

The Dahlia

ITS HISTORY AND CULTIVATION







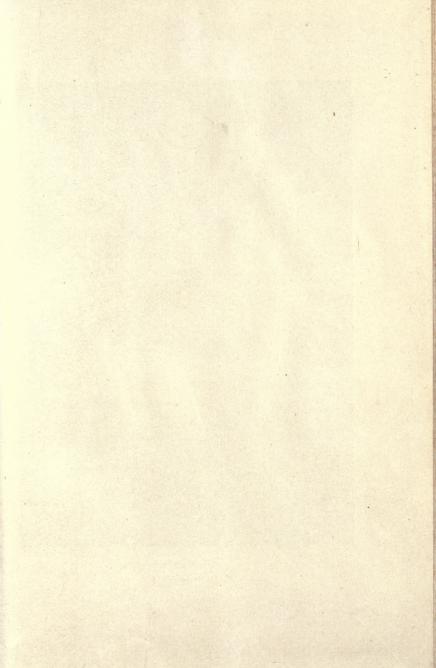
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THE DAHLIA







CACTUS DAHLIA. "Mrs. J. J. CROWE."

Frontispiece.

THE DAHLIA

ITS HISTORY AND CULTIVATION

BY

RICHARD DEAN, F.R.H.S.

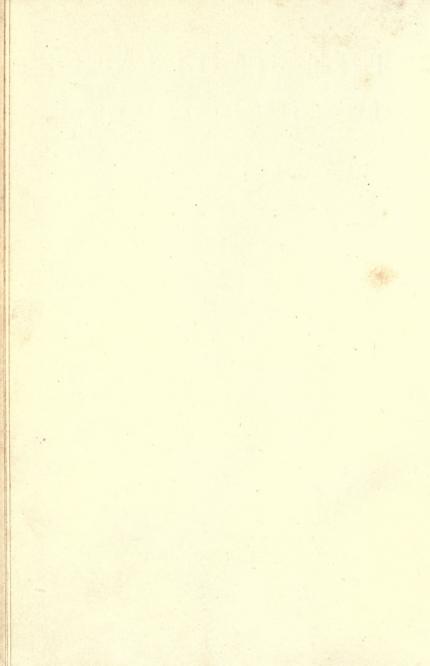
ROBERT FIFE, F.R.H.S. JOHN BALLANTYNE
STEPHEN JONES WILLIAM CUTHBERTSON, F.R.H.S.
LEONARD BARRON

WITH ILLUSTRATIONS OF THE DIFFERENT TYPES AND
A VERY COMPLETE LIST OF VARIETIES
IN CULTIVATION IN 1902

London

MACMILLAN AND CO., LIMITED NEW YORK: THE MACMILLAN COMPANY ROTHESAY: DOBBIE & CO.

1903



SB413 D34D4 1903

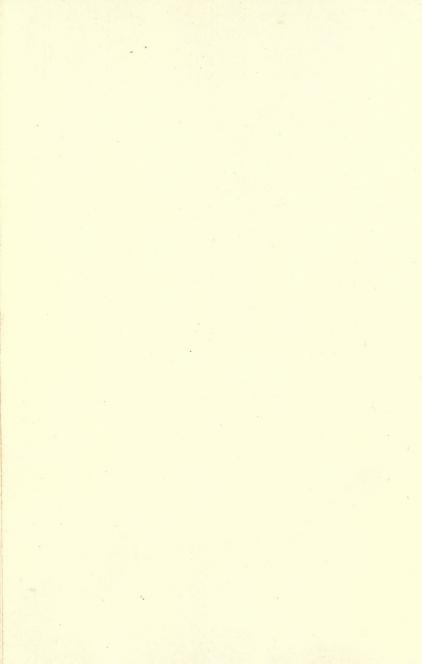
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INTRODUCTION

THE Botanist reveals to us the wonderful structure and mechanism of plants. By the aid of the microscope he leads us far into the intricacies of their nature, before which we stand in wonder and reverence.

The Florist differs from the botanist in his relation to plants. The plant as it is is the province of the botanist. The plant as it can be developed is the province of the florist. He takes advantage of its inherent susceptibilities in certain directions and profits by them; and there is no better illustration of this than the subject of this volume.

It was long considered that the botanist and the florist had little or nothing in common, but this idea, like so many other old-fashioned ones, has been given up. The light which the botanist can throw on the subject is invaluable to the raiser of new varieties of flowers, and surely he is best equipped for growing plants who best understands their structure.

But there is an equipment for Flora's service which even science cannot give, which wealth cannot buy, and which influence cannot command, and that equipment is Love—a love akin to devotion. A well-known present-day writer 1 tells us that "in the

¹ Birrell in Obiter Dicta.

pleasant realms of poetry no liveries are worn, no paths prescribed; you may enter where you will, stop where you like, and worship whom you love." So it is in the service of Flora; but to enjoy flowers to the full one must do even more than love them-one must grow them from the tiny seedling or cutting to the fully developed plant. An American writer,1 after describing how he planted his seed with his own hands, goes on to say, "My garden was of precisely the right extent. An hour or two of morning labour was all that it required. But I used to visit it and revisit it a dozen times a day, and stand in deep contemplation over my vegetable progeny with a love that nobody could share or conceive of who had never taken part in the process of creation." This is the indescribable pleasure enjoyed by every true florist, and to come under its spell it is not necessary to engage in large operations. A pole of land is likely to yield a richer harvest of enjoyment than an acre!

It is one of the most gratifying features of our day that this love for flowers has become so general. Apart from the elevating and refining influences which are inseparable from a true appreciation of nature in any form, this "love for flowers" has another aspect. It creates and sustains a demand which is an important item in our home trade. Well-known firms are found devoting their whole time and entire resources to the cultivation of one or two particular classes of plants, and national societies exist for promoting the cultivation of special flowers—such as the National Rose Society, the National Chrysanthemum Society, the

¹ Hawthorne, in Mosses from an Old Manse.

National Carnation Society, the National Sweet Pea Society, and the National Dahlia Society. All these are indications of healthy activity in floricultural circles.

The Dahlia has long been in the front rank among what are known as florists' flowers. It is most amenable to cultivation, and responds to proper care and good treatment as few flowers do. It is useful in many positions. For securing bold effects on large lawns, clumps of Dahlias cannot be surpassed, while for introducing colour into shrubberies during summer, or for forming back lines in broad borders, few plants are equal to them. It is hardly necessary to say anything regarding their merits as cut flowers. From July right on till frost comes, enormous quantities are available, of every conceivable shade of colour except They are also most amenable to forcing, and can without difficulty be had in flower under glass in May. At the Temple Show of the Royal Horticultural Society in London in May 1896, there was a beautiful stand of Dahlias set up for exhibition by Messrs. Dobbie and Co.

In the cottage garden of the working man, in the villa garden of the merchant, in the extensive grounds of the nobleman, the Dahlia will grow and flourish with equal fortitude, and produce in abundance its glorious blooms to minister delight and pleasure.

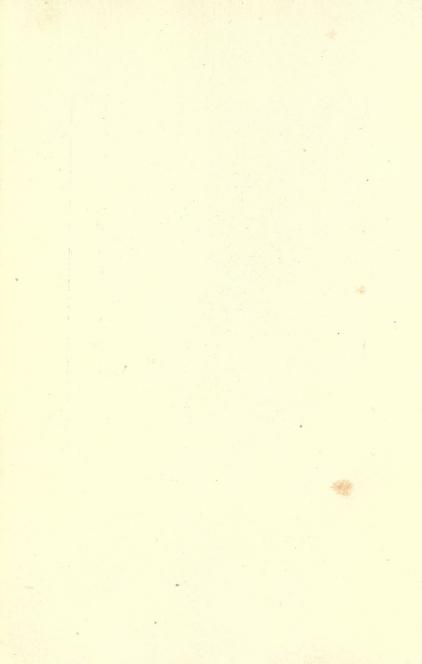
HISTORY OF THE DAHLIA

Dahlia Variabilis, a very variable species,—hence its name,—is the one commonly believed to have been the first introduced to this country. It is a native of Mexico and Central America. It received its generic name after Dr. Dahl, a Swedish botanist and pupil of Linnæus. A competing name, "Georgina," ran "Dahlia" a race for some time; and so late as 1832 it can be found in an Index to Loudon's Gardeners' Magazine.

The earliest known description of the Dahlia is that of Francesco Hernandez, physician to Philip II. of Spain, who wrote four books on the plants and animals of New Spain; and in one of these books appears an illustration of *D. variabilis*. Then for a space of 130 years the Dahlia seems to have been lost to writers until 1787, when a Frenchman, one Nicholas Joseph Thierry de Menonville, was sent to America to secure the cochineal insect, and in that year published a treatise in which he described the Dahlias he had seen in a garden near Guaxaca. "In the year 1789, Vincentes Cervantes, director of the Botanic Garden at Mexico, forwarded seeds of the Dahlia to the Royal Gardens at Madrid, then under the direction of Abbé Cavanilles. The Marquis of Bute was



SHOW DAHLIA.



at this time Ambassador from England to the Court of Spain, and the Marchioness, who cherished a true sympathy with floriculture, obtained some of these seeds, which she cultivated in pots in a greenhouse, but failed to keep them beyond two or three years." "In 1802 an English nurseryman, John Fraser, of Sloane Square, a collector of American plants, obtained from Paris some seeds of Dahlia coccinea, which flowered in a greenhouse in 1803 at his nursery, and supplied a subject for a plate in the Botanical Magazine, which secured to the plant a proper place in the English Garden" (Shirley Hibberd). In 1804 Lady Holland, who was then at Madrid, sent home seeds, it is believed, to Holland House, Kensington, where plants were raised and bloomed. When they were in flower, her husband, Lord Holland, wrote to his wife as follows:-

"The Dahlia you brought to our isle
Your praises for ever shall speak,
'Mid gardens as sweet as your smile,
And in colour as bright as your cheek."

Mr. Geo. Nicholson, in his Dictionary of Gardening, informs us that the plants raised in Holland House in 1804 were lost, and that a third stock was brought from France in 1815,—probably flowers showing signs of doubling, as at this time double Dahlias began to appear. From this time the history of the flower rises to a kind of stately march. It acquired extensive popularity, and Dahlia exhibitions were held in many parts of the country.

THE IMPROVEMENT OF THE DAHLIA

In the third volume of the Transactions of the Royal Horticultural Society it is stated that "the merit of first carefully attending to and cultivating the Dahlia belongs exclusively to the continental gardeners, for though we in this country received the varieties originally imported to Europe almost as soon as the French and Germans, yet, if not lost, they nearly went out of notice with us; whilst in France and Germany they meanwhile increased as much in number as in beauty, and persons who visited the Continent on the return of peace in 1814 were surprised with the splendour and variety of the Dahlias in the foreign collections. In the winter of that year several roots were imported to this country, and since that period our home growers have made up for former neglect, as is sufficiently evinced by the splendid exhibition of these flowers in the public and private gardens near London." The first double or semi-double flowers were obtained about the year 1814 by M. Donkélaar of the Botanic Gardens, Louvain; and from three plants which bore double flowers many varieties were raised, and were imported into this country during the winter of that year. From 1815 and onwards great activity was shown in raising new varieties, and though the single type found some favour with raisers and growers, earnest efforts were put forth to develop the finest double flowers until the forerunners of the present superb types were reached.



POMPON DAHLIAS.



THE TYPES OF THE DAHLIA

By the florist Dahlias are divided into several sections, viz., Show, Fancy, Pompon or Bouquet, Cactus or Decorative, and Single. The two former run so closely the one into the other, and the distinction between them is so artificial, that they are now practically fused into one, though in catalogues the varieties are still ranged under the heads of Show and Fancy.

THE SHOW DAHLIA

This section comprises all self-coloured and all shaded flowers, such as the Prince of Denmark, which has a maroon—almost a black—shading thrown over a deep wine crimson ground; and all flowers having petals of a pale ground colour, edged with pink, rose, mauve, purple, crimson, maroon, etc.; J. T. West and Miss Cannell may be cited as typical varieties.

THE FANCY DAHLIA

This is simply the large rounded Show or Exhibition Dahlia in a later form of development. The reason why the two sections were divided is found in the fact that the Fancy type was later, in point of time, in appearing, and for a number of years its varieties were inferior both in size and in outline to those of the Show type. The first Fancy Dahlias appear to have originated with Count Lelièur of Paris. He succeeded in raising some striped and shaded single flowers, and from these, it is believed, the present

race of Fancy Dahlias has descended. Of this we may be certain—that the earliest forms of the Fancy Dahlia came from the Continent.

Two or more colours are necessary to a Fancy Dahlia. There are striped and there are tipped varieties, but the latter are occasionally striped also. In the case of the edged Show Dahlia, the colour on the petal edges is always darker than the ground; in the Fancy Dahlia the reverse holds good. Thus, a white, yellow, or any pale ground flower, edged or laced with a dark colour, after the manner of the Picotee, is simply an edged or laced Show Dahlia; but when the disposition of these colours is reversed, -when the petals of a dark or yellow ground flower are tipped with a light colour, as, for instance, Mrs. Saunders, which is yellow tipped with white; of Peacock, which is crimson tipped with white,—the variety is regarded as a Fancy Dahlia. When the ground colour is light, with a dark edging, as in the case of Miss Cannell, it is a Show Dahlia. Striped flowers, no matter what the ground colour may be, are always Fancy Dahlias. All the best Fancy Dahlias produced within the last twenty years have been of English origin. It is the custom at some small country flower-shows to admit all tipped and edged Dahlias as Fancy Dahlias; but this is invariably permitted by judges who are imperfectly acquainted with the technical distinction between the two types.

THE POMPON OR BOUQUET DAHLIA

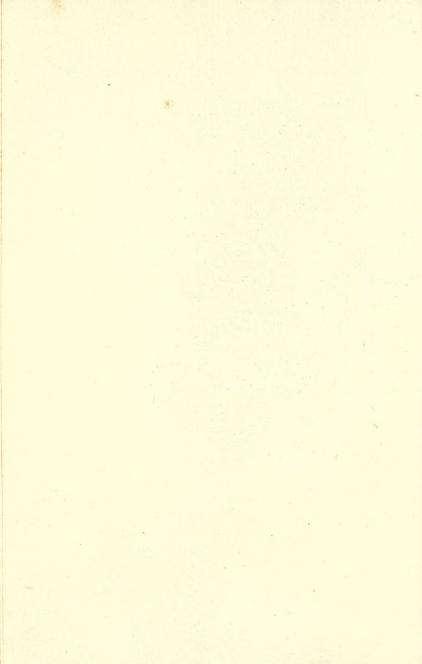
This type, of which we have so many beautiful varieties in the present day, is of German origin, and



SINGLE CACTUS DAHLIAS.

Raised by the late E. J. Lowe, F.R.S.

Introduced to commerce by Messrs. Dobbie & Co. in 1893.



dates from about 1808, when Hartwig of Karlsruhe obtained a double variety from the single scarlet Dahlia coccinea. The Germans favoured this small form, which obtained the name of Liliputian, on account of the small size of the flowers, and not because of its dwarf growth, for the first varieties obtained from it introduced to this country were of very tall habit. Hence the Pompon varieties have been known as German Dahlias. Our English florists, especially of late years, have greatly improved this type in the newer varieties; they are now of dwarf and compact growth, singularly free of bloom, admirably adapted for adorning the flower garden, and invaluable for all decorative purposes.

THE CACTUS DAHLIA

This singularly novel type put in an appearance in England in 1880. Its history and introduction to this country can be stated in a few words. In the year 1872, Mr. J. T. Vander Burg, of Juxphaar, near Utrecht, received a box of flowers from Mexico; but, by reason of delays in the transit, the contents were for the most part found on arrival to be rotten. All that had roots, or seeds apparently possessing vitality, were sown; and, among those which grew, was one which produced a small tuberous root, and it eventually proved to be the Cactus Dahlia. It was subsequently named Dahlia Juarezi, after Juarez, a President of the Republic of Mexico. By 1874, a good stock of plants had been obtained, and it eventually passed into the hands of Messrs. Anthony Roozen and Sons, a firm of Dutch nurserymen. Plants of this Dahlia

were obtained by the late Mr. W. H. Cullingford, and from him it passed into the hands of Mr. Henry Cannell of Swanley, by whom it was exhibited for the first time at the Alexandra Palace, Muswell Hill, on the 3rd of September 1880, and immediately after, at one of the meetings of the Royal Horticultural Society. It was at once seen that there were possibilities of development in this interesting stranger. New forms soon began to appear, and at the present time there are many superb varieties of a number of shades and combinations of colour, but all exhibiting the shape of the original introduction, which obtained the name of Cactus from its resemblance in colour to the vermilion of Cereus speciosissimus—the Showy Cactus—a designation which was at once adopted and is now universally recognised. The habit of growth is undergoing considerable improvement, and many of the newer sorts are admirably adapted for garden decoration.

THE DECORATIVE DAHLIA

These may be regarded as intermediate forms of the Show Dahlia, brought into notice by the introduction of the Cactus type; but few of them have any pretensions to the true Cactus character, and with the wonderful improvement seen in the latter, many will soon go out of cultivation. They certainly furthered the employment of the Dahlia as a decorative plant in our gardens, the freedom of bloom of some of the varieties being their chief recommendation. In America Decorative Dahlias are most popular at the present time.

THE SINGLE DAHLIA

The re-introduction to popular notice of this type dates from 1880, when Mr. Alfred Salter brought to one of the meetings of the Royal Horticultural Society flowers of the Single Dahlia coccinea. Almost simultaneously appeared D. lutea, yellow, and an old variety named Paragon. From these seeds were obtained, the Single Dahlia became immensely popular, and a great number of varieties were obtained and are still being raised, including some charming striped and tipped varieties known as fancy Single Dahlias. Their fugacious character militates against the use of the flowers for decorative purposes.

THE SINGLE CACTUS DAHLIA

This is of comparatively recent development, but for all kinds of decorative work it has an important future before it. The first varieties were raised by the late Mr. E. J. Lowe, F.R.S., and passed into the hands of Messrs. Dobbie and Co., Rothesay, in the year 1891. Since then the type has been undergoing rapid improvement, and when better known its value will be widely recognised for every purpose for which cut flowers are required. A more graceful flower for dinner-table and other decorations, it is hardly possible to conceive than the Single Cactus Dahlia.

POMPON CACTUS DAHLIAS

A group of dwarf, free-blooming, small-flowered varieties is being produced, which promises to be valuable for market and decorative purposes; the large

blooms of the exhibition varieties, often on weak stems, being found unsuitable for employment in such ways.

TOM THUMB DAHLIA

This is a miniature race of round-flowered Single Dahlias raised by the late Mr. T. W. Girdlestone, M.A., and introduced by Messrs. Cheal and Sons some years ago. They grow from twelve to eighteen inches high, and have proved of great value in the flower garden, forming dense bushes, and blooming with remarkable freedom.

QUILLED OR ANEMONE-FLOWERED DAHLIAS

During the past two years the Continental florists have sent to this country representatives of a race of dwarf-growing dahlias, having flowers with a circle or two of ray florets and the centre a cushion of quilled florets resembling a quilled aster or an anemone-flowered Pompon Chrysanthemum. They need some improvement if they are to become popular.

THE COLLARETTE DAHLIAS

This is a type of Single Dahlia having, issuing from the yellow disc, which is in the centre of the flower, a circle of small white or primrose-coloured short florets. Two varieties have been sent from the Continent, viz. President Viger, crimson with a white collar; and Joseph Gougon, reddish orange with a collar of orange florets. They are very free-blooming and produce their flowers on long stems thrown well above the foliage.

BOTANY OF THE DAHLIA

THE Dahlia belongs to the largest of all the orders, namely, Composite, which contains about 10,000 species. The order is divided into a certain number of tribes, the Dahlia being classed in the Helianthoidee, or that to which the Sunflower and our wild Bur-marigolds belong. These tribes are again divided into genera, of which the Dahlia forms one, having received its generic name from the Abbé Cavanilles, who first scientifically described it, and named it the Dahlia in honour of his friend Dahl, the Swedish botanist.

Many species of the Helianthoideæ have their leaves opposite, a characteristic which obtains in the Bur-marigolds, the only representatives of the tribe indigenous to Britain.

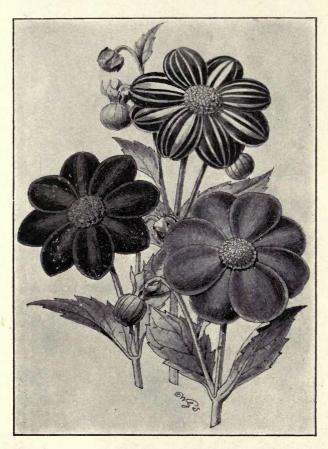
The Dahlia, it is said, grows wild in sandy meadows in Mexico, whence it was brought to Europe about a hundred years ago. It is perennial in its growth, but flowers freely from seed the first year. As it cannot resist frost there is no chance of its ever establishing itself as a garden escape in this country. One night's frost in autumn is sufficient to blacken and destroy the bloom and foliage of every plant exposed to it. It has been known to appear in some places a second

year from roots left in the ground, but this can only happen under special circumstances in some mild and well-sheltered locality. Plants may succeed for a year or two in growing from seed; but, sooner or later, the frost puts an end to their existence, so that their growth in a semi-wild state cannot be permanent.

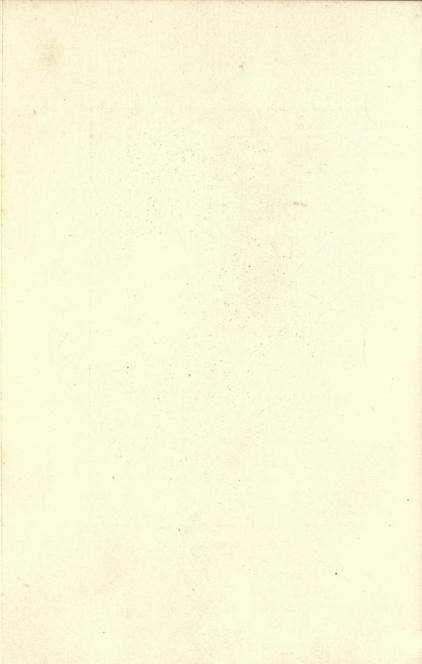
The root is tuberous and fasciculate—that is, the tubers all spring from the collum or neck at the base of the stem. The tubers vary considerably in size and shape in the different species and varieties. It is said that the roots of the Dahlia are used by the native Mexicans for food. Would it not be possible to use the surplus roots in this country for a similar purpose? They must contain a large amount of nourishing matter, which might thus be turned to a most useful and profitable purpose.

