

HARDY BULBS

[\$2.00]

by *Cecil Solly*



SOLLY'S BULB BOOK

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Thanks for your fine assistance
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complete context
Horticoor diall
Leul Solly

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by Cecil Solly



TRIVITHIAN

This book has been prepared and written to fill the need of the home gardener who desires full and complete, correct planting instructions on the culture and care of the most popular spring flowering bulbs.

My sincere appreciation is extended to Jan de Graaff and H. B. McLean, noted bulb growers, for their extensive cooperation and assistance in the preparation of the material.

Horticordially,

CECIL SOLLY.



K I N G
A L F R E D

Spring Flowering Bulbs

*Good-natured,
sure to bloom
harbingers of
Spring*



CROCUS

ONE OF NATURE'S great gifts to the gardener is the loveliness and variety of the Spring flowering bulbs. These are available in a great variety of kinds and a complete range of colors. All are valuable because of their ability to flower even under the most adverse conditions.

The reason that "bulbs" are so good natured is that the bulbs is really a storehouse of food. The leaves have to do their work of manufacturing living matter from the plant foods in the soil and in the air, and this living matter is stored through the winter months in the bulbs. The successful flowering, therefore, of a bulbous plant does not depend on the fertility of the soil in which it is flowered, for the first year, but on the conditions under which the bulb was formed. The gardener can buy bulbs that have been reared in ideal conditions, and can transfer them to his somewhat poor garden, where sunshine and air are none too plentiful, and can still be sure that they will flower well.

Bulbous plants have developed this habit of storing food from one season to be used the next, because of the conditions in which they grow in their wild state. Many of our spring-flowering bulbs are natives of the woodland. They are able to store up plenty of food supplies during the summer months, when warmth, air and moisture and rich soil are available. But they like to open their flowers if possible in the sunshine, and they have therefore developed the habit of flowering in the early spring before the woodland trees become leafy and shade them too heavily. This makes spring bulbs ideal, not only for the town gardens, but for the shadier parts of open country gardens.

When purchasing bulbs for planting, it should be remembered that the first year's flowers are assured, anyway, by the bulbs' stored food, and that they will do fairly well *FOR THE FIRST YEAR* in any fair soil. Because of this fact, we should not neglect to plan for the following years. The plant cannot use up the stored food without its being replaced or a consequent rapid deterioration takes place.

It is highly important to establish the planted bulbs in conditions where they will thrive and succeed for many years.

The best time to plant the bulbs is in the fall between the commencement of the fall rains and the first frost. Narcissus, Daffodils and Jonquils, Frittilaria and Winter Aconites should be planted in September and October. Tulips, Hyacinths, Crocus, Muscari, Scillas and other *MINOR BULBS* such as Bulbous Iris, Snowflake, Snowdrops, etc., are best set out in October or November.



ORNITHOGALUM NUTANS, STAR OF BETHLEHEM

*Plant all
Baby Bulbs
in Fall before
the first frost*

Anemones and Ranunculus may be planted in the Fall in mild climates. In colder areas, it is generally conceded that early Spring planting is safer, due to the fact that Fall planted bulbs usually send up leaves before frost and these get nipped (by frost), which gives the new plant an unnecessary setback.

Most gardeners find that the *CONVENIENT* time to plant them all is when the Fall clean-up time comes. When Dahlias, Gladiolus and Geraniums are taken out, it is an ideal time to refresh the soil and set out spring flowering bulbs.

PLANT FOOD

The best fertilizer to use in the bed, below the bulb and above, before planting is a lasting one which contains a properly balanced supply of all the essential plant foods. Wood ashes, if procurable, should also be used in the soil preparation.

Since most garden soils are slightly acid, calcium should be used in every bulb bed.

Calcium is not only a plant food in itself but it acts as a catalyst in the soil, freeing many minerals by making them usable to the plants and thus "conditioning" the soil.

Of even greater value than calcium (lime), are the natural deposits of what were once fresh water shell-fish. In this area many deposits of MARL or TALC are available. They contain large quantities of slowly available magnesium, an absolutely necessary mineral for good bulb plant growth in addition to the many other essential plant foods.

MORE ROOTS

The object of fall planting here is to cause the bulb to produce as many roots as possible.

Tests made lately have convinced me that, proper soil and conditions provided, fine results may be obtained by the use of a root producing hormone powder. The basal ring of each bulb should be dusted with the powder when it is planted. This will initiate about double the amount of roots.

As soon as the roots have started, it is found that in most gardens, application of Vitamin B.1. gives further assistance. Vitamin B.1. is not a fertilizer. It helps the plant take up plant foods IF they are in the soil, so be sure to have the food there first before using B.1.

It is advised, because of the variation of garden soils and conditions, that gardeners should make their own tests and satisfy themselves of the necessity for the use of B.1.

PLANTING SITE

When you choose the position in which the bulbs are to be planted, it is well to remember that they respond most readily when they are able to obtain a maximum of sunshine.

Those bulb flowers which turn their faces up to the sun like Crocus, Tulips, Lilies and Ranunculus, definitely should be placed right out in the open. Those whose flowers are pendant or even slightly facing downward, like Snowdrop, Lily of the Valley, Bluebells and Daffodils, will do equally well in partial shade, but there must be plenty of daylight. The pendant-flowered sorts are best when placed on the north or shaded side of a house or building, because this situation most nearly approximates their natural or wild habitat. The only position where bulbs are unable to respond favorably is where they are planted under the shade or drip of coniferous evergreens. Even then they will give a fair showing if the tree's branches are cut high.

COLOR PARADE

The most favored system used in planting bulbs is to set them in relatively large quantities, together, in perennial borders or beds. This insures a brilliant and spectacular display which few gardeners would miss.

It is not necessary to plant bulbs in beds, however, as many of their flowers show up well against the dark green foliage of the Evergreens or in groups in the flower border. The tall Breeder Tulips go well in the background, medium varieties, with the tall narcissus in the middle, and dwarf narcissus, bluebells, etc., in the front, of any border.

Planting in the border or among the Evergreens has the advantage over the bed system as the plants may be left to ripen rather than be lifted too soon. If planted deep enough they will not interfere with cultivation of other plants.

Those gardeners who have already tried setting Bulbs in groups of from six to twelve in various parts of the garden are loudly singing the praises of this plan.

This lack of Spring color in the herbaceous border has been a problem which is easily solved by the use of many of the different Tulip varieties, including the Single and Double Earlies, (April Blooming) which have their place in front while the Darwins, May Flowering and Cottage bloom 3 weeks later and nearer the background, among the Iris, Peonies and Delphinium plants, which will carry on the display and serve to hide the Tulips as they go out of bloom.

The first Daffodils to bloom are the Rock Garden sorts. They are followed closely by February Gold, The First and the Campenelle Jonquils.

Then come the hundreds of kinds of trumpet daffodils and the shorter cupped sorts. The very sweetly scented Narcissus in the Poetaz and Poeticus and many new attractive doubles conclude the show.

Hyacinths, Crocus, Bluebells and other Spring flowering bulbs all have their various flowering times. By carefully planning, a continuation of bright sweetly perfumed Spring bulb-flowers may be easily arranged.

COMPANION PLANTS

In many gardens and in Public Parks too, companion plants for Spring flowering bulbs are used with great success.

This means of covering the ground prevents the displays' looking too heavy and severe, and serves to help them appear "at home" and natural.

Their use is three-fold. While the bulbs are commencing to grow in early Spring the "companion" makes a green ground cover for what would otherwise be a rather unsightly spot. While they are in flower, the "companion's" green leaves and flowers make a pleasing combination with the bulb's flowers. After the bulb flowers are over and begin to die down, the "companion" serves to hide the unsightliness of the ripening leaves by its own floral display.



THE SOIL

In most garden books the material in which the bulbs are to grow is called "potting soil".

This material should be well and carefully prepared because on this medium depends the growth, health and beauty of the bulb flowers.

The best mixture to use is made up of equal parts of peat moss, coarse sand and rich garden soil. To this should be added a sufficient quantity of a good brand of organic garden fertilizer. One pound to each bushel of soil is about right.

When this soil has been carefully mixed, charcoal in pieces about the size of a filbert nut should be added in a quantity not less than 1 to 10 of the mixture.

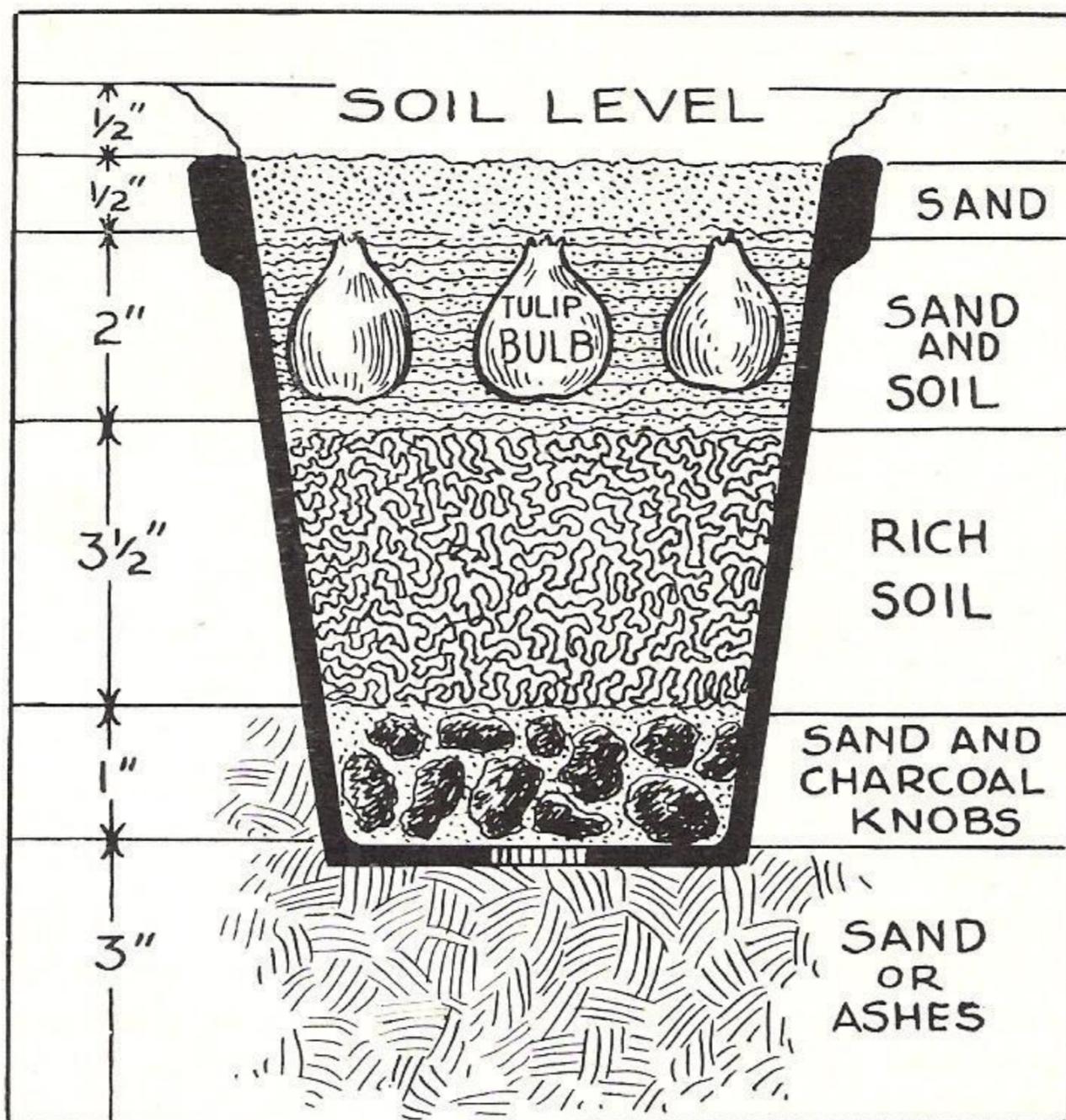
This material should be mixed at least two days before it is to be used, and should be moist at that time.

FILLING THE POT

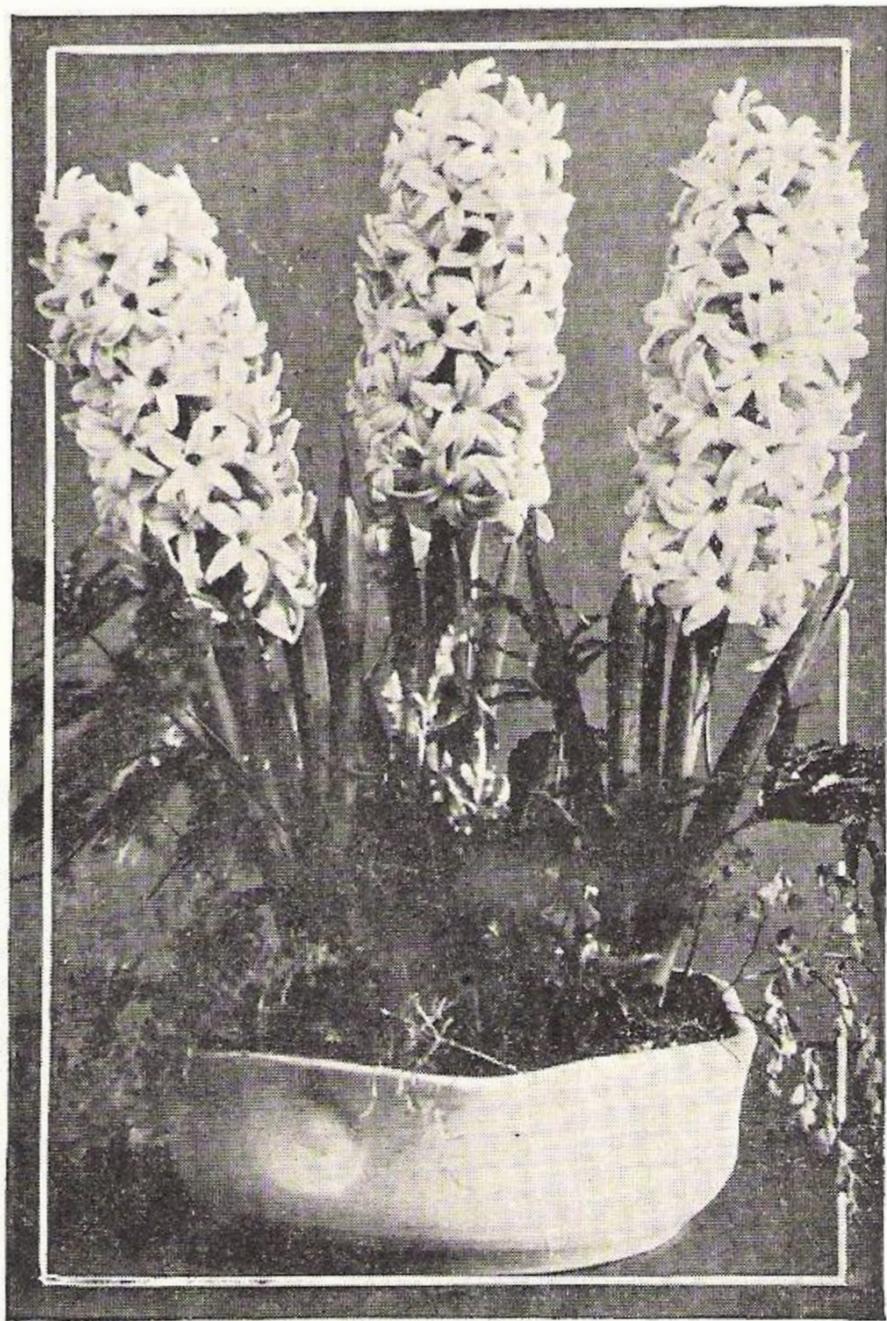
Care in the correct filling of the pot is of great importance. At the bottom of the pot, to cover the drainage hole without stopping it up, a few pieces of "crocks" (broken pots) should be placed.

Around these, place several walnut-sized pieces of charcoal. Cover these with coarse sand.

Then fill the pot about half full of the prepared moist potting-soil. Press this soil down with the fingers.



Bulbs for Indoors



*Start Bulbs
Early
for
Winter flowers*

TULIPS AND HYACINTHS for Christmas flowers! Of course, we buy them from the florists!

However, there might be someone who would get an extra thrill from such a Christmas gift, if you grew them yourself.

Or perhaps, you would like to be able to say, about the ones on your own table, to the envy of all present—"I grew them myself".

BULBS ARE EASY TO GROW

They are quite simple to grow into gorgeous sweet scented flowers, that are sure to be in bloom early in the new year, provided you start them as soon as the bulbs are available.

You won't need a greenhouse or any special conditions or technical knowledge. Just a spare place in your garden and the right spot in the house, later, is all that will be required.

The way to be sure of a fine display is to start them off as early in September as you can get the bulbs. Later on, the pot will be brought indoors to finish the growth, but in the meantime your good gardening care and skill is used to grow A POT-FULL OF ROOTS—OUTDOORS before they are brought inside in early November.

On this, scatter about a quarter-inch of the coarse sand. This is for the base of the bulbs to rest on.

