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JOURNAL

OF THE

Royal Horticultural Society

EDITED BY

REV. GEORGE HENSLOW, M.A., F.L.S., F.G.S.

*Botanical Demonstrator, and Secretary to the Scientific Committee of the
Royal Horticultural Society.*

VOLUME VI.

Gray Herbarium
Harvard University

LONDON:

H. WEEDE & Co., PRINTERS, BROMPTON.

—
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SEPTEMBER 16, 1879.

ORDINARY GENERAL MEETING.

Medals awarded.—Silver Banksian, J. M. Gilkes, for a collection of Asters; Silver Banksian, J. Walker, for a collection of Asters; Silver Banksian, J. Walker, for a collection of Dahlias; Silver Banksian, H. Cannell, for a collection of Dahlias.

This was the last of the fortnightly meetings for the season. Numerous collections of plants and cut flowers were exhibited, the Dahlias being especially fine, and Messrs. Veitch's group of plants attracted general attention owing to the large number of *Nepenthes* it contained. Messrs. Cannell, Keynes, and Walker were the principal exhibitors of cut flowers. Those from the first-named gentleman admirably illustrated the gradual floral advancement of the Dahlia.

FLORAL COMMITTEE.

J. McINTOSH, Esq., in the Chair.

An extensive and imposing group of plants was exhibited by Messrs. Veitch and Sons of Chelsea. From a bar elevated about six feet above the table were suspended numerous fine *Nepenthes* in baskets, and below them were arranged Orchids, Crotons, Rhododendrons, &c., the central plant being a handsome specimen of *Nepenthes Rafflesiana* bearing nearly twenty large pitchers. The Orchids were good, and the most noticeable were the following—*Zygopetalum maxillare*, with nine spikes of its distinct flowers; *Saccolabium Blumei majus*, with three long spikes of fragrant delicate-hued flowers; *Cattleya Harrisoniæ*, very pretty, sepals and petals pale purple, labellum with a crimped margin slightly tinged with the same colour; *Odontoglossum grande*, bearing seven large and handsome flowers; *Lælia elegans*, labellum extremely rich bright crimson. The principal *Nepenthes* that were represented were *N. hybrida*, *N. Chelsoni*, *N. Wrigleyana*, *N. Ratcliffiana*, *N. zealanica*

rubra, with diminutive pitchers; *N. Courti*, *N. Hookeri*, *N. intermedia*, *N. hybrida maculata*, *N. Sedeni*, and *N. Kennedyana rubra*, all of which vary considerably in the form, size, colour, and markings of their pitchers. Among many other noteworthy plants the bright-coloured hybrid *Rhododendrons Princess Fredericki* and *Duchess of Edinburgh* were especially prominent, also the finely variegated *Erythrina marmorata*, and several *Crotons*. First-class certificates were awarded for *Cypripedium oenanthum*, a hybrid between *C. insigne Maulei* and *C. Harrisonianum*, the petals and labellum are dark-coloured, the upper sepal being streaked and spotted with dark red, margin white; *C. calanthum*, small flower, sepals spotted near the base, upper sepal greenish, streaked with dark red; *Nepenthes Rigleyana*, a hybrid between *N. Hookeri* and *N. phyllamphora*, narrow greenish pitchers mottled with red. A special vote of thanks was awarded for the group.

Mr. William Bull, Chelsea, sent several new plants, including *Coleuses*, *Orchids*, *Palms*, and a *Drosera*, *D. dichotoma rubra*, for which a second-class certificate was awarded. It differs from the species, as the name expresses, in the red colour of the glandular hairs that cover the leaves. *Dendrobium Goldiei*, an exceedingly pretty *Orchid*, bears a spike of small, bright, purplish-lake-coloured flowers, the sepals having a fine margin of white. *Calyptronoma Swartzii* is a handsome *Palm* with graceful bright green pinnate leaves. Messrs. J. Keene & Co., Salisbury, exhibited a stand of three dozen *Dahlia* blooms in superb condition, and including several beautiful varieties. The best were *Ethel Britten*, florets white tipped and tinged with purple, an excellent form, this received a first-class certificate; *Triumphant*, bright purple lake, a handsome flower; *William Ady*, very distinct, pale purple streaked with maroon; *Miss Browning*, bright yellow. Mr. J. M. Gilkes, Wickham, Newbury, sent cut blooms of *Quilled Asters*, several of which were very good, but no names were attached. A silver *Banksian* medal was awarded.

Mr. H. Cannell, Swanley, Kent, contributed an extensive collection of *Dahlia* blooms representing the bedding, Pompon, Show, and Fancy types, also the single forms. The best of the bedding varieties were *King of Dwarfs*, very deep purple; *Queen Victoria*,

good yellow; Rising Sun, bright scarlet; Crimson King, very dark crimson or maroon. Among the Show varieties the most noticeable were Rifleman, neat flower, bright crimson; Countess of Lonsdale, large, beautiful in form, pink; Victory, very dark maroon; E. Newcombe, pale yellow; H. Turner, white, with a faint tinge of purple in the lower florets. The Fancy varieties Queen Mab, R. Burns, and Summertide were the best. The best Pompons were Sunshine, scarlet; Snowflake; Hercules, bright pink; Triomphe, good yellow; Sappho, dark crimson; White Aster; Sensation, pale yellow; and Rigoletto, maroon. The single forms represented were *Cervantesii*, *mexicana*, *coccinea*, *lutea*, *glabra*, *viridiflora*, the peculiar green-flowered form; *Yuaiczii*, the scarlet Cactus Dahlia, for which a botanical commendation was awarded; and Paragon, a remarkably pretty form, the outer florets large, dark maroon in colour, with a light margin. Mr. Cannell also sent a box of Cockscombs and *Tigridia Pavonia* var. *grandiflora*, all very good and showy. A cultural commendation was awarded for the *Tigridias*, and a vote of thanks and a silver Banksian medal were awarded for the entire collection. Mr. R. Lloyd, Brookwood Asylum, Woking, exhibited some seedling Coleuses and a specimen of *Ophiopogon Jaburan aureo-variegatum*, with narrow variegated foliage and scapes of pale purple flowers. Mr. J. Smith, Edmonton, and Messrs. Rawlings Bros., Romford, each sent collections of seedling Dahlias, some of which were very bright and neat. The former was awarded a vote of thanks. Mr. J. Y. Mould, The Nursery, Pewsey, Wilts, sent cut flowers of *Verbenas*. A first-class certificate was awarded for the variety Mr. Thompson, flowers large, scarlet with a white centre, and compact truss. Several other good varieties were shown, notably Mrs. Mould and Warren Hastings.

Mr. B. S. Williams, Upper Holloway, exhibited a group of plants, including Orchids, Palms, Ferns, and miscellaneous stove plants. A specimen of *Tillandsia Lindenii*, claiming to be the true species, was awarded a first-class certificate, but it was referred to Dr. Masters for identification. The bracts are pink, closely imbricate, and flattened out into an elliptical-shaped spike, bearing purplish-blue flowers, affording an agreeable contrast. A similar honour

was awarded to *Nepenthes robusta*, a hybrid between *N. Hookeri* and *N. phyllamphora*, very free in growth, and bearing numerous pitchers marked with dark red. A vote of thanks was accorded. Mr. J. Walker, nurseryman, Thame, exhibited an extensive collection of Dahlias and Asters in fine condition as regards colour and form. The best Dahlias were Monarch, very dark maroon; Prince Arthur, good yellow; Earl of Radnor, purplish lake; Bismarck, crimson maroon. The best Quilled Asters were Purple Prince, Snowflake, and Oxonian, purple with white centre. A silver Banksian was awarded. A vote of thanks was accorded to Mr. W. Clarke, gardener to J. Raines, Esq., Clapham Common, for *Lilium auratum* bearing a large number of flowers. Mr. H. Boller of Kensal New Town sent several succulent plants. A second-class certificate was awarded for *Agave marmorata*, dark green, leaves with whitish transverse bars.

Mr. C. Green, gardener to Sir G. Macleay, Bart., Pendell Court, exhibited flowers of *Carolina insigne*, one of the *Bombacæ*. The flowers are large, with narrow, whitish, recurved petals and numerous stamens with reddish filaments; it is extremely fragrant. A cultural commendation was awarded. Mr. Green also sent fruit spikes of *Gunnera manicata*, and flowers of *Aristolochia Kæmpferi* and *Nymphæa Eugénie*. A vote of thanks was accorded for the group. A large collection of good seedling Tuberous Begonias was sent from the Society's garden at Chiswick. Many of the varieties were remarkably distinct and the flowers large. A number of fine Asters were also contributed from Chiswick.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

The duties of the Committee were very light on this occasion. Mr. C. Osman, South Metropolitan District Schools, Sutton, Surrey, sent a scarlet-fleshed Melon not of very good quality. Mr. Hyde, Farnborough Park, was accorded a letter of thanks for a seedling Melon of fair quality named Hyde's Hybrid. Mr. Killick sent a dish of a white transparent Apple, which was characterised by the Committee as very good and deserving of cultivation in every

collection; also dishes of Suttons' Magnum Bonum Potato, which Mr. Killick states was the only variety out of forty grown in one field that was quite free from disease; and Suttons' Red Fluke, of which only 5 per cent. were diseased.

OCTOBER 14, 1879.

ORDINARY GENERAL MEETING.

JOHN DENNY, Esq., M.D., in the Chair.

Elections. — W. S. de Mattos, John Donaldson, Mrs. Dove, Henry Robinson, C.B.

Medals awarded.—Gold Knightian, Lane and Son for a collection of Grapes; Silver Knightian, J. H. Goodacre for a collection of Grapes; Silver Knightian, W. Wildsmith for a collection of Grapes; Silver Knightian, J. Veitch and Sons for a collection of Apples; Bronze Knightian, Paul and Son for a collection of Apples; Bronze Knightian, C. Ross for Pine Apples; Bronze Knightian, W. Allen for Grapes Muscat of Alexandria; Gold Medal, C. Lee and Son for Winter Bedding Plants; Silver Banksian, B. S. Williams for Group of Plants; Bronze Banksian, Rawlings Brothers for collection of Dahlias; Bronze Banksian, H. Cannell for collection of Dahlias.

The exhibits at this Meeting were both numerous and good, and many visitors were most agreeably surprised. In the vestibule Messrs. Charles Lee & Son exhibited a fine and tastefully arranged collection of Coniferae, Euonymuses, and other hardy ornamental shrubs similar to that of last year, and for which a gold medal was awarded. Near the entrance were Messrs. Lane's magnificent Vines in pots, which attracted considerable attention. In the Council-room were arranged the various collections of plants, those from Messrs. Veitch, Williams, and Bull being especially noticeable; also the extensive collections of fruit from Messrs. Veitch, Paul, Wildsmith, and Goodacre.

FLORAL COMMITTEE.

DR. DENNY in the Chair.

The duties of the Committee were by no means light on this occasion, for very numerous collections of plants were staged. From Messrs. Veitch and Sons, Chelsea, came an excellent collection of new and rare Orchids and other plants, which included the following:—*Miltonia Morelliana superba*, with large flowers, sepals and petals deep purple, labellum light purple with darker veins—very pretty; a specimen of *Cœlogyne Massangeana* bearing a large spike of very pale yellow flowers, the labellum being marked with dark streaks inside; *Oncidium ornithorhynchum album*, bearing a slender branching spike of small white flowers, with a yellow crest in the centre of the labellum; *Oncidium dasytyle*, a curious little species with small flowers, labellum yellowish with a dark protuberance near the base, and the sepals spotted with chocolate. A first-class certificate was awarded. A peculiar Orchid, *Mormodes Ocanæ*, flowers borne in spikes, thickly spotted with reddish brown; and *Lilium auratum rubrum vittatum*, a variety with crimson purple streaks down the perianth divisions. *Pachystoma Thompsoni*, an attractive Orchid; sepals and petals white, narrow; labellum with narrow recurved portion of a purple lake colour; flowers in pairs on slender peduncles. A first-class certificate was awarded for this and the following:—*Cypripedium Spicerianum*, flowers small, petals and labellum of a greenish colour, the posterior sepal white marked with purple; a pretty and distinct species. This group was not very large, but of great interest.

Mr. S. B. Williams, Upper Holloway, obtained a silver Banksian medal for a large and most interesting group of plants, comprising numerous excellent Orchids, Crotons, *Nepenthes*, &c., the front line being formed of the extremely attractive little Orchid *Pleione lagenaria* in 48-pots, each plant bearing about eight flowers. Some of the most noteworthy Orchids were the following:—*Vanda cœrulea* had two large spikes of pale bluish white flowers; *Dendrobium superbiens* was bearing a large spike of bright purple lake flowers with twisted sepals; the showy *Odontoglossum grande*, with six large flowers; *Dendrobium bigibbum*, a lovely Australian species with neat little bright

purple flowers in long slender spikes; *Maxillaria nigrescens*, a species with peculiar brownish-coloured flowers, narrow acute sepals and petals; the attractive *Oncidium tigrinum* was bearing a long spike of flowers with large yellow labellums and narrow sepals and petals marked with chocolate bars and spots. Among other plants were the hybrid *Nepenthes*, *N. Outramiana*, obtained from a cross between *N. Sedeni* and *N. Hookeri*; the pitchers are freely produced, of medium size and thickly marked with red. A first-class certificate was awarded for it. A good specimen of the narrow-leaved *Croton Rodeckiana*, excellently coloured, was also exhibited. The group was backed up with *Katakidozamia Hopei*, *Panax excelsa compacta*, *Hyphorbe excelsa*, and the following, for each of which first-class certificates were awarded:—*Cocos elegantissimus*, a very graceful species with slender drooping bright green leaves, and *Calamus densus*, a distinct and handsome plant.

Mr. W. Bull, Chelsea, was accorded a vote of thanks for a number of new and rare plants, of which the most noticeable were the following:—*Tillandsia Lindenii genuina*, with fine purple flowers on a broad flattened spike; *Masdevallia velifera*, small flowers of a curious yellowish brown tinge; *Cynoches Warszewiczii*, an extraordinary Orchid, one of Mr. Bull's recent introductions. The flowers have no beauty whatever in a horticultural point of view, as they are of a pale green colour, but they are interesting from being of two very different forms. One form (female) is 2 or 3 inches in diameter, with ovate sepals and petals and a heart-shaped labellum, and are borne on a short stiff spike. The other form (male) is small, with a peculiar stalked filamentous labellum, and the flowers are borne on a long pendulous spike. A botanical certificate was awarded for this peculiar plant. The very fine *Oncidium varicosum* with a dense panicle of bright yellow flowers, *Bollea cœlestis*, *Oncidium ornithorhynchum*, *O. macranthum*, and *Pleione lagenaria* were also in good condition. A first-class certificate was awarded for *Adiantum mundulum*, an elegant little compact Maidenhair Fern with bipinnate fronds; and similar awards were granted to *Polystichum lentum*, a pretty Fern with bright green pinnate fronds, the

pinnæ being deeply serrate; and *Adiantum cuneatum dissectum*, a variety with deeply cut pinnules. Several early-flowering *Chrysanthemums* of considerable merit were also exhibited, notably the yellow *Précocité*.

Mr. John Wills exhibited the distinct new Fern *Adiantum Bausei*, which is supposed to be a hybrid between *A. trapeziforme* and *A. decorum*, and was raised by Mr. Bausé, the energetic manager of Mr. Wills' nursery at Anerley. The fronds have a most elegant drooping habit; the pinnules are large and bright green, and being also pendulous they cause the plant to appear almost as though it was flagging. Mr. G. King, gardener to G. Simpson, Esq., Wray Park, Reigate, sent a number of seedling *Coleuses*, one being especially bright—viz., *majestica*, with acute leaves, crimson in the centre and margined with yellow. For this a first-class certificate was awarded. Mr. Charles Noble, Bagshot, sent his dwarf Rose—*Queen of the Bedders*, with dark crimson flowers very freely produced. Mr. C. Green, gardener to Sir G. Macleay, Bletchingley, was accorded a vote of thanks for a specimen of *Brunsvigia Josephinæ*, with an enormous umbel of red flowers; and a first-class certificate for *Passiflora Hahnii*, a neat whitish flower with ovate leaves, velvety green above and purple underneath. Messrs. Rawlings Brothers of Romford contributed a collection of Dahlias, that was highly commended, including many seedlings of great merit. Mr. H. Cannell, Swanley, staged collections of Dahlias, Pelargoniums, and early-flowering *Chrysanthemums*, and deservedly obtained a bronze Banksian medal.

A cultural commendation was awarded to Mr. J. Walker, nurseryman, Thame, Oxon, for a quantity of cut flowers of the fine hardy climber *Tropæolum tuberosum*, which continues blooming for several months during summer and autumn. Mr. C. Turner, Slough, exhibited cut flowers of a fine yellow show Dahlia, *Cyprus*, and a fancy variety, *Queen Mercedes*, the florets white tinged with purple. A first-class certificate was obtained by Mr. Turner for an excellent bedding Dahlia named *George Thomson*, of dwarf habit, and producing large numbers of bright yellow well-formed flowers. He also exhibited flowers of a pretty

bouquet Dahlia named Dora, the florets of which were white tinged inside with yellow. Messrs. Wm. Paul & Son, Waltham Cross, Herts, exhibited six boxes of cut Roses, a great many varieties being presented. The following were most noticeable for their freshness and substance;—Madame Victor Verrier, Pierre Notting, Madame Clemence Joigneaux, Beauty of Waltham, Dupuy Jamain, Alfred Colomb, Marie Baumann, Duchess of Bedford, and Baronne de Rothschild. A vote of thanks was accorded. Mr. Chambers, Westlake Nursery, Isleworth, sent specimens of a drooping variety of *Pteris serrulata cristata*, and a plant of *Odontoglossum Alexandræ*, bearing a long spike of about twenty flowers. For the latter a vote of thanks was accorded. *Gentiana Andrewsii*, exhibited by Mr. G. F. Wilson of Weybridge, received a similar recognition. Messrs. Haage & Schmidt, Erfurt, Prussia, were accorded a vote of thanks for cut flowers of *Salvia farinacea*.

FRUIT COMMITTEE.

H. WEBB, Esq., in the Chair.

The collections of fruit were numerous and good, the large collections of Apples and Pears from Messrs. Veitch and Paul being especially remarkable. Grapes and Pines were also in fine condition. Mr. C. Ross, gardener to C. Eyre, Esq., Welford Park, Newbury, exhibited five handsome well-ripened smooth Cayenne Pine Apples, weighing respectively 8 lbs. 14½ ozs., 6 lbs. 5 ozs., 5 lbs. 11½ ozs., 5 lbs. 10 ozs., and 5 lbs. 5 ozs. A cultural commendation and bronze medal were awarded. Mr. W. Allen, gardener to Lord Suffield, Gunton Park, Norwich, exhibited two fine bunches of Muscat of Alexandria Grape, weighing together 10 lbs., the berries large and well ripened. A bronze medal was awarded. He also sent a seedling, the result of a cross between Syrian and Alicante. Two bunches were shown, one the produce of a Vine inarched on Lady Downe's and the other from a Vine on its own roots; the bunch is long and the berry oval. The Committee considered it distinct, but desired to see it later in the year. Mr. Goodacre, Elvaston Castle, Derby, sent twenty-

five bunches of Grapes in twelve varieties. The following were very good—Alicante, Barbarossa, Mrs. Pince, and Gros Colman. For this fine collection a silver Knightian medal was awarded.

Mr. Wildsmith, gardener to Viscount Eversley, Heckfield Place, Winchfield, sent twenty-two bunches of Grapes in ten varieties, including Lady Downe's, Trebbiano, Black Hamburg, and Alicante well finished. This was also an excellent collection, and a similar award was granted. Messrs. Osborn and Sons, Fulham, exhibited a number of small plants of their new variety of Fig, Osborn's Prolific, which well deserves its name; but nothing was awarded, as the fruit was not ripe. Mr. J. Walker sent a fine dish of Pond's Seedling Plum well ripened, also a dish of Red Currants, for which a vote of thanks was accorded. Messrs. Veitch and Sons of Chelsea exhibited ninety-five dishes of Apples in good condition for the season. They had been borne by trees growing in the Southfield Nurseries, Fulham. The collection included all the best varieties, and a silver Knightian medal was awarded for them. Messrs. Wm. Paul and Sons, Waltham Cross, also staged a large collection of Apples and Pears, comprising a hundred dishes. The Pears were generally unripe. A bronze Knightian medal was awarded.

Messrs. H. Lane and Son, Great Berkhamstead, exhibited a large collection of Grapes, most of which were in fine condition, but their Vines in pots were most excellent. Six Vines were shown all bearing a large quantity of fruit, and generally well ripened and coloured. Foster's Seedling had twenty-eight, twenty-seven, and twenty-six bunches; Black Hamburg fifteen and sixteen good bunches; and Alicante fourteen bunches. For this superb collection a gold medal was deservedly awarded. Mr. J. Perkins, gardener, Thornton Hall, Eye, Sussex, sent a seedling Melon named The Squire, fairly well netted. Mr. D. Beesley, gardener to R. P. Coleman, Esq., Spilsby, sent a brace of Cucumbers named the Improved Manchester Prize of good strain: this was commended. Mr. J. Pond of Jersey exhibited two seedling Shallots, one the Jersey Lily, and the other the Jersey Giant Red. They are to be tried at Chiswick. Herr Ernest Benary of Erfurt was awarded a first-class certificate for a purple-top

Turnip named Early Munich, which has been tried at Chiswick and found to be three weeks earlier than other varieties. A vote of thanks was accorded to Mr. Eads of The Cedars, Northampton, for a dish of Suttons' Giant White Runner Beans in good condition.

NOVEMBER 18, 1879.

ORDINARY GENERAL MEETING.

Major R. TREVOR CLARKE in the Chair.

Medals awarded.—Silver Banksian, P. M'Kinlay for a collection of Potatoes.

The meeting on this occasion was an extremely interesting one. The great features of the gathering were the Primulas from Mr. Gilbert of Burghley, the collections of plants from Messrs. Veitch and Bull, the Abutilons and Primulas from the Society's garden at Chiswick, and the numerous excellent collections of vegetables staged in competition for Messrs. Suttons' Prizes. Several fine collections of Grapes were also sent, especially those from Mr. Gilbert, Mr. Wood, and Mr. Bell, which are referred to below.

FLORAL COMMITTEE.

DR. DENNY in the Chair.

The chief collections arranged in the Committee room were the following, all of considerable merit—Messrs. James Veitch and Sons exhibited several new plants; a first-class certificate being awarded for *Lælia Dayana superba*, an extremely rich purple variety. *Cattleya fausta superba* and *C. Mastersoniana*, both beautiful hybrids, were passed. *Stelia Bruckmulleri* is a dwarf species with spikes of small brownish fringed flowers. Mr. W. Bull sent a large collection of rare plants, comprising many beautiful Orchids, Cycads, Palms, &c. The following were the most noticeable—*Trichosma suave*, bearing spikes of small flowers with incurved white sepals and petals, and small labellums marked with yellow in the

centre, and streaked with deep crimson; very neat and pretty. *Odontoglossum Rossii majus*, sepals thickly dotted with light chocolate, petals white with a few dots at the base, labellum white; a good variety. *Sophronis grandiflora* had five good brilliant coloured flowers. *Oncidium Rogersii* had a spike of large flowers with their characteristic broad yellow labellums. *Cymbidium giganteum* was bearing a spike of five of its peculiar flowers. Many other plants, notably a specimen *Davidsonia pruriens*, were in good condition. A vote of thanks was accorded for the group.

A very large collection of double *Primulas*, raised by Mr. R. Gilbert of The Gardens, Burghley, was exhibited. Many of these varieties are particularly good, notably such as White Lady, Marchioness of Exeter, and A. F. Barron among the white and blush varieties, while among the pink forms the best is Lord Beaconsfield. About fifty plants were staged. Messrs. Osborn and Sons, Fulham, have acquired the stock, and will distribute these varieties in the spring of 1880. A vote of thanks was accorded to Mr. Gilbert. Messrs. T. Jackson and Son, Kingston, exhibited two stands of Japanese *Chrysanthemums*, new varieties. These flowers were in excellent condition, the following being the most noticeable for colour and form—*La Nymphe*, *La Charmeuse*, *M. Crousse*, *Gloire de Toulouse*, and *Dr. Andiguier*. A vote of thanks was accorded. A large and tasteful group of plants was sent from the Society's gardens at Chiswick, comprising a number of varieties of *Abutilons*, intermixed with Ferns and edged with *Selaginellas*. A collection of single *Primulas* was also contributed, comprising some striking varieties, especially among the crimsons. First-class certificates were awarded for *P. sinensis* Chiswick Red, flower neat and colour bright; and *rubra violacea*, a purplish crimson flower with a yellow eye. Messrs. Smith & Larke, florists, Kensington, exhibited several excellent bouquets and wreaths of *Chrysanthemums*, associated with *Adiantums* and *Bouvardias*. A vote of thanks was accorded. Mr. H. Bennett, Manor Farm Nursery, Staplefort, exhibited two Tea Rose plants in pots, *Madame de St. Joseph* and *alba rosea*, bearing a great number of fruit produced by artificial fertilisation. A vote of thanks was accorded.

Mr. J. Roberts, The Gardens, Gunnersbury Park, Acton, was

awarded a cultural commendation for a fine specimen of *Odontoglossum Alexandræ* bearing two spikes of ten and twelve flowers each. The flowers were large, with a few large chocolate spots on the sepals. Mr. H. Cannell, Swanley, received a vote of thanks for cut flowers of *Salvia Bruantii splendens* and *S. Bethelli* in fine condition, also the rich purple *S. Hoveyi*. Mr. R. Dean of Ealing sent plants of the neat bright Marigold Meteor, also a bright yellow hose-in-hose Primrose named Buttercup. A vote of thanks was accorded Messrs. Sutton and Sons for a collection of *Cyclamens* of their improved strain.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

Messrs. Wood and Ingram of Huntingdon sent a seedling kitchen Apple of a bright showy colour and brisk flavour. It did not possess any special merit over other varieties in cultivation. Mr. Chester, The Gardens, Connington Castle, sent a seedling Apple called Bellamy's Fillbasket, a medium-sized, round, ribbed, pale yellow Apple, with a soft flesh and mild subacid flavour. It was not considered equal to others already in cultivation. He also sent three varieties of seedling Pears, but as they were all mixed when they arrived the Committee could not distinguish the one from the other. Mr. P. Grieve, The Gardens, Culford Hall, sent fine specimens of Lucy Grieve Pear, but the flavour was not equal to those exhibited at former meetings in more favourable years. He also exhibited a seedling Apple which promises well, but the season is so unfavourable to the flavour of fruit that the Committee requested to see it another year. Mr. Wildsmith, gardener to Lord Eversley, Heckfield, exhibited a fine dish of Pitmaston Duchess, excellent in texture, but, like all Pears this season, rather deficient in flavour. The Committee gave a vote of thanks for the exhibition. Mr. George Sage, The Gardens, Ashridge Park, Herts, sent a dish of Vicomtesse Héricart de Thury Strawberry, to which a letter of thanks was awarded; Mr. Wood, The Gardens, Leybourne Grange, Kent, eight baskets of Gros Colman Grapes as they are packed for market, each basket containing about

9 or 10 lbs. weight; they were splendidly coloured, and the flavour was excellent. The Vines on which these were grown were grafted on Madresfield Court Vine, and it was interesting to observe the difference between the fruit thus produced and that which was grown on a Vine of the Gros Colman on its own roots. In the former the berries were quite black and the flesh firm and well flavoured; in the latter the berries were only partially coloured, and the texture of the flesh more loose and inferior in flavour. Mr. Wood exhibited the fruit as he packs it for market. It is put into ornamental baskets, and the bunches are secured round the sides by the base of the stalks so as to prevent them moving, and these ornamental baskets are again placed in hampers large enough to admit them easily. When they arrive at their destination the ornamental basket is merely lifted out and is ready for sale.

Mr. Bell of Alnwick exhibited six handsome bunches of the Alnwick Seedling Grape; they had been ripe for some time and had become shrivelled. The exhibit was commended with a letter of thanks to the exhibitor. Mr. R. Gilbert, The Gardens, Burghley, sent three handsome bunches of Gros Colman Grapes; the berries were large and well coloured; the flesh was very firm, and the flavour very fine. A cultural commendation was awarded. Mr. J. C. Mundell, The Gardens, Moor Park, Rickmansworth, sent two plants in fruit of the "Scotch Bonnet" Capsicum, which is the best of all the Capsicums. Mr. S. Ford, gardener to W. E. Hubbard, Esq., Leonardslee, Horsham, exhibited fifty dishes of Apples and Pears, which were rather small but otherwise good in quality.

Messrs. James Carter and Co. of Holborn sent a dish of Scotch Champion Potato which was cooked and proved excellent in flavour.

MESSRS. SUTTON AND SONS' PRIZES.

The special prizes offered by Messrs. Sutton and Sons brought together an excellent display of vegetables and extremely close competition. For a collection of twelve distinct kinds, to include Suttons' King of the Cauliflowers, Suttons' Improved Reading Onions, Suttons' Improved Dark Red Beet, and Suttons' Student

Parsnip, there were nine competitors, all staging excellent collections. The first prize was awarded to Mr. Neal, gardener to P. Southby, Esq., Bampton, Oxford, who in addition to the stipulated dishes staged good Excelsior Tomatoes, James' Intermediate Carrots, Snowball Turnips, Cardoons, Suttons' Matchless Sprouts, International Potatoes, and Ayton Castle Leeks. The second prize was awarded to Mr. J. Muir, gardener to R. M. Talbot, Esq., Margam Park, South Wales; and the third to Mr. W. Iggulden, Orsett Hall, Romford, both pressing closely for the first prize, each exhibitor being only one point ahead of the other. Mr. Muir's worst dish was the Celery; his Vick's Crimerion Tomatoes, Telegraph Cucumbers, Pomeranian Turnips, and Brussels Sprouts were very good. Mr. Iggulden showed good Tomatoes, Snowflake Potatoes, Celery, Onions, &c. Mr. Wildsmith's collection included remarkably fine Brussels Sprouts.

For twelve tubers of Suttons' Magnum Bonum there were sixteen entries, all staging good specimens of this popular variety. Mr. J. Fairweather, Halston, Oswestry, was awarded the first prize; and Mr. J. Richardson, Boston, the second. Five exhibitors competed in the class for Suttons' Woodstock Kidney Potato. Mr. Townsend, gardener to P. McKinlay, Esq., Croydon, obtained the premier award; and Mr. Harris, gardener to C. J. Eversfield, Esq., Denne Park, Horsham, the second, both staging excellent examples.

P. McKinlay, Esq., exhibited a collection of fifty-seven dishes of Potatoes in his well-known excellent style. Some of the best were Woodstock Kidney, Radstock Beauty, Manhattan, King of the Earlies, Shelbourne, International, Vicar of Laleham, Porter's Excelsior, Blanchard, Magnum Bonum, Trophy, Ashleaf, Snowflake, Lemon Kidney, and Beckenham Beauty. The latter is a seedling of Mr. McKinlay's, of which he thinks very highly as being in every respect excellent. Messrs. Sutton and Sons, Reading, staged a capital collection of Potatoes, fifty-four dishes in all; among them Suttons' King, Porter's Excelsior, Advancer, Fenn's Bountiful, Triumph, and Covent Garden Perfection were very noticeable. In addition to these they also staged good heaps of their Magnum Bonum, Woodstock Kidney, and Scotch Champion

Potatoes. Messrs. Carter and Co., High Holborn, staged about a hundred dishes of Potatoes, which included all the best varieties in commerce. Some of the best were the International, Trophy, Main Crop, Breadfruit, Manhattan. They also staged very fine heaps of Carter's Magnum Bonum Potatoes and Scotch Champion, both well-known disease-resisters, and a collection of Turnips and Swedes comprising about sixty-two varieties, many of them excellent examples.

SCIENTIFIC COMMITTEE.

SIR JOSEPH HOOKER, K.C.S.I., in the Chair.

Monstrous Flower of Horse Radish.—The Rev. G. Henslow reported on some flowers of a Horse Radish sent by Mr. Whitelegge, of Ashton-under-Lyne. The calyx, corolla, and six stamens were normal. The glands, however, were enlarged, so as to form a cushion-like disk, terminating above the base of the four taller stamens. Within these were four supernumerary stamens of the same height, being closely adpressed to the ovary. One or more were often adherent to the latter, which was then open, and so exposed the more or less rudimentary ovules. Hence the monstrosity was a true case of pleiotaxy.

The Stapleford Pedigree Roses.—Mr. Bennett attended the committee, and showed specimens of his hybridised Tea Roses covered with their fruits. Mr. Bennett explained his method of hybridisation by removing the stamens from the flowers of various Tea Roses grown under glass, and applying to the pistils the pollen of various hybrid Perpetuals. The results were not only interesting from a scientific point of view, but practically valuable in the production of what is virtually a new race of Roses of great beauty and vigorous habit. The seedlings come up earlier if taken from the fruits before the latter are quite ripe and sown immediately. Dr. Denny stated that he had observed the same thing in hybridising Pelargoniums, and Mr. Wilson also confirmed it in the case of Lilies, and called attention to the experiments of Mr. Ward of Ipswich, who hybridised hybrid perpetuals in a similar manner to that followed by Mr. Bennett in the case of Tea Roses.

Root Development.—The Rev. George Henslow showed a felted mass of fine root-fibrils and root-hairs, taken from a pot plant which had been laid aside and forgotten. Mr. Berkeley pointed out the resemblance to the fungus growth in *Xylostroma*.

Change of Sex in Begonias.—The Rev. George Henslow showed drawings of the male flowers of *Begonias* in which the connectives of the anthers had developed in the guise of stigmas.

Cross Fertilisation in Pelargoniums.—Dr. Denny described a singular bud variation that had occurred upon a white-flowered variety of Zonal *Pelargonium* of his own raising. Upon a good-sized propagated plant flowering in his house he observed a truss of flowers which differed very considerably from those ordinarily produced, its petals being much thicker and larger; its foot-stalk and the foliage of the twig were also of more robust growth. This small branch being propagated maintained its distinctive character, and has, in fact, upon further propagation, developed an increased amount of robustness of habit, resembling that of an old variety known as *Beauté de Suresnes*, the variety from which the first of the robust-growing doubles originated, in the form of a sport. The flower, too, has increased in size and quality, but the most singular characteristic property of this sport consists in its being infertile with any of the ordinary varieties of the Zonal *Pelargonium*—“even with the pollen of the flowers of the plant from which it was taken.” It is not sterile, for it produces seed from its own pollen. In this respect it resembles (as well as in its habit of growth) *Beauté de Suresnes*, which would not fertilise, or be fertilised, save with two or three varieties. The Duke of Cornwall (an old variety) was one with which it was fertile, and it would be interesting to know if this sport would prove fertile with these varieties; but Dr. Denny stated that he had been unable to obtain them at any of the nurseries, and that he should be extremely obliged if any one who may possess either would forward him a cutting.

Diseased Yew and Cypress.—The Hon. and Rev. J. T. Boscawen sent specimens of diseased Yews and Cypresses for examination. The trees were gradually dying. The cause was not very obvious, but some aphides were observed on one of the specimens, which

were ultimately referred to Mr. Berkeley and Mr. MacLachlan to report upon.

Solanum Dulcamara as a Decorative Plant.—Mr. MacLachlan referred to the use of this plant as a decorative plant in some parts of Switzerland, where it proved not only very ornamental, but no apprehension appeared to exist as to any danger arising from the berries. A conversation arose as to the causes of the wide distribution of the plant, for which no very obvious reason could be assigned beyond the lengthened period in which the seeds are known to retain their vitality.

Aphides and Wasps.—Mr. Jennings made some comments on some plants of *Abies Nordmanniana* infested with aphides (*Lachnus* sp.) which were greedily eaten by Wasps, which became stupified and died afterwards, but whether in consequence of their feast was not proven.

Hail and Leaves.—Mr. Jennings commented on the different manner in which hailstones affected the leaves of different varieties of Planes growing in the same nursery, the injury being much greater in some cases than in others.

Roman "Sleepers."—Mr. Noble sent for exhibition some logs of Oak with the bark still on them, and which had formed part of a Roman road at Bagshot, now 6 feet below the surface. The logs were used after the fashion followed of making corduroy roads. The wood and the bark were singularly well preserved. Mr. MacLachlan alluded to great quantities of partially blackened Oak, removed from the Lake of Neuchatel this summer, owing to the unusual lowering of the surface of the water.

Trichonema suavis.—Mr. Bull showed a plant of this pretty sweet-scented Orchid from Assam, to which, from its novelty and interest, was adjudged a Botanical Certificate.

Leaves of Spruces and of Silver Firs.—Dr. Masters commented on the comparisons to be made between the form, internal structure, and power of movement exhibited by the leaves of these plants. In the Spruces the leaves are cylindrical or angular, no one surface greatly exceeding another. Such leaves are so placed as not to interfere one with the other; they are about equal in size, and the degree of exposure to the light is about equal. Such leaves, though

sometimes more or less twisted, seem to have little or no power of motion, and they are destitute of those regularly formed, closely packed cells called palisade cells. In the Silver Firs, on the other hand, the leaves are more or less flattened, so that they have a distinct upper and lower surface; those on the under surface of a shoot are twisted so as to bring them into the same horizontal plane as the upper ones. Moreover, they often overlap one another, and in this way would obstruct the passage of the light to the lower. This is obviated by the circumstance that the uppermost leaves are usually shorter than the subjacent ones, so that less of the surface of the latter is covered. In some cases, too, the upper leaves, instead of spreading horizontally, are so placed as to be parallel to the long axis of the shoot and at right angles to the lateral leaves. A still more effective means of securing access of light to the lower leaves, and at the same time of exposing the lower surfaces, on which the majority of the stomates are placed, to the influence of light and heat, is secured by the power of elevation and depression which the leaves of the silvers have. This is so marked in some cases, as in *A. Nordmanniana*, that when the leaves are thus up-lifted so as to show their glaucous under-surface, the whole of the tree is milky-white in appearance. In these flat-leaved silvers the palisade cells are usually found forming a distinct layer beneath the upper surface.

The late Mr. Wilson Saunders.—It was unanimously agreed that the President be requested to address a letter of condolence to the family of the late Mr. W. Saunders. Mr. Saunders was one of the original members of the committee, took great interest in its proceedings, and to the last contributed notes of observation and specimens. The committee has to regret the loss of one of its staunchest and most useful members.

DECEMBER 16, 1879.

ORDINARY GENERAL MEETING.

Colonel R. TREVOR CLARKE in the Chair.

Elections.—J. Hume Burnley, Edward Jenner Jerram, Vernon Lushington, Charles Wm. Morriss, Mrs. Grigg, Mrs. Linklater, Major J. Mackenzie (of Findon), Henry Oliver Smith.

Medals awarded.—Silver Medal, J. Atkins (gardener to Col. Loyd Lindsay) for Grapes Muscat of Alexandria; Silver Medal, J. Wallis (gardener to Rev. W. Sneyd) for a collection of Grapes; Bronze Medal, J. Roberts (gardener to the Countess of Charleville) for two bunches of Grapes Gros Guillaume; Silver Medal, H. B. Smith (Ealing) for a collection of Cyclamens; Bronze Flora, J. Ollerhend for a group of Ponisettias.

The last meeting of the Society in the year 1879 was uncommonly bright and interesting for such an unfavourable season. Although the exhibits were not very numerous, they compensated for that defect in their general excellence. Messrs. Cannell, Miles, Dean, and Ollerhead's contributions formed the bulk of the floral display, Grapes being extremely well represented by collections from Messrs. Atkins, Wallis, and Roberts.

FLORAL COMMITTEE.

Dr. DENNY in the Chair.