The stem is woody and branching, and has short, slightly hispid, hairs. In growth it is inclined to be somewhat decumbent, then ascending, which allows it to send up a number of strong branches. The leaves are opposite, as already indicated, and are without stipules. The leaf-stalk or petiole is naked in some species, but in others it is winged. The leaves in the cultivated varieties are exceedingly variable, being entire, lobed, or pinnate, with the leaflets often pinnatifid. In some cases they are almost bipinnate. The Cactus Dahlias have their leaves more broken up than the "Show" and "Pompon" varieties. The margins are serrate and the serrations finely spinulose, more especially in the Cactus varieties. The under surface of the leaves is also slightly roughish.

The peduncles or flower-stalks spring from the axils



SINGLE DAHLIAS.



of the leaves, generally in pairs, and bear a single flower each, although there are instances on record when, occasionally, the double dark red variety has borne two flowers on a peduncle. This is, however, of rare occurrence.

The primary involucre is composed of five green persistent fleshy bracts, which are so much reflexed that they point downwards. They are ovate or ovatelanceolate in form in the Pompon and Show varieties, but linear-lanceolate in the Cactus. The secondary involucre is composed of the outer row of bracteoles or paleæ, each ray and floret having a bracteole at its base, which is equivalent to a calyx. Very few species in Compositæ have this scale or calyx, which is therefore quite a distinguishing feature of the Dahlias, its more common form being that of simple or branched hairs termed the pappus. These scales form a protection to the young florets in the same The outer row is way as an ordinary calyx. generally composed of eight or nine scales, green at the base, and transparent from the middle upwards. The inner rows are all transparent, but some of the more outward ones are slightly tinged with green.

The Single Dahlia is, no doubt, representative of the plant in its original wild state, but, by cultivation, the florets are all, or nearly all, developed into rays, in the double varieties. The Dahlia rays are folded in a peculiar manner, the one side overlapping the other. They are quite flat in bud, but assume afterwards a round form, thus giving the tubular appearance so characteristic of some of the varieties. This tubular arrangement is best seen in the double show blooms. In the single varieties the ray is folded in the same

manner when young, but, when it is fully expanded, becomes either flat or saucer shaped and a little reflexed at the tip. The tendency of the ray to become revolute is seen wonderfully developed in the Double Cactus Dahlias. In these varieties the ray while young is also folded inwards and flat, but, when fully developed, is rolled backwards so that they too have quite a tubular appearance. These rays are also of various lengths, which make the blooms look irregular.

The florets of the Dahlia are perfect, and the tube or corolla is five-lobed, and contains the five anthers and one pistil with a double stigma. The five anthers are untied into a tube, and the stigmas have to force their way through them. In doing so the anther tube is carried upwards out of the floret by the force of the stigmas. After the stigmas get completely through the tube, the latter is withdrawn inside the floret again by the elasticity of the anther filaments. stigmas are large, and covered on their outer sides with long transparent hairs about half-way down from their upper ends. Further down are the papillæ of the stigmatic surface proper, arranged in two rows. These papillæ seem gradually to change into hairs as they ascend. This arrangement of the stigma is similar to that of the asters.

The seed or fruit is from a quarter to half an inch in length and of a dark colour, with a few short white hairs scattered over it. During the maturing of the fruit the scales or bracts all close compactly together, forming a complete protection to it. They are persistent to the fruit until it is dispersed. They must play an important part in the distribution of the seed,

as they are so large that in a breeze of wind they will carry it a considerable distance. The adaptations which many species in the Composite have for helping them in their distribution are most wonderful, and without doubt account for the fact that the Compositæ contains a larger number of species than any other order. The fruit in many instances is peculiarly well-adapted for being distributed either by the wind, as in the Dandelion and Dahlia, or by birds and animals, as in the Bur-marigold. And not only are the seeds of many species provided by nature with the means to carry them long distances where they may find new habitats, but, when they have reached their destination, they are able, by means of barbs, to work their way down through grass or any other obstruction into the soil.

In the Dahlia the receptacle is convex while the plant is in flower, but becomes flat and often concave in fruit.

The Dahlia may under certain conditions be self-pollinated. As already stated, the stigmas are large and have to force their way through the staminal tube, and in doing so rupture the anther cells. When they emerge from the tube they carry up with them on their stigmatic surfaces large quantities of the pollen, thereby exposing it to the necessary conditions for causing fertilisation. To ascertain whether the Dahlia is self-pollinated or not, a number were isolated with a fine netting so as to exclude all, except the very smallest insects, and in each case the plants flowered freely and set seed. In this locality the Dahlia is visited by the red-tail and other bees, which will cause cross pollination and thus account for the

great variety of colours in blooms of plants raised from seed. Probably other insects besides bees visit the Dahlia, but so far as we are aware there is no record of it.

The Dahlia is regarded as the symbol of "instability," because it was introduced to Europe during those great social and political upheavals which culminated in Waterloo. But may it not with equal propriety be taken as a type of instability because of its great variability, and the readiness with which it lends itself to producing new varieties through the agency and ingenuity of the florist. In the "Double" all the florets, or nearly all, are developed into conspicuous rays. There can be little doubt that the changed conditions under which the plant is cultivated by gardeners has much to do with this variability. Many plants, however, when cultivated under similar conditions do not show the same readiness to sport in so many directions. It is owing to this changeable character that the plant has become so deservedly popular. An enormous number of varieties already in the market, and there seems to be no limit to them. New ones appear every year. This naturally leads us to ask, "Have all these varieties of 'Single,' 'Double,' 'Pompon,' and 'Cactus,' been raised from a single wild species?" Evidently so. Some authorities are inclined to regard the two or three wild varieties as separate species, but strong doubts seem to be entertained regarding this, as their distinctive characters are not permanent enough. At first sight one would be inclined to think the "Cactus" varieties had been developed from a different species because their foliage is more broken up, the primary

bracts of their involucre narrower, and also the scales or paleæ. But notwithstanding these differences there is every reason to believe that they have all been developed from a common wild species. The Double Cactus evidently was partially so developed in Mexico before it was introduced to Europe. And the so-called Single Cactus Dahlias were raised by Mr. E. J. Lowe. F.R.S., of Chepstow, from an ordinary single variety, Stella bianca by name, crossed with pollen of D. Mercki.

It would have proved most interesting had there been a reliable record kept by those who have raised the different forms of this most interesting plant, but horticulturists are not noted for keeping correct records of their doings, and consequently many important facts as to how new varieties of plants are developed are lost to the scientific world.

PROPAGATION OF THE DAHLIA

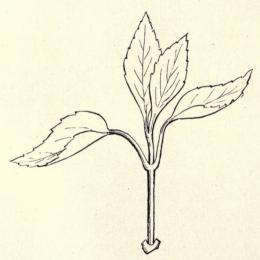
Under this heading I will first deal with propagating by cuttings from the roots that have been safely stored during the winter. In private gardens, where the quantity of plants required is not extensive, and the room in spring-time is very limited, it is advisable to pot up the roots early in February, using pots six or seven inches in diameter. The roots will probably be too large for the pots, in which case the tubers can be reduced to the proper size by cutting (this can be done quite safely without fear of their rotting). After inserting the root, fill up the pot with soil, leaving the crown of the root an inch or so clear of the soil, and plunge in a bottom heat of about 70°.

Better than pots, for the old roots, if such convenience is to be obtained, is a propagating bed near the glass—or along the front of a vinery or plant stove. A bed of soil can be made up and the roots laid in, carefully attending to the labelling—and treating as recommended for the roots in pots.

In from seven to nine days the eyes will begin to swell, then give a good soaking of water of the same temperature as the house. In about fourteen days from first submitting the root to heat, the shoots will have grown about three inches in length.



A Dahlia cutting as taken from the plant.



The same cutting prepared for insertion in the pot.



These should be removed with a sharp knife and thrown away, as, although they look fine cuttings, they rarely strike, and never make good plants.

When the growth is thus far advanced, soil and pots should be prepared for rooting the cuttings in. Almost any sweet soil will do—provided there is no manure in it; but I prefer to use a stiffish maiden loam, with a layer of sharp sand on the top.

When the next lot of shoots are about three inches long, they may be taken from the plants. If a few plants of each variety only are required, the operator can take the cuttings off with a heel or little piece of the old root attached; but if a larger quantity be wanted. care should be taken not to cut within an inch of the base, thus leaving the cluster of eves round about it intact. These eyes will in a few days push up shoots ready to be taken off again as cuttings. By some people, gardeners as well as amateurs, an extraordinary value is put upon the heel, and they maintain that it is impossible to root cuttings that are taken off without This is a piece of old-fashioned nonsense, and any sceptical person can easily be convinced that it is so by paying a visit in March to any leading Dahlia nursery. Thousands—I might safely say millions—of clean cuttings are rooted every season. I have no difficulty in rooting 90 per cent of such. Again, the very stoutest cuttings are often selected under the impression that they make the best plants. This is folly. The best cuttings are those about the thickness of a slate-pencil. The thick ones will usually be found hollow and rarely strike. I often put in the very thinnest cuttings of scarce varieties, and with care they make fine plants.

After severing the shoot from the plant, take the cutting in the left hand, between finger and thumb, and, with a sharp knife, cut just below the joint, afterwards removing the leaves on either side, and insert in the soil up to the next joint.

If single pots are used those of two inches in diameter will be large enough, but a more economical use of the bottom heat may be made by placing four cuttings in a three-inch pot, keeping them close to the edge, as they take root more readily against the side of the pot. In taking off the cuttings be careful to label one variety before taking off another. Omitting this is often a prolific source of mistakes. As soon as the cuttings are off and dibbled in the pots (always use a blunt stick, and see that the base of the cutting is at the bottom of the hole), before they have time to flag, plunge the pots to the rim in a bottom heat of 70° no more. Whatever forcing place the cuttings may be placed in the glass over them should be heavily whitewashed; then there is no fear of forgetting to shade them when a burst of sunshine comes along.

It is most important that the frame or propagating pit has plenty of air, for nothing is so destructive to Dahlia cuttings as a close stagnant atmosphere. Air should be admitted night and day freely, and a sharp bottom heat kept up, otherwise the leaves will turn black and damp off. When cuttings are first put in, give them a good soaking of water, and, when necessary, afterwards dew them over with a syringe or fine rose. If the soil becomes dry, give another good soaking, always using tepid water.

In about three weeks the cuttings will be all rooted, and the pots will be ready for removing to a cool

house near the glass to harden a little before being potted off. This is an important operation, for which soil should be prepared some time before. A good mixture is two parts turf or loam—one of leaf soil, one of spent hot-bed manure with a dash of sand. For this potting 21 inch pots are quite large enough. After placing a little rough stuff in the bottom, fill up the pot a third full with soil, and place the roots carefully on this, keeping the plant to the centre. Fill up the pot with soil and press moderately firm. Then place in a warm frame with bottom heat, if possible, or a warm greenhouse will do. Keep the plants close to the glass and shaded for a few days, giving plenty of air afterwards. Great care must be taken to keep the plants sturdy at this stage, for if they become drawn now it is impossible to make good plants later on. For after treatment see chapter on "Cultivation."

PROPAGATION BY DIVISIONS

If facilities are not at hand for propagating by cuttings and yet an increase of some varieties is required, a simple method is to start the roots into growth in March. This can be done by placing them on a stage in a warm house and watering them, and, when the shoots are about an inch long, dividing the crowns into three or four pieces, taking care to have a shoot or more on each piece. Cut the bottom off the tuber, so as to make it go into a four or five inch pot, in which pot it. Place in a hot frame or warm corner of a greenhouse, shade for a few days, and, when well rooted, place in an airy position, and gradually harden off as recommended for other plants.

PROPAGATION BY SEED

Sow in March in a warm greenhouse or on a hotbed, prick off into boxes when in the second leaf, pot off singly into three-inch pots at the end of April, and treat as directed for plants from cuttings. Seedlings always make a brave show, and are interesting because of the probability of their producing, if the seed is from good varieties, some improved form worth naming and introducing to the world. They are easily managed, and are very suitable for lady gardeners.

CULTIVATION OF THE DAHLIA

SITUATION

In selecting a place likely to prove suitable for the cultivation of the "Queen of Autumn," preference must be given to land having a southern exposure, which, if it slope naturally in that direction will be all the better. It is desirable to have shelter from all winds; from the east and north, which so often, even in the month of June, prove a scourge to the plants when young and tender; and from the south and west, which, in gales and storms, are apt to work disaster among them when in flower. In exposed situations Jerusalem Artichokes planted on the weather side have been found to make a capital protection. They are usually six or seven feet high when their services are most in request. The Artichoke tubers may be planted in single or double rows, the sets being from twelve to eighteen inches apart. But, although shelter is so much to be aimed at, there must be no shade if first-class results are to be the order of the day. The grower will soon get to know that the nearer to a supply of water his plants are, so much the better will it be for the plants, and for the person who attends to them.

Soil

A rather heavy clayey loam, thoroughly well-manured, is, without doubt, the best of all soils in which to grow the Dahlia to perfection. In such a soil the plants are usually of a dwarf and sturdy habit—ideal plants, in fact, to produce blooms of grand size and desirable substance. In land naturally light and rich there is a tendency to strong, soft, watery growth, which not only gives additional trouble in staking and tying, but is the forerunner of small and inferior flowers. In order to improve such a soil the best plan is to spread clay loam over its surface during the early winter months, so that it may get the benefit of frost and exposure previous to being incorporated with the natural surface soil.

PREPARATION OF THE SOIL

Deep culture is, of course, advisable; and what is known as bastard trenching is perhaps the best method. In all cases see that there is proper drainage. If this be neglected, trenching in a clay soil may prove worse than useless, merely serving to provide a receptacle for water. Digging operations cannot be commenced too early in the autumn. Good results are, however, often obtained by spring cultivation, as the season is far advanced before the plants become the tenants of the soil. In any case turn the ground over several times, and each time leave it as rough as possible that it may get all the benefits to be derived from exposure. The manner in which the plants are to be grown, and the distances apart at

which they are to be placed, must to some extent decide the methods of manuring to be adopted; but it may here be said that the over-manuring of Dahlia ground is not an everyday occurrence.

PLANTS

For the purpose of this article I shall assume that the propagation of the Dahlia ends and its real cultivation begins when the plants are transferred from the small pots in which they have been rooted to the larger-sized ones, which, under ordinary treatment, should supply their wants until the planting-out season comes round. At the same time it will be readily admitted that an important part of the culture has already taken place at the earlier period treated of in the previous chapter on "Propagation," and that stout healthily grown plants are always to be preferred to weakly ones as a foundation whereon to build success.

As the necessary preliminary to the cooking of a hare is the catching of the same, so the necessary preliminary to training up Dahlias in the way in which they should grow is the purchasing or otherwise procuring of the plants. In the good old days of Dahlia growing, when the Cactus and single-flowered varieties were unheard of, the custom of the trade was to send out plants in pots, by rail or other convenient method, during the first week in May. Even now this deeply-rooted system dies hard. The advent of the Parcel Post, however, has struck a heavy blow at many old customs, and in no case, perhaps, has created such a revolution as in the work of the Nurseryman and Florist. The would-be cultivator should first fix

upon the number of plants he will require. He should then put himself in communication with some firm that makes the growing of Dahlias a specialty. Such a firm is likely to have all "up-to-date" varieties: and, being jealous of its own reputation, is likely to serve its customers well. If he has a friend who can give him trustworthy information as to the kinds he ought to grow, that friend may prove to him a "friend in need"; if not, he had better leave the selection to the seller. If he selects his own varieties, he should always add an extra name or two, lest any of those he has chosen should not be ready. All orders for Dahlias should be placed in the sellers' hands as early in the season as possible. The buyer who attends to this gets the best of the plants, the cream of the varieties, and delivery possibly a fortnight earlier than he could otherwise have done—an advantage not to be despised in late districts. He may also secure some of the choicer varieties, which do not keep well, are consequently scarce, and could not be had later. In this, as in other provinces, it is the early bird that gets the early worm.

Supposing that the order has been placed in the hands of a firm some considerable distance from the buyer's home, there is no safer mode of transit than by Parcel Post. The plants when unpacked, after a journey of possibly hundreds of miles, will in all probability be as fresh-looking as when they were placed in the box by careful hands.

POTTING

In anticipation of their arrival, soil and pots should be in readiness. The former should, if possible, consist of two parts of good turfy loam, one of leaf mould, and one of rotted manure with a dash of sand thrown in It will be all the better if it has been mixed some time beforehand. The pots should be from two and a half to three inches in diameter. Above the hole in the bottom of the pot put a little piece of crock or broken pot; over this put a few pieces of fibrous soil; then take the plant in one hand and place it carefully in the pot with its roots well spread out, while the other is engaged in filling in the soil, which should be made moderately firm. Be careful to insert the label and place in a bottom heat, say from 60° to 70°. Syringe the leaves and shade from the sun for a day or two, by which time the plant will have become inured to its new quarters and will be making new roots.

If the plants have come to hand, by rail or otherwise, in pots, unbroken by the journey, they must be grown on in a temperature the same as that indicated above, until the pots have become filled with roots.

In both cases, when this happens, it is time to shift them into four, five, or six inch pots according to the wish and convenience of the grower. The soil already described will be most suitable. New drainage will be required. It is advisable to place the plant just deep enough in the pot to allow the ball of earth taken from the small pot to be covered with new soil. The plants are most easily knocked out of the small pots by taking the stem of the plant between the fingers, inverting the pot, and giving the rim a gentle tap on the edge of the potting bench. If the soil be moderately moist, and the plant well rooted, the ball of earth will remain whole, and in this state can

be transferred to the larger pot without perceptible damage to the plant.

Potting over, place the plants again in bottom heat, either in a pit or in a frame—the latter is better, as it encourages root action, while the plants can be more or less exposed to the air whenever the weather is suitable. Warmth at the root and comparative coolness above are the conditions which will best ensure their giving a good account of themselves in their future stages of development.

Careful attention to watering, airing, and protecting from frost and insects will occupy the enthusiast up till the last week in May, or the first week in June. By that time the plants will have been hardened off by the gradual removal of the lights and the withdrawal of all bottom heat for at least a week, and will be ready to be put out into their more permanent quarters.

PLANTING OUT

It is not safe to plant out until all danger from frost is over. As the time when this is the case varies in different districts, each grower must be guided by circumstances; but if he will accept advice, he will err on the safe side, as Dahlias do not grow much out of doors until well on in June.

Dahlia growers, like doctors, differ in their opinions. Some advocate very wide planting as the best method of courting success—others succeed whose rule is very close planting. Both systems may be quite correct. It is well to be governed by the space at the disposal of the grower, and to some extent by the probable size of the plants. Where space is not limited, and a plot

is exclusively devoted to Dahlias, a reasonable arrangement is to allow a distance of five feet from row to to row, and four feet from plant to plant. Those with limited accommodation, however, need not be alarmed at this. The writer has known a case where the plants were grown in a double line, two feet apart each way, and, moreover, the grower of them was very hard to beat.

A course which has much to recommend it is the laying out of the ground in beds five or six feet wide, with paths one and a half feet or so in width. By this means two rows of plants can be grown in the bed, two feet or more apart each way, while each row can be reached from the path—an advantage in wet weather when the treading of the soil is so injurious.

Whatever distances are adopted, have the stakes in their places when the planting day comes round. Thus the danger of injuring the roots in inserting them will be avoided, and the plants will have the benefit of their support at once.

Then, given the right time of year, a suitable day, and the ground in good condition, the plants may be transferred to their new sphere. Where wide planting is practised, it is advisable rather to dig a good-sized hole and fill it with compost where each plant is to go than to manure the soil generally. Turn the plant out of the pot, taking care to preserve the ball of earth intact, place it among the compost, as near to the stake as possible, and tie with a piece of raffia or other like material.

Dahlia plants vary so much in height that it is advisable, when they are grown in quantity and in a breadth by themselves, to have the taller growers either in the middle or at the back, with a general sloping tendency towards the front or outer rows. Such an arrangement will conduce to the effectiveness of the display during the flowering period.

The grower who has tended his plants thus far may imagine that, now that the season when frost is apt to assail them is over, and his pets are established in their more permanent quarters and supplied with water enough to settle the soil at their roots, he may rest on his oars for a little. He could not make a greater mistake. There will still be abundant scope for his energies. Even in June Dahlias have been crippled by frost, so he will require to keep a sharp look-out for a few nights. And, apart from this, there are other dangers to be guarded against.

Enemies—Slugs and Insects

Slugs are deadly foes when the skin of the plants is young and tender. A smooth surface is some safeguard against their ravages, as it affords them few hiding-places, and they can easily be seen on it when out feeding in the evenings. Some lettuce seed sown or lettuce leaves scattered among the plants will provide material to satisfy their tastes till the Dahlias get well under way.

Green fly and other insects may prove troublesome, especially if the season be hot and dry, but careful watering of the plants overhead of an evening will lessen this danger. If they do not yield to this treatment, an insecticide must be used. There is none cheaper and few better than soft soap and water used in the proportion of four ounces of soap to the

gallon of water. Tobacco powder dusted on the points of the shoots will also do away with green fly. Do not use insecticides when the plants are in bloom.

In some localities earwigs are dangerous pests, eating not only the buds and flowers, but even the young shoots in the earlier stages. The best method of holding them in check is by trapping them in small pots placed on the top of the stakes. The pots should contain a little moss or paper to encourage them to take shelter. From time to time the insects may be shaken out into a bucket of water. Another method is to catch them at night, when feeding, by means of a lamp.

THINNING

To return to the plants again. They will now be making growth and will need careful tying, and the side shoots will need staking. Thinning of the shoots must be attended to, if large fine blooms be desired. This more especially applies to the Show and Fancy classes, and, in a limited degree, to the Cactus-flowered section. Pompons and single varieties are usually allowed to retain all their shoots, and to mature all the buds which form on them.

In the Show and Fancy section the four strongest side shoots near the base of the plant should be secured and carefully staked and tied. When the plant has made further growth, other four shoots, several joints above the last, may be taken. These, with the centre stem, will be sufficient,—too many perhaps,—and all the others may be removed. From these branches further growths will spring but only to

be pinched out, with the exception of a few near the terminal buds, by means of which the blooms can be timed. In this class the flowers to be desired are those of large size without approaching to coarseness. They must also have what is known as "depth of flower," with a high centre and good colour.