Dust the base of each bulb with a good hormone root producing powder. If you do not have the material on hand, it is really worth while getting a small package.

Bulbs dusted with a good hormone powder make many more roots faster and stronger, to the great benefit of the growing plant.

Place the bulbs carefully on the sand. Do not let any bulbs touch each other or the side of the pot.

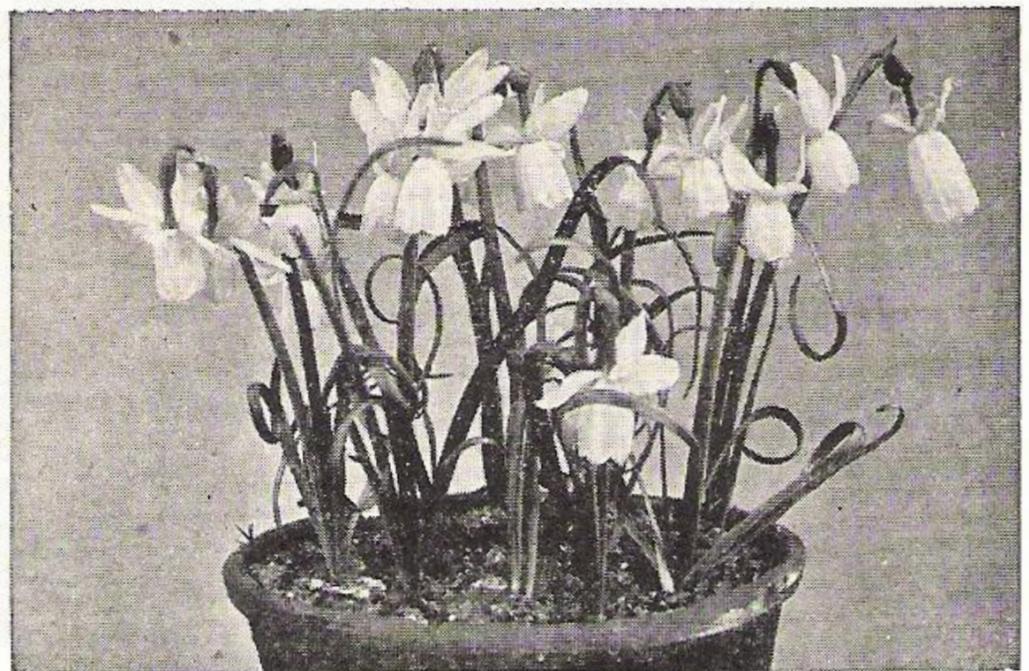
A six-inch pot will generally take three Hyacinths or six Tulips. An eight-inch pot will accommodate four Hyacinths or 10 Tulips conveniently.

Sift more of the rich soil between the bulbs and scatter it over them until they are just covered. Then press the soil down, around and over the bulbs. This is generally done by gripping the sides of the pot with the fingers of both hands and using the thumbs to press down the soil.

Then fill the pot up with the rich potting soil, to within one inch of the rim, and again press down tightly with the thumbs.

Over this scatter another half-inch of clean coarse sand and stand the pot in a bucket of water. In about a half hour the air-bubbles will all be out. The pot may then be set out in the garden to drain and is ready to be "planted".

***Rock Garden Bulbs
are gems when
grown indoors***



NARCISSUS SPECIES (Triandrus Albus)

"PLANTING" THE POT

Almost any unused out-of-the-way place in the garden will accommodate the pots.

The only requirements are a moist soil and partial shade from a hot sun.

The place for the pot is prepared by digging a hole six inches deeper than the pot.

One hole may be made wide enough to accommodate as many pots as desired. They may be set out quite close together.

The bottom of this hole is filled with 2-3 inches of coarse sand.

The pots are placed on the sand and covered up to the original soil level. Garden soil or sand may be used for the covering which *must* be pressed down firmly. Some gardeners do not cover quite up to the soil

To accomplish this is very simple, provided these suggestions are followed.

THE BULBS

All bulbs that are to be planted are on sale from September until December. For this purpose they should be purchased *and planted* as early as possible, preferably in early September.

The bulbs that you buy will be exactly the same kinds as the ones your florist grows so successfully.

The bulb is actually a complete plant, flower, leaves and stem—in the center of a wrapping of food. All that is needed is for you to force it to start to grow.

With the proper encouragement, it will do so.

When you go to a store to buy the bulbs be sure to select ones that are quite suitable for the purpose. Many daffodils, tulips and others are much too tall for pot culture, so select those that grow only up to 15-18 inches in height. Shorter ones will do but don't get tall sorts.

For pot culture, buy the largest bulbs you can get. Most stores have extra select bulbs especially grown for that purpose. If possible, spend a few extra cents on each bulb and get the big ones. At the time you buy them they will be plump, heavy and crisp.

All *Hyacinths* are quite safe to use. There are a fine selection of color in both singles and doubles. Crimson, red, pink, cream, white, pale blue, dark blue, lilac and yellow are the colors for you to choose from. Some people prefer to grow all one color in each pot while others like their colors mixed. Whichever colors you prefer, be sure they will be suitable to the jardiniere in which they will be placed when in the house.

Of nearly a hundred varieties of lovely hyacinths, I find that L'Innocence, LaVictoire, Jan Bos, Lady Derby, Marie, Grand Maître and King of the Blues give fine results. Choose your own colors, but be sure the bulbs are large.

Tulips, generally, are too tall to grow indoors, but there are two groups that are exactly the right height for this purpose. They are listed in catalogs and sold in stores under the title of "Single Early Tulips" and "Double Early Tulips".

In the single sorts, good varieties are Couleur de Cardinal (scarlet), General de Wet (orange), Keiserskroon (scarlet-edged yellow), Mon Tresor (yellow), Ibis (pink), and Prince of Austria (fragrant orange-red)

The doubles are lovely, last a long time, and are very sweetly scented. Choose from Murillo, Mr. Van der Hoeft, Scarlet Cardinal and Peach Blossom.

The Red Emperor, a rather new variety which is generally listed among the Species tulips and has a brilliant scarlet flower which is almost as long as its 9 inch stem, is another recommended variety.

BABY BULBS

These bulbs may be planted separately in pots or used as an edging around large pots of tulips or hyacinths. Among the "lesser" bulbs there are many lovely little subjects from which to choose such as Muscari (grape

level, but leave a small depression, which shows where each pot is located and facilitates watering if necessary.

No further care, other than seeing that the pots don't get too dry is necessary. It takes about ten weeks for the roots to form so leave them undisturbed until about December first when the pots, containing the bulbs and a "pot-full" of roots, are brought indoors.

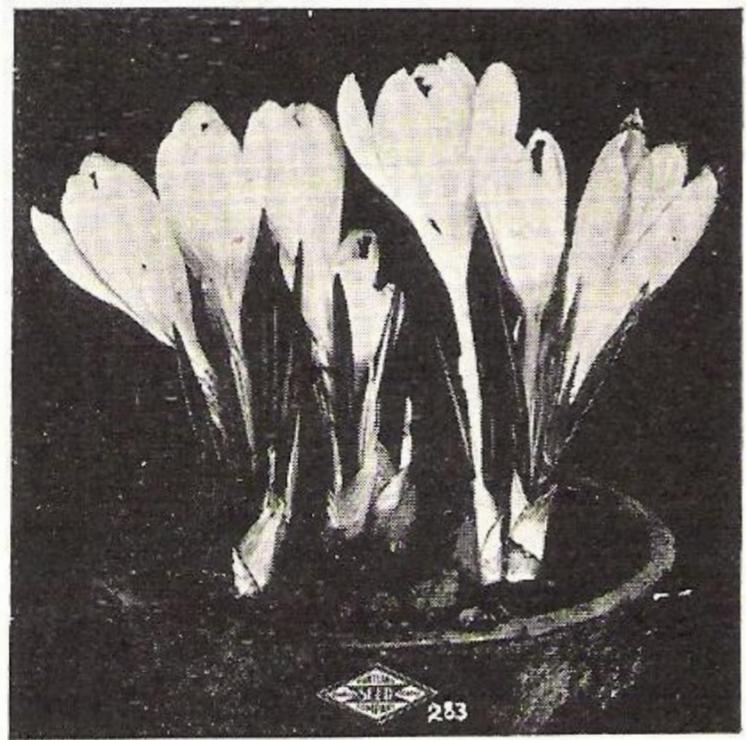
INTO THE HOUSE IN NOVEMBER

All that is needed at this time is some more knobs of charcoal and wet coarse sand.

The pots should be carefully lifted and cleaned on the outside. If scrubbing is necessary use only soap, water and a stiff brush.

Generally it will be found that the tips of the bulbs are just beginning to grow. Great care must be exercised not to hurt these delicate shoots.

*Crocus in a pot
or bowl make
a lovely
winter table centerpiece*



If the bulb shoots have not yet started, they should be "pulled" up, by placing the pots in shallow pans in a dark and very warm cupboard. The temperature should be about 75° and the water used at least 70°.

If a cupboard is not available, make a cone-shaped cover and place it over the pot. This will do nearly as well as the dark cupboard, by keeping the pot in the dark. The temperature **MUST** be in the seventies.

As soon as the shoots have grown an inch, it is time to bring the pot out into the room.

To prepare the jardinier or container for the pot is quite simple.

Place several walnut-sized knobs of charcoal at the bottom and cover them with the sand.

Then set the pot in the center. The rim of the pot should be about a half inch lower than the rim of the jardinier. Fill in between the pot and the container with the sand.

There is a mistaken idea that bulbs must be put in the dark indoors. This is sometimes necessary to produce roots but since the outdoor culture has already done this, the container should be placed in as light and sunny a window as possible. The more light and air the bulbs get indoors until they flower, the better will be the results.



*When you replant
the Lily of the Valley
bed save out a few of
the best "pips" for
Winter flowers indoors*

hyacinth), Crocus, Snowdrop; Scilla Siberica, Spring Beauty; Chionodoxa, Glory of the Snow; Winter Aconite and a strikingly beautiful Pacific Coast native, Brodiaea grandiflora. Crocus and Snowdrop, mixed in one pot are enjoyed by many who have tried this combination.

CULTURE

The care of the bulbs is divided into two interdependent sections. For the period from September until about October 15-20th, the bulbs are planted correctly in pots. The pots are set outdoors in a spare and suitable place in the garden.

When the pots are brought indoors they are placed in suitable containers or jardinieres and "forced" into bloom for early New Year's table decoration.

The first half of the plan, while they are outdoors is aimed solely at producing a "pot-full" of roots. This is done before the tops start to grow.

The indoor culture is directed at inducing a good top growth of flowers and leaves, which can only be assured by first having a lot of strong roots.

THE POT

When the pots are brought indoors they will be set into containers or jardiniers, so the first thing to do is to get the pots and try them out to see if they are the right size.

The pots should be as large as possible but may be shallow if the shape of the container makes this necessary. All pots should be thoroughly clean.

Old pots may be used but they must be thoroughly scrubbed (in lye water) until they are quite clean. New pots should be soaked in water for a few days before being used.

These conditions will keep the plants short and compact, and if so treated will never need supports.

If the bulbs are desired to flower early in the new year, they should be forced by keeping them at an even temperature of 70° both day and night.

It depends entirely on how much root growth has been made, as to how well and quickly the leaves and flower spikes will be produced.

If they appear to be growing too slowly, the temperature is probably too low, so move them to a place where they get full daylight and warmer room conditions.

WATERING

When watering, always use warm water. Cold water is too much of a shock to the plant and will retard its growth.

The water should be applied by pouring it into the sand which was placed between the pot and the jardinier.

TAKE CARE not to drown the bulbs.

To be sure that too much water has not been accidentally used, tip the container on its side. If any water runs out, you will know that too much was used.

All that is necessary is to keep the sand thoroughly wet.

PLANT PILLS?

These are not generally necessary, provided the soil was properly prepared and a good commercial fertilizer was used at planting time.

Bulbs grown in this manner, however, do show a fine response when a Vitamin B. material is used when watering.

If plants appear to be growing too slowly indoors one may use good judgment and apply liquid fertilizer to "pep" them up.

Bulbs for Winter Forcing

WHAT ARE YOU going to do with the window boxes from Fall until the next April when Summer's flowers are again planted out?

There is no need to look out of the window all winter, at a bare box of soil, with, perhaps, a few straggly weeds trying to grow in it.

The dark days of winter generally mean that although the garden may be neat and tidy, it will not have too bright a flower display and will look a little bare when the leaves are off the trees.

Why not, then, have a bright and attractive window box to catch the eye with its color at first glance out of the window on a dull day.

The window box is the first thing that anyone notices, whether looking out or in the window, so plan to have it neat, attractive and full of winter flowers, that are not only lovely to look at, but will have a sweet perfume ready to be wafted into the house every time the window is opened.

The plants that can be used are quite inexpensive. They are all easy to grow and may be used from year to year, being ousted from their window position only when the time for planting the summer flowers arrives. They are then set out into any suitable place in the garden, to rest there

until the next fall. Then, back they go into the window box as soon as the summer flowers are over, to repeat their attractive winter show again.

PREPARATION

As soon as the Summer plants, growing in the window box begin to look "mangy" and cease to flower profusely, it is time to remove them. Do not let an unkept and bedraggled show, spoil your remembrance of the bright summer-long display.

Most of the plants used in window boxes are annuals. They cannot live over the winter so it is best to pull them out and dispose of them.

After all the plants have been removed from the box, thought should be given to the soil. Note whether it is mossy or still clean and good.

Generally the conditions under which plants have to grow in a window box make it necessary to use all new and enriched soil at each planting. However, provided the summer plants gave a display that was quite satisfactory, then the same soil may be used over.

It is wise to remember, however, that as the plants were regularly fed and watered very often—window boxes usually need watering at least once a day, they dry out so fast—this abundant use of water may have caused souring of the soil or have washed all the available plant foods away.

The simplest method of soil treatment is to remove it from the box. Place a piece of burlap down on the lawn to receive the old soil.

It is then generally necessary to mix more humus, charcoal and commercial fertilizer with the soil. This should be thoroughly stirred and left to remain on the burlap until the next day when the new mixture may be returned to the box.

The reason for the addition of these materials is to provide suitable porosity to the soil.

Should one wish to be sure that the soil mixture is satisfactory, take a large handful of mixture. Thoroughly wet it and then squeeze out all the moisture possible.

If the resultant material crumbles, it is in good condition. If it remains in a ball, add some coarse sand to the mixture until it does crumble.

The winter window box will need little or no watering other than what the rains provide. Be sure, however, that the box is filled properly.

Check to see that the drainage holes are not clogged up. They are as much needed in winter as in summer.

Inspect the box to see there are no insects—especially sow-bugs—hiding in cracks or knot holes.

To prevent any carry over of any plant diseases, some gardeners burn out the inside of the window box each year. Others wipe out or paint the inside of the box with formaldehyde.

On no account should the inside of the window box be painted.

Before refilling the box with new or re-newed soil place some *new* drainage material at the bottom of the box. One inch depth of a mixture of small stones and charcoal, both in size about from pea-size to that of a walnut, is generally sufficient.

To the drainage material is then added enough coarse sand to fill in the spaces but not to raise the level any higher.

Over this should be spread about a half-inch of coarse peat moss. This

material is placed to prevent the fine soil particles from above from passing to the bottom, where they would be liable to clog the drainage holes.

The new soil is then placed in the box. It should be slightly moist and needs to be pressed down firmly. Many gardeners find they can get just the right pressure by using the balls of the hands. The soil should reach to within one inch of the rim of the box and should be left, after filling, for a couple of days before the new planting is done.

Since it is generally more convenient for most people to do the filling and planting all on one day, it should be remembered that the advised couple of days are necessary for soil settling, and if all the work has to be done one day, greater care should be taken when firming the soil, to see that there are no "soft spots". To avoid these the soil may be thoroughly soaked with water after the plants are set.

THE WINTER BLOOMING PLANTS

HEATHER—for an ordinary window box, the first plants to consider are the winter flowering and Mediterranean Hybrid Heathers. There are several varieties in colors of purple and red. The new sorts with the bright reddish flowers such as E. Carnea are very popular for window boxes. They are in flower all winter.

If one plant is set at each end of the box and one or two spaced at intervals between, according to the size of the box, this is sufficient.

These Winter Blooming Heathers, contrary to general belief, *do not need* an acid soil, in fact they thrive in calcareous soils, which is what the other plants to be recommended also enjoy. (calcareous—containing calcium).

PANSIES—Between the Heathers may be used enough Pansies to fill the vacant spaces.

It is important to know that in the Pansy family there is one branch—the HYEMALIS—or Ice Pansy that is eminently suited to winter window boxes. These "Ice" Pansies are grown in quantity here and are sold by many nurseries and stores. Plants may also be grown from seed started in June-July or cuttings may be taken from plants used the winter before, when they were removed in late Spring.

These Winter Blooming Pansies are extremely hardy. They grow in a fine bushy form, commencing to flower in November or December. A severe frost or snow sometimes sets them back but only for a few days after which they "come back" with a great quantity of new flowers and seeming to have benefitted by the "shock".

Winter Blooming Pansies are all very sweetly perfumed. If the window is left open a few inches when they are in flower, they pleasingly scent the room with "violets".