Few plants were exhibited for certificates, the collections principally being composed of Pelargoniums, Poinsettias, Cyclamens, and cut blooms of Chrysanthemums. Mr. H. Cannell, Swanley, Kent, was accorded a vote of thanks for a large collection of Zonal Pelargonium blooms in excellent condition and extremely bright and well formed. He also sent six well-flowered plants of White Vesuvius and cut flowers of Dahlia imperialis. Mr. C. Green, gardener to Sir G. Macleay, Pendell Court, Bletchingley, exhibited a plant of the distinct and pretty tufted Saxifraga valdensis, and cut flowers of Dahlia Maximiliana, a species similar in habit to *D. imperialis*,

with pale purple florets. A vote of thanks was accorded. Mr. G. Wiggins, gardener to H. Little, Esq., Hillingdon Place, Uxbridge, received a similar recognition for a collection of incurved, reflexed, and Pomponé Chrysanthemum flowers, which were distinguished by their neat forms and good colours for such a late period. Mr. J. Moorman, gardener to the Misses Christy, Coombe Bank, Kingston, was also accorded a vote of thanks for a collection of twenty-four cut blooms of Chrysanthemums, several of which were in good form. The best were Fulton, Madame Godilot, The Mikado, Princess Teck, and Hero of Stoke Newington. Mr. J. Osborn, gardener to H. J. Buchan, Esq., Southampton, was awarded a first-class certificate for a pretty Orchid, *Oncidium Edwardi*, which was bearing a panicle of small flowers with recurved sepals and petals of a purple tinge. Mr. W. Miles, West Brighton Nursery, Cliftonville, very worthily obtained a cultural commendation for a collection of plants of the Zonal *Pelargonium* West Brighton Gem, very dwarf, compact, and profusely flowered. Mr. H. B. Smith, Ealing Dean Nursery, Ealing, staged a very large collection of *Cyclamens* comprising about 170 plants, all in 48-size pots, vigorous, dwarf, even, and remarkably well flowered. The collection included many good varieties, and a first-class certificate was awarded for *Baroness Burdett Coutts*, of which the flowers were pure white, large, of great substance; the peduncles stout, and foliage prettily marbled. Mr. Ollerhead, gardener to Sir H. Peek, Bart., M.P., Wimbledon House, was accorded a vote of thanks for a large group of *Poinsettias*, including a variety named *rosea* that was exhibited with plants of *P. pulcherrima* to show its distinct character. The bracts appear smoother in outline and of a rosy scarlet tinge, which at a distance has, however, a somewhat dull appearance. Messrs. T. Jackson and Son, Kingston-on-Thames, sent a collection of new Japanese Chrysanthemum flowers not in first-rate condition generally. A first-class certificate was awarded for *M. Lemoine*, a flower of somewhat reflexed character, the outer florets yellow and the inner orange red. Mr. C. Noble, Bagshot, sent a flower spike of *Lilium giganteum* of extraordinary dimensions; it measured 13 feet in height and 11 inches in circumference at the lower portion, and had borne twenty-two flowers.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

On this occasion some excellent Grapes were exhibited; the immense bunches of Gros Guillaume from Mr. J. Roberts attracted especial attention. The Muscats from Mr. Goodacre were noticeable for their good form and high finish. Mr. J. Wallis, gardener to the Rev. W. Sneyd, Keele Hall, Stafford, sent a fine collection of Grapes, comprising eighteen bunches of six varieties. Lady Downe's were well ripened; Black Alicante, very good; Golden Queen, of medium quality; Gros Guillaume, handsome bunches, good colour and bloom; Gros Colman and Black Morocco were also well represented. A cultural commendation was awarded, and the Committee recommended the award of a silver medal. Mr. J. Roberts, gardener to the Countess of Charleville, Charleville Forest, Tullamore, exhibited two enormous bunches of Gros Guillaume Grape, which had been borne on one rod, and weighed collectively 42 lbs. A card affixed to the stand stated the same variety had in four years produced seven bunches, which in the aggregate weighed over 126 lbs. The Committee awarded a cultural commendation, and recommended a bronze medal. Mr. J. H. Goodacre, The Gardens, Elvaston Castle, Derby, sent two well-grown Smooth Cayenne Pine Apples; Mr. Coombes, gardener to J. Rolls, Esq., The Hendre, Monmouth, also sent two similar Pine Apples, and each exhibitor was awarded a cultural commendation. Mr. J. Atkins, gardener to Col. Lloyd Lindsay, Lockinge Park, Wantage, sent twelve remarkably handsome bunches of Muscat of Alexandria, excellently finished, and fine in berry. The same exhibitor also staged nine dishes of Apples and two of Pears in good condition. For the Grapes a cultural commendation was accorded, and a silver medal recommended; and for the Apples a letter of thanks was sent. Messrs. Carter and Co. of High Holborn staged two large heaps of Potatoes, Magnum Bonum and Scotch Champion; the latter variety was cooked, and the Committee expressed their opinion that it is remarkable for resisting disease, and that it is a Potato of good quality. Mr. W. Hinds, The Gardens, Canford Manor, Wimborne, obtained a cultural commendation for a dish of excellent Tomatoes. On the conclusion of their

duties Mr. John Lee proposed a vote of thanks to the Chairman, which was carried by acclamation.

SCIENTIFIC COMMITTEE.

Sir J. D. HOOKER, K.C.S.I., in the Chair.

This, the last meeting of the year, was fairly well attended, but the subjects brought under the notice of the Committee were not so numerous as usual.

Yew Disease.—Dr. M. C. Cooke, alluding to the Sphærella Taxi, a fungus found on Yew leaves, now modified a former statement by stating that he considered the fungus to be the cause of the diseased condition, and not merely a consequence.

The late Mr. Wilson Saunders.—The Chairman reported that in compliance with the wishes of the Committee he had addressed a letter of condolence to the widow and family of the deceased gentleman—one of the earliest members of the committee, and to the last a constant contributor to its proceedings.

Planes.—Mr. Jennings showed leaves of various forms of *Platanus acerifolia* to show the very different effects of hail upon them.

Diseased Ivy.—Mr. Scofield showed roots of Ivy completely killed perhaps by the spawn of a fungus, but there was no good evidence to show what was the cause of the death of the plants.

Diospyros Kaki.—Mr. G. F. Wilson showed a fruit of the Japanese Persimmon, grown in his orchard-house.

The Apple Crop in Melbourne.—A letter was read requesting advice as to the failure of Apples and Peaches in various parts of Australia, but as the information given was of the vaguest and most general character, and unaccompanied by specimens, no opinion could be given.

Some discussion then took place as to the day of meeting, the election of new and the removal of old members.

JANUARY 13, 1880.

ORDINARY GENERAL MEETING.

DR. DENNY in the Chair.

Elections.—Mrs. Barrand, A. Clapham, Francis A. M. Eland, Mrs. Catherine Greaves, Stephen Kennard, William Henry Belfield, Mrs. Chermside, Sydney Ebbs, Rev. H. Harpur Crewe, Mrs. K. J. Houldsworth, Mrs. Martha Ellen Radley, Sir Henry Scudamore Stanhope, Bart., Frank Tayler, Preston J. Wallis.

Medals awarded.—Silver Banksian, J. Veitch and Son for groups of Orchids, Cyclamens, and Primulas; Silver Banksian, H. Cannell for cut blooms of Pelargoniums.

The first meeting of the year would have been an unusually quiet one had not Messrs. Veitch contributed three large and handsome collections of Cyclamens, Primulas, and Orchids, besides groups of Roman Hyacinths and Lilies of the Valley. Mr. Cannell's Pelargoniums were also very bright, and imparted a very agreeable liveliness to the otherwise rather dull appearance of the tables.

FLORAL COMMITTEE.

W. B. KELLOCK, Esq., in the Chair.

Messrs. James Veitch and Sons, Chelsea, were accorded a vote of thanks, and the award of a silver medal recommended for their large collections of plants. These comprised about forty Cyclamens in very vigorous health, both the foliage, flower, and colours being excellent; twenty plants of *Primula sinensis fimbriata alba* with very large flowers, and about the same number of *P. fimbriata rubra*, trusses large and colours rich. A collection of Lilies of the Valley was unusually fine, the scapes and bells large and accompanied by good foliage, which greatly improves the appearance of the flowers. An excellent collection of Orchids was also staged, including *Masdevallia Tovarensis*, a well-known pretty white-flowered species from Colombia, with over sixty flowers (first-class certificate); *Saccolabium giganteum*, a good specimen, which was bearing eight large spikes; *Masdevallia polysticta*, flowers with

small purple-spotted attenuated sepals; *Chysis Chelsoni*, a hybrid between *C. bractescens* and *C. aurea*, with pale orange-coloured sepals and petals; *Dendrobium endocharis*, a hybrid between *D. japonicum* and *D. heterocarpum*, with small whitish flowers, sweetly scented; *Oncidium cheiroporum*, bearing over a dozen racemes of small yellow flowers. A flowering plant of *Staphylea colchica* was also shown bearing numerous trusses of white flowers. This plant is well adapted for forcing, and yields a profusion of useful flowers. It was first exhibited and certificated in January last year. (It is figured in the *Journal of Horticulture*, vol. xxxvi., page 66.) Mr. W. Bull obtained a first-class certificate for *Barkeria cyclotilla*, an Orchid from Mexico; the flowers are small, sepals and petals pale pink, labellum tipped with bright lake. Very pretty and distinct.

Messrs. Osborn and Sons, Fulham, exhibited a handsome specimen of *Helleborus niger majus*. The plant was in a tub, and measured about a yard across, and was bearing over three dozen flowers, some of which were nearly four inches in diameter; foliage very dark green and vigorous. Cut flowers of Gilbert's double *Primulas* were also shown extremely good in colour and form. A vote of thanks was accorded. Messrs. Sutton and Sons, Reading, sent a collection of new *Primulas* and *Cyclamens*, several of which were neat in habit, but were not considered sufficiently distinct to merit special award. Mr. Cannell, Swanley, Kent, exhibited a large number of *Pelargonium* blooms in excellent condition as regards colour and form. The most distinct were Mrs. Moore (white with a salmon centre), Louis, Zuleika, Polyphemus, H. Jacoby (very rich dark crimson), † Jean d'Arc (good white), Rienzi (fine scarlet); also three sports of *Vesuvius* (white, salmon, and striped), flowers neat and of good substance. Several pretty species of *Fuchsias* (*F. splendens*, *F. serratifolia*, *F. microphylla*, and *F. thymifolia*), and two varieties of *Primula*—Swanley Red and Swanley Purple, the latter being of an extremely rich crimson tint. For the *Pelargoniums* a vote of thanks was accorded, and a silver medal recommended. Mr. McGrigor, gardener to C. Walker, Esq., Lanark, was accorded a vote of thanks for a fine flower of *Lycaste Skinneri alba*.

Mr. Maries—who has recently returned from Japan, where he

was engaged in collecting plants for Messrs. Veitch and Sons—exhibited in the Society's library a large number of curiosities which he had acquired in his travels. These comprised various articles of native manufacture, such as fans, screens, &c., collections of insects, snakes, birds, shells, and geological specimens. In addition, a large number of excellent photographs were shown, illustrative of the most picturesque scenery and vegetation.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

Mr. Goldsmith, gardener to P. C. Hardwicke, Esq., Hollenden, Tonbridge, sent a collection of twelve varieties of Pears to show how they had kept this year. Many of them were quite out of season, Beurré d'Amanlis being now only just ripe, and Beurré Superfin was in its best condition, while several of those which are usually autumn Pears were not yet ripe. Mr. Shirley Hibberd of Stoke Newington sent twelve pans of Watercress remarkably well cultivated. They were of two kinds—the Erfurt Sweet Cress and the ordinary Watercress, of the latter of which there appeared to be two varieties, one of a dwarfer habit than the other. A cultural commendation was awarded. Messrs. Barr and Sugden, King Street, Covent Garden, sent a collection of sprouts of Variegated Kale, to which a letter of thanks was accorded.

SCIENTIFIC COMMITTEE.

Sir JOSEPH HOOKER, K.C.S.I., in the Chair.

Vine Disease.—Dr. M. Cooke alluded to the new disease in the Vine caused by a fungus like that producing the Potato disease, and belonging to the same genus, viz., *Peronospora viticola*. This disease it appears is spreading extensively on the Continent, and has lately been recorded from Italy.

New Zealand Plants.—Mr. G. F. Wilson showed a series of beautifully executed coloured drawings by Mr. Nolan, of New Zealand and Australian plants. The fidelity of the representations and the tasteful grouping were much admired.

Bud Variation in Spruce Fir.—Dr. Masters showed a fine

specimen from Hampshire of a mass of densely crowded, contracted branches on the bough of a Spruce Fir—a formation analogous to the Clanbrassil Fir. It is interesting to see that this singular variety produced by bud-variation, as also from seed.

Solanum Dulcamara.—The Rev. George Henslow showed a specimen of the maritime form of this species from Walmer beach, some of the leaves of which were densely clothed with hair, perhaps in consequence of the puncture of a mite (Phytoptus).

Insects in Pitchers of Sarracenia.—Mr. Henslow mentioned the fact that many of the pitchers of these plants in the collection of Mr. Bull became choked with insects, which in their decay brought about the rotting of the pitcher. The fact of the larva of a dipterous insect (*Sarcophaga sarraceniæ*) making its home in these pitchers, and feeding on the insects therein entrapped, was also commented on.

Destruction of Insects by Yeast.—Mr. MacLachlan called attention to a pamphlet of Dr. Hagan's, in which he advocates the use of yeast as an insecticide. The idea was suggested by the fungus which is so fatal to flies in autumn.

Malformed Root of Ash.—Mr. Jennings showed some curious outgrowths from the roots of the Ash, which were referred to Dr. Masters to be examined and reported on.

Cocoons from West Africa.—Mr. Jennings showed a curious pear-shaped felted case, which, when slit open, was found to contain a colony of hundreds of cocoons of a lepidopterous insect (*Anaphe*).

Japanese Objects.—A special vote of thanks was unanimously awarded to Mr. Maries for the collection of miscellaneous objects mentioned above.

FEBRUARY 10, 1880.

ORDINARY GENERAL MEETING,

The Right Hon. LORD ABERDARE in the Chair.

Elections. Mrs. Crewse, E. S. Dodwell, Capt. G. T. Heyworth, Frederic Josselyn, Mrs. Montagu, Mrs. Otter-Barry, Peregrine Purvis, Rochford A. Sperling, Mrs. Frances Trower, H. C. Webber and T. F. M. Williams.

Medals awarded. Silver Knightian, L. A. Killick, for a collection of Apples; Bronze Medal, W. Bull, for a group of Plants.

The Council Room on the occasion of this meeting was rendered bright and attractive by several groups of plants, those from Messrs. Veitch, Bull, Osborn, and Cannell, being the most noticeable. Many other plants of considerable interest individually were also exhibited. The fruit also, notably Mr. Killick's collection of Apples and old and new Grapes from Trentham, attracted considerable attention.

FLORAL COMMITTEE.

Mr. CHARLES NOBLE in the Chair.

Messrs Veitch and Sons exhibited a group of dwarf, vigorous, and well-flowered Cyclamens, and several choice Orchids and other plants. *Dendrobium splendidissimum*, the result of a cross between *D. heterocarpum* and *D. macrophyllum*, was awarded a first-class certificate. The flowers are of medium size, with white sepals and petals and small labellums of an extremely rich purple tinge in the centre. *D. Dominii*, the result of a cross between *D. nobile* and *D. heterocarpum*, was also pretty. A first-class certificate was granted to the pretty and fragrant *Daphne Blagayana*; the flowers are borne in close heads, and the only disadvantage is the somewhat loose habit of the plant. A vote of thanks was awarded for the group. A first-class certificate was also awarded for *Nepenthes bicalcarata*, a species from Borneo with large dark red pitchers.

Mr. W. Bull staged a group of Orchids and Palms, including the extremely delicately tinted *Cattleya Trianæ Vesta*, the bright little

Sophranites grandiflora, *Cymbidium Lowianum*, *Odontoglossum Rossi majus*, *Ada aurantiaca*, and *Odontoglossum cirrhosum*. *Dendrobium luteolum* was also included, a pretty species with small pale yellow flowers. The award of a bronze medal was recommended by the Committee for these plants.

Mr. H. Cannell, Swanley, Kent, exhibited a group of white *Primulas* in 5-inch pots. Some of the plants were more than 18 inches in diameter. All were extremely luxuriant, each plant bearing a number of umbels. He also exhibited cut flowers of twenty distinct varieties of *Primula*, some of which were very rich and clear in colour. They were stated to have been grown with Cannell's Invigorator or food for plants. A vote of thanks was awarded. A peculiar little *Primula* was also shown, stated to be a hybrid between the English and the Chinese *Primroses*; the flowers were small, and chiefly resembled the Chinese form. Mr. Chambers, Westlake Nursery, Spring Grove, Isleworth, was awarded a vote of thanks for a good specimen of *Cœlogyne cristata* bearing about fifteen spikes, each with four or five flowers.

Messrs. Osborn and Son, Fulham, staged a group of plants, comprising *Lillies* of the Valley, *Azalea amœna*, *Lilacs*, *Polygonatums*, and various *Palms*, chiefly *Cocos Weddelliana*. A vote of thanks was awarded. Mr. C. Green, gardener to Sir G. Macleay, Pendell Court, Bletchingley, received a vote of thanks for *Salvia albocœrulea*, the upper lip of the flower being yellowish white and the lower deep blue, and for *Cineraria Webbiana*, a species from the Canary Islands. The outer florets of the heads were narrow, spreading, and bright purple. A similar award was accorded to Mr. Hudson, gardener to H. G. Atkinson, Esq., Gunnersbury House, Acton, for cut blooms of *Maranta Warscewiczii*. Mr. E. Wilson, gardener to T. Farmer Hall, Esq., Effingham House, New Leatherhead, also received a vote of thanks for a fine specimen of *Dendrobium chryso-toxum* bearing five racemes of its beautiful yellow flowers. Mr. Rann, gardener, Handcross Park, Crawley, sent a large male cone of *Encephalartos villosus* about $2\frac{1}{2}$ feet long, also a flower spike of *Dasyliirion glaucum*. Mr. J. Stevens, The Gardens, Trentham, exhibited a remarkably handsome specimen of *Lælia anceps* bearing ten long racemes, each having four or five large and richly

coloured flowers near the apex of the peduncle. A cultural commendation was most deservedly awarded for the plant. The variety of *Cyclamen Rosy Morn*, for which a certificate was awarded to Mr. H. B. Smith, Ealing, Dean Nursery, last year, was again exhibited in good condition, and the certificate was confirmed.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

Mr. Stevens of Trentham exhibited two dishes of Black Hamburgh Grapes, one old and the other new, and also a bunch of Madresfield Court. To preserve old Black Hamburgs till this season is a very unusual occurrence, and the Committee expressed a high opinion of Mr. Stevens's skill. The new were of excellent flavour, good colour and remarkably well grown. The old were quite plump and richly flavoured. A cultural commendation was awarded. Messrs. Brown of Stamford sent a dish of Apples called Beauty of Barnoak, a conical striped Apple of ordinary quality. Another from the same source was Wharfland Beauty, somewhat in the style of Golden Reinette. It came up as a chance seedling in a nursery at Oakham, and though superior to the other was not in such condition as to enable the Committee to give a high character to it, and a wish was expressed to see it again next year, when the season may be more favourable for the development of its merits. Mr. John Lane, The Gardens, Oakley Park, Scole, sent a dish of Vick's Criterion Tomato, but the fruit had been kept too long. Mr. H. A. Mann, The Gardens, St. Vincent's, Grantham, sent a box of fifteen fine large Mushrooms of very fine quality, to which a cultural commendation was awarded. Mr. Lewis Killick of Langley, near Maidstone, sent a fine collection of sixty varieties of Apples in very excellent condition, and a silver Knightian medal was awarded.

SCIENTIFIC COMMITTEE.

Dr. MAXWELL MASTERS, F.R.S., in the Chair.

Ash Root.—The Chairman reported that he had examined the Ash root submitted to him at a former meeting, and had found that

the main cause of the deformity was attributable to the great increase in thickness of the corky layers of the rind. No trace of fungus had been seen.

Phylloxera at the Cape.—Mr. MacLachlan stated that he had examined specimens sent from the Cape of diseased Vines, but without finding any trace of the insect. He adverted to the folly of indulging in panic, particularly where, as in this case, there was no basis for it. The Chairman remarked that it had been reported that the Cape Government had actually enacted or were about to enact a law absolutely prohibiting the importation of any living plants whatever beyond their frontier; and he suggested that the Council of the Society might be appropriately requested to take steps to urge on the Colonial Government the useless folly of such an enactment. Considerable discussion ensued, the Chairman and others giving their experience of the working of similar laws in Italy and Spain. Opinion was unanimous as to the futile character of such enactments, and as to their absurdity when applied to plants other than Vines, but as to official remonstrance on the part of the Society it was considered better to await full official information.

Peach Twigs and Galvanised Wire.—Mr. Hudson, gr., Gunnersbury House, Acton, sent some shoots of Peach trees, which had apparently been injured by being tied to galvanised wire. This is a subject upon which there has been much discussion. The specimens sent were referred to Dr. Hogg and the Rev. George Henslow for examination and report.

Specimens Shown.—By Mr. Rann: Flower-spike of *Dasyllirion glaucophyllum*, and male spike of *Encephalartos villosus*. By Messrs. Veitch: specimens of *Nepenthes bicalcarata*. By Mr. Cannell: a Primrose, supposed to have originated in a cross between the English magenta-coloured hybrid Primrose and the Chinese form. The plant exhibited was of a peculiar aspect, dwarf habit, and with small flowers. Some of the petals were lilac, others deep magenta, others variously blotched and spotted. The foliage and the stems were of the character of the Chinese form.

New Species of Crocus.—Mr. Maw then read his paper on this subject, and illustrated it with numerous exquisite coloured drawings. The paper will appear *in extenso* in the *Journal* of the

Society, and is specially interesting, not only for the large number of new species described, but also for the valuable notes on structure and geographical distribution by which they were accompanied, and the discrimination shown in the unravelling of the synonymy of the older and less known species.

ANNUAL GENERAL MEETING.

The Annual General Meeting of the Society was held on February 10th, the President, Lord Aberdare, in the chair. The following members of the Council were present—Sir T. Lawrence, Bart., Col. R. Trevor Clarke, Dr. Denny, Sir Charles W. Strickland, Bart., Major F. Mason, Dr. Hogg (Secretary), and Henry Webb, Esq. Treasurer).

Mr. S. JENNINGS, the Assistant-Secretary, read a list of names of ladies and gentlemen who were desirous of becoming Fellows of the Society, and the Chairman moved that they be elected. The minutes of the last General Meeting were then read and formally confirmed. The election of Scrutineers having been proposed, Mr. John Lee and Mr. West were duly appointed.

The PRESIDENT next proposed that the Report of the Council be taken as read, which was unanimously agreed to. He then proceeded to make a few remarks upon the position of the Society. He regretted that it was not in his power to lay before the Fellows more definite information, 'but as litigation had been commenced, the results of which were at present very uncertain, he did not feel justified in saying much concerning the matter. He reminded the meeting, however, that it was the duty of the Society in the interest of the debenture holders to retain possession of the Garden as long as they could do so legally. Although it was difficult to state anything with certainty in reference to a Chancery suit, he believed it probable that a decision would be obtained during the month, after which the future course of the Society could be discussed to much better advantage. The past year had been a most disastrous one for horticulturalists, and although the Council had made unusual efforts to render the shows and meetings as attractive and complete as possible, thus increasing the expenditure, yet the receipts were lower than the

previous year. Thus, while the Society started in the year without any serious additional incumbrances it became necessary to be as economical as possible. Notwithstanding the unfavourable weather on each occasion the conversazione and fêtes proved successful, for a balance of £60 remained after paying all expenses. The receipts for the garden produce reached a very high figure during the past year—viz. £634 18s. 11*d.*, a sum greatly in advance of that received in the previous year. As a set-off against this he referred to losses occasioned by the hailstorm, which necessitated the outlay of £140 to repair the damage; while the failing of a boiler at Kensington also increased the expenses by £120. He then briefly remarked, that even though the decision in the Chancery suit should be against the Society they might still retain a portion of the Kensington Gardens, for he believed the Commissioners were disposed to be friendly. He concluded, hoping that at the next General Meeting the affairs of the Society will be in a more settled and satisfactory state.

Mr. GUEDELLA thought the Fellows were indebted to the Council for so courageously “sticking to a sinking ship,” and strongly condemned the course taken by the Commissioners.

The result of the ballot was then declared, the following gentlemen being elected to the Council—W. Haughton, Esq.; Sir Henry Scudamore Stanhope, Bart.; and the Rev. H. Harpur-Crewe, in place of the three retiring members,

Mr. KELLOCK enquired whether the Editor of the Society's Journal really received a separate salary of £100, or whether that formed part of his salary as Assistant Secretary.

LORD ABERDARE replied that it formed part of Mr. Jennings' regular salary.

Mr. LIGGINS moved a vote of thanks to the Council for undertaking to protect the interests of the Society by defending a suit in Chancery, which was seconded and carried unanimously.

A unanimous vote of thanks to Lord Aberdare brought the proceedings to a close.

REPORT OF THE COUNCIL TO THE ANNUAL GENERAL MEETING
OF 10TH FEBRUARY, 1880.

The Council have to report to the Fellows a continuance of interest in the operations of the Society during the past year.

Notwithstanding the unfavourable weather which prevailed throughout the whole of last year, and which marred the success of the exhibitions and meetings generally, the receipts on account of these have not fallen greatly short of those of the previous year.

The fortnightly meetings have been liberally supported—groups of an interesting nature, and valuable collections of fruit, vegetables, and plants have contributed to sustain their high character; and the Council take this opportunity of acknowledging the valuable services rendered by the Scientific, Fruit, and Floral Committees, whose proceedings have been fully recorded in the Journal of the Society.

The Great Show of 27th May was equal to any former Exhibition as regards merit and extent, and was honoured by the presence of H.R.H. the Princess of Wales, and T.R.H. the Duke and Duchess of Edinburgh, the Crown Princes of Denmark and Sweden, the Count and Countess of Flanders, and the Duke of Teck.

The Popular Show upon Whit-Monday was an improvement upon that of the previous year, the Covent Garden growers filling the grand marquée with a brilliant display of the flowering plants which are specially grown for the supply of the London markets, and in spite of the heavy rain, the number of visitors on this occasion was 8071.

The Council are desirous of fostering a love of horticulture amongst the humbler classes; and deeming this one of the objects to be kept in view by the Society, they resolved to hold a show upon Whit-Monday, the 17th May next, and to postpone the competition for the cottagers' and artisans' prizes to the Bank Holiday, 2nd August.

In compliance with a desire expressed by the Fellows, the Council held a *conversazione* on the evening of Wednesday, 28th

May, which, in spite of the weather, was numerously attended. The tents of the Great Show and the conservatory were illuminated by different systems of electrical lighting, and the members of the Quekett Microscopical Club were present with their microscopes. The success of this conversazione encouraged the Council to hold an evening fête on the 9th July, the principal features of which were the exhibition of recent scientific inventions, including Edison's loud-speaking telephone, the phonograph, microscopes, with various other attractions. The gardens were brilliantly illuminated by electricity, and the attendance was very large.

Her Majesty's Commissioners for the Exhibition of 1851 having commenced legal proceedings in order to obtain immediate possession of the Gardens, the Council were advised that they were bound to use every legal means of defending the interests of the debenture holders, whose sole security for the payment of the interest on their bonds, as well as for the portion of the capital for which the property of the Commissioners was conditionally liable, would have disappeared with the termination of the lease to the Society. These proceedings are still pending. The Council cannot refrain from expressing their deep regret that the terms offered by the Commissioners some three years ago were declined by the debenture holders, a refusal which not only involved the loss of an opportunity of obtaining repayment of a portion of their capital which might not easily recur, but has compelled the Society to embark in a litigation which they would gladly have avoided could they have done so with justice to the debenture holders and with security to themselves. The Council have reason to believe that juster views of their position now prevail among the debenture holders, and that if a similar offer were repeated it would be accepted by them. Such a course would be hailed by the Council with the greatest satisfaction. They cannot but think that, whatever may be the legal rights of the debenture holders, strictly construed, their moral claim for consideration and even generous treatment by the Commissioners, on whose property their money was expended for objects warmly fostered by them and their late illustrious President, is very strong; while the ami-

cable settlement of the question would greatly promote favourable arrangements by the Society with the Commissioners for the use of the Gardens, or such portion of them, and of the adjoining premises, as would not be required for public purposes.

The fifth volume of the Journal has been completed during the past year. Amongst the papers may be mentioned Notes by Dr. Masters, F.R.S., on "Root Hairs and Root Growth," and a treatise "On the Genus Tulipa," by H. J. Elwes, Esq. The reports of Chiswick trials have included Endives, Cabbages, double-flowered Ivy-leaved Pelargoniums, Abutilons, and Gloxinias.

The desire expressed by the Council in their last annual report, that correspondence should be opened with foreign and colonial horticulturists, has been gratified by the receipt of bulbs from Dr. Regel of St. Petersburg, of many interesting Caucasian and Central Asian Plants, and seeds from various contributors at the Cape, in America, Australia, and Van Dieman's Land, seedlings from many of which will shortly be available for distribution amongst the Fellows.

The trials by the Floral and Fruit Committees at Chiswick have been continued as usual, but owing to the unfavourable season the results have not been so satisfactory as might have been desired, especially of those carried on in the open air. A complete trial of all the varieties of summer Radishes has been made, numbering 130 samples.

The Society now possesses a fine collection of Tuberous Begonias, many of which are hybrids raised in the Gardens by Mr. Barron, who has also been most successful in raising several new and handsome varieties of the Chinese Primrose.

The violent hailstorm of August last broke upwards of one thousand panes of glass, while other necessary repairs at Chiswick have occasioned extra expenditure. The land on the west of the Gardens having been sold and a new road made it was found necessary to erect a new boundary wall. The cost has been defrayed by His Grace the Duke of Devonshire, on the understanding that one moiety shall remain as a loan to the Society at 5 per cent. interest. The expenses of the Gardens have been re-

duced to a minimum, while their efficiency has been maintained under the superintendence of Mr. Barron.

One of the large boilers which heats the conservatory at South Kensington, and had been worked for many years, failed during the last winter; this caused with fixing an outlay of about £120.

Owing to the excessive and continuous rainfall during the past season, and the unusually low temperature which prevailed, the out-of-doors fruit crop has been very poor. Strawberries were most abundant, but literally rotted on the ground.

The crop of Grapes in the large conservatory was exceptionally good, realising about £400.

The young Vines planted on the long glazed wall have grown very strong and promise well.

A large number of plants growing in the rockery were killed by the severe frost of last winter, but most of them have been liberally replaced by Mr. Ware of Tottenham, and others; but the damage done by the frost of the present winter may prove far more serious.

A list of the donors of plants, &c., is annexed to this report. The cordial thanks of the Council are tendered to them for their much-appreciated contributions.

Great attention has been paid during the past year to the distribution of plants and seeds amongst the Fellows of the Society. The number of plants distributed has amounted to 10,250; cuttings of plants, fruit trees, and Strawberry runners, 2300 bundles; packets of seeds 44,730, being double the amount of the previous year.

The Council regret that owing to the great scarcity of all kinds of seeds, caused by the wet and cold of the past autumn, the distribution during the coming season must necessarily be limited; but a very large stock of plants is being prepared, particulars of which, with form of application, will be furnished in the next number of the Society's Journal.

A new railway station on the Metropolitan and District Railway has recently been opened at Acton Green, within four minutes' walk of the Gardens. Trains run every half-hour. The entrance to the Garden is now removed to Sutton Court Road, adjoining the Vestry Hall, Turnham Green.

The Council are glad to observe the continued success of the numerous floricultural societies which have been established in various parts of the kingdom, many of which have associated themselves with the Society, and report that of all the prizes offered by them the Society's silver and bronze medals appear to be most appreciated.

The Council also note with satisfaction the progress which is being effected by associations which have taken various branches of floriculture under their especial care, such as the "Rose," the "Pelargonium," the "Auricula," and the "Carnation" Societies, and some others. They will be glad to co-operate with such societies, and afford them all facilities for holding their various exhibitions in conjunction with the ordinary meetings of the Society.

During the past year 238 free monthly tickets have been issued to students in the science and art schools, with permission to sketch in the Gardens and conservatory.

The Society has lost during the past year forty-seven Fellows by death and ninety-two by resignation. 149 new Fellows have been elected during the year.

The roll of Fellows now consists of—

837 Life Fellows.

430 Fellows paying £4 4s. annually.

772 „ „ £2 2s. „

2039

BALANCE SHEET, 31ST DECEMBER, 1879.

DR.	£	s.	d.
To Sundry Creditors on open Account	401	12	0
„ Life Composition Account	1502	17	5
„ Additional Debenture (C. J. Freake) ..	5000	0	0
„ Legacy received from the late Miss Parry ..	90	0	0
„ General Revenue Account—Balance carried forward,	840	18	8
	<hr/>	£7835	8 2

CR.		£	s.	d.
By Capital	.. .. .	7141	18	2
„ Annual Subscriptions—Outstanding	..	345	9	0
„ Sundry Debtors—Garden Produce	.. 116 14 6			
On Open Account,	65 18 11			
		—————	182	13 5
„ Investment—3 per cent. Consols—£100 (Legacy Invested)	.. .. .	95	2	6
„ Cash at Bankers	.. .. .	69	0	0
„ Petty Cash in hand	.. .. .	1	5	1
		—————	70	5 1
			£7835	8 2

We have examined the above Accounts with the Books and Vouchers, and find the same correct,

JOHN LEE,
JAS. F. WEST, } *Auditors.*
R. A. ASPINALL, }

January 22nd, 1880.

SAML. JENNINGS, *Ass. Sec.*

ANNUAL REVENUE ACCOUNT FOR THE YEAR ENDED 31ST DEC.,
1879.

EXPENDITURE.

<i>To Establishment Expenses—</i>	£	s.	d.	£	s.	d.
Salaries	554 1 2			
Wages	236 12 10			
Printing, Stationery, and Cards,			210 14 5			
Postages	53 18 10			
Gas	23 5 9			
Miscellaneous	75 2 5			
			—————	1153	15	5
„ <i>Special Expenses in relation to Horticulture—</i>						
Journal	150 15 9			
Fruit and Floral Committees	72 2 4			
Editor of the Journal	100 0 0			
Plant and Seed distribution	126 13 4			
Grants in aid	30 0 0			
			—————	479	11	5

<i>To Chiswick Garden Expenses—</i>	£	s	d.	£	s.	d.
Rent, Rates, Taxes, and Insurance,	267	11	6			
Labour	997	9	3			
Implements, Manure, &c. ..	139	16	4			
Coal and Coke	177	9	10			
Repairs	220	17	4			
Trees, Plants, Seeds, &c. ..	25	4	1			
Superintendent's Salary ..	150	0	0			
Water	9	10	8			
Miscellaneous	100	17	1			
	—————			2088	16	1
<i>„ Kensington Garden Expenses.—</i>						
Rates, Taxes, and Insurance ..	491	4	5			
Superintendent's Salary ..	100	0	0			
Labour	422	3	2			
Repairs	162	18	7			
Coal and Coke	75	14	8			
Implements and Manure ..	13	1	1			
Water	9	13	3			
Reading Room	22	9	11			
Bands	127	4	4			
Trees and Plants	7	18	6			
Miscellaneous	83	17	3			
	—————			1516	5	2
<i>„ Conversazioni and Evening Fête ..</i>	..			348	15	6
<i>„ Exhibitions—</i>						
Advertising	269	14	4			
Prizes and Medals	935	7	0			
Bands	83	13	0			
Superintendent of Flower Shows,	25	0	0			
Labour	96	19	8			
Judges' Fees	16	16	0			
Sundries	183	11	2			
	—————			1611	1	2
<i>„ Balance to General Revenue Account ..</i>				322	3	3
				—————		
				£7520	8	0

	INCOME.	£	s.	d.
By One-fifteenth Life Compositions as at 1st January,		633	10	0
„ Annual Subscriptions		3852	9	0
„ Exhibitions		1012	6	8
„ Promenades		36	8	0
„ Conversazione and Evening Fête		417	18	5
„ Daily Admissions!		399	14	0
„ Garden Produce		634	18	11
„ Packing Charges		24	15	0
„ Miscellaneous Receipts		103	5	3
„ “ Davis Bequest.”—Interest appropriated under provisions of Trust towards Prize Medals,		60	17	6
„ Bank Deposit Account—Amount withdrawn,		340	0	0
„ Interest on ditto		4	5	3
		<u>£7520</u>	<u>8</u>	<u>0</u>

SAMUEL JENNINGS, *Assistant Sec.*

We have examined the above Revenue Account with the Books and Vouchers, and find the same correct.

R. A. ASPINALL, }
JOHN LEE, } *Auditors.*
JAS. F. WEST, }

January 22nd, 1880.

GENERAL REVENUE ACCOUNT, 31ST DECEMBER, 1879.

DR.	£	s.	d.
To Amount withdrawn from Deposit and transferred to			
Annual Revenue	340	0	0
„ Allowances made on Garden Sales on 1878 Account,	1	1	2
„ Balance carried forward as per Balance Sheet ..	840	18	8
	<u>£1181</u>	<u>19</u>	<u>10</u>
CR.	£	e.	d.
By Balance of Revenue Account brought forward 1st			
January, 1879	859	16	7
„ Annual Revenue Account—Balance for the year 1879,	322	3	3
	<u>£1181</u>	<u>19</u>	<u>10</u>
By Balance carried forward ..	<u>£840</u>	<u>18</u>	<u>8</u>

We have examined the above Account with the Books and Vouchers, and find the same correct.

R. A. ASPINALL, }
JOHN LEE, } *Auditors.*
JAS. F. WEST, }

SAMUEL JENNINGS, *Assistant Secretary.*

January 22nd, 1880.

MARCH 9TH, 1880.

ORDINARY GENERAL MEETING.

DR. M. J. MASTERS in the Chair.

Elections.—Mrs. Abbott, Sutton Abbott, Frederic J. Alexander, George A. Ballard, Rev. William B. Banyard, William Brett, Mrs. Fullarton, Henry Garbutt, Lord Garvagh, Benj. Hardy, Mrs. G. H. Jupp, Robert Lathbury, Horace R. Pinder, Joseph R. Starling, John J. Thornycroft, William Tubb, John Winchworth.

Medals Awarded.—Bronze Banksian, James Carter and Co., for a group of Primulas; Bronze Banksian, B. S. Williams, for a group of Cyclamens; Silver Banksian, Barr and Sugden, for a group of Cyclamens; Bronze Flora, J. Wills, for a group of Dracænas; Silver Banksian, Osborn and Sons, for a group of Plants; Silver Banksian, William Paul and Son, for cut blooms of Camelias; Silver Banksian, J. Aldous, for a group of Plants; Large Silver Banksian, Henry Little, for a group of Cinerarias; Silver Banksian, William Bull, for a group of Orchids.

Few of the Society's meetings thus early in the year after such an unfavourable season have been brighter or more interesting than the one held on this occasion. Plants were exhibited in large numbers, one side of the conservatory being entirely occupied with groups of Orchids, Cyclamens, Cinerarias, and miscellaneous flowering and foliage plants, while in the Council Room were arranged a number of rarities of considerable interest horticulturally and botanically. The Fruit Committee had nothing whatever to do, for there was not a single entry of fruits or vegetables.

SCIENTIFIC COMMITTEE.

SIR J. D. HOOKER, K.C.S.I., in the Chair.

Galvanized Wire and Peach Shoots.—The Rev. G. Henslow gave an account of the microscopical appearances in the shoot referred to him at the last meeting. The younger tissues were quite dead, but whether death resulted from mechanical pressure, or from some destructive chemical action set up by the galvanised wire, there was no evidence to show. Dr. Masters showed another specimen received from Mr. Hudson, gr., Gunnersbury House, and which had been so tied that no injurious constriction could have taken place, though possibly some amount of friction might have occurred occasionally. The appearances presented were consistent with the notion that the effects were due to frost.

Plants Exhibited.—From Mr. Bull, *Fritillaria oranensis*; from Mr. G. F. Wilson, *Begonia*, sp., referred to Kew for name; from Rev. H. Harpur-Crewe, *Galanthus Redoutei*, a remarkably distinct species, with almost globose flowers, and leaves like those of *Scilla amœna*; and *Corydalis Kolpakowskyana*, with flowers of pale flesh-colour.

Effects of the Winter of 1879-80.—On the suggestion of Mr. Elwes, a sub-committee was appointed to collect evidence as to the effect of the severe frost on vegetation.

Electric Light.—Mr. W. T. Thiselton-Dyer proposed the appointment of a sub-committee to investigate certain points of vegetable philosophy of interest to cultivators by means of the electric light. There was reason to believe that facilities for the purpose might be obtained at Kew in connection with the Jodrell laboratory.

FLORAL COMMITTEE.

DR. DENNY in the Chair.

The principal nurserymen's groups were arranged in the conservatory, and one of the first to be noticed was that from Messrs. Osborn and Sons, Fulham—a large and ornamental group of plants very tastefully arranged. Rhododendrons, Azaleas, Guelder Roses, and Spiræas formed the bulk of the group, a few plants being em-

ployed to lighten it, and the margin was composed of Crocuses, Scillas, and *Iris reticulata* in pots placed alternately. The general effect was remarkably bright and pleasing. A silver Banksian medal was deservedly awarded by the Committee for this handsome exhibit. Mr. J. Aldous, florist, Gloucester Road, South Kensington, obtained a similar award for a neat group of Palms, Ferns, Hyacinths, and Lilies of the Valley. The two latter were remarkably good, some spikes of white Hyacinths being unusually large, and bearing good bells. The group would, however, have appeared better had more brightly coloured flowering plants been employed in conjunction with the Lilies and Hyacinths. Mr. William Bull, Chelsea, was adjudged a silver medal for a fine group of Orchids and choice plants in excellent condition. The chaste and sweetly scented *Pilumna fragrans*, the orange-coloured *Ada aurantiaca*, *Odontoglossoms*, *Dendrobiums*, *Masdevallias*, and *Lycastes* were all well represented. *Epacris onosmæflora nivalis flore-pleno* is a remarkably pretty double white variety, somewhat resembling in habit *Epacris purpurascens*. Several new hybrid *Rhododendrons* of the *jasminiflorum-javanicum* type were shown, including some with very delicately tinted wax-like flowers. *Oncidium Kramerianum* was bearing large and deeply coloured flowers, which resemble but surpass the Butterfly Orchid, *O. Papilio*.