Cactus-flowered varieties may be thinned in the same way as has been recommended for the Show and Fancy sections, when extra large flowers are required; but, as over-sized flowers in this class should not be encouraged, a few more shoots may be allowed to each plant. Stake and secure all branches as advised for the Show class.

Pompon Dahlias are considered all the finer when the blooms are small and neatly formed; hence little is done to the plants beyond staking the branches and securing them against damage by wind or otherwise.

SINGLE DAHLIAS, being used chiefly for garden decoration, can hardly have too many shoots. Like all others, they must be staked and secured from breakage. Opinions are divided as to whether in this class the reflexed or saucer-shaped blooms are the best for exhibition. Both kinds have something to be said in their favour. Personally I prefer those slightly reflexed.

SINGLE CACTUS DAHLIAS are grown for the same purpose, and require precisely the same treatment as the foregoing. The most beautiful flowers in this class have slightly incurving or claw-shaped florets, thereby enhancing their value for table decoration.

FEEDING

Accompanying this staking and thinning process, there will be the necessary attention to the root wants. When the plants begin to grow, a good mulching of manure will not only mitigate the effects of drought, but will give a supply of plant food at the same time. If the soil be of heavy texture, stimulants may be supplied from time to time without danger, and they will be more especially necessary after the buds are formed. This may be done in the way of top dressing with a good artificial fertiliser, or watering with liquid manure. Watering in dry weather must not be neglected, or points of value on the Show day will be lost.

EXHIBITION BLOOMS

After such labour and care have been exercised, it will be but reasonable to expect good exhibition flowers. There is, however, "many a slip 'twixt cup and lip," and well-grown plants and promising buds may end in bitter disappointment. In order that a bloom may always be forthcoming when wanted, choose buds at different stages of forwardness, and give preference to those with a very tiny hole in the centre, as they usually produce reliable blooms. Earwigs often step in at this stage, and their ravages result in the deformed or eaten florets with which a flower will not be first-rate on the exhibition table. If these insects are about in any number, preventive measures should be adopted. Trapping has already been dealt with. In some districts it is customary to enclose

each bud in a very thin muslin bag, which should, of course, be large enough to allow the bud to swell, the neck being tied firmly round the flower-stalk. A more recent and extensively adopted plan is that of tying a piece of cotton wool round the flower-stalk, with the loose end downwards. Insects will hardly cross this barrier. Caterpillars and small slugs do a great deal of damage, and hide in the flowers by day. Hand-picking is the only remedy in this case.

PROTECTING THE BLOOMS

This brings the cultivation of the Dahlia to that point where preparation for exhibiting may be made, and that will be discussed in another article.

In the foregoing remarks the Dahlia has been dealt with chiefly as grown for exhibition, in which case neither time nor labour are grudged provided success be attained. The grower who cultivates it merely for garden decoration may follow the instructions given just to what extent he pleases. He may allow his plants to grow in a more natural way, so far as thinning is concerned. Very good results are often had with little trouble; but, all the same, a little attention always brings its own reward.

About ten days before the flower is wanted for show, it will require shading from the sun, and possibly rain. This can be done in several ways. One rough-and-ready method is to nail a chocolate box (without the lid) on the end of a stake, securing the flower to prevent it beating against the side of the box. Another way is to make a frame of wire or wood, the same shape as the roof of a house, and stretch

canvas over it, painting the canvas white, and fastening the frame to a stake either fixed, or so that it will slide up and down; this is a very cool arrangement. Another way which helps to bring the flowers more quickly to perfection is a tin or wood box with a glass top. This must be securely fixed over the flower, and the flower tied so that it will not rub against the sides of the box.

Some flowers, such as tipped or edged flowers, are improved by a six or seven inch pot being inverted over them, a week before the Show, on a wood frame 12 inches by 12. This can be made to slide up and down a stake, or fixed; the stem of the flower is inserted into a slit to bring the bloom into the centre of the board, and held there by a small wedge or tied to the stake.

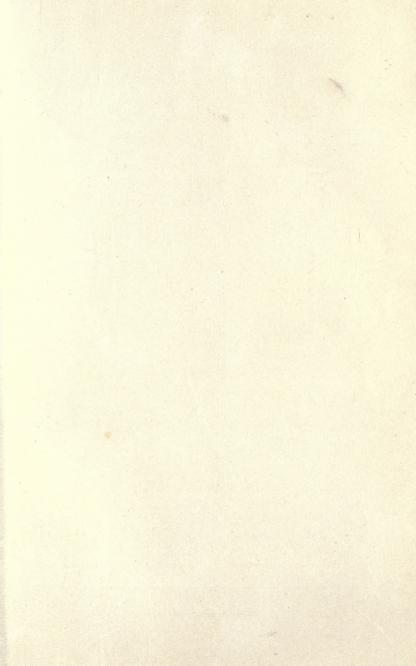
Whatever means be adopted for protecting the flower, the greatest care must be taken that it is securely tied, to prevent the possibility of a strong wind beating it against the protection, and so doing more harm than good.

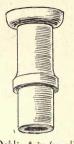
LIFTING AND STORING

This should be done in October, unless the plants have been killed by frost before then. Early in September the growing plants should be carefully gone over for the purpose of seeing that they are all true to name, and a good wooden label with the name indelibly written on it attached to each—tied to the top of the centre stake. It is not necessary to wait until the plants are killed down by frost before lifting the roots, nor is it advisable to do so if the season has

advanced beyond the end of October. The operation of lifting is best performed on a dry day. early-eight or nine o'clock; go over and cut away the tops about six inches above the ground. Next, with a spade or digging fork raise the roots, leaving them lying at the bottom of their respective stakes. it is a fine drying day by early afternoon the soil attached to the roots will have dried considerably. With a piece of stick the most of it will be easily knocked off. Then tie the labels firmly to the roots with tar-twine or wire, and reduce the stalk to about an inch long. They will then be ready to remove indoors. The best and only perfectly safe place for them is one where frost, heat, or damp can never enter, but such an ideal place few can obtain. these are the conditions under which the roots will keep best, and every grower must exert his ingenuity to secure them as nearly as possible—whether in his dwelling-house, his potting-shed, his stable, or his greenhouse. If only a few roots are kept they do well upright in a shallow box surrounded with sand or cocoa-fibre. If in a position where there is risk of frost, some straw and a sack can be placed over them.

Having put the roots away in October the wise man will examine them frequently during the winter—once every two or three weeks—to see that none of them are being affected with damp or rot. A root can often be saved by a decaying portion being cut away, and the wound dressed with dry lime. What is of more importance, timely attention to this will prevent the damage spreading to others.

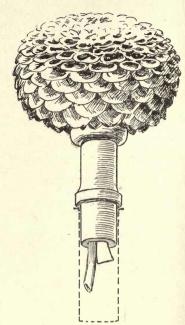




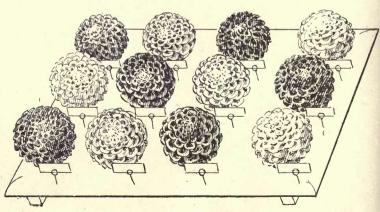
Dahlia tube (wood).



Dahlia cup (tin).



How to fix a bloom in the tube:



An exhibition stand of 12 Show Dahlias.

EXHIBITING THE DAHLIA

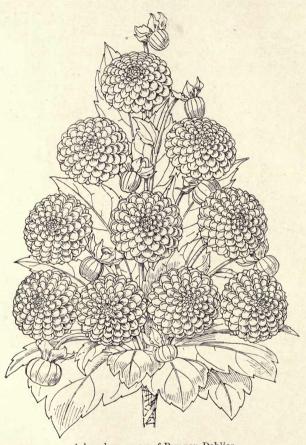
AFTER the instructions given for producing exhibition blooms have been followed, the question of preparing them for the Show naturally arises. First provide a sufficient number of wooden cups and tin tubes; also a board for staging them on, which should be of the following dimensions, for a dozen blooms:—24 inches long, 18 inches wide, 9 inches high at the back, and 3 inches high in front, with holes 6 inches apart, painted a dark olive green and varnished. A box or cupboard should also be provided to carry them to the Show without injury.

Cut the blooms in early morning or late at night, when the sun is not shining. When cut draw the stalk through the wooden cup, and plug with a slice of rhubarb or turnip to fix the bloom (see illustration on opposite page); then insert the wooden cup into the tin tube, which should be full of water. This will keep the bottom petals from being bruised. They can then be placed in the stand and travelling-case. In staging care should be taken to arrange the colours harmoniously, putting the largest blooms in the back row, the medium-sized ones in the middle row, and the smallest in front. Place the most striking blooms and colours at the corners, such as a good scarlet,

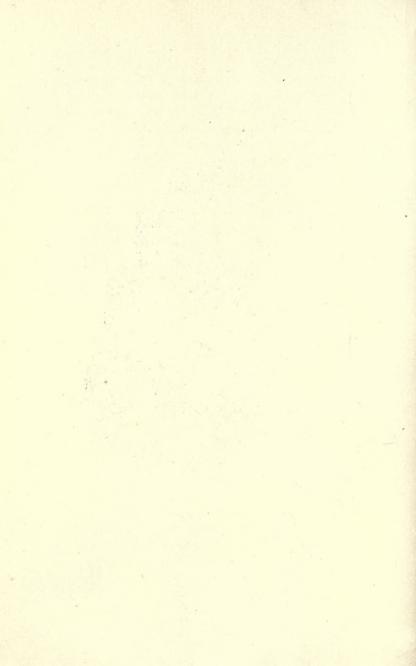
yellow, maroon, and white. The care bestowed on arranging a stand often means the difference between first and second prize.

It is also most important that all the flowers be carefully and legibly named: this counts several points in a close competition. There are several methods of naming, many of them very slipshod. One very good plan is to write the name neatly on cards $2\frac{1}{2}$ inches long by 1 inch in width, and support them with brass pins, $1\frac{1}{2}$ inches long, in front of the bloom. Another way is to use cards of the same size as those beforementioned, and attach them with very thin green twine to the Dahlia tube, the card lying flat on the board in front of the bloom.

Cactus varieties are now often exhibited as single blooms like the show dahlias. They are also shown in sprays of six or ten blooms, arranged in pyramidal shape. For sprays cut the blooms with the longest possible stems, selecting those with good double centres, for one bloom with a bad centre will spoil a bunch. Twist a wire round the stalk of each bloom. Then take a thin flower stake, 12 inches long, and fasten to it, with raffia, a nice piece of Dahlia foliage, then place a flower, with a long stalk, on the top to form the apex of the bunch; work in some green moss, then two more flowers, then three flowers, keeping plenty of moss all down the stem, to convey moisture to any flowers with short stems, back up with foliage and introduce some good unopened buds amongst the flowers, to give the spray a more graceful appearance. Each flower should be kept quite clear of the others. If ten blooms are required add more blooms at the bottom of the bunch.



A bunch or spray of Pompon Dahlias.



The same remarks apply to Pompon, Single, and Single Cactus varieties; when cutting the Single varieties select blooms that have only the outer row of stigmas exposed. Various methods are adopted in staging the bunches after they are arranged, but the best way is on light stands or stages. If twelve bunches are to be staged they should be arranged in three rows, each row rising 6 or 9 inches above the other. The staging should be painted green, or covered with green moss or fern fronds, and the tubes used to hold the water should be at least 1½ inches in diameter by 3½ inches deep. Brown stone jars, made for the purpose, are now being largely used for setting up flowers of this class for exhibition. Being of an unobtrusive colour they suit very well. In naming the varieties use cards about 3 inches by 1 inch, placed in a slit on the top of a thin flower stick, painted green. Allow the name to appear just above the top of the bunch, or it may be inserted in front just below the lowermost blooms, if the bunches are so arranged that it can be easily seen there. There is much more scope for tasteful arrangement in these classes than in the Show and Fancy ones, and the best lesson a new beginner can get is by visiting a good exhibition, and noting how the successful exhibitors set up their flowers.

A CATALOGUE OF VARIETIES

AND

SELECTIONS FOR VARIOUS PURPOSES

To many this will be an interesting chapter. When one resolves to begin the culture of any particular class of flowers, one is immediately confronted with the difficulty of making a selection of suitable varieties. That such is a real difficulty few will doubt after glancing over the following lists, which have been carefully compiled from the 1902 catalogues of six of the largest growers of Dahlias in this country. In the Dahlia Register for 1836, and in The Dahlia, by Robert Hogg, published in 1853, lists are given of flowers then in cultivation; but none of the varieties of 1836 or 1853 are now offered for sale, and none of them were offered in 1897, when the first edition of this book was published. What may be pointed out now is the comparative stability of the list of Show Dahlias. In the 1897 list 201 names were given. All these appear in the following list except one. But how different it is with the Cactus varieties. In the 1897 edition a list of 179 varieties was published—127 of these have now disappeared from the catalogues of our principal growers, and only 52 varieties reappear in the present up-to-date list of

Cactus Dahlias. Such a fact indicates how rapidly the Cactus Dahlia is being developed.

It would, perhaps, hardly be correct to say that all the varieties which have disappeared from the catalogues of growers have been eclipsed; but that they have failed to commend themselves longer to public approbation is certain. If the coloured plates of Show Dahlias in the Dahlia Register are faithful representations of the flowers cultivated in 1836, there must have been then in cultivation varieties which for wonderful beauty and combinations of colouring are not surpassed to-day! One does not know which most to admire—the splendid colouring of these pictures, or the magnificent enthusiasm which prompted the publication of so valuable a work, containing as it does over fifty coloured plates.

In making the selections for various purposes with which this chapter concludes, I have, through the kindness of the editor of *The Journal of Horticulture*, been allowed to use Mr. Edward Mawley's valuable analysis of the flowers shown at the National Dahlia Society's Exhibitions. The selections for decorative purposes have been prepared from notes of observations made during several seasons from plantations of 10,000 plants.

The selections, as already stated, are mainly for the guidance of the uninitiated. The experienced grower does not require them. He can exercise his own judgment, but he may find pleasure in comparing his lists with those given. So many new Dahlias are now sent out every year that the selections given will not long remain up to date. They will, however, be revised in each new edition of this work. A Complete Catalogue of the Varieties of Dahlias offered for Sale in 1902 by the leading growers of Great Britain.

SHOW DAHLIAS

Acme of Perfection, deep yellow, 3 feet.

Agnes, pure yellow, good petal and outline, 3 feet.

Alexander Cramond, maroon, shaded crimson, 3 feet.

Alice Emily, buff yellow, 3 feet.

A. M. Burnie, cinnamon buff, 3 feet.

Archie Mortimer, crimson, very fine and distinct.

ARTHUR OCOCK, reddish orange, petal and outline quite distinct, 4 feet.

ARTHUR RAWLINGS, rich crimson, large flower, 4 feet.

BARONESS, bright yellow, slightly tinted with scarlet, good petal and centre, 3 feet.

Bendigo, purplish crimson, perfect form, good habit, 4 feet.

Birdie, orange buff, fine outline and petal, constant and dwarf, 2 feet.

Burgundy, dark puce, shot and suffused with light purple, 3 feet.

Buttercup, yellow, slightly tinged with red on edges, 3 feet.

CANARY, yellow, a large flower, 3 feet.

Canary Bird, bright canary yellow, grand outline, high centre, 3 feet.

CARDINAL, very rich scarlet, full size, deep and fine form, 3 feet. CHAMPION ROLLO, deep orange, a large well-built flower, 4 feet. CHARLES BACKHOUSE, bright scarlet, 4 feet.

CHARLES LEICESTER, bright scarlet, 4 feet.

CHARLES LIDGARD, deep yellow, edged with bright crimson 3 feet.

CHERUB, beautiful rich amber, quite distinct, 3 feet. CHIEFTAIN, purplish pink, large size, splendid form, 4 feet. Chris. Ridley, bright glowing crimson, very deep, perfect form, 3 feet.

CLARA, rosy peach, a large constant flower of good outline, 4 feet.

Colonist, chocolate and fawn, new and distinct colour, 3 feet.

CONDOR, buff, shaded with orange, a compact flower, 3 feet.

CONQUEST, rich purplish rose, large size, high centre, 4 feet.

CONSTANCY, yellow ground, deeply edged with lake, large, 3 feet. CORONET, dark red, large, centre well up, 4 feet.

Countess, blush white, shaded rosy purple towards the edges, 4 feet.

Countess of Ravensworth, cream, tipped lilac, 3 feet.

CREAM OF THE VALLEY, cream with slight tinge of salmon, fine form, 3 feet.

CRIMSON GLOBE, a large, deep crimson flower, fine outline, 4 feet. CRIMSON KING, deep crimson scarlet, early and constant, 3 feet. CRIMSON QUEEN, crimson scarlet, free habit, good shape, high centre, $2\frac{1}{3}$ feet.

CRITERION, delicate rose, a large and fine back tier flower, 5 feet. CROWN PRINCE, nankeen or pale buff, very dissimilar, good

flower, 4 feet.

Daniel Cornish, terra-cotta red, distinct and useful flower, 3 feet.

Dante, maroon, shaded purple, good petal, high centre, 4 feet. David Johnson, a grand Show Dahlia, quite a new colour, salmon shaded rose, fine form, 3 feet.

Defiance, dark scarlet, with first-class properties, large size, 3 feet.

DELICATA, French white, good form.

DEWDROP, pale primrose.

DIADEM, deep crimson, fine petal, constant, 3 feet.

Dr. Keynes, rich buff, reddish tint at back of petals, 3 feet.

DUCHESS OF YORK, lemon colour, veined and edged with salmon pink, 3 feet.

DUKE OF CONNAUGHT, dark crimson.

DUKE OF FIFE, rich cardinal, large, great depth of petal, 3 feet. EARL OF RAVENSWORTH, a lilac sport from Vice-President, large, 3 feet.

ECLIPSE, bright orange scarlet, well-built flower, 4 feet. ELDORADO, rosy purple, fine shell petal, good centre, 4 feet. EMILY EDWARDS, blush white, 3 feet. ESMOND, yellow, large size, a back-row flower, 4 feet.

ETHEL BRITTON, blush white, edged with reddish purple, 3 feet. ETHELWIN, very dark purple, good flower of fine form, 3 feet.

EXCELLENT, bright red, good outline and petal, very constant,

FALCON, fawn colour, beautiful edged crimson.

FLAG OF TRUCE, white, occasionally tipped lilac, fine, 3 feet.

FLORENCE, bright golden yellow, good form, 4 feet.

FLORENCE TRANTER, blush white, distinctly edged rosy purple, 3 feet.

Frank Rawlings, rich purple magenta.

GEORGE DICKSON, chestnut brown, peculiar colour, constant, 4 feet.

George Gordon, bright crimson, petal and outline grand, 4 feet. George Hobbs, deep orange, large size, but not coarse, a first-rate flower, 4 feet.

GEORGE PAUL, blush, heavily edged vermilion, 4 feet.

GEORGE RAWLINGS, very dark maroon, a full size flower, 4 feet.

GEORGE SMITH, bright magenta, splendid form, 4 feet.

GLOIRE DE LYON, very large, pure white, 3 feet.

GLOWWORM, bright orange scarlet, high centre, 3 feet.

GOLDEN GEM, rich golden yellow, edged with chestnut, of good upright growth, 3 feet.

GOLDFINDER, yellow, tipped with red, large and well built,

GRACCHUS, bright orange buff, good outline and petal, 3 feet. GWENDOLINE, rich crimson, fine petal and outline, 3 feet.

HARRISON WEIR, clear yellow, great depth and substance, 4 feet.

HARRY KEITH, rosy purple, large, and very constant, 3 feet.

HARRY TURNER, dark maroon, 3 feet.

HENRI DEPRESLE, orange scarlet, good build, free, very constant, 4 feet.

HENRY BOND, bright rosy lilac, full size, 4 feet.

HENRY WALTON, yellow, edged vermilion, 3 feet.

HERBERT TURNER, French white, with soft tinge of lilac, 5 feet. HON. MRS. PERCY WYNDHAM, yellow, edged with purple, large, 3 feet.

HOPE, light, rosy lilac, large and very constant, 4 feet.

H. W. WARD, yellow ground, heavily edged and shaded crimson, 3 feet.

ILLUMINATOR, dark red, beautifully shaded orange, 4 feet.

IMPERIAL, deep purple, with a pretty shade of lilac, large, 4 feet.

James Allan, pale blush, a medium-sized refined flower, quite a model, 4 feet.

James Brown, rosy purple, large handsome flower, very constant, 2½ feet.

JAMES COCKER, large, purple, fine form, 4 feet.

James Huntley, a fine purple in the way of James Cocker, 4 feet.

JAMES MARTIN, a large solid flower, bright scarlet, 3 feet.

JAMES SERVICE, dark crimson, very intense colour, 3 feet.

JAMES STEPHEN, bright orange scarlet, 3 feet.

JAMES VICK, purple maroon, quite a model, 3 feet.

J. C. VAUGHAN, yellow, of superior form, very constant, 4 feet.

J. L. TOOLE, red, large, fine, and constant.

JOHN BENNET, yellow, broad scarlet edge, 3 feet.

JOHN HENSHAW, rich crimson, splendid, 4 feet.

JOHN HICKLING, clear, bright yellow, grand form, large, 3 feet.

JOHN NEVILLE KEYNES, yellow, of fine form, 4 feet.

John Rawlings, decided heliotrope in colour, finest form, 3 feet.

JOHN STANDISH, bright red, large, very constant, 5 feet.

JOHN WALKER, pure white, large flower, fine form, 3 feet.

JOHN WILLIAM LORD, orange buff, shaded, 3 feet.

JOHN WYATT, crimson scarlet, fine form, 2 feet.

JOSEPH ASHBY, shaded orange, high centre, grand outline, 3 feet.

JOSEPH B. SERVICE, a fine yellow, 3 feet.

JOSEPH GREEN, clear bright crimson, full centre, 3 feet.

J. R. TRANTER, terra-cotta, a new colour, splendid form and habit.

J. S. Wilson, clear primrose yellow, fine petal and shape, $2\frac{1}{2}$ feet.

J. T. West, yellow, heavily tipped with purple, 4 feet.

JULIA WYATT, creamy white, large, 4 feet.

Kathleen, blush white, high centre, grand petal and outline, 3 feet.

KING OF PRIMROSES, beautiful primrose.

KING OF PURPLES, a fine purple, beautifully formed, 4 feet.