There is a wide range of colors to choose from. Among the best are WINTER SUN, a golden yellow with maroon blotch on the lower petals; ICE KING, silver white with deep blue blotch; CELESTIAL QUEEN, a bright sky blue, tinted lavender, with small yellow eye; and MARCH BEAUTY, a rich violet purple with yellow eye. There are also several other lovely sorts without names that are to be obtained from growers here.

All varieties can be purchased in plants, generally with at least one flower, so that they may be planted to a planned color scheme.

Many gardeners like to combine the Winter Blooming Pansies' colors indiscriminately, but if bulbs of one color are to be used, color scheming is quite simple and generally the Pansies look better if one color is maintained in each box.

BULBS—There are many spring flowering bulbs that may be grown in the winter window boxes, to give an even more lovely display when they flower.

The bulbs are generally planted underneath the pansies. They will thrust themselves up through these plants and provide a most attractive early spring show. When choosing any bulbs, be sure to select those that grow to an ultimate height of not more than 18 inches. The taller garden bulbs are not satisfactory for window boxes because their height is too great for this kind of display.

FORGET-ME-NOTS—Are just as good with tulips in a window box as they are in the garden.

Should you have some spare seedlings, try them in one of the window boxes. The old-fashioned *myosotis palustris* is generally considered too straggly for this kind of planting but the more compact variety, Ruth Fisher, which is a deep blue is just fine under tulips or hyacinths.

Since the Winter Pansies flower so much earlier than the Forget-Me-Nots, they are generally preferred but either one is excellent.

HYACINTHS—Are one of the most satisfactory window box bulbs. They can be relied on to do well in any season.

There is a wide range of sorts and colors to choose from. They are all sweet scented and flower a little earlier than they do in the garden.

The Pink Lady Derby Hyacinth with Celestial Queen Pansy makes a fine combination. Any good Red Hyacinth with Winter Sun Pansy is another good pair.

Hyacinths should be grouped in threes or fours for the best display.

TULIPS—The ordinary Darwin, and other generally-used garden tulips are too tall for most window boxes.

There are several short sorts, however, that are quite satisfactory. The **SINGLE EARLY**, **DOUBLE EARLY** and **RED EMPEROR** varieties all grow from 8-15 inches high.

There are many color varieties to choose from in these groups. The bulbs are for sale at the garden stores in Fall.

There are also several lovely varieties of **ROCK GARDEN** tulips that are fine for window boxes, such as *Clusiana*, *Eichleri*, etc.

The great value of all these tulips is that after they have served their purpose in the window box, they may be planted out in the garden, where they can be used for many succeeding years.

By using a fresh lot of tulips, (or hyacinths) of different colors each year the Winter Window Box may provide a new color scheme each year at little expense, and a good future display for the garden.

SMALL BULBS—As an edging to the box, especially on the side nearest the window a *very* early bright and colorful show may be arranged by planting a couple of dozen bulbs of *Crocus Muscari*, *Scilla Siberica* or other like bulbs. Because these bulbs flower much earlier than when they are in the garden, they generally provide Spring's first flowers in the Window Box.

The Parade of Daffodils



THE GENUS *Narcissus* forms a very distinct and natural group. Its popular name, Daffodil, is probably derived from the Greek *Asphodel*. In modern usage the terms *Narcissus* and Daffodil are synonymous. The daffodil is chiefly a South European genus and it does not extend into Asia beyond the Caucasus. It is native to many European countries and is without doubt the most beautiful European spring flower. The history of the daffodil since the Middle Ages is most interesting. It reflects in its popularity the varying fashions in gardening. It must have been very popular in the 15th and 16th centuries as it appears in most of the primitive paintings of that time and the wide distribution of the species outside of their natural habitats indicates that early travelers must have cherished and distributed them. When fashions changed and in the early parts of the 17th century artificial and more formal gardens were in the ascendancy, the daffodil seems to have lost favor and yielded its place in the garden to tulips, which lend themselves better to more formal planting. It was really not until the latter half of the 19th century that daffodils became a favorite flower again.

The earliest mention of daffodils in literature can be found in the works of the Greek author Theophrastus, especially in his "Enquiry into Plants", written about 300 B.C. The first reference in the Christian era appears in the rare "Herbal of Pseudo Apuleius", a ninth century manuscript written during the time of Pope Sixtus IV. This one copy can be seen in the abbey of Monte Cassino. Further references to the daffodil are found in later works of Greek and Roman authors, but it was really not until early in the 16th century that we find more complete records. At

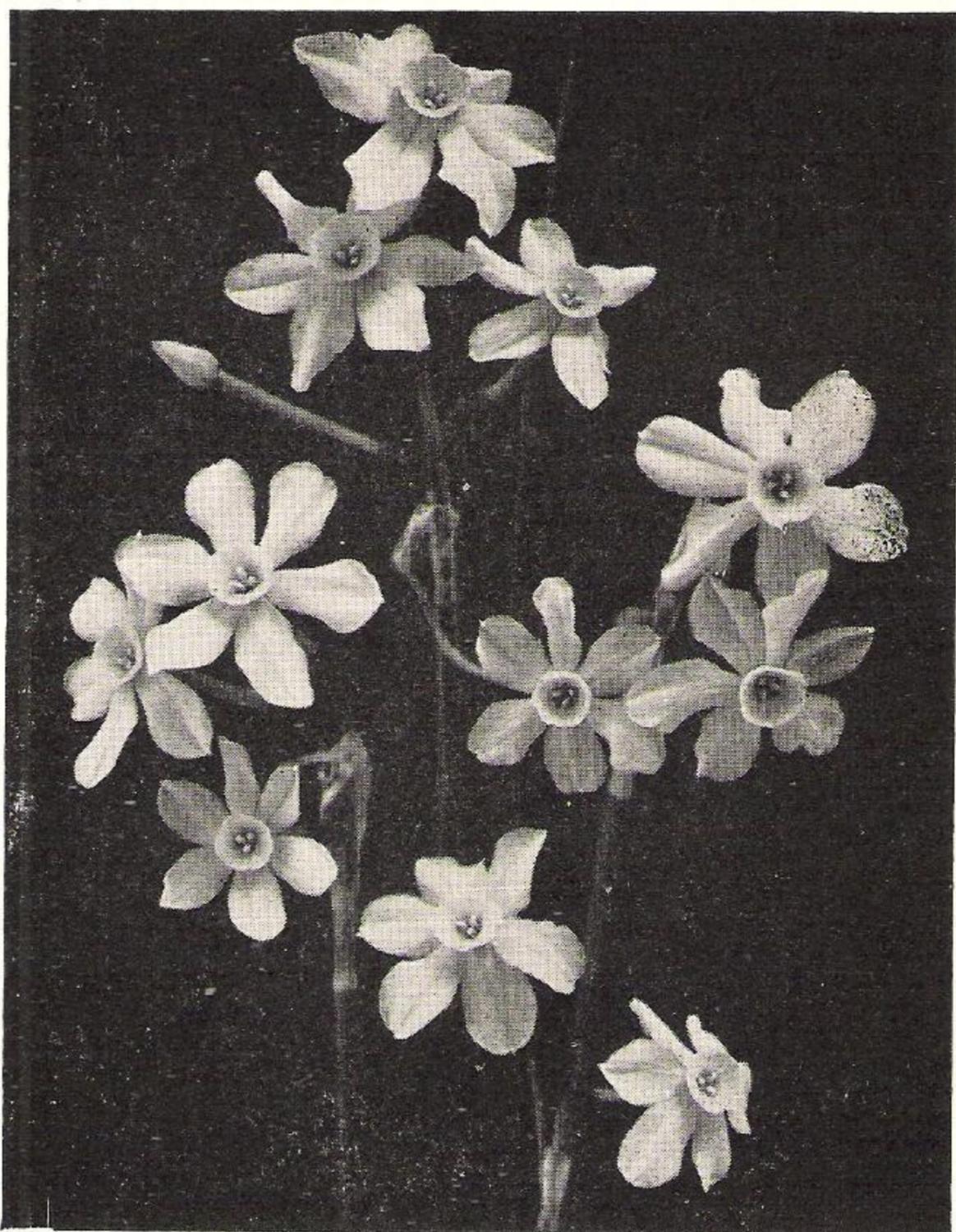


FORTUNE



DOUBLE DAFFODILS
TWINK, DUBLON, THE PEARL, ARGENT, ROYAL SOVEREIGN

that time the Flemish author Dodoens describes five kinds in his "Herbal". At the end of the 16th century came Gerard's Herbal, which described and illustrated several daffodils in quaint little woodcuts. The next mention of daffodils, and this time a very complete description, was found in Parkinson's famous "Paradisus Terrestris" of 1629. He divided the daffodils of that time into various groups according to the length of the cup or trumpet. His description of a trumpet daffodil, as we now call them, is amusing. The trumpet, he says, is as long as, or longer than "the outer leaves that doe encompass it, so that it seemeth rather like a trunke or long nose than a cup or chalice, such as almost all the true Narcissus or true Daffodils have." He devoted some forty pages to woodcuts and quaint descriptions of nearly one hundred varieties.



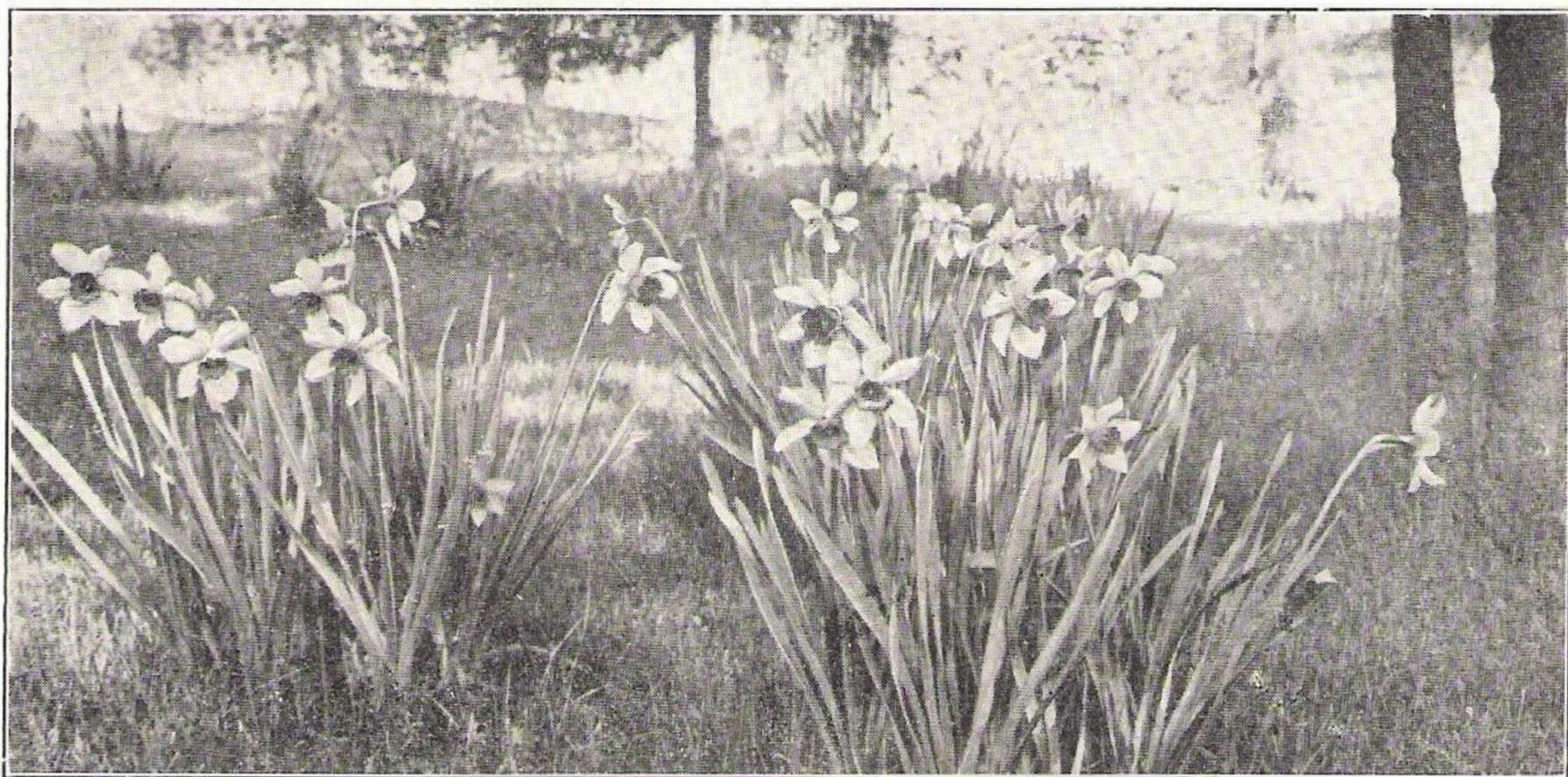
*Jonquils
centuries old
yet still favorites
in most gardens*

JONQUILLA SIMPLEX

After Parkinson, little mention was made of the daffodil in literature until the year 1724. In that year Miller's "Gardeners' Dictionary" appeared with a full account of the daffodils then grown.

Little more was written about the daffodil until the early 19th century when another great botanist, Salisbury, published his "Cultivation of Rare Plants" (1812). Following this great work came the notable Narcissus

Monograph by Adrian Hardy Haworth, published in 1831. In the meantime another famous botanist was studying the genus *Narcissus*, the Hon. and Rev. William Herbert, and in his magnificent work "Amaryllidaceae" he classifies and describes some 150 varieties. At that time several amateur growers were getting interested in raising daffodils from seed and one of them, Edward Leeds of Manchester, England, raised some notable seedlings. About 1840 he wrote to a friend: "I think much remains to be done in the production of fine hybrids of this beautiful tribe of plants, and it may be mentioned, these are not ephemeral productions like many Florists' flowers, but will last for centuries with very little care, as the common kinds have done in our gardens." In 1874 Leeds, ill and crippled, decided to sell his whole collection of daffodils, then consisting of 169 distinct and new varieties. No buyer came forward and Leeds sadly directed in his will that after his death all his notes and bulbs were to be destroyed. However, a young Londoner, Peter Barr, an ardent gardener, heard about the Leeds collection. Not financially able to raise the hundred pounds that were asked for it, he formed a syndicate, which finally acquired the Leeds collection a total of 24,000 bulbs and seedlings. Peter Barr retained half of this collection and it formed the nucleus of his later, so famous and complete collection.



After Leeds came another amateur, William Backhouse, who raised some remarkably beautiful flowers. When he died in 1869, Peter Barr also bought his complete collection, consisting of 192 distinct sorts. He then owned a total of 361 varieties of new daffodils. Since Barr's nurseries were not large enough to hold this very valuable collection, he sent the larger part to his old and trusted friend, Simon Adrian de Graaff of Leiden, Holland. Already before that time Simon de Graaff had been raising new daffodils from seed. Now with this collection to draw from as well, he saw his opportunity and soon introduced an entirely new race of daffodils, the most famous of which was the well-known *Madam de Graaff*, a very large

white trumpet daffodil, according to the standards of the time. This variety was shown in London in 1887, and received a First Class Certificate from the Royal Horticultural Society. It created quite a stir among daffodil enthusiasts, due in some measure to the high price that was asked for it, \$25.00 a bulb. This was the first time a high price was asked for a new daffodil, and the year 1887 marks the beginning of the daffodil industry as such. The great popularity of the daffodil, that has increased so rapidly since that date, is of course, in a large measure due to the wonderful development which it has undergone in the hands of subsequent hybridisers. Barr & Sons commenced making crosses in 1884, and at the beginning of the century, brought out some very fine daffodils, notably Peter Barr and Lord Roberts. At the same time another very keen gardener, the Rev. George Engleheart, was raising new daffodils, and became, perhaps, the greatest single contributor to the wealth of types and colors we now have in modern daffodils. He was responsible for the development of the Poeticus family and also raised some good double daffodils.