Mr. B. S. Williams, Upper Holloway, exhibited a group of *Cyclamens* very well flowered, and some of good size and substance. One variety, Brilliant, was noticeable for its brilliant crimson colour. Several of the white varieties were also in vigorous health. A bronze Banksian medal was awarded. Messrs. Barr and Sugden, 12, King Street, Covent Garden, staged a large group of *Cyclamens*, comprising about 140 plants. They were all in 48-size pots, the vigour and size of the plants being remarkable. The flowers were noticeable for their great size and substance. Cut blooms of the lovely *Iris reticulata* and its variety *Krelagei*, together with blooms of *Megaseas*, were also shown. A silver Banksian medal was awarded. Mr. John Wills, South Kensington, was awarded a bronze Flora medal for a group of *Dracæna terminalis alba*, a very useful plant for decorative purposes, and very clearly variegated. The plants exhibited were in small pots, but in excellent health.

Messrs. James Carter and Co., High Holborn, exhibited plants of a "new blue Primula" named Lady Probyn. The flowers were of a rather dull pale lavender blue tint, but not sufficiently distinct and ornamental to justify the Committee in awarding it a certificate, though they expressed a desire to see it again upon a future occasion. There is no doubt but that this is a step in the right direction, and may possibly lead to better results. For the group of Primulas a bronze medal was awarded. Messrs. W. Paul and Son, Waltham Cross, sent nine boxes of superb Camelia blooms, comprising about 180 flowers. One box of L'Avenir was specially noticeable; the flowers of this variety are very regularly imbricated of a bright pink colour with a faint streak of white down the centre of each petal. Countess of Derby is also a very good variety; the flowers are well formed and of a delicate pink hue. Countess de Hainault, flowers neat and delicately suffused with pink. Madame Lebois, flowers of moderate size, well formed, and of warm pink or crimson tinge. Many other excellent varieties were also shown, the old alba plena and imbricata being in good condition. A collection was also staged in the Council-room, a vote of thanks being accorded by the Committee.

Mr. Wiggins, gardener to Henry Little, Esq., Hillingdon Park, Uxbridge, exhibited some extraordinarily fine Cinerarias and Primulas. Of the former some of the flowers were over 2 inches in diameter; the colours also were unusually rich and good. Extremely deep purple, crimson, maroon, and blue were well represented. The plants were also remarkably vigorous and healthy. The Primulas included some good whites. One of the latter was in a small 48-pot, and bearing over nine trusses of excellent flowers. Primula Meteor was awarded a first-class certificate; it is of dwarf habit, and the flowers of brilliant crimson hue. A Cyclamen was also exhibited, one of the finest ever staged, over 2 feet in diameter, and bearing more than a hundred fully expanded white flowers of great size and excellent form. A cultural commendation was awarded. Amaryllises were shown in extraordinary vigour, one specimen bearing no less than ten flowers on two scapes, one with four and the other with six. A large group of miscellaneous plants was sent from the Society's garden at Chiswick; Abutilons, Ferns, Imantophyllum miniatum superbum, and Wistaria sinensis being very freely

employed. The latter plants were 4 or 5 feet high that had been forced similarly to Lilacs and Guelder Roses, and their fine racemes of fragrant purplish flowers were very attractive.

In the Council Room a number of plants were staged, some of the most noticeable being those from Messrs. James Veitch and Sons. This collection comprised new and beautiful plants, including Orchids, Amaryllises, Ferns, and other plants. A first-class certificate was awarded for *Polystichum tripterum*, a neat species with pinnate fronds, bipinnate at the base. A cultural commendation was accorded for *Dendrobium crassinode Barberianum*, with two long growths bearing about thirty flowers each. The fine lilac-coloured *Primula pulcherrima* and the rich deep red-coloured *Azalea indica Souvenir de Comte de Gomer* were shown with several bright Amaryllises. Plants of the "red Gloire de Dijon," the *Rose Reine Marie Henriette*, were also exhibited. A collection of Japanese *Abies* was also staged. Mr. Thomas Speed, The Gardens, Chatsworth, was accorded a vote of thanks for a fine specimen of *Renanthera coccinea*, over 6 feet high and bearing two large panicles of flowers that had, however, been somewhat damaged in transit. Mr. J. King, gardener to G. Simpson, Esq., Wray Park, Reigate, exhibited some new *Abutilons*, for one of which named *Purity*, bearing flowers of good size, a second-class certificate was awarded. Mr. J. James, The Gardens, Redlees, Isleworth, exhibited cut flowers of *Cinerarias* of superb size, form, and colour. A first-class certificate was awarded for plants of a very distinct and pretty variety—*Master Harold*, the flowers of excellent form and bright crimson colour with a narrow circle of white in the centre. Mr. Robert Greenfield, The Priory Gardens, Warwick, obtained a first-class certificate for a novel double *Cineraria* named *Mrs. Thomas Lloyd*. The plant was of dwarf habit, the flowers being perfect little crimson-purple balls about $1\frac{1}{2}$ inch in diameter.

Mr. H. Cannell, Swanley, sent plants of *Cineraria Intensity* with good flowers, the colour of which was a deep rich purplish blue, very distinct and pretty; also plants of a pale lilac blue *Polyanthus*, *Primula elatior cœrulea*. He also exhibited plants of *Fuchsia pendulæflora*, for which a first-class certificate was awarded. The

leaves are long and elliptical ; the crimson flowers being tubular and borne in pendulous corymbs. Messrs. E. G. Henderson and Son, Pine Apple Nursery, Maida Vale, contributed a collection of double Primulas ; the double white Princess of Wales and Blushing Beauty, and the lilac-tinged Miss Eva Fish, were the most noticeable. Mr. H. Harding, The Gardens, Orton Hall, Peterborough, was accorded a vote of thanks for flowers of *Clianthus puniceus* and *C. Dampieri*, the latter being extremely fine. Mr. W. Rapley, gardener to G. Brand, Esq., Bedford Hill House, Balham, sent a *Cineraria* with flowers of great size and rich crimson colour. Mr. R. Dean, Ealing, sent some bedding Primulas and Polyanthus, *Primula lilacina* and *P. auriculæflora* being very pretty.

MARCH 23, 1880.

ORDINARY GENERAL MEETING.

H. J. ELWES, Esq., in the Chair.

Elections.—George Banbury, George Walter Davidson, Major R. G. Ellison, Mrs. Arthur Howell, Capt. A. L. Patton, Miss Reeve, William H. Tuck, Mrs. M. Ware, Mrs. Wilson.

Medals Awarded.—Large Gold Banksian, J. Veitch and Son, for a group of *Amaryllis*; Large Gold Banksian, General Horticultural Company (John Wills, Limited), for a group of Plants; Gold Medal, Capt. Patton, for group of *Hyacinths*, *Spiræas*, &c.; Gold Medal, W. Bull, for group of *Orchids* and *New Plants*; Large Silver Banksian, H. B. Smith (Ealing), group of *Cyclamens*; Silver Banksian, W. Cutbush and Son, for a group of *Hyacinths*, *Tulips*, &c.; Silver Banksian, J. Aldous, for *Bouquets*; Silver Banksian, B. S. Williams, for group of *Plants*; Silver Flora, Osborn and Sons, group of *Hyacinths*, *Tulips*, &c.; Silver Flora, J. Veitch and Sons, for group of *Hyacinths*.

Rarely has a more satisfactory and interesting meeting to be recorded than on this occasion. The exhibits were not nearly so numerous as is usually the case, but they were of such extra-

ordinary dimensions that the collections from three exhibitors occupied one entire side of the conservatory. Very few plants were staged in the Council-room, and these were ultimately removed to the conservatory, where the other exhibits were arranged on tables down each side of the central path. Hyacinths were extremely numerous, the combined collections of Capt. Patton and Messrs. Veitch, Osborn, and Cutbush numbering over eight hundred, including all the best varieties in cultivation. The effect produced by the diversified colours of these plants, and the tastefulness displayed by the exhibitors in arrangement, awakened considerable admiration on the part of the visitors. The other great feature of the meeting was Messrs. Veitch's gigantic collection of Amaryllises, which occupied nearly a fourth of the entire staging, and comprised more than three hundred plants, a large number of varieties being represented, many new and of great excellence. Messrs. Williams' and Bull's Orchids, and the remarkably beautiful group of plants from the General Horticultural Company arranged in Mr. Wills' artistic style, all combined to impart considerable pleasure to the numerous visitors that assembled during the afternoon.

FLORAL COMMITTEE.

DR. DENNY in the Chair.

The chief part of the Committee's duties lay in the conservatory, for there were few new plants exhibited. As we have indicated the general appearance of the display we may now briefly describe the individual exhibits.

Messrs. Veitch and Sons, Chelsea, contributed two large collections of plants, one comprising about 120 Hyacinths in superb condition, unquestionably the finest of all those exhibited. The new forms were awarded first-class certificates—namely, Queen of the Yellows and Cavaignac. The Amaryllises have been already referred to, and it only remains to note the following, for which first-class certificates were awarded. Empress of India, a handsome variety with flowers of great size (about 8 inches in diameter), symmetrically formed, of a rich scarlet colour with a narrow white stripe down the centre of each

division of the perianth; four flowers were borne on each scape. King Arthur, a very distinct and neatly formed variety. The flowers were somewhat circular in outline, the ground colour being a greenish white peculiarly streaked and mottled with crimson round the margin of the perianth divisions. Storr's Beauty, a smaller flower than the other varieties, but of good form and rich deep scarlet, each scape bearing three flowers. For the Hyacinths a silver Flora medal was awarded, and for the Amaryllises a large gold Banksian medal.

Captain Patton, Abbey Road, St. John's Wood (gardener, Mr. Boulwood) staged an enormous collection of Hyacinths, numbering nearly four hundred plants, and including a large number of varieties. They were well grown and fairly well arranged, but the exceptionally deep pots were a great disfigurement, although they were partially concealed in the front row by a margin of *Isolepis gracilis*. The centre of the group was occupied with some good Tulips in rather large pots, and Lilies of the Valley in pans. The background was composed of *Dielytras* and *Spiræas* arranged alternately, and produced a most delightful effect, the specimens being exceptionally fine, upwards of 3 feet across. Both were excellently flowered, indeed finer plants were never exhibited. A very neat label was employed which is deserving of notice. A small wire clip held a card about 3 inches long by 2 wide, with a narrow gilt margin, and on this the names were written in an extremely elegant hand. For this handsome group a gold medal was deservedly awarded. Messrs. W. Cutbush and Son, Highgate, were adjudged a silver Banksian medal for a group of Hyacinths, Tulips, and Lilies of the Valley, the colours of the former being very good and well arranged. The Hyacinths included many handsome varieties. Messrs. Osborn and Son, Fulham, were awarded a silver Flora medal for groups of Hyacinths and Tulips. They staged about two hundred handsome Hyacinths, the varieties being well selected, and their general condition extremely good. About sixty Tulips were exhibited, and a group of miscellaneous flowering and foliage plants.

One of the largest and most attractive groups of miscellaneous plants was that from the General Horticultural Company (Limited),

Mr. John Wills, manager. This comprised a great number of plants, including Orchids, Ferns, flowering plants, Palms, and Crotons. It was especially noticeable for the diversified style of arrangement adopted, remarkably distinct from the formality which usually characterises groups of this distinction. Adiantums and choice Orchids were most charmingly intermingled, *Selaginella Krausiana* and *Isolepis gracilis* forming an agreeable margin. A number of Lilacs were also introduced with a very pleasing effect. A large gold Banksian medal was accorded for this elegant group. Mr. W. Bull of Chelsea exhibited a large number of Orchids, Palms, and Cycads, including many of great beauty and rarity. The delicate little *Odontoglossum membranaceum* was represented by a specimen bearing several of its prettily marked flowers; *Anguloa Clowesii* had two of its fine yellow fragrant flowers; *Odontoglossums* were also numerous, such species as *O. triumphans*, *O. cirrhosum*, and *O. Alexandræ* being in fine condition. Many *Cattleyas*, *Lycastes*, and other well-known Orchids assisted in forming a highly attractive collection. The double *Epacris onomæflora*, which we have noticed on several previous occasions, was again exhibited in good form. It is an excellent plant either for decorative or cutting purposes. A gold medal was awarded.

Mr. B. S. Williams, Upper Holloway, sent a collection of Orchids, including *Cypripediums*, *Odontoglossums*, *Cattleyas*, *Lycastes*, and *Cœlogynes* in excellent condition. *Cattleya amethystoglossa* was especially noticeable, one raceme bearing about two dozen large flowers. Nearly three dozen *Amaryllises* were shown, several of the varieties being noticeable for their brilliancy of colour, particularly *Grandidens*, *Firefly*, *Ackermanni pulcherrima*, and *Princess Dagmar*. *Loveliness* is also a pretty variety, the flowers being white streaked with crimson. A first-class certificate was accorded for *Amaryllis Exquisite*, a beautiful variety. Four large flowers were borne on one scape, of great substance, symmetrical form, and bright scarlet colour, with a clear band of white down the centre of each petal. A cultural commendation was awarded for *Imantophyllum miniatum* Martha Reimers, one scape bearing about thirty richly coloured flowers. For the group of Orchids a silver Banksian medal was accorded. Messrs. Carter and Co., High

Holborn, exhibited plants of the certificated varieties of *Cyclamen* raised a year or two ago by Mr. H. B. Smith of Ealing—namely, *Rosy Morn*, *Duke of Connaught*, *Queen of the Belgians*, and *persicum picturatum*, all extremely fine varieties both in colour, floriferousness, and size of flowers. Mr. H. B. Smith, Ealing Dean Nursery, also exhibited a superb collection of *Cyclamens*, including two or three hundred fine plants in 48-size pots. They were all characterised by the vigour, size, and substance of flowers for which Mr. Smith is so noted. A silver Banksian medal was awarded. Mr. Aldous, florist, Gloucester Road, obtained a silver Banksian medal for a group of *Cinerarias*, *Spiræas*, *Heaths*, *Ferns*, and *Palms*, together with two handsome bouquets, one entirely composed of *Roses*, and the other of *Roses*, *Orchids*, and *Eucharises*. Mr. Greenfield, The Priory Gardens, Warwick, obtained a certificate for an excellent double *Cineraria* named Mr. Thomas Lloyd; the heads were nearly globular in form, of a deep purplish blue colour. Messrs. Jackson and Son of Kingston exhibited several *Primulas*, notably *P. rosea* and a pretty variety of *P. denticulata*. The peculiar *Arisæma speciosum* was sent from the Society's Chiswick garden.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

A collection of plants was exhibited by Dr. Siemens, showing the effect of electric light on vegetation. There were three pots of *Carrot* roots, three pots of *Mustard*, and two flowers of *Calla æthiopica*. One of each of the two former were subjected to continuous electric light, one to daylight and electric light, and one to daylight only. In the case of the *Carrots* the advantage was clearly in favour of continuous electric light, but in the case of the *Mustard* there was no perceptible difference between equal electric and daylight and daylight only, except that the former was a shade darker in colour; but in the case of electric light only, the effect was very inferior to either of the former. In the

case of the flowers of Calla the difference was very perceptible; that which was produced under the influence of the electric light being fully expanded, while the other which was exposed to daylight only was only partially so. Unusually fine examples of Vanilla were exhibited by Mr. T. H. Sutton, The Gardens, Work-sop Manor, Notts, which deservedly received a cultural commendation. A dish of Mickleham Pearmain Apple was exhibited by Mr. J. Burnett, Deepdene Gardens, Dorking; and a collection of Apples and Pears was exhibited by Mr. G. Goldsmith Hollander, Tonbridge, and received a letter of thanks.

During the afternoon Mr. Shirley Hibberd, on the invitation of the Council, delivered an excellent lecture on the history and characteristics of the Hyacinth and Amaryllis, compiled from the works of the "grand old masters, who produced books that put to the blush the puny productions of the modern horticultural press." From the writings of Gerarde, Parkinson, Lyte, and Miller he gathered much of interest relative to this popular flower, "which once mustered two thousand named varieties, but now probably reduced to a thousand, from which, the lecturer observed, "seven hundred might be eliminated without serious loss." The Amaryllis, or, as Mr. Hibberd observed, more properly the Hippeastrum, was also briefly referred to.

SCIENTIFIC COMMITTEE.

Sir J. D. HOOKER, K.C.S.I., in the Chair.

Report on Injurious Insects.—A copy of Miss Ormerod's report for 1879 was presented by the reporter, and in reference to it mention was incidentally made of the circumstance that the author was collecting materials for a complete history of the remedies available for dealing with various insect pests, and would feel indebted to any observers who would furnish her with accurate information on the subject.

Plants Shown.—Mr. Elwes showed a spray of a Vaccinium known as V. Morteni, a very pretty greenhouse shrub, with small ovate leaves and racemes of clear white bell-shaped flowers. As

there was some doubt as to the name a further report will be made. A *Fritillaria* from Japan was shown by Messrs. Veitch, and is supposed to be *F. verticillata* var. *Thunbergii*. It has long linear leaves terminating in a tendril and small greenish-yellow, bell-shaped flowers, faintly mottled with purple. Colonel Clarke showed a yellow *Chrysanthemum* in full flower, and explained the method by means of which he succeeded in getting the plant to flower at so unseasonable a time. The plant, when the flowering period is over, and after a short rest, is put into a steaming hot temperature for a time, with the result of causing the development of heretofore latent buds on the young stem. Colonel Clarke also showed a spray of the Lace Bark, *Lagetta lintearia*, in bloom. The broadly ovate leaves are of a rich green colour, while the cylindrical flowers are of an opaque white. The name lace-bark was given on account of the netted character of the inner bark, which is used as a substitute for lace in Jamaica. A curious *Begonia* from Cochin China, with prostrate stem and obliquely ovate leaves of a purplish colour with a central blotch, was shown by Messrs. Veitch, and excited much curiosity. It was not in a condition for determination, but had the provisional name of *B. Davidiana*.

Wood from Gravel Deposit.—Mr. W. G. Smith exhibited a piece of a tree-branch recently thrown out from the base of a 25 feet excavation of sand and gravel at Shacklewell. The wood dated back from the deposition of the gravel and sand by the Thames at this place. The drift deposit here belongs to one of the higher and older terraces of the river.

Japan Birch.—Dr. Masters showed, for Messrs. Maule, of Bristol, a portion of the trunk of this tree, perhaps a variety of *B. utilis* (see *Gardeners' Chronicle*, 1876, vol. v., p. 360). The bark was of peculiarly silvery-white papery nature and very beautiful. Messrs. Maule write—

“The specimen of Japan Birch is cut from a tree in our nurseries. We got it from seed at the same time we raised *Pyrus Maulei*. We do not consider that there are two species. The specimens sent you we considered were all the same, as even the common Birch differs a little from seed; but all of these Japan Birches are paper-barked and silver without exception. You know

that our common Birch is sometimes silver-barked and papery, but not always, and they do not assume this until old trees. This Japan Birch is a very robust grower, does not run up like the common Birch, and will make a useful tree. We have about ten large trees, 15 to 20 feet high, and several hundreds 2 to 3 feet. We intend increasing it, as it seeds freely."

Forcing by Electric Light.—Dr. Masters brought forward some specimens exhibited by Mr. Buchanan, gardener to Dr. Siemens, and commented on the new power placed in the hands of the gardener by the agency of the electric light. The specimens from Dr. Siemens' gardens consisted of—

1. Three pots of seedling Mustard, one of which had been exposed to the electric light, one to the daylight, and one to both—other conditions being equal. In this case there was not much difference in point of vigour, but the plant which had been exposed to solar and electric light was darker in colour.

2. The buds of Countess of Oxford Rose, one exposed to the electric light for forty-eight hours, one grown as usual. The bud under the electric light was considerably more advanced.

3. Two spathes of *Calla æthiopica*, one grown in the ordinary manner, the other subjected for forty-eight hours to the electric light. In this case the difference was exceedingly striking, the plant which had been grown under the electric light being greatly in advance of the other. Cut specimens similarly treated manifested an equally striking difference.

4. Three pots of Carrots, three in each pot; one had been exposed to continuous light, first solar, and then electric; one had been exposed to the electric light only, and one had been exposed to daylight only—all other conditions being uniform. In these latter specimens there was very little difference between the plants grown under solar and those under the electric light, but the plants subjected to both were greatly superior in vigour and colour.

Insects Injurious to Cypress.—Further specimens were sent by the Hon. and Rev. J. T. Boscawen, which were referred to Mr. MacLachlan. The injuries inflicted were very serious, the whole of the branches on the lower two-thirds of the tree being killed.

Retirement of Mr. Jennings.—Dr. Masters moved, and Colonel

Clarke seconded, a resolution expressing the regret of the committee that they were about to lose the services of Mr. Jennings, and conveying the thanks of the committee to Mr. Jennings for the ability and courtesy he had displayed as secretary to the committee. The resolution was carried unanimously. An expression of regret was also made that the Council had not notified to the committee the fact that the services of Mr. Jennings were to be discontinued.

APRIL 13, 1880.

ORDINARY GENERAL MEETING.

JOHN DENNY, Esq., M.D., in the Chair.

Elections.—Alex. Gordon, Mrs. B. F. Hartshorne, Mrs. H. F. C. Lewier, J. B. Mackay, T. J. D. Mackintosh, Mrs. Constance Talbot, General Hill Wallace, C.B.

Medals Awarded.—Gold Medal, General Horticultural Co. (John Wills, Limited) for group of Plants; large gold Banksian, J. Veitch and Sons, for group of Orchids; Silver Banksian, Osborn and Sons, for group of Plants; Silver Banksian, J. J. Hayes, for group of Pelargoniums; Silver Banksian, J. Aldous, for group of Plants.

Although the exhibits were not unusually numerous on this occasion, they were of great interest. The majority were arranged in the conservatory, where the groups from Messrs. Veitch, Osborn and the General Horticultural Company formed the chief attractions. There were no entries of fruit or vegetables. The system adopted at this meeting of placing in the Council Room a list of the exhibitors to whom medals were awarded, and of the plants for which certificates were granted, deserves great commendation.

FLORAL COMMITTEE.

DR. DENNY in the Chair.

The most attractive group in the conservatory was that contributed by Messrs. Veitch and Sons, Chelsea, which was composed of a large number of handsome Orchids, Rhododendrons, and a few Palms. About 160 Orchids were shown, comprising some good specimens of the most attractive species and varieties in cultivation, many choice and delicate forms being represented. Dendrobiums were particularly numerous, and an excellent idea of the exceptional beauty of this genus could be gained from the species in the collection. The lovely *D. Dalhousieanum* was bearing two racemes of its large pale buff-coloured flowers, the labellums having near the base two large roundish deep purple blotches; *D. Devonianum* had four growths with about fifty flowers, the whitish petals, sepals, and labellums being tipped with purple, and the latter marked with yellow in the centre; *D. chrysotoxum* was bearing nearly twenty fine racemes of bright yellow neatly formed flowers; *D. densiflorum* had three large racemes of flowers, the white sepals and petals pleasantly contrasting with the golden labellums; *D. Farmeri*, a very beautiful species, had large racemes of flowers, the sepals and petals pale blush white, the roundish labellums being pale yellow in the throat; *D. Jamesianum* had pure white flowers, a long labellum blotched with bright orange red in the centre; *D. tortile roseum* was noteworthy for the pale purple, narrow, curled sepals and petals, with a somewhat trumpet-shaped pale yellow labellum; *D. infundibulum* somewhat resembled *D. Jamesianum*, the petals, however, were much broader, the labellum larger, more frayed, and marked with chrome yellow; the bright purple *D. lituiflorum*, the well-known *D. crassinode*, *D. nobile*, and the small-flowered pure white *D. japonicum*, together with others, were admirably represented. Fifty-seven Odontoglossums were staged, including *O. Roezlii*, *O. triumphans*, *O. nebulosum*, *O. cirrhosum*, *O. pulchellum*, *O. cordatum*, *O. Pescatorei*, and many other equally attractive forms in fine condition. *Lycastes*, *Oncidium*s, *Cattleyas*, *Masdevallias*, and *Epidendrums* were represented by good specimens.

Among the specialities were *Hunleya Meleagris*, a Brazilian Orchid, with large peculiar brownish flowers, produced singly in the axils of the leaves. A first-class certificate was awarded for it. *Lælia flammea*, a hybrid between *L. cinnabarina* and *L. Pilcheriana*, with narrow orange-coloured sepals and petals, and a crimson-tipped labellum. *Odontoglossum Cervantesii decorum*, a large-flowered form of this beautiful species, and a remarkably richly-coloured variety of *Sophonites grandiflora*. Handsome specimens of *Rhododendron Princess Alice* and *R. Veitchii* were exhibited, the plants of the former bearing an immense number of large white fragrant flowers. First-class certificates were granted for the following—*Calanthe tricarinata*, a hardy Orchid, with racemes of small yellowish green flowers; *Amaryllis Prince George*, the flowers of which were large, of good form and breadth of petal, and rich crimson in colour. For this excellent group a large gold Banksian medal was awarded.

A tasteful group was sent by the General Horticultural Company, comprising Palms, Ferns, *Dracænas*, Orchids, Azaleas, *Caladiums*, *Anthuriums*, and many other attractive plants. In the centre was a cluster of *Odontoglossum vexillarium*, one specimen bearing nearly three dozen fine flowers. Some deeply coloured varieties of this beautiful species were also shown. Among the *Dracænas* *D. Gladstonii*, *D. Berkleyi*, *D. Elizabethæ*, *D. Anerleyensis*, and *D. Rebecca* were especially noticeable for their finely coloured foliage. The new Fern *Adiantum Bausii* was represented by specimens which showed the elegant drooping habit to the best advantage. A gold medal was awarded. Mr. Aldous, florist, Gloucester Road, was adjudged a silver Banksian medal for a large group of *Spiræas*, *Deutzias*, white *Hyacinths*, and *Chrysanthemum frutescens* intermixed with Palms, Ferns, and *Selaginellas*. A cross and wreath of white flowers, such as *Eucharis*, white Lilac, *Stephanotis*, Lilies of the Valley, and white *Camellias* were also exhibited. Messrs. J. and J. Hayes, Edmonton, exhibited about twenty plants of *Pelargonium Maid of Kent*, an excellent variety of compact habit and remarkably floriferous; the trusses of moderate size, the flowers very densely crowded, the petals being white slightly crimped round the margins, and veined with

rosy purple in the centre. A silver Banksian medal was awarded.

Messrs. Osborn and Sons, Fulham, sent a collection of Azaleas, Palms, Ferns, Anthuriums, Imantophyllums, and other stove and greenhouse plants, which was honoured with a similar award to the last mentioned group. Messrs. Barr and Sugden, Covent Garden, staged an excellent collection of *Narcissi* comprising a very large number of the best varieties and species, representing nearly all the sections of the genus admirably. Mr. J. Walker, Thame, Oxon, exhibited two boxes of Roses, one containing over thirty remarkably handsome blooms of *Maréchal Niel*, and the other containing very good examples of *Belle Lyonnaise*, *Cheshunt Hybrid*, *Madame Falcot*, *John Keynes*, *Lamarque*, *Madame Favart*, *Climbing Devoniensis*, *Jules Margottin*, *Niphetos*, and *Comtesse d'Oxford*. A cultural commendation was deservedly awarded for these fine blooms.

Comparatively few plants were staged in the Council-room, and nearly all of them were subsequently removed to the conservatory. Mr. B. S. Williams, Upper Holloway, exhibited several plants for certificates, which were granted for the following—*Choisya ternata*, a pretty evergreen Mexican shrub, that, although by no means new, is not very common in gardens. The white fragrant flowers are borne in terminal heads, the ternate leaves being dark shining green; and *Coleus Mrs. Geo. Simpson*, a very distinct variety with extremely large leaves marked with maroon and crimson. The Cranston Nursery Company, King's Acre, Hereford, exhibited blooms of a seedling *Tea Rose*, dull rosy crimson in colour but rather loose; and a first-class certificate was awarded to them for cut flowers of *Hoya globulosa*, an extremely pretty species with dense globular heads of creamy white highly fragrant flowers. G. F. Wilson, Esq., Weybridge, exhibited a seedling *Primrose* named *Herman Wilson*, for which a first-class certificate was granted. The flowers were large, of good form and rich purple in colour, with a clearly defined yellow edge. A first-class certificate was awarded to Mr. Walter Cobb, Silverdale Lodge, Sydenham, for *Odontoglossum polyxanthum*, a pretty species, with pale yellow sepals and petals spotted with brown, and a dull brown fringed labellum. Mr. H. Cannell, Swanley, sent cut blooms of *Zonal*

Pelargoniums in excellent condition, comprising such fine varieties as Titania, Col. Seely, Alice Spencer, Cleopatra, Lizzie Brooks, Sybil Holden, Alice Carr, and New Guinea.

Mr. Howard, Southgate, obtained a first-class certificate for *Chrysanthemum frutescens* Etoile d'Or, a pale yellow free-flowering form of this well-known useful plant. The same honour was bestowed on *Fritillaria Moggridgei*, a dwarf species with drooping yellow-spotted flowers, from Messrs Backhouse and Son, York. Mr. John Linden, Ghent, Belgium, sent a specimen of a handsome *Anthurium* from Colombia, named *A. Andréanum*. The spathe was about 4 inches long and broad, of an extremely bright scarlet colour, and curiously bullated or indented like a Savoy leaf; the spadix was white at the base and yellowish at the apex. Dried specimens were also exhibited which showed the spathes much larger than in the living plant. For this very distinct plant a first-class certificate was granted. Mr. Linden also showed a specimen of *Azalea indica gardeniæflora*, a variety with semi-double white flowers. Mr. Bennett of Salisbury exhibited flowers of the Hybrid Tea Rose Duke of Connaught, very neat in form and rich colour. A vote of thanks was accorded to Mrs. Ashton, 6, Elgin Road, St. Peter's Park, for dried natural flowers, in which the colours were excellently preserved.

During the afternoon Mr. Shirley Hibberd delivered an instructive and interesting lecture on *Narcissi* (see page) which was largely attended by an appreciative audience.

SCIENTIFIC COMMITTEE.

A. GROTE, Esq., in the Chair.

Insects found upon Cypress.—The Hon. and Rev. J. T. Boscawen sent further specimens of Cypress with the insects upon them, and which it is alleged eat into the young shoots and cause their destruction. Mr. MacLachlan stated that he had now examined several specimens sent by Mr. Boscawen, and was of opinion that the declining condition of the tree was not caused by the attacks of the insects in question but by the frost, injury to the root, or some other cause. The insects were of two kinds, one belonging to the

Psocidæ, called *Stenopsocus cruciatus*, the other an *Aphis*. The species of *Psocus* are not known to feed on living tissues, but only dry dead bark. There were no signs of the twigs having been gnawed by any insect.

Plants and Specimens Exhibited.—Mr. Linden sent *Anthurium Andréanum*, a highly remarkable species from Colombia, with thick scarlet corrugated spathe, and an ivory-white spadix tipped with yellow, which is described upon page lix.

Mr. B. S. Williams sent *Eria extingtoria*, to which a Botanical Certificate was awarded.

Messrs. Backhouse sent a potful of a handsome yellow-flowered *Fritillary* from the Riviera, under the name of *F. Moggridgei* (Boiss., in *Moggr. Cont. Ment.*, t. 25), and which is considered by Mr. Baker (*Journ. Linn. Soc. Botany*, xiv., p. 255) to be a variety of *F. delphinensis* of Grenier. Mr. B. S. Williams sent, under the name of *Nephrodium*, *Lastrea membranifolia*, a Fern distributed throughout the hotter parts of India and Australia. Messrs. Veitch sent a *Masdevallia*, *M. Chelsoni* ×, a hybrid raised in their establishment between *M. amabilis* and *M. Veitchiana*. As an ornamental plant it presented no advantage over its parents. *M. Wageriana*, a new species, was also shown. The yellow-flowered variety of *Chrysanthemum frutescens*, called *Etoile d'Or*, was shown, and its history commented on. The Cranston Company sent cut flowers of a very pretty *Hoya*, with flowers in globose umbels; the leaves are oblong-acuminate and downy on the under-surface. The species is believed to be new, and will be named at Kew. Flowers of *Abutilon Sellowianum* were shown from Mr. George.

Catalogus Plantarum.—Dr. Masters showed a copy of a folio work under this title, drawn up by a society of gardeners in 1730, including Philip Miller, Thomas Fairchild, and other notable garden botanists of the day. The work is illustrated by twenty-one coloured plates, from the pencil of the famous flower-painter, Van Huysum. The purport of the book was to furnish an illustrated and descriptive “catalogue of trees and shrubs, both exotic and domestic, which are hardy enough to bear the cold of our climate in the open air.” Only one part was issued, apparently under the

editorship of Philip Miller. The book is mentioned in Johnson's *History of Gardening*, but is not catalogued in Pritzel, though the beauty and fidelity of the illustrations are such as to warrant it being noted in any catalogue of botanical literature.

Effects of the Frost of the last Winter upon Plants.—A communication was read from Mr. Elwes on this subject, with suggestions as to the best means of obtaining and tabulating the requisite information.

Plants supposed to be Poisonous to Sheep.—Rev. George Henslow showed a specimen of a *Carex*, supposed to have proved poisonous to sheep. In the opinion of the committee the plant had nothing to do with the disease.

Fungus on Glass.—Rev. George Henslow showed a specimen of an abnormal *Polyporus* found growing on the glass of a greenhouse, to which it had probably extended from the rafter.

Fritillaria sp.?—Rev. H. H. Crewe showed a *Fritillaria*, received from Dr. Regel, and which was referred to Mr. Baker for identification.

The meeting then adjourned.

APRIL 27, 1880.

ORDINARY GENERAL MEETING.

Sir TREVOR LAWRENCE, BART., M.P., in the Chair.

Elections.—Charles Abercrombie, Sir William N. Abdy, Bart., Edward Alexander, Miss Mary A. R. Adamson, Mrs. Armstrong, Vincent Bailey, Algenever Bathurst, Edward K. Bridger, Mrs. Hesketh Case, Henry Cassoon, F. S. Chapman, C. J. Dance, Sir T. D. Forsyth, K.C.S. J.C.B., A. Cecil Gibson, Robert H. Hamilton, James Lord, W. J. Martin, Mrs. Maxwell, George Petrie, George H. M. Ricketts, C.B., Charles Silverlock, Charles J. Wade, Edward Woods.

Medals Awarded.—Gold Medal, J. Veitch and Sons for group of

Roses and Maples; Gold Medal, G. Pault and Son for group of Roses; Large Gold Medal, Sir Trevor Lawrence, Bart., for group of Orchids; Silver Flora, W. Paul and Son for cut blooms of Roses; Silver Banksian, Osborn and Sons for group of Plants; Silver Banksian J. Aldous for group of Plants; Bronze Flora, C. Lee and Son for Begonias.

The prevailing cold winds prevented this meeting being very largely attended by exhibitors, nevertheless the collections of plants were sufficiently numerous to occupy one side of the conservatory, and a few were staged in the Council-room. The chief features were the superb group of Orchids from Sir Trevor Lawrence's garden, the Roses from Messrs. Paul of Cheshunt, and the group from Messrs. Veitch of Chelsea.

FLORAL COMMITTEE.

Dr. DENNY in the Chair.

In the conservatory was a grand collection of Orchids from Sir J. Trevor Lawrence, Bart., M.P., Burford Lodge, Dorking, which for vigour, floriferousness, and brightness of colour could not be surpassed. The following are some of the most noticeable specimens: *Dendrobium Jamesianum* on a block had two growths bearing from three to eight large flowers each; *Masdevallia Harryana* with over three dozen large and extremely brightly coloured flowers; *Dendrobium thyrsoflorum* bore numerous enormous pendulous spikes; *Oncidium sarcodes* with a panicle of flowers over a yard in length; *Lycaste Skinneri*, a handsome specimen such as is seldom seen, with nearly forty large blossoms; *Oncidium ampliatum majus* had several large panicles bearing an immense number of large pale yellow flowers; *Lælia cinnabarina* had four racemes of bright orange-coloured flowers; *Odontoglossum citrosmum* and *O. citrosmum roseum* were represented by good specimens, one form of the latter had four fine racemes of flowers, the labellums being very deeply tinged with rose; *Cattleya Mendellii* had two enormous blooms; *Cypripedium caudatum*, handsome flowers with petals more than 2 feet in length. *Odontoglossum crispum* and a superb variety aptly named *grandiflorum* were ex-

hibited in fine condition, also *O. Andersonianum* and *Cattleya Mossiæ* with many others in extraordinary good form. Mr. J. C. Spyers, Sir Trevor Lawrence's Orchid grower, most indubitably understands the requirements of the beautiful plants under his charge. The award of a gold medal indicated the Committee's recognition of their great merit.

Messrs. Veitch and Sons, Chelsea, exhibited a large group of Roses in pots, and numerous beautiful Japanese Acers. Among the Roses some of the best varieties presented were Charles Rouillard, Madame Willermoz, Comtesse de Serenye, Vicomte Vigier, Beauty of Waltham, and Fisher Holmes. The acers included several forms of *A. polymorphum*, notably *flavescens* and *palmatifidum*. A gold medal was awarded. Six boxes of cut Roses were exhibited by Mr. W. Paul of Waltham Cross, comprising over 120 good blooms of the best varieties. The following were especially remarkable for their size, substance, and brightness of colour:—Mdlle. Thérèse Levet, Capitaine Christy; Red Dragon, a new variety, extremely bright; Queen Eleanor very handsome flowers; Souvenir d'un Ami, André Dunard, Star of Waltham, and a very dark-coloured seedling of great size. A silver Flora medal was awarded. Messrs. Paul and Son, The Old Nurseries, Cheshunt, obtained a gold medal for a large group of handsome Roses in pots, La France, Madame Victor Verdier, and Marquise de Castellane being represented by remarkably handsome well-flowered specimens. Cut blooms of *Maréchal Niel* were also shown in fine condition. Messrs. Osborn and Son, Fulham, were adjudged a silver Banksian medal for a group of plants comprising Palms, *Dracænas*, Azaleas, and several good specimens of *Anthurium Schertzerianum*. Messrs. Charles Lee and Son, Hammersmith, sent two pans of *Tuberous Begonias*, *B. Coltoni* and *B. Rodwelli*, both bearing large and brilliantly coloured flowers. For the latter a bronze medal was awarded. From the Society's gardens came a collection of *Primulas* and *Selaginellas* in excellent condition; and Mr. J. Aldous, South Kensington, staged a group of miscellaneous plants, for which a silver Banksian medal was awarded. Messrs. Barr and Sugden had their usual group of *Narcissuses* and *Tulips*.

In the Council-room were staged several new plants, some being extremely attractive. Messrs. Veitch and Sons obtained first-class

certificates for the following — *Lastrea Richardsii multifida*, a pretty Fern with pinnate fronds, the pinnæ crested and light green; *Amaryllis Lady Bolsover*, a handsome variety, flowers large, 7 or 8 inches in diameter, of good form, streaked with scarlet, a broad white band down the centre of each perianth division; and *Azalea Rollissonii*, a dwarf form with small neatly formed bright salmon-coloured flowers, very distinct and attractive. Other good Azaleas were shown, notably *Roi Leopoldi alba* and *A. hydrangeæflora*, the latter resembling the Carmichael hybrids. Mr. J. Cloke, gardener to J. A. Jinne, Esq., Bearley, Liverpool, sent three new pretty Crotons, well coloured but not deemed sufficiently distinct to merit certificates. Mr. W. Bull, Chelsea, several specimens of *Maranta Kerchoveana*, *Sarracenia flava picta*, *Acacia sphærocephala*, and *Drosera filiformis*; for the latter a cultural commendation was awarded. Mr. J. King, gardener to G. Simpson, Esq., Wray Park, Reigate, obtained a first-class certificate for *Coleus George Simpson*, a handsome variety with leaves of good form, extremely bright crimson blotched with maroon, and with a neat crenated yellow margin—very distinct and attractive: one of the few new Coleuses which have been considered worthy of certificates. Sir Trevor Lawrence obtained a first-class certificate for *Odontoglossum hystrix serratum* with large yellow flowers blotched with pale chocolate, petals fringed on the edges—a beautiful Orchid. A cultural commendation was awarded for specimens of *Mignonette* from Chiswick named Hemsley's Giant White, an excellent form and well grown. Messrs. John Standish and Co., Royal Nurseries, Ascot, were adjudged a first-class certificate for a beautiful seedling *Rhododendron* named Snowflake as a forced plant, flowers pure white, open 3 or 4 inches in diameter, in large compact heads; also a second-class certificate for *Rhododendron Flag of Truce*, similar to the other, but bearing smaller flowers. Votes of thanks were accorded to Mr. Hooper, Widcombe Hill, Bath, for a collection of remarkably handsome Pansies; and to Mr. Caudwell for specimens of *Cardamine pratensis*. Mr. J. Elwes, Preston House, Cirencester, obtained a first-class certificate for *Corydalis bracteata*, a hardy plant with pale yellow flowers and bright green leaves.