LADY GLADYS HERBERT, pale orange, deeply edged with crimson, 3 feet.

LEAH, golden yellow, of exquisite form, fine habit, 3 feet.

LIZZIE LEICESTER, pink, curiously pencilled, constant flower, 4 feet.

LORD CHELMSFORD, rich maroon, 4 feet.

LUSTROUS, deep scarlet, almost a crimson, fine outline, 3 feet.

MABEL STANTON, yellow, good centre, dwarf habit, 3 feet.

MAJESTIC, white, edged purple, large, 4 feet.

Major Clark, dark chocolate, very free flowering, 3 feet.

Major Cornwallis West, scarlet with orange shade, good habit, 3 feet.

MARJORIE, lemon, shaded amber, good petal, high centre, 4 feet.

MAUD FELLOWES, French white, tinted and shaded with purple,
4 feet.

MERLIN, bright orange scarlet, fine variety, perfectly shaped petals, 2 feet.

MICHAEL SAUNDERS, crimson purple, large, 4 feet.

MIDGET, cream, prettily tinted with pink, 2 feet.

MISS ALICE KING, lovely ivory-white colour, shaded and edged with soft rose.

MISS BARBER, white ground, deeply edged with purple, 4 feet.

MISS CANNELL, cream, edged purplish crimson, 4 feet.

Miss Fox, blush, heavily edged with lake, 3 feet.

MISS HENSHAW, white, large flower of perfect form, $3\frac{1}{2}$ feet. Modesty, blush, very constant.

MONT BLANC, syn. GLOIRE DE LYON, pure white, very large.

MR. CHAMBERLAIN, deep rich maroon, good size and form,

3 feet.

Mr. G. Harris, crimson scarlet, fine form and centre, 3 feet.

Mr. Glasscock, fine purple, large and of good form, 2 feet.

MR. G. PAUL, blush, heavily edged vermilion.

Mr. J. C. Reid, Light orange.

Mr. Spofforth, large crimson, a fine useful flower, 3 feet.

Mr. Stancomb, pale yellow, tipped fawn.

Mrs. Campbell, pale yellow, shaded fawn, backs of petals tipped and streaked rosy purple.

MRS. CHARLES NOYES, light fawn, good petal and outline, 4 feet.

MRS. DAVID SAUNDERS, white ground, distinctly edged with purple, 3 feet.

Mrs. Dodds, blush centre, outer petals light lilac, 3 feet.

Mrs. Douglas, vivid scarlet, pleasing shade, good form, 3 feet.

Mrs. Every, white ground, heavily edged with lilac, very constant, 3 feet.

MRS. F. FOREMAN, rich lilac, large flower of capital form, 3 feet.

MRS. FISHER, white, shading to lavender in the centre, 3 feet.

MRS. FOSTER, fawn, shaded with salmon and mave, 3 feet.

MRS. GLADSTONE, delicate soft blush, in form a model, constant, 3 feet.

MRS. GLASSCOCK, pure white, full size and good form, 4 feet.

MRS. G. RAWLINGS, pink, flushed purple, 3 feet.

MRS. G. R. JEFFARD, deep yellow, 3 feet.

Mrs. Harris, light, edged lilac, 3 feet.

MRS. HODGSON, yellow, edged crimson.

MRS. HUMPHRIES, light, with a delicate shade of pink, 3 feet.

Mrs. Hurst, blush, slightly edged with crimson, fine form, 3 feet.

MRS. J. LAING, French white, fine.

MRS. KENDAL, white ground, edged and tipped with purple, 4 feet.

MRS. LANGTRY, cream, edged with crimson, full size, 4 feet.

MRS. LEWIS STANBRIDGE, clear amber, fine petal and outline, 3 feet.

Mrs. M'Intosh, old gold colour, finely formed and very constant, 3 feet.

Mrs. Morgan, pale ground, tinted rosy purple, good habit, 4 feet.

Mrs. P. M'Kenzie, yellow, shaded and edged with carmine, 3 feet.

MRS. SHIRLEY HIBBERD, cream, shaded pink, 3 feet.

MRS. STANCOMBE, canary yellow, tipped with deep fawn, 3 feet.

MRS. STEPHEN WALKER, light blush pink, splendid form, 3 feet.

MRS. THEOBALD, rose, beautiful form, very constant, 4 feet.

MRS. VAGG, rose, shaded with purple, 3 feet.

MRS. WEST, light ground colour lit up with rose, 3 feet.

MRS. WILLIAM SLACK, blush white, edged with purple, 3 feet.

MURIEL, clear yellow, large and good, 4 feet.

MURIEL Hobbs, yellow, large flower, first-rate petal and form, very constant, 3 feet.

NELLIE CRAMOND, purple with cerise shade, 4 feet.

NORMA, bright orange buff, good outline, 4 feet.

Nublan, very deep crimson, excellent form, very constant, 3 feet.

Nugget, deep yellow or orange, tipped scarlet, high centre, 3 feet.

OCTAVIA, yellow, shaded orange, tinged with rosy purple, 3 feet. OLIVER, crimson, shaded maroon, useful and constant, 4 feet. OVID, rich puce, deep and perfect form, 5 feet.

PAULINE, shaded buff.

Penelope, fawn, shaded amber and tinted yellow, good petal, 4 feet.

Perfection, orange buff, good petal and outline, 4 feet.

PICOTEE, golden yellow ground, sometimes laced with bright crimson, 3 feet.

PIONEER, rich glossy black, 3 feet.

PLEASANCE, bright crimson scarlet, good petal and outline, 2 feet.

PRIMROSE DAME, primrose yellow, excellent shape, 3 feet.

PRINCE ARTHUR, rich, deep yellow, 31 feet.

PRINCE BISMARCK, puce, shot with purple, fine form, 4 feet.

PRINCE OF DENMARK, very dark maroon, shaded with crimson,

4 feet.

Purple Prince, rosy purple, large and very constant, $3\frac{1}{2}$ feet. Queen of Autumn, orange buff, flowers large and distinct in colour, dwarf habit, $3\frac{1}{2}$ feet.

QUEEN OF ITALY, distinct and attractive fawn shade of colour, 4 feet.

Queen of the Belgians, delicate cream, tinged pink, constant, 4 feet.

QUEEN'S MESSENGER, purple, fine flower.

REGINALD, purple, high centre, good petal and outline, 4 feet.
RELIANCE, fawn colour, shaded with pink, fine form, 3 feet.

REPORTER, rich maroon or deep crimson, very constant, 3 feet.

REV. J. GOODDAY, deep purple, good shape, $3\frac{1}{2}$ feet. REVIVAL, rich crimson, full size and very double.

RICHARD DEAN, deep purple, fine form, 3 feet.

ROBINA, deep rose, shaded and veined, bright in colour, 4 feet. Rosamond, light ground, heavily shaded rosy purple, 2 feet. Rosetta, purple, large, full, and constant, good form, 3 feet. Royal Queen, creamy ground, with purple-crimson edge,

3 feet.

ROYALTY, pale yellow, tinged rosy purple, open petal, $3\frac{1}{2}$ feet. R. T. RAWLINGS, clear yellow, of good form and constant, 3 feet. Ruby Gem, ruby crimson, with small yellow tip, 4 feet.

SENATOR, fine purple, distinct, 4 feet.

SERAPH, blush, a large well-built flower, 3 feet.

SHIRLEY HIBBERD, dark shaded crimson, 3 feet.

Shottesham Hero, white ground, tipped and shaded rosy purple, 3 feet.

SIDNEY HUMPHRIES, clear lilac in colour, with good petal and outline, 3 feet.

SIR CHAS. MILLS, clear yellow, good form, 4 feet.

SIR GARNET WOLSELEY, reddish chocolate, large, of good form, 4 feet.

SIRDAR, deep crimson, fine large flowers of good form.

SOUTHERN QUEEN, lilac shaded and pencilled with deep pink.

SPITFIRE, bright scarlet, very profuse, 4 feet.

STATESMAN, purplish crimson, good outline, 3 feet.

SUNBEAM, clear buff, beautiful outline, good and constant,

SUNLIGHT, very bright scarlet, a large useful flower, 3 feet. SUNRISE, bright magenta, high centre, good outline, 3 feet.

Sybil, bright orange buff, distinct, 4 feet.

THE AMEER, very dark maroon, shaded with rosy purple, 3 feet.

THE REVEREND, buff cream centre, good petal and outline,

THOMAS ANSTISS, purple, medium size, fine petal and outline, 3 feet.

THOMAS GOODWIN, very dark, show flower, 3 feet.

THOMAS HOBBS, purple, fine and constant, 4 feet.

THOMAS PENDERED, bright yellow, good petal, a fine solid flower, 4 feet.

THOMAS S. WARE, wine crimson, beautiful petal and outline, 3 feet.

THOMAS WHITE, very fine maroon, first-rate quality, 3 feet.

T. J. Saltmarsh, yellow, edged with red, stout cupped petal, 3 feet.

VICE-PRESIDENT, bright orange, finest form, 3 feet.

VICTOR, dark maroon, with first-class properties, 31 feet.

VIRGINALE, blush white, shaded with rosy lilac, 3 feet.

VOLUNTEER, bright cardinal red, fine form, free flowering, 3 feet.

Walter, deep crimson, shaded dark maroon.

WALTER H. WILLIAMS, bright scarlet, large, 4 feet.

WARRIOR, intense scarlet, grand colour, fine form, 3 feet.

WILLIAM DODDS, orange buff, 3 feet.

WILLIAM JACKSON, rosy purple, large flower, 4 feet.

WILLIAM KEITH, dark plum, a fine back-row variety, 3 feet.

WILLIAM NEATE, reddish fawn, fine petal, excellent form, 3 feet.

WILLIAM POWELL, primrose yellow, large, 3 feet.

WILLIAM RAWLINGS, rich crimson purple, perfect outline, 4 feet.
WILLIE GARRATT, bright cardinal, of fine form and habit,
3 feet.

W. P. LAIRD, lilac, extra fine.

Yellow Globe, a magnificent yellow, large, and of good form, $3\frac{1}{2}$ feet.

YEOMAN, yellow ground, edged and marbled rosy red, 3 feet.

ZEPHYR, pale ground, picotee edge, and slight pencilling of purple, 4 feet.

FANCY DAHLIAS

ADVENTURE, blush ground, striped and marked rosy lake, 3 feet.

Annie Pritchard, white, striped with lilac and rose, fine, $3\frac{1}{2}$ feet.

BEAUTY, yellow ground, with a tip of rosy white, constant, 4 feet.

Buffalo Bill, buff, striped with vermilion, large and fine, 4 feet.

Carnation, clear white, deeply flaked with dark rosy purple, 3 feet.

CHAS. TURNER, light buff ground, striped maroon, 3 feet.
CHORISTER, fawn colour, striped with crimson and rose, 3 feet.
COMEDIAN, orange ground, flaked crimson, tipped white, 4 feet.
COMTE DE LA SAUX, deep lilac, striped with dark crimson,

Dandy, orange, beautifully striped with crimson, large, 3 feet.

Dazzler, pure yellow, flaked and striped bright scarlet, constant,

3 feet.

DOROTHY, fawn colour, striped and flaked dark maroon, 3 feet. DRAGON yellow, richly striped with bright crimson, 5 feet. DUCHESS OF ALBANY orange, with crimson stripes, 3 feet. EDMUND BOSTON, orange, heavily striped with crimson, 3 feet.
EDWARD PECK, deep lilac, striped with rich maroon.
EMIN PASHA, yellow, heavily striped and splashed with crimson,
4 feet.

ENCHANTRESS, creamy white, striped rosy purple, $3\frac{1}{2}$ feet.

ERIC FISHER, buff, striped scarlet, with purple, 3 feet.

FANNY STURT, red, tipped white, exquisite form, 3 feet.

FLORA WYATT, orange, striped crimson, large and full, 4 feet.

FLORENCE BLUNDELL, pale lilac shade, striped with deep purple, 3 feet.

FLORENCE STARK, white ground, striped purple, 3 feet.
FRANK PEARCE, rose striped with crimson, 4 feet.
FREDERICK SMITH, deep lilac, striped purple, constant, 4 feet.
GAIETY, yellow, striped red and tipped white, large, 3 feet.
GEM, white ground, edged and flushed with bright rose.
GENERAL GORDON, yellow, striped with scarlet, 3 feet.
GENERAL GRANT, orange, with bold chocolate stripe, 3 feet.
GEORGE BARNES, rich lilac, striped crimson, 3 feet.
GOLDEN FLEECE, rich yellow, with fine splashings of crimson, 4 feet.

GOLDEN GEM, yellow, small neat flower, fine form, free habit, 4 feet.

Goldfinch, yellow, striped with purple, tipped white, 3 feet. Gold Medal, bright canary yellow, marked with fine stripes and splashings of deep red.

Goldsmith, yellow, striped and edged with bright crimson, 3 feet.

GRAND SULTAN, buff, bright red stripes, very large, 3 feet. HARTIE KING, orange, with crimson and scarlet stripes, 3 feet. HEATHERBELL, crimson, heavily tipped with white, good shape, 4 feet.

Henry Eckford, yellow, striped with red, 3 feet.
Henry Glasscock, buff, crimson stripe, 3 feet.
Hercules, yellow, striped crimson, a fine large flower, 3 feet.
Hero, lilac, striped maroon, high and good centre, 4 feet.
Hugh Austin, orange scarlet, striped dark red, 3 feet.
James O'Brien, yellow, with reddish rose stripes, 3 feet.
Jannette, pale yellow, tipped with white, 5 feet.
Jessie M'Intosh, red, with a distinct white tip, 4 feet.
John Cooper, white, heavily striped with lake, 3 feet.
John Forbes, fawn, striped with maroon, 3 feet.

JOHN LAMONT, maroon, striped black, 3 feet. LADY ANTROBUS, red, tipped white, a showy flower, 3 feet. LAURA HASLAM, pale vellow, tipped with white, 4 feet. LETTY COLES, rose, striped and tipped with red. LOTTIE ECKFORD, white, striped with purple, 3 feet. MABEL, lilac, striped crimson, very large, 3 feet. MADAME SOUBEYRE, rosy lilac, striped carmine, 3 feet. MAGICIAN, deep yellow, striped scarlet. MAGNET, lilac, densely striped with rich purple, 4 feet. MAJOR BARTTELOT, orange, striped with maroon, large, 3 feet. MALIEL, light ground striped with crimson, 3 feet. MANDARIN, yellow, striped and mottled with purplish crimson, 4 feet.

MARGERY, buff, striped and speckled with crimson and purple,

MATTHEW CAMPBELL, bright buff, striped with crimson, 4 feet. MISS BROWNING, clear yellow, tipped with white, fine petal, 3 feet.

MISS LILY LARGE, puce, striped and spotted crimson, 3 feet. MME. CHAS. MOLIN, orange ground, distinctly striped and marked rosv red.

Mrs. J. Downie, orange, striped with scarlet, large, 3 feet. MRS. MORTIMER, yellow ground, tipped with fawn, 3 feet. MRS. N. HALLS, bright scarlet, tipped white, fine form, 2 feet. MRS. OCOCK, yellow ground, petals margined crimson, tipped white, 3 feet,

MRS. PURVIS, yellow, white tip.

MRS. SAUNDERS, yellow, tipped with white, 4 feet. NEPTUNE, bright orange, striped with crimson, 3 feet. NICHOL WALKER, buff, striped crimson, large flower, 3 feet. NOVELTY, delicate pale rose ground, flaked with purple, 4 feet. ORACLE, yellow, striped with crimson, 3 feet. PARROT, vellow, striped crimson, 21 feet.

Peacock, dark purple maroon, distinctly tipped white, 3 feet. Pelican, pure white, striped with purple, 3 feet.

PLUTARCH, buff ground, striped and splashed with crimson, 3½ feet.

POLLY SANDELL, lemon colour, tipped with white, 3 feet. Polly Sheffield, lilac, striped and speckled crimson. PORTIA, lilac, striped with purple, good size, splendid form,

4 feet.

PREMIER, deep lilac, striped with crimson, 3 feet.

PRINCE HENRY, lilac, with bright purple stripes, 3 feet.

PROFESSOR FAWCETT, dark lilac, striped with chocolate, 3 feet.

PROSPERO, maroon, tipped with white, showy, 4 feet.

QUEEN MAB, white, tipped with scarlet, very showy, 3 feet.

REBECCA, lilac, striped with crimson, large, constant, 3 feet.

REV. J. B. M. CAMM, yellow, flaked red, very large, 4 feet.

RICHARD DEAN, yellow, flaked crimson.

ROBERT BURNS, lilac, flaked with dark maroon, constant, 3 feet.

RUBY GEM, crimson, with small yellow tip, early, 4 feet.

SAILOR PRINCE, lilac, striped and splashed purple, 4 feet.

S. MORTIMER, pale pink rose ground, striped and flaked crimson, 3 feet.

STANLEY, yellow, striped with scarlet; effective, 3 feet.

SUNSET, yellow, flaked and striped with scarlet, $2\frac{1}{2}$ feet.

T. W. GIRDLESTONE, lilac, flaked and splashed with maroon, 4 feet.

VALENTINE HUMPHREYS, buff, tipped with white, 3 feet.
WALTER SPRIGGS, pale yellow, beautifully striped with scarlet.
WATCHMAN, rich golden yellow, heavily striped and blotched with bright crimson, 4 feet.

W. G. Grace, lilac, striped and spotted purple, large, 4 feet. W. G. Head, very dark, slightly striped with crimson, 4 feet. Wizard, fawn, striped with maroon, and tipped white.

CACTUS DAHLIAS

AJAX, orange, suffused salmon and buff, 4 feet.

Albert Youens, reddish cinnamon, enlivened with a distinct shade of golden amber, 3 feet.

ALFRED VASEY, pale bronze, passing to salmon pink, $3\frac{1}{2}$ feet. ALINE, lovely tint of rosy pink or peach, 4 feet.

Alpha (Fancy Cactus), white ground, speckled and striped freely with purple, crimson, and lilac, 4 feet.

AMBER, yellow, tinted with amber.

ANGELICA, white, blush towards the tips.

Annie Turner, soft scarlet, shaded rose.

Apollo, crimson lake.

ARAB, rich velvety maroon, almost black, 5 feet.

Arachne, white, edged with a broad band of brightest crimson, 4 feet.

ARTHUR CHEAL, deep rich purplish crimson, 4 feet.

ARTUS, orange buff, 41 feet.

Augustus J. C. Hare, bright orange scarlet, edged with cerise, 4 feet.

AUNT CHLOE, very dark, the younger florets being quite dark, 3 feet.

Aurora, rosy salmon colour, fine pointed petals, $3\frac{1}{2}$ feet.

AUSTIN CANNELL, magenta rose.

Baden Powell, rich velvety cardinal, free and erect flowering. Baron Schroeder, imperial purple, throwing its blooms erect and well out of foliage, 4 feet.

Beatrice, pale rose, with lighter shade at point of petals.

BEAUTY OF ARUNDEL, glowing crimson, shaded with brilliant rosy purple.

Beauty of Wilts, soft terra-cotta shaded red, with long twisted petals.

Bernice, pale yellow buff, the tips of petals tinted and shaded cinnamon, 4 feet.

Bertha Mawley, cochineal colour, a magnificent flower, 4 feet. Bessie Mitchell, brownish-orange colour, good Cactus form, large size.

BLANCHE KEITH, pure yellow, a fine flower.

Brema, pale blush, a pleasing colour, free flowering, 3 feet.

Bridesmaid, delicate shade of rose, passing in centre to pale primrose.

BRIGHTNESS, bright fiery scarlet, 4 feet.

Britannia, soft salmon pink, passing towards the base of the petals to apricot, 3 feet.

Brutus, bright crimson with purple tips, nice incurving petals, 3 feet.

CAESAR, soft reddish scarlet.

CANNELL'S CREST, splendid rich cherry red, fine size.

CANNELL'S GEM, terra-cotta and orange.

Capstan, soft brick red, petals long, pointed, early and free, 4 feet.

CAPTAIN BROAD, bright scarlet, petals curving inwards, very early, 3 feet.

CAPTAIN DREYFUS, dark velvety maroon, very free.

CASANDRA, yellow, heavily shaded fawn and rose.

Casilda, pale, sulphur yellow, outer petals diffused and tinted delicate pink.

CHANCELLOR SWAYNE, velvety bluish-plum colour, very erect in habit, 5 feet.

CHARLES WOODBRIDGE, crimson, shaded purple, large and free blooming, 3 feet.

Cheal's White, beautiful ivory-white flowers on long stems, 4 feet.

CINDERELLA, bright purple, flowers produced on long slender stems, 4 feet.

CINNAMON, bright cinnamon, or yellowish buff, 4 feet.

CLARA STREDWICK, clear bright salmon, shading to yellow at base of petals, 4 feet.

CLARENCE WEBB, beautiful bronze red, passing at the base to soft canary yellow, 4 feet.

CLIO, pale creamy salmon ground, suffused and tinted carmine, 3 teet.

COLUMBIA, rich bright vermilion, ground colour, the centre and tip of each floret pure white, 4 feet.

CONSTANCE, pure white, fine for cutting.

Constancy, colour somewhat after "Uncle Tom," free flowering, 4 feet,

Cornucopia, soft shade of deep reddish salmon, very free, 4 feet.

COUNTESS OF GOSFORD, outer colour cinnamon, suffused with gold, 3 feet.

COUNTESS OF LONSDALE, rich salmon tinted with apricot, 3 feet. COUNTESS OF RADNOR, amber, shaded pink, tinted silver, 3 feet. COUSIN JONATHAN, plum coloured, footstalks long, straight, and stiff.

CRIMSON KING, deep bright crimson, shaded maroon in the centre.

CYCLE, rich ruby red, flowers freely produced on long stems.

DAFFODIL, pale primrose, very fine.

Daniel Wilson, distinct shade of red, massive flowers of good shape.

Debonair, base of petals cinnamon, deepening to rich copper colour at the tips, 3 feet.

Delicata, light salmon at base of petals, shading off to a lovely delicate pink, 3 feet.

Delight, rosy pink, a distinct and beautiful flower.

DIAMOND, yellow disc, shading off to rosy mauve, tipped salmon, $\mathbf{3}_2^1$ feet.

DINORAH, buff colour with a shade of rose running through it, 4 feet.

Dr. Douglas, deep crimson-scarlet, long narrow petals.

DR. NANSEN, bright scarlet or signal red.