*Carter's of London
first sold
King Alfreds
for a guinea a bulb
in 1912*

KING ALFRED

John Kendall, another of the amateur growers, had more luck than any other hybridiser, yet he did not live to see his supreme achievement. His greatest creation, the Yellow Trumpet, King Alfred, did not flower until after his death. His sons offered bulbs of this variety for the first time in 1900 at \$30.00 each. Next to these three hybridisers, we must place Mrs. R. O. Backhouse, who commenced raising daffodils in 1888. She is largely

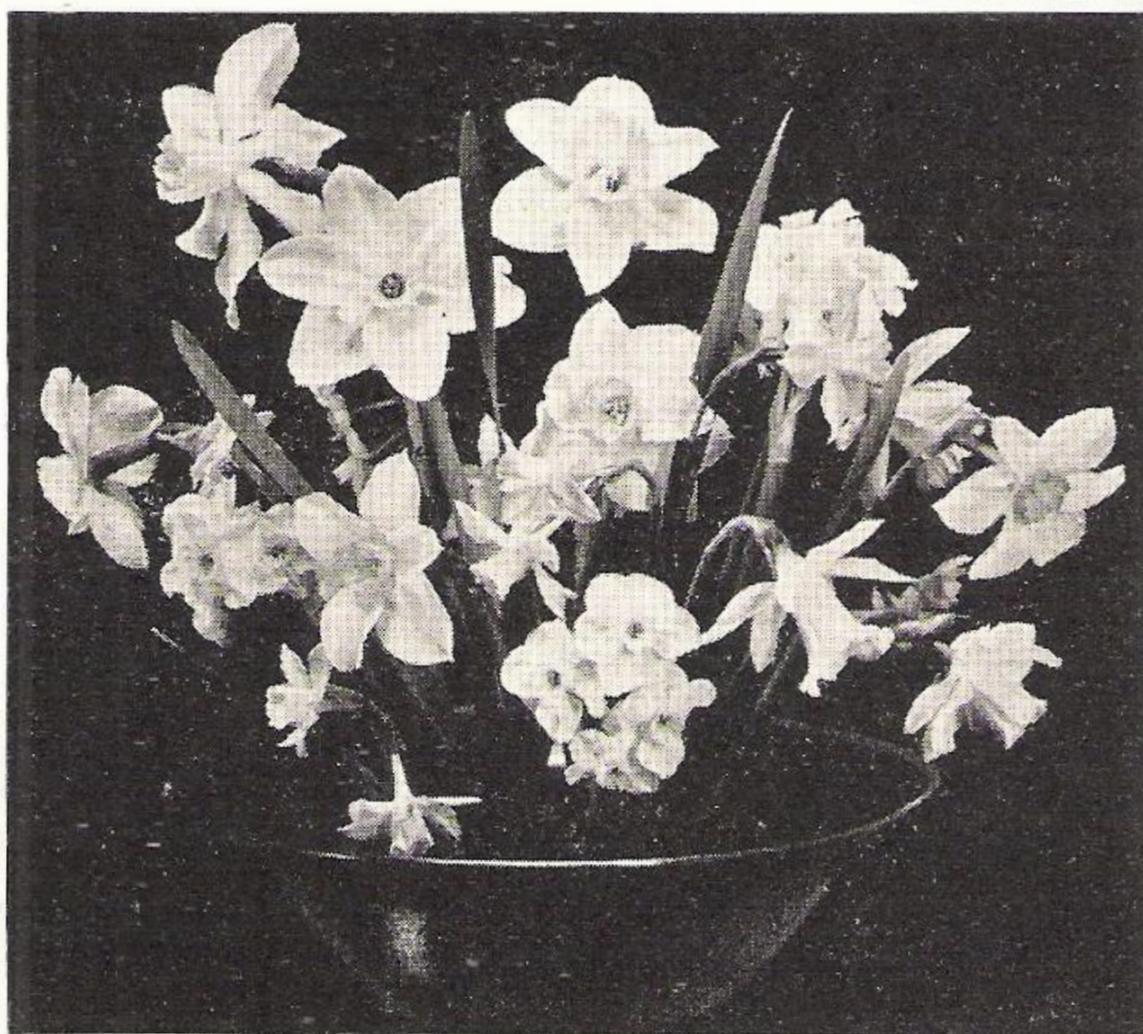


SILVANITE

responsible for the many splendid red-cupped daffodils that we see at present. While daffodils had thus been grown in Europe as garden varieties from early in the 15th century, it was not until the latter part of the 19th that they began to attract the hybridiser and the general public. It is interesting to note that these late 19th century hybridisers had all been producing flowers different from one another and in such a marked way that one can almost identify the raiser by the nature and type of seedling they produced.

NORTHWEST BULBS

Shortly before World War I, several Puyallup Valley farmers imported some Narcissus bulbs from Holland and England. Among the best known of the group were Frank Chervenka, Hamilton Gronen, George Lawler and Charles Orton, mostly extensive raspberry farmers, who took this up as a hobby.



*Daffodils
now grown by the
millions in
America*

Then our Government stepped in. The U. S. Department of Agriculture calmly announced that Daffodils grown from these farmers' Northwest bulbs flowered two weeks in advance of imported ones, especially when forced in greenhouses.

Then Congress passed the law preventing European bulbs' being imported after 1926 on account of danger of diseases and pests.

The Hollanders soon found that the soil and climate here was even better for Daffodils than their native land. Many moved here. Today there are several large farms from B. C. to the Siskiyou, located at Lynden, Puyallup, Sumner, Tacoma, in the Skagit area between Mount Vernon and La Conner, and in the Grays Harbor district in Washington; also in several areas of Oregon including Sandy, and the fertile river valleys south of Portland. Here millions of Daffodils (and other bulbs) are grown each year and shipped to every area of this great country.

There are only two other places in the World where Narcissus are grown commercially in any quantity—both of these in Europe.

Some of the largest fields of Daffodil bulbs are located in Holland. The other important areas are all located on the East coast of England in the Romney and Lincolnshire marshes.

In any event it is quite reasonable to expect that there will be an annual demand for the millions of bulbs grown in this great Northwest.

AN ANCIENT FLOWER

In Ancient mythology, Narcissus was the vain, beautiful youth who sighed his life away at the margin of a woodland pool, for the love of his own image reflected therein.

From this ancient information we know, quite correctly, that the Daffodil's natural or wild home was near water—either a pool or a stream—that they grew under the woodland trees (deciduous) and that it was noticed that the flowers hung their heads—generally over the water's edge as if trying to admire themselves in the reflection.

Actually the flower head hangs in that manner as nature's marvellous arrangement to prevent rain or dripping moisture from the trees getting to the inside of the flower's cup and wetting or rotting the pollen grains, that have to remain dry to function and set the plant's seeds.

Shakespeare speaks of:—

Daffodils, that come before
the swallow dares
And take the winds of March
with beauty.

and mentions it also as the "Lent Lily."



*Ideal for
table
decoration*

The Daffodils provide the first big color show of the spring. There are some of the minor bulbs which bloom earlier, such as the crocus and

the snowdrop, but for quantity and wealth of color, we look to the Daffodil first.

Coming into bloom before the trees have leafed out and the sun is still mild, they make a delightful display. If you will place them under trees in colonies, they will be partially shaded as the season advances and continue blooming for a longer period.



*Tuck the bulbs
in vacant garden
spots where
Spring color
is desired*

Another most effective practice is to tuck in bulbs in vacant spots all over the garden between other perennials and under the edges of shrubbery so that in their season the Daffodils give character to the entire garden and then their leaves, which are unsightly and floppy during their maturing period, are concealed by the foliage of the perennials which mount above them and provide shade for the Daffodils. For this purpose, the older and cheaper Daffodils and Narcissus are ideal and furnish as fine an effect as can be obtained by the larger flowered and much more expensive modern hybrids.

The poeticus types are favorites for woodland planting in combination with bluebells, mertensia, and the wood phlox (*phlox divaricata*) and the white wood lily, *trillium grandiflorum*. In the garden they are in season with the early tulips, the dwarf irises and smaller spring bulbs.

Some of them are delightfully fragrant and are prized for this feature as well as their beauty. The Narcissus family offers the first long-stemmed cutting material of spring. They are ideal cut flowers as is shown by the quantities of Daffodils forced and sold by florists each winter.

ORDER OF FLOWERING

The first Narcissus to flower are the Rock Garden sorts such as *Cyclamineus*, *Minimus* and *Triandrus* Hybrids. February Gold, The First and several other Daffodils come next, closely followed by *Campernelle* Jonquils and the old Von Zion Double Daffodil (which is now practically unobtainable). The Trumpet Daffodils in a hundred varieties and many of the short-cupped kinds in an equal number of pleasing selections follow closely, with the Poetaz, Poeticus (*Pheasant's Eye*) and many double sweetly scented sorts concluding the display.

Classifications of the various types of narcissus are made according to the length of the trumpet as compared to the perianth. (The "trumpet", "crown", or "cup" is the name given to the center portion of the flower; the "perianth" is the surrounding row of petals or wings; and a "segment" of the perianth is one of these outer petals.)

The major groups are:

1. TRUMPET (sometimes called Giant Trumpet)—with trumpet as long or longer than the perianth segment. This group has subdivisions including yellow trumpet, white trumpet and bicolor and is commonly spoken of as "trumpet daffodils".

KING ALFRED—"King of the Golden Daffodils." Tall, vigorous, golden-yellow flower of elegant form. The expanded trumpet measures 2½ inches in diameter, the perianth is proportionately large. Still the best sort for the home garden because of its immense size and perfect deep color.



TRESSERVE (Trumpet)

TRESSERVE—One of the leaders among the new giant Trumpets which is rapidly becoming as popular as the ever popular King Alfred. Attracts immediate attention because of its size; the giant trumpet often measures two inches across at the mouth, and is deeply lacinated. Trumpet is rich canary yellow; perianth, a shade lighter. Strikingly individual appearance.

SPRING GLORY (Bi-Color)—Long chome-yellow trumpet with reflexed brim; clear white perianth. Is a large flower with beautiful form and excellent stem.

THE FIRST—Perianth and trumpet of sulphuric yellow. A robust grower. Valuable as a cut flower because of its earliness. Blooms by March first. "The First" of the Trumpet Daffodils to flower.

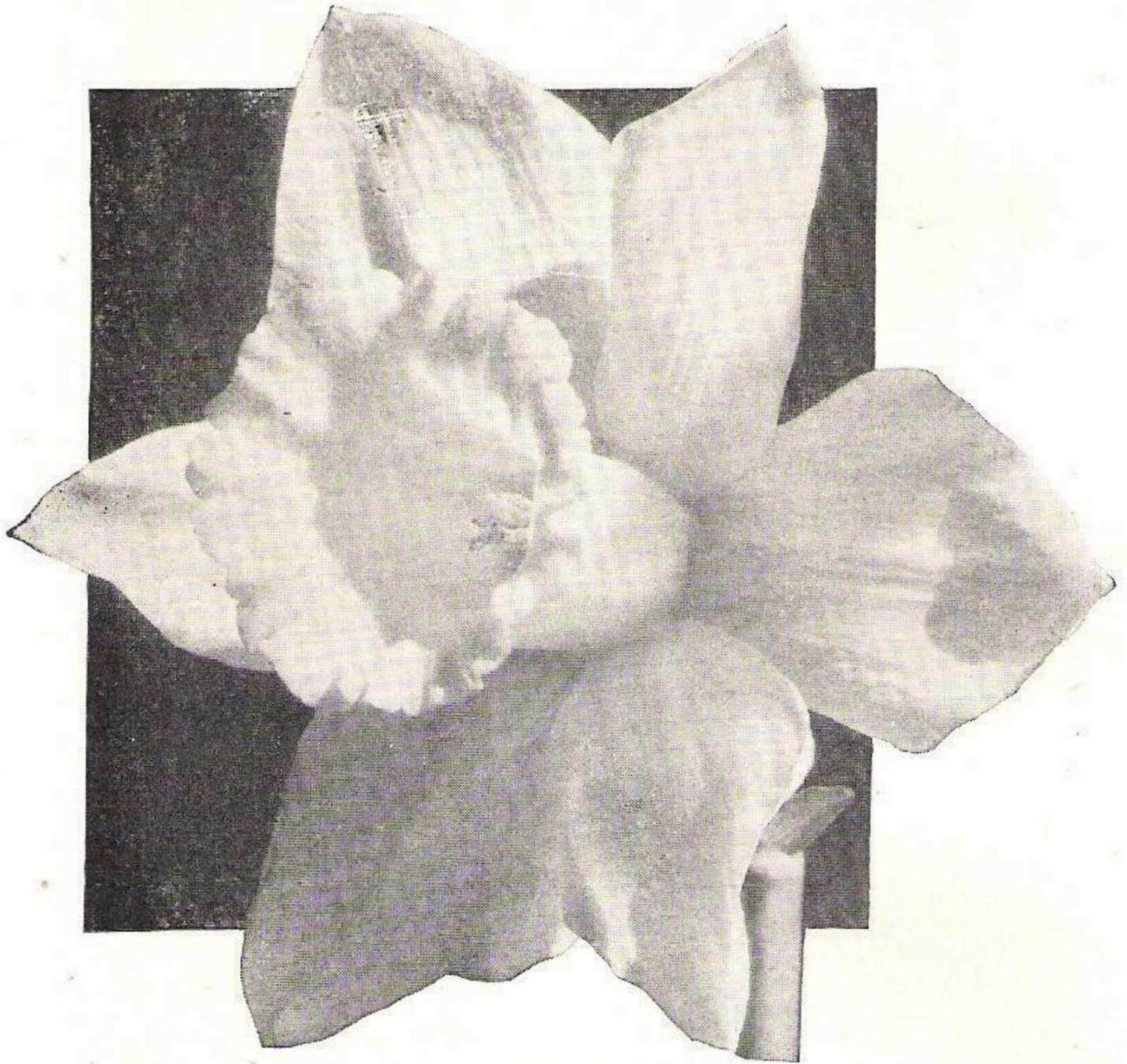


OLYMPIA (Trumpet)

MRS. JOHN C. BODGER—Considered by many one of the most exquisite of the white daffodils. Is a semi-dwarf hybrid of medium size with a pure white star-shaped perianth and a narrow and fluted trumpet. The ivory white of the perianth and trumpet is in stunning contrast to the blue green foliage. Unexcelled for garden and border, as well as one of the very best varieties for pot growing.

LOVENEST—A distinctive member of the rare "pink daffodils" class, and one of the daintiest of all trumpets. Starry-shaped white perianth and a nicely proportioned trumpet of saffron yellow turning to apricot pink. Very early and very charming at all stages.

MRS. R. O. BACKHOUSE—The famous "Pink Trumpet Daffodil" and indeed a very beautiful flower. The fine informal perianth is ivory white and beautifully proportioned; the long, slim trumpet is apricot pink, changing to shell pink at the deeply fringed edge. There is a delicate beauty about the whole flower that is impossible to describe. It has great substance, is an early bloomer, and long lasting. This flower belongs in every garden.

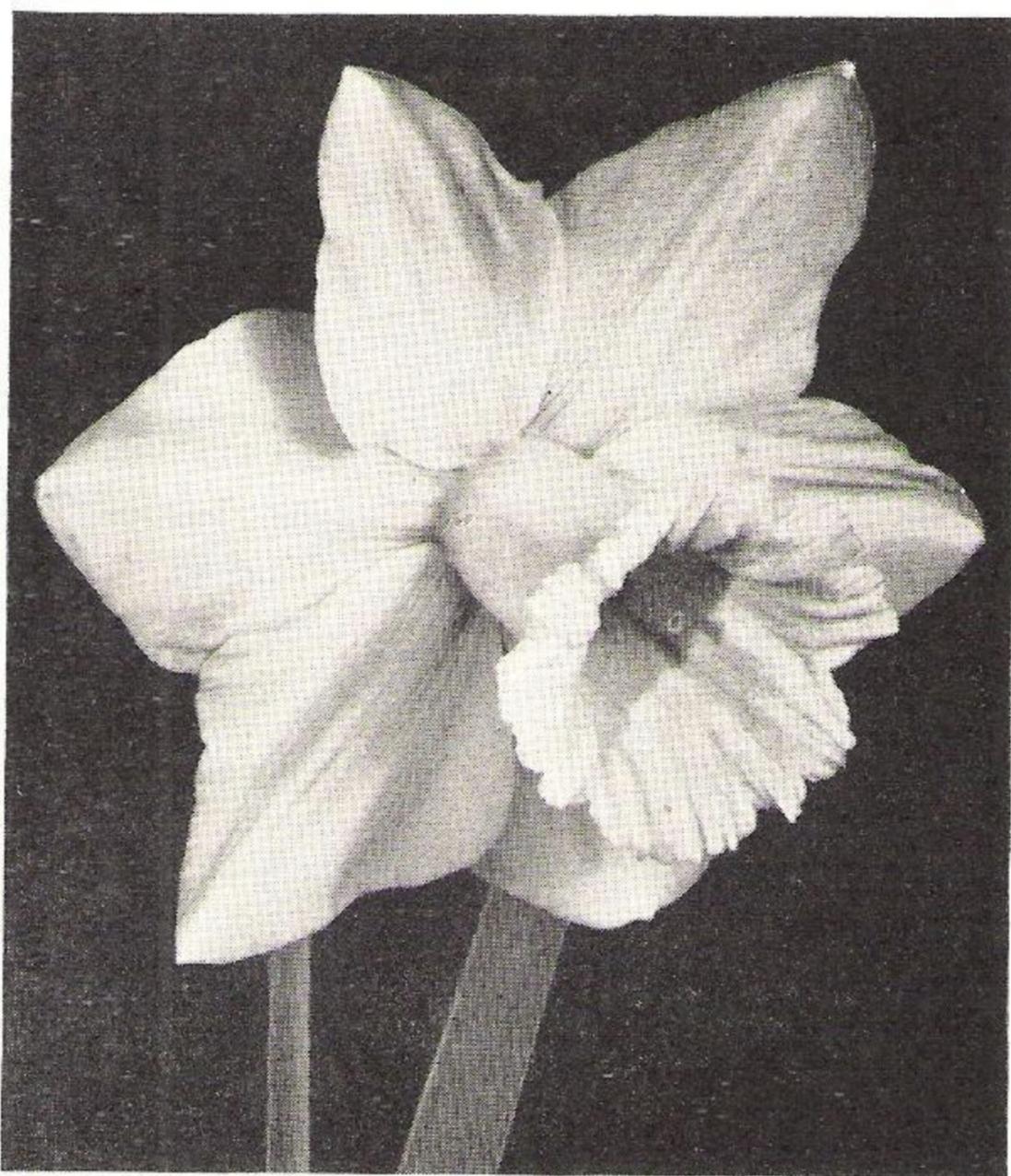


MRS. E. H. KRELAGE

MRS. E. H. KRELAGE—A very distinctive flower with pure white perianth and a creamy white trumpet which changes to white as the flower matures. Lovely in bouquets with contrasting colors. Flowers have smooth, waxy texture and exquisite form on long, strong stems.