FRUIT COMMITTEE.

JOHN LEE, Esq., in the Chair.

The duties of the Committee were extremely light, for there were only three exhibits. Mr. Ernst Benary, Erfurt, Germany, sent two dishes of Onions named Zittau Giant Yellow, for which a commendation was awarded as a good keeping variety. Mr. G. T. Miles, gardener to Lord Carington, Wycombe Abbey, Bucks, sent bunches of Black Hamburgh Grapes extremely well coloured, and a basket of Stanstead Winter Cabbage Lettuces in excellent condition, a cultural commendation being awarded for both.

SCIENTIFIC COMMITTEE.

Sir J. D. HOOKER, K.C.S.I., in the Chair.

Injury to Cypress.—Some further statements were made as to Mr. Boscawen's Cypress, Mr. MacLachlan adhering to his previously expressed opinion.

Insects Injurious to Larch.—Mr. Elwes showed specimens covered with eggs of a Chermes, and, in addition, myriads of the larva of one of the Tineinous moths, *Coleophora laricella*, the larva of which mine the leaves, and make cases for themselves out of the cuticle. As the insects are so extremely numerous and cover so large an area, anything like a practical remedy is almost out of the question; but it was suggested by Mr. MacLachlan that setting fire to the long grass might be efficacious.

Tulips.—Mr. Elwes showed specimens of *T. Kolpakowskyana* and of *T. Eichleri*, to show the result of one year's cultivation on the size and form of the flowers, the flower after one year's cultivation being, at least, three times the size that it was originally. Conversely Mr. Elwes had succeeded in reducing the size of the Van Thol Tulip to the diameter of two inches or thereabouts. As an inference of these experiments, as well as of the fact that little or no difference was to be seen between Central Asian and Italian Tulips, Mr. Elwes stated that the characters at present in use to distinguish Tulips are of little weight, and that most of the so-called species would eventually be reduced to geographical forms or varieties.

Specimens Exhibited.—In addition to the species above named Mr. Elwes showed *T. Didieri*, from Savoy; *T. saxatilis*, or an allied species, from Teheran; *Scilla lilio-hyacinthus*; *Fritillaria olympica*, with greenish flowers, from Broussa; *F. pallidiflora*, from Siberia; *F. obliqua*, a plant long known in gardens, but not known in a wild state; it has ascending spirally twisted leaves; *Kolpakowskya ixiolirioides*, a blue flowered plant, with the habit of an *Ixiolirion*; *Cypripedium pubescens*, with two flowers; *Primula mollis*, from Bhotan; *Arnebia echioides*, which has the property of blooming twice or three times in the year; *Streptopus roseus*, various species of *Muscari*, *Erythronium grandiflorum* and *Bomarea Caldasii*.

Renanthera coccinea.—Sir J. D. Hooker showed a portion of a panicle of this superb Orchid grown in Lord Fortescue's garden. The specimen was a remarkably fine one.

Dragon's Blood Tree.—Sir J. D. Hooker also showed a drawing by Professor Bayley Balfour, made in Socotra, of a fine arborescent *Dracæna*, which produces the Dragon's-blood of Socotra. It is the Cinnabar of Dioscorides, Socotra itself being formerly called *Dioscorida*. The Dragon's-blood is used as a varnish.

The Question of the Phylloxera.—Dr. Masters again brought under the notice of the Committee the restrictive laws regulating the introduction of living plants into certain European countries, as also into Cape Colony and Fiji. The futility of the regulations was pointed out as well as the needless injury inflicted on horticulture. Some discussion ensued, and ultimately it was decided that Dr. Masters should represent the matter to the Council on behalf of the committee, in order that the Society might take action on the matter.

MAY 11, 1880.

ORDINARY GENERAL MEETING.

Col. R. TREVOR CLARKE in the Chair.

Elections.—Miss Attye, Isaac Beeman, G. S. Benham, Mrs. F. Birt, E. Blythe, Mrs. Bullar, Wakefield Christy, Mrs. Compton, C. C. Cotton, Mrs. Davenport, James H. Deakin, Walter Derham, B.A., Miss L. Fawkes, E. Gilbert, Patrick Grant, Mrs. Philip Gurdon, Mrs. Fyfe Jamieson, J. M. Lely, Miss M'Dowall, Miss L. A. M'Dowall, Capt. E. Spencer Meara, R.N., Charles Parbury, George R. Peerless, Mrs. Shaw, Hon. Mrs. Jervoise Smith, Lord Sudeley, Richard A. Todd, J. Walker, Mr. Henry Yeames.

Medals Awarded—Gold Medal, J. Veitch and Sons for group of Azaleas; Silver Banksian, Osborn and Sons for group of Plants; Silver Banksian, W. Rapley for group of Calceolarias; Silver Banksian, W. Cannell for baskets of Pansies; Silver Flora, Wm. Paul and Son for cut blooms of Roses.

This Meeting was not distinguished by any extraordinary display either of plants or fruits, yet the latter comprised some excellent Pine Apples and Strawberries, while the former were sufficiently numerous to make one side of the conservatory bright, and several new plants of unusual interest were exhibited. In the conservatory Messrs. Veitch and Sons' group of Azaleas and Maples occupied a large space, and the rich colours of some of the Azaleas were so agreeably softened by the pleasing light green foliage of the Maples that the effect was extremely satisfactory.

FLORAL COMMITTEE.

Dr. DENNY in the Chair.

The plants submitted to the Committee were in excellent condition, although few in number. Messrs. J. Veitch and Sons, Chelsea, exhibited several new plants, and for the following three, first-class certificate were granted—Anthurium Schertzerianum Rothschildianum, a form that has resulted from crossing the ordinary A. Schertzerianum with the white variety, was raised by Mr.

F. Bergman, gardener to Baron Rothschild at Ferrières, France. The leaves resemble the typical species, but the spathe exhibits a combination of the characters of both, for it is white spotted or dusted over with red, and the spadix is yellow. It is certainly very peculiar, but will not surpass the old form in a decorative point of view. *Chionographis japonica*, a pretty little plant with a basal rosette of leaves and long scapes of small white flowers. *Gloxinia Prince of Wales*, a variety of great merit; habit compact and sturdy; flowers erect, very symmetrical in form; colour white, thickly dotted with violet purple. Several other *Gloxinias* were shown by the same firm, notably *Eclatant*, of a rich crimson colour; and *Ariadne*, similar in form to *Prince of Wales*, but dotted with red. A plant of a dwarf *Anthurium* was also sent, named *A. Schertzerianum pygmæum*, about 9 or 10 inches in height, with narrow acute leaves, and narrow brightly coloured spathes. Mr. G. Braid, Winchmore Hill, sent plants of seedling *Pelargoniums* of the type known as "decorative varieties"—namely, those grown for market. They were all in 48-size pots and in vigorous health; but of the three varieties shown only one—viz., *Decorator*, was considered sufficiently distinct to merit a first-class certificate. This was of good habit; trusses large; flowers of good form, petals slightly crimped round the margin, white streaked with rose in the centre. The others, *Criterion* and *Distinction*, were also good varieties and profusely flowered. Mr. Weatherall of Finchley also exhibited some new *Pelargoniums* of the same type. First-class certificates were awarded for the following—*Surnise*, habit compact; truss large; flowers rich scarlet, with a dark blotch on the upper petals: very showy. *Clipper*, trusses neat; flowers rosy crimson, the upper petals being rather brighter, marked with a dark blotch; and Mr. Gladstone, a fine variety, with rosy salmon flowers, produced in noble trusses. A first-class certificate was awarded for a new *Gloxinia* from the Society's garden at Chiswick, which was appropriately named the *Chiswick White*. The plant was in excellent condition in a 24-size pot, and was bearing over two dozen fine flowers and buds. The former were of unusually good form, large and pure white. This appears to be one of the best white varieties yet obtained both in purity of colour and profuseness.

Among the miscellaneous exhibits was a remarkably fine specimen of *Odontoglossum odoratum* from Mr. W. Sherwin, gardener to M. Sparke, Esq., Charlwood House, Liverpool, and for which a cultural commendation was deservedly awarded. It was bearing over two hundred flowers. Mr. H. Cannell, Swanley, Kent, exhibited cut flowers of the pretty double white *Campanula persicifolia*, a very useful plant for supplying pure white neatly formed flowers; also specimens of *Pelargonium cucullatum flore-pleno*, somewhat in the style of the well known Rollisson's Unique; some excellent seedling *Mimuluses*, and a number of new *Primulas* of the *lilacina* type. A vote of thanks was accorded to Mr. Cannell for his collections, and to Mr. R. Dean, Ranelagh Road, Ealing, for collections of hardy flowers, including Wallflowers, very fine; *Primulas*, *Polyanthuses*, and the brightly coloured *Aubrietia violacea*. Messrs. Charles Lee and Son, Hammersmith, sent plants of a new *Lobelia* named Blue Star, very bright in colour, with a white eye; small *Retinosporas*, and specimens of the Golden Box. Mr. E. Bayman, gardener to the Hon. Leveson Gower, Holmbury, Dorking, sent flowers of a seedling *Primula japonica* that were nearly white, being only faintly tinged with purple in the centre.

In the conservatory Messrs. Veitch staged a handsome group of *Azaleas* and *Japanese Maples*, the former including a large number of exceptionally good varieties. Some of the most noteworthy were the following:—*Oswald de Kerchove*, flowering most profusely, colour a pale crimson; *Triomphe de Wondelghem*, a fine double salmon scarlet; *Roi d'Hollande*, very bright red, good flower; *Flambeau*, small flower, but of an intensely rich crimson colour; *Comtesse de Flandre*, *La Rosea*, and *Belle de Roses* are excellent pink varieties with large flowers, white; *Mdlle. Marie Lefebvre* and *Rosa Bonheur* are fine white forms. About seventy pyramidal specimens were exhibited, all very well flowered. A gold medal was awarded for the group. Messrs. Wm. Paul and Son, Waltham Cross, were awarded a silver Flora medal for six boxes of excellent cut *Roses*, comprising about 130 blooms, all very fresh and bright. *Baronne de Rothschild* and *Duchess of Bedford* were admirably represented. Mr. H. Cannell was adjudged a silver Banksian medal for basket of *Pansies*, including *Chieftain*, *Vestal*, *Magpie*, *Yellow*

Boy, and Queen Victoria, varieties of great beauty and shown in fine condition. A silver Banksian medal was also awarded to Messrs. Osborn and Sons, Fulham, for a group of stove and greenhouse plants, pans of the intensely deep blue *Gentiana acaulis* in the front row being especially noticeable. A similar medal was accorded to Mr. Rapley, gardener to J. Brand, Esq., Bedford Hill House, Balham, for a group of *Calceolarias*, well grown, with large flowers, some being very finely coloured. Messrs. Smith and Larke, florists, Kensington, sent bouquets and ornamental baskets of Ferns; and a large group of plants was sent from the Society's garden at Chiswick, comprising some excellent *Gloxinias*, a collection of species of *Pelargonium*, and young plants of *Abutilon Sellowianum marmoratum* in a highly creditable condition as regards vigour and colour.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

A dish of very fine Strawberries was received from Lord Wimborne, Canford Manor, Dorset. They were the President variety, and were from plants which Mr. Hinds, the gardener, stated were wintered without any glass protection and potted the second week in August. Mr. Hinds also sent a dish of William I. Pea grown in 9-inch pots in a cool orchard house, also two dishes of excellent Mushrooms grown from a bed in the open in the ridge form and covered with 9 inches of litter. There was also a fine dish of Veitch's Improved Ashleaf Potatoes. All these objects showed superior cultivation, and were awarded a cultural commendation. Mr. Hudson, gardener to H. J. Atkinson, Esq., Gunnersbury House, Acton, sent seven Queen Pines of excellent flavour which were grown in small pots in a very limited space. They were considered well worthy of a cultural commendation, which was awarded to them. Mr. John Beach Preston, Igtham, Sevenoaks, sent a dish of seedling Tomatoes, which were identified as the same as Hathaway's Excelsior. A letter of thanks was awarded. Mr. Samuel Ledsham of Green Lane, Boughton, Chester, sent several heads of a late Broccoli, which was greatly admired, and it was suggested that

it should be sent again to the next Meeting, when some other varieties will be exhibited along with it for comparison. Mr. Maher, gardener to C. Allhusen, Esq., Stoke Court, Slough, sent dishes of Hunt's Tawny Nectarine and Crawford's Early Peach, also a dish of President Strawberry. They were considered very good, and received a cultural commendation. Mr. Miller, gardener, Clumber, Notts, sent fruit of Passe Colmar, Ne Plus Meuris, and Winter Nelis Pears, and Vicomtesse Hericart de Thury Strawberry, to which a letter of thanks was awarded. A very interesting collection of European fruits grown in South Australia was exhibited by Mr. George Shelton of Commercial Street, Mount Gambier. It consisted of a dish of Apples, Uvedale's St. Germain Pears, Sultana or Jordan Almond, yellow Danvers Onion, and two varieties of Potatoes. A special letter of thanks was awarded.

SCIENTIFIC COMMITTEE.

ARTHUR GROTE, Esq., in the Chair.

The Phylloxera Question.—Dr. Masters brought up a report for presentation to the Council, detailing the steps taken by various foreign and Continental Governments, with a view to prevent the ingress and spread of the Phylloxera, and pointing out the unnecessary and even absurd restrictions imposed on the transit of living plants by some Governments. The report was adopted, and ordered to be laid before the Council.

The Winter and the Plants.—Dr. Masters laid on the table copies of the circulars drawn up with a view of eliciting information as to the effects of the late winter on various plants. These circulars can be had on application to the Secretary. Mr. G. F. Wilson suggested that information as to "unexpected survivals" should also be solicited. It was mentioned that this information could be inserted in the "remarks column." Dr. Gilbert alluded to the effect of the wet season of 1879 on the Wheat crops. In general terms the yield at Rothamsted was not half an average, though the straw was not correspondingly deficient, at least where manure was applied. An examination of the drain-water collected for the

purpose showed that a large proportion of the nitrogen supplied in the manure was washed out of the soil by the rainfall, as a consequence of which the analysis of the grain showed but a small quantity of nitrogen in proportion to the quantity applied in the manure.

Unhealthy Condition of Plants.—A letter was read from Mr. Tonks, detailing the ill-success which had befallen him in cultivating various plants where formerly he was very successful. The letter conveyed no hint as to the cause of the misfortune, which probably could only be discovered on the spot.

Parasite on Sempervivum.—Mr. W. G. Smith alluded to a parasitic fungus, *Endophyllum sempervivi*—a rare plant, but which when introduced into the greenhouse had proved very destructive to species of *Sempervivum*.

Gall on Eucalyptus.—Dr. Masters showed a remarkable fusiform gall on a species of *Eucalyptus*, and which had been sent to him by Baron von Mueller. It was referred to Mr. MacLachlan for report.

Plants Exhibited.—Rev. H. Harpur-Crewe showed *Tulipa Orphanidesi*, *Fritillaria Ehrharti* from Syra with a small bell-shaped purplish flower edged with green; various species of *Muscari*, as yet unnamed; and a white variety of *Scilla italica*. Messrs. Veitch showed the elegant *Chionographis japonica*, introduced from Japan by Mr. Maries. It is a perennial, of tufted habit, with oblong-ovate, acute, wavy-margined, glabrous leaves, and an erect flower-stalk 12—18 inches high, with scattered lanceolate bracts, and terminating in a linear spike of sessile white flowers, each flower with six linear narrow white segments. *Anthurium Scherzerianum pygmæum*, also from Messrs. Veitch, was shown. Its very narrow leaves and spathe, and its spadix stalked above the spathe, were points, irrespective of size, in which it differed from the ordinary form, and which secured for it the award of a Botanical Certificate. Another *Anthurium* was shown, a cross between the ordinary *A. Scherzerianum* and the white variety; in this case the spathe was spotted with small red spots on a white ground. A curiously twisted variety of *Cryptomeria japonica* was also shown; the variety is figured in Siebold and Zuccarini's *Flora Japonica*.

MAY 17, 1880.

POPULAR FLOWER SHOW.

Medals Awarded. — Whit-Monday Show, May 17th. — Silver Banksian, J. Veitch and Sons for group of Azaleas; Silver Banksian, General Horticultural Company, (J. Wills,) Limited, for group of Plants; Bronze Banksian, Osborn and Sons for group of Plants; Bronze Banksian, H. Cannell for group of Plants.

With a liberality that is unquestionably highly appreciated the Council of the Society gave admittance to the Gardens at South Kensington on Whit-Monday at the nominal price of 2*d.* each person, and provided a flower show into the bargain. The weather having been of the most favourable character thousands of sight-seers visited the Gardens, and crowded round the tables containing the groups, criticising and admiring the many choice plants and splendid examples of culture provided by the nurserymen and growers of plants for market who shared in producing the display. The prizes were exclusively provided for the market growers and decorative florists, and included four silver cups, but the classes were few in number and the competition was not brisk, yet the collections reached nearly the entire length of the eastern arcade, and as arranged on tables could be seen to as great advantage as the dense crowds permitted. The silver cup, value eight guineas, for a group of decorative plants arranged for effect, was well won by Mr. Aldous, florist, Gloucester Road, South Kensington. It was a free and informally arranged group, the taller plants consisting of Palms and *Acer Negundo variegata*; the smaller and what may be termed the undergrowth, comprising *Liliums umbellatum* and *candidum*, *Pelargoniums*, *Spiræas*, *Calceolarias*, *Ericas*, *Ferns*, *Marguerites* with a few prominent examples of *Saxifraga pyramidalis* and *Richardias*, the whole being fringed with *Isolepis gracilis* and *Selaginellas*.

In the class for a group of not less than fifty show *Pelargoniums* Mr. W. Brown, Hendon, was in the premier position with a magnificent collection of nearly a hundred plants, most of which

were in 5-inch pots, only a few being in 32's. The plants averaged 18 inches in diameter and about the same in height. They were dense masses of fine flowers, with foliage of remarkable health and vigour that almost covered the pots, not a leaf apparently having been lost since the cuttings were inserted. The varieties were not numerous, and were principally of the "decorative" type. The best lights were Duchess of Edinburgh; Starlight (Page), a new variety with a dense blotch on the upper petals; and Morning Star (Brown), also new and very beautiful, the white petals having only faint pink blotches. The darker varieties were Duchesse de Morny, pink; Emilie Everard, scarlet; Fascinator, maroon and crimson; Trophy, reddish crimson, new and good; Mabel, velvety maroon, smooth and fine; Sentinel, rosy purple; Rival, red, very effective; George Beckwith, pale scarlet, large flowers and trusses; George Strudwick, and some unnamed seedlings. Messrs. J. and J. Hayes of Edmonton were an excellent second with dwarf sturdy floriferous examples. These exhibitors who contributed so powerfully to the success of the Exhibition, had the stage to themselves for zonals with fifty plants of Vesuvius in 5-inch pots, each plant having ten to twelve open trusses—a brilliant bank. They had also the first prize for Fuchsias with fifty plants of remarkable quality, vigorous pyramids and bushes 18 inches by 2 feet high clothed with dark foliage and laden with splendid flowers. Only a few varieties were included. The best lights for market and decorative purposes being Lady Heytesbury and Starlight; the best darks, Improvement and Roderic Dhu. Wave of Life and Sedan were also good; and the double variety Avalance was very fine. Messrs. Hayes also won the special prize given by the proprietors of Clay's fertiliser with a mixed collection, the plants showing the excellent effects of this manure, which is largely employed by market growers.

In addition to the competitive groups, Mr. Howard of Southgate had an extra prize for a collection of the new Golden Marguerite *Chrysanthemum frutescens Etoile d'Or*, which has been certificated this spring. There are two varieties of this popular flower, the one grown by Mr. Howard being the "right one," and the "run" on it is now great. Messrs. Veitch and Sons had a silver

Banksian medal for a group of large Azaleas, which were evidently a treat to the visitors; the General Horticultural Company having a similar award for a rich and varied assortment of ornamental-foliaged plants, Ferns, and Gloxinias. Messrs. Osborn a bronze Banksian medal for a group of hardy plants, in which Saxifraga Wallacei, the finest of the Mossy Saxifrages, was well shown; and Mr. Cannell also had a bronze medal for a collection including dwarf and remarkably fine examples of Primula amœna grandiflora, and P. amœna lilacina magnifica, the finest varieties we have seen of this valuable Primula; and cut flowers arranged in bold bouquet-like mounds of large Gloxinias and richly spotted Mimuluses, the gorgeous colours of the latter appearing to astonish the visitors who crowded round this collection. Mr. Wooler of Sadberge Park, Darlington, was adjudged an extra prize for hose-in-hose Oxlips and Polyanthuses, which also found a host of admirers.

Never was a show more greatly admired than this, and the crowds enjoyed in the most commendable manner the great treat afforded them. The Show was well managed by Mr. Barron, and Mr. Dick and other officials of the Society exerted themselves to render the affair what it decidedly proved to be—a great success.

MAY 25TH, 1880.

ORDINARY GENERAL MEETING.

WILLIAM HAUGHTON, Esq., in the Chair.

Elections.—William Phipps Boileau, Ashley Francis Brereton, George Henry Brooks, William Brown, Clifford W. Chaplin, Mrs. Clowser, Thomas Fletcher, Miss May Forsyth, Edmund F. B. Fuller, Countess Howe, W. Guy C. Kirkwood, J. L. Mathews, Mrs. Montagu M'Murdo, Capt. W. B. M'Taggart, Lieut.-Gen. Sir H. W. Norman, Christopher Pond, Mrs. Pond, Miss Pond, John Scott, Mrs. Scott, William S. Staff, Edward H. Woodall.

Medals Awarded.—Silver Medal, G. N. Wyatt for Odontoglossum

Vexillarium; Large Gold Banksian, Charles Turner for group of Pot Roses; Gold Medal, B. S. Williams for group of Plants; Gold Medal, General Horticultural Company, (J. Wills) Limited, for group of Plants; Silver Gilt Flora, J. R. Bird, gardener to J. A. Caston, Esq., for group of Calceolarias and Mignonette; Silver Banksian, W. Cutbush and Son for group of Plants; Silver Banksian, J. Aldous for group of Plants; Bronze Medal, W. Miles for group of Mignonette and Pelargoniums.

One of the most extensive and beautiful shows held during the present year was that of the above date, when a very large number of plants were staged both in the Council-room and the western arcade beyond the conservatory. Among the handsome groups exhibited by the nurserymen the chief attractions were the grand Roses from Mr. C. Turner of Slough, which as arranged along one side of the arcade contributed a display of extraordinary merit. Many other collections of unusually fine plants were contributed; the new plants in the Council-room also attracted considerable attention from the numerous visitors. All the groups in the arcade remained on view until after the conversazione.

FLORAL COMMITTEE.

DR. DENNY in the Chair.

In the Council-room numerous collections of plants were staged, especially noticeable being the group of new plants and Gloxinias from Messrs. Veitch and Sons, Chelsea. Mr. B. S. Williams, Upper Holloway, contributed a collection of hybrid *Nepenthes*, distinct and good; also several new plants. A vote of thanks was accorded to the General Horticultural Company for a group of new Gloxinias, one of which, rich purple with a white throat, was especially noticeable. G. Nevile Wyatt, Esq., Lake House, Cheltenham (gardener, Mr. Simcoe) sent a handsome specimen of *Odontoglossum vexillarium*, bearing fourteen long racemes of large deeply coloured flowers, over one hundred of which were fully expanded. The great merit of this fine specimen was recognised by the Com-

mittee, who recommend the award of a silver medal. A raceme of *Odontoglossum Alexandræ* bearing extremely large flowers was also shown, and a vote of thanks was accorded. Mr. Goodacre, The Gardens, Elvaston Castle, Derby, had some small *Stephanotis* in thumb pots, bearing from four to six trusses of flowers. The shoots were trained over an arched stick, and the value of such plants for decorative purposes can scarcely be overestimated. A vote of thanks signified the Committee's recognition of their merit. Mr. Braid of Winchmore Hill exhibited a group of decorative *Pelargoniums*. Messrs. Laing and Co., Forest Hill, sent a collection of dwarf compact *Calceolarias* and handsome seedling *Begonias*. Mr. Yeary, gardener to the Earl of Portsmouth, Eggesford, Devon, staged a variety of *Betula alba* with "golden" variegated foliage. Messrs. J. Garaway and Co., Durdham Down Nurseries, Bristol, sent a Horse Chestnut with yellow and green variegated leaves. Messrs. Saltmarsh and Son, Chelmsford, had a group of seedling *Begonias*, and Mr. Henry Hooper of Bath exhibited a collection of Pansy blooms; and a vote of thanks was accorded to Mr. Bergman, gardener to Baron de Rothschild, Ferrières, France, for a fruit of *Encephalartos Altensteinii*, which was about 2 feet long and 1 foot in diameter, cylindrical, and apparently full of seeds. Messrs. Carter and Co., High Holborn, sent plants of *Mimulus Ruby* with very large flowers, and a collection of *Neriums* was brought from the Society's gardens at Chiswick, with a number of cuttings struck in silver sand and in Cannell's sea sand, there being but little difference perceptible between the two batches, but those in the sea sand appeared in some instances slightly more vigorous.

First-class certificates were awarded to the following exhibitors for the undermentioned plants—Messrs. Veitch and Sons, for Clove Carnation Sir Archibald Grant, a variety with neat flowers of rich deep maroon colour; and *Erigeron pulchellus*, a pretty little Composite with long narrow leaves and orange-coloured capitula, and for *Lastræa Maximowiczii*, *Trichomanes parvulum*, and *Yucca filamentosa aurea elegantissima*; Mr. W. Bull, Chelsea, for *Cereus* C. M. Hovey, a variety with very large rich purplish-crimson

flowers; Mr. B. S. Williams, for *Nepenthes atro-sanguinea*, a hybrid with pitchers of moderate size, elegant form, and richly coloured; Mr. J. Braid, Winchmore Hill, for a decorative *Pelargonium* named *Defiance*, with large scarlet pink-shaped blooms borne in good compact trusses; Messrs. Laing and Co., for a white *Begonia* named *Mrs. Laing*; Mr. Brown of Hendon for *Pelargonium Attraction*, a variety with neat flowers of an unusually rich crimson-scarlet hue in trusses of great size; Mr. W. Miles, West Brighton, for a new Zonal *Pelargonium* named *West Brighton Gem*, which is dwarf and compact in habit, with fine trusses of bright scarlet flowers somewhat in the way of *Vesuvius*.

Taking the groups in the order they were arranged in the western arcade, the first to be noticed was the group from Mr. B. S. Williams, which was particularly interesting from the large number of new and choice plants it contained. Fine-foliage plants, such as *Crotons*, *Dracænas*, *Ferns*, and *Palms*, were well represented, *Orchids*, *Amaryllises*, and *Anthuriums* contributing a very bright effect. The beautiful *Dendrobium Parishii* on the stump of a *Tree Fern* was bearing a profusion of its purplish flowers, *D. tortile* also being shown in fine condition with its peculiar scoop-shaped lip and twisted sepals and petals. *Aërides Fieldingii* had three fine spikes of flowers, and several others were also noticeable. The pretty *Eurycles Cunnighami* had two umbellate scapes of neat white flowers, in the centre of each being a small yellowish tube. A pan of insectivorous plants was exhibited, including *Droseras*, *Sarracénias*, *Darlingtonias*, and *Cephalotus* in excellent health; while *Amaryllises*, and such handsome *Crotons* as *Williamsi*, *Disraeli*, *Rex*, and *Evansianus* were uncommonly fine. *Microlepidia hirta cristata* was well represented with a number of *Dracænas*, &c. A gold medal was awarded for this fine group. The General Horticultural Company also secured a gold medal for a large and extremely elegant group arranged in a light pleasing style. The background was composed of handsome *Dracænas*, *Crotons*, and *Palms*, with rows in front of *Gloxinias*, and *Maidenhair Ferns* intermixed. About sixty plants of *Gloxinias* were exhibited, nearly all distinct, and including some remarkably fine varieties in colour, size of flowers, and substance.

In the centre of the group was a good specimen of *Scutellaria Mocciniana* very well flowered.

A very large bank of Roses was exhibited by Mr. Charles Turner, Slough, including about fifty specimens. They were all in superb condition. The giant of the group was the central huge example of Charles Lawson, 6 or 7 feet high and the same in diameter, extremely well flowered. The other most noticeable plants were Edouard Morren, grand; John Stuart Mill, extremely bright; Duke of Edinburgh, rich colour; Celine Forestier, profusely flowered; Paul Verdier, very fine; Juno, bearing a great number of flowers; and Camille Bernardin, fine flowers and good colour. For this magnificent collection of Roses a large gold Banksian medal was deservedly awarded. Messrs. Wm. Cutbush and Son of Highgate contributed an elegant group of plants, in which two very fine specimens of *Statice Holfordi* were especially noticeable for the rich colour and profusion of the flowers. Two healthy examples of the handsome *Araucaria excelsa glauca* were also conspicuous. Small Ferns, Ericas, Coleuses, and Caladiums formed the margin. A silver Banksian medal was accorded by the Committee. Mr. Wm. Miles, West Brighton Nursery, was adjudged a bronze Banksian medal for a group of his Hybrid Spiral Mignonette in excellent condition, very vigorous and compact, with long spikes of extremely fragrant flowers. Examples of the new Zonal Pelargonium named West Brighton Gem, referred to above, were also shown. A silver Banksian medal was accorded to Mr. Aldous, South Kensington, for a pretty group of miscellaneous plants; and Mr. Prewett, nurseryman, Hammersmith, W., sent three boxes of very large and handsome Maréchal Niel Roses, for which a vote of thanks was accorded.

The only amateur's group of plants was the beautiful collection of *Calceolarias* and Mignonette from Mr. J. R. Bird, gardener to J. G. Causton, Esq., Lodgemore, Alleyn Park, West Dulwich, for which a silver-gilt Banksian medal was deservedly awarded. The *Calceolarias* were uncommonly excellent both in habit, size, form, and colours of the flowers, and general vigorous healthy condition. The Mignonette was grown in 24-size pots and trained as standards about 3 feet high, with a conical head covered with long spikes of flowers. The plants were fifteen months old, and evinced careful

attention to their requirements. The last group along the arcade was one from the Society's garden, containing a number of Pelargoniums, handsome Saxifrages, Gloxinias, Ferns, &c., well grown and tastefully arranged.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

Mr. S. A. Woods, gardener to F. J. S. Foljambe, Esq., Osberton Hall, Worksop, sent a seedling Melon called "Luscious and Melting," but it was too ripe to enable the Committee to form an opinion on its merits. A red-fleshed Melon was sent by Mr. Gilbert of Burghley Gardens, Stamford, called Excelsior, but it was not of sufficient merit to gain a certificate. Mr. McIndoe, The Gardens, Hutton Hall, Guisborough, sent a seedling Melon called Marcellus; it is a white very firm-fleshed variety, but of very little merit. Mr. Miller, The Gardens, Clumber, sent a dish of Dr. Hogg Strawberry, and a letter of thanks was awarded. Mr. John Simms, gardener to W. B. Eastwood, Esq., Kingswood, Englefield Green, sent Strawberry President, twenty-four fruits weighing 2 lbs. A cultural commendation was awarded. Mr. F. H. Froude, gardener to C. G. Lockhart, Esq., The Elms, St. Albans, sent a dish of Mushrooms grown in a disused cattle shed without any artificial heat. A letter of thanks was awarded. Mr. Walter Child, gardener, Croome Court, Worcester, sent two Cucumbers, the result of a cross between Duke of Edinburgh and Tender and True. It was not considered superior to others in cultivation. Mr. J. Ledsham, Green Lane, Chester, again exhibited his Broccoli, but as there were no others to compare with it no decision was come to.

SCIENTIFIC COMMITTEE.

SIR J. D. HOOKER, K.C.S.I., in the Chair.

Gall on Eucalyptus.—Mr. MacLachlan reported that the spindle-shaped gall sent by Baron Von Mueller, was probably the work of a cynips, which had perforated the young flower-buds. Some of the

galls contained a larva of a dipterous insect, itself attacked by a parasitic hymenopterous insect.

Colchicum as a Cattle Poison.—Dr. Masters showed specimens of *Colchicum* from a field in Lincolnshire, where cattle had died in consequence, it was believed, of eating the foliage of a plant recognised as *Colchicum autumnale*.

Dionæa.—Messrs. Veitch showed a specimen with a double lamina to the leaf.

Cytisus Adami.—Sir Joseph Hooker showed a specimen, showing the intermediate *C. Adami* and one of the parent forms, *C. purpureus*, growing on the same shoot.

Tulip.—Col. Trevor Clarke showed a large flower of a Tulip originally grown by Mr. Jas. Carter, to whom it had been given by Mr. Strangways.

Puccinia Violarum.—Mr. MacLachlan exhibited leaves of the Violet affected with this fungus in a young state.

CONVERSAZIONE.

THE CONVERSAZIONE OF THE ROYAL HORTICULTURAL SOCIETY, held in the Gardens at South Kensington on Wednesday evening of May 26th was highly successful and unusually brilliant. Numerous attractions were provided, and the weather proving favourable induced a large company of visitors to assemble. In the western arcade the numerous handsome groups of plants from Mr. B. S. Williams, Upper Holloway, The General Horticultural Company, Messrs. Cutbush and Son, Highgate, and Messrs. Veitch and Son, Chelsea, were greatly admired, especially that from the latter firm, which was composed of Japanese Maples and Gloxinias, with large clusters of *Anthurium Schertzerianum* that produced a very brilliant effect. Mr. C. Turner's Roses also constituted a great attraction, the rich colours of the different varieties appearing to excellent advantage under the electric light. In the eastern arcade the members of the Quekett Microscopical Club kindly attended with their microscopes and a number of interesting objects. An excellent selection of vocal and instrumental music was performed in the con-

servatory, and the garden was brightly illuminated with four of Messrs. Siemens Brothers' large electric lamps, and coloured fires were also judiciously employed at intervals. In the east crush room of the Royal Albert Hall there was an exhibition of statues, &c., showing the effects of "Balmain's Luminous Paint," which attracted considerable attention.

JUNE 8, 1880.

ORDINARY GENERAL MEETING.

Sir CHARLES STRICKLAND, Bart., in the Chair.

Elections. — Thomas Ayres, Mrs. Begley, Richard Blackwood, William Blake, Mrs. Bourne, Capt. Cecil, H. Bunbury, R. Henn Collins, Mrs. Alfred Illingworth, Mrs. Laura Kelly, Mrs. Lely, Auguste Leon, Mrs. Lucena, George A. Macmillan, Miss Grant Morris, Miss E. J. Read, William Roebuck, John N. Rogers, Mrs. Sendall, Lady Maria Spearman, Robert Whyte.

Medals Awarded. — Gold Medal, Sir Trevor Lawrence, Bart., M.P., for specimen of *Cattleya gigas*; Gold Medal, James Carter and Co. for a collection of *Coleus*; Silver Banksian, W. Cutbush and Son for group of Plants; Silver Banksian, W. Rapley (gardener to J. Hudson, Esq.) for group of Plants; Gold Medal, W. Bull for group of New and Rare Plants; Silver Banksian, H. Boller for group of Miniature Succulents; Silver Flora, J. James (gardener to Mrs. Watson) for group of *Calceolarias*; Gold Medal, General Horticultural Company, (J. Wills), Limited, for group of Plants; Silver Gilt Banksian, H. Lane and Son for group of Pyramidal Ivies; Silver Flora, B. S. Williams for group of Plants; Bronze Flora, F. and A. Smith for group of *Pelargoniums*; Silver Banksian, Mrs. Pearson for group of *Pelargoniums*; Silver Gilt Flora, J. Aldous for

new designs in Table Decorations &c; Silver Flora, Kelway and Son for a collection of Pyrethrums (cut blooms); Silver Gilt Flora, Foster and Pearson for span-roofed Greenhouse, Plant Pits, Patent Valves, &c.; Silver Banksian, T. Clarke for Patent Excelsior Lawn Mower; Silver Banksian, Meadow Foundry Company, Limited, for new Throttle Valve; Silver Flora, J. C. Fox for Rustic Summer Houses.

JUNE 8th, 9th, 10th, and 11th.

GREAT SUMMER SHOW.

Although the Show was held nearly a fortnight later than the principal event of last year, and consequently the magnificent Roses that constituted the chief feature of that Exhibition were absent, yet a show of great extent, richness, and variety was arranged in the great marquee, and the large tent 500 feet in length which led to it. Besides the Roses, the season for which was too late (yet Mr. George Paul exhibited well), one missed the telling masses of Clematises and the superb collection of choice plants of Messrs. Veitch, and some Azaleas, yet the "effect groups" were more numerous than last year; the stove and greenhouse plants were better; Orchids more largely represented and rich; Tuberous Begonias finer—indeed magnificent; Calceolarias better, and Ferns were fully equal to those previously exhibited. Fruit was also exhibited in much larger quantity and of superior quality, and vegetables were excellent. Thus the Show on the whole was an admirable one, and clearly proved that the "old Society" enjoys the confidence of the leading cultivators; and the Council may well have been satisfied with the response to their efforts to produce a display as large and varied as possible, and to make provision for the greatest number of those interested in horticulture to visit it. The Exhibition was well arranged, and reflected credit on all who shared in

its management. The attendance on the opening day was large and distinguished, notwithstanding that heavy rain occurred about the time of its opening, but the day was afterwards fine. An exhibition of this nature not only gives much pleasure, but is highly instructive to those identified with or interested in horticultural pursuits.

ORCHIDS.—These were staged in considerable numbers, and many of them were of high quality. They constituted an important feature of the Exhibition, and attracted crowds of admirers. In the nurserymen's class for ten Orchids, distinct, Mr. B. S. Williams, Holloway, was placed in the foremost position with a splendid group, consisting of *Cattleya Mossiæ* *superba*, with twenty-five flowers; *C. Warneri*, with twelve grand blooms; *Odontoglossum vexillarium* and *O. Alexandræ*, fine; *Masdevallias Harryana cærulescens* and *Veitchiana*; *Cypripediums barbatum*, *superbum*, and *niveum*, fine masses; *Orchis foliosa*, with nearly thirty spikes; and a huge dazzling potful of *Epidendrum vitellinum majus*. Messrs. T. Jackson and Son, Kingston, Surrey, were placed second. In this group *Dendrobium thyrsoflorum* had thirteen fine racemes; *Masdevallia Harryana*, very rich; *Cattleya Warneri*, a grand dark variety; a capital example of *Odontoglossum vexillarium*, *Aërides Dayanum*, *Saccolabium præmorsum*, *Calanthe veratrifolia*, *Cypripedium barbatum*, *Epidendrum vitellinum-majus*, and *Oncidium seligerum*, all attractive. Mr. Henry James, Castle Nursery, Lower Norwood, was placed third with smaller examples.

In the open class for fifteen Orchids Mr. Douglas, gardener to F. Whitbourn, Esq., Loxford Hall, had the chief position with a beautiful group, the flowers very fine, fresh, and well coloured. *Dendrobium thyrsoflorum* has twelve grand racemes, and very conspicuous is a towering and well-flowered specimen of *D. Dalhousianum*; *Cypripedium caudatum roseum* has remarkably fine flowers; a good *C. villosum*; *Odontoglossum vexillarium*, *O. roezlii album* (the latter with twelve flowers) very chaste, *O. crispum*; *Aërides Fieldingii*, *Lælia cinnabarina*, *Masdevallia Harryana*, *Orchis foliosa*, *Dendrobium Bensonæ*, a good plant of *Cattleya Warneri*, and *Epidendrum vitellinum majus* complete the group. Mr. Henry James was a good second, his collection containing a fine mass of *Cattleya Mossiæ*, *Vanda suavis* with fine flowers, Den-

Drobium suavisimum in excellent condition and extremely bright, *Epidendrum prismatocarpum*, *Anguloa Clowesi*, and some others the same as those above enumerated. Mr. Rutland, gardener to the Duke of Richmond, Goodwood, was placed third with a neat group containing some good plants, notably of *Brassia caudata*, *Vanda suavis*, *Lælia purpurata* (very rich), a large piece of *Oncidium sphacelatum*, *Odontoglossum vexillarium*, three good spikes from one growth with nineteen fine flowers; *Dendrobium densiflorum*, *D. nobile*, and a few smaller examples.

