize, W. W. Vert. 2nd Prize, L. B. Coddington.

Class 305. 50 Any other disseminated variety, pink—1st Prize, F. R. Pierson. 2nd Prize, A. N. Pierson, Inc.

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CARNATIONS
Commercial Growers

Class 310. 100 White—1st Prize, Marius Matheron. 2nd Prize, LeCluse & LeCluse.

Class 311. 100 Light pink, exclusive of Laddie—1st Prize, F. B. Abrams. 2nd Prize, Marius Matheron.

Class 312. 100 Dark pink—1st Prize, F. B. Abrams. 2nd Prize, S. J. Goddard.

Class 314. 100 Crimson, to include all shades known as crimson or maroon—1st Prize, Strouts, Inc.

Class 315. 100 White variegated—1st Prize, Strouts, Inc.

Class 316. 100 Yellow or yellow variegated—1st Prize, Strouts, Inc. 2nd Prize, Curt Thim.

Class 317. 100 Laddie—1st Prize, Heather Dell Farm. 2nd Prize, S. J. Goddard.

Class 319. Display of Carnations, covering 150 sq. ft. of space and containing not less than 1,000 nor more than 1,500 blooms. Decorative green of any kind, including plants, permitted—1st Prize, Heather Dell Farm. 2nd Prize, Eben L. Hiscox.

SWEET PEAS
Commercial Growers

Class 330. Display of Sweet Peas covering 100 sq. ft., arranged for effect, any foliage or other accessories permitted—1st Prize, W. Atlee Burpee Company. 2nd Prize, Eben L. Hiscox.

FINEST BULB GARDEN—HOLLAND CHALLENGE CUP

John Scheepers, Inc.

SPECIAL AWARDS

GOLD MEDALS

Bougainvillea Carmine—Mrs. H. M. Tilford.

Brasso-Cattleya "Albion"—Clement Moore.

Brasso-Cattleya "Dietrickiana"—Clement Moore.

Collection of Hardy Lilies—Mrs. Mortimer J. Fox.

Largest Display of Sweet Peas—W. Atlee Burpee Company.

SILVER MEDALS

Lillium candidum speciosum—Mrs. Payne Whitney.

Vase of Salpiglossi—George Grant Mason.

Coronilla coronata—Muller-Sealey Co.

Pansy plants in bloom—August Ihm.

New Snapdragon "Orchid Beauty"—Peter Beuerlein.

Odontioda Hybrid—James B. Duke.

Cymbidium Diana var. "Mary Pickford"—Joseph Manda Company.

CERTIFICATES OF MERIT

Seedling Sweet Pea "Penrose"—W. Atlee Burpee Company.
Odontioda "Cora"—James B. Duke.
Odontioda "Juliet"—James B. Duke.
Odontioda "Orion"—James B. Duke.

CULTURAL CERTIFICATES

Two Specimen Fuchsias—Mrs. Charles Mallory.
Clerodendron Balfourii—F. R. Pierson.

HIGHLY COMMENDED

Group of Cinerarias—J. H. Fiesser.

AWARDS AT THE MAY FLOWER EXHIBITION
American Museum of Natural History, May 16-18, 1924.

Class 7. Twelve Calceolarias, large flowering—1st Prize, Bertram G. Work.

Class 8. Twelve Calceolarias, small-flowering—1st Prize, Bertram G. Work. 2nd Prize, Mrs. Payne Whitney. 3rd Prize, Mrs. F. A. Constable.

Class 9. Twelve Campanulas—1st Prize, Mrs. F. A. Constable.

Class 10. Six Pelargoniums—1st Prize, Bertram G. Work. 2nd Prize, Mrs. F. A. Constable.

Class 11. Three Hydrangeas, not over eight-inch pots—1st Prize, Mrs. Robert Mallory. 2nd Prize, Bertram G. Work.

Class 12. One Hydrangea Specimen, not less than ten-inch pot or tub—1st Prize, Bertram G. Work. 2nd Prize, Mrs. Robert Mallory.

Class 14. Six Lilies—1st Prize, Mrs. Payne Whitney. 2nd Prize, Mrs. John T. Pratt. 3rd Prize, Bertram G. Work.

Class 18. Collection of Tulips, to cover fifty sq. ft.—1st Prize, Mrs. Henry R. Mallory. 2nd Prize, Mrs. Payne Whitney. 3rd Prize, Mrs. Thomas F. Vietor.

Class 19. Six vases of Tulips, six varieties, five blooms to vase—1st Prize, Mrs. John T. Pratt. 2nd Prize, Mrs. Payne Whitney. 3rd Prize, Col. H. H. Rogers.

Class 20. Vase of Tulips, in variety, twenty-five blooms—1st Prize, Mrs. F. A. Constable. 2nd Prize, Mrs. A. J. Moulton. 3rd Prize, Col. H. H. Rogers.

Class 21. Six vases of Narcissi, six blooms to a vase—1st Prize, Mrs. Henry R. Mallory.

Class 22. Collection of Herbaceous Flowers to cover twenty-five sq. ft.—1st Prize, Col. H. H. Rogers.

Class 26. One vase of Antirrhinum, not less than ten spikes—1st Prize, Mrs. Payne Whitney. 2nd Prize, Mrs. John T. Pratt.

SPECIAL PRIZES

Twenty-five pots *Rehmannia angulata*—Silver Medal, Mrs. Payne Whitney.

Table of Lilies—Silver Medal, Mrs. Mortimer J. Fox.

Thirty-one square feet of Phlox—Silver Medal, Mr. John Bister.

THE HORTICULTURAL SOCIETY OF NEW YORK

Viola Jersey Gem—Silver Medal, Charles H. Totty Company.
Five vases Fifth Avenue Pansies—Mr. August Ihm.
Eight Hydrangeas—Mrs. Robert Mallory.