STATENDAM—An extremely large golden yellow Trumpet Daffodil of superb yet graceful proportion. Massive overlapping deep golden yellow perianth; large, flaring, well-formed trumpet.

AEROLITE (de Graaff). Early. There is considerable similarity among the bulk of the early blooming yellow trumpets but this one is quite distinctive in form and color. A light yellow flower with broad petals forming a very flat perianth which stands at right angles to the medium sized somewhat narrow trumpet. Most desirable for cut flowers.



BEERSHEBA

BEERSHEBA—A very outstanding large white Trumpet. A magnificent white flower. Large, perfectly flat perianth; trumpet long and beautifully flanged at mouth. A flower of great size, measuring nearly five inches across; a vigorous grower and a grand variety.

2. INCOMPARABILIS (sometimes called Medium Trumpet) with a cup or crown less than the length of the perianth segment, but at least one-third as long. Usually spoken of as Incomparabilis Narcissus. The Incomparabilis group are garden hybrids between Yellow Trumpets and Poeticus (see Class 9). They are perfectly hardy.

FRANCISCA DRAKE—A strikingly beautiful Incomparabilis variety. Pure white perianth petals are of unusual substance, an inch and a half wide, and tinted gold at the base, which shows through on the outside; the cup, wide and deep, is golden yellow at the base, changing gradually to flame-orange at the densely frilled edge; the flowers are held well above the fine foliage and give the effect of a flock of white seagulls taking flight. Strong growing.

ADLER—An unusual flower of this class which has become a universal favorite. Perianth of the purest white, overlapping and opening nearly flat, circular in outline and 4 inches across, with a beautifully proportioned cup of pure chrome yellow, shading to blood-orange at the deeply frilled edge.

CARLTON—A fine clear yellow of great size. Flat overlapping perianth and large expanded crown frilled at brim; a magnificent variety. Very free flowering and a strong and sturdy grower.



DELAWARE



SHEHERASADE



SIERRA GOLD

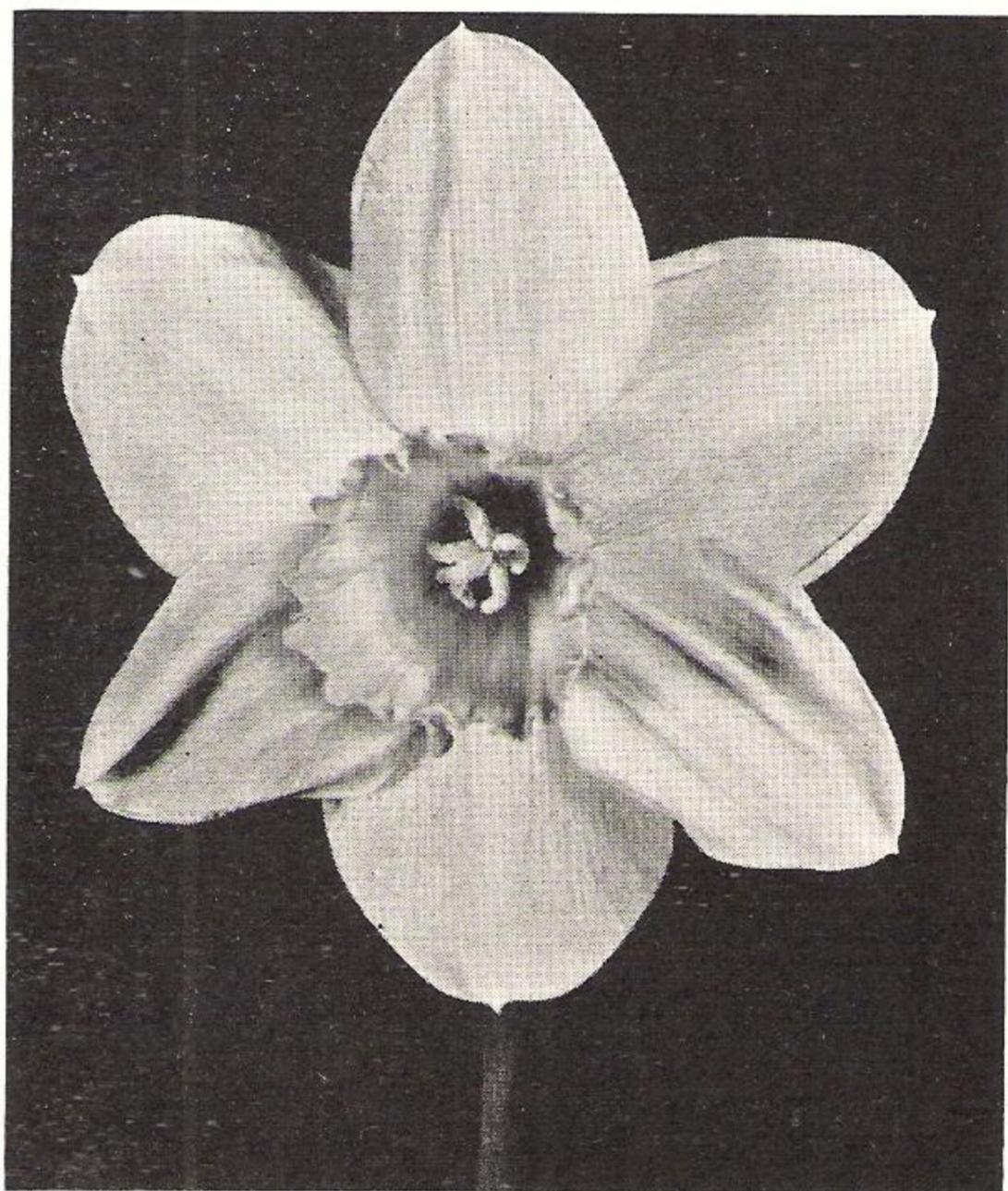
JOHN EVELYN—An outstanding favorite in the Daffodil world. Giant pure white perianth opens perfectly flat and is 4 to 5 inches across. The large flat cup of lemon yellow is densely frilled or shirred to the base. A flower of most refined appearance.

HADES—An Incomparabilis of wonderful color, large creamy white perianth of excellent substance; large expanded crown of a real deep cherry-red; a very strong, vigorous variety which holds its color exceptionally well.

PYGMALION—One of the finest of the new orange-cupped hybrids. Enormous flat perianth is of soft pale yellow color; a deep trumpet of orange-yellow shading to blood-orange at the nicely frilled edge; broad strong foliage and a tall stem with upright neck so that the flower looks up; extra fine.

FORTUNE—Broad creamy yellow perianth of very solid texture; crown of great size and elegant form, opening at mouth and beautifully frilled, of a soft glowing orange. A Giant of perfect form and strong constitution. Early. A new variety destined to be a great favorite.

DICK WELLBAND—One of the finest of the Incomparabilis class; a strong grower and a free bloomer. Perianth is pure white; the cup, a brilliant flame orange. Color does not fade but rather intensifies with age. Its great beauty lies in the startling contrast between petals and cup.

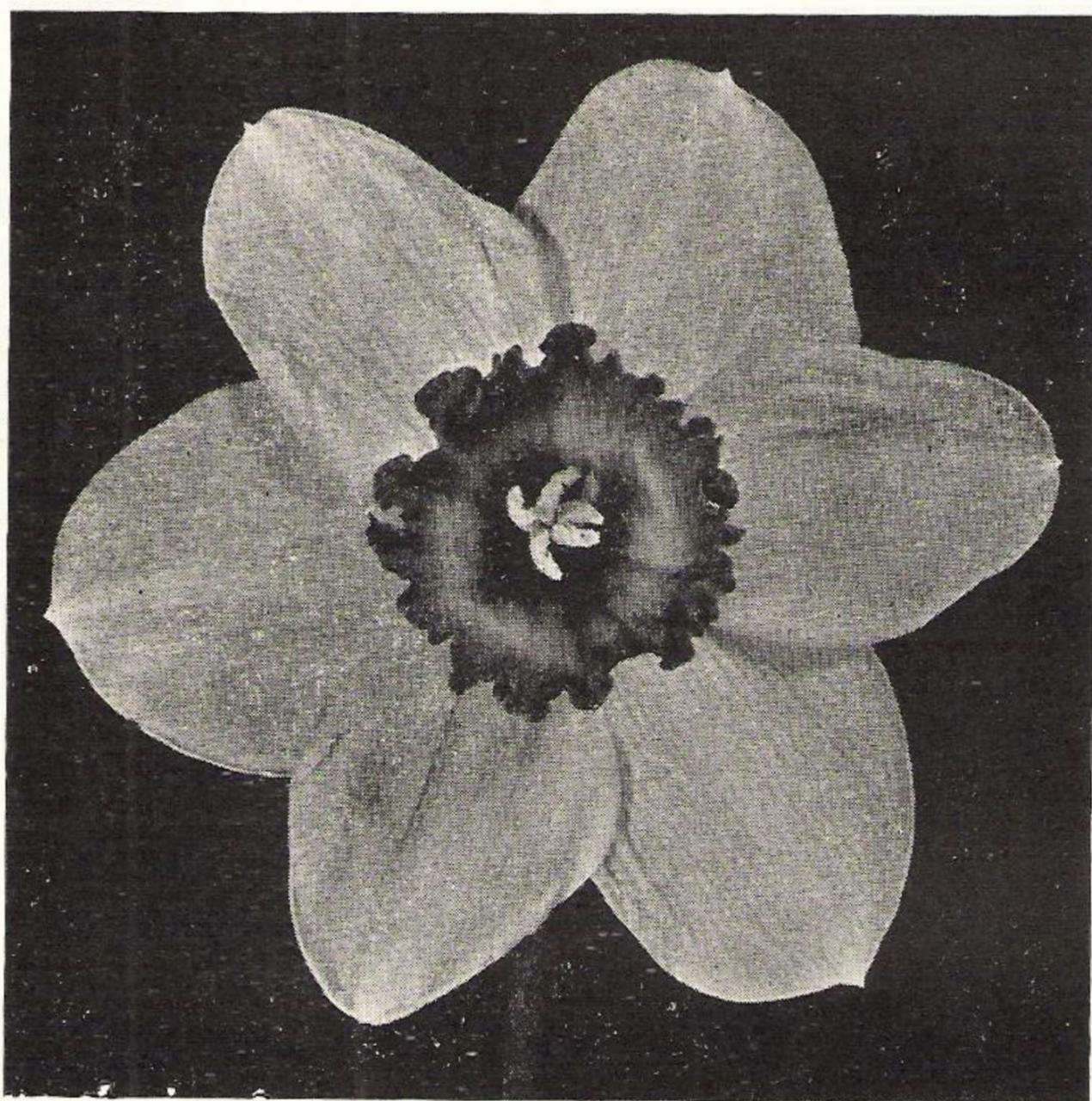


RED CROSS (Incomparabilis)

RED CROSS—A Crown Daffodil famous through the daffodil world. Extra large, strong flower, opening flat, primrose-yellow perianth and a deep, densely frilled cup of vivid orange-red. It is a substantial flower, with excellent keeping qualities and a fine garden variety.

SHEHERASADE—Tall and queenly, and beautifully proportioned. Large well-formed topaz-yellow perianth of overlapping petals. The broad heavily-frilled cup is pure chrome-yellow without the slightest trace of orange.

3. BARRII (sometimes called Short Cup Daffodil, or Crown Daffodil) has a cup less than one-third the length of the perianth segment. This group is the result of garden crosses between the Trumpet, Poeticus, and Incomparabilis groups. All are hardy.



DIANA KASNER

DIANA KASNER—This is an outstanding Barrii Daffodil having an ivory perianth with broad overlapping petals and a large fluted yellow to orange cup with blood-red frill. Unquestionably one of the very best varieties for all garden purposes where color is desired.

MAYFLOWER—A new and most striking short cup variety. The broad overlapping petals of the perianth are pure glistening white, with a dainty yellow eye picoteed bright red. Mayflower grows tall and is a lovely cut flower.

4. LEEDSII (sometimes called Chalice Cup Daffodil). This group is composed of hybrids between White Trumpet Daffodils and Poeticus. They comprise forms similar to both the Incomparabilis and Barrii groups, but the Leedsii's all have white perianth petals and white, cream, or very pale citron crowns.

OLYMPIA



SPRING GLORY



MRS. E. H. KRELAGE

CROESUS

RED
CHAMPION





DAISY SCHAFFER

DAISY SCHAFFER—One of the best of the remarkable new Giant Leedsii type; the flower, $4\frac{1}{2}$ inches across with cup nearly two inches, resembles a Giant Trumpet, but is much more graceful in form. Perianth pure white, with cup opening primrose and turning to light canary-yellow, deeper at the base.

SILVER STAR—Perfect broad-petaled, star-shaped perianth of pure cream white, with finely proportioned, wide mouthed trumpet of primrose, changing to cream white, just a shade deeper than the perianth. Long stately stems.

5. THE TRIANDRUS HYBRIDS for Rock Gardens. Flowers are drooping but graceful, with an elegant form.

THALIA—Often described as the "Orchid Narcissus", it is indeed a most beautiful and unusual variety. There are often three or four white flowers to each dark green stem; all the flowers, two inches or more across, making a very delightful cluster. Fine for corsages, rockeries and garden bed culture.

6. THE CYCLAMINEUS HYBRIDS for Rock Gardens—Having rich yellow trumpets, straight and tube-like, perianths reflexed as in a cyclamen, and very early flowering. Prefer a cool and somewhat moist situation.

FEBRUARY GOLD—A very fine and very early Cyclamineus Hybrid, its perianth is golden yellow with a large trumpet of the same color, tinged orange. It is exceptionally desirable because of its earliness and deep color. Good variety for rock gardens. Really flowers in February.

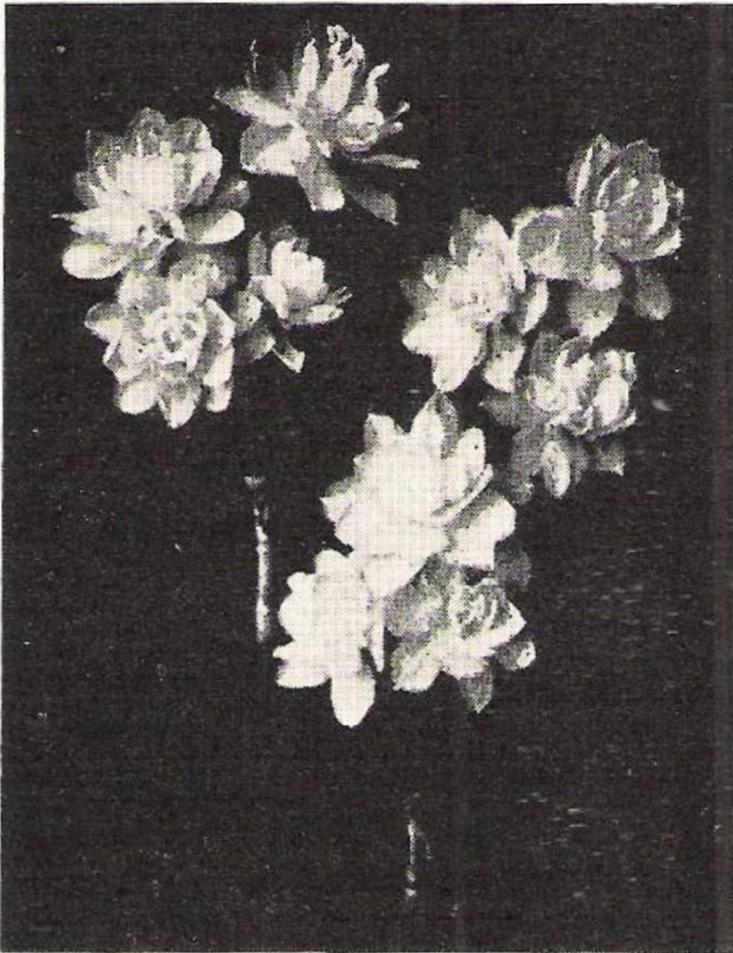


MOONSHINE (Triandrus H. 5 id)

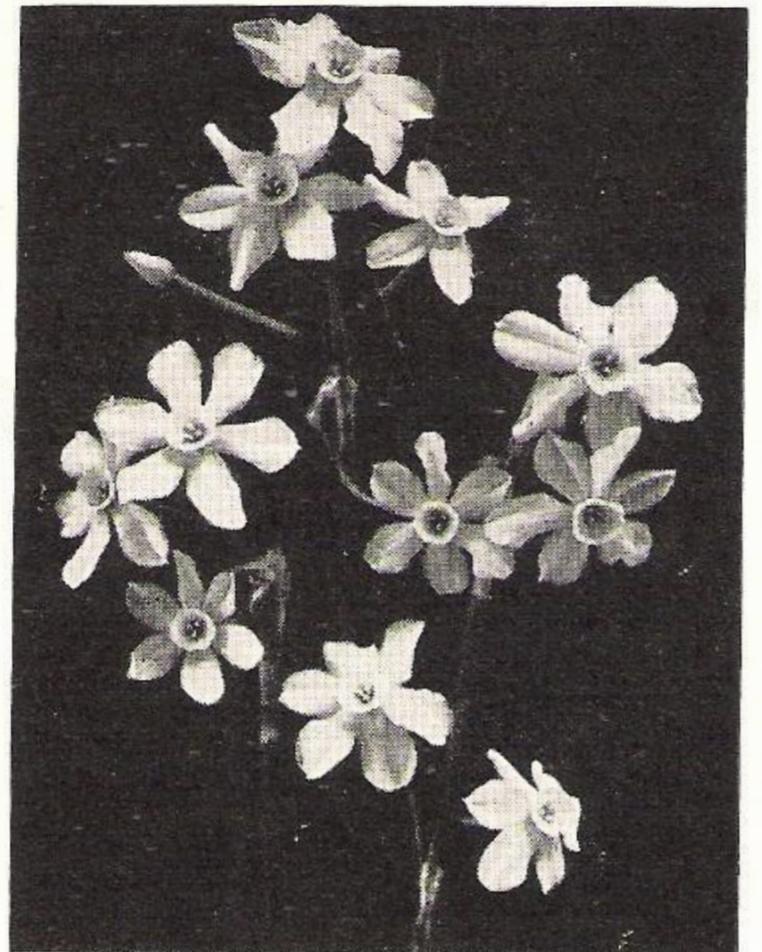


ROCKERY DAFFODIL, Wm. P. Milner

7. JONQUILS and JONQUILLA HYBRIDS—There are actually three subdivisions of this group:



DOUBLE JONQUILS



SINGLE JONQUILS

A. JONQUILS are perfectly hardy, small-flowered, sweet scented, yellow cluster-flowered with two, three or four flowers to a stem. This group has long thin rush-like foliage and blooms in May. Varieties are

Jonquilla simplex, single and fragrant; *Jonquilla flora plena*, double and fragrant; *Jonquilla citrinum* is a rare lemon form of the single.