In the amateurs' class for ten Orchids the first position was gained by Mr. Reeves, gardener to C. Hart, Esq., Beaufort House, Leyland Road, Lee, with *Masdevallia Harryana* var. *Bull's Blood*, very fine; *M. Veitchiana*, grand flowers; *Odontoglossum cirrhosum*, *O. Halli*, *O. vexillarium*, *O. Alexandræ*, *O. pescatorei*, *Epipendrum vitellinum majus*, and *Cypripedium niveum*. Mr. Reeves is evidently an excellent grower, the plant being healthy but not large, and all the flowers fine. Mr. Child, gardener to Mrs. Torr, Garbrand Hall, Ewell, was second, his noteworthy plant being a fine specimen of *Aërides Fieldingii*, with half a dozen fine branched spikes and very beautiful.

For a group of *Odontoglossum* Mr. W. Bull, Chelsea, obtained the premier award with an extremely attractive and tastefully arranged collection. A large number of species and varieties were represented, all in first-rate condition, and among them the most noticeable were *O. vexillarium*, *O. Phalænopsis*, *O. Alexandræ*, *O. cordatum*, and *O. cristatellum*. These were arranged with small plants of *Adiantum cuneatum* and *gracillimum*, the general appearance being most elegant and pleasing. The second prize in this class was won by Mr. Heims, gardener to F. A. Fillbrick, Esq., 26, Avenue Road, Regent's Park, with a group of small but fresh plants, and very attractive.

STOVE AND GREENHOUSE PLANTS.—These were well represented, and the specimens generally were uncommonly fresh and vigorous, and the colours bright. Some of the specimens were also bearing a profusion of flowers, although the majority of the *Azaleas* were somewhat deficient in number of flowers. The most important class was that for twelve distinct species and varieties, and in this

there were four exhibitors, all staging collections of healthy specimens. The chief honours were obtained by Mr. Tudgey, gardener to J. P. G. Williams, Esq., Henwick Grange, Worcester, who sent very even and handsome specimens, among which the following were especially noticeable—*Pimelea decussata*, over four feet in diameter, vigorous and profusely flowered; *Dracophyllum gracile*, similar in size, a handsome symmetrical plant; *Erica ventricosa magna* in fine condition, the flowers not being, however, very numerous but of rich colour; *Erica Parmentieriana rosea*, an enormous specimen over 5 feet in diameter, very healthy but poorly flowered; *Erica elegans* was very even and neatly trained; and *Clerodendron Balfourianum*, well flowered and healthy. Messrs. J. Jackson and Son, Kingston-on-Thames, followed with a very creditable collection, well grown and fairly well flowered. The beautiful and rarely seen *Statice Butcherii* was well represented by a neat plant, the rich purple colour of the flower being very conspicuous. *Boronia pinata* was also noteworthy. Messrs. J. Peed and Son, Roupell Park Nurseries, Norwood Road, were awarded the third prize for a collection that contained several plants in first-rate form as regards the number and quality of the flowers. A large specimen of *Anthurium Schertzerianum* with unusually fine richly coloured spathes was very attractive, and formed the chief feature in the group; a moderate sized plant of *Azalea Jackson's Crimson* was also notable for the bright hue of the blooms.

In the nurserymen's class for eight specimens the chief position was occupied by Messrs. B. Peed and Son, Norbury Nurseries, Lower Streatham, among whose plants handsome specimens of *Erica Cavendishiana* *Dracophyllum gracile*, and *Allamanda grandiflora* were deserving of notice. The *Dracophyllum* in particular was in splendid condition, nearly 6 feet in diameter, and bearing an immense number of flowers. Messrs. Jackson and Son were placed second with neat specimens that exhibit very careful training. In the corresponding class devoted to amateurs' productions Mr. Tudgey was again in the foremost position with smaller specimens than those in his other collections, but in excellent form. The beautiful *Dipladenia hybrida* had flowers of great size and rich colours, although comparatively few in numbers; and of the other

specimens the best was the pretty semi-double white Azalea Flag of Truce. The second award of merit was obtained by Mr. Child, gardener to Mrs. Torr, Garbrand Hall, Ewell, whose plants approached those of Mr. Tudgey very closely in quality. Azalea Iveryana was especially fine, Erica magnifica and Clerodendron Balfourianum being also symmetrical and well flowered. The third prize was accorded to Mr. C. Rann, gardener to J. Warren, Esq., Handcross Park, Sussex. Most of the plants in this collection were remarkable for their freshness and vigour, Statice profusa being uncommonly attractive. There were four entries.

AZALEAS.—Three classes were devoted to Azaleas, but very few specimens were exhibited. Mr. Charles Turner, The Royal Nurseries, Slough, the only exhibitor of fifteen specimens in 12-inch pots, was awarded the chief prize for his customary neat and well-flowered plants, which were in admirable condition. The finest specimen was one of the handsome variety Duc de Nassau, in which the flowers were of extraordinary size, rich colour, and very abundant. Mr. Child had the only collection in the amateurs' class.

ERICAS.—Several very fine collections of these plants were exhibited. Mr. Tudgey had the best eight specimens, all very neat and healthy, but none calling for special comment except Erica Cavendishiana, profusely flowered and of good colour. Messrs. Jackson and Son were second with a neat collection; and Messrs. B. Peed and Son were accorded the third prize for a collection of moderate quality, a plant of Erica ventricosa magnifica being the most remarkable.

PELARGONIUMS.—Although these were not very numerous the specimens exhibited were of great merit, and constituted a most attractive group on one side of the marquee. The two classes devoted to nine Show and Fancy varieties respectively were both open, but the competitors were not so numerous as might have been expected. For nine Show varieties in pots not exceeding 8 inches in diameter, Mr. Wiggins, gardener to H. Little, Esq., Hillingdon Place, Uxbridge, held the premier position, his specimens being characterised by the usual freshness. The blooms were large and the colour remarkably fine. Hermit was very attractive;

Prince Leopold uncommonly bright; Claribel, chaste, and bearing a large number of flowers; Rob Roy, excellent; Princess of Denmark and Hebe, also fine. Mr. C. Turner followed with a smaller specimen but equally fresh and bright, the handsome variety Prince Leopold being still better represented than in Mr. Little's group, Messrs. J. Peed and Son taking the third place with small plants. In the corresponding class for Fancy varieties Mr. Little was again first with the only collection that was staged. These plants were in most vigorous health and well flowered, Ellen Beck and Lucy being unusually fine.

ROSES.—The only exhibitors of Roses in pots from nurserymen were Messrs. Paul and Son of Cheshunt, who had two handsome collections, which formed a large semicircular group at the east end of the marquee. The nine large specimens were in fine condition, the flowers being generally of good substance and the colours bright. The most noteworthy were Marie Rady, excellent colour; Anna Alexieff, well flowered; and Madame Thérèse Levet, flowers of good form. The central specimen of Céline Forestier was rather bare at the lower part. The collection of twenty small plants was extremely good, a fine selection of varieties being admirably represented. The flowers were large, of bright colour, and abundant. Only two collections of six plants in pots from amateurs were exhibited, and of these that from G. P. Hawtreys, Esq., of Aldin House, Slough, was accorded the first prize. They were in excellent condition considering the unfavourable season, the foliage being extremely vigorous, and the blooms of fine size and substance. The best varieties represented were Edouard Morren, Hippolyte Jamain, Juno, and François Treyve. Mr. Tranter, Upper Assenden, Henley-on-Thames, followed with smaller but good plants.

BEGONIAS.—In the class for a group of Tuberous Begonias there were three exhibitors, Messrs. John Laing and Co., Forest Hill, occupying the chief position with very handsome plants representing all the best varieties in commerce. A large number of unnamed seedlings of unusual merit were also shown. The best of the varieties were Devoniensis, J. W. Ferrand, Madame Hunnebell, Mrs. Laing (fine white), Colstonii, and Countess of Rosslyn (very large, pale pink). This very handsome group attracted great

attention. Mr. H. Coppin, nurseryman, Shirley, Croydon, followed with a collection that included many excellent plants, W. E. Gladstone and Rêve d'Or being especially noticeable. Messrs. Hooper and Co., Covent Garden, were third with a very good selection of varieties.

HERBACEOUS AND ALPINE PLANTS.—The two groups of these plants were greatly admired, as hardy plants invariably are. Messrs. Osborn and Sons, Fulham, held the chief position with a handsome collection. The most attractive of the numerous plants shown being the following:—*Saxifraga nepalensis* with immense panicles of its white flowers; *Veronica neglecta* with long spikes of purplish blue flowers; *Verbascum phœniceum*, a very beautiful form with dark purple blooms closely set on the stem; *Erigeron philadelphicum*, a pretty little Composite with pink capitula; *Iris acuta*, with pretty pale purplish blue flowers; and *Hemerocallis flava*, the yellow Day Lily. Mr. J. Douglas, gardener to F. Whitbourn, Esq., Loxford Hall, Ilford, was second with a very tastefully arranged group, in which superb *Aquilegias* predominated; *Lupinus bicolor* and *Meconopsis nepalensis* were also very noticeable. This group, though far more effective and elegant than the other, contained less variety.

FINE-FOLIAGE PLANTS.—The display of these plants was not quite so extensive as usual, but the specimens exhibited were extremely fine. Mr. Rann occupied the chief position with grand specimens. *Cycas revoluta* was magnificent, *Croton variegatus* finely coloured, *Croton Andreanus* handsome, and *C. interruptus* very fine. Mr. Tudgey followed with good plants, the specimen of *Cycas revoluta* being but little inferior to Mr. Rann's specimens. Mr. Penfold, gardener to the Rev. Canon Bridges, was third with a good collection in which *Croton Hendersoni* was very fine.

FERNS.—The competition in the amateurs' class for these plants was very close and good, no less than seven collections being staged. Mr. Rann was adjudged the premier award for enormous plants, of which *Davallia Mooreana* and *Gleichenia Mendelli* were in excellent health. *Gleichenia microphylla* was 6 or 7 feet in diameter, but not very fresh or vigorous. Mr. Hudson, gardener to H. J. Atkinson, Esq., Gunnersbury House, Acton, was placed

second with a collection that was nearly equal to the first in merit, all the plants being in the most vigorous health and as fresh as could be desired. *Thamnopteris australasica* was of enormous size, some of the fronds exceeding 6 feet in length and nearly a foot in breadth. *Dicksonia antarctica* was in fine condition, and *Davallia bullata* was also very fresh and well grown. Mr. Child was third, his collection including a handsome *Todea superba* and *Microlepia hirta cristata*, both good specimens growing most vigorously. In the corresponding nurserymen's class Mr. B. S. Williams was the only exhibitor, and was adjudged the premier prize for handsome examples of *Adiantum gracillimum*, *Gleichenia flabellata*, *G. Mendelli*, and *Dicksonia antarctica*.

GROUPS OF PLANTS.—The groups, as is usual, contributed very largely to the brilliant appearance of the Exhibition. They occupied various positions in the large marquee, and a portion of one side in the long tent. In the open class for a group of plants to occupy a space of 300 square feet, Mr. B. S. Williams was awarded the premier prize for a handsome collection of Orchids and miscellaneous plants that were arranged on one of the mounds in the large tent. Fine clumps of *Epidendrum vitellinum* were especially noticeable; *Masdevallias* were numerous, with fine specimens of *Anthurium Schertzerianum* and many other beautiful plants from the Holloway nurseries. The arrangement was very tasteful, and the group was greatly admired by the visitors. This was the only collection in the open class for plants in flower, the majority of the groups shown being either in the class for miscellaneous plants or that for fine-foliaged plants alone.

The open class for groups of miscellaneous plants was remarkably well filled, no less than seven collections being staged, all possessing more than ordinary merit. The premier award was adjudged to Mr. A. Blake, Britannia Road, Fulham, for a novel arrangement of Ferns, somewhat in the style of a miniature fernery. The Judges evidently experienced a difficulty in deciding upon this award, and many visitors were of the opinion that the exhibit referred to was not of such a character as entitled it to rank as a group in the ordinary acceptance of the term, and that its merit would have been more justly recognised by an extra prize, the

class prizes being distributed among the other exhibitors. Messrs. John Laing and Co., Forest Hill, occupied the second position with a large group. Ferns, Palms, Crotons, &c., were lightly and pleasantly arranged, and margined with Calceolarias, Gloxinias, Ericas, and Tuberous Begonias. This group was very meritorious, being only slightly deficient in colour. Mr. J. Ford, gardener to E. O. Cope, Esq., The Rocketts, Brentwood, was accorded the third prize for a large and bright group, of which the only defect was its somewhat crowded appearance. It contained a large number of flowering and fine-foliage plants, *Ixoras*, Heaths, Crotons, and Ferns forming the bulk of the groups. Mr. Aldous, florist, Gloucester Road, had an extensive and pretty group. Variegated Maples, Lilioms, Hydrangeas, and *Spiræas* were arranged in an agreeable manner, and an equal third prize was accorded for it. The three other contributions in this class were also very attractive; and since groups appear to be so popular it would be perhaps advisable in future to award a few additional prizes. Mr. J. R. Bird, gardener to J. A. Causton, Esq., Lodgemore, Alleyn Park, Dulwich, had a tastefully arranged and elegant group, in which his fine standard Mignonette attracted much attention; and Mr. Rann had also a bright collection of plants.

The groups consisting exclusively of fine-foliage plants, arranged in a similar space to the other groups—namely, 300 square feet, were also numerous, five exhibitors having entered in competition. Messrs. Hooper and Co., Covent Garden, obtained the chief award for a handsome group, which contained some very fine specimens. Mr. Hudson followed with one of his tasteful arrangements, which are invariably greatly admired. In the centre was a specimen of *Alocasia metallica* in admirable condition. Mr. Rann took the third position with good plants, but not so tastefully arranged. Mr. Penfold and Messrs. Osborn had also collections of considerable merit.

NEW PLANTS.—In the class for twelve new plants not in commerce Mr. William Bull was adjudged first honours with the following specimens in grand condition:—*Adiantum aneitense*, very elegant; *Aralia elegantissima*, a noble plant; *Dieffenbachia rex*, fine well-marked foliage; *D. regina*, marbled with green and white;

Rhopaloblasta princeps, a most elegant Palm resembling a *Dæmonorops*; *Vriesia Falkenbergii*, a striking curiosity with coral red bracts tipped with pinkish white that attracted much notice; *Spiræa Aruncus astilboides*, a mass of snow-white plumes, and chastely beautiful; *Croton insignis*, like an enlarged *C. Queen Victoria*; *Illicium religiosum variegatum*, somewhat resembling *Eurya latifolia*, but much clearer in the markings; *Anthurium insigne*; *Davallia fijiensis*, and *Selaginella involvens variegata*. Mr. B. S. Williams followed with *Alsophila tomentosa*, very elegant; *Cocus Baptistii*; *Aralia nobilis*, an imposing plant; *Croton Dodgsoni*, very bright with narrow leaves; *C. Rodeckianus*, bright and drooping; *Wallichia zebrina*; *Nepenthes Dormanniana*; *Dracæna Mrs. Turner*, green and white; *Sanseveria aurea marginata*; *Calamus densus*, an elegant Palm; *Dieffenbachia latimaculata*, and *Asplenium Baptistii*, a most distinct Fern with very dark and elegant fronds. In the other class for new plants—namely, for those sent out since 1877, Mr. W. Bull was again first with a handsome collection, which included such fine plants as *Philodendron Carderi*, with velvety cordate leaves shaded with dark and light green; *Juncus zebrinus*, the zebra-striped Rush; *Thrinax barbadensis*, a neat fan-leaved Palm; *Dieffenbachia Leopoldi*, leaves bright green, the midrib of which is white and prominent; *Ceratozamia fusco-viridis*, a very distinct Cycad with pinnate shiny green leaves; *Oncidium Gardnerianum*, very pretty, flowers marked with yellow and brown; *Cyphomandra argentea* has elliptical silvery leaves with bright green veins, and *Sarracenia atro-sanguinea*, a beautiful form of the Side-saddle Flower. The others were *Encephalartos Frederici-Gulielmi*, *Gymnotheca Raddiana*, and *Plectocomia himalayana*, an elegant pinnate-leaved Palm. Mr. Rann was second in this class with a good selection of new plants in excellent condition.

MR. BULL'S PRIZES.—Some very fine examples of culture and many beautiful plants were staged. In class A (private growers), for plants introduced since the beginning of 1877, the first prize and cup was awarded to Mr. Rann, gardener to J. Warren, Esq., Handcross Park, Sussex, with splendidly grown examples of *Croton Williamsii*, *C. Princeps*, *C. Challenger*, *C. Hendersoni*, *C. roseus pictus*, *Kentia Wendlandiana*, *Dracæna Goldieana*, *Lomaria Dalgairnsiæ*, *Panax*

lacinatus, *Dracæna vivicans*, and *Aralia filicifolia*. The second prize was obtained by Mr. Penfold, who exhibited fine specimens of *Davidsonia pruriens*, *Calyptronoma Swartzii*, *Dracæna vivicans*, *Alocasia Johnstoni*, and *Kentia Wendlandiaana*. In the corresponding nurserymen's class Mr. B. S. Williams was the only exhibitor, and obtained the chief silver cup with specimens of the following in addition to those already enumerated—*Dracæna Robinsoniana*, *Cibotium pruina-tum*, *Croton Williamsii*. *Lastrea aristata variegata*, and *Lomaria Dalgairnsiæ*.

The silver cup in Class C, for private growers not having previously won any of Mr. Bull's cups, was won by Mr. Selway, gardener to Sir J. H. H. Amory, Bart., M.P., Knightshayes, Tiverton, with a well-selected assortment of finely grown plants. The second prize was obtained by Mr. J. McIntyre, gardener to Mrs. G. Pease, Woodside, Darlington, for specimens of the following that were not included in the other collections—*Curmeria Wallisi*, *Croton princeps*, and *Aralia gracillima*. In the corresponding nurserymen's class Messrs. Osborn and Son, Fulham, were awarded the chief prize for the only collection staged. In addition to those already noticed *Asparagus falcatus* and *Carludovica Drudei* were especially noteworthy.

MISCELLANEOUS EXHIBITS.

These were extremely numerous and interesting, the extensive and handsome groups of plants exhibited by the various nurserymen contributing an important attraction to the Show. One of the most noticeable of the groups in the marquee was the grand collection of *Dracænas* from the General Horticultural Company. This handsome group was margined with *Gloxinias* and *Adiantums*, and well merited the gold medal that was awarded for it, a similar recognition being accorded to Messrs. James Carter and Co., High Holborn, for a most extensive collection of *Coleuses* and other plants. Among the *Coleuses* all the fine new varieties that this firm has obtained were well represented. A gold medal was also awarded for the handsome group of new and rare plants from Mr. W. Bull, which occupied a large portion of one of the banks, and included examples of his best introductions. *Sarracnias*, *Dracænas*, &c., were well represented.

Specimens of new varieties of Coleuses, extremely bright and fresh, were noticeable. *Spiræa Aruncus astilboides*, *Blandfordia princeps*, *Hæmanthus Kalbreyeri*, together with a cluster of *Epidendrum vitellinum*, were some of the most noteworthy features of the group, which was one of the brightest and most interesting in the Exhibition.

Mr. J. James, gardener to Mrs. Watson, Redlees, Isleworth, had a handsome group of *Calceolarias*, for which a silver Flora medal was awarded. These plants were extremely fine, being dwarf and compact in habit, the flowers very numerous, large and richly coloured. Messrs. W. Cutbush and Son, Highgate, were awarded a silver Banksian medal for a tasteful and attractive collection of plants, including chiefly Heaths, Palms, Ferns, Statice, and pans of Pansies. A collection of uncommonly handsome *Calceolarias* and *Gloxinias* was exhibited by Mr. W. Rapley, gardener to J. Brand, Esq., Bedford Hill House, Balham. The *Calceolarias* were especially noteworthy for their good habit and fine flowers. A silver medal was accorded for this exhibit. Messrs. F. and A. Smith, Park Road, West Dulwich, contributed a group of seedling *Pelargoniums*, including many varieties of great merit. A bronze medal was awarded. Mr. Aldous sent some well-grown *Mignonette* in 48-size pots, the plants being very dwarf and sturdy, and also table decorations, the flowers, &c., being arranged in gold-coloured trays and baskets of various sizes and depths, which the lady visitors greatly admired. A silver-gilt Flora medal was awarded for Mr. Aldous's contribution.

A silver Flora medal was awarded to Messrs. Kelway and Son for a collection of *Pyrethrum* blooms, very fine. A silver Banksian medal was awarded to Mr. Pearson, Chilwell, for a collection of *Pelargoniums*; and a vote of thanks to Mr. A. Pamley, 19, Bankside, S.W., for elegant bridal and ball bouquets. A silver-gilt Banksian medal was obtained by Messrs. H. Lane and Son, Great Berkhamstead, for a group of pyramidal *Ivies*. Mr. B. S. Williams was adjudged a silver Flora medal for a group of plants, among which a fine plant of *Coleus Miss Rosina* was noticeable, with neat leaves, yellow flaked with crimson. A silver Banksian medal was accorded to Mr. Boller for groups of succulent plants; and votes of thanks to Messrs. Dobson and Sons, Isleworth, and Mr. Ford for good collections of herbaceous *Calceolarias*. From the Society's

garden at Chiswick came various groups of plants, the Cape Pelargoniums and Tuberous Begonias being especially noticeable.

CUT FLOWERS.

Of these the display was not extensive, but the Pansies produced a rich effect, and the double Pyrethrums were splendid. In the class for cut blooms of not less than twenty-four Pansies, Mr. Hooper, Bath, was placed first with grand blooms in rich and varied colours of Show and Fancy varieties. Mr. Catley, Bath, second; and Messrs. Downie and Laird, Edinburgh, third. These collections of brilliant flowers were greatly admired, the Scotch flowers being clearly belted, and not shown on white collars as the others were. Messrs. Hooper and Co., Covent Garden, were adjudged the chief prize for a miscellaneous group of cut flowers, which embraced many varieties of Irises, with Delphiniums, Rockets, Pæonies, Centaureas, Pyrethrums, Aquilegias, &c. Messrs. Osborn and Sons, Fulham, were placed second with a smaller but more varied group. Messrs. John Laing and Co. exhibited cut blooms of Pansies and boxes of gorgeous Tuberous Begonias. Messrs. Kelway and Son, The Nurseries, Langport, had a magnificent collection of double Pyrethrums in nearly fifty varieties, the flowers being in a great variety of colour, large, full, and fine, some of them resembling Chrysanthemums—the finest collection of these flowers probably ever seen exhibited.

FRUIT.

This important section of the Show attracted great attention, and deserved it, for both in extent and quality for this period of the year the display was an excellent one, many dishes being very superior, and a few only containing fruit of poor quality.

PINES.—In the class for two fruits only one pair was staged, and no award was made. Through a misapprehension in making the entry Mr. Fry, gardener to J. Baker, Esq., Haydon Hall, Eastcote Pinner, missed the first prize with good and well-ripened Queens

about 4½ lbs. in weight. This exhibitor was awarded first honours in the class for single fruit of Queens with a good and well-ripened example. Mr. Bailey, gardener to T. T. Drake, Esq., Shardeloes, Amersham, second with a rather larger fruit but not perfectly ripe; Mr. Coleman, gardener to Earl Somers, Eastnor Castle, being a close third with a smaller but well-ripened specimen. In the Smooth-leaved Cayenne class only one plant was staged by Mr. Sage, gardener to Earl Brownlow Ashridge, and a second prize awarded. In the class for any other variety Mr. Bates, gardener to J. E. Meek, Esq., Poulett Lodge, Twickenham, was placed first; and Mr. Breese, gardener to Mrs. Akers, Moreton Hall, Congleton, second with Charlotte Rothschild. Sixteen fruits were staged altogether.

GRAPES.—Of these there was an extensive and highly creditable display. There were eleven exhibitors of three bunches of Black Hamburgs, eight of any other black variety, ten of Muscat of Alexandria, and fourteen of any other white variety—a total of 168 bunches.

The competition in the Black Hamburg class was very good; Mr. Lowden, gardener to F. Barnes, Esq., The Quinta, Salop, being worthily awarded first honours for full well-formed bunches, nearly 3 lbs. in weight, and good, regular-sized, and well-coloured berries. Mr. Crump, gardener to the Duke of Marlborough, Blenheim, was placed second with small bunches, but fine, black, and well-finished berries; and Mr. Edwards, gardener to Mrs. Tristram, Fowley, Liphook, Hants, third with medium-sized bunches and berries, but admirably finished. Mr. Ross, Welford Park; Mr. Woodbridge, Syon; Mr. Sage, Ashridge; and Mr. Johnstone, Bayham Abbey, exhibited well in this class.

In the class for any other black Grapes Mr. Lowden was again placed first with handsome bunches of Buckhardt's Prince, very fine and even in berry. Mr. Bolton, gardener to W. Spottiswoode, Esq., Coombe Bank, Sevenoaks, was an excellent second with Black Prince, admirably finished; and Mr. Miles, gardener to Lord Carington, Wycombe Abbey, third, with remarkably well-finished examples of Muscat Hamburg. Mr. Mowbray, gardener to the Earl of Leven and Melville, Fulmer, Slough, exhibited very fine bunches of Black Prince, but not fully ripe.

In the Muscat of Alexandria class some very good bunches were staged, but all of them were not ripe. Mr. Edwards, Liphook, well won the chief position with long tapering bunches and good and well-finished berries; Mr. Coleman being an excellent second; Mr. Lowden third with very good bunches and very large berries, but not fully ripe. In the class for any other white Grapes Mr. Johnstone, The Gardens, Bayham Abbey, Sussex, deservedly had the premier award with grand examples of Buckland Sweetwater, fine alike in bunch, berry, and finish. Mr. Mowbray, Fulmer Gardens, was a good second with medium-sized bunches and splendid berries in fine condition; Mr. Atkins, gardener to Col. Loyd Lindsay, Lockinge Park, Wantage, being third with fine examples of Foster's Seedling. Mr. Astlett, The Gardens, Warren Wood, Hartfield, and Mr. Iggulden, Orsett Hall, staged still finer examples of the last-named variety, but not perfectly ripe; and Mr. Edwards staged very fine Buckland Sweetwater.

PEACHES.—Fourteen dishes of splendid fruit were staged, Mr. Coleman, Eastnor Castle, being placed first with grand examples of A. Bec; Mr. Bones, gardener to D. McIntosh, Esq., Havering Park, Romford, being a close second with Royal George, very fine; and Mr. Crump, gardener to the Duke of Marlborough, Blenheim, third with Barrington. Nectarines were also remarkably fine, notably the prize dishes; Mr. Miles, Wycombe Abbey, being first with Elruge, large and highly coloured; Mr. Holliday, gardener to J. Norris, Esq., Castle Hill, Bletchingley, second with Lord Napier, large but rather pale; and Mr. Nash, gardener to D. Fuller, Esq., Shoreham, Sussex, third with the same variety.

CHERRIES.—Mr. Miles was as usual in the first position with Governor Wood and Black Circassian; and Mr. Woodbridge, Syon, second with Frogmore Bigarreau and Belle d'Orleans. Mr. Miles was also first in the single dish class with Black Circassian; Mr. Austen, gardener to Sir Greville Smythe, Bart., Ashton Court, Bristol, second with Bigarreau Napoleon; and Mr. Woodbridge third with Belle d'Orleans.

MELONS.—Of these the display was a very good one, thirty-one fruits being staged. A few were small, but the majority were of good size, a few being large, and most of them apparently in excel-

lent condition, one or two being overripe. The first prize was awarded to Mr. Crump, gardener to the Duke of Marlborough, Blenheim, for a medium-sized oval delicately netted example of Blenheim Orange, a thin-rined few-seeded variety of excellent flavour. Mr. T. Coomber, gardener to J. H. Rolls, Esq., M.P., The Hendre, Monmouth, was placed second with a round and very handsome fruit of Hendre Seedling, a Melon evidently of considerable merit and high quality. Mr. Norman, gardener to the Marquis of Salisbury, Hatfield House, secured third honours with a very large fruit of Read's Scarlet-flesh.

STRAWBERRIES.—Of these nearly thirty fine dishes were staged. In the class for three dishes Mr. Norman, gardener to the Marquis of Salisbury, Hatfield, secured first honours with Sir C. Napier, Sir J. Paxton, and President; Mr. Goldsmith, gardener to P. C. Hardwicke, Esq., Hollenden, Tonbridge, second with James Veitch (extremely large), President, and Sir J. Paxton; and Messrs. Barnwell and Tilbury, Crescent Road, Worthing, third with the same varieties as the first-prize trio. For one dish Mr. Mortimer, gardener to Major Storer, Purley Park, Reading, was placed first with President, large and remarkably well coloured; Mr. James, Redlees, Isleworth, being a very close second with Sir J. Paxton; and Mr. Gibson, Halstead Place Gardens, Sevenoaks, third with equally fine fruits of the same variety, but not so well dished.

TOMATOES.—Eleven very large and handsome dishes were exhibited, first honours being well won by Mr. Iggulden, gardener to Capt. D. Wingfield, Orsett Hall, Romford, with grand smooth examples of Stamfordian. Mr. Crump, Blenheim, followed with an excellent dish of Hathaway's Excelsior; Mr. Miller, gardener to J. T. Friend, Esq., Northdown, Margate, with smaller but smooth crimson fruit of Hooper's Acme.

VEGETABLES.

There was a very marked advance in the number of entries in the vegetable classes, several of the collections staged being very meritorious. In the class for ten dishes ten collections were staged. Mr. Miles as usual occupied the premier position, staging

in his well-known style good examples of Asparagus, Early White Naples Onions, Snowball Turnips, Nantes Horn Carrots, Laxton's Unique Peas, Patch's Superb Cucumbers, Improved Lapstone Potatoes, Canadian Wonder Beans, Early London Cauliflowers, and Stamfordian Tomatoes. Mr. W. Iggulden, gardener to Capt. Wingfield, Ossett Hall, Romford, followed very closely with a generally excellent collection, his Trophy Tomatoes, Laxton's Unique Peas, and Woodstock's Kidney Potatoes being particularly good. The third prize was awarded to Mr. W. Chettleburgh, gardener to Col. Rous, Worsted House, Norwich. This collection included rather coarse Stamfordian Tomatoes, a fine bundle of Asparagus, and well-filled pods of Oxford Tom Peas. Mr. Crump of Blenheim, and Mr. Haines, gardener to the Earl of Radnor, Coleshill, Highworth, also exhibited very creditable collections.

MESSRS. SUTTON AND SONS' SPECIAL PRIZES.

In the class for four half pecks of Peas there were eight competitors. In some instances the pods were too full, in others not full enough. The best and most even lot was staged by Mr. W. Iggulden, which consisted of Suttons' Bijou, Suttons' Ringleader, Laxton's Unique, and William I. The prizes awarded was a silver medal and one guinea. Mr. J. S. Bellis, gardener to Major Thoyts, was awarded the second prize, a bronze medal and one guinea; and the third prize was awarded to Mr. J. Clarke, gardener to Lord Hastings, Melton Constable; and the fourth to Mr. T. Lockie, gardener to Lord O. Fitzgerald, Oakley Court, Windsor. For two kinds of Melons and two kinds of Cucumbers there were six competitors, the Melons staged in nearly every instance being very good. The first prize (a gold medal) was awarded to Mr. G. Goldsmith, gardener to P. C. Hardwicke, Esq., Hollanden, Tonbridge, for well-ripened examples of Hero of Bath and Read's Hybrid Melons, and the Duke of Connaught and Suttons' Improved Telegraph Cucumbers. To Mr. T. Lockie was awarded the second prize (a silver medal and one guinea). This exhibitor staged rather better examples of the Duke of Connaught and Suttons' Improved Telegraph Cucumbers, and large but rather unripe specimens of Suttons' Royal Botanic and the Hero of Bath

Melons. Mr. Crump, Blenheim, secured the third prize; and Mr. Howe, Benham Court, Newbury, the fourth.

IMPLEMENTS AND SUNDRIES.

The show of horticultural buildings, mowing machines, and other garden requisites was scarcely so extensive as usual. The first to be noticed was a well-built span-roof plant house, erected by the Messrs. Foster and Pearson, Beeston, Notts. It is a combination of wood and iron, and is very light and well ventilated on the improved lantern system. This house is rendered gay with many of the noted Chilwell varieties of Zonal Pelargoniums, and near this are two highly useful span-roof portable pits also made on a very good principle, and received the award of a medal. Mr. W. Richardson of the Meadow Foundry Company, Mansfield, arranged a great variety of iron fountains, vases, garden seats, and rollers, also an improved form of throttle valves. The advantages attending the use of this valve is, that the seat and the valve can be easily removed and repairs effected without any interference with the pipes. Messrs. Johnson Brothers and Co., 6, Waterloo Place, Pall Mall, London, exhibited examples of portable fencing, and also specimens of their methods of roof-glazing with plate glass. Mr. W. Clark, 232, Oxford Street, submitted their patent grass cutters, which are made on the same principle as horse clippers, and will be useful to owners of very small gardens, and for certain positions in larger establishments. Mr. Watson, St. Alban's Nurseries, exhibited specimens of his rather novel guinea suspension boiler, which is said to be powerful, and is besides very simply constructed, and easily set or rather hung. Messrs. Waite and Huggins, London, exhibited their Excelsior mowing machines in various sizes in an improved form and received a medal. Messrs. Joseph Davis and Co., London, showed a number of their new barometers. Messrs. J. Thomas and Co., The Paddington Iron and Wire Works, had a very extensive assortment of wire flower stands, hanging baskets, aviaries, archways, garden seats, and mowing machines, all being specialties of this firm. Mr. J. C. Fox sent rustic summer houses. Messrs. Weeks exhibited one of their powerful patent duplex boilers; and

Messrs. Clay and Levesley and Prentice Brothers had samples of their horticultural manures. Sundry other articles, such as artificial flowers, skeletonised leaves, dinner-table decorations, &c., were on view in the Council-room, and the adjoining corridor.

FLORAL COMMITTEE.

DR. DENNY in the Chair.

The various plants and flowers submitted to the attention of this Committee were arranged in the Council-room as usual, and included several of considerable beauty and interest. By far the most remarkable plant exhibited was a grand specimen of the handsome Orchid *Cattleya gigas* from Sir Trevor Lawrence, Bart., M.P., Burford Lodge, Dorking (gardener, Mr. Spyers). It was a single plant, growing partly on a block that was placed in a large pot, and it was considered as the finest specimen ever exhibited. The foliage was very large and vigorous, and the plant had over a dozen spikes, bearing from three to six flowers each, which were also of good size, and with richly coloured lips. A gold medal was very deservedly awarded for this extremely handsome plant. Sir T. Lawrence also showed small plants of *Odontoglossum vexillarium roseum*, the blooms being of great size and finely coloured, and a variety with pure white labellums.

Mr. Bull gained a first-class certificate for a specimen of the new *Spiræa Aruncus astilboides*, which is regarded as a variety of the well-known *S. Aruncus*, though resembling it but slightly in general appearance. The flowers are very closely set in long feathery panicles, and the plant will prove a valuable addition to the number of really decorative plants. Mr. W. Brown, Brent Nurseries, Hendon, was awarded a first-class certificate for a decorative *Pelargonium* named *Eclipse*, of compact sturdy habit, with neatly formed flowers of a bright crimson hue, the upper petals being very dark. Mr. G. Garraway, Lower Swainswick, Bath, obtained a similar award for an extremely good tricolor *Pelargonium* named *Mr. G. Garraway*, the leaves of which were of moderate size, round in outline, and marked with uncommonly rich shades of crimson. Mons. V.

Lemoine was also adjudged a first-class certificate for a distinct and attractive Ivy-leaf Pelargonium named Mons. Dubois. A very attractive hybrid Ismene named Sulphur Queen, contributed by Col. R. T. Clarke, also received a similar recognition.

Votes of thanks were accorded to Dr. Patterson of Fairfield, Bridge of Allan, N.B., for a beautiful collection of Orchid flowers, among which *Odontoglossums*, *Oncidiums*, *Cypripediums*, and *Masdevallias* were admirably represented; to Mr. W. Hall, gardener to W. Stevens, Esq., Springfield, Tulse Hill, for cut blooms of *Maréchal Niel* Rose in excellent condition; and to Mr. H. Parr, Givons Grove, Leatherhead, for a collection of Carnation blooms. Among the other exhibits were a group of hybrid *Sarracenias*, *Nepenthes*, and Japanese Maples from Messrs. J. Veitch and Sons, Chelsea; seedling Pansy blooms from Messrs. Cocker and Son, Sunny Park Nurseries, Aberdeen; some new and beautiful Tuberos Begonias, and a bright blue *Lobelia* named Union Jack, from Messrs. Charles Lee and Son, Hammersmith; a fine plant of *Brassia verrucosa*, with six long spikes of flowers, from W. Roebuck, Esq., West Lodge, Acton, (gardener, Mr. Ellis); and cut blooms of new *Pyrethrums* from Messrs. Kelway and Son, Langport, Somerset. These flowers were of extraordinary size, semi-globular in form, and bright in colour.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

Mr. Wildsmith, gardener to Lord Eversley, Heckfield, sent a tray of President Strawberries, which were of great beauty and excellence. A cultural commendation was awarded. Mr. Reeves, gardener to C. Hart, Esq., Lee, exhibited a dish of Apples called Linton Late-keeping, which was not considered worthy of a certificate. Mr. W. Gardener, The Gardens, Etington Park, sent a branch of Lord Suffield Apple, studded with young fruit. Mr. Gardiner also exhibited a branch of Beaugé Apricot, showing its highly prolific character; the tree was shaded with canvas. A letter of thanks was awarded. Mr. Lyon, Sundridge Park, Kent, sent a dish

of Mushrooms, to which a cultural commendation was awarded. Mr. Miles, The Gardens, Wycombe Abbey, sent a dish of new seedling Pea raised by Mr. Laxton, called Minimum. Mr. Miles stated that the seed was sown February 17th, and the Peas were fit to gather May 25th. It was recommended to be tried at Chiswick. Mr. R. Dean, Ealing, sent a seedling Potato, called Early Cluster, which was also recommended to be sent to Chiswick for trial. Mr. Sage, The Gardens, Ashridge Park, exhibited a dish of Brown Turkey Fig of great excellence both in size and quality, to which a cultural commendation was awarded. Charles Eyre, Esq., of Wel-ford Park, Newbury, sent a fine dish of Bourgassotte Grise Fig under the name of Brown Turkey, to which a cultural commendation was awarded. Mr. Watson of St. Albans exhibited a pair of Cucumbers, which were not considered of superior merit to others in cultivation. Mr. J. Allsopp, gardener to Lord Hotham, Dalton Hall, Hull, sent a seedling Melon, a handsome scarlet-flesh fruit, but not sufficiently ripened, very promising, and it was hoped that it would be sent again. Mr. J. Chilton, The Gardens, Aston Rowant, Tetsworth, sent a seedling Melon called Chilton's Hybrid Hero of Bath, a handsome-looking scarlet-flesh variety, but not sufficiently ripe, and not equal to others in cultivation. Mr. C. Howe, The Gardens, Benham Park, sent a scarlet-flesh Melon called Benham Park Gem, which was exhibited three years ago, but it was not considered equal to others in cultivation.

SCIENTIFIC COMMITTEE.

ARTHUR GROTE, Esq, in the Chair.

The Secretariat.—The Rev. Geo. Henslow, the newly-appointed Secretary to the Committee, entered upon the duties of his office.

Plants Exhibited.—Mr. Lynch, Curator of the Cambridge Botanic Garden, exhibited cut specimens of the following plants, and made some comments on them:—*Arctotis arborescens*, a *Centaurea*-like plant, from South Africa, of which it is believed that the Cambridge Botanic Garden possesses the only living example. It is a perennial Composite, about 2 feet in height, covered with grey shaggy pubes-

cence, pinnately-lobed leaves and flower-heads, some 2 inches across, with a short scarious involucre, and numerous pink rays. Mr. Lynch is about to try it as a bedding plant. *Lathyrus Sibthorpii*, *Eremurus spectabilis*, *Syringa persica laciniata*, in flower; *Pyrus coronaria*, a handsome late flowering species—the Apple-like flowers have a delicious perfume of Violets; *Cytisus Laburnum involutum* in flower; the Sun Hemp of India—*Crotalaria juncea*; and specimens of *Cuscuta reflexa*, to show its effect upon the stems of a *Pelargonium*.

Pitcher on Broccoli.—Mr. W. G. Smith exhibited a young Broccoli plant with a pitcher developed on a stout peduncle in place of the usual raceme of flowers. The example was received with native Cornish specimens of *Arum italicum*, from Mr. W. Roberts, of Penzance.

Australian Insect.—Specimens were sent by Mr. Protheroe of an insect (*Coccus*?) supposed to have been imported from Australia to Cape Town, and which were referred to Mr. McLachlan for examination and report.