AWARDS AT THE ROSE EXHIBITION

American Museum of Natural History, June 20-22, 1924.

HYBRID TEAS

Open to All

Class 1. Collection of blooms, not less than fifty varieties—1st Prize, F. R. Pierson.

Class 2. Twenty-five blooms in twenty-five varieties—1st Prize, Mrs. Frederick H. Allen.

Class 3. Twelve blooms in twelve varieties—1st Prize, Mrs. John T. Pratt. 2nd Prize, The Conard & Jones Company.

Class 4. Vase, any variety—1st Prize, Mrs. John T. Pratt. 2nd Prize, Mrs. Frederick H. Allen.

Class 5. Three blooms of any White—1st Prize, Mrs. John T. Pratt. 2nd Prize, Mrs. Frederick H. Allen.

Class 6. Three blooms of any Pink—1st Prize, Mrs. John T. Pratt. 2nd Prize, Mrs. Frederick H. Allen.

Class 7. Three blooms of any Red—1st Prize, Mrs. Frederick H. Allen. 2nd Prize, The Conard & Jones Company.

Class 8. Three blooms of any Yellow—1st Prize, Mrs. John T. Pratt.

Class 9. Three blooms of any color—1st Prize, Mrs. John T. Pratt. 2nd Prize, Mrs. Frederick H. Allen.

TEAS

Class 12. Vase of blooms—1st Prize, Mrs. John T. Pratt.

HYBRID PERPETUAL

Class 16. Thirty-six blooms in twelve varieties, three of each—1st Prize, Mrs. Frederick H. Allen.

Class 17. Six blooms in six varieties—1st Prize, Mrs. Frederick H. Allen. 2nd Prize, The Conard & Jones Company.

Class 18. Three blooms of any Red—1st Prize, Mrs. Frederick H. Allen. 2nd Prize, The Conard & Jones Company.

Class 19. Three blooms of any Pink—1st Prize, Mrs. Frederick H. Allen.

Class 20. Three blooms of any White—1st Prize, Mrs. Frederick H. Allen. 2nd Prize, The Conard & Jones Company.

CLIMBING

Class 24. Twelve Vases, twelve varieties—1st Prize, Walter H. Ellis. 2nd Prize, Mrs. Frederick H. Allen.

MOSS ROSE

Class 32. Two Vases, two varieties—1st Prize, Mrs. John T. Pratt.

PEONIES

Open to All

Class 33. Display of Peonies to cover one hundred and fifty sq. ft., any or all types—1st Prize, Cedar Hill Nursery. 2nd Prize, John Lewis Childs. 3rd Prize, Bobbink & Atkins.

For Non-Commercial

Class 34. Display of Peonies to cover seventy-five sq. ft., any or all types—1st Prize, Mrs. John T. Pratt.

SPECIALS

Collection of Lupins—Silver Medal, W. R. Coe.
 Vase of Templar Rose—Silver Medal, A. N. Pierson, Inc.
 Display of Claudius Pernet Rose and Delphiniums—Charles H. Totty.
 Collection of Hardy Flowers—Mrs. Frederick H. Allen.
 Display of German Iris—John Lewis Childs.
 New Unnamed White Climber—Silver Medal, The Conard & Jones Co.

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TREASURER'S ANNUAL REPORT—May 1, 1923 to April 30, 1924

Correction for page 9—Please insert

LIFE FUND ACCOUNT CREDITS

By Balance May 1, 1923	\$52,976.07
Life Membership account	5,525.00
Interest account from bonds	3,198.80
Less Agency account care securities	25.91
Less Interest to General ac.	<u>3,000.00</u>

\$61,699.87

LIFE FUND ACCOUNT DEBITS

Savings Bank acs. (3)	\$ 820.05
Investment ac. Bonds at cost	51,092.50
Loan to General ac.	<u>500.00</u>
	\$52,421.55
Cash ac. Bal. in Bankers Trust Co.	<u>6,252.41</u>
	58,673.96

GENERAL ACCOUNT CREDITS

By Balance Cash ac. May 1, 1923	9,122.00
Annual Dues	75.00
Int. Flower Show Fund 1923	585.00
Int. Flower Show Fund 1924	2,090.00
November Show Fund 1923	3,595.16
Int. Fl. Show Prof. ac. 1923	121.05
Interest on bank deposits	3,000.00
Income from Life Fund	<u>500.00</u>
Loan from Life Fund	

422.90

GENERAL ACCOUNT DEBITS

Expense ac.	1,674.41
Medals ac.	375.07
Prizes ac.	3,415.55
Salary Exhibition Secy.	500.00
Petty Cash Exhibition Secy.	<u>126.56</u>
	6,091.59

7,345.56

19,088.21

\$19,511.11

Loan ac. Pd. Life Fund for deficit
'23-24

2,012.49

4,000.00

19,449.64

61.47

\$19,511.11

Cash ac. Bal. April 30, 1924

Cash Balance in Bankers Trust Co.

April 30, 1924.

Life Fund ac.

General ac.

6,252.41

61.47

\$6,313.88

PUBLICATIONS OF THE SOCIETY

Journal, Quarterly. Subscription price, \$1.00 a year; free to members.

Memoirs Vol. I. Proceedings of the International Conference on Plant Breeding and Hybridization, New York, 1902, price, \$2.00.

Vol. II. Proceedings of the International Conference on Plant Hardiness and Acclimatization, New York, 1907, price, \$2.00.

Address: Office of the Society, 598 Madison Ave., New York, N. Y.

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I give and bequeath to *The Horticultural Society of New York* _____
for _____

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