B. CAMPERNELLE JONQUILS are the common garden variety with fragrant yellow flowers in clusters similar to the above but larger and flowering earlier. There are both single and double varieties with improved types "Giganteus and Regulosus" which are larger flowered and have a better form. Both single and double varieties have rush-like leaves.



*Jonquils are
pest free and
very fragrant*

JONQUIL CAMPERNELLE REGULOSUS

C. JONQUILLA HYBRIDS—These new and recent introductions all have flat foliage-like Daffodils (not rush-like as in the true Jonquils). Single flowers to a stem, practically no perfume. Flower with Darwin Tulips.

LANARTH—A beautiful and unique hybrid, deep golden overlapping perianth, shallow expanded cup, old gold flushed orange; a fine exhibition flower and garden plant.

SIERRA GOLD—A splendid flower of extremely rich coloring; an intense, pure buttercup gold, the beautiful little trumpet being reflexed and deeply frilled; it increases rapidly and makes an ideal daffodil for naturalizing or for the rock garden.

GOLDEN PERFECTION—This hybrid has won awards at every show in Holland and Great Britain. The flowers are long lasting with a



TUNIS

perfectly rounded perianth with wide overlapping segments, deep citron-yellow with mica-sheen, and cup of purest gold, finely proportioned for good balance; calyx grey-green flecked with gold. Excellent for cutting and flower arrangements. Unique in its class.

8. POETAZ NARCISSUS (sometimes called Hardy Cluster-Flowered Daffodils). These are new hybrids between the Poeticus (Class 9) group; and the Polyanthus Narcissus, which comprise the tender bunch-flowered groups for indoor growing such as the Paper Whites. The Poetaz group are hardy, healthy, and strong growers. They form large luxuriant clumps and will do well for indoor culture as well as outdoors. They are all intensely fragrant.

*All Poetaz varieties
are strongly
perfumed and
last well indoors*



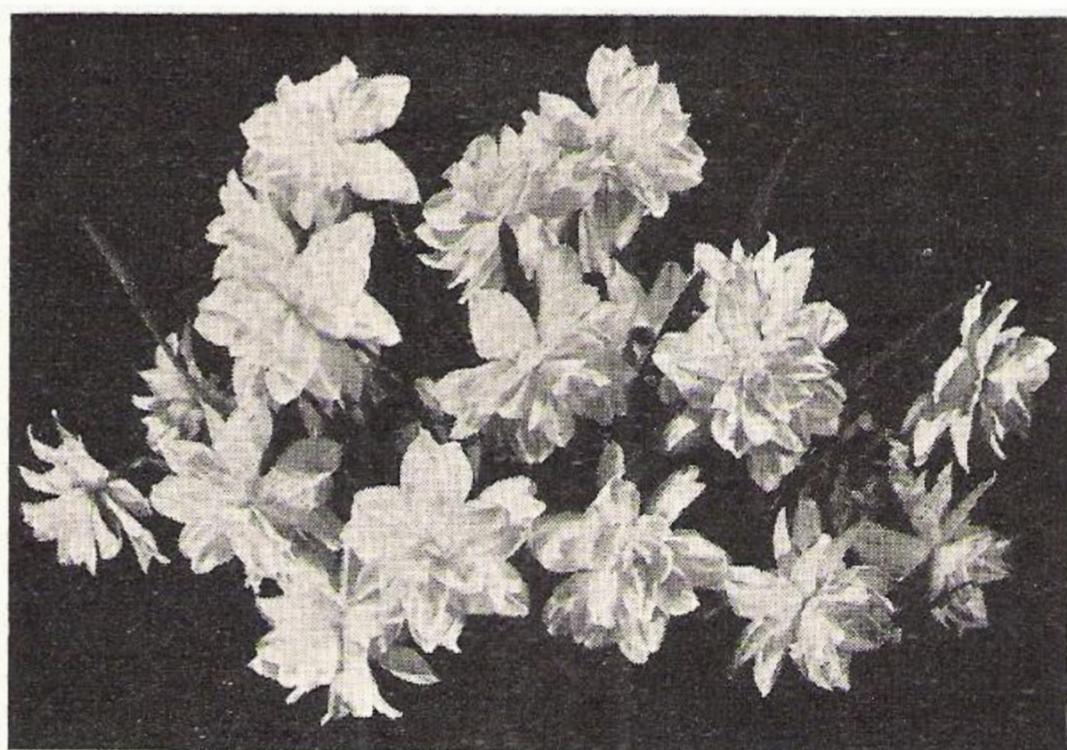
LAURENS KOSTER (Poetaz)

LAURENS KOSTER—Creamy white perianth and lemon yellow cup, usually 5 to 7 on a stem. A very satisfactory garden variety and excellent for growing in the house. Free flowering; fragrant.

ELVIRA—Three and four fragrant flowers to the stem with creamy white perianth and cup of bright yellow with faint margin of orange.

LA FIANCEE—Fragrant flowers are large and well placed on long stems. The flat cup of rich tangerine orange is set off by a large overlapping perianth of pure white.

SCARLET GEM—Primrose-yellow perianth and brilliant orange-scarlet cup; four or five fragrant flowers to the stem.

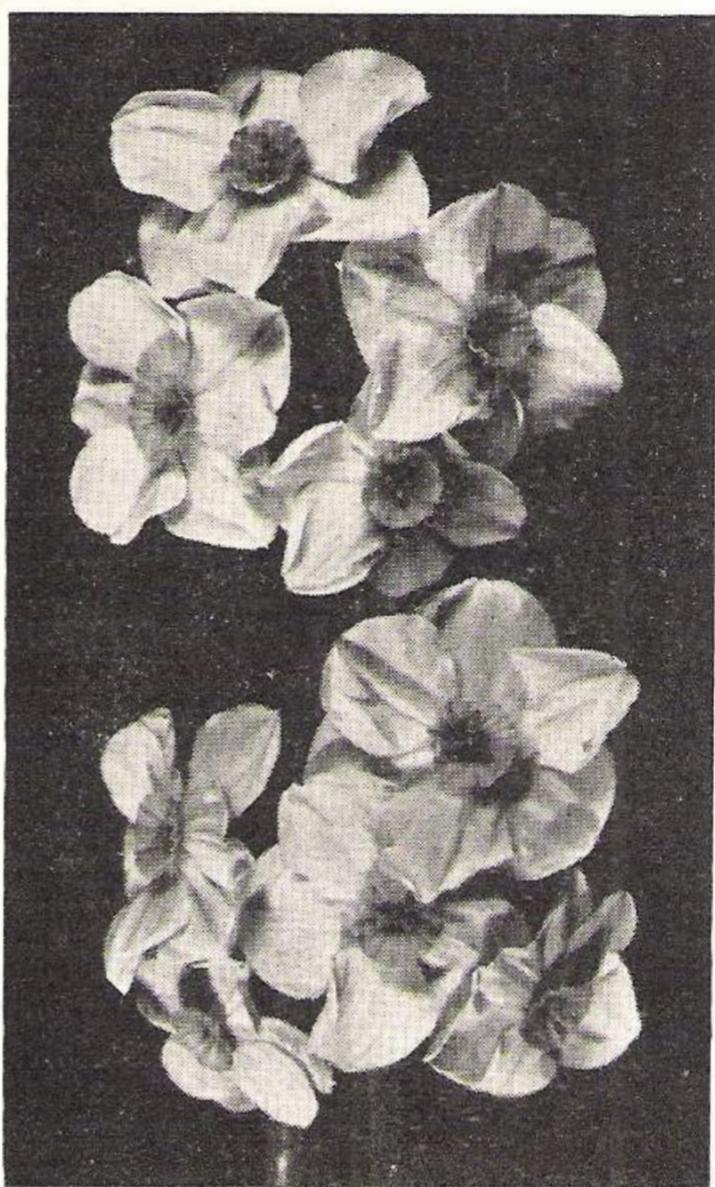


THE PEARL

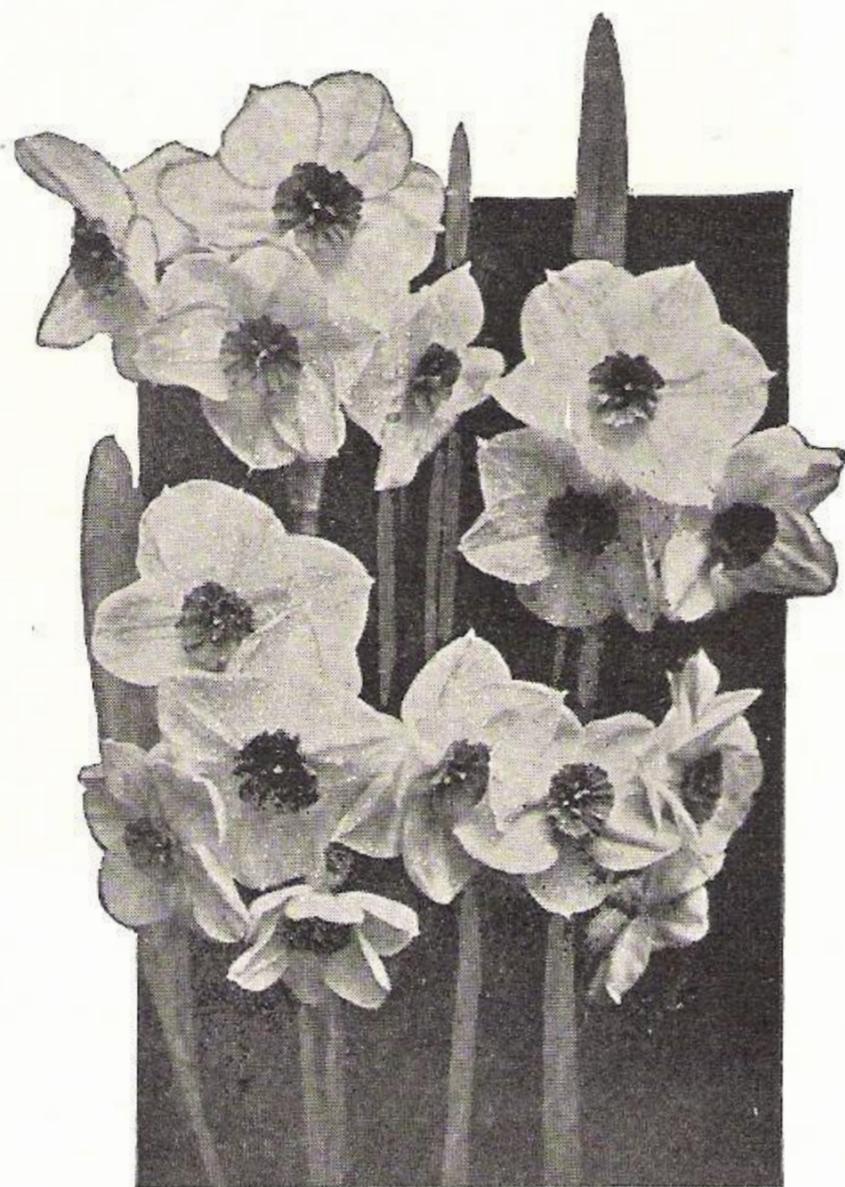
*The Pearl and
Daphne are
lovely for corsages*

DAPHNE (Double)—A pure white double Poeticus of the Gardenia-type, of exquisite beauty. Sweet scented flower has excellent form.

CHEERFULNESS (Double)—This double Elvira is a very attractive variety with clusters of pleasing double white flowers. Erect stems, each bearing clusters of small blooms with broad, rounded creamy white perianth and full double center of creamy white and yellow. A fine garden variety.



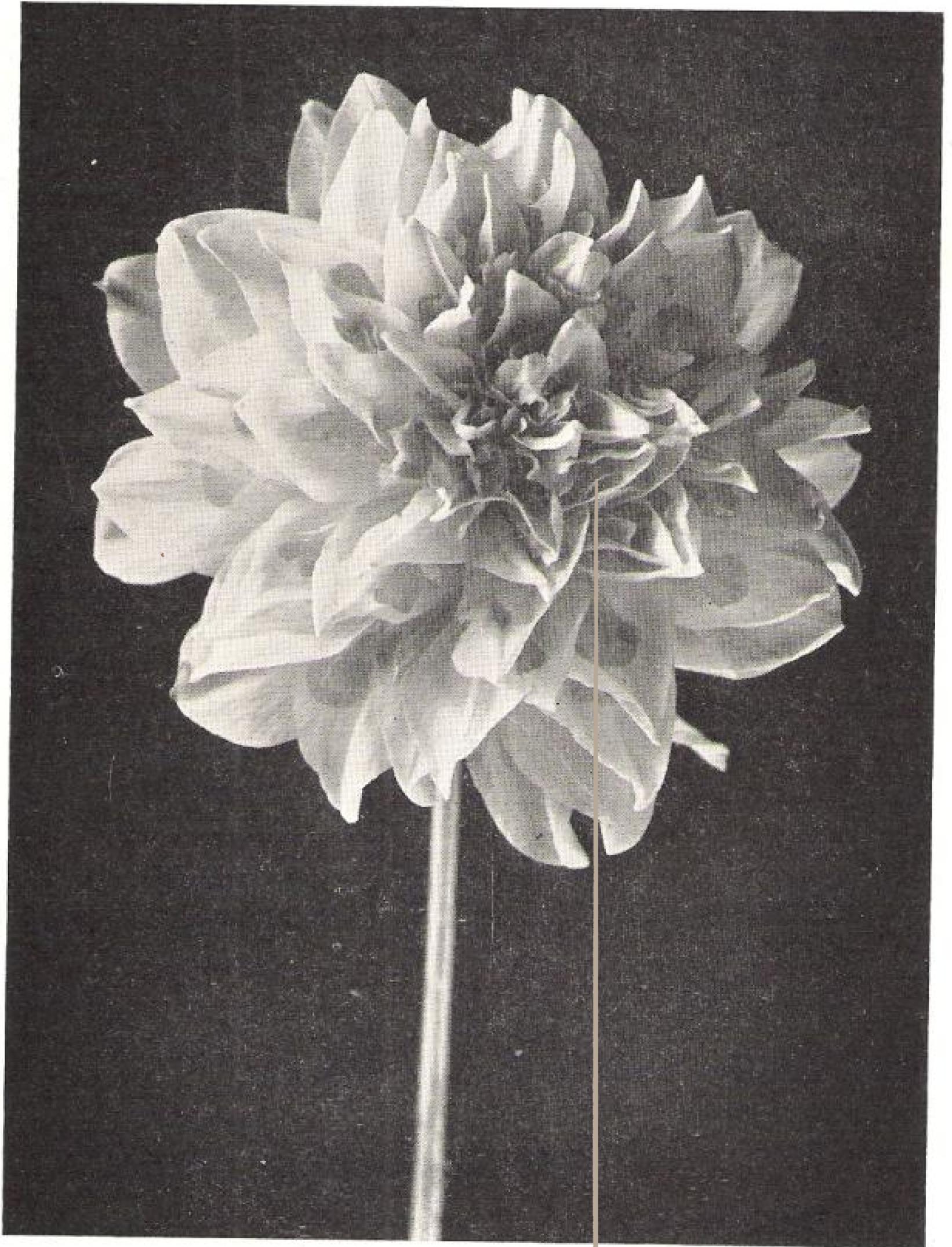
ELVIRA



SCARLET GEM (Poetaz)