DRYDEN, deep crimson-scarlet.

Duchess of York, rich orange red.

EARL OF PEMBROKE, deep plum colour.

Eastern Queen, rich magenta, maroon, fine true Cactus.

EBONY, blackish ebony, distinct and free.

ECLAIR, bright orange red, dwarf and free.

ECLIPSE, clear sulphur yellow.

EDITH BRYANT, soft creamy yellow, prettily edged crimson, 3 feet.

EILEEN PALLISER, fine large golden yellow, free flowering, late, 4 feet.

E. J. DEAL, scarlet tinted crimson.

ELECTRIC LIGHT, blush white, turning to yellow at base of florets, 5 feet.

Elfe, sulphur, full flowers with narrow petals.

Elsie, distinct rose colour, with yellow base to florets, 4 feet.

EMPEROR, soft rosy purple flowers borne on long stout stems, 5 feet.

E. O. GREENING, purple and crimson.

ERASMUS, reddish crimson, shaded dark maroon.

ETHEL, light yellow, the outer petals becoming chrome with age, 4 feet.

EXHIBITOR, beautiful art shade of soft pink or peach colour.

EXQUISITE, cinnamon, long twisted incurving petals, free and early, 3 feet.

FAIRY, deep rosy pink striped with white, shading to white at the tips, 3 feet.

FALKA, rosy cinnamon, shaded carmine and violet.

FANTASY, bright orange red.

F. C. PAWLE, beautiful rich crimson, shaded rose at the tips of the petals, $3\frac{1}{2}$ feet.

FEARNOUGHT, soft carmine, passing towards the base of the petals to richer red, $3\frac{1}{2}$ feet.

FIGHTING MAC, rich fiery crimson, with just a suspicion of appricot at the base of the florets, $4\frac{1}{2}$ feet.

FIREBRAND, rich velvety crimson.

FIREFLY, beautiful flame colour, shaded with carmine, 4 feet.

FIRE KING, rich bright crimson, without shading, 4 feet.

FLAMBEAU, bright scarlet, orange shaded, very free flowering.

FLAMINGO, an intense flame colour, fimbriated florets and of easy

FLORADORA, wine crimson, very constant variety, 3 feet.

FLORENCE, lovely shade of orange vellow, constant and free, 3

FLOSSIE, pale coral pink, tinted primrose, very pretty, 4 feet.

FRANK WOODGATES, yellow at base of petals and scarlet at points.

FREDA, lovely shade of salmon-rose.

FREEDOM, rich crimson scarlet, remarkably free flowering.

FUSILIER, deep salmon or coral pink.

GABRIEL, ground colour, bright velvety crimson, the upper half of each floret being snow white, and abruptly curved inwards, 41 feet.

GALLIARD, a shade of reddish scarlet, of good habit, 4 feet.

Geiselher, ruby red, very narrow twisted florets.

GENERAL BULLER, rich velvety crimson, nearly black at the base, every floret as it expands having a pure white tip, 41 feet.

GENERAL FRENCH, deep bronze, large flower, grand habit, free flowering.

GENESTA, ground colour, amber, passing towards the centre to golden vellow, 4 feet.

GLORIOSA, fine scarlet, a glorious flower, 3 feet.

GOLDEN PLOVER, golden-yellow colour.

GOLDEN QUEEN, beautiful rich golden yellow, 4 feet.

GOLDEN RAY, yellow, deeper-coloured tips and margins.

GOLDFINCH, yellow buff, with pink centre, 4 feet.

GRACE DARLING, lovely cherry red, with rosy cerise and heliotrope shadings.

GREEN'S GEM, bright orange salmon, good form.

GREEN'S WHITE, snow white, with pea-green tint.

Guinevere, bright orange scarlet, shaded rosy pink, 3 feet.

HARMONY, reddish bronze, rather more yellow towards the centre, 3 feet.

HAROLD HARPER, rich dark velvety crimson, magnificent form, 31 feet.

HARRY STREDWICK, deep maroon, tipped fiery crimson, 4 feet. HENRY AYRES, rich velvety crimson, deeper centre, lovely colour.

HERBERT MORTIMER, bright cherry red, shaded orange at base of florets, 3 feet.

Hobbie's Pet, light fawn with heliotrope shadings.

Hobbie's Yellow, rich canary yellow.

HOGARTH, maroon colour with crimson shadings.

Honeysuckle, a pleasing mixture of amber in different grades of intensity.

IGNEA, fiery crimson scarlet, large, 4 feet.

IMPERATOR, dark ruby red, the petals of the flower are claw-shaped, 4 feet.

Innovation, rich crimson, every floret tipped white, good habit, 5 feet.

INVICTA, delightful shade of crimson, light and elegantly formed petals.

Island Queen, charming pale rose colour, free flowering, $3\frac{1}{2}$ feet.

James Roberton, deep crimson, shaded maroon, a large handsome flower.

JEALOUSY, a good yellow, with fine double centre, long stems, 4 feet.

JEANNIE, purple magenta, very distinct and beautiful.

J. E. FREWER, vermilion colour, having quite a velvety gloss, 3 feet.

J. F. Hudson, lovely carmine rose, with yellow shading from centre, $3\frac{1}{2}$ feet.

J. H. Jackson, intense blackish maroon, extra long narrow pointed petals, 3 feet.

John Adam, beautiful bright crimson, a fine flower.

JOHN BURN, beautiful deep bright crimson, a handsome flower, 3\frac{1}{2} feet.

John Halifax, bright orange scarlet.

JOHN H. ROACH, soft yellow, edged sulphur, free habit, 3 feet. JOHN WELCH, rich glowing crimson.

JUAREZII, bright crimson, extremely showy, 4 feet.

JUVERNA, bright vermilion, shaded scarlet, free flowering.

J. Weir Fife, rich purple centre, deepening to purplish crimson at back of petals, sometimes crimson with purple stripes.

J. W. Wilkinson, deep rosy red, of magnificent form, 3 feet.

KAISERIN, sulphur yellow, outer florets tinged with lemon, 4 feet.

Kapitan Lans, pale canary yellow, blush towards the tips, very effective.

KATHLEEN, light orange, petals perfectly pointed and incurved. KEYNES' WHITE, ivory white, tinted cream at the base, 4 feet.

KINGFISHER, bright carmine or rosy purple, very free flowering.

KING OF SIAM, deep rich purplish maroon, early and free flowering. 4 feet.

Konig Humbert, deep velvety maroon, almost black, with fine silky reflex.

KYNERITH, magnificent vermilion, with lighter shade at base of petals, 4 feet.

LADY E. TALBOT, pale terra-cotta shaded salmon, 3 feet.

LADY PEARSON, distinct shade of resy red, flowers well out of the foliage, 4 feet.

LADY PENZANCE, of the purest yellow, 3 feet.

LAVERSTOCK BEAUTY, soft red, yellowish scarlet at the base, 4 feet.

LEADER, distinct shade of bright crimson.

LEANDER, bright orange, a fine variety.

LIBELLE, clear magenta and purple, quite a novel colouring.

LIBERTY, colour is dull red, quite distinct from any other.

LODESTONE, orange scarlet or reddish apricot, free flowering, 5 feet.

LORD ALVERSTONE, rich carmine, shaded rosy crimson, free flowering, 4 feet.

LORD BRASSEY, rose flushed with violet, deeper at the points and yellow at the base, 3 feet.

LORD ROBERTS, white with creamy centre, long narrow fluted petals and of splendid form.

LORELEY, delicate rose, shaded white towards the centre.

LOTTIE DEAN, pale amber buff, tinted and edged with rose, 4 feet. LOVELY EYNSFORD, amber coloured.

LOYALTY, bright coral red, 5 feet.

Lucius, brilliant deep orange, very free and effective, 31/2 feet.

Lyric, fiery red with yellow base, of good form, 3 feet.

Mabel Keith, buff, suffused with soft pink, shading to creamy yellow centre, $3\frac{1}{2}$ feet.

MAGNIFICENT, ground colour cream, suffused with delicate salmon buff, $3\frac{1}{2}$ feet.

MAID OF HONOUR, soft amber with shadings of red gold.

Major Hobbs, a beautiful clear rose colour, free flowering, splendid habit, 4 feet.

Major Weston, very deep-red flowers, of splendid form and rich colour, 3 to feet.

MARCHIONESS OF BUTE, ground colour white, with rosy tips to petals.

MARS, soft crimson, with a distinct silk-like sheen, 4 feet.

MARY SERVICE, a pretty mixture of yellow and salmon pink, splendid form, 3 feet.

MATCHLESS, intense rich velvety maroon.

MAURICE S. Walsh, lemon yellow shading to chrome yellow in the back petals, 3 feet.

MAY PICTOR, rich yellow, with long pointed petals, 3 feet.

MAYOR HASKINS, bright glowing crimson, large bold flower, 4 feet.

MAYOR TUPPENEY, deep yellow centre, edged with orange and crimson, 4 feet.

METEOR, red, yellow at base of florets, free.

MISS ANNIE JONES, crimson, shaded scarlet, petals much twisted, 4 feet.

MISS A. NIGHTINGALE, clear yellow ground, flaked and heavily edged with scarlet, 4 feet.

MISS FINCH, rich carmine rose, shaded crimson, $3\frac{1}{2}$ feet. MISS GRACE COOK, rose and white, good form, $3\frac{1}{2}$ feet.

MISS IRENE CANNELL, soft shade of light peach pink, shaded primrose towards base of florets, 4 feet.

MISS JANE BASHAM, soft tint of brick red, passing to salmon pink.

MISS VIOLET MORGAN, base of florets cream or fawn, shaded delicate pink, 4 feet.

MISS WEBSTER, purest white, large flower, long petals, 3 feet.
MISS WINCHESTER, coral pink, very distinct; a large flower of

MISS WINCHESTER, coral pink, very distinct; a large flower first-rate properties, 4 feet.

Monarch, orange red, tipped with magenta.

MR. MOORE, brilliant maroon and crimson.

Mrs. A. Beck, reddish salmon colour, flowers of medium size, 3 feet.

MRS. A. F. PERKINS, lovely sulphur yellow, every floret tipped with pure white, 4 feet.

MRS. ALLHUSEN, rich rose, passing to creamy white.

MRS. A. PEART, beautiful creamy white, 31 feet.

Mrs. Arbuthnot, pale canary yellow, almost white at the points of florets, 3 feet.

MRS. BARNES, lovely pale primrose, shading to rosy pink, 3 feet.

MRS. BEEVOR BARKER, cherry red, flaked and suffused with scarlet.

Mrs. Bernard Parker, cherry red, flaked and suffused scarlet.

Mrs. Carter Page, rich velvety crimson, with faint tinge of yellow, 4 feet.

MRS. CASTLE, lovely pale lemon yellow of good shape.

MRS. CHARLES TURNER, light bright yellow, distinct.

Mrs. Devluca, a beautiful rich shading of yellow and orange, $3\frac{1}{2}$ feet.

Mrs. Dickson, soft rose colour, shading to yellow, 3 feet.

MRS. E. CANNELL, clear yellow, with tints of soft red.

MRS. EUSTACE, pleasing shade of pink.

MRS. FINLAY CAMPBELL, beautiful vermilion orange, 4 feet.

MRS. FRANCIS FELL, white.

MRS. GORDON SLOANE, lovely pinkish terra-cotta.

Mrs. H. A. Needs, a distinct shade of rich crimson suffused with purple.

MRS. H. J. Allcroft, soft orange buff, long petals, good centre.

Mrs. H. J. Jones, scarlet, edged with cream and heavily tipped with white, 4 feet.

Mrs. Hobart, a lovely blending of pale orange yellow and salmon, $3\frac{1}{2}$ feet.

Mrs. Holford, soft rosy scarlet, miniature cactus, 4 feet.

Mrs. Horace Wright, crimson maroon, a very distinct tipped flower, 3 feet.

MRS. HOULDER, soft fawn, with edgings of soft flesh colour.

Mrs. J. H. Luscombe, pretty rosy mauve, white centre, 3 feet.

Mrs. J. J. Crowe, a lovely clear canary yellow, without shading, one of the best Cactus Dahlias, 5 feet.

Mrs. John Findlay, pale lemon yellow, with a deep chrome shade on outer edges, 4 feet.

Mrs. John Goddard, rich glowing crimson scarlet, free flowering, $3\frac{1}{2}$ feet.

Mrs. Jowett, apricot, slightly shaded with coppery red on the points of the petals.

Mrs. J. P. Clark, soft tint of reddish cinnamon, or buff, 4 feet.

MRS. KINGSLEY FOSTER, rich golden amber, 3½ feet.

MRS. KLEINWORT, rich crimson maroon, fine for cutting, 4 feet.
MRS. M'KERGOW, lovely amber or chrome, perfectly distinct, 35

feet.

Mrs. Mawley, clear yellow, very large, full and finely-outlined flower, $4\frac{1}{2}$ feet.

Mrs. Montefiore, glowing crimson scarlet, 4 feet.

MRS. MORTIMER, rich terra-cotta or salmon red, 31/2 feet.

MRS. MURRAY IND, bright rose.

Mrs. Portman Dalton, vivid vermilion, shading off to a rosy red.

Mrs. Sanders, pale sulphur yellow, free flowering, 4 feet.

Mrs. Scarse Dickens, rich golden yellow, large handsome flowers, 3 feet.

Mrs. Stephenson Clarke, pale golden florets, tipped with orange red, 4 feet.

Mrs. S. W. Sweet, coppery orange, tinted salmon, 4 feet.

Mrs. Turner, bright yellow, large and distinct flowers, 3 feet.

Mrs. Walter, delicate white, with a tinge of red at the centre, and very slight red stripe, $2\frac{1}{2}$ feet.

Mrs. Wilson-Noble, lovely pinkish salmon, splendid flowers, 3 feet.

Mrs. Winstanley, yellow, gradually shading to soft scarlet, 5 feet.

Nero, soft shade of rosy crimson, shaded with deep claret.

Night, intense dark maroon, nearly black, $3\frac{1}{2}$ feet.

NORFOLK HERO, crimson scarlet with sheen of glistening ebony. Novelty, mixture of yellow and terra-cotta, very free flower-

Octopus, nearly white, large and very free, 4 feet.

ODA, magenta, centre shaded velvety carmine, pale towards the tips.

OLIVE, cerise, suffused salmon and pink, 31 feet.

OPHIR, soft golden apricot, slightly pale in the centre, 4 feet.

OPORTO TAIT, scarlet shade, bushy habit, 3½ feet.

Orange King, orange, flushed and veined with scarlet, free flowering, 3 feet.

Perle-de-la-Fête d'or, pure white, free flowering, $4\frac{1}{2}$ feet.

PRETORIA, light scarlet shaded, a fine flower, 4 feet.

Primrose Dame, pure yellow, similar to "Lady Penzance," but longer stems.

PRINCE OF YELLOWS, bright butter yellow, 4 feet.

PRINCESS ENA, light amber, 3 feet.

Profusion, rich rosy purple, free flowering, 31 feet.

PROGENITOR, bright clear carmine, or crimson lake, 4 feet.

PURITY, fine pure white, a very fine lemon tinge in the centre, 3 feet.

P. W. Tulloch, light salmon red tinted purple, which is again shaded towards tips of petal, 4 feet.

RADIANCE, vivid orange scarlet, the base of the petals passing gradually to a paler shade, almost yellow.

RAKETE, luminous orange scarlet, very effective.

RANJI, deep maroon, almost black, 3 feet.

RED ROVER, bright crimson red, very free, 5 feet.

REGULUS, rich deep crimson, self colour, 3 feet.

RICHARD DEAN, red heavily tipped with white, 4 feet.

RINGDOVE, salmon or pinkish fawn, passing to pure white at the point of each floret, 4 feet.

R. J. Hamill, soft velvety carmine, centre of every floret pale blush, 4 feet.

ROCKET, velvety crimson, 5 to 6 feet.

Rosine, pretty shade of rose, long incurving claw petals, $3\frac{1}{2}$ feet. Royal George, soft carmine pink with a faint suspicion of purple.

RUBY, rich ruby red, the extreme tips being almost magenta, 31 feet.

RUCKERT, soft brick red, with darker shadings.

Rufus, vermilion scarlet, stout stems often 18 inches long, 5 feet.

Sailor Prince, claret crimson, flowers produced well above the foliage, $4\frac{1}{3}$ feet.

SALMON KING, bright salmon, long finely-twisted petals.

SANDPIPER, bright orange scarlet, free flowering, 4 feet. SEA QUEEN, light purple with sheen of blue.

SHERIFF HENDERSON, bright rosy salmon, large full flower.

SIDOME SCHARFE, orange and old gold, robust habit, free.

SIEGFRIED, ivory white, large full flower.

SINDOLD, white, lilac rose towards point of petals.

SKYLARK, deep crimson plum.

SPARKLER, bright crimson.

Spitfire, bright clear scarlet with long claw-like petals, 4 feet.

SPOTLESS QUEEN, pure white, very free flowering, 3 feet.

STANDARD BEARER, bright fiery scarlet, 3 feet.

STARFISH, orange scarlet, long twisted petals, 4 feet.

STARLIGHT, very bright orange.

STAR OF SCHONBERG, distinct shade of violet purple.

STELLA, rich vivid crimson, good habit and free flowering, 4 feet.

STRATHLENKRONE, bright scarlet.

Sundew, orange coloured, overlaid with pale rose pink.

SURPRISE, deep rose pink, compact habit of growth, 3 feet. SYLPH, tawny orange, wonderfully free and effective, 3 feet.

SYLVIA, silvery lilac, shaded rose.

TESSA, salmon pink, tinted yellow at base of florets, 4 feet.

THALMA, very pretty peach colour, 3 feet.

The Clown, soft brick red, every petal for nearly half its length being tipped with white, 4 feet.

THE CZAR, intense crimson maroon.

THOS. J. PAULEY, lovely salmon red, 3 feet.

Transvaal, deep velvety claret, free and effective.

TRUE FRIEND, dark crimson.

UHLAND, deep velvety crimson and scarlet, very free.

UNCLE Tom, dark crimson maroon, almost black in the centre, 3 feet.

UP-TO-DATE, coral pink with veins of yellow through each petal, bright yellow at the base, 5 feet.

VENUS, beautiful pure snow white, miniature Cactus.

Vesta, distinct shade of rosy pink with a lighter centre, $3\frac{1}{2}$ feet. Village Maid, the base of each petal is creamy yellow and edged with carmine crimson.

VISCOUNTESS SHERBROOKE, bright reddish terra-cotta, suffused with apricot, 3 feet.

WALLACE, bright amber, suffused and pencilled soft red.

WILLIAM CUTHBERTSON, rich crimson lake, passing towards the tips of the petals to bright carmine.

William Jowett, brilliant scarlet, flowers large and well formed, 5 feet.

WILLIAM TRESEDER, soft peachy white, tinted with lilac, 4 feet. WINNIE WALTER, beautiful pale sulphur yellow, tipped with white, 3 feet.

Wisdom, rosy pink, $4\frac{1}{2}$ feet.

WIELAND, pretty shade of salmon pink, early.

ZEPHYR, rosy pink, with tints of heliotrope and bluish shade,

POMPON DAHLIAS

ACHILLES, pale lilac, very free, 5 feet.

ADELAIDE, blush, edged with lavender, free and constant, 3 feet.

ADMIRATION, crimson, tipped white, 3 feet.

ADRIENNE, crimson scarlet, small and fine-shaped flowers.

AGATE, pale sulphur or cream inside the flower, passing to ivory white at the edge, 4 feet.

ALWINE, pretty shade of pink, slightly shaded lilac.

Amber Queen, rich clear amber, shaded golden apricot, good habit, 3 feet.

Annie Holton, rich crimson, tipped with silver, 3 feet.

ARTHUR WEST, crimson, with every desirable property, 2 feet.

BACCHUS, scarlet, most perfect in every way, 21 feet.

BOULE D'OR, rich yellow, splendid shape, very free, 4 feet.

BRILLIANT, crimson, very pretty, neat habit.

BRUNETTE, red, often blotched and tipped white.

BURNING COAL, yellow with scarlet edge.

BUTTERCUP, pale yellow, perfect shape, very free, 2 feet.

BUTTERFLY, orange, heavily tipped with claret.

CAMELIÆFLORA, pure white, flat open petals, 21 feet.

CAPTAIN BOYTON, maroon, shaded crimson, splendid exhibition variety, 3 feet.

CARDINAL, coral red, shaded crimson, a most attractive variety, 31 feet.

CARL MENDEL, bright rich crimson, splendid shape and habit.

CATHERINE, yellow, a neat flower, 3 feet.

CECIL, red tipped with white, distinct and good, 3 feet.

CERES, primrose, perfect shape, 3 feet.

CHAMELEON, bright yellow ground, heavily edged with lake.

CHARM, pure white, tipped with heliotrope.

CHEERFULNESS, base of petals old gold, margined or tipped scarlet crimson.

Chrystabelle, pale yellow, edged with red, very free and attractive.

CICERO, red, tipped with white, distinct and good.

CLARIBEL, pale ground, heavily edged with rosy purple, 2 feet. CLARISSA, pale primrose, occasionally tipped with purple, 3 feet.

CLEOPATRA, deep rose, new in colour.

COUNTESS VON STERNBERG, cream, edged bright yellow, 3 feet. CRIMSON BEAUTY, crimson, fine form, 4 feet.

CRIMSON GEM, deep crimson, shaded purple, small flowers of perfect form, $3\frac{1}{2}$ feet.

CRUSOE, white ground, distinctly edged bright rosy pink, 4 feet.

DAGMAR, maroon, shaded crimson, very distinct, 3 feet.

Daisy, amber, shaded orange, very free flowering.

DANDY, crimson purple, small and very pretty.

DARKEST OF ALL, deep velvety maroon, nearly black, 3 feet.

DARKNESS, very dark, perhaps the best of its colour.

DEEGEN, deep clear yellow, distinct.

DEMON, deep rich crimson, with darker shade towards the centre, $2\frac{1}{2}$ feet.

DISTINCTION, a pleasing cerise crimson, flushed with magenta, $3\frac{1}{3}$ feet.

Dr. Boulanger, nice shade of yellow, tipped with white.

DOCTOR JIM, light ground, heavily edged with rich purple,

Dr. Rauch, orange red, small and pretty.

Dolly Keith, pure white, markings of clear yellow, $3\frac{1}{2}$ feet. Don Juan, maroon, small and of perfect shape, free habit, 3

Donovan, white, tipped pale mauve, very delicate, splendid shape.