Malformed Peach Blossom.—A malformed Peach blossom, formed on the shoot of the year, was referred to Dr. Masters for examination and report.

Malformed Fritillary.—Rev. George Henslow showed drawings of flowers of Fritillaries, in which one side of the flower, including the perianth and stamens were arrested in development on that side of the flower; thus showing an approximation to what occurs in *Pontedera*, various *Commelynaceæ*, &c.

Double Calceolaria.—Dr. Masters showed drawings by Mr. W. G. Smith of malformed *Calceolarias* received from Mr. Burbidge, and in which supernumerary stamens were developed in the shape of petal-like tubes or bags enclosed within the true corolla.

Hybrid Ismenes.—Col. Trevor Clark showed two hybrids, one a cross between *Elisena longipetala* and *Ismene calathina*, the result of which was a plant identical with *Ismene deflexa*; the other a cross between *Ismene Amancæ*s and *I. calathina*, the result of which was a plant known formerly as the “sulphurescent mule.” A first-class Certificate had been awarded by the Floral Committee to the latter plant.

Lilium nitidum.—A plant was shown under this name, and referred to Mr. Elwes for examination and report.

Phylloxera.—Some conversation took place on this subject, in the course of which Dr. Masters alluded to the steps taken by the Society, as well as by various foreign societies, to obtain some modification of the needlessly oppressive regulations adopted by the Berne Convention.

JUNE 22ND, 1880.

ORDINARY GENERAL MEETING.

WILLIAM HAUGHTON, Esq., in the Chair.

Elections.—Finlay Campbell, Miss Gunnis, Charles Cyril Hick, M.D., George Moffat, Mrs. Thomas.

The meeting held on the above date was not distinguished by a great display, the entries being comparatively few. Collections of new plants formed the principal feature, several being especially attractive.

FLORAL COMMITTEE.

Dr. DENNY in the Chair.

Several collections of new and beautiful plants were staged, Pelargoniums being numerous. Messrs. Veitch's group was very attractive, and in addition to the certificates which were awarded a cultural commendation was adjudged for two good specimens of the pretty Campanulaceous plant *Platycodon grandiflora*, flowering very freely. Of the Pelargoniums those from Mr. G. Braid, Winchmore Hill, and Mons. V. Lemoine, 67, Rue de l'Etang, Nancy, were particularly attractive. A collection of Zonals from Mr. P. Fry, Addington, Maidstone, supposed to be hybrids between *Geranium pratense* and several Zonal varieties, also received much attention. They were stated to be perpetually flowering forms, but the peculiar large distorted trusses produced rendered them more strange

than ornamental. Messrs. Hooper and Co., Covent Garden, were awarded a vote of thanks for specimens of the so called "Resurrection Plant," *Selaginella lepidophylla*, dried plants of which expand when placed in water. Mr. Aldous, Gloucester Road, staged a group of miscellaneous plants in the conservatory.

The following exhibitors were awarded first-class certificates for the plants described:—Messrs. J. Veitch and Sons; *Asparagus plumosus nanus*, a dwarf form of that beautiful species with similarly elegant leaves, but only about 6 or 8 inches in height; *Pteris serrulata cristata bella*, a form of this well-known Fern, in which the terminal crest is very finely and elegantly divided, the general habit also being graceful; *Erythrina marmorata*, an attractive plant, with finely variegated foliage. Mr. W. Bull, Chelsea; *Lilium nitidum*, a distinct and pretty Lily, with small orange-coloured spotted flowers resembling *L. parvum*, but differing from that in the bulbs. Messrs. Hooper and Co.; *Canna Ehemanni*, a showy plant with large rosy crimson flowers, in the way of *C. iridiflora*. Mr. V. Lemoine; *Pelargonium Madame Thibaut*, a handsome Show variety, with semi-double flowers of a bright purplish tinge margined with white, and also an unnamed seedling with white flowers marked with a dark blotch in the centre of each petal; *Fuchsia Madame Galli Marie*, a floriferous double variety with large flowers, the corolla white, and the calyx rich scarlet. Mr. G. Braid; *Pelargonium Zulu Belle*, one of the "decorative" section, of compact habit, bearing neat trusses of symmetrical flowers, white, with a deep purple blotch in the centre of each petal. Mr. C. Turner, Slough; *White Pink, Mrs. Sinkins*, an extremely fragrant and floriferous variety, with blooms of great size and fine form. J. McIntosh, Esq., Duneevan, Oatlands Park, Weybridge (gardener, Mr. Taylor); *Lilium polyphyllum*, a rare species, with flowers of a moderate size, of a somewhat creamy tint, spotted and streaked inside with purple. Two Ivy-leaved Pelargoniums from the Society's Garden at Chiswick were also certificated—namely, *Gloire d'Orleans* and *Mons. Dubus*, both of M. Lemoine's raising. They were very compact in habit, with neat trusses of pink flowers, those of the latter being of a lighter tint.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

Mr. Carmichael, gardener to H. P. Oakes, Esq., Newton Court, Bury St. Edmunds, sent fruit of a seedling Cucumber called Silvio, but as the fruit was too old and had been cut for some time a favourable opinion could not be expressed upon it, and the Committee hoped to see it again. Mr. H. Thetford, Victoria Nursery, Forest Hill, sent a brace of handsome Cucumbers called Thetford's Champion, somewhat in the way of Telegraph but larger and coarser. It was not considered superior to others in cultivation. Mr. R. Dean, Ealing, sent two plants of Early Cluster Potato, said to have been raised from Porter's Excelsior and Early Market, and grown in 8-inch pots. It is a round Potato with foliage resembling some of the American varieties. The Committee were of opinion that it was a promising early variety, but before giving it an award suggested it be sent to Chiswick to be tried along with other varieties. Mr. Woodbridge, The Gardens, Syon House, exhibited a dish of Early Cluster Tomato, a small oblong red Tomato, which showed great fertility. The fruit was rather pasty in its texture and was rather deficient of acidity. A letter of thanks was awarded. Mr. Dean sent some plants of Peas grown in pots, to which a letter of thanks was awarded.

Messrs. James Veitch and Son exhibited dishes of Sturmer Pippin and Golden Noble Apples, grown and brought home by Mr. Marriott of Campbell's Creek Nursery, Castlemane, Victoria, Australia. The specimen was very handsome in form and colour, and the Sturmer Pippins were deliciously flavoured, the flesh being particularly delicate and tender. They were gathered on April 24th, packed on May 1st, and brought home by way of the Red Sea by Mr. Marriott, who arrived in England on June 16th. A cultural commendation was awarded.

Mr. Thomas Sutton, The Gardens, Worksop Manor, exhibited a Black Prince Pine, to which a cultural commendation was awarded. Mr. R. Gilbert, Burghley Gardens, Stamford, exhibited Gilbert's King of Melons, a fine green-fleshed variety, but it was much over-ripe and disagreeable in flavour. Mr. James Hopkins, gardener to

R. Thornton, Esq., High Cross, Framfield, exhibited High Cross Hybrid Melon, a handsome green-fleshed variety, which unfortunately was not ripe, though it promised a fine flavour. Mr. A. Hopkins, gardener to R. Johnson, Esq., Remnal Manor, Chislehurst, sent Omant's Favourite Melon, the flavour of which was not agreeable.

SCIENTIFIC COMMITTEE.

SIR J. D. HOOKER, K.C.S.I., in the Chair.

The meeting was thinly attended, and but few subjects were brought before it.

Coccus on Acacia.—Mr. MacLachlan reported that he had examined the specimens referred to him at the last committee, and had consulted M. Signoret upon the matter, with the result that the insect was determined to be a species of *Pulvinaria* allied to that which causes so much injury to the Sugar-cane in Mauritius.

Malformed Peach Blossom.—Dr. Masters reported that he had examined the flowers submitted to him at the last meeting, and found that it was produced on a stout stalk proceeding from the shoot of the year, a most unusual position in the case of the Peach. The sepals, petals, and stamens were all enlarged and thickened, but otherwise normal. The carpels were two in number.

Aristolochia unguifolia.—Dr. Masters reported that the *Aristolochia* referred to him at the previous meeting was a species which he had named a few years since from dried Bornean specimens as *A. unguifolia*. The present specimen was reported to have come from Java.

Alleged Hybrid Pelargonium.—Mr. P. Fry, Addington, sent specimens of a *Pelargonium* with very large proliferous trusses, and which it was supposed had originated as a cross between a Zonal *Pelargonium* and *Geranium pratense*—a view which the committee did not endorse.

Plants Shown.—Mr. Bull sent a Lily, referred by Mr. Elwes to *L. columbianum*, and which had the peculiar bulb of *L. Washingtonianum* and the foliage of *L. Humboldtii*. Other plants exhibited

were *Trichopilia hymenanthera*, *Bolbophyllum siamense*, *Angræcum* sp., from the Comoro Isles, &c.

The following additions were made to the Lindley Library:—*Index Perfectus ad O. Lennæi Species Plantarum*. Given by Baron Von Mueller. *The British Moss-Flora*. Part I. By Dr. Braithwaite; purchased.

JUNE 29th.

Medals Awarded, Rose and Pelargonium Society's Show.—Silver Banksian, F. and A. Smith for a collection of Pelargoniums; Silver Banksian, Mrs. Pearson for a collection of Pelargoniums; Silver Banksian, H. Hooper for cut blooms of Panzies, Pinks, &c.; Silver Gilt Banksian, C. Turner for group of Pelargoniums; Silver Gilt Flora, Mrs. Hodgkins for Skeleton Leaves, Flowers and Ferns; Silver Gilt Flora, Barr and Sugden for cut blooms of Iris and Lilies; Silver Flora, James Carter and Co. for group of Annuals; Bronze Flora, J. Aldous for group of Plants; Gold Medal, H. Cannell for group of Begonias, &c.

The Rose Show of the Society and the Exhibition of the Pelargonium Society were as last year held in conjunction, and fortunately under the most favourable conditions as regards the weather. The exhibits too were numerous for the miscellaneous collections. Roses, Pelargoniums, and vegetables entirely filled a tent 500 feet in length. A few plants were staged in the Council-room, but one of the most pleasing and artistic features of the Show were the groups from Mr. H. Cannell of Swanley, which were staged in the vestibule. The plants were arranged on two long parallel tables leading from the entrance to the Council-room, the back row being formed of dark blue Delphiniums, the centre of Tuberos Begonias,

and the front margin of *Herniaria glabra*, in which were dotted plants of the variegated *Polemonium cæruleum* and *Lobelias* alternately. Baskets of Pansies, Sweet Williams, and extremely fine Verbenas were also arranged at the ends, the general effect being most satisfactory. A gold medal was deservedly awarded for these artistic groups.

ROSE SHOW.

A large number of collections were staged in the eleven classes devoted to cut Roses, and the majority were distinguished by more than usual excellence. A charming freshness was generally evident in the blooms, the colours bright and clear, and many exceptionally handsome blooms were included in some of the collections. In the nurserymen's class for forty-eight single trusses there were five entries, the chief prize going to the Cranston Nursery and Seed Company, King's Acre, Hereford, for a collection of extremely fresh and even blooms. The most noticeable were Général Jacqueminot, grand; John Stuart Mill, fine; La France, good; and Marie Baumann, fine. Messrs. Curtis, Sanford and Co., Torquay, were second with a good collection, but not quite so neat. Mr. F. Cant, Colchester, was a good third with twenty-four triplets. Messrs. Cranston were again first, staging a very handsome collection. The following were the varieties:—Etienne Levet, Madame La Baronne de Rothschild, Exposition de Brie, La France, Le Havre, Madame Lacharme, La Rosière, Mons. Noman, Hippolyte Jamain, Mons. E. Y. Teas, Marquise de Castellane, Fisher Holmes, Madame Chas. Wood, Marguerite de St. Amand, Mdlle. Marie Cointet, Prince Camille de Rohan, Mons. G. Tournier, Madame Noman, Général Jacqueminot, Madame Marie Finger, Miss Hassard, Princess Beatrice, and Maurice Benardin. Messrs. Curtis, Sanford and Co. were second, and Messrs. Keynes and Co., Salisbury, third, both exhibiting collections nearly equal in merit. Messrs. Cranston, Curtis, and Kinmont and Kidd, Canterbury, were first, second, and third respectively with twenty-four single trusses, all fresh and bright. Messrs. Cranston had a very fine premier collection of twelve single trusses, Messrs. Kinmont and Kidd and

Keynes and Co. following with fair blooms, but rather weak in one or two points.

The amateurs showed remarkably well. In the principal class for twenty-four trusses there were five entries. R. N. G. Baker, Esq., Heavitree, Devon, obtained the chief honours with a handsome collection, including grand examples of Auguste Rigotard, La France, Duchesse de Caylus, Mdlle. Marie Rady, and Mons. E. Y. Teas. T. Jowitt, Esq., Old Weir, Hereford, was an excellent second, his Alfred Colomb being admirable. A. J. Waterlow, Esq., Great Doods, Reigate (gardener, Mr. Browne), followed with neat specimens. Out of seven exhibitors of twelve triplets Mr. Baker staged the finest and freshest blooms; Marie Baumann was very handsome, Auguste Rigotard neat, Charles Lefebvre fine, Docteur André fine, and Mons. Etienne Levet in excellent form. T. Jowitt, Esq., was second, Exposition de Brie, Mons. E. Y. Teas, and Mdlle. Marie Cointet being well represented. G. P. Hawtry, Esq., Aldin House, Slough, was third with creditable blooms. J. B. Haywood, Esq., Reigate (gardener, J. Ridout), Mr. Jowitt, and the Rev. E. J. Fellowes, Wimpole Rectory, Royston, were first, second, and third with twelve single trusses, and extra prizes were awarded to J. H. Pemberton, Esq., The Round House, Havering-atte-Bower, and Mr. Baker. In the class for twelve Tea or Noisette Roses Mr. Fellowes obtained the chief prize with a neat collection; C. Davies, Esq., The Grammar School, Banbury, and Messrs. Cranston being second and third, Mr. Hawtry securing an extra prize. The six exhibitors in this class all staged fair examples of some of the best varieties in cultivation. The principal prizetakers in the classes for six Hybrid Perpetuals and six Teas or Noisettes were Messrs. Baker, Curtis, Cranston, and J. Davis, Esq., The Square, Wilton.

In the class for six new varieties of Roses of 1877-8 Messrs. Cranston obtained the chief award with Gaston Levêque, a large finely formed Rose of a rich crimson hue; Leon Renault, good form, very bright red, full; Madame Gabriel Luizet, light crimson, neat; Souvenir d'A. Thiers and Constantin Fretiakoff, somewhat alike in form and of a deep rosy crimson; and Marchioness of Exeter. Mr. G. W. Piper, Uckfield, was second with Mdlle. Marie

Verdier, Souvenir de Madame Robert, John Fraser, Barthelemy Joubert and Oxonian. Messrs. Curtis and Co. were third with Penelope Mayo, Boieldieu, Cannes la Coquette, Mdle. Marie Verdier, Marie Louise Pernet, and Barthelemy Joubert.

MISCELLANEOUS EXHIBITS. — Several groups and collections were staged which attracted much attention. Among these the herbaceous plants from Messrs. Barr and Sugden were especially noteworthy, a silver-gilt medal being awarded. Mr. H. Hooper, Bath, obtained a silver Banksian medal for a collection of Pansies and Carnations. Messrs. Pearson of Chilwell contributed a fine group of Pelargoniums, for which a silver Banksian medal was awarded. Mr. Aldous, South Kensington, obtained a bronze Flora medal for a group of plants; Messrs. Carter and Co. a silver Flora medal for a large group of annuals; and Messrs. F. and A. Smith for a collection of Pelargoniums. A group of Pelargoniums from the Society's garden was also staged, and in the Council-room were some new plants from Mr. Bull, Chelsea. In the grounds Messrs. Foster and Pearson again exhibited examples of their frames.

The only exhibitor in the class for nine Tuberos Begonias, in which the prizes were offered by Messrs. Laing and Co., Forest Hill, was J. S. Law, Esq., South Lodge, Southgate (gardener, Mr. Tong), who was awarded the first prize.

SPECIAL PRIZES FOR VEGETABLES.

A fine lot of vegetables were staged in these classes, the competition with one exception being very keen. For the prizes offered by the Messrs. James Carter and Co. for fifty pods each of Carters' Stratagem, Culverwell's Telegraph, and Carters' Telephone Peas brought together five collections of these exceptionally fine varieties. The first prize was well won by Mr. J. Muir, gardener to C. R. M. Talbot, Esq., M.P., Margam Park, Taibach, South Wales, with magnificent pods, large and well filled; the second prize was awarded to Mr. J. Richardson, Boston, Lincolnshire; the third prize to Mr. G. T. Miles, gardener to Lord Carington, Wycombe Abbey, Bucks; the fourth to Mr. R. Phillips, gardener to Capt. Jackson, The Deodars, Meopham, Kent; and the fifth to Mr. W.

Iggulden, gardener to Capt. D. Wingfield, Orsett Hall, Romford, the exhibits in each instance being of great merit.

Nine exhibitors responded to the offer of prizes by the Messrs. Sutton and Sons, Reading, for twelve dishes of vegetables, the competition being very close indeed. The kinds were stipulated, but the varieties were left to the option of the exhibitors. Mr. G. Miles secured the premier award with excellent Nantes Horn Carrots, Early White Naples Onions, Canadian Wonder Beans, Seville Longpod Broad Beans, Culverwell's Telegraph Peas, Tender and True Cucumbers, Walcheren Cauliflowers, Wilmot's White Cos Lettuce, and good dishes of Munich Turnips, Pine Apple Beet, Victoria Cabbage Lettuce and Improved Lapstone Kidney Potatoes. Several of the collections staged for the remaining prizes followed very closely on the premier collection, the Judges experiencing considerable difficulty in awarding the prizes. The second prize was awarded to Mr. G. W. Meads, gardener to Viscount Barrington, Beckett Park, Shrivenham, who staged among other good dishes of Nantes Horn Carrots, Improved Lapstone Potatoes, Italian Tripoli Onions, Leviathan Broad Beans, and Duke of Connaught Cucumbers. Mr. Haines, gardener to the Earl of Radnor, Coleshill House, Berks, followed, his collection including good Seville Longpod Beans, Nantes Horn Carrots, and Suttons' Improved Telegraph Cucumbers. The remaining prizes were awarded to Mr. J. Muir, Mr. W. Iggulden, and Mr. J. Austen, gardener to Sir G. Smythe, Ashton Court, Bristol, in the order named. The latter exhibitor staged a wonderfully fine dish of Giant Rocca Onions.

Messrs. Webb and Sons' (Wordsley Stourbridge) prizes were offered too early in the season, which accounts for there being two competitors only. The prizes were for six kinds of vegetables, which include Webb's Triumph Pea (a main crop variety), and Webb's Banbury Onion. In addition to the stipulated varieties Mr. Iggulden staged good dishes of Woodstock Kidney Potato, Early London Cauliflower, Trophy Tomatoes, and Nantes Horn Carrots, and was awarded the first prize. Mr. W. Crump, gardener to the Duke of Marlborough, Blenheim, secured second honours with creditable dishes of Hathaway's Excelsior Tomatoes, Webb's Perpetual

Bearer, International Kidney, and Early London Cauliflower, in addition to the stipulated varieties.

The prizes offered by Messrs. Webber and Co., fruiterers, Covent Garden, for the best packed boxes of fruit, to consist of one box of Grapes, one of Peaches, and one of Strawberries, were obtained by Mr. W. Crump, gardener to the Duke of Marlborough, Blenheim Palace, Woodstock, and Mr. Wallis, gardener to the Rev. Walter Sneyd, Keele Hall, Newcastle, Staffordshire, in the order named, both with very careful examples of packing, the fruit having arrived in excellent condition.

THE PELARGONIUM SOCIETY SHOW.

The display of Pelargoniums was extremely good, all sections being well represented. Show, Fancy, and Zonal varieties were staged in considerable numbers, the competition in several of the classes being close. The new varieties were also especially fine, many of exceptional merit being exhibited. The schedule enumerated twenty-three classes, the first eight being devoted to new varieties not yet in commerce, and each class was in three divisions, a single prize being offered in each. From nine to nineteen were appropriated to specimens, and the remaining four classes to cut blooms.

The following were the chief exhibits in the classes for new Pelargoniums:—*Show Varieties*.—No prize was awarded in Class 1. In Class 2A, for three distinct Show varieties, Mr. C. Turner, The Royal Nurseries, Slough, was awarded the first prize. His varieties were Hector (Foster), symmetrical flower, bright salmon lower petals, very dark upper, with a lighter margin, and clear white eye; Maid of Perth (Foster), very fine flowers, rosy lower petals, distinct white centre, and very dark upper with narrow margin; Mountain of Light (Foster), flowers of moderate size, bright scarlet, and dark blotch in upper petals. In Division B, for two specimens, Henry Little, Esq., Hillington Place (gardener, Mr. G. Wiggin), was first with Ruth Little and Formosa, both of Jackson's raising; the former of a clear rosy colour, and the latter with creamy lower petals, the upper petals in each being very dark. In Division C, for one variety, the Rev. A. Matthews, Gumley, Market Harborough,

was first with Sir W. Scott (Matthews), a fine flower with intensely dark upper petals and salmon scarlet lower petals, the flower being of good form. In Class 4A, for three, including market and regal varieties, Messrs. J. and J. Hayes, Edmonton, were first with Mr. John Hayes, Mrs. John Hayes, and Lady Isabel, all very floriferous varieties, and of good habit. In Division B Mr. Little was first with Bridesmaid and Rosy Morn, both of Jackson's raising; the former very attractive, with fine trusses of flowers; the lower petals white, and the upper veined and marked with crimson. In Division C Mr. C. Turner gained the first prize with Macbeth (Foster), a very distinct variety, flowers of great size, salmon hue, petals blotched in the centre, and very dark upper petals. Mr. Turner was the only prizetaker with three new Fancy Pelargoniums—viz., Queen of the Hellenes, Jenny Howlett, Lady Hardy, all very neat and distinct. *Zonal Varieties.*—In Class 5, Division A, Dr. Denny was first with Lalla Rooke, fine scarlet, immense trusses; Prima Donna, an exceptionally handsome white; Cynthia, fine magenta, neat flower and truss, habit dwarf. In Class 6A, for double varieties, Messrs. Saltmarsh and Sons, Chelmsford, won with Mrs. Arthur Lattey, fine pink, large truss; and Lord Cecil, handsome scarlet. In Division B Mr. Turner had a neat variety, named Kensington, with white flowers and yellow foliage; and one named Nancy Lee, with scarlet flowers and variegated foliage. Mr. H. Cannell staged the only new Ivyleaf variety, one of Sisley's raising, named Beauté de Lyon. The flowers were large, of good form, and somewhat of a scarlet tinge.

In the classes for specimens the exhibits were numerous. With six Show varieties Mr. Little was first, staging very symmetrical plants. Mr. C. Turner was second with smaller specimens, but bearing handsome flowers; Victory was especially noteworthy for the size and colour of the blooms. Mr. F. Hunt, York Lodge, Stamford Hill, was third with well-grown plants, but bearing few flowers. Mr. Turner was first with eighteen Show varieties, his collection included a good selection. Mr. Little and Mr. W. Meadmore, Romford, followed with fair specimens. Mr. Little staged the best collection of nine decorative varieties, the specimens being exceptionally fine, Kingston Beauty and Duchess of Edinburgh

flowering grandly. Mr. C. Turner followed with plants bearing fine trusses but somewhat uneven. Third, Messrs. J. and J. Hayes with good plants. The prizes for eighteen Show varieties were obtained by Messrs. J. and J. Hayes and Mr. H. Little. Among the Fancy varieties Mr. C. Turner obtained the chief position with six plants remarkably well flowered. The Jewess, The Shah, and Princess Teck were fine. Mr. H. Little took the second position with handsome specimens; and Mr. Hodgson, The Elms, Hampstead, (gardener, Mr. J. Weir), was third.

The Zonals were very fine. In the class for nine Mrs. Lermite, Finchley (gardener, Mr. J. Catlin), obtained the premier position with good specimens over 4 feet in diameter, and bearing numerous trusses of flowers; Fanny Cattlin, Lizzie Brooks, Mrs. Pearson, and Ellen were very handsome. D. Martineau, Esq., Clapham Park (gardener, Mr. J. Weston), was second with inferior plants, and Mr. W. Meadmore, third. Mr. Catlin, Mr. Little, and Mr. Meadmore received the prizes in the class for eighteen specimens. In the class for nine double-flowered Zonals Mrs. Lermite was awarded the premier prize for symmetrical well-flowered specimens. G. Simpson, Esq., Wray Park, Reigate (gardener, Mr. J. King), and Mr. W. Meadmore being second and third respectively. Mrs. Lermite was first with eighteen double Zonals; Mr. J. Balaam, Vine Nursery, Lower Clapton, second; and Mr. W. Meadmore third.

The cut blooms were remarkably fresh and good, some of the trusses being of enormous size and the colours brilliant. Show varieties were well shown by Messrs. Turner, Saltmarsh, and Meadmore, who gained the chief prizes. Zonals were grandly exhibited by Mr. H. Cannell, his collections attracting great attention; and other prize-winners in that class were Messrs. Saltmarsh, Meadmore, Mr. G. Duffield, gardener to H. K. Mayor, Esq., Winchmore Hill, and Mr. J. Dixon, Christchurch Lodge, Hampstead. Double-flowered varieties were well shown by Dr. Denny and Messrs. Saltmarsh; the only collection of Ivy-leaved varieties being from Mr. George, gardener to Miss Nicholson, Putney Heath.

Certificates were awarded for the following varieties—To Dr. Denny for a double Zonal variety named *Enchantress* (Denny), with

large trusses of pink flowers and of good habit; for the single Zonal *Ulysses* (Denny), a handsome variety with symmetrical blooms in compact trusses, of a brilliant scarlet colour; *Progress* (Denny), a double Zonal of a rich scarlet shade, very neat flowers and good habit; *Prima Donna* (Denny), a handsome white Zonal variety, with flowers of excellent form and great substance. To E. R. Foster, Clewer Manor, for a Show variety named *Constitution* (Foster), with blooms of the most exact symmetry; the lower petals of a pale sallow pink hue, a white centre, and intensely dark maroon upper petals with a narrow margin; *Minotaur* (Foster), somewhat resembling the above, but with darker lower petals. To Henry Little, Esq., for an attractive decorative variety, *Bridesmaid* (Jackson). It was extremely floriferous, the blooms being slightly crimped; the lower petals white, and the upper light crimson; truss large, and habit compact. *Hayes' Seedling* (Hayes), a decorative variety, with very large flowers of a bright soft pink colour relieved by a small blotch in each petal. *Criterion* (Jackson), very free in habit; flowers of good form, colour rich scarlet. To Mr. W. Brown, Hendon, for a decorative Pelargonium, *Eclipse* (Brown), truss very compact; flowers of a pale cerise or pinkish tinge blotched with a deep tint. To Messrs. J. and J. Hayes for a decorative variety *Mrs. Ashby* (Hayes), very attractive; upper petals extremely dark; lower pink, clear white centre. To Messrs. Saltmarsh and Sons for the double Zonal *Lord Cecil* (Saltmarsh), a grand variety with enormous trusses of brilliant scarlet flowers.

JULY 13, 1880.

ORDINARY GENERAL MEETING.

G. T. CLARK, Esq., V.P., in the Chair.

Elections.—Mrs. Firman, Francis Henry Hogg, Sydney Howard, Dr. J'Anson, Mrs. Keane, Robinson Kendal, Douglas Kingsford, Rev. H. D. McCheane, J. B. Sharpe, H. Villiers Stuart, M.P., James Waddell, Charles Westendarp.

Medals Awarded.—Bronze Banksian, James Carter and Co. for a collection of Lettuces; Bronze Banksian, H. Cannell for cut blooms of Verbenas.

The General Meeting was unusually large and interesting for this time of year, the Council-room being completely filled with plants, flowers, and fruit from a number of exhibitors. Tuberous Begonias were strongly represented; the other most noteworthy exhibits being the superb collection of Japanese Iris blooms from Messrs. J. Veitch and Sons, Chelsea, their Orchids and new plants and the collection of Lettuces in the vestibule from Messrs. J. Carter and Co., High Holborn.

FLORAL COMMITTEE.

Dr. DENNY in the Chair.

This Committee had a large number of new and beautiful plants submitted to their attention, and that the exhibits possessed considerable merit may be judged from the number of first-class certificates awarded. Messrs. J. Veitch and Sons, Chelsea, had a fine group of Tuberous Begonias, Orchids, and new plants. Some of the most noticeable Begonias were the dwarf forms. Mrs. Arthur Potts with rich crimson flowers; B. Davisi with neat bright scarlet flowers. Of the larger varieties Brilliant with enormous scarlet flowers; Le Géant, also with large blooms; Emperor, Monarch, the pretty white form Reine Blanche; several named seedlings, Rosea grandiflora, and Countess of Kingston described

below. An exceptionally beautiful collection of Japanese Irises was also exhibited which were greatly admired. The varieties were not of English origin, having all been introduced from Japan by Messrs. Veitch; the diversity and beauty of the colouring were most attractive. Sir Trevor Lawrence, Bart., M.P., Burford Lodge, Dorking, sent a group of Orchids, among which was a grand specimen of *Grammatophyllum Ellisii*, with a raceme considerably over 2 feet in length and bearing nearly fifty of its peculiar brownish flowers with small yellowish spots. *Nanodes Medusæ* had several of its strange dull reddish coloured flowers with large fringed labellums; the delicate and elegant *Ionopsis paniculata* was flowering freely; *Utricularia Eadresii* also being represented by an attractive specimen. Cultural commendations were awarded for these plants. Mr. H. Coppin, Rose Nurseries, Shirley, Croydon, obtained a vote of thanks for a group of Tuberous Begonias, containing several well grown and finely flowered specimens, also four boxes of cut Roses fresh and good. Mr. H. Cannell, Swanley, Kent, had a large stand of Verbenas, a number of varieties being represented, many of considerable beauty. A medal was awarded. Captain Patton, Langford Place, Abbey Road, N. (gardener, Mr. Borthwick), sent a *Coleus* named Allan Chandler, with leaves of great size, crimson marked with maroon, and edged with yellow and green, very bright in colour, a good variety, but with some others also exhibited on this occasion it was not considered sufficiently distinct from the numerous forms in cultivation to merit a certificate. Messrs. Heath and Son, Exotic Nursery, Cheltenham, were accorded a vote of thanks for a plant of *Epidendrum elatum* bearing a fine panicle of flowers, the fragrance of which strongly resembles that of ripe Pears. Mr. C. J. Salter, gardener to G. Southgate, Esq., Selborne, Streatham, was accorded a vote of thanks for a basket of plants of *Phalænopsis grandiflora*, bearing a large number of fine flowers; one inflorescence had sixteen flowers, and others from eight to ten. Mr. Salter also sent a basket of *Oncidiums* of several species flowering freely. From the Society's garden were sent several of Lemoine's *Pelargoniums*, also a group of seedling *Begonias* of especial merit, the habit being good, the flowers large and richly coloured. As arranged with pots of Mig-

nonette the effect was very pleasing. Plants of *Gomphrena globosa nana* were also shown; as its name signifies, it differs from the ordinary form in the dwarf and compact habit. A vote of thanks was accorded to G. F. Wilson, Esq., F.R.S., Weybridge, for flowers of *Lilium*, including *L. pardalinum*, *L. californicum*, and a seedling. Messrs. Cutbush and Son, Highgate, had a collection of Ivies in the vestibule comprising about fifty varieties, several of considerable beauty.

First-class certificates were awarded for the following plants:—
 To Mr. Coppin for a seedling named *Tuberous Begonia Mrs. H. Coppin*, a very distinct variety, with very large yellow flowers of good form; the leaves were somewhat of the *Pearcei* type in colouring, but very large, some being about 10 or 12 inches in length. The habit was compact and good, and the variety appears to be one of great excellence. To Messrs. Veitch and Son for *Tuberous Begonia Rosea grandiflora*, a beautiful variety, with flowers of enormous size, about 4 to 5 inches in diameter, of neat form, and pale pink in colour, very distinct and attractive; *Cyrtopodium Morganianum*, a hybrid between *C. Stonei* and *C. Veitchi*, with narrow petals about 4 inches in length, spotted with dark purple, the sepals were of a light colour faintly striped with purple; *Tuberous Begonia Countess of Kingston*, of dwarf habit, with large well-formed flowers of a rich crimson tint. In the colour and symmetry of the flowers this fine variety could scarcely be surpassed. The following varieties of *Iris Kœmpferi* were also deservedly certificated—*Carnation*, very large flowers, peculiarly streaked with purple on a lighter ground; *Striata superba*, very neat symmetrical flowers with a pale lilac ground, marked with fine purple veins, and having purplish blue stigmas; *Imperial Wonder*, large circular flowers, spotted and streaked with white and two shades of purple; *Kosoburo San*, falls and standards broad and rounded, streaked and veined with purple on a light colour, very distinct and beautiful; *Delicata*, flowers of moderate size, semi-double, white in centre, lilac blue towards the margin, very chaste. To Mr. C. Turner, Slough, for *Rose Mrs. Harry Turner*, a Hybrid Perpetual with neat compact blooms of good substance and a surprising richness of colour. The shade was a deep rich

crimson with a velvety sheen; very effective. *Picotée Olara Penson*, a light-edged variety of symmetrical form, full, pure white with a clear narrow margin of purple. To Mr. W. Bull for *Lilium canadense splendens*, a variety of this well-known species with a single neat flower of moderate size, the perianth divisions acute, reddish in colour, thickly spotted with black; very pretty and distinct. To Messrs. Cutbush and Osborn for *Hedera maderiensis*, an Ivy with small leaves variegated with white. To Mr. R. Lewis, St. Austins, South Norwood, for *Coleus Sowteri*, a distinct and attractive variety with neatly formed leaves, rich crimson in the centre, and margined with an even band of yellow. To Mr. J. King for *Begonia Mary Steele*, a tuberous variety of the Pearcei type, very floriferous, of good compact habit and bearing circular flowers of a fine yellow tint. *Tuberous Begonia A. Hemsley* from the Society's gardens at Chiswick was also honoured with a certificate. It was exhibited as a "decorative variety," a term which was apparently intended to indicate the dwarf compact habit and floriferousness of the variety. The flowers were very freely produced, and of a fine pink hue. Messrs. W. Paul and Son, Waltham Cross, also obtained a first-class certificate for *Rose Pride of Waltham*, which is described in the report of the Alexandra Palace Rose Show.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

Fruit and vegetables were not quite so abundant as the plants and flowers, but several exhibitors staged collections deserving of notice. Mr. Lyon, gardener to Sir E. H. Scott, Sundridge Park, Bromley, Kent, exhibited dishes of fine Elruge Nectarines and Grosse Mignonne Peaches; the latter were very large, and a vote of thanks was accorded for them. Mr. Whitaker, gardener to Lord Crewe, sent dishes of Lord Napier Nectarines, for which a cultural commendation was awarded. The fruits were of good size and well ripened. From the Society's garden fruits of a hybrid Strawberry were sent, the hybrid being the result of a cross between *Fragaria lucida* and *F. carolina*. The fruits were rather

small, but of a rich and peculiar flavour. It was characterised by the Committee as an interesting cross of good habit, abundant bearer, and novel flavour, but not of sufficient size or importance to merit a first-class certificate. Mr. Ward, Longford Castle Gardens, Salisbury, sent a seedling Melon, which was considered as a good ordinary Melon, but not superior to others in cultivation. Messrs. Bunyard and Co., Maidstone, sent small branches of Currants most profusely laden with fruits. The varieties were Raby Castle, Early Red, and Baldwin's Black. A vote of thanks was accorded. Mr. Pearson, 5 Water Lane, Brixton, sent fruits of a seedling Strawberry, very large but not in good condition. Mr. Hinds, Canforp Manor, Wimborne, sent a collection of vegetables, comprising very clean well-grown samples of Peas, Beans, Carrots, and Potatoes. The Committee signified their appreciation of the quality by awarding a cultural commendation. A bronze medal was awarded to Messrs. J. Carter and Co. for their great collection of Lettuces, which comprised over two hundred varieties, representing all the principal forms in cultivation.

SCIENTIFIC COMMITTEE.

Sir J. D. HOOKER, K.C.S.I., in the Chair.

Fasciation.—Mr. W. G. Smith exhibited a curious example of fasciation in *Chrysanthemum Leucanthemum*, in which the solitary peduncle carried three closely adpressed flower-heads. The specimen was sent by Mr. Scrimshaw, The Gardens, Chatsworth.

Exobasidium vaccinii.—The same gentleman reported that the thickened, bloom-covered leaves of *Vaccinium Vitis-idaea* referred to him were infested with *Exobasidium vaccinii*, a fungus of doubtful affinity.

Destructive Action of Smoke on Trees.—Mr. Smith also exhibited four water-colour sketches illustrative of growing Conifers under difficulties, the difficulties being caused by the outpouring of volumes of dense smoke from a smelting furnace; and a life-size sketch of one of Mr. Noble's large plants of *Lilium giganteum*.

Trees Banked-up with Earth.—A conversation ensued as to this

point, the gist of which was that some trees suffered less from having their trunks banked-up with earth than might have been anticipated. Some trees in the Euston Road were mentioned in illustration, as also Milton's Mulberry at Christ College, Cambridge.

Nitrification.—Reference was made by Dr. Gilbert to the presence of an organism acting as a ferment in the process of nitrification, and to the fact observed by Mr. Warrington in the Rothamsted laboratory, that certain solutions were observed to contain nitric, others nitrous acid. In some of the solutions vegetable organisms were observed, and the curious point was, that in those solutions in which the organisms were the nitrous acid had become further oxidised into nitric, while in those solutions where there were no organisms, the acid remained as nitrous acid. Dr. Masters stated that he had examined three of the solutions containing organisms. In the one case there were white flocculi, which on examination proved to consist of crystals around which a profusion of micrococci and a few hyphal threads were aggregated; in a second case mucilaginous films were seen floating in the liquid, and which when examined proved to consist of micrococci and bacteria in the zooglæa stage, together with numerous felted mycelial threads of extreme tenuity. In the third case there were brownish specks, which under the microscope were seen to consist of chains of ovoid cells, somewhat as in *Spermosira*. The specimens were referred to Dr. Cooke for further examination and report.

Simethis bicolor.—Dr. Masters exhibited a specimen of this plant from Dorsetshire. It is considered a doubtful native, but is not without geographical allies in the south-west corners of Ireland and England.

Sugar Cane Disease.—Mr. MacLachlan showed specimen of cane from Queensland in which the tissue of the cane was eaten away by the larva of a moth, which it was impossible to identify precisely in the absence of the perfect insect, but it was probably one of the Pieridæ, like that which does so much damage in Mauritius. Two remedies were suggested—one to pull up the canes and burn them, the other to strip off the lower leaves, and to destroy the eggs of the insect which are deposited in the axil of the leaf between it and the stem.

Habenaria radiata.—This charming terrestrial Orchid from Japan, with a spike of white flowers with fringed segments, received a Botanical Certificate.

Plants Shown.—*Lilium medeoloides* (?), *Byrophyllum calycinum* fol. var., *Iberis amara*, Cabbage leaves with pitchers, fasciated Ash, and, lastly, an instructive series of dried flowers of *Oncidium Gardneri* and *O. curtum*, showing every grade of transition between the two.

LECTURE.

At the afternoon meeting the Rev. G. Henslow, Secretary to the Scientific Committee, gave a brief lecture, the first group of plants to which he called attention being a fine series of *Iris Kämpferi* from Japan, exhibited by Messrs. Veitch. The lecturer explained how the process of becoming double was being carried on, first by the three inner petals, usually small, being much enlarged and resembling the outer ones—an extra number of stamens appearing as small petals, and the style becoming more petaloid, so that, probably by continued cultivation, flowers resembling purple *Pæonies* might be expected to be produced. Mr. Henslow described the fertilisation of *Iris* and *Crocus* by insects (see *Gardeners' Chronicle*, vol. v., p. 505). The chief display of the day was made by *Begonias*, consisting of variations from hybrids between *B. boliviensis*, *B. Veitchii*, and other species. Allusion was made to the tendency to change the sex in *Begonias*; the stamens especially putting on stigmas while one specimen exhibited showed the pistil surrounded by stamens. The stems contain, probably, potassium oxalate, and are sometimes used instead of rhubarb; while the juice may be used like salts of lemon for extracting ink stains, only it is liable to leave an indelible red stain instead! A beautiful species of *Utricularia* and a hybrid *Nepenthes* furnished matter for a short account of the carnivorous habits of these genera. With regard to Orchids, a remarkable species of *Nanodes*, *N. Medusæ*, was alluded to, in which the labellum is adherent to the column. A fine *Phalænopsis* furnished an illustration of the fertilisation of Orchids by insects; the "caudicle" of the pollinia undergoes a remarkable contraction, so as to curve, while at the same time it is being depressed—the object being apparently to shorten the distance be-

tween the viscid disk and pollen, so as to hit the stigma more accurately and effectively. Gloxinias furnished an illustration of reversion, for it is presumable that all "irregular" flowers were originally regular, and have become irregular by adaptation to insect agency. Horticulturalists now "select" those with erect and regular flowers, thus "reverting" to an ancestral type. Pelargonias are remarkable for illustrating the fact that physiological differences are often more pronounced than morphological, for it is found that the forms with five well marked spots, one on each of the five petals, will not cross with those possessing only two spots with the other three wanting or only faintly represented.