ECLAIR

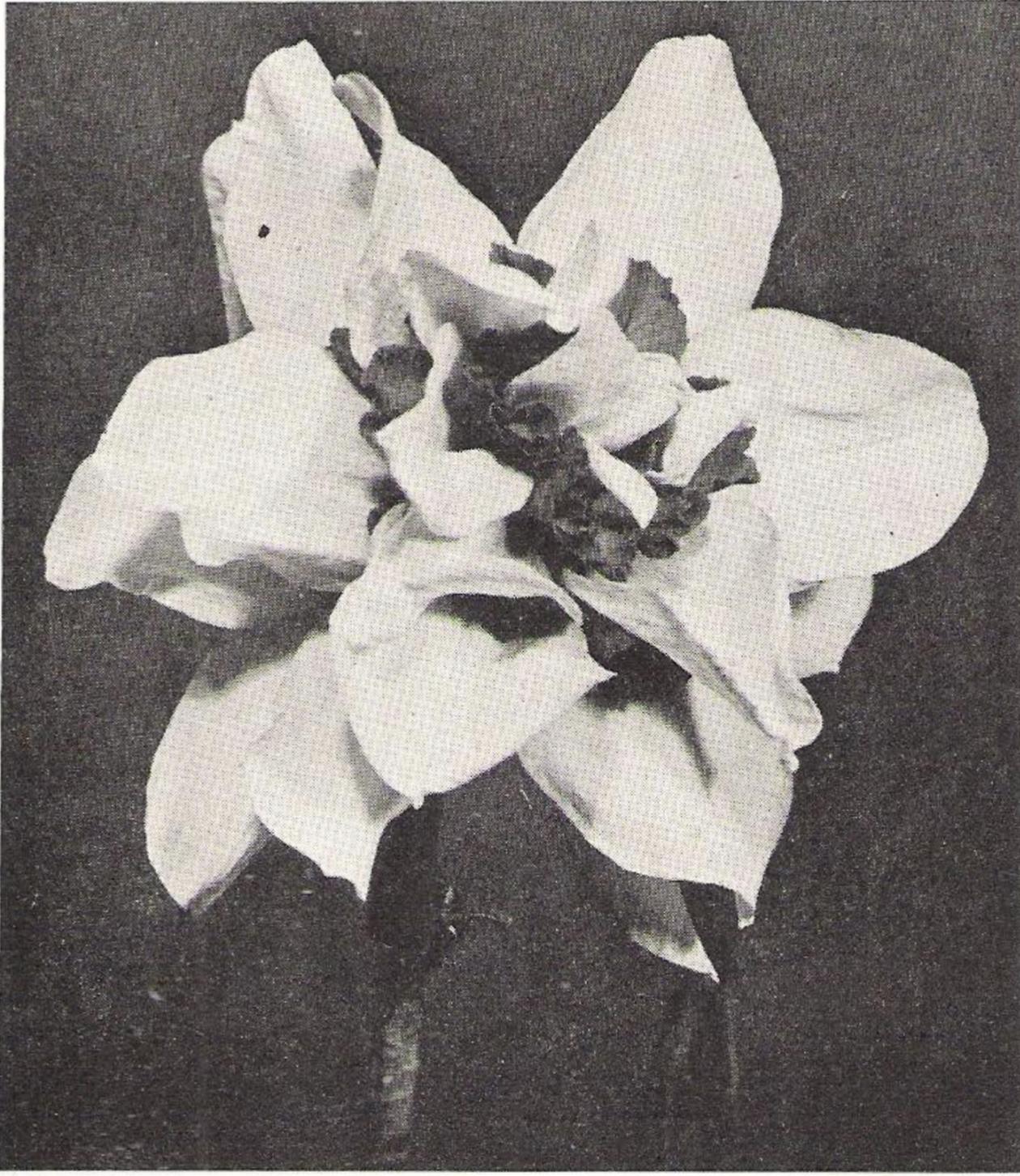


IRENE COPELAND

9. POETICUS NARCISSUS. The Poeticus group has broad, rounded petals of white, opening out flat, with shallow cups bordered with crimson or scarlet and spicily fragrant. Very hardy and fine for naturalizing.

ACTAEA—The largest Poeticus and a most attractive flower, beautifully proportioned. Broad snow white perianth of great substance and good form; has small Pheasant's Eye, reddish cup.

10. DOUBLE NARCISSUS or Double Daffodils which stand up stiffly although the flowers are large. Several varieties should be in every garden.



TWINK

TWINK—A double of the semi-full type, the petals alternating a soft primrose and clear orange, and so arranged as to give the flower a most attractive appearance and to make it a most adaptable flower for decorative work.

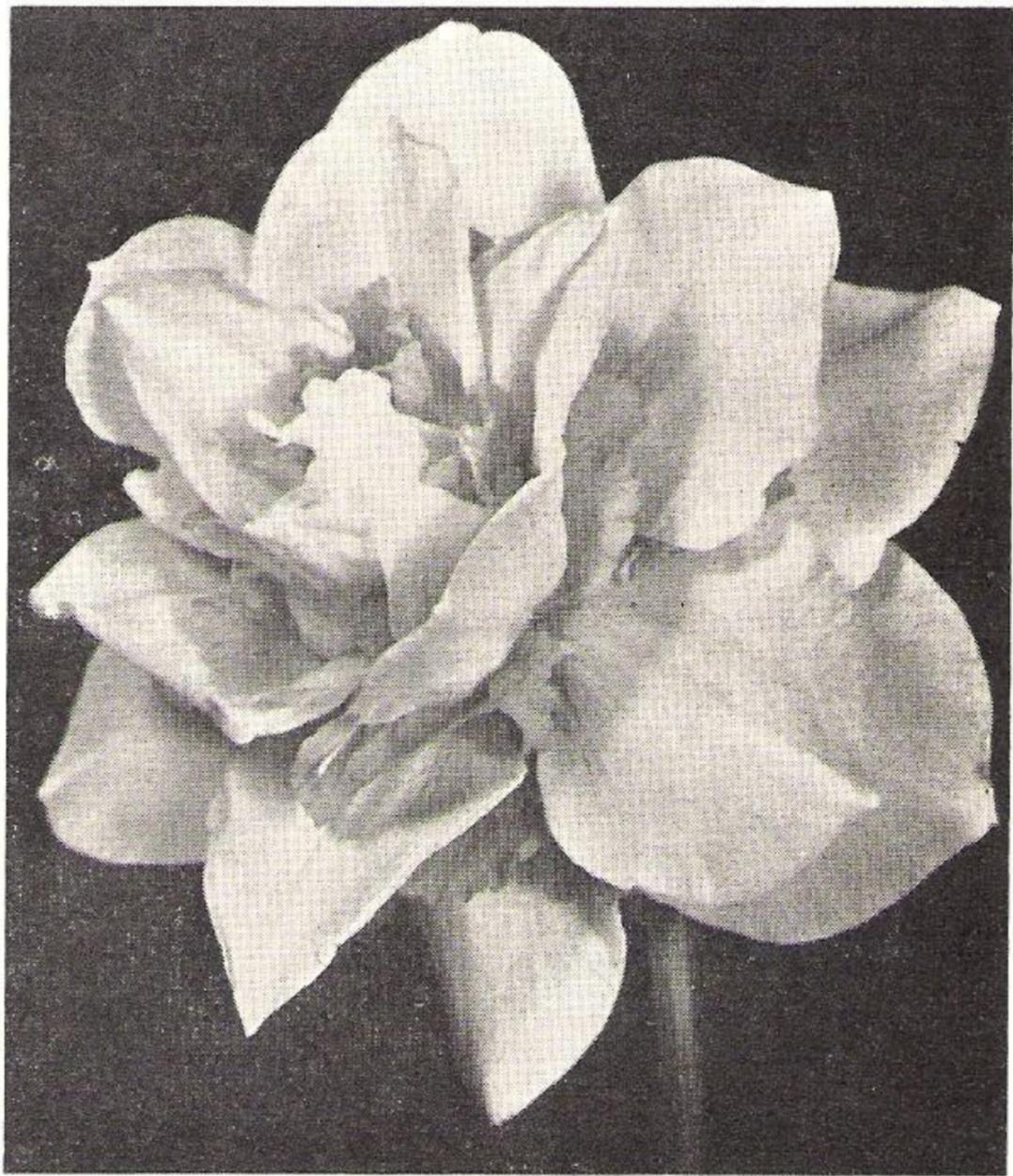
VAN SION—A full double pure yellow flower that blooms freely and early and is a very good forcer. One of the good old dependable kinds you could always count on but now practically obsolete.

ROYAL SOVEREIGN—A valuable addition to the Twink group, most graceful of all in form, and the most charming, if not the most striking, in coloring; creamy white interspersed with crinkled and frilled trumpet petals of primrose-yellow, shading to pale primrose as the flower develops.



CHEERFULNESS

*Texas is like
a much improved
Twink, with a
stronger stem*



TEXAS

TEXAS—Flowers are well doubled; pale yellow interspersed with brilliant orange; very late. The large flowers are carried stiffly upright on long, strong stems. The effect of the flower is very striking. Best of all the two-toned doubles.

CULTURE

Since Narcissus originally grew wild in light rich sandy soils, they will do best if this is provided in the garden. If your soil is heavy or clayey, mix in plenty of sand, peat moss, and humus.

Daffodil bulbs are generally left in one position for several years, so see that the planting area is not only well drained in winter but that there is plenty of moisture available from May 1st to July, to help keep the foliage green as long as possible.

The longer the foliage stays green after the flowers are picked, the better the bulb will be. It is during that time that the new flower, stem and leaves are formed in the center of the bulb so don't cut the leaves and don't transplant until leaves have all died down.

PREPARATION OF SOIL

Since the bulb should be planted about 8-9 inches deep and its roots go about an equal distance further into the soil, it is important to dig the planting site deeply. In addition to the sand recommended for heavy soils there should be a large amount of leaf mold or peat moss incorporated into the bed, to provide the open cool root run so necessary for the plant's success.

SOIL CARE UNDER THE BULBS

The Daffodils and Narcissus are heavy feeders, and since they generally remain undisturbed in the same place for years, multiplying rapidly, it is necessary to incorporate ample nourishment into the prepared soil *beneath* the bulbs where the roots are to feed. It has been found that the use of some pieces of charcoal below the bulbs enables them to thrive even better, because charcoal keeps the soil sweet.

In applying fertilizer, use a good balanced complete plant food, mixing it thoroughly below the bulbs as well as above them.

After the lower soil has been well spaded, and the humus, charcoal and fertilizer mixed, it should be well firmed down and then a thin layer of sand should be spread over it. This sand should be nine inches below soil level. The bulbs should be set in this sand, spaced carefully and then covered with more sand to hold them firm before the top rich soil is covered over them.

It is a good plan to mix naphthalene with the sand as a repellent of soil insects that might attack them. Moles dislike daffodil bulbs, but the use of the insect repellent, will keep moles out of the area entirely.

Bulbs that are grown in poor soil generally have the strength to make good leaf growth but few or no flowers. The next year's flower and stem is formed on the inside of the bulbs during the period between flowering date and the time the leaves die completely down. It is at this time the plant needs abundant fertilizer.

Although October and November are good months for planting Narcissus and Daffodils, the best time of all is during the last two weeks of September. This gives the bulbs a long root-growing season in fall and copies nature, for all bulbs of this family commence root growth with the fall rains.



JONQUIL, GOLDEN SCEPTRE

AROUND POOLS

In early Spring, one of the moist colorless and depressing spots in the garden is the pool. Golden Daffodils and white Narcissus used carefully in succession will provide much spring color, especially if they are planted close enough so that they are reflected in the water.



CUTTING

Flowers of Narcissus and Daffodils may safely be cut for indoor decoration. If not required for cut flowers, the heads should be pulled off as soon as they fade.

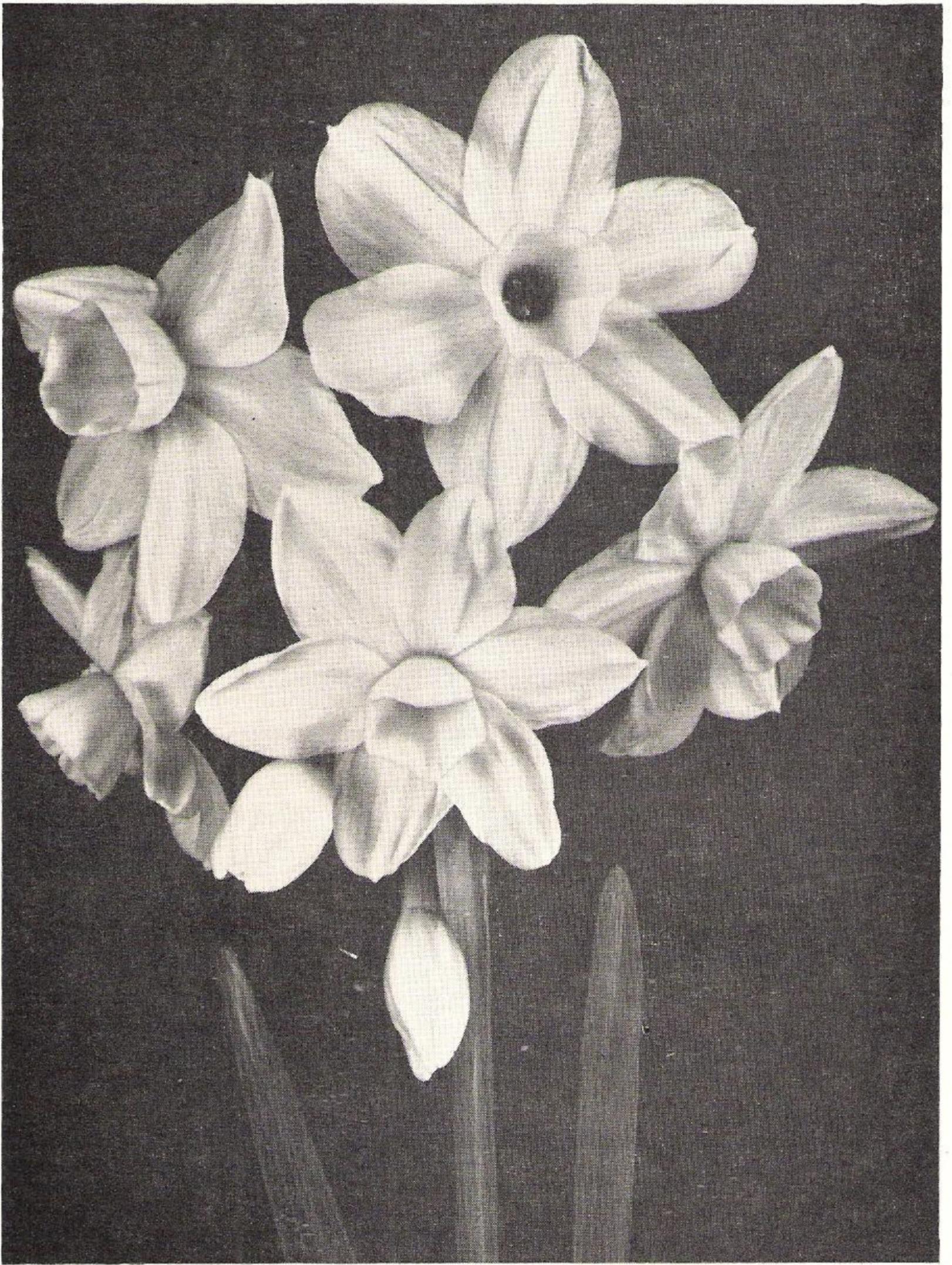
The leaves of the plant must never be cut. If greens are needed for indoors take them from other plants. Allow the foliage to ripen as slowly as possible and die down naturally, to insure the replenishing of the bulb's stored food supply and the formation of a strong flower bud.

Daffodils make their best display in partial shade. They like to grow under deciduous trees and under many low-growing shrubs where they bloom before the leaves develop on most vegetation. Later, when the trees and shrubs are in full leaf, the shade provided seems beneficial to the Daffodils.

MINIATURE DAFFODILS FOR ROCK GARDENS

Anyone who has visited any outstanding Rock Gardens in his locality will undoubtedly have observed a number of unusually small daffodils, miniature editions of what is commonly known as our garden daffodils. These little daffodils are the wild species of narcissus. They are found in Spain and Portugal, in the South of France and some of them along the North Coast of Africa. While all of them are still relatively rare in this country, most of them are by no means expensive. With a little care and attention they can be grown in all gardens and once well established they will multiply with rapidity.