DORA, pale primrose and white, pretty and attractive.

Doris, mauve pink, deeper towards the centre, tipped with yellow, very free, 2½ feet.

Douglas, deep maroon, shaded crimson.

Dove, white, with soft delicate tip of rosy lilac.

Duchess, violet purple, globular form.

ECCENTRIC, chestnut, splashed with white, 3 feet.

EDITH BRYANT, orange ground, tipped reddish lake.

EDITH SEALE, amber and salmon, very pretty.

E. F. IMIKER, amber, one of the best, 3 feet.

ELEGANT, primrose, tipped with lake, 3 feet.

ELI MILLARD, softly shaded blush, full size, fimbriated, 4 feet. EMILY HOPPER, clear yellow, splendid form, dwarf and free, 3

Eric, scarlet, tipped and striped white, distinct, $2\frac{1}{2}$ feet. Erica, pale lemon yellow, fine shape and very free. Ernest, dark maroon, at times shaded, distinct, 3 feet. ERNEST HARPER, rich coral red, very free, 2 feet.

EURYDICE, blush, tipped with purple, flowers profusely, 3 feet.

Eva, rosy carmine, distinct, 2 feet.

EVELYN, orange, shaded with buff, 3 feet.

Fabio, yellow, heavily edged with scarlet, good centre and petal, 3 feet.

FAIR HELEN, white, shaded purple, $2\frac{1}{2}$ feet.

FAIRY PRIMROSE, canary yellow, tipped white.

FAIRY TALES, very pretty, delicate rose, 3 feet.

FANNY WEINER, rich orange, tipped chestnut, 3 feet.

Fashion, light orange, profuse bloomer, 2 feet.

FAVOURITE, dark maroon, crimson edges, 3 feet.

F. GSCHWINA, dark crimson, tinted and tipped with white.

FIREFLY, bright dark scarlet, very free.

FIRE KING, very deep red.

FLORA, rich golden yellow, neat small flowers, 2½ feet.

FLORENCE, distinct lilac shade, small splendid-shaped flowers, 31 feet.

FLORENCE WOODLAND, golden yellow, edged crimson, fine form, 3 feet.

Fosco, bright crimson scarlet, good petal and outline, bright centre, 3 feet.

FRAU EMIL HEINICKE, rosy pink, tipped lighter.

GALATEA, bright crimson, shaded purple, fine petal, 3 feet.

GANYMEDE, fawn colour, shaded with lilac, free and dwarf.

GARNET, light ground, edged deep lilac, 2½ feet. GAZELLE, yellow ground, edged magenta, 4 feet.

GEM, intense rich scarlet, fine form, very free, 3 feet.

GEORGE BRINCKMAN, pure white, very free, fine form, 3 feet.

GERMAN FAVOURITE, bright cherry red and light ground.

GIPSY, rich plum, dwarf habit, 21 feet.

GLOW-WORM, rich yellow, striped bright scarlet, 3 feet.

GOLDEN GEM, yellow, small and free, 3 feet.

GOLDEN QUEEN, clear yellow, a very useful variety.

GOLDFINCH, yellow, small, very pretty, good habit, 3 feet.

GRACE, cerise, shaded with lilac, very pretty, 3 feet.

GRUSSAU-WIEN, deep shade of crushed strawberry, well formed, 3 feet.

GUIDING STAR, white, fine, 3 feet. HECTOR, dark lilac, flowers freely, 4 feet

HEDWIG, reddish golden brown, 2 feet.

Hedwig Polwig, deep red, distinctly tipped white, 3 feet.

HERCULES, dark lilac rose, beautifully quilled.

H. E. SEARLE, bright orange, good petal and outline, 3 feet.

HESPERIA, each petal distinctly edged vermilion, pale yellow at base of petals, 3 feet.

HILDA, deep rose, shaded crimson, tipped white, 2 feet.

HYPATIA, amber, shaded fawn, edge of petals and centre lemon, $3\frac{1}{2}$ feet.

IOLANTHE, deep orange, shaded buff, sometimes tipped white, $2\frac{1}{3}$ feet.

IONA, good yellow, a splendid variety, 2 feet.

IRENE, rosy purple, tipped with white, very distinct, 2 feet.

IRIS, amber and fawn, shaded salmon and pink, 3 feet.

ISABEL, bright orange scarlet, free, 3 feet.

ISEULT, small, clear yellow, free, $3\frac{1}{2}$ feet.

IXION, purple, tipped white, petals reflexed, free and constant.

JANET, rich salmon, very distinct, 3 feet.

JESSICA, amber yellow, edged with red, 3 feet.

Jessie M'Millan, yellow, beautifully suffused with orange, 3 feet.

Jewel, pure primrose, sometimes the whole flower is pure white, 4 feet.

JOHN LUCAKS, deep orange red, tipped white. JULIETTE, yellow, shaded orange, $2\frac{1}{2}$ feet.

KATIE, yellow ground, edged and flushed with rosy pink, 2 feet.

KATIE PARNHAM, white, tipped with lake, 2 feet.

LADYBIRD, crimson purple, tipped white, very effective.

LADY BLANCHE, pure white, resembling a Ranunculus, 3 feet.

LADY CHURCHILL, pale salmon ground, edged purplish rose.

LADY JANE, shaded lilac, well-formed flower, 3 feet.

LADY ROGERS, white, invaluable for cut flowers.

LA PETITE BARBIER, beautiful pure white, well-formed.

LELIA, reddish buff, tipped with white, 3 feet.

LILIAN, primrose, edged peach, attractive, 3 feet.

LITTLE ARTHUR, orange scarlet.

LITTLE BOBBY, crimson, small and very fine, 3 feet.

LITTLE BUGLER, rosy purple, constant and free, 3 feet.

LITTLE DEAR, blush white, flushed and tipped rosy lilac.

LITTLE DORRIT, rich maroon, flowers of medium size, free, 21 feet.

LITTLE DUCHESS, white, crimson edges, 3 feet.

LITTLE ELIZABETH, rosy lilac, tipped purple, very free.

LITTLE FRANK, light amber, deepening to salmon, free bloomer, 3 feet.

LITTLE JACK, rich crimson maroon, 3 feet.

LITTLE JULIA, bright scarlet, perfect form, 2 feet.

LITTLE NIGGER, deep dark maroon, very small, 2 feet.

LITTLE SWEETHEART, red, tipped white, small and good, 2 feet. LOCKET, pure white, clouded crimson, base of petals amber,

4 feet,

LOTHAIR, yellow ground, deeply edged magenta.

MABEL, lilac, excellent form and free, 3 feet.

MADELINE, pale primrose, heavily edged with rosy purple, 2 feet.

Madge, crimson, tipped with white, 21 feet.

MAGGIE BEATTIE, bright purple, small, neat, and of fine form.

Marion, rich yellow, very free, 3 feet.

Mars, vivid orange scarlet, fine, $2\frac{1}{2}$ feet.

MARTIAL, crimson scarlet, very free, and good habit, 31/2 feet.

MARY KIRK, soft yellow, fine form and habit, 3 feet.

MDLLE. VALENTINE FACONET, white, splashed and striped rosy lake.

MDME. HUARD, light chestnut, shaded orange.

MENIE CHRISTIE, deep yellow, free flowering and constant, 3 feet.

MERCURY, reddish salmon, heavily tipped white.

MIDNIGHT, rich deep crimson, erect habit, very free, 4 feet.

Minnie, yellow ground, heavily shaded orange, small and free, 3 feet.

MISS ELSIE, lovely yellow colour, edged carmine.

MISS MINNIE, pale lemon, shaded lilac.

MISS NELLY, yellow, heavily shaded rose lake.

Model, fawn and pink, exquisite shape, 3 feet.

MONTAGUE WOOTTEN, white ground, heavily edged and shaded with lake, 3 feet.

Mrs. Ireland, orange scarlet, shading to white on the tips of the petals, 3 feet.

NELLIE BROOMHEAD, mauve, with a lighter ground, 3 feet.

NEMESIS, rich maroon crimson, at times tipped with white,

NERISSA, soft rose, tinted with silver, very distinct, 4 feet.

NORAH, yellow, scarlet edge, and free flowering, 3 feet. OPAL, bright vellow, with a pure white tip, very distinct, 3 feet.

ORPHEUS, vellow, good petal and outline, constant, 3 feet. OTHELLO, dark crimson, perfect in form, 4 feet. Pauline, rosy lilac, deeper centre, distinct.

PEASANT GIRL, nice mixture of white and carmine. PHEBE, deep golden orange, of finest form, 4 feet.

Pomponel, creamy pink, primrose towards the centre, 31 feet. PRIMROSE, canary yellow, fine form, free flowering, 1½ feet. PRINCE OF LILIPUTIANS, deep maroon.

PSYCHE, yellow ground, edged red, small perfect-shaped flowers,

3½ feet.

Pure Love, rosy lilac, very pretty, 21 feet. PURITY, pure white, most profuse bloomer, 3 feet. QUEEN BESS, a soft shade of rosy pink.

RAPHAEL, maroon crimson. RED INDIAN, coral red, one of the best, 3 feet.

REVENGE, rich mauve, deepening to purple lake, 3 feet. RINGDOVE, terra-cotta, very free and attractive, 3½ feet. Rosalie, pale primrose, tinted rose, 3 feet. Rosalind, yellow, tipped with white, 3 feet.

Rosea, deep rosy cerise, good form and habit, free blooming, 2½ feet.

Rosebud, white ground, edged rosy pink, free, $3\frac{1}{2}$ feet. Rose Perry, sulphur ground, tipped rosy lake, 3 feet. Rosy Gem, dark straw, edged bright rose.

ROWENA, yellow, edged with scarlet, good petal and outline, $3\frac{1}{3}$ feet.

ROYALTY, light orange, edged bright crimson, prettily quilled,

Ruy-Blas, crimson and purple, tipped white, base of petals yellow 3 feet.

Sensation, soft primrose yellow, very free bloomer. Snowflake, beautiful pure white, perfect shape and size, 3 feet. Sovereign, bright yellow, small compact flower, 31 feet.

SPITFIRE, bright scarlet, very free, small and good, 31 feet. SUNNY DAYBREAK, a lovely tint of pale apricot, edged with rosy red, 31 feet.

SUNSHINE, geranium scarlet, splendid form, 31 feet. SURPRISE, bronze yellow, distinct.

STBIL, yellow, shaded and tipped with scarlet, very free, 4 feet. Thalia, rose pink, with well-defined eyes of ivory white, early. The Duke, deep velvety crimson, habit very dwarf, and free flowering.

The Ghost, of the purest white, petals much reflexed, $3\frac{1}{2}$ feet.

The Mikado, deep maroon, tipped and splashed, 3 feet.
Tommy Keith, red, tipped white, small, neat, free, and constant,

3 feet.

UNIQUE, bright salmon, shading to French white.

VARA, yellow, a fine variety, small petals, and perfect-shaped flowers, 4 feet.

VENUS, primrose, tinged buff, pretty, dwarf, and free.

VIOLET, pure white, pretty shape, 2 feet.

VIRGINIA, pure white, free.

VIVID, bright orange scarlet, perfect centre, very free, 3 feet.

VOLTAIRE, yellow and white, 3 feet.

Vulcan, bright crimson, good petal and outline, very constant.

WHISPER, yellow, edged gold, 21 feet.

WHITE ASTER (or Guiding Star), pure white, a grand cutting variety, 3 feet.

WHITE BUTTON, very small, pure white flowers, 2 feet.

WILHELMINA, amber, shaded with old gold.

WINIE RICHARDS, white, shading to light pink.

ZERLINA, crimson and maroon, dwarf habit, very free, 2 feet.

ZOAR, yellow, beautifully edged salmon and pink, very free, 2 feet.

ZOE, yellow, tipped white, small neat flower, very distinct, 3 feet.

SINGLE DAHLIAS

Acquisition, crimson, scarlet bar at edge of petals, 4 feet.

Adonis, white ground, striped crimson, with broad disc of pale lilac, 3 feet.

Alba Perfecta, pure satiny white, flowers erect, 4 feet.

ALICE NICHOLSON, soft flesh, shaded fawn, each petal striped and splashed with rich crimson, 4 feet.

ALICE SEALE, deep crimson maroon, edged scarlet, 4 feet.

Amos Perry, fine deep velvety maroon, 3 feet.

Annie Hughes, clear yellow, passing to peach, 31 feet.

Annie Laurie, pure white, with side margins of lake, shaded bright cherry red, 4 feet.

Annie Mitchell, creamy white, bright yellow at the base of the petals, $2\frac{1}{2}$ feet.

Aurora, yellow, suffused with orange, 31 feet.

B. BARKWAY, scarlet, edged orange.

Beacon, dark crimson.

BEAUTY OF CAMBRIDGE, crimson.

BEAUTY OF SEVENOARS, old gold, striped and splashed blood red, each petal tipped white, $3\frac{1}{2}$ feet.

Beauty's Eye, mauve, crimson ring round disc, 3\frac{1}{2} feet.

BERYL, white ground, beautifully striped and flaked maroon, 31 feet.

Bessie, light ground, very evenly flaked crimson maroon, $3\frac{1}{2}$ feet.

BUTTERFLY, orange red, 3 feet.

Cadet, pure white, with well-defined margin of bright orange scarlet, $3\frac{1}{2}$ feet.

CETEWAYO, dark maroon, 3 feet.

CHARLES PARROTT, rich dark maroon, each petal edged with crimson scarlet.

CHILWELL BEAUTY, chestnut, 3 feet.

Chum, rich velvety crimson scarlet, tipped white, $3\frac{1}{2}$ feet.

CISSIE, mauve, deep magenta disc, 3 feet.

CLARA OBLEIN, rich velvety crimson, shaded scarlet, tipped with flesh.

CLAUDIA, reddish salmon, 3 feet.

CLEOPATRA, deep velvety crimson, 4 feet.

CLYTIE, straw colour.

Colton Beauty, white, sometimes edged with clear yellow.

COLUMBIA, rich silvery lilac, striped crimson, and with a broad disc of deep crimson, 3 feet.

Columbine, a fulgent rose colour, with suggestion of orange towards the centre, $3\frac{1}{2}$ feet.

Conspicuous, white, magenta, and maroon.

Dairy, pale ground, flaked with dark crimson purple, $3\frac{1}{2}$ feet.

Dearest, white, each petal margined with beautiful clear yellow, 4 feet.

Demon, blackish maroon, the best dark, 4 feet.

DONNA CASSILDA, copper orange, with dark maroon ring shading to tips of petals to bright rose, 4 feet.

DOROTHY SEALE, the ground colour is a delicate shade of soft amber, passing towards the base of the petals to a brownish red, $3\frac{1}{2}$ feet.

Duchess of Albany, soft mauve, edged with pale buff brown, 3 feet.

Duchess of Anhalt, white centre, broad margin of rose, $3\frac{1}{2}$ feet.

Duchess of Fife, lovely amber, shaded orange, splendid shape, 3 feet.

Duchess of Marlborough, white centre of petals, edged with deep crimson, $4\frac{1}{2}$ feet.

Duchess of Westminster, purest white, free flowering and good habit, $3\frac{1}{2}$ feet.

DUKE OF YORK, fine light scarlet, exquisite form, 3½ feet.

ECLIPSE, mauve and salmon, crimson ring, 4 feet.

Edie Oblein, pinkish heliotrope, suffused with old gold, $3\frac{1}{2}$ feet. Elsie, pale lilac, striped crimson, perfect shape, slightly reflexed, $3\frac{1}{2}$ feet.

EMMIE, blush white, with clear margin of bright lake or magenta, 3 feet.

ENCHANTMENT, Chinese red, yellow disc, 3 feet.

Eric, vivid flame colour, with softer rosy shade towards margin of flower, 3 feet.

ETTIE SWAN, old gold, with band of scarlet, 3 feet.

EVELYN, clear white centre, outer margin of flower shaded delicate pinkish mauve, 4 feet.

Excelsion, white, with broad margin of bright lilac, 4 feet.

Fascination, beautiful creamy white, with broad margin of rosy peach, $3\frac{1}{2}$ feet.

FLAME, rich orange yellow, striped and flaked scarlet, $3\frac{1}{2}$ feet. FLORRIE FISHER, mauve, white ring, 4 feet.

F. L. Temple, maroon, shaded with carmine, 4 feet.

FOLLY, bright cherry red with margin, small cupped flowers,

4 feet.

Formosa, rich dazzling crimson, in fine contrast to golden centre, $3\frac{1}{2}$ feet.

Francis Fell, rosy purple.

FRED LESLIE, red, tipped white, very attractive and free, $3\frac{1}{2}$ feet.

GIRLIE, cream, each petal edged with deep red, splendid form and habit.

GLITTER, maroon, edged lake.

GOLDEN LOCKS, lovely yellow, of good form, 31 feet.

Grace Ballantyne, yellow, shaded and streaked with deep chrome, $3\frac{1}{2}$ feet.

GRANDIA, purple maroon.

GULIELINA, pure white, with side margins of beautiful golden buff, 3 feet.

HALO, lake coloured.

HARRY BRATEN, rose, splashed maroon, 31 feet.

HILDA, white, flushed with flesh colour, petals margined yellow, 3 feet.

H. M. STANLEY, scarlet, tipped with white, 3 feet.

Hugo, rich scarlet, shaded purple and tipped magenta, 4 feet.

HUNTSMAN, orange scarlet, petals slightly reflexed, 4 feet.

INDIAN CHIEF, striped crimson.

IRENE, rich purple, shading off to white at margin of florets, 4 feet.

ISAAC PITMAN, lilac, striped maroon, 3 feet.

Jack Sheppard, clear yellow, striped bright red, free flowering, $3\frac{1}{2}$ feet.

James Cook, dark yellow, striped red, $3\frac{1}{2}$ feet.

James Dobbie, dark orange, striped red, 4 feet.

JAMES KELWAY, white, edged purple.

James Scobie, yellow, striped scarlet, 3 feet.

Janet Braes, magenta, flushed with crimson, orange at base of petals, 3 feet.

J. Downie, scarlet, 4 feet.

JEANIE MITCHELL, scarlet, yellow disc, $2\frac{1}{2}$ feet.

Jeannette, white, with clear margins of bright scarlet crimson, 4 feet.

Jessie, dark crimson, deep yellow disc at base of petals, $3\frac{1}{2}$ feet.

J. Hummeston, fawn, striped crimson, 4 feet.

J. MERCER, silvery lilac, primrose disc, 3 feet.

John Cowan, dark mahogany.

KATE CHALMERS, deep orange, shaded with carmine, 21/2 feet.

KILLARNEY, rich amber, suffused with scarlet, passing gradually to a deeper shade at base of petals, 3½ feet.

KITTY, silvery pink, good form, 3 feet.

Koh-I-Noor, rich dark velvety crimson, with scarlet shading, $3\frac{1}{2}$ feet.

LADY HELEN, clear bright yellow, each petal tipped white, 4 feet.

LADY M. MARSHAM, yellow, suffused rose, 3 feet.

LADY MONTEFIORE, rich golden yellow, shaded rosy peach, 4 feet.

LADY OF THE LAKE, lake and violet.

LADY WHITEHEAD, rich dazzling rose purple, yellow ring round disc, 4 feet.

LESLIE SEALE, rich silvery lilac, broad ring of deep crimson round the disc, 3 feet.

LITTLE NELL, small, sulphur yellow, with white tip, 4 feet.

LIZZIE DICKSON, canary yellow, each petal tipped with white, $2\frac{1}{2}$ feet.

LORD ROSEBERY, deep rich orange, striped and flaked scarlet, free and distinct.

Louisette, bright crimson purple, with white tip, 3 feet.

LOWFIELD BEAUTY, lovely terra-cotta red, fine bold flowers, 3 feet.

LUTEA GRANDIFLORA, soft pleasing yellow, good habit, 3 feet.

MADGE, lovely clear rose, striped and flaked crimson, 4 feet.

MAID OF ATHENS, lovely shade of old gold, each petal tipped pale flesh, 4 feet.

MARIE LINDEN, bright rich crimson, each petal edged light scarlet crimson, 3½ feet.

Marion, dark crimson.

Marion Terry, terra-cotta.

MAUD NICHOLSON, rich satiny amber, bright fiery crimson disc, 4 feet.

Mauve Queen, mauve, $4\frac{1}{2}$ feet.

MAUVE QUEEN (improved), mauve, $4\frac{1}{2}$ feet.

MAY SHARPE, buff ground, with reddish orange ring round disc, flaked bright crimson, 3 feet.

M. C. C., rich yellow, striped and flaked bright orange scarlet, 3 feet.

Meta, rich deep orange, striped and flaked crimson, 4 feet.

MISS BAKER, yellow, shaded bronze, 3 feet.

MISS CANNELL, creamy ground, deeply edged purplish crimson, 4 feet.

MISS GIRDLESTONE, white ground, striped and splashed purplish crimson, 3 feet.

Miss Glasscock, soft clear lavender, margined pale mauve, 4 feet.

Miss Gordon, purplish crimson, with golden disc, 4 feet.

MISS GOSCHEN, white with side margins of rich purplish crimson, 4 feet.

MISS HENSHAW, pale primrose, with distinct picotee edge of white, 3 feet.

MISS HUDSON, lovely delicate rose, each petal tipped white,

MISS LINNAKER, bright cherry red, 31 feet.

MISS L. PRYOR, velvety crimson, 3 feet.

MISS MORLAND, lovely rich crimson scarlet, good habit, 4 feet.

MISS RAMSBOTTOM, lovely pink colour, shaded cerise, 3 feet.

MISS ROBERTS, lovely clear yellow, beautifully reflexed, $3\frac{1}{2}$ feet. MISS ZULEMA, orange, striped scarlet, 3 feet.

Мона, pure white, clear margin of bright crimson, 4 feet.

MRS. GOLDRING, rosy pink.

MRS. GRANT, mauve, perfect form, 3 feet.

Mrs. Harris, blush white, with side margins of bright rosy purple, 4 feet.

MRS. HENSHAW, dazzling crimson scarlet, 3 feet.

Mrs. Jougkindt Coninck, pure white, effectively shaded pale mauve, 4 feet.

MRS. KENNETT, yellow, striped crimson.

Mrs. Parrott, pure white, rich margin of beautiful pale rose, 4 feet.

Mrs. Philip Hoare, deep rich velvet maroon, each petal tipped white, 2 feet.

MRS. WYTHES, beautiful rich yellow, striped crimson, 4 feet.