EVENING FÊTE AT SOUTH KENSINGTON.

The Royal Horticultural Society held its annual evening fête at South Kensington on Wednesday the 21st inst., and being favoured with fine weather after a few showers in the early part of the evening, it proved highly successful, and a very large and distinguished company assembled to enjoy the numerous attractions provided. The east and west quadrants were occupied by numerous collections of plants, which appeared to excellent advantage beneath the electric light. Of the plants thus contributed a large proportion were from the Society's garden at Chiswick, one group of Tuberous Begonias being particularly attractive. An extensive and imposing collection of plants were staged by Captain Patton in the east quadrant, comprising 150 varieties of Coleuses, some of them very handsome, arranged with Palms, Lilies, and miscellaneous fine-foilage plants. Another very attractive group was that from H. J. Atkinson, Esq., Gunnersbury House, Acton (gardener, Mr. Hudson), which contained some very handsome specimen Ferns, Crotons, Palms, and other plants effectively arranged. Mrs. Hudson contributed an elegant and pleasing example of table decoration, which found many admirers. Nurserymen also exhibited well, one of the principal groups being that from Mr. B. S. Williams, Victoria Nurseries, Upper Holloway, which included a number of

choice stove plants; Orchids, Palms, Nepenthes, Ferns, &c., being exceptionally well represented. The General Horticultural Company sent a large and beautiful group of Palms, Ferns, Gloxinias, and others, the central plant being a fine specimen of the beautifully variegated *Phyllanthus nivosus*. Messrs. Osborn and Son, Fulham, had a pleasing arrangement of fine-foliage plants; and Mr. Aldous, South Kensington, exhibited a graceful mode of decorating a fire grate and mantelshelf. Messrs. Dick Radelyffe and Co., High Holborn, contributed a charming arrangement for a grotto; and Mr. Cannell, Swanley, staged a large collection of trusses of Verbenas representing more than 150 varieties, very bright and rich in colour.

The grounds were illuminated with Messrs. Siemens' electric light, which proved on this occasion exceptionally brilliant and steady, and upwards of eight thousand coloured lamps, which were arranged spirally up the stems of trees, in festoons from tree to tree, among the branches, and around the fountains, considerable taste being displayed in the arrangement. Coloured fires were employed at intervals, but owing to the stillness of the air the smoke somewhat marred the effect. In the conservatory the Kensington Amateur Choral Society sang an admirable selection of part songs, and on the terrace the bands of the Royal Horse Guards and the Life Guards contributed greatly to the pleasure of the visitors. Under the superintendence of the Secretary and members of the Council, Mr. Barron the Superintendent, and Mr. Dick the Assistant Secretary, carried out the arrangements with great efficiency; indeed in every respect this was probably the most successful meeting of the kind ever held by the Society.

JULY 27, 1880.

ORDINARY GENERAL MEETING.

Col. R. TREVOR CLARKE in the Chair.

Elections.—Sidney R. Brown, E. H. Cardwell, Henry Lee Corlett, George Deal, Miss Gowan, Captain T. Bridges Heathorn, R.A., Mrs. T.R. Hoare, Dr. Charles W. Pridham, Ernest William Rogers.

Medals Awarded.—Silver Banksian, T. Rivers and Son for 18 fruit trees in pots; Bronze Medal, S. Ford for a collection of Potatoes; Large Gold Medal, Capt. Patton for large group of Plants remaining on view 14 days; Silver Flora, C. Lee and Son for group of Hardy Evergreen shrubs; Silver Banksian, J. Carter and Co. for group of Balsams; Bronze Banksian, W. Rumsey for cut blooms of Roses.

The General Meeting was on the occasion rendered doubly attractive and interesting by the exhibition of Carnations and Picotees, and the British Bee-keepers' Association's Exhibition, which were held on the same day; but in addition to those attractions numerous plants and groups were submitted to the attention of the Committees. Not only was the Council-room occupied, but a large portion of the east quadrant was also filled with collections of plants notable either for their rarity, beauty, or fine healthy condition.

FLORAL COMMITTEE.

Dr. DENNY in the Chair.

The following were the most notable exhibits in the Council-room. Messrs. John Laing and Co., Forest Hill, sent a fine collection of Hollyhock blooms, including some remarkably handsome varieties; the blooms were of great size, full, and of good form. Mr. J. Chambers, Westlake Nursery, Isleworth, sent a collection of Lobelias and Ferns, young specimens of *Asplenium viviparum* being

particularly attractive with their finely divided fronds bearing diminutive plants. Mr. G. Weedon, Ealing, staged a basket of a bedding *Lobelia* named Gem of the Season, dwarf and free, the colour of the flowers being a very bright blue. Mr. R. Dean, Ranelagh Road, Ealing, exhibited flowers of a double Stock named Mauve Beauty, very profusely flowered; also specimens of the double Mayweed, *Matricaria inodora* fl.-pl., and samples of two seedling Potatoes, The Alderman and Lord Mayor, both crosses obtained between Extra Early Vermont and Early Market. Messrs. Veitch, Chelsea, sent several new and beautiful plants, including a very attractive dwarf Tuberous *Begonia* with pendulous rich scarlet flowers; a white-flowered variety named Mrs. Sheppard, of considerable beauty; a variegated form of *Lilium longiflorum*; a plant each of *Oncidium dasytyle*; and a variety named aureum with bright yellow labellums. Messrs. William Paul and Son, Waltham Cross, sent a box of seedling Roses. Messrs. J. Carter and Co., High Holborn, exhibited plants of *Tropæolum Chameleon*, a dwarf compact variety with neat flowers marked with crimson and yellow, and several good Balsams. Mr. J. Smith, Tollington Nursery, Hornsey Road, sent two *Fuchsias* named President and Magnum Bonum, both having large flowers with purple corollas and scarlet calyxes. Messrs. Standish and Co., Royal Nursery, Ascot, staged specimens of a *Phlox* named Standish's Perfection, a fine variety with large white flowers in compact trusses. Mr. B. S. Williams sent several new plants, *Cattleya Eldorado virginalis* being particularly attractive. Mr. Stephen Brown, Weston-super-Mare, sent a collection of *Coleuses*; and cut flowers of *Pentstemons* were exhibited from the Society's garden at Chiswick. Messrs. T. Rivers and Son, Sawbridgeworth, sent about twenty fruit trees in pots, comprising Pears, Cherries, and Apples. One tree of Bigarreau Napoleon was remarkable for the fine crop it was bearing. A vote of thanks was accorded to W. A. Wallington, Esq., Trowbridge, for cut blooms of *Carnations*.

In the east quadrant, however, the principal collections of plants were staged, and by far the largest and most remarkable of all was that from Captain Patton of Abbey Road, which is referred to on p. cxxxv under the report of the Royal Horticultural Society's Evening Fête.

The plants composing the group having been noted in the report referred to, it is needless to repeat them here, but the merit of the collection was justly recognized by the award of a large gold medal. The group remained on view until the Popular Show on August 2nd.

Messrs. James Carter and Co., High Holborn, exhibited a large collection of their Challenge Prize Balsams, which well indicated the excellence of the strain they possess. The majority of the plants were in 48-size pots, were a foot to 18 inches in height, and bearing a profusion of large blooms of good form and substance. The lilac, mauve, and purple shades were particularly well represented; white, flesh, pink, and scarlet were also remarkably fine. A silver Banksian medal was awarded. Messrs. Osborn and Son, Fulham, sent a neat collection of fine-foliaged plants in fresh healthy condition. The central plant was a vigorous specimen of *Acalypha musaica*, the foliage large and well coloured. In addition to such well-known elegant Palms as *Areca Baueri*, *Kentia australis*, *K. Wendlandia*, *K. Canterburyana*, and *Cocos Weddelliana*, small specimens of the dwarf and pretty *Pandanus ornatus*, *Aralia Veitchii*, and *A. flicifolia* were shown.

Messrs. Charles Lee and Son, Hammersmith, were awarded a silver Flora medal for a large and beautiful collection of ornamental shrubs and Conifers in pots. The specimens staged were mostly small, but well showed the distinctive habit and colouring of the different species and varieties. Some of the most noteworthy forms exhibited were the following:—*Platanus californica*, a very distinct species with enormous leaves more than a foot in diameter; *Populus canadensis aurea*, an elegant Poplar with neat golden-yellow leaves; *Ulmus campestris variegata*, a beautifully variegated Elm, the markings on the leaves somewhat resembling those in *Ficus Parcelli*; *Castanea vesca alba marginata*, an elegant variety of the English Chestnut with narrow leaves edged with an irregular band of white; *Sambucus racemosus*, remarkable for its large corymbs of small scarlet berries; *Quercus atro-purpurea*, a form with very dark purple flowers; *Quercus Cerris elegantissima*, a variety of the Turkey Oak with neatly variegated foliage; *Acer campestris variegata*, a charming little maple with small leaves freckled with white; *Quercus*

filicifolia, a peculiar form with deeply divided leaves, the segments being irregularly linear; *Æsculus laciniata* was also remarkable for the narrow dark green peculiarly cut segments of the leaves; *Quercus purpurascens* had rich purple foliage, and many other beautiful forms were represented.

Mr. H. Cannell, Swanley, Kent, exhibited a beautiful collection of single *Petunias*, fine in form, and particularly rich in colour. The blooms, as seen in contrast with a carpeting of Fern fronds, appeared remarkably well. The collection was flanked by four plants of *Achimenes longiflora major*, with uncommonly large flowers; also a collection of African Marigolds. The little group was generally admired by the visitors. Mr. W. Rumsey, Waltham Cross, contributed seven boxes of neat and fresh-cut *Roses*, comprising a number of excellent varieties in very good condition. Some of the best were *Leopold Premier* (very neat and fresh), *Madame Victor Verdier*, *John Stuart Mill*, *Dr. Andry*, *La Rosière*, and an excellent dozen of *Alfred Colomb*—bright, of good form and substance. A bronze Banksian medal was awarded. Messrs. James Veitch and Sons, Chelsea, exhibited eighty blooms of border *Carnations* and *Picotees* grown at King's Road, Chelsea, comprising a large number of excellent varieties. Among the *Carnations* the most noticeable were *Lord Chelmsford*, R.F.; *Sulphur King*, yellow self; *Crimson Pet*, a rich crimson self; *Purple Prince*, fine purple self; and *Mrs. Teigner*, fine pink self. Of the *Picotees* *Mrs. Rayner*, rose, medium edge; and *Lady Armstrong*, a heavy red-edged variety with a yellow ground.

First-class certificates were awarded for the following plants:—

Lygodium palmatum (G. F. Wilson, Esq., F.R.S.).—A beautiful climbing Fern, which was stated to have been grown upon a rockery and unprotected for several winters. This is one of the most elegant and free-growing *Lygodiums* in cultivation, and proves of considerable value for training up pillars in greenhouses or conservatories.

Rose Duchess of Connaught (C. Noble, Bagshot).—A Hybrid Perpetual of rich crimson hue, neat form, and possessing a particularly powerful and agreeable fragrance.

Rose Mrs. Jovitt (Cranston and Co.).—A handsome Hybrid Perpetual, of symmetrical form, great substance, and a glowing rosy crimson colour. Very beautiful.

Macrostylis metallica (Veitch).—An attractive dwarf terrestrial Orchid, with neat foliage of a shining metallic deep brown colour, with a crenated margin. Very pretty for culture in pans on stages in stoves or Orchid houses.

Oleobachia palustris (Williams).—A graceful table plant with digitate leaves, the divisions being narrow and rich shining green in colour. The habit of the plant is compact and dwarf.

Iris Kæmpferi, vars. *Crimson King* and *Magnificence* (Veitch).—Both these varieties were of exceptional size and rich in colour, the former being particularly beautiful, the shade of crimson being intensely bright and clear.

FRUIT COMMITTEE.

JOHN LEE, Esq., in the Chair.

Mr. Gilbert of Burghley Gardens, Stamford, sent a dish of Peas called Reading Nonesuch, which was recommended to be sent to Chiswick for trial. Mr. G. Weedon of Ealing sent some fruit of a Cucumber called Best of All, which has a strong resemblance to Tender and True. Mr. Sydney Ford, The Gardens, Leonardslee, Horsham, sent a Melon called Dellamore Hybrid, an oval green fruit, the flesh of which was tender and most delicious. It was awarded a first-class certificate. Mr. W. Kimpton, The Gardens, Smeeth Paddock, near Ashford, Kent, sent samples of a seedling Potato, which was recommended to be sent to Chiswick for trial. Messrs. James Carter and Co. sent fruit of their Cucumber Model, which is a useful variety, but was not considered superior to others in cultivation. Mr. John Maher, gardener to C. Allhausen, Esq., Stoke Court, Slough, sent a variety of Pea called The Quéen, and a box of fine Violette Hâtive Peaches. To the latter a letter of thanks was awarded.

Mr. J. Wilson, Home Cottage, Enfield Highway, sent a seedling Currant raised from Raby Castle, to which it bears so close a resemblance that no difference could be distinguished between them. Mr. Pearson, Water Lane, Brixton, again exhibited his seedling Strawberry, but the flavour was so inferior that the Committee

could not make any award to it. Messrs. Hooper and Co., Covent Garden, sent a Melon called Sirdar, which was not of sufficient merit.

Messrs. C. Lee and Son, Hammersmith, sent a basket of Henson's Seedling Gooseberry. This variety received a first-class certificate a few years ago, and still maintains the high opinion then formed of it. A letter of thanks was awarded. Mr. E. P. Dixon of Hull sent fruit of a new Raspberry derived from the Northumberland Fillbasket. It is a large handsome fruit, but not superior in flavour to other varieties in cultivation.

Messrs. Rivers and Son of Sawbridgeworth sent nine varieties of Cherries grown on pot trees in an orchard house; the finest of all was Early Rivers, a variety certificated by the Committee some years ago. Grosse Guigne Noire Luisante was also very fine. A letter of thanks was awarded for the collection. Messrs. Rivers also exhibited eighteen fruit trees in pots, which were so much admired for the excellence of their cultivation that a silver gilt Knightian medal was awarded. Mr. Stephen Castle, The Vineyard, King's Lynn, sent a collection of Tomatoes, to which a cultural commendation was awarded. Mr. Sydney Ford sent a collection of Potatoes consisting of forty-three varieties, to which a bronze medal was awarded.

SCIENTIFIC COMMITTEE.

Pyrethrum.—Mr. W. G. Smith exhibited a specimen more or less fasciated and bearing a proliferous head—the so-called “hen and chickens,” not uncommon in the Daisy.

Mr. Roberts, Penzance, forwarded specimens of the following rare British plants:—*Chara fragifera* (living), *Allium Schönoprasum* var. *sibiricum*, *Orobanche rubra*, and *Erica vagans* (dried) from the Lizard, Cornwall.

Trifolium repens.—The Rev. G. Henslow exhibited a foliaceous and proliferous specimen and called attention to the fact that while the sepal-teeth grow out into petiolate leaves stipule-like processes appeared at the top of the calyx-tube between the petioles, seemingly proving that the tube is really receptacular and not of calycine origin.

Araucaria imbricata.—Mr. Fletcher of Ottershaw forwarded male cones of this plant.

LECTURE.

Mr. Cheshire being subsequently about to lecture on bees, the Rev. G. Henslow took the opportunity to speak principally on the fertilisation of flowers by them and other insects.

A basket of *Tropæolums* furnished illustration of strong "proterandry"—*i.e.*, the stamens, maturing first, rise up in front of the orifice to the spur and then retire on shedding the pollen. Subsequently the stigma matures and takes up the same position; hence such a flower is fertilised by pollen brought from a younger one. *Fuchsias* illustrated the old but false generalisation that, whether a flower be pendulous or erect, the stigma will be below the anthers, so that the pollen may fall upon it. Though such an arrangement is in the *Fuchsia* the flower is proterandrous, and therefore is not adapted to self-fertilisation. Moreover, when flowers are habitually self-fertilised the anthers are placed in close contact with the stigmas, as is the case with the "cleistogamous" buds of *Violets*. A group of *Pentstemons* furnished the case of a flower fertilised by bees, but which by means of the fifth (abortive) stamen standing over the nectary, afforded an obstruction to all insects whose proboscis could not reach to the bottom of the tube, and so would not be of any assistance in pollinating the flower. The structure of *Abutilon*, *Malva sylvestris*, and *Salvia*, was described as being especially adapted to insects in securing cross-fertilisation, while the cleistogamous *Violets* and *Malva rotundifolia*, &c., were self-fertilising.

The lecturer observed that all the varied beauty of flowers in nature was solely due to their being adapted to insects, whilst self-fertilising flowers were as a rule inconspicuous and unattractive.

A plant of *Lygodium palmatum*, exhibited by Mr. Wilson, illustrated the peculiarities of climbing stems or "twiners," and the lecturer suggested that as the property of bowing in a circular manner was not confined to climbers, for the apex of a Pine does the same, that it is probably a general phenomenon of plant growth, but specially utilised by plants with weak stems as a means of support.

This suggestion has since been fully confirmed by Mr. Darwin, who has shown in his work *The Movements of Plants* that many of them are but modifications of "Circumnutatia."

The following plants were certificated at Chiswick on July 20th.

BEGONIAS.

Dr. Denny.—Strong vigorous habit, very free-flowering. Flowers of medium size, well thrown above the foliage, very pale scarlet, approaching almost to a salmon.

Dr. Hogg.—Very strong growth. Stems pale green. Flowers well displayed, of a very bright scarlet, shaded towards centre with a pale hue. Very free-flowering and good.

Lucy Violet.—Vigorous habit, very free-flowering. Flowers of medium size, clear rosy pink, shaded towards the centre of the flower.

Anna Ria.—Strong vigorous growth, very free-flowering. Flowers of medium size, pale scarlet. Good.

Lizzie Smith.—Free vigorous growth. Flowers dark scarlet, with distinct magenta shade; round, medium size.

Henry Webb.—Strong vigorous habit, free-flowering. Flowers large and of good form, clear scarlet. Very good.

Annie Wilkie.—Strong habit. Stems pale green. Flowers large, pale scarlet, well thrown up. Very good.

Nellie Barron.—Very close compact habit, very free-flowering. Flowers erect, of a beautiful dark scarlet. Very fine.

Rosea Grandiflora.—Tall erect habit. Flowers very large, of good substance, beautiful rosy pink.

The certificates which had been previously awarded to the varieties *Nellie May* and *A. Hemsley* were on this occasion confirmed.

All the above varieties were raised in the Royal Horticultural Society's Gardens.

PELARGONIUMS.

Gloire d'Orleans (Lemoine).—Of dwarf close habit, very free-flowering, medium, erect-growing truss, beautiful magenta scarlet. The brightest coloured in the Ivy-leaved section.

Lucie Lemoine (Lemoine).—Show-decorative. Very dwarf close growth, very free-flowering. Flowers pure white, slightly pencilled at bottom of petals. The best white.

Mrs. Potten (Lemoine).—Show-Decorative. Free habit, free-flowering, white, slightly shaded; distinct purple blotch on upper petal. Very distinct and showy.

Madame Thibaut (Lemoine).—Show-Decorative. Free vigorous growth, very free-flowering. Large compact truss, white suffused with magenta; distinct, broad, and irregular rosy margin round petals. Very fine and showy.

Mont Blanc (Lemoine).—Ivy-leaved, white shaded pink, very free-flowering, large truss. Very fine.

Similar awards were also made to the two following plants on the same occasion :—

Gomphrena globosa nana compacta (Benary).—A very fine dwarf free-flowering form of the Globe Amaranth, from 9 to 12 inches high.

Oleander Professeur Duchartre (Huber).—Flowers purplish wine colour, beautiful shade, free-flowering and very showy. The darkest coloured of any.

AUGUST 10TH, 1880.

ORDINARY GENERAL MEETING.

DAVID WOOSTER, Esq., in the Chair.

Certificates in favour of the following Candidates for Election were read.—Frank R. Cheshire, Lieut.-Col. W. H. Moffat, Charles Oetzmann, Rev. Herbert R. Peel.

Medals Awarded.—Silver Banksian, Harrison Weir for Muscat Grapes; Bronze Banksian, J. Carter and Co. for a collection of Tomatoes.

The meeting of the above date, though not an unusually large one, was well attended by exhibitors. The tables in the Council-

room were occupied with the various collections of plants and flowers, Messrs. Veitch's Lilies, Mr. Bull's new plants, Mr. Cannell's Cockscombs, Balsams, and Coleuses, and the Society's Tuberos Begonias forming the chief features of the display. Messrs. Carters' collection of Tomatoes in pots in the vestibule also attracted great attention, and Mr. Harrison Weir's Grapes were much admired.

FLORAL COMMITTEE.

JAMES McINTOSH, Esq., in the Chair.

Mr. H. Cannell of Swanley, Kent, was accorded a vote of thanks for large collections of plants of considerable merit. Cockscombs were represented by a number of handsome plants, very dwarf, with large finely arched heads. The colours were various and extremely rich, the shades of crimson and pink being especially noticeable. "Cannell's Perfection Balsams" were also bearing large flowers of good form and of many different shades. A number of Coleuses were shown, including several fine varieties. Mr. W. Bull, King's Road, Chelsea, contributed a group of new and handsome plants, among which the most noteworthy were *Dieffenbachia Leopoldi*, a distinct form with velvety deep green elliptical leaves, each with a prominent white midrib; the habit was compact. *Geonoma princeps*, an elegant pinnate-leaved Palm; *Brunsvigia Josephinæ*, an Amaryllid with a tall umbellate scape, bearing red flowers on long pedicels; *Astrocaryum Malybo*, a Palm with pinnate shining green leaves and broad pinnæ; *Odontoglossum vexillarium rubrum*, a deeply coloured form of that beautiful Orchid; *Selaginella involvens variegata*, a form of this tufted *Selaginella* with a few white branches; and *Agapanthus umbellatus albus*.

Messrs. J. Veitch and Sons, Chelsea, had a group of *Liliums*, including several beautiful forms of *L. auratum*, were especially notable. *L. speciosum verum* was very beautiful, the rosy crimson tint being very clear. *L. tigrinum flore pleno* had neatly formed flowers, and *Lilium longiflorum albo-marginatum* had large pure white flowers and leaves edged with white. The neat little

Angræcum Scottianum had several flowers. The pretty shrub *Eucryphia pinnatifolia* was also represented by flowering sprays. Mr. J. Walker, Thame, Oxon, sent a number of flowers of Dahlias, large, of excellent form, and comprising some distinct and handsome varieties. A vote of thanks was accorded. Mr. Charles Turner, Slough, exhibited about eight dozen blooms of Carnations and Piccotees in very fine condition, and including a large number of handsome varieties. A pale primrose-coloured self variety named Lady Rosebery was very attractive.

From the Society's garden at Chiswick were sent a collection of plants of *Begonia ascotensis*, some of which had been grown indoors and the others outside. The flowers of the latter were rather darker in colour, and the leaves were smaller than the others, but the plants were nearly equally floriferous. A large group of handsome Tuberous Begonias was also contributed, the flowers being very large and the colours bright; also double *Pelargoniums* and *Pentstemons*. Messrs. Daniells Bros., Norwich, sent flowers of *Godetia Flag of Truce* and *Lady Albemarle*, the latter of a bright rosy crimson tinge, and the former white. The General Horticultural Society sent a collection of handsome *Zinnia* blooms, very bright in colour and symmetrical in form. A vote of thanks was accorded. Mr. R. Gray, gardener to the Earl of Stanhope, Chevening Park, Kent, was accorded a vote of thanks for blooms of seedling Begonias, very bright in colour. Mr. J. King, gardener to G. Simpson, Esq., Wray Park, Reigate; and Mr. A. Eckford, gardener to Dr. Sankey, Sandywell Park, Cheltenham, contributed a number of Begonias and Coleuses. Mr. Solloway, Beaconsfield, Davenport, Stockport, sent flowers of a rich purplish blue seedling *Viola*. Robert Warner, Esq., Broomfield; Chelmsford, exhibited a plant of *Cypripedium Warneri*, a cross between *C. Schlimii* and *C. Sedeni*; the flower was of moderate size of a rosy colour.

Some extraordinary fine flowers of *Lapageria rosea* and *alba* were exhibited by Titus Salt, Esq., Milner Field, Bingley, Yorkshire (gardener Mr. C. Anderson). Not only were the individual blooms of great size and excellent form, but they were borne in unusually large numbers; in some instances as many as a dozen

flowers were produced at one node. These superb examples were greatly admired, and the Committee accorded a vote of thanks and a cultural commendation. Messrs. F. and A. Smith, Dulwich, exhibited a collection of Balsams that were bearing remarkably well-formed flowers. The strain was commended. First-class certificates were awarded for the following plants—

Eucryphia pinnatifolia (Veitch).—An attractive Chilian shrub with shining pinnate leaves and serrate margin. The flowers are borne in the axils of the leaves, usually two at the apex of the shoot. The petals are broad, roundish, and white, the centre of the flower being occupied with numerous stamens somewhat in the style of the Hypericums. The flowers possess an agreeable fragrance and bear some resemblance to the Mock Orange. It is quite hardy in the Coombe Wood Nurseries, where it thrives freely.

Lilium speciosum gloriosoides (Veitch).—Flower of moderate size; divisions narrow, reflexed, half white, the lower portion near the centre of the flower spotted with red. Very distinct and pretty.

Lilium auratum virginale (Veitch).—A lovely variety of this handsome Lily with large flowers, white, with a clear yellow band down the centre of each division.

Lilium auratum platyphyllum (Veitch).—A variety with enormous flowers, 9 or 10 inches in diameter, the divisions about 4 inches across, slightly spotted, and marked with yellow in the centre.

Begonia Mrs. Sheppard (Veitch).—A tuberous variety with large white flowers, and moderately compact in habit.

Picotee Alice (Turner).—A pale yellow ground variety, slightly streaked with reddish crimson; the blooms of good form and substance.

Picotee Ne Plus Ultra (Turner).—Also a yellow ground form, with a reddish streaked edge.

Coleus Pompadour (King).—A very distinct and peculiar variety with deeply crenated leaves, marbled, spotted and streaked with crimson, pink, green, and yellow.

Hypolepis millefolium (G. F. Wilson, F.R.S.).—A second-class certificate was awarded for this elegant New Zealand Fern, which Mr. Wilson has found quite hardy at Weybridge. It has been out in the rockery for the last two or three years, and not protected in any way. Its finely divided foliage renders it particularly attractive.

LECTURES.

During the afternoon Professor G. Henslow delivered a short lecture upon the plants exhibited. He commenced by referring to a fine group of Lilies introduced by Mr. C. Maries, collector for Messrs. Veitch in Japan. It included a *Lilium auratum* var. *platyphyllum*, with a very large blossom but with the foliage of *L. speciosum*, from which *L. auratum* is usually very distinct in having narrow leaves. Several fine plants of *L. auratum* var. *virginale* (considered the same as var. *Wittei* by Mr. Elwes), and a new variety of *L. speciosum* named *gloriosoides* by Mr. Baker, having strongly incurved petals, were also noticed. The lecturer referred to Mr. Tillery's experience in the difficulty of raising intermediate hybrids—the seedlings of *L. speciosum* crossed by *L. auratum* or *vice versa*—in either case being almost the same as the female parent. The great development of the tubercular epidermal processes in some species afforded an illustration of a method of hindering crawling insects from extracting honey, which would not be of service to the plant in not pollinating it. *Eucryphia pinnatifolia*, of which some fine blossoms were exhibited by Messrs. Veitch, is one of four species, two being natives of Chili and two of Tasmania. This diversity of habitat, like the Fuchsias of New Zealand and South America, appears to indicate a former union between South America and those islands long since severed, but still retaining certain species, which indicates their former continuity. A fine series of *Coleuses* sent by Mr. Cannell, and a variegated *Croton* from Mr. Bull, furnished material for remarks on variegation, and the lecturer suggested that possibly variegation may be referred to two distinct conditions. In the case of white or yellowish foliage it was found to be by Prof. Church an arrested state resembling almost colourless seedlings, and even a similar state to colourless parasites, so that every uncoloured cell might be almost regarded as parasitically attached to its neighbouring green cell. Brightly coloured foliage, however, was a different state, for the colouring matter was (not like green chlorophyl) in the epidermis, as it is in petals, so that the *Coleus* had, as it were, a transposition of colour from its proper locality into the leaves. Moreover, green chlorophyl was often present, but concealed below the purple.

A group of *Celosia cristata* or Cockscombs called for the remark that it was often impossible to distinguish between a "monster" and a "variety." This plant was in a fasciated condition, usually regarded as a fusion of several stems into one, as may be often seen in *Asparagus* and in boughs of the Ash tree. A certain group of plants from South America (*Podostemaceæ*) have species where the stem seems to be normally fasciated.

Mr. Frank R. Cheshire followed Prof. Henslow with a most instructive and entertaining lecture upon the structure of the bee in relation to gathering honey and pollen from blooms. By the aid of a number of clear and elaborate diagrams he demonstrated the general structure of the insect in a concise and intelligible manner, the mouth and tongue being carefully explained. The eye was also fully discussed and illustrated. The importance of the markings and colours of the corollas as guides and attractions to the bee in its search for honey was referred to at length, and many other interesting facts were discussed. A unanimous vote of thanks to the lecturer concluded the meeting.

FRUIT COMMITTEE.

JOHN LEE, Esq., in the Chair.

The exhibits before this Committee were not very numerous. Mr. J. Walker, Thame, Oxford, sent a specimen plant of a new selected Pea, an extremely prolific variety. On a space of about 12 square feet the plant was bearing 306 pods, many flowers also being open at the same time. It was recommended to be sent to Chiswick. Mr. Reuben Fowler, Bedale, sent a dish of Peas, a variety with very large pods, but found to be deficient in flavour and sugar. Mr. Gray, gardener to C. Seely, Esq., Brooke, Isle of Wight, exhibited a dish of Apples, very handsome in appearance but deficient in flavour. Letters of thanks were accorded to Messrs. Charles Lee and Son, Hammersmith, for fruits of Henson's Seedling Gooseberry, and to Mr. C. Lee, Hounslow, for a dish of Vicomtesse Hericart de Thury Strawberries. Mr. Harrison Weir, Weirleigh, sent bunches of Champion Muscat, Venn's Muscat, and Madresfield Court Muscat Grapes, remarkably well grown, the

bunches and berries large and finely coloured. A silver medal was awarded. Mr. C. Turner, Slough, contributed examples of Potato Early Bird, a handsome variety that is to be sent to Chiswick for trial. Messrs. Carter and Co., High Holborn, exhibited a collection of Tomatoes in pots. About fifteen varieties were represented, including the small-fruited varieties such as Red Currant and Cherry, as well as the large forms. A bronze medal was awarded for this very interesting group. Mr. McIndoe, The Gardens, Hutton Hall, Guisborough, sent a fruit of Mellon Marcellus, not of first-rate flavour but handsome. Mr. John Crossling, The Gardens, St. Fagan's Castle, Cardiff, also exhibited a Melon that was rather deficient in flavour. Messrs. Veitch and Sons, Chelsea, sent a number of plants of Seakale of the varieties Chiswick White and Lily White for comparison with the common form.

AUGUST 24, 1880.

ORDINARY GENERAL MEETING.

JOHN DENNY, Esq., M.D., in the Chair.

The following Candidates, whose certificates were read at the last General Meeting, were proposed for election, and on a show of hands being taken, were declared to be unanimously elected—viz. Frank R. Cheshire, Lieut.-Col. W. H. Moffat, Charles Oetzmann, Rev. Herbert R. Peel.

Medals Awarded.—Silver Gilt Flora, Kelway and Sons for a collection of Gladioli; Bronze Banksian, H. Boller for a collection of Cacti.

The chief features of this meeting were the Dahlias and Gladioluses, which alone constituted a brilliant display. Several other collections of plants were also exhibited, all more or less interesting, and the display was both bright and attractive.

FLORAL COMMITTEE.

DR. DENNY in the Chair.

Messrs. Kelway and Sons' (of Langport) collection of *Gladioluses* formed the chief feature of the meeting. About eighty spikes were staged, comprising a very large number of excellent varieties. A great diversity of colours were shown from pure white to the richest scarlet. The flowers were of great size and closely placed in the spikes. Some of the best varieties were the following:—Anthony Waterer, crimson, white streak; Dr. Woodman, pale salmon, purple tinge in lower petal; Antisthenes, fine scarlet; Opiter, crimson streaked margin, light centre; Ball of Fire, glowing scarlet; Queen Mary, white, fine, purple streak in lower petal; Calliophon, fine rosy pink streaks; and Mr. Derry, pale purple. They also exhibited seedling Dahlias and Asters. The Asters were represented by a number of large blooms, white, crimson, and purple being especially fine. A gilt Flora medal was awarded for the *Gladiolus*.

Messrs. Veitch and Son, Chelsea, sent a collection of Orchids and rare plants. The most noticeable were *Aristolochia ringens*, a species with neat, small, reniform leaves, and medium-sized flowers thickly veined and marked with dark maroon. *Sigmatostalix radicans* was a pretty dwarf Orchid with narrow grass-like leaves, and racemes of small flowers with pale green sepals and petals and white labellum. *Oncidium ornithorhynchum album* had panicles of white flowers with comparatively large yellow crests on the labellum. *Dendrobium bigibbum superbum* had neat flowers, pale purple, purplish crimson labellum. *Zygopetalum Wendlandi*, a species from Costa Rica, had a single flower with pale green sepals and petals, and a purplish labellum. Messrs. Veitch also sent about thirty immense trusses of *Hydrangea paniculata grandiflora*, which were especially remarkable for the large number of medium-sized white flowers crowded in the panicles. Some of the latter were about 10 inches in height and the same in diameter. Mr. B. S. Williams, Upper Holloway, sent a collection of new plants. Among these were a specimen of *Mormodes pardina*, with yellow flowers, the incurved petals and sepals being spotted with claret. The flowers are

borne in a short raceme, and possess a peculiar drug-like odour. *Lælia elegans prasiata* was noteworthy for the rich purplish crimson of the lip, and the dull purple sepals and petals. *Zygopetalum Gauteri* had pretty flowers somewhat resembling *Z. Mackayi*.

Messrs. James Carter and Co., High Holborn, sent specimens of the Empress Cockscomb, with extremely large heads of a deep rich crimson colour. A vote of thanks was accorded for these plants, which we learn were grown by Mr. Bridgeman, gardener to T. Somers Cocks, Esq., Great Marlow. Messrs. Rawlings Bros., Romford, sent several new Dahlias, Sir Stafford Northcote being noticeable for its fine form, great depth, and regularity, the colour being bright scarlet. C. Harris was of excellent form, deep crimson maroon; and Shirley Hibberd similar, but darker in colour and rather rough. C. Sheffield was a neat flower, purple and white. Messrs. Keynes and Co., Salisbury, exhibited some very handsome Dahlias, of which James Vick, deep purple; Walter William, bright scarlet; Lady Wimborne, bright pink; Mr. Compton, purplish maroon; and Mr. Dodds, pale purple with lighter centre, were the best. Mr. Cullingford staged a collection of single Dahlias grown at Kensington, comprising many handsome scarlet, yellow and maroon varieties. Mr. H. Cannell, Swanley, Kent, exhibited cut flowers of *Pyrethrums* from plants that had previously flowered early in the season; *Petunia Zinnias*, *Tigridias*, and a single specimen of the fine Cactus Dahlia (*D. Juarezii*), all of which were in the fine condition that usually characterises the products from Swanley. Mr. A. Waterer, Knap Hill, Woking, sent flowers of *Lilium Parkmanni*, a handsome form with crimson spotted flowers. Mr. Goodacre, gardener to the Earl of Harrington, Elvaston Castle, Derby, sent a plant of *Stephanotis floribunda* of the Elvaston variety, which was very profusely flowered. The strain was commended.

Mr. Charles Turner, Slough, exhibited a number of handsome Dahlias, of which several were honoured with first-class certificates. Show, Fancy, and Pompon varieties were well represented. A fine collection of Pompon Dahlias was sent from the Society's garden at Chiswick, a large number of handsome varieties being represented. A vote of thanks and a bronze Banksian medal was awarded to Mr. H. Boller, Kensal New Town, for a collection of *Mamillarias* and

Echinocactuses, *Echinocactus scopia* being fine. Messrs. Sutton and Sons, Reading, sent a collection of their new Hybrid Tuberous Begonias. A vote of thanks was accorded and the strain was commended.

First-class certificates were awarded for the following plants:—

Gladiolus Opiter (Keynes).—A very handsome variety. Large flowers, the tips and margins of the perianth division being streaked with crimson, the centre being lighter. *Aquinus*.—Rosy crimson, with a few dark streaks and spots. Flowers large; spike massive. *Anthony Waterer*.—Bright scarlet, with streaks down centre of division. Flowers neat; spike large. *Pilumnus*.—Enormous flower, white, with a very slight tinge of purple and a few streaks; a most delicate tint. *Calliophon*.—Streaked with bright rose, lighter centre, and lower division stained with yellow. *Phormis*.—Flower very large, streaked with two shades of crimson.

Dahlia Revival (Turner).—A handsome show variety of great symmetry, moderate size, great depth, and very deep scarlet. *Queen of Spain*.—A fine flower of a peculiar yellowish tinge, with a few purplish streaks. Very good form. *Goldfinder*.—A grand yellow variety of excellent form. Colour very bright and clear. *Dr. Ranch*.—A Pompon variety, very neat; the flower 1 or 1½ inch across, of a reddish tinge. *Professor Klug*.—Also a Pompon; pale pink. Very pretty. All the above, except the Pompon varieties, were raised by Mr. Fellowes.

Dahlia Lady Wimborne (Keynes).—A rich deep pale rose-coloured show variety; very clear and symmetrical. *James Vick*.—An admirable variety, deep purple, and very symmetrical. *Mr. Compton*.—An exceptionally handsome show variety, of excellent form, and deep purplish maroon in colour.

Lilium Parkmanni (Waterer).—A beautiful form with large flowers; the centre of the division very rich crimson, spotted with a darker shade, the margin being white.

Bolbophyllum Beccari.—A botanical commendation was awarded to Messrs. E. G. Henderson and Son, Maida Vale, for a specimen of this peculiar Orchid. It had enormous leaves, nearly a yard in length and over 2 feet in breadth, and was bearing a spike of small dull-coloured flowers, that possess a most offensive odour.

During the afternoon F. Cheshire, Esq., continued his lecture on bees, the subject then discussed being "The Modern Inventions which have for their Object the Assistance of Bees in Storing Honey in Purity for the Benefit of Man." The lecturer most entertainingly explained the construction of comb and the advantages of employing artificial foundations. The modern mode of extracting honey was also fully treated on, the superiority of the present system as compared with that formerly practised being illustrated at length. A vote of thanks was unanimously accorded to Mr. Cheshire at the conclusion of the highly interesting and instructive lecture.

FRUIT COMMITTEE.

HENRY WEBB, Esq., in the Chair.

Mr. W. Elphinston, Gardener to E. M. Mundy, Esq., Shipley Hall, Derby, was awarded a cultural commendation for three bunches of Golden Queen Grape weighing 12 lbs., and fairly ripened. From the Society's Garden at Chiswick fruits of Bergamotte Auguste Jurie Pear were sent, for which a first-class certificate was awarded as an early variety. Mr. G. Williams, gardener to C. Liddell, Esq., Pensmarsh Place, Sussex, sent six plants of Black Hamburgh Grapes in pots for table decoration. Each plant was bearing a bunch of well-coloured Grapes, one bunch being of great size. They were in 32-size pots. A cultural commendation was awarded. Mr. D. McLaurin, The Garden, Farnbro' Hill, sent samples of Hyde's Seedling Melon, which was characterised by the Committee as not so good as many in cultivation. Mr. W. Hinds, The Gardens, Canford Manor, Wimborne, sent a box of Improved Trophy Tomatoes, fine in form and colour. A Plum named John Powell from Mr. C. Turner of Slough was not considered superior to others in cultivation. Messrs. Thomas Rivers and Son, Sawbridgeworth, sent fruits of Dryden Nectarine, which were found rather tart in flavour. Mr. W. Iggulden, The Gardens, Orsett Hall, Romford, sent fruits of Tomato Trophy grown without fire heat. The fruits were of great size, excellently ripened, and well-coloured. Herr Ernst Benary, Erfurt, sent a

dish of white Tomatoes. Mr. J. Woodbridge, The Gardens, Sion House, sent Alnwick Seedling Grapes, for which a letter of thanks was accorded. Mr. Elphinstone, Shipley Hall Gardens, sent fruits of the Melon "Luscious and Melting."