These little daffodils, from which all the modern hybrids came, have their natural habitat in the hills and mountain slopes of Southwestern Europe. They grow in profusion on mountain meadows and along the little streams that meander down the hills. The scenery and climate of these

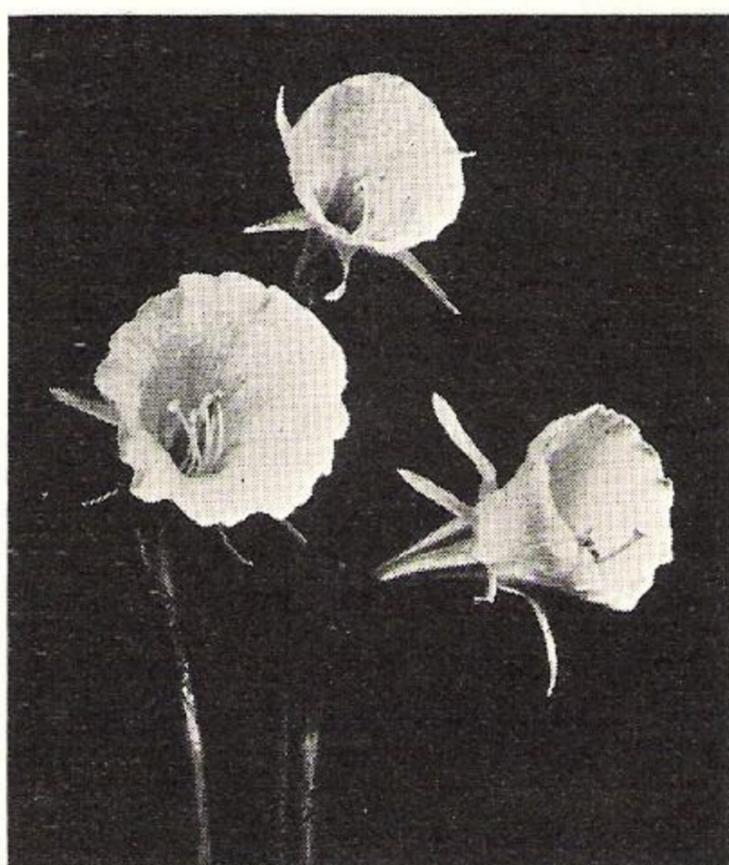


SILVER CHIMES (Triandrus)

regions is strongly reminiscent of our western mountain slopes. With a climate, exposure and with soil conditions that are not too different to duplicate, it should stand to reason that these little bulbs can grow almost anywhere in America.

Of course, since many of the species come from entirely different locations, some attention should be paid to soil, drainage and exposure. Here is a list of all the readily available species and for every one, mention of the special conditions they prefer. The most well-known miniature daffodil and one that looks least of all like the common daffodil is the Yellow Hoop Petticoat or *N. bulbocodium conspicuus*. This golden-yellow flower, as well as its pale lemon-yellow form, *N. bulbocodium citrinus*, likes moisture and should, therefore, be planted at the foot of a rock garden or at the bottom of a slope. Both like sunshine and can stand a good summer drying.

***Lemon Hoop Petticoat
likes a moist spot
where there is plenty
of sunshine***



BULBOCODIUM CITRINUS

Taking them in alphabetical order, the next species is that dainty, miniature, multiflowered daffodil *N. canaliculatus*. This one comes from the South Coast of France, from Corsica and Sicily and from Majorca. It is logical then that it likes a good baking during the summer. Do not plant it where the garden hose reaches or in the shade or under annuals or shrubs. Plant it in the full sun with southern exposure and in a spot that really gets warm. It will reward you by a profusion of flowers four inches tall, with little heads of white petals with tiny yellow cups in them. Planted together with grape hyacinths it makes a charming ground cover and a picture that will not soon be forgotten.

Then comes the cyclamen-flowered daffodil, *N. cyclamineus*, exquisite but apt to give trouble, as it definitely does not like being transplanted. It grows in the mountains of Spain and Portugal with its feet in the water, along tiny brooks and mountain streams, in deep and rank growing grass, thriving under odds that seem far too great a burden for such a delicate-looking little flower. Moisture it needs, but perfect drainage as well. Sun



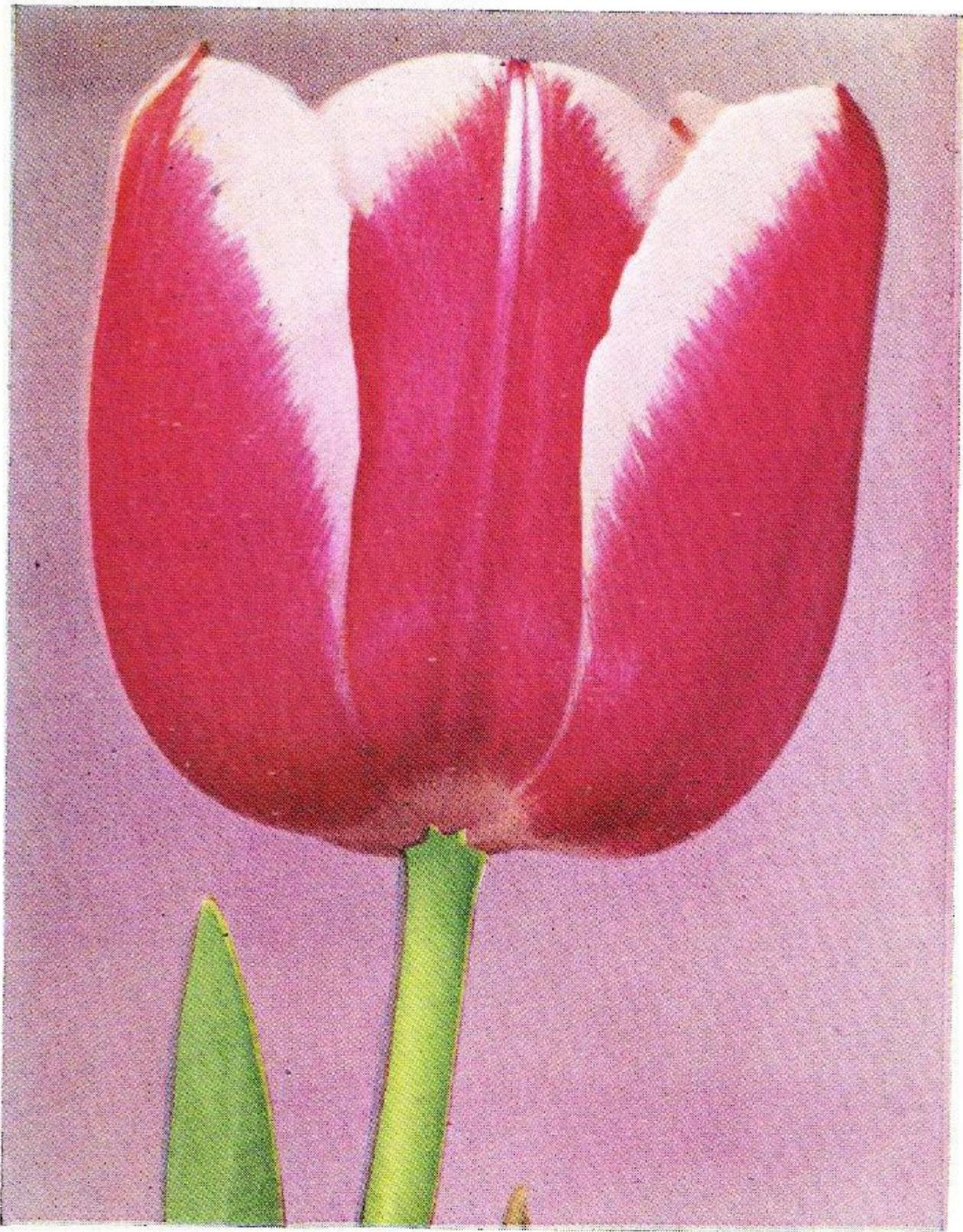
Queen of Spain
will give excellent
results if left
undisturbed for
several years

QUEEN OF SPAIN

in the spring and semi-shade later on is best. This little daffodil does not like being out of the ground for even a few days. It has no real dormant period and it should be considered more as a living plant rather than as a bulb. Planted in a good location it will quickly recover and, once established, it will live forever.

N. juncifolius is still relatively unknown in this country, yet it is the one miniature that grows better here even than in its native land. It is a tiny little jonquil, very much like the sweet-smelling true French *N. jonquilla simplex*, yet only a fourth of its size. The bulbs multiply very rapidly. It delights in partial shade and in a light gritty soil. Good drainage is essential.

N. minor, *N. minimus*, and *N. Moschatus of Hazworth* are all little trumpet daffodils. *Minor* is almost as big as a small garden daffodil. Its bold, golden-yellow trumpet flowers are extremely showy and deserve a prominent place in the rockery or along slopes in your garden. Its foliage is a beautiful blue-green. It is prolific and very free-blooming. It is one of the finest of all miniatures. For the connoisseur, its little brother, *N. minimus*, is the real gem. From two to three inches tall, its tiny little flowers perfectly formed and a true miniature edition of the larger golden yellow King Alfred daffodil, it will hold its own in any garden, multiply and flower as if to prove that size is no criterion in garden flowers. *Minimus* likes peaty soil and can be grown in grass or in pots and pans for the sun room. It will not tolerate manure or fertilizer of any kind. *N. Moschatus of Hazworth* is a real gem. It has pure white, nodding flowers and blue-green foliage. This



ELMUS

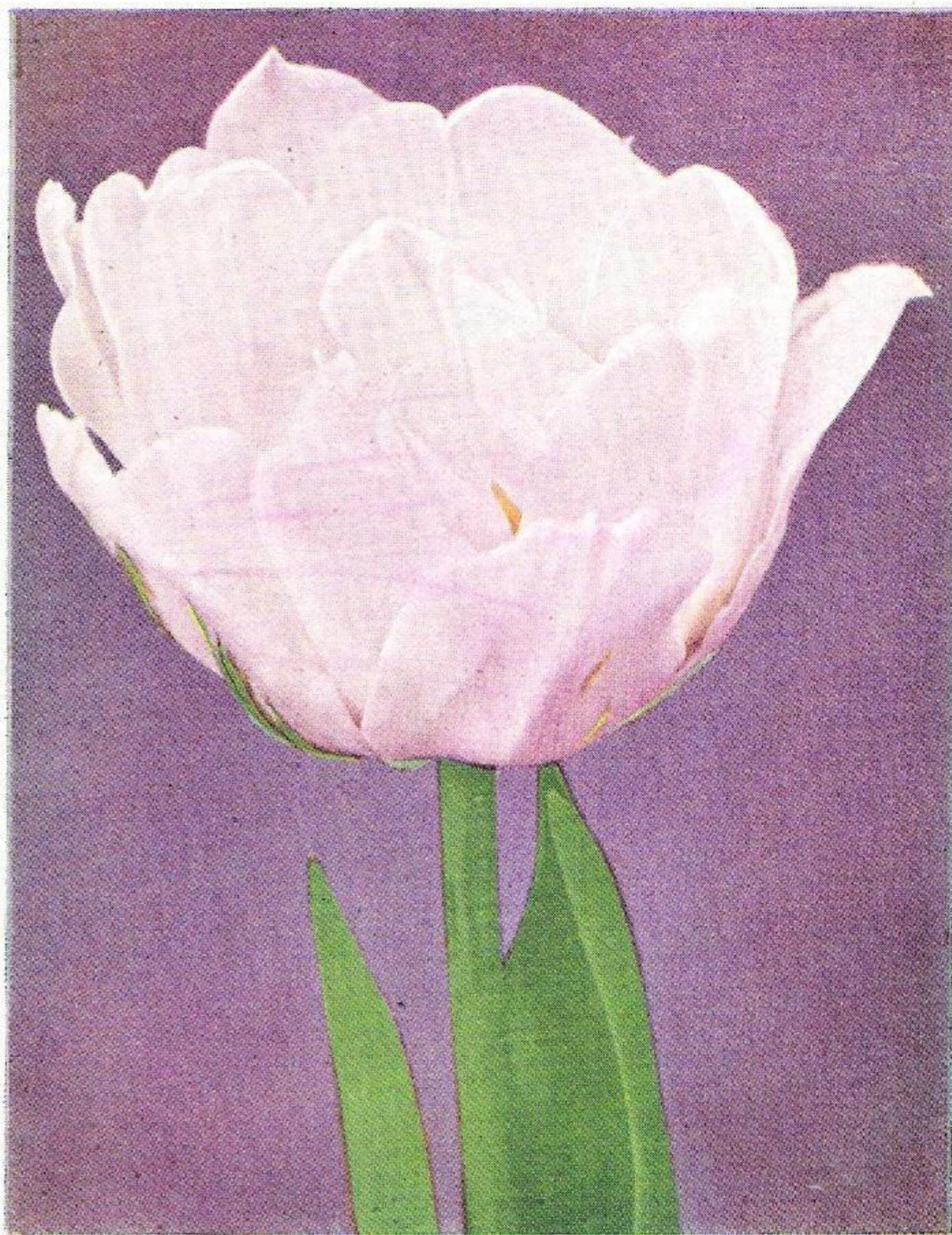


MARCELLINA





KAUFMANNIANA



MT. TACOMA

one is extremely unusual, so rare that no grower will part with more than one or two a year and then only if a really good home for it is offered. *N. Moschatus* is the parent of all the white daffodils and, if some recent investigations prove to be correct, also of all the pink daffodils.

*Angel's Tears are equally
at home in the rock garden
or indoors in pots*



TRIANDRUS ALBUS

The last group of species daffodils includes the *N. triandrus* varieties. *Triandrus albus*, called "Angel's Tears", is the most common. It has been known for hundreds of years and described in many old garden books. It likes a very hard, firm, gritty soil, again with perfect drainage and slight shade. In Spain it sometimes grows in the narrowest fissures of granite or rocks. These little bulbs also make beautiful pot plants and they do very well in the rock garden where they form a picture of grace and beauty.

N. triandrus calathinus, its larger and stronger form, is one of the most beautiful little daffodils in existence. The flowers, which are produced in drooping clusters of two and three, are snowy white, and more than twice the size of *Triandrus albus*. The long goblet-shaped crown is prettily fluted and the foliage has the curious habit of curling over and almost tying itself into knots. Even the tiniest year-old seedlings have this curious habit and one thus has a very easy way to establish the identity of this little gem even when it does not flower. It likes a mixture of leaf-mold, heath soil and coarse sand, with just a little bone-meal added.

From the hybridizer's point of view it is very important to note that all of them cross freely, not only with each other, but also with the larger-flowered garden hybrids. Many of such hybrids between dwarf and large daffodils are already on the market. Suffice it here to mention just a few such as Cyclamineus hybrids *February Gold*, *March Sunshine* and *Beryl*, the *Triandrus* hybrids *Thalia*, *Moonshine* and *Agnes Harvey* and the new *Jonquilla* hybrids *Trevithian*, *Sierra Gold* and *Lanarth*.

The miniature daffodils and their hybrids are a most worthwhile addition to our spring-flowering bulbs. When happy in their surroundings most of them will continuously produce additional bulbs which do not need to be transplanted for many years. In fact, the miniature daffodils are better off when undisturbed, unfertilized and just left alone.

WHY NO FLOWERS

If your bulbs threw up many leaves, but no flowers this year, the best way to correct the trouble is to dig them up in July.

When bulbs are left in the ground for several years, the large mother bulb often breaks up. In dividing it forms as many as 10 or 12 small bulbs. These may be separated and replanted. They will take several years before they bloom again. The length of time depends entirely on how well they are fed.

When a large bulb that has not split up, produces leaves only, the trouble is usually due to a large white grub which is found in the heart of the bulb during summer.

This pest is the larva of the Narcissus Bulb Fly. The fly is on the wing during May and early June. It looks like a large and lazy "blue-bottle" fly. It lays its eggs close to the bulb's leaves. When they hatch the grub goes directly down to the ripening bulb, eats its way into and remains in the bulb's center, where it feeds on the flower-to-be.

This pest multiplies very rapidly. To prevent it, dig up all bulbs that did not flower and inspect by pressing the center of the basal ring. If it is soft and rotten, there is a grub inside. Be sure to destroy the grub.

At digging time, in July, look for a small round hole located in the basal plate and right close to the edge of the basal ring. At first the grub has eaten out only a small amount of the center of the bulb so that the ONLY sign is the small hole. As it feeds and grows fatter, the center becomes soft and mushy.

If your neighborhood is infested with this pest, it is better to dig up the Daffodils each year to control the trouble which, by the way, never comes from bulbs you buy at good stores. They are all inspected rigidly by our Federal and State Authorities.

Should you procure a few bulbs from a friend's garden, look them over very carefully before planting.

D.D.T. IS A CERTAIN CURE

Since D.D.T. came into prominence during the war years, it has been found effective in the elimination of many garden pests.

The "blue-bottle" Narcissus Bulb Fly is one of the many pests that can be entirely eliminated by the use of a GARDEN D.D.T. spray. The application should be made in mid-April, taking care to thoroughly drench the flowers, leaves, and the soil surrounding the plants.

Actually this Daffodil-Narcissus family is one of the most bug-free, disease-free, easily grown plants in cultivation. Once established they need no care other than to pick and enjoy the flowers of this golden harbinger of Spring.