NAOMI TIGHE, sulphur, with orange ring, 4 feet.

Nellie, intense crimson maroon, 3 feet.

Nellie Nicholson, pure white, each petal margined soft rosy lilac, $3\frac{1}{2}$ feet.

NEW YEAR, rosy lake.

NORTHERN STAR, bright red, margined golden yellow, 4 feet.

OCEANA, deep mauvy lilac, deep crimson ring at base of petals,

4 feet.

Paragon, rich velvet maroon, shaded purple at edge of each petal, yellow centre, 5 feet.

PEACOCK, rich purple, each petal tipped white, 4 feet.
PENELOPE, white ground, yellow ring round disc, 3½ feet.

Percy Bicknell, rich fawn, shaded scarlet and striped crimson, 4 feet.

PHYLLIS, pale ground, striped with lilac round the centre, flaked crimson, 2 feet.

PINK PERFECTION, lovely clear pink, good form and substance, 3\frac{1}{3} feet.

Polly Eccles, satiny fawn, with red disc, pretty recurved flower, 3 feet.

Princess Beatrice, blush ground, petals edged rich dark maroon.

PRINCESS PETULA, lemon yellow, with bright purple flakes, 4 feet.

Puck, bright orange, rich crimson ring round disc, $2\frac{1}{2}$ feet.

QUEEN OF SINGLES, rich magenta, suffused with rose, 4 feet.

ROBERT MORRIS, white ground, mottled mauve, and striped crimson, 3 feet.

ROBIN ADAIR, rich petunia, passing to pure white at tips of petals, 3 feet.

ROB ROY, scarlet.

ROSEBANK CARDINAL, lovely rich cardinal, perfect shaped flower and very free, 4 feet.

ROYAL SOVEREIGN, rich crimson disc, shading off to pale mauve at tips of petals, 3 feet.

RUBY KING, ruby red.

Ruth, rich velvety crimson, at times with deeper shades, $3\frac{1}{2}$ feet.

SCARLET DEFIANCE, scarlet, 5 feet.

Scarlet Demon, scarlet seedling from "Demon" and quite as good, 3 feet.

Scotch Lassie, buff, striped rose.

SHAMROCK, rich purplish maroon, tipped rosy purple, 4 feet.

Snowdrop, pure white, very free flowering, $3\frac{1}{2}$ feet.

SPITFIRE, scarlet.

SUNNINGDALE WHITE, remarkably free flowering variety, 3 feet. SUNNINGDALE YELLOW, deep golden yellow, fine shape, very free, 3 feet.

Sybil, clear rose, edged lake.

Tam o' Shanter, deep rich velvety crimson, with scarlet shadings, and white tip to each petal, 3½ feet.

TED SEALE, pale yellow, striped and splashed cherry red, 3½ feet.

TERRA-COTTA, terra-cotta, red, 3 feet.

THE BRIDE, beautiful pure white, 31 feet.

The Geisha, lovely art shade of pale terra-cotta, with broad disc of crushed strawberry, 3 feet.

THE MIKADO, crimson, tipped gold.

THE SIRDAR, deep rich velvety maroon, with white band down centre of each petal, 4 feet.

Tom Burnie, bright yellow, striped and flaked crimson, 3 feet.

Tommy, violet, scarlet and yellow, 3 feet.

TRILBY, deep velvety maroon, with white tip, 3 feet.

Union Jack, white, striped red.

Urban Youens, canary yellow, each petal tipped white, 3 feet. Veronica, lovely bright orange scarlet, each petal tipped with amber, 4 feet.

VICTORIA, white, edged crimson, very free, 3 feet.

VIOLET FORBES, pure white, with clearly defined edge of rich purple, 3 feet.

W. C. HARVEY, rich yellow, shaded with orange, having a distinct red ring round disc, 2½ feet.

WHITE QUEEN, white, large and good, 3 feet.

WHITE SWAN, white.

WILLIAM PARROTT, rich orange scarlet, tipped white, $3\frac{1}{2}$ feet. WILLIE FIFE, clear yellow, striped with bright scarlet, 3 feet.

Yellow Perfection, bright yellow, fine form and upright habit.

Yellow Queen, lovely bright clear yellow, $3\frac{1}{2}$ feet.

YELLOW SATIN, lovely clear pale yellow, of splendid form, 3 feet.

SINGLE CACTUS DAHLIAS

Albion, half of the petal canary yellow, the other half pure white.

ALICE LEE, pink shading off to white at base of petals, 3 feet. ALTHEA, deep crimson, florets twisted and recurved, 3 feet.

AMY ROBSART, bright scarlet, 3 feet.

ANNE OF GEIERSTEIN, peach, flushed salmon, base of petals yellow, 3½ feet.

ARGYLE, rich deep crimson, of true cactus form, 3 feet. BERTHA, pale sulphur yellow, free flowering, $2\frac{1}{2}$ feet.

Brenda, chrome yellow, petals well twisted and incurving, 2 feet.

BRENHILDA, white at base of petals, soft rose at the points.

Bruce, pale lemon colour of a beautiful shade, 3 feet.

Burns, buff ground, splashed with glowing crimson, 3 feet.

CRUSADER, orange ground, streaked bronzy red, edges tipped crimson, 3 feet.

Dandie Dinmont, yellow, flushed with rose, striped carmine, $2\frac{1}{2}$ feet.

DIANA VERNON, yellow at base, shading to vermilion, $3\frac{1}{2}$ feet. Earl of Ravenswood, old gold colour, flowers incurved, 3 feet.

EVENING STAR, canary yellow, long petals, 4 feet.

EVERARD, glowing scarlet, with magenta tips, very free, 2 feet. FAIR MAID, pale flesh, deepening to rose at point of florets, 3 feet.

FENELLA, crimson at the base of the petals, passing to deep orange, remainder pink, 3 feet.

FLORA M'IVOR, deep orange, streaked crimson, deep crimson at base of petals, 3 feet.

Guy Mannering, creamy white, sulphur shading towards centre, ${\bf 3}$ feet.

Helen M'Gregor, lower half of the petals yellow, the upper a deep mahogany, 3 feet.

HEREWARD, yellow ground, flaked and striped with scarlet orange.

HIGHLAND MARY, clear cardinal red, quite distinct, 4 feet.

ISABELLA WARDOUR, bright red, florets twisted and curved, 4 feet.

IVANHOE, rose colour, with crimson band round centre, $2\frac{1}{2}$ feet.

JEANIE DEANS, orange scarlet, shading to deep red at tips, $2\frac{1}{2}$ feet.

JUPITER, purplish rose, with blotch of crimson at base of petals, 4 feet.

Kenilworth, rose, slightly streaked with white, good form, $3\frac{1}{2}$ feet.

LADY CLARE, scarlet, shading to magenta at the tips, 3 feet.

LADY EDITH, lower part of the petals yellow, passing to deep pink, pale pink at edge, 2 feet.

LADY EVELINE, old gold, bold flowers, fine habit, 31 feet.

LADY ROWENA, sulphur, tipped with salmon rose, 3 feet.

LOCHIEL, cinnabar red, florets nicely twisted and reflexed, 3 feet.

Lucy Ashton, white, florets broad at base, twisted at the points, $3\frac{1}{2}$ feet.

Lucy Bertram, yellow ground, flushed crimson towards the

tips, $2\frac{1}{2}$ feet.

MAID OF BUTE, soft rose colour, long and flat florets, $2\frac{1}{2}$ feet. MARGUERITE, pure white, a large bold flower, 5 feet.

MARMION, crimson scarlet, very showy and attractive, 3 feet. MEG MERRILIES, clear yellow florets large and twisted, 3 feet.

METEOR, brilliant crimson without shading, 4 feet.

MINNA, red, flushed orange, crimson at base, edged pink, $3\frac{1}{2}$ feet. NIGEL OLIPHANT, canary yellow, petals finely twisted, good habit, 3 feet.

NORNA, canary yellow, slightly deeper at the base, and flushed pink, 3 feet.

NOVAR, crimson purple, shading to magenta, 3 feet.

PEVERIL, deep terra-cotta, petals twisted and incurved, 3 feet. PIRATE, dark crimson, shading to purple at the tips, 3 feet.

QUEEN MARY, purest white, with pale yellow discs, deep golden centre, 3 feet.

REDGAUNTLET, fiery crimson, shading to purple, 3 feet.
ROB ROY, purple, with violet shading, free flowering, 3 feet.
ROSE BRADWARDINE, clear yellow ground, bronze, tipped with

St. Ronans, fiery scarlet, deep crimson at base of petals, 3 feet. Sir Walter, rose pink, deep orange disc at the base, $3\frac{1}{2}$ feet. Talisman, velvety dark crimson, fine habit, 3 feet.

The Abbess, purest white, petals twisted and curled in a graceful manner, 3 feet.

The Dominie, reddish orange, flushed with salmon, 3 feet.
URSEL, deep orange at the base, bright purple, shading to
mauve at the top of the petals.

TOM THUMB DAHLIAS

Bantam, dark scarlet, 9 inches. Bootles, rich velvety red, 12 inches. Bo-Peep, maroon self, dark ring round disc, 15 inches. CANARY, well-formed, bright yellow flowers, 9 inches.
DAISY, rich velvety crimson, blooms erect, 15 inches.
FAIRY, white, shading to mauve at outer margin of flowers,
15 inches.

Fram, white, tinted with delicate pale pink, 15 inches.

Gem, clear bright yellow, of erect habit, 15 inches.

Golden Fairy, rich golden yellow, 14 inches.

Houp La, rich velvety maroon, with clear yellow ring, 11 inches.

Liliput, bright scarlet, lined orange, petals somewhat pointed, 14 inches.

LITTLE NELL, orange, very free and effective, 15 inches.

MAUD, dark velvety scarlet, perfectly-formed flower, 18 inches.

MIDGET, pure bright scarlet, green, glossy foliage, 18 inches.

MIDNIGHT, deep velvety maroon, 12 inches.

MIGNON, bright clear pink, white ring round disc, 9 inches.

MINIATURE, fine clear yellow, very bushy habit, 12 inches.

MISS GRACE, light orange, effective and telling colour, 14 inches.

PEARL, deep mauve self, handsome flower, 11 inches.

SNOWFLAKE, pure white, and good-shaped flower, 15 inches.

TOM TIT, orange scarlet, light yellow eye round disc, 18 inches.

VENUS, rich crimson, each floret edged maroon purple, 15 inches.

DAHLIA ANALYSIS

By E. Mawley, Esq., Pres. R. Met. Soc., Pres. National Dahlia Soc.

(By permission from the Journal of Horticulture)

In writing this, the nineteenth Dahlia analysis that I have contributed to the Journal of Horticulture, I am reminded of the great changes that have taken place in the Dahlia world during the period covered by those analyses. In the earlier years of the period the Shows and Fancies formed the mainstay of any Dahlia exhibition, and the splendid new varieties which appeared year by year served to maintain the great interest taken in them, whereas at the present time, although the number of Show and Fancy Dahlias exhibited is still well maintained, they are, at all events for the time being, rendered less prominent than before by the imposing displays of the more generally attractive Cactus Dahlia. The most remarkable contrast is, I think, to be found in the ages of the varieties in the two sections. For instance, there are only five varieties among the Shows on the accompanying table which are less than six years old, whereas a Cactus Dahlia which is still prominently exhibited, or indeed, exhibited at all four years after the date of its introduction, is now regarded as quite an old stager.

For the present position of the Cactus Dahlia much credit can, I think, be justly claimed by the National Dahlia Society, which at a critical period in the development of this new type of flower so steadfastly and consistently discouraged the exhibition of the so-called Cactus or Decorative varieties, with their flat and often flimsy florets. Any readers of the Journal who may be interested in that grand early autumn flower, the Dahlia, and its latest developments in all sections, should, if possible, visit the next exhibition of the National Dahlia Society.

The number of blooms or bunches, as the case may be, set up in competition at the last five exhibitions of the National Dahlia Society, in each of the five sections into which Dahlias are now divided, will be found in the following short statement:—

	1897	1898	1899	1900	1901
Shows, No. of blooms	930	838	702	682	832
Fancies, ", "	312	305	336	314	272
Pompons, No. of bunches	234	190	180	222	228
Caetus, ,, ,,	432	361	297	354	357
Cactus, shown singly	-	216	216	798	672
Singles, No. of bunches	116	131	117	126	153

In the above list no account is taken in the case of Shows and Fancies of the number of blooms set up in the classes for three or more flowers of any one variety, nor in the case of the Cactus varieties of the exhibition blooms staged in vases.

In the accompanying tables the positions of the Shows and Fancies are dependent upon the average number of times each variety was staged at the last eight exhibitions of the National Dahlia Society in all instances where their records will allow of this being done. In the case of the newer sorts, which are comparatively few in number, their average records for a necessarily shorter series of years have been utilised.

SHOW DAHLIAS

		_			-		
	Position in Present Analysis.	Average Number of Times Shown.	No. of Times Shown in 1901 in True Relative Proportion to the Average.	Name.	Date of Introduction.	Raiser's or Introducer's Name.	Colour.
	1	28.1	29	Mrs. Gladstone	1884	Hurst .	Pale blush
	2	26.1	27	R. T. Rawlings	1886		Člear yellów
	3	23.4	24	T 1 337 11	1892		White
	4	21.8	22	Duchess of York	1894		Lemon, edged salmor
	*	21 0	22	Duchess of Tork .	1094	Keynes .	pink
	5	21.3	16	Colonist	1887	Keynes .	Chocolate and fawn
	6	20.9	20	J. T. West	1887	Rawlings	Yellow and purple
	7	19.8	16	William Rawlings .	1881	Rawlings	Crimson purple
	8	17.6	19	Duke of Fife	1890	Keynes .	Rich cardinal
	. 9	17.1	11	Harry Keith	1886	Keynes .	Rosy purple
	10	17.0	18	William Powell	1892	West .	Primrose yellow
-	11	16.9	13	Mrs. Langtry	1885	Keynes .	Cream and crimson
	12	16.7	19	Dr. Keynes	1896	Keynes .	Rich buff
	13	16.6	19	Mand Fellowes	1889	Fellowes	Pale pink, shaded
	10	100	10	mand renowes	1003	renowes	purple
	14	16.4	12	Arthur Rawlings .	1892	West .	Deep crimson
	15	16.2	14	James Cocker	1871	Keynes .	Purple
	16	14.8	12	Miss Cannell	1881	Eckford .	Cream and crimson
	17	14.5	13	Florence Tranter .	1896	Tranter .	Blush white, edged
	_ •						rosy purple

SHOW DAHLIAS-CONTINUED

Position in Present Analysis.	Average Number of Times Shown.	No. of Times Shown in 1901 in True Relative Proportion to the Average.	Name.	Date of Introduction.	Raiser's or Introducer's Name.	Colour.
18	14.2	18	Shotesham Hero .	1895	Fellowes	White, tipped and
19	14.1	11	John Hickling	1890	Keynes .	shaded rose Clear bright yellow
20	13.5	16	Chieftain	1894	Keynes .	Purplish lilac
21	13.4	12	Mrs. W. Slack	1886	Keynes .	Blush white and purple
22	13.3	17	Henry Walton	1873	Keynes .	Pale yellow and scarlet
23	13.1	14	Harrison Weir	1883	Rawlings	Yellow
24	11.1	9	Arthur Ocock	1892	Rawlings	Reddish orange
24	11.1	13	Victor	1887	Keynes .	Dark maroon
26	11.0	17	Prince of Denmark .	1881	Fellowes	Dark maroon
27	10.8	15	Willie Garrett	1887	Garratt .	Bright cardinal
28	10.6	1	Ethel Britton	1880	Keynes .	White and purple
28	10.6	14	T. J. Saltmarsh	1885	Rawlings	Yellow and chestnut
28	10.6	15	Goldfinder	1881	Fellowes	Yellow and red
31	10.5	8	Shirley Hibberd	1881	Rawlings	Dark crimson
32	9.8	11	Warrior	1894	Keynes .	Scarlet
33	9.5	11	Virginale	1893	Keynes .	Blush white, edged pink
34	9.1	13	George Rawlings .	1882	Rawlings	Dark maroon
35	9.0	17	Mrs. D. Saunders .	1888	Rawlings	Pale, edged rose
36	8.1	13	Hon, Mrs. P. Wynd-	1881	Keynes .	Pale yellow and rose
37	7.6	3	Perfection	1889	Fellowes	Orange buff
38	7.5	9	Daniel Cornish	1897	West .	Terra-cotta red
38	7.5	7	Mabel Stanton	1896	Tranter.	Deep yellow
38	7.5	5	Majestic	1890	Keynes .	White, edged purple
41	7.3	7	Mr. Glasscock	1886	Rawlings	Purple
42	6.8	2	Alice Emily	1890	Keynes .	Buff yellow
42	6.8	6	Glow-worm	1889	Turner .	Bright orange scarlet
44	6.6	6	Diadem	1888	Fellowes	Deep crimson
45	6.5	4	Crimson King	1887	Keynes .	Deep crimson scarlet
46	6.4	9	Imperial	1883	Keynes .	Purple and lilac
47	6.3	3 4	Earl of Ravensworth .	1883 1893	Harkness	Lilac
48	0.5	4	Mrs. Morgan	1093	Fellowes	Pale ground, tinted rosy purple
49	5.7	5	Mrs. Every	1896	Keynes .	White, edged lilac
50	5.7	6	Muriel Hobbs	1898	Hobbs .	Yellow
51	5.4	3	Prince Bismarck .	1879	Fellowes	Puce
		1			1	

FANCY DAHLIAS

Position in Present	Analysis.	Average Number of Times Shown.	No. of Times Shown in 1901 in True Relative Proportion to the Average.	Name.	Date of Introduction.	Raiser's or Introducer's Name.	Colour.
1 1 1 1 1 1	1 2 3 4 5 6 7 8 9 9 1 2 3 4 5 6 7 8 8 9 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8	20·6 17·4 16·5 15·0 14·0 12·6 11·5 11·0 10·6 10·5 9·4 8·7 8·5 8·0 7·0 6·3 5·5	27 14 25 10 14 15 7 16 10 14 7	Rev. J. B. M. Camm. Duchess of Albany Mrs. Saunders Mrs. John Downie Goldsmith Matthew Campbell Dorothy T. W. Girdlestone Emin Pasha Frank Pearce Buffalo Bill Peacock S. Mortimer Watchman Rebecca Dandy Comedian Hercules	1895 1889 1888 1890 1894	Keynes . Turner . Turner . Keynes . Keynes . Keynes . Keynes . Rawlings Keynes . Turner . Mortimer Keynes .	Yellow, striped crimson Buff and crimson Fawn and maroon Lilac and maroon Yellow, striped crimson Rose, striped crimson Buff, striped vermilion Maroon and white Rose, striped crimson Golden yellow, striped crimson Lilac and crimson Orange, striped crimson

Pompons.—According to their averages for the last four exhibitions, the best varieties arrange themselves as follows:—Bacchus, Nerissa, Tommy Keith, Emily Hopper, Douglas, Phœbe, Whisper, Ganymede, Sunny Daybreak, Captain Boyton, G. Brinckman, Dr. Jim, Demon,* Lilian, Madeline,* Arthur West, Snowflake,* Hypatia, Eurydice, Donovan, Vara,* The Duke,* Clarissa, Ernest Harper, Adrienne, and Rosebud. The varieties marked with an asterisk were sent out in 1899, or subsequently.

CACTUS.—In the following list the leading varieties will be found arranged according to the number of times they were staged at the last exhibition of the National

Dahlia Society, and also, for comparison, their records, where available, for the two previous shows.

			1901	1900	1899	
1 Britannia,	1898		48	55	26	salmon pink and apricot
	a, 1900	. 6	36	23		maroon
	Crowe, 1900		30	23		clear canary yellow
	ridge, 1897 .		29	47	25	crimson
	of Lonsdale, 189	9	28	38	17	salmon and apricot
6 J. W. Wil			25	•••		rosy crimson
7 Lord Robe		•	24			ivory white
	er Page, 1900		24	26		deep crimson
9 Lucius, 18		•	23	20	13	deep orange
9 Mary Serv		•	23	42	23	russet and heliotrope
	ss Sherbrooke, 1	899		26	9	reddish terra-cotta
12 Zephyr, 1		000	18	18		bright rose pink
13 J. F. Hud		•	17	20		reddish carmine
13 Magnificer			17	23	17	salmon pink and apricot
15 Galliard,			15			crimson scarlet
	ppeney, 1900		15	26		yellow, orange, and fawn
17 Stella, 18			14	12	9	bright crimson
18 Emperor,				15		velvety plum
18 Lyric, 190			13			deep bronzy red
20 Vesta, 190			12			pink
20 William J				. 8		scarlet
22 J. Weir F		18.	11			deep crimson
22 Night, 18			11	41	18	maroon
22 Rosine, 19			11			rose
25 Ajax, 190			10			orange and buff
25 Elsie, 190			10			rose
25 Imperator			10			ruby crimson
25 The Clown			10			brick red, edged white
	reseder, 1900	,	10			blush white
30 Cornucopi			9			
	Beauty, 1898		9		8	
30 Starfish, 1			9	41	25	orange scarlet

SINGLES.—The following varieties have been arranged according to the average number of times they were shown at the last three exhibitions: Polly Eccles, Victoria, Miss Roberts, Aurora, Leslie Seale,* Naomi Tighe, Miss Glasscock, The Bride, Northern Star, Girlie,* Peacock,* Tommy,* Duchess of Marlborough, Beauty's Eye, Formosa, Donna Casilda, Jack Sheppard, Demon, Phyllis, Puck,* Jeanette. The varieties marked with an asterisk are new varieties—those sent out in 1899 or subsequently.

SELECTIONS FOR SPECIAL PURPOSES

Selections of Varieties for Garden Decoration.—The following varieties have been chosen for this purpose on account of their robust and free-flowering habits, and because they produce their flowers on long footstalks, and thus carry them well above the foliage:—

TWELVE SHOW DAHLIAS FOR GARDEN DECORATION

CANARY BIRD, bright canary yellow, grand outline and high centre, 3 feet.

GLOW-WORM, bright orange scarlet, high centre, very fine, 3 feet. Goldfinder, yellow, tipped with red, large and well-built, $2\frac{1}{2}$ feet.

Gracchus, bright orange buff, good outline and petal, and very constant, 3 feet.

HARBINGER, most beautiful shade of peach, good form, petals and centre, 3 feet.