A collection of fruits of the Egg-plant was sent from Chiswick comprising thirteen varieties, white, purple, yellow, and scarlet. A collection of about one hundred Capsicums was also sent from Chiswick. A first-class certificate was awarded for a variety named Yellow of Nocerd, a peculiar three-lobed fruit.

Special prizes were offered by Messrs. Freeman and Freeman of Norwich for their Melon "Luscious and Melting," and their "Champion" Cucumber. In the former class M. J. Coomber, gardener to J. A. Rolls, Esq., M.P., Hendre Park, Monmouth, was awarded the prize for a well-ripened fruit. There were four entries in the class for Cucumbers, the successful exhibitor being Mr. C. Howe, Benham Park, Newbury, with two fruits, one 22 inches and the other 24 inches long, of admirable form and having fine bloom.

Messrs. Smith and Larke, florists, High Street, Kensington, sent a sample of Oats grown on a piece of very poor land to which a dressing of Clay's fertiliser had been applied at the rate of 3 cwt. per acre, no other manure having been put on the land for some years. The sample was of great weight, and a vote of thanks was accorded.

THE HYACINTH AND THE AMARYLLIS.

At the meeting of the Floral and Fruit Committees of the Royal Horticultural Society, March 23, there was a fine display of the show varieties of hyacinths and amaryllis, and Mr. Shirley Hibberd, at the invitation of the Council, gave a brief lecture on their history and characteristics.

Mr. Hibberd said the hyacinth was a comparatively modern flower; certainly less ancient as a florist's flower than the carnation, anemone, iris, tulip, narcissus, and lily. It is reported in the books that John Parkinson had above fifty varieties of hyacinths, but when we turn to the "Paradisus" we find that of the true oriental hyacinth, which alone of this class is the flower of the florist, Parkinson had but eight varieties, some of which in respect of their relationship to the hyacinth proper are certainly in a doubtful position. John Gerarde had about half a dozen, and amongst them a good double blue, which in Johnson's edition is admirably figured at page 114. Going back to Dodoens, we find that in 1550 this botanist of the Low Countries was acquainted with the oriental hyacinth, the flowers of which were of an excellent blue colour, and at page 206 of Lyte's translation of his "Historie of Plantes" will be found a figure showing that the hyacinth of that day was a poor thing, producing a few single flowers like those we are accustomed to see on offsets of a year old. It is remarkable, however, that the hyacinths of the older writers, however genuine as representing the oriental species, comprised only blue and purple varieties. The grand old masters, who produced books that put to the blush the puny productions of the modern horticultural press, were apparently ignorant of the glorious crimson and carmine and the delicate yellow coloured hyacinths that are now so much prized in displays of spring flowers. When these originated may be guessed at, but we shall probably never know to a year, or even to fifty years, when they first appeared, and those who discovered or raised them appear not to have bequeathed to us any records of their benevolent deeds. It is certain however that Holland was the first home in Europe of

the oriental hyacinth, and to the plodding race of commercial florists who now supply us with bulbs the world is indebted for the creation of the hyacinth as a florist's flower. And it is pretty certain that they had it well in hand at the very time our fathers of horticultural literature were in the thick of their work, for Swertius, in his "Florilegium," as cited in Martin's edition of Miller, in the year 1620, figured forty varieties, and very scrupulously avoided representing anything so heterodox as a double flower. In Martin's Miller reference is made to Peter Voorhelm, who must have been in the flesh about the year 1680, as a great cultivator and raiser of new varieties, and the first to recognize, with a true florist's perception, the merits of the double flowers. It had been his rule to throw them out of his collection, but he was himself thrown out at last, and while on a sick bed a number of double seedlings took advantage of his absence to enjoy life in their own way, and thus they for a time at least escaped destruction. He had the good fortune to see one of these, and having kept it and increased it obtained good prices for the offsets, and that fine old stimulant, money, made him thenceforth a raiser of double hyacinths. The first-named variety of this class was called *Mary*. This appears to have been soon lost. It was followed by one called the *King of Great Britain*, which was so much in favour that the price of a root was a thousand florins. This price was soon doubled by the demand that arose, and thus at the end of the seventeenth century we have an instance of a hyacinth valued at about two hundred pounds. The tulip mania was at its height in 1634 and two years subsequently. It may be said to have come to an end with the celebrated declaration made at Amsterdam on the 24th of February, 1637, rendering speculative purchases null and void. At all events, the tulip had ceased to inspire the rapacity of gamblers and the eccentricities of madmen, and had left a lesson such as not even the recent run upon imaginary water stock is likely to confer upon the present generation. The hyacinth, therefore, which was then as it were forming itself for fame, was happily preserved from all taint of speculative trading, and the prices paid for scarce and beautiful varieties were simple testimonies of the esteem of amateurs for these new and attractive flowers. It is well for floriculture when prices rise to a point encouraging to

systematic endeavour. To raise new flowers is a tedious and costly proceeding, however delightful it may be, and if the business is not seasoned with a moderate spice of the commercial element it is unlikely to acquire the full proportions of usefulness. As poets and painters and sculptors have been known to hanker after perishable riches, those humbler artists the florists must be permitted to desire the glimpse of a coin occasionally. In the case of the hyacinth we see clearly what happened as a consequence of the profit attending the production of new varieties. In 1768 was published at Amsterdam the Marquis de St. Simon's treatise, *Des Jacintes*, in which it is declared that the town of Haarlem was then environed with hyacinth farms, and the Dutch florists had named and described about 2,000 varieties of the fragrant flower.

I am not prepared to say how many acres of hyacinths might be found at Haarlem at the present time, but I can advise any lover of flowers who has not yet seen those flower farms to pay them a visit at the time when they are in their full glory, for they then constitute a spectacle not less unique than wonderful, so vast, so various, and so rich are the displays of colour, and so delicious the perfume diffused far beyond the range of the flowery fields. From the middle of April to the middle of May Haarlem is steeped in splendours that no dying dolphins could imitate, and the rich setting of the green meadows all around enhances the brightness, while adding to the completeness of the picture. To state the exact number of varieties now in cultivation is perhaps impossible. It probably does not exceed one thousand, and of these we might perhaps spare seven hundred or so without any serious loss. In the spring of 1873 I flowered at Stoke Newington a collection of 500 varieties, and found fully one-third of the whole number wanting the qualities that constitute average merit. A report of the trial will be found in the GARDENERS' MAGAZINE for 1873, and it would be out of place now to bring forward any of the minute details. But two interesting results of the trial may be mentioned. The mid-season flowers proved to be the best, and the blue and white varieties were in most cases superior in quality to the red. Thus it appears that in raising flowers by cross breeding we must expect to lose quality with every gain in departure from the normal type. As regards the distribution

of merit, however, in connection with the season of flowering two very important facts were noted. The earliest flowers that appeared were of good quality, but those of the mid-season were better. But as the later kinds came into bloom we obtained an exhibition of the merest rubbish, and the later the sort the worse was its quality. Then, as the case stands at present, late-flowering hyacinths appear to be altogether undesirable.

Perhaps a few words should be said as to the cultivation of these charming flowers in Holland. The soil in which they are grown for market is sheer sand or blackish sandy peat, often of such a loose nature that the workmen attach flat boards to their boots to prevent their feet sinking into it. And so liable is the sand to be blown away that it is a common practice to scatter hyacinth flowers over vacant plots, for no man likes to see his estate fly through the air and settle within another man's boundaries. The land is usually prepared by dressing it heavily with manure from the cowsheds, and for this an almost fabulous price is paid. The land being ready and loaded with manure is planted with potatoes, and this crop being removed it is ready for planting with hyacinths. When a crop of hyacinths has been taken the land is planted with tulips, and the next crop may be tulips again or crocuses. Then the land is once more refreshed with a heavy dressing of cow manure and the rotation is repeated, beginning with potatoes.

The hyacinth takes us to the east, its home being the mysterious country known as the Levant. The amaryllis takes us to the west, the species that are most prized in our gardens being natives of the New World. But the examples of so-called amaryllis that have delighted us to-day are not amaryllis, but members of a genus called *Hippeastrum*, or equestrian star, one of the species being striped in a way to suggest the name. But our brethren the florists have never called them by Dean Herbert's name, and in this matter I shall stand by the florists, for the people who have to use a language should have some part in making and keeping it. It is only a case of conservative reaction and indicates the unchangeable inborn gallantry of the florists in preferring a heroine of Theocritus and Virgil to a fancy of a serious Churchman. But the classification of Dean Herbert has a sound scientific basis, and the *hippeastrums*

stand apart as a section of amaryllis marked by unmistakable characters. In respect of cultivation there are two matters of considerable importance to be mentioned. One is that the species of *hippeastrum*, all of them derived from the tropical zone of the Western Hemisphere, interbreed most freely, and hence the florist may find endless delight in raising new varieties, and the student of the origin of species may turn to them for the solution of problems, or to encounter fresh ones that he will never be able to answer. And another matter of importance is that these noble flowers are really difficult to manage, and consequently many fail before they learn the way to complete success. They rarely thrive in a peat soil, and they never thrive unless they are perfectly drained and watered judiciously. In common with many tropical plants, they can be brought into flower at almost any time; nevertheless, the spring is the best time to flower them, because they need a clear solar light to develop their splendid colours, and the subsequent summer heat favours the ripening of the bulbs.

THE DAFFODIL.

(Lecture delivered by Mr. SHIRLEY HIBBERD at the Royal Horticultural Society.)

The collective term Daffodil, which, in rural districts easily expanded into Daffadowndilly, was a corruption of Asphodel, the flower the ancient Greeks devoted to the dead. The old French form of the word was Affrodille, and the initial D attached itself as a proper remainder of the preposition in the French *fleur d'affrodille*

Daffodils are often referred to as Lilies, and one of our old English names for the large yellow trumpet section is Lent Lilies, which refers of course to their seasons of flowering. The poets have hailed them as among the most delightful flowers of the spring, prefiguring in their golden splendour the sunshine of the

summer and the profusion of its fruits. Most fresh and fragrant are the allusions to them in the older poets, who have drawn their inspiration from the fields and woods. In Broome's "Daphnis" we read—

“The joyous spring draws nigh! Ambrosial showers
Unbind the earth, the earth unbinds the flowers,
The flowers blow sweet, the Daffodils unfold
The spreading glories of their blooming gold.”

The Daffodils may be said to comprise the whole of the Narciss family, but John Parkinson warns us that there be true and false Daffodils, and at page 67 he gives the rule to distinguish them. “Now to cause you to vnderstand,” he says, “the difference between a true Daffodille and a false is this, it consisteth only in the flower (when, as in all other parts, they cannot bee distinguished) and chiefly in the middle cup or chalice; for that we doe in a manner onely account those to bee Pseudonarcissos, bastard Daffodils, whose middle cup is altogether as long, and sometimes a little longer, than the outer leaves that doe encompasse it, so that it seemeth rather like a trunk or long nose, than a cup or chalice, such as almost all the Narcissi or true Daffodils have.”

Thus the Narcissi are brought before us as Daffodils of two sorts, the true and the false, the classification so far resting on the relative length of the trumpet, cup, or crown to the sepals and petals, or, as we say to look learned, the perianth segments that encompass it.

The Narcissus takes its name from a blooming youth, son of Cephissus, who, being beloved by Echo and a crowd of nymphs, turned aside to make love to his own shadow in the fountain, and achieved immortality by meeting death in the sparkling stream. From his delicate corse sprang the beautiful flower which for ever wears around its heart a blood-stained girdle of remembrance. It is the fair white flower with ruddy annulus, known by distinction as the Poet's Narciss, or Narcissus poeticus, that represents the story, although Ovid, who gives it in detail in the third book of his "Metamorphoses," certainly does suggest that it might be a yellow flower, and a veritable Asphodel. But we must not be too

particular about the flowers that figure in ancient fables, or we shall be soon lost in a maze of speculations. The best summary of the story I have met with is in the delightful "Historie of Plantes" by Rembertus Dodonæus, who, at page 211 of Lyte's translation, thus delivers himself:—"These flowers tooke their name of the noble youth Narcissus, who, being much desyred of many brave ladies, bycause of his passing beautie, he regarded them not; wherefore being desyrous to be deliuered fro their importunate sutes and requests, he went a hunting, and being thirstie came to a fountain, in which, when he would have dronken sawe his own fauour and passing beautie, the whiche before that time he had neuer seene, and thinking it had bene one of the amorus Ladyes that loued him, he was so rapt with the loue of himself, that he desyred to kisse and embrace himself, and when he cold not take hold of his owne shadow or figure, he dyed at last by extreme force of loue. In whose honour and perpetuall remembrance, the earth (as the Poetes fayne) brought forth this delectable and sweete smelling flower."

This brings us to the books, and there is no flower more famous in the books than the Daffodil. Dodoens describes four, and intimates his knowledge of other kinds, certain of which, he says, "whose garland or circle in the middle of the flowers is white, be very rare and daintie." In the great work of Gerarde, published 1597, there are fifteen true Daffodils described, and at page 136 he adds a few *Paneratiums* as Daffodils, which after all is not a great violation of propriety. In Johnson's edition of Gerarde, published 1633, there are thirty-one Daffodils described. In Parkinson's "Paradisus" the number mounts up to ninety-four, but a certain few of these—say half a dozen—are not Daffodils. So important to the collector of these flowers is this delightful old book that he considers the first requisite to perfect enjoyment [of his pets is to commit to memory the forty-four folio pages devoted to them, and his next step towards happiness is to make the words fit to any tune that may be forced upon his hearing in a world where Daffodils are understood only by a most select company of incurable madmen. I invite your attention and hope to win your admiration for a copy of John Parkinson, which I believe to be the most

beautiful in existence, but being mad upon this subject perhaps I overrate its perfection. Amongst later writers on the subject, Salisbury, Haworth, and Herbert are full of importance, but I must commend to you the useful work of Mr. Burbidge on the Narcissus, published a few years since, as a storehouse of accurate information, illustrated with attractive and truthful pictures of about sixty of the most distinctive kinds.

There are in cultivation at least 150 named species and varieties of Narcissus, and Mr. Barr, one of the most active of the Narcissomaniacs, has an immense collection of seedlings for the enrichment of our collections, so that it may be safely said the next generation will have command of over two hundred varieties of these delightful, useful, seasonable, glorious flowers. And shall I tell you what will appear to many as a flight of fancy, but is in truth a sober but most interesting fact? Every one of these has a history! Yes, in every good garden of Daffodils there are two hundred histories represented by beautiful flowers; and the great garland, if we may call it such, is dotted and spangled and bound together with the experiences and speculations of curious students, experienced travellers, and enthusiasts of such irrepressible vitality that death alone is able to subdue them. And we may even suppose them after death carrying their love of God's work into the sunny prairies where the imperishable Asphodels expand their golden chalices filled with the waters of eternal life—where there is none of that contention about classification and nomenclature that results from our incapacity to understand the simplest flowers that bloom at our feet.

But these flowers, if we speak by comparison, are not so simple as they may appear. I will briefly direct your attention to one amongst a thousand problems they compel us to consider. You will observe that the centre of every true Narciss is occupied with a trumpet, a chalice, a cup, a saucer, a discus, call it what you will: the botanist calls it a crown or corona. Now, what is the corona? To this question no one living is competent to make reply; it seems as if Nature had crowned these flowers with the double purpose of exalting them and humbling the botanist. There are six divisions in the perianth, and these we may regard as con-

sisting of three sepals embracing three petals. Then how comes the corona here? In some of the old books it is called the necessary, which is certainly not a bad guess, but it does not satisfy the severe morphologists. In the "Journal of Botany" for April 1865 will be found a learned paper on the subject by Dr. Maxwell Masters, who is inclined to regard the corona as the result of a combination of two rows of modified anthers. In the issue of the same work for May, 1866, is a paper on the subject by Mr. Worthington G. Smith, who regards the corona as the result of confluent petal-stipules. But the Narciss is by no means alone in its possession of a mysterious corona. Of the 110 genera of Amaryllids there are forty-two genera equally privileged, and we have peculiarly interesting examples in *Pancratium*, *Ismene*, *Hymenocallis*, and that exquisite Daffodil of the fertile fields watered by the mighty Amazon, the *Eucharis amazonica*, in which the faithful may behold the flowery emblem of the silvery chalice of the Lord's house, and Parkinson himself would have described it as he described the chalice of the incomparable Daffodil, saying, "The cup doth very well resemble the chalice that in former days with vs, and beyond the Seas is still vsed to hold the Sacramentall Wine." Nature has balanced the two hemispheres fairly with flowers of this kind, and if we suppose her object to be to prevent the disturbance of its equilibrium we shall perhaps be as near the truth as at the seeming end of the speculations of our ambitious but superficial philosophy.

Another and a very great problem the Daffodils propose to us is, How shall we classify them? The student may make choice of many systems or may frame one of his own; but a perfect system is not to be hoped for, Nature herself having sternly set her face against it. And the reason of this is that throughout the family the gradations of structure and proportion are so minute that from time to time our labours fail because we cannot discover dividing lines. It is the difficulty of defining distinctive characteristics that stands sheer in the way of scientific classification. Let us, for example, take the system founded on the relative length of the corona; a system contemplated by Parkinson in 1629 and adopted by Mr. Baker in 1869. Here we find two forms of the self-same

species, *Calathinus* and *Triandrus*, put into separate classes, an error which admits of correction certainly, but for the present purpose serves to illustrate the problem before us. I have myself classified these plants according to the number of flowers produced on a stem, and the system is absolutely perfect, until—yes, until it breaks down in the presence of a plant that converts all my wisdom into foolishness by producing one or two flowers more than it ought. We know just enough to be kept in fear that Nature will some day shatter all our plans by putting the angles where the curves ought to be, and causing two and two to count as five. If we attempt to classify by colour, in order to evade the difficulties arising out of form, we are no better off. Take, for example, the Poet's *Narciss*, which should be single-flowered and white, with a sanguineous centre. What shall we say of *Bicolor*, which has two flowers and a yellow centre? And, again, what shall we say of *Gracilis*, which has two or even three flowers, and is wholly yellow? These two unmanageable beauties are so nearly allied to *Poeticus* that separation, which at the first blush appears easy, proves at last to be impossible. If the varieties in their delicate gradations bring the species near together, and thus perplex us, we are not the less perplexed by the variations of the varieties themselves. Take the double *Telamonius* for example. It is sometimes destitute of a corona, forming a closely-packed rosette; at other times it is double within the tube only, and occasionally it shows a perfect single flower. In its best state, when newly imported, it demonstrates the capabilities of its native Italian clime. In its worst state, as an old-established garden flower, it gives striking indications of the deficiencies of the subarctic clime to which it has been transported. There is a diminutive variety of the Poet's *Narciss* called *Verbanensis*. It was known to Parkinson, and is by him described at page 87 of the "Paradisus." He had not the least suspicion of its relation to *poeticus*, a relation discovered two hundred years afterwards, and you will find it properly placed at page 318 of the noble essay on *Amaryllids* of the Honourable and Reverend Dean Herbert. But this example is full of encouragement, because, if at the end of every two centuries a difficulty is disposed of, the whole catalogue of difficulties, which for the sake of argument we will estimate

as numbering five hundred, will be all cleared off in a thousand years, and therefore the student of Daffodils is by no means tied up to a forlorn hope. The fact is we are perpetually endeavouring to catch Nature in a net and make her endless curves and inextricable windings conform to our narrow ideal geometry of straight lines and sharp angles. Our perceptions are finite, and Nature's capacity of production is infinite, and so in the search after knowledge we encounter difficulties at every step. I am reminded of a remarkable rockwork that I once admired with such demonstration of enthusiasm, that the artist who constructed it asked me what feature of the work pleased me most. I replied that the entire scheme in its completeness and unity gave me great delight, because it was utterly unlike anything in Nature, and in fact was an impossibility. "Ah," said he, "but my notions are my own; in my opinion that is how rocks should be formed; in these matters we have got beyond Nature." But the student of Daffodils will have to follow Nature, even if while toiling along the pleasant ways of truth he be always a thousand years in arrear of the knowledge that has never been concealed. Permit me to tell you another anecdote, which I think also illustrates the case of Verbanensis. There is a Daffodil described and figured by Parkinson as *Pseudonarcissus anglicus flore-pleno*, or "Gerarde's double Daffodil." For twenty years I sought and sighed to possess this plant, and in the season of Daffodils haunted gardens everywhere in search of it, but all in vain. But in the spring of 1875, while pottering about the garden making notes on *Narcissi*, I cast my eyes in a casual way upon the adjoining meadow, and at a considerable distance descried a tuft of yellow flowers. Calling the gardener, Tippets, I said, "William, go across the meadow and see what is that yellow flower yonder." "Oh," he said with perfect confidence, "no need to go; that's only a Dandelion." But my florist's eye, in "a fine frenzy rolling," was not so easily satisfied; so I went myself, and discovered in my own domain, where I thought I knew every weed as a member of my family, a fine clump of the veritable "Gerarde's double Daffodil," and I dug it up and brought it into the garden, and it lives and thrives to this day. Thus we may travel round the world in

search of the very flowers that we left blooming on our own doorstep, for knowledge, like charity, begins at home.

Now, in conclusion, I will ask you why the Daffodils should so deeply interest us and fill so many big books? As a matter of course, as a learned lecturer, I must answer the question myself. It is not because of their beauty, or their hardiness, or their association with the opening spring. All these considerations contribute to their popularity because they contribute to their usefulness. The great secret of their hold on our affections is that they carry within their charmingly chiselled chalices not only the wine of a new life and a refreshment that is incapable of exhaustion—besides these passports to our affection, these flowers possess in a peculiar manner the interest of human life in their habitudes and histories. The story begins with the beautiful youth who is represented as ridiculously innocent, and it then runs through the hearts of many generations of philosophers, and comes to us at last loaded with grave questions the philosophers were gravelled by. Thus the blooming boy whom Death swallowed as the punishment of his vanity becomes a high priest for ever in the temple of Flora, and I conclude this hasty and fragmentary address by saying that, boy as he is, I as one of the learned elders desire now and here to pay respectful homage to his pretty name of Narcissus.

LECTURE ON THE PELARGONIUM.

BY SHIRLEY HIBBERD.

THE following is the text of the lecture delivered by Mr. Shirley Hibberd in the Council Chamber of the Royal Horticultural Society on the occasion of the Pelargonium Society's annual Exhibition, June 29th.

The Pelargonium affords a subject large enough to occupy as many hours, days, or even weeks, as the mere moments I shall devote to it on the present occasion. The plants on the table represent in part the beautiful collection of species and hybrids in possession of

the Royal Horticultural Society, the management of which at Chiswick is all that can be desired. It is fortunate I am not bound to mention Geraniums, for, if they are of less importance than Pelargoniums they take us further back in time, and to do justice to them we should have to rummage amongst the old books and fish up some very curious memoranda. But the mention of the Geranium renders it necessary to begin with definitions. A Pelargonium is not a Geranium, although often so called. The true Geraniums are for the most part herbaceous plants inhabiting the northern hemisphere, and the Pelargoniums are for the most part shrubby or subshrubby plants of the southern hemisphere. Let us for a moment wander amongst the pleasant slopes of Darley Dale in Derbyshire, or by the banks of the Clyde or the Calder. We shall in either case be rewarded by seeing vast sheets of the lovely Meadow Crane's-bill, *Geranium pratense*, a true Geranium, and one of the sweetest flowers in the world. In the rocky recesses of Ashwood Dale, or on the banks of the "bonny Doon," we may chance to see in high summer a profusion of the Herb Robert, *Geranium Robertianum*, with pink flowers and purple leaves, a piece of true vegetable jewellery. And, once more, I invite you to an imaginary journey, and we will ride by rail from Furness to Whitehaven in order to behold on the railway bank, more especially near St. Bees, a wondrous display of the crimson Crane's-hill, *Geranium sanguineum*, which from July to September forms solid sheets, often of a furlong in length, of the most resplendent colour.

Now let us fly to the other side of the globe and alight in the vicinity of the Cape of Good Hope, say on the vast desert of Karroo, where there is much sand, much sunshine, and little rain. Here, in the midst of desolation, the world is rich with flowers, for the heathy scrub that occurs in patches, glowing with many bright hues, consists in part of wild Pelargoniums, which often take the form of miniature deciduous trees, although in the valleys nearer the coast, where more rain falls, they are evergreen bushes.

Very different in their characters are these two tribes of plants, and they are not less different in their constitution and aspects. We may regard the Geraniums as herbs of Europe, and the Pelargoniums as miniature trees of Africa. When we examine the

flowers we find the five petals of a true *Geranium* of precisely the same shape and size ; but the five petals of a *Pelargonium* are not so, for sometimes the two topmost are the largest and stand apart from the rest. The florists are doing their utmost to obliterate the irregularity of the petals of the *Pelargonium*, and in this respect to convert *Pelargoniums* into *Geraniums*, but the conversion will not be complete until much more wonderful things are accomplished. A *Geranium* has ten stamens, and a *Pelargonium* has only seven. These numbers are not constant, but the exceptions are of no consequence in a general statement of the case.

When all is said that can be said about the differences and resemblances of the several families of *Geraniaceæ*, there remains only one constant and unfailing test of a true *Pelargonium*, and that is the nectariferous tube immediately beneath the flower, and running down one side of the flower-stalk.

The best short summary of the history of the *Pelargonium* I have met with is in the *Gardener's Chronicle* of October 2, 1841. It gave me a clue that I wanted to the first-known *Pelargonium* as an inmate of an English garden. It speaks of one known to Gerarde, but there is no mention of it in the Gerarde of 1597. However, at page 948 of Johnson's Gerarde of 1633 is a record of a plant called *Geranium indicum*, "as of late brought into this kingdom by the industry of Mr. John Tradescant;" and the author adds, "I did see it in flower about the end of July, 1632, being the first time that it hath flowered with the owner thereof." The plant figured by Sweet as *Pelargonium filipendulifolium* (I., 85) is a variety of *Pelargonium triste*, which is identical with the Indian *Geranium* of Johnson's Gerarde. Thus we determine that the first flowering of a *Pelargonium* in this country occurred nearly 250 years ago.

Here it may be proper to remark that there are a few true *Pelargoniums* that are not natives of the Cape of Good Hope. *P. canariensis* is a native of the Canaries ; *P. australe* comes from the Australian continent ; *P. cotyledonis* is found wild in St. Helena ; *P. Endlicherianum* is Asiatic and almost European. There are two or three species in Abyssinia. But *P. triste* is a Cape plant beyond a doubt, and it is most agreeable to know that our first *Pelargonium* was brought into the country by John Tradescant, of whom

Parkinson speaks as that worthy, curious, and dilligent searcher and preserver of all Nature's rarities and varieties. It was in all probability amongst the treasures acquired in his voyage to Barbary, in the fleet sent out against the Algerines in 1620. When, in 1629, he became gardener to Henrietta Maria, Queen of Charles I., this plant was in his famous collection at Lambeth, and was thence sent forth as the pioneer of the Pelargoniums and the Pelargonium Society. As the Cape was discovered in 1497, the plant had 123 years to complete the journey to the Mediterranean, and no doubt had the help of Portuguese traders in so doing.

It is singular that John Tradescant, who was an Englishman, born in Worcestershire, and probably of French extraction, was always regarded as a Dutchman. It is singular in this connection, because subsequent to his introduction of the first Cape Pelargonium, the Dutch were certainly the introducers of a dozen or more species that soon after came into Europe. In Dr. James Sherard's wonderful garden at Eltham, there were in 1732 half a dozen species. In the second edition of Miller, published 1733, there are twenty species of African "Geraniums," and these are all Cape Pelargoniums. This brings us to the publication by Linnæus of the "Genera Plantarum" in 1737, and the "Species Plantarum" in 1753, when the twenty-five species of Pelargoniums known to him were described as Geraniums for the last time in any work of high authority. In 1787 L'Heritier distinguished them by the signs I have already mentioned. In the "Hortus Kewensis," published in 1812, as many as 102 species and hybrids are described as then in cultivation at Kew, and the list includes *triste*, *grossularoides*, *zonale*, *inquinans*, *lateripes*, *peltatum*, *grandiflorum*, *quercifolium*, and *fulgidum*.

The splendid garden varieties of Pelargoniums that afford us so much delight are in a certain sense the creations of human skill. Nature never needed such things and did not trouble to produce them. They are the products of careful systematic hybridising and crossing, and they represent the talent and perseverance of the florists during a period of sixty-five years—a period so brief considering what has been accomplished that it shrinks to a moment when we compare the original wildings with the splendid flowers of this day. In the year

1815, or thereabouts, the amateurs began to cross the species and one of the leaders in this delightful work was Sir Richard Colt Hoare, who obtained a considerable number of beautiful hybrids. The work was taken up with more serious views by Mr. Robert Sweet, the author of a number of valuable illustrated works, comprising one in five volumes devoted to the Geraniaceæ.

The large-flowering or florists' Pelargoniums are reputed to be the offspring of *P. speciosum*. It must be evident to every cultivator of these flowers that the blood of a score or so of species is mingled in them. *P. speciosum* was introduced in 1794, but it has no place under this name in Sweet or the "Hortus Kewensis." It is variously described as producing purple and white flowers, and can scarcely be said to have a history. If the question be asked, What is *Pelargonium speciosum*? I must refer to Sweet's description of *P. involucratum*, No. 33. He there refers to *speciosum* of Andrews as identical with his own *superbum*, and he puts the *speciosum* of Wildenow out of court altogether. It is likely, I think, that *P. spectabile* (136), a hybrid raised from *P. cucullatum* and *P. ignescens*, and *P. involucratum* (33), raised from *P. cucullatum* and *P. superbum*, were the founders of the florists' race. Certain it is that these typical kinds were endowed with the capability of varying indefinitely, and with a plastic constitution rendering them possible sources of innumerable floral surprises. It is scarcely an exaggeration to say that amongst the true hybrids there are at least fifty that might be the parents of our exhibition race. But to clear up the point is impossible, for in very few instances did the early raisers keep any record that could be referred to for settling questions of pedigree.

The first variety figured as a proper florists' flower was called *Geranium grandissima*, raised by Mr. Widnall of Grantchester. The portrait of this variety appeared in the "Floricultural Cabinet" of September 1st, 1834. It was a pretty flower, with rich dark top petals and warm blush-tinted under petals; but the small size and poor form would exclude it from any collection of Pelargoniums in the present day. What a marvellous advance on this do we behold in the latest flowers of Mr. Hoyle or Mr. Foster! To Mr. Hoyle, no doubt, we must assign the gold medal as the producer by systematic crossing of the finest varieties of the present day.

The Zonal race acquired importance subsequently to the large-flowering section. Those we collectively term "Zonals" were grouped by Sweet under the generic designation *Ciconium*, and the most important of this genus are *Ciconium zonale*, introduced in 1710, and *Ciconium inquinans*, introduced in 1714. These are the two parents of the race, no doubt, but their differences do not account for the fact that in the garden varieties we have every imaginable variation of leafage and of bloom. It is likely that *Ciconium reticulatum* of Sweet (143), a very distinct hybrid, gave the first touch to the variegation of the leaves which has in recent years attained to such extraordinary development. In any case, this hybrid marks a distinct departure and appears well suited to be the founder of a race. The "Nosegay" section is the oldest of the Zonals. The founder of this section is *Ciconium Fothergilli*, the figure of which by Sweet (226) would nearly serve to represent a good Nosegay of the present day, and it may therefore be concluded that the Nosegays have been less modified than the Zonals that represent *zonale* and *inquinans*.

Another early section is that with green leaves and pink flowers of which we may consider *Christine* the modern type. This section is foreshadowed in *Ciconium cerinum*, which is admirably figured by Sweet (176). Here we have pubescent leaves and flowers of a soft rosy pink colour, the petals of which are beautifully rounded and nearly equal in size. Cultivators who remember *Lucia rosea* will have no difficulty in connecting the dwarf bedding *Pelargonium*s of the *Christine* class with this beautiful wax-flowered *Pelargonium*, which Sweet regarded as a true species.

The most famous of the Zonal section is the green-leaved scarlet bedder known as *General Tom Thumb*, a descendant of *Frogmore Scarlet*, and a competitor of *Huntsman*, *Cooper's Scarlet*, and many more which the *General* quickly vanquished from the field. This famous variety was raised by Mr. Willson, gardener to W. Pigott, Esq., of *Dullingham House*, *Newmarket*, about the year 1842. It is said that as a seedling it was condemned and handed over to some children to be tormented, and very soon found its way to a dust-bin. But by some accident it was dragged from the dust-bin and planted, and as the summer advanced it manifested its character, and secured its

fame and many more admirers than Barnum's *protégé*. But many persons have some kind of claim to the honour of raising Tom Thumb, for there prevailed during some fifteen years—say from 1840 to 1855—a mania for raising scarlet Pelargoniums adapted for bedding; for those were the days of the horticultural scarlet fever, and many varieties nearly alike came forth from various quarters. Many of these passed for genuine Tom Thumbs, and many perhaps were quite as good. However, the original and true variety differed from most of the others in this respect, that it rarely ripened a seed unless it was artificially fertilised, when it was as prolific as any. This fact separates it far from Christine, which is an inveterate seeder. The leafage also puts them far asunder, for Tom has a smooth papery leaf of a yellowish green, and Christine has a thick soft leaf of a bluish green—one takes us back to *inquinans*, the other to *cerifera*, and Nature ordered the characters ages ago in the solitudes that stretch away drearily to the west of Cape Town.

The pink-flowered Christine was raised by Mr. F. R. Kinghorn of Richmond in the year 1852. The parents were Ingram's Princess Royal and old pink Nosegay, which was formerly much used for training on walls and pillars. The peculiar softness and blue tone of the leafage of Christine appear to be fully accounted for by the parentage, there being in it such evident traces of the *Cerinum* or *Monstrosum* of Sweet. Mr. Kinghorn, to whom I am indebted for its history, tells me that he very soon made note of its strong individuality, in which it seems to rise to the rank of a species, and reproduces itself freely and truly from seeds. During some fifteen years it was the most popular of all bedding plants, for it outran Tom Thumb at last. The beautiful Rose Queen, sent out in 1855, was one of the good things obtained by Mr. Kinghorn in the same batch with Christine. This has a higher quality, but never proved so good a bedder, and therefore never attained to great popularity.

It would be unfair to omit all mention of the variegated-leaved varieties, because in a good bedding display they contribute features fully as important as the strong colours. They tone down and harmonise and divide. In the year 1844 there were very few variegated Zonals known, and only one with bright scarlet flowers; this was called Lee's Variegated, and was very scarce. It was I think

raised by Mr. Bailey, then gardener at Nuneham Park. Mr. Kinghorn selected this Lee's Variegated to supply pollen for a cross on the old Compactum, which was the seed parent, and in the first batch of seedlings from this cross he obtained the celebrated Cerise Unique, and the much more celebrated Flower of the Day, the most useful and most famous of all known variegated-leaved Zonals. Mr. Kinghorn to this day considers this was the greatest advance ever accomplished at one bound in work of this kind, and I thoroughly agree with him. The large seedling plant and two smaller plants of Flower of the Day were purchased by Messrs. Lee in August, 1849, and in August, 1850, they had a stock of 1500 plants of various sizes to offer for sale—a wonderful sight in those days, and one worth seeing even now.

It so happens that the last-named, most useful of all the silver-leaved varieties, conducts us direct to the fountain head of the whole race of the tricolors. In the year 1850 Mr. Kinghorn raised from Flower of the Day the beautiful variety known as Attraction, the leaf of which has a silvery margin and a dark zone, diffusing subdued rays of red and rich brown outwards upon the creamy band that girdles it. The Attraction was the first silver tricolor, and one of the parents of the first golden tricolor. Mr. Grieve, in his admirable History of Variegated Pelargoniums, tells that he fertilised a dark-zoned variety known as Cottage Maid with the pollen of Attraction. Amongst the seedlings occurred one that was the parent of the dark-zoned Emperor of the French, from which came the whole race of golden tricolors. From Cottage Maid and Golden Chain (the latter being the pollen parent) Mr. Grieve obtained Golden Tom Thumb, and from Emperor of the French and Golden Tom Thumb (the latter being pollen parent) he obtained Golden Pheasant, the first true golden tricolor. This same Emperor of the French, grandson of Attraction, produced by the pollen of Golden Pheasant the two most famous of the tricolors, Mrs. Pollock and Sunset.

The double Pelargoniums have had a career of fifty years at least. A handsome double purple, named Veitchianum, not of the zonal section, but allied to Barringtoni, was raised by the late Mr. J. Veitch at Exeter about the year 1828, and its portrait appears in Sweet's supplementary volume (81), where nearly next door to it is another

double named *Implicatum* (86), which is as like the double *cucullatum* Mr. Cannell has been growing of late as can be expected of things that are probably different.

But the proper history of the doubles begins with Wilmore's Surprise, a handsome semi-double variety, which was described and figured in the *Gardeners' Chronicle* of August 17th, 1850. This was found by Mr. Wilmore of Strawberry Vale, Edgbaston, growing in the midst of a plantation of Hollyhocks, and so unaccustomed were the eyes of the florists to such a thing that it was considered to be a true hybrid between a Pelargonium and a Hollyhock. A remarkable fact in the history of this variety is that simultaneously with the finding of it in the garden at Edgbaston it was obtained by the late Mr. Beaton as a sport from *Diadematum rubescens*, and was by him named *Monstrosum*. The Edgbaston plant was shown by Messrs. Lee, of Hammersmith, at Regent's Park on the 30th of June, 1852, and Mr. Beaton suppressed his *monstrosum* in favour of it.

The double Zonals are of later date, one of the earliest being the crimson-scarlet *Gloire de Nancy*, which was first shown in this country in the year 1866. In the year 1869 there were seventeen double Zonals brought into public notice, and of other sections in that year the collective name was *Legion*. At this point of the story the subject becomes too large to be handled on the present occasion. It is quite certain that during the few years when Geraniums were everything and all other vegetables nothing in human estimation the heads of gardeners were so crammed with zones and margins, and trusses and pips and beds, that there was no room for anything else, and the phenomena of the tulipomania were reproduced in a newer fashion, and no one was fully aware of the fact that the world had gone mad on the subject of Pelargoniums.

Now that we can again survey the subject calmly it will be observed that two classes of Pelargoniums remain in full favour with the public. The large-flowered show varieties and the large-flowered single Zonals take the lead, and they are pleasantly followed by a crowd of Ivy-leaved, double-flowered and variegated sorts that are useful and beautiful, but no longer oppress us by their multitude and similarity. The Pelargonium Society has set up a severe standard of judging, and a variety must be distinct and good to pass

through the sieve. Moreover, the raising of varieties has been to a great extent reduced to scientific principles, and we obtain as a result new characters suggestive of the great extent of the field that still lies open to the adventurous spirit in cross-breeding. No one in recent years has contributed more directly towards the scientific treatment of the subject than our painstaking Treasurer Dr. Denny, of whose labours I propose to present a hasty sketch.

Dr. Denny commenced the raising of Pelargoniums in the year 1866, having in view to ascertain the influence of parentage, and thus to establish a rule for the selection of varieties for seed-bearing purposes. In raising varieties with variegated leaves, as also with distinct and handsome flowers, he found the pollen parent exercised the greatest influence on the offspring. The foundation of his strain of circular-flowered Zonals was obtained by fertilising the large starry flowers of Leonidas with pollen taken from the finely-formed flowers of Lord Derby. From 1871 to the present time Dr. Denny has sent out sixty varieties, and he has in the same period raised and flowered and destroyed about thirty thousand. These figures show that when the selection is severe, and nothing is allowed to pass that is not of the highest quality, there must be five hundred seedlings grown for the chance of obtaining one worth naming. The late Mr. John Salter used to say that it was needful to flower two thousand seedling Chrysanthemums for the chance of one worth naming. Therefore, if the comparison is of any value, it shows that raising Zonals is a very profitable business, the chances of success being four times greater than with Chrysanthemums. But Dr. Denny obtains more good things than he sends out, for he makes every year a selection of plants for seeding, and these amount to about 3 per cent. of the total number. It will be seen therefore that for every one sent out under name there are about fifteen equally good or nearly so, but for some reason or other they are not parted with, but are reserved to supply seed or pollen, and are then destroyed to make room for a new selection.

Amongst many interesting results of our friend's observations is one that strikingly confirms a suspicion that accompanies a study of Sweet's portraits—it is that some varieties assume the character and bearing of species, and by self-fertilisation reproduce

themselves with peculiar exactitude. No one can doubt that many of the so-called species of plants, whether of Pelargoniums at the Cape or of Willows in England, are as truly hybrids as any that are raised in gardens. And this brings us to the question, What is a species? and the question suggests that if in treating this great subject I scarcely knew where to begin, I certainly know where to leave off. I confess I do not know what is a species—and so, thanking you for your kind attention, I now return to the golden silence.