John Walker, finest white Dahlia ever raised, 3 feet.

MRS. GLADSTONE, delicate soft blush, 3 feet.

Mrs. Langtry, cream, edged with crimson, 4 feet.

MRS. W. SLACK, blush white, edged with purple, 3 feet.

OCTAVIA, yellow, shaded orange, tinted with rosy purple, 3 feet.

Perfection, orange buff, 4 feet.

WARRIOR, intense scarlet, 3 feet.

TWELVE CACTUS DAHLIAS FOR GARDEN . DECORATION

ARTUS, orange buff, graceful form, $4\frac{1}{2}$ feet. AUNT CHLOE, very dark, the younger florets being quite black, GABRIEL, ground colour bright velvety crimson, upper half of each floret snow white, 41 feet.

GENERAL FRENCH, deep bronze, large flower, free flowering.

J. H. JACKSON, intense blackish maroon, 3 feet.

J. W. WILKINSON, deep rosy red, 31 feet.

LORD ROBERTS, white, with creamy centre.

MRS. J. J. CROWE, flowers very large and of a lovely clear canary yellow, without shading, 5 feet.

MRS. JOWETT, apricot, slightly shaded with coppery red on the points of the petals.

MRS, MAWLEY, clear vellow, very large, full, and finely-outlined flower.

Mrs. Winstanley, colour vellow disc, gradually shading to soft scarlet, 5 feet.

RICHARD DEAN, red, heavily tipped with white, 4 feet.

TWELVE POMPON DAHLIAS FOR GARDEN DECORATION

AMBER QUEEN, rich clear amber, shaded golden apricot, 3 feet. ARTHUR WEST, crimson, 2 feet.

BACCHUS, scarlet, 21 feet.

DAGMAR, maroon, shaded crimson, very distinct, 3 feet. FLORA, rich, golden yellow, neat small flowers, 21 feet. NERISSA, soft rose, tinted with silver, not too large, 4 feet.

RED INDIAN, coral red, 3 feet.

ROSEBUD, white ground, edged rosy pink, 31 feet. Rosea, deep rosy cerise, 21 feet.

Sybit, vellow, shaded and tipped with scarlet, 4 feet.

TOMMY KEITH, red, tipped white, 3 feet.

WHITE ASTER, pure white, a grand cutting variety, 3 feet.

TWELVE SINGLE DAHLIAS FOR GARDEN DECORATION

ANNIE MITCHELL, creamy white, bright yellow at the base of petals, 21 feet.

AURORA, yellow suffused with orange, 31 feet.

DUKE OF YORK, fine light scarlet of exquisite form, 31 feet.

GOLDEN LOCKS, lovely yellow, 31 feet.

Grace Ballantyne, yellow, shaded and streaked with deep chrome, $3\frac{1}{2}$ feet.

Janet Braes, magenta, flushed with crimson, orange at the base of petals, 3 feet.

MISS HENSHAW, primrose, edged white, 3 feet.

MISS RAMSBOTTOM, lovely pink, 3 feet.

MRS. HENSHAW, dazzling crimson scarlet, 3 feet.

Phyllis, pale ground, striped with lilac round the centre and flaked with crimson, 2 feet.

W. Fife, clear yellow, striped with bright scarlet, 3 feet.

WHITE QUEEN, white, large and good, 3 feet.

TWELVE SINGLE CACTUS DAHLIAS FOR GARDEN DECORATION

ALICE LEE, pink, shading to white at the base, 3 feet.

ALTHEA, deep glowing crimson, 3 feet.

BRENDA, chrome yellow, 2 feet.

BRENHILDA, white at base of petals, soft rose at points.

CRUSADER, orange ground, streaked with bronzy red, edges tipped crimson, 3 feet.

FENELLA, crimson at the base of petals, passing to deep orange, 3 feet.

Helen Macgregor, lower half of petals yellow, upper a deep mahogany, 3 feet.

IVANHOE, bright rose colour, with crimson band round centre, $2\frac{1}{2}$ feet.

LADY CLARE, scarlet, shading to magenta at the tips, 3 feet.

LADY EDITH, lower part of the petals yellow, passing to deep pink, pale pink at the edge, 2 feet.

QUEEN MARY, purest white, with pale yellow disc, deep golden centre, 3 feet.

Rose Bradwardine, clear yellow ground, bronze, tipped with red, 3 feet.

THE DAHLIA IN AMERICA

By LEONARD BARRON, Editor, American Gardening

THE beginning of the twentieth century has seen a wonderful revival in the cultivation of the Dahlia in the United States, and at the present time there is a more deeply-rooted and more critical interest than ever before. And it is not only the professional gardener who is thus concerned, for among the pioneers of the revival are some of the most prominent leaders in society. Whether the inspiration has come from Europe it would be hard to say, but certain it is, however, that it is to Europe that we of the States look for the really good new things. There is a good market here for a limited quantity of a sterling novelty, but it must really be good, and, besides having the attribute of novelty, must be decidely superior to what is already in existence. The purely academic interest in a new thing merely because it is new, such as is so characteristic of the English amateur, is not met with in the person of his American cousin. Intrinsic merit counts for very much more. And again, as it is with other flowers, the American pays very particular regard to the useful qualities of the variety. That is to say, such things as the length of stem and the enduring qualities of the bloom when cut are all powerful factors in the determination of the merit of a claimant for notice. All these little points are worthy of remembering; for a clear understanding of the conditions will enable the English student to better appreciate the sometimes very frigid reception that has been accorded to some of the most heralded beauties from "across the water." Then, again, it must be remembered that climatic differences influence the behaviour of a variety, and the popular Green's White of the English fancier is not a success in the gardens about New York solely for this reason. The flower as seen here is undeveloped, and of a poor nondescript colour. This is given merely as an example; it is not an isolated case, nor, on the other hand, is it to be understood as a rule. Each variety must be tested for itself.

Up to about fifty years ago there was a great interest in the growing of Dahlias in the neighbourhood of Philadelphia, Pa. Indeed there was an intense rivalry among a few prominent gentlemen of the city as to who should have the best and the latest varieties of the flower of their fancy. We gather from the records of that period that then, as now, the novelties came from Europe, chiefly from England indeed. And big prices were paid for the privilege of securing the most sensational of the new things. Indeed it is said that two gentlemen were in the habit of making the voyage each year, collecting the new things, and fighting out the battle for supremacy on the exhibition boards the next season.

Then came a lull. The Dablia, although grown on a fairly large scale, was not a flower of critical

appreciation, and indeed was saved from oblivion only because of the interest that attached itself to a plant that had the associations of childhood's days to keep it fresh in the mind. For several years this period of desuetude endured, and it was in March of 1895 that the revival movement became active in the formation of the American Dahlia Society in Philadelphia. Interest was aroused, and the Dahlia once more came into a prominent place among Flora's gems. From this date can be counted the era of the modern Dahlia cult in Eastern America. The organisation itself, however, soon became moribund, and after enduring a struggling existence was formally dissolved at a meeting in New York in 1901. Strange to say, simultaneously with the dissolution of the society a very intense interest in the Dahlia spread more widely than ever, and a New York gentleman, Mr. J. W. Withers, who had been growing a small collection for a few years, struck upon a cultural detail that materially increased the chances of the future of the Dahlia as a garden plant in this climate.

The one reason why the Dahlia had not held its own in this country was perhaps the uncertainty of flowering properly, and which peculiarity appeared to baffle all the modern cultivators except those who had some particular location which just suited the plant. It was so with Mr. L. K. Peacock, at Atco, N.J., and from the ease with which he produced really first-class blooms in abundance, it seemed that other growers who tried the plant and found it wanting were negligent of its wants. But just what those wants were was an evasive problem. His soil was a pure white sand, poor and dry. In New England

one or two nurserymen had maintained the successful cultivation of the plant. But elsewhere it was the rule that in the full season of the Dahlia,—that is to say, in the early fall,—the plants, which had up to that time been full of promise, became suddenly sickly. They stopped making free growth, producing only stunted, twisted shoots; the leaves fell victim to a mildew which seriously disfigured the plants; and, moreover, the flower buds which were present refused to expand, and, becoming black, finally shrivelled up and fell. It is abundantly demonstrated now, however, that the secret of successful Dahlia culture lies in not allowing the plant to make too much growth before the proper season. With the hot dry spell of weather which usually strikes about the months of July and August, plants which have been in full growth for some time before, and are already in the flowering stage, suffer so severely that they succumb to the conditions, and are not able to recoup their strength in the early fall sufficiently soon to enable them to again flower before the frost arrives and the tops are cut down. The end in view is attained by late planting. In a word, the successful cultivation of the Dahlia in this country-I am speaking of course for the Eastern States—rests absolutely upon keeping the roots out of the ground just as long as it is possible to do so. The temptation to plant early,—that is, as soon as danger of frost is gone in the spring,—is a strong one, but the wise ones will hold off until even July is fairly in. The case is well presented by Mr. Withers himself in a communication to American Gardening of 11th May 1901. The reason that amateurs have had little success, while those of the trade obtained gratifying

results, is no doubt due to the fact that in the case of the latter late planting is a necessity owing to the rush of other things in the early spring season.

Roots thus planted do not start, do not begin their growth until after the first hot spell is over, and as a matter of fact they do not stop growing when once fairly started on the road. Moreover, plants thus grown do not require stakes, for they keep within a reasonable height, and again can be planted more closely together.

Planted out about the 1st of July (that is, roots, not cuttings), bloom will begin about the middle of August and continue until frost. The old time growers apparently followed this plan or something like it, for in the first volume of Hovey's Magazine, dated 1835, a writer calls attention to the desirability of retarding the growth of the plants "even two or three weeks, as when planted early they are apt to form their flower buds at a period when the weather is both so hot and dry as to cause these buds to perish as fast as they are formed." And yet this cardinal point was lost sight of until lately, and even to-day is regarded with suspicion or doubt by some; at the same time it is a fact that there has not been a successful exhibitor of Dahlias in recent years who persistently and consistently adhered to early planting. It is found to be good practice to plant the roots in preference to cutting plants, dividing them so as to leave one eye only. Field roots as lifted the previous year may be used just as well, and will of course give larger plants—that is to say, more stems; but if divided up, the results on the whole will be far better. One reason that cutting plants are not so good as roots is

that they are more difficult to ship, being in danger of drying out on the one hand, or sweating during transit on the other.

Roots cut to a single eye may be planted in a trench or hole so as to be 6 inches below the level, and the soil gradually filled in as the stem develops.

With regard to the lifting and storing for winter, the self-same conditions that govern the Dahlia in Europe prevail in America too. Roots are lifted sometime in November, and stored where they are free from frost and will not rot. The cellar of a dwelling-house where there is a furnace is an ideal place. The roots may be covered with ashes, after having been allowed to dry off a little, and so stored. In the spring they will start into growth, and may be carried into the open air in some half-shaded spot and simply not planted until the middle of June at the earliest. It is best to plant in full exposure, as the stems then develop more sturdily and are able to resist winds.

As to the question of feeding, much—very much indeed depends upon the nature of the soil itself. In a light sandy soil a mixture of four parts bone-meal and one part nitrate of soda as a top-dressing after the plant is well up is recommended. On ordinarily good soils a mixture of bone black and acid phosphate has given full satisfaction so far as both quality and quantity of bloom were concerned, but there appeared to be a tendency in this treatment to make small tubers, and in some cases indeed no tubers at all were lifted at the close of the season.

In the matter of watering debatable ground is again entered. The best blooms that I have seen have come

from plants that never were artificially watered; but the plants were on a moderately heavy soil. In the case of the sandy soils already referred to, water can naturally be applied in unlimited quantity without really giving much to the plant, for from the very nature of the soil it will dry out almost as soon as watering is stopped.

It has been recommended already to let the plant grow naturally. In some quarters it is the practice to plant early and then pinch out the tip of the young shoot to induce it to branch, and incidentally, it may be remarked, it ensures a later growth. The largest growers, whether commercial or amateur, do not ever find it necessary to use stakes, unless the roots are started too early.

To the genuine Dahlia enthusiast of the old school, the perfect modelling of the true show or fancy type of bloom ever appeals as the highest form of the Dahlia, as indeed it is. But of late the tendency in floral taste has leaned toward the more unconventional and æsthetic types of the Cactus and the decorative Indeed, Americans look with most kindly eye upon the latter group; and it is to a few good introductions in this group—American raised varieties -especially Wm. Agnew and Clifford W. Bruton, that modern interest in the flower as a commercial possibility for cut flowers had its origin. In the Dahlia, as in other flowers, the American taste runs to loose unconventionality, so that the decorative, or, as it is sometimes called, the cactus-hybrid type, is increasingly popular with the masses.

In the matter of classification there is much to be accomplished yet, the tendency being to include the

two groups as one under the title of cactus; and there is a shrewd suspicion that certain dealers wilfully muddle the two groups, and include any nondescript seedling in the all-embracing and convenient class. Still, there is a keen appreciation of the decorative type, and it will grow. As a plant for cut flower the Dahlia is assuming an important place. It gives really rich colour and variety. What has been done for the Dahlia in America is but the beginning; the leaven is at work, and from Newport in Rhode Island to Washington, D.C., Dahlia gardens are being planned as never before. And from California comes evidence of the interest, a correspondent giving this account of the methods adopted there:—

In the city of San Francisco the climate is very cool, especially in midsummer, and in being on the coast we get a deal of foggy nights, which, of course, just suits the Dahlia, and there are at this date some really first-class blooms to be seen in San Francisco, especially in first-class Cactus vars, recently imported from Europe. Personally, I do not grow them for early flowering, as I prefer my Dahlias to bloom when most of our best garden flowers have passed their best; but some of our gardeners here have them blooming with roses, carnations, etc.

The method which I have adopted is to pot small tubers cut to one eye, and then plant out in the open ground when I think they are strong enough to fight for themselves, as when planted in mixed borders slugs and snails are liable to be very trouble-some, if planted in the usual way. I allow but one stem, pinch back, to make about four laterals. In growing for exhibition I generally pinch out the growths of a couple of joints nearest to

the buds, and get a nicely finished flower in that way.

Now, the culture is quite different in the interior of California, where the climate is much warmer than in San Francisco. Dahlias are generally planted out in April or May, and kept growing steadily. They usually produce a few, small, semi-double flowers during the hot weather; but in September, when cooler weather prevails, they are cut down, well mulched and given a

good soaking, when they make a rapid growth and come in bloom about the same time as Chrysanthemums, and give a very good display of flowers. Should the weather be dry, of course the Chrysanthemum comes first in favour, but in damp weather the Dahlia makes a good second.

WILLIAM ELDRED.

SAN FRANCISCO, CAL.

In writing of the Dahlia in America it must be borne in mind by the reader that the territory thus covered is immense. The particulars given in the foregoing relate chiefly to New York as a centre, and it would be necessary to make allowances for the climatic variations as one went any considerable distance north or south; and the west, again, is so entirely different as to present entirely other problems.

As an indication of the standards of merit, the following variety lists are taken from authoritative sources. Mr. T. A. Havemeyer, the leading amateur grower of the time, annually imports the season's leaders from abroad, and his report for 1901 is as follows:—

At your request I send a list of Cactus Dahlias that have proved the most successful with me this season, taking as a standard perfection of flower, freedom of bloom, length of stem, and habit of growth. We tested the greatly advertised Green's White, but unless it does better it will be worthless in this country, as we were unable to procure a perfect flower from ten good, healthy plants. A new decorative Dahlia of great beauty is Madam Van Den Dael, very large flowers, of a pleasing silvery pink, splendid form, with long stems. I consider this the best all-round decorative Dahlia I have seen to date. The best new Show Dahlia we thought was David Johnson; it is the same quilled type as A. D. Livoni. The colour is a delicate peach pink or salmon, beautifully quilled, and a perfect sphere in shape. It is very free and dwarf.

WIELAND, a new Cactus Dahlia of German origin; pretty

pink, free and dwarf.

NIGHT, very dark, maroon, an improvement on Matchless, as

the petals are always well pointed.

VISCOUNTESS SHERBROOKE, bright reddish terra-cotta suffused with apricot, the freest of all our Cactus Dahlias this year; flowers large and always perfect.

Progenitor, bright clear carmine, every petal furcated at the end like a stag's horn, and forming several points; very free

and dwarf.

Mrs. J. J. Crowe, the best yellow, stems long and stiff, petals very long and narrow, plant dwarf and free.

MRS. CARTER PAGE, rich velvety crimson, petals very long

and narrow.

KINGFISHER, rosy purple, very good.

Britannia, soft salmon pink, flowers perfect, very free and dwarf, stem very long.

STANDARD BEARER, bright fiery scarlet, very free and flowers

nearly always full.

W. B. Childs, blackish maroon, with purple shading, large flower, very free and dwarf.

SIR A. MILNER, bright orange red, large flower of very good

form.

Zephyr, rosy pink, flower always perfect, but stem not stiff enough. $\,$

EMPRESS OF AUSTRIA, deep velvety crimson, long, stiff stem,

free and dwarf, one of the best.

Ruby, splendid for bedding; plant mass of flowers; blooms, although small, very good shape; colour, ruby red.

MARIE LOUISE is also a very free bloomer and very useful.

T. A. HAVEMEYER.

Mr. J. W. Withers' selections of ten in sections are:—

SHOW DAHLIAS

COLONIST.
COUNTESS OF RAVENSWORTH.
DANIEL CORNISH.
FLORENCE TRANTER.
EMILY.

WILLIAM RAWLINGS. ARABELLA. HARRISON WEIR. HENRIETTA. DR. KEYNES.

FANCY DAHLIAS

MRS. DAVID SAUNDERS.
MME. SOUBYRE.
S. MORTIMER.
PEACOCK.
GENERAL GRANT.

DUCHESS OF ALBANY. LUCY FAWCETT. HENRY ECKFORD. STRIPED BANNER. STARTLER.

CACTUS DAHLIAS

AEGIR,
ALFRED VASEY.
CAPSTAN.
CYCLE.
EARL OF PEMBROKE.

EDWARD MAWLEY. ERNEST GLASSE. GEORGE MARLOW. HARRY STREDWICK. JOHN H. ROACH.

The literature of the Dahlia in America is meagre. A treatise was published in Boston in 1839 by E. Sayers, and in 1896 Peacock's *The Dahlia* appeared; and other matter since then is found in the weekly papers.

THE FUTURE OF THE DAHLIA

In the Florist for 1855 a writer asked the question— Is there a reasonable prospect of the Dahlia's progression? What would that writer say if he had now to answer his own question? He wrote at a time when raisers had, by their exclusiveness, almost eliminated Dahlias from public favour and general cultivation. Then raisers aimed at raising and retaining none but flowers of the Show and Fancy type. Everything that failed to come up to their standard of geometrical precision was discarded as worthless. True this was brought about, in its earliest stages at least, through a laudable attempt to extricate the Dahlia from a perfect confusion of forms that prevailed. The revival of Dahlia culture dates from about 1870, when the National Dahlia Society was instituted; but what has done more than even the National Dahlia Society to popularise the cultivation of Dahlias has been the introduction of the Single, Pompon, and Cactus sections. These have been taken up, and enthusiastically grown by thousands who never fancied the Show and Fancy varieties. It was in 1880 that the Single Dahlia was introduced, or rather re-introduced into commerce, and in that year also the CactusJaurezi—made its appearance in this country. From that moment the future of the Dahlia was assured. The graceful Singles took the public taste immediately, for here was found a plant that produced beautiful flowers in profusion with a modicum of trouble. Juarezi, the precursor of all our Cactus varieties, was looked at a little askance at first; but, as seedlings from it began to appear, showing improved form and fresh colours, they were taken up by an interested public, and, at the present moment, the interest in Cactus Dahlias is very great, and is so rapidly on the increase that it is quite safe to predict a great future for them. Much remains to be done in the way of improving their habit. Long stiff footstalks are wanted to all the flowers. Every one must be discarded which does not hold its head erect on a stiff, wiry stem, at least 12 inches long. May I suggest that larger flowers than we at present have are not wanted,—smaller ones would be an advantage sometimes. Then they will be more useful for cutting, and the plants will form much more effective objects through the flowers being raised well above the foliage. These improvements will only be the work of a very few years, and what are the raisers of Cactus Dahlias then to aim at? New colours and new combinations of colours will ever afford an illimitable field. The round-flowered Single Dahlia and the Single Cactus forms will continue to be grown wherever truly graceful flowers for cutting are wanted, but their cultivation will not be nearly so general as the other types. The Pompon varieties. which are great favourites for garden decoration and cut flowers, will continue to be popular for two reasons: their perfection of form and daintiness of size will always commend them, and likewise will their fine dwarf compact habit.

Although the Cactus varieties will absorb the attention of the great majority of growers for the next decade at least, yet, so long as we have a sturdy artisan population—and may we always have it—who delight in producing on their small plots large symmetrical specimens of either flowers or vegetables, so long, I believe, will there be a steady demand for Show and Fancy Dahlias. They are, without doubt, the most perfect of Flora's creations from a true florist's point of view.

Efforts will, I believe, be made to raise a hardier race of Dahlias, and something will be done to produce varieties with a tendency to flower earlier.

The future of the Dahlia is assured. It may develop along new lines, but that it will be less cultivated is most improbable, unless it becomes the prey of some dire disease such as has attacked the Hollyhock.

THE END

National Dahlia Society.

Hon. Secretary-

P. W. TULLOCH, Esq., Sterndale,

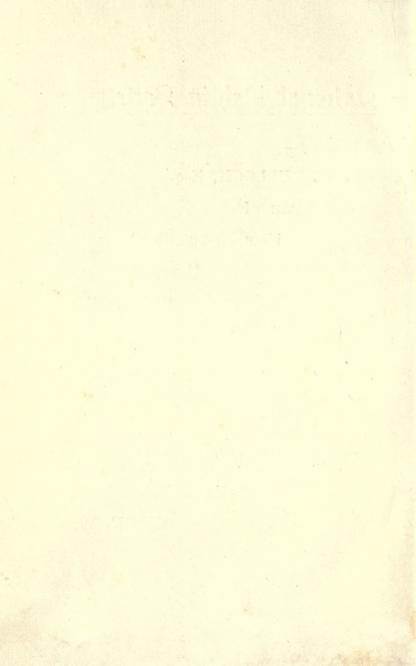
New Church Road,
Hove,
BRIGHTON.

London Dahlia Anion.

Hon. Secretary-

RICHARD DEAN, Esq., Y.M.H., Ealing,

LONDON, W.





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