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SPECIAL TREE AND PERENNIAL NUMBER

Meehan's Garden Bulletin

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STRIKING EFFECTS WITH LARKSPUR ARE POSSIBLE IN AMERICA AS IN ENGLAND

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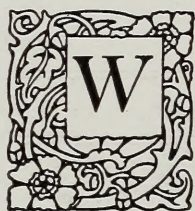
THOMAS MEEHAN & SONS

Nurserymen and Horticulturists

Germantown, Philadelphia, Pa.

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WHEN you are confronted with garden problems, large or small, you do not get the help *you need* out of any catalogue. Neither does it come from form letters or circulars with which you are flooded, on applying for a catalogue.

You can, however, get the very best of practical, dependable information by writing to us.

One man, from among our six District Managers, has charge of all orders and inquiries in your State. He makes a study of conditions there, and can give you information and advice you would find difficult to secure elsewhere.

We want to help you and would like you to give us that opportunity.

In addition to this distinctively personal service, all communications have the daily supervision of S. Mendelson Meehan, who is ever striving to give genuine satisfaction to the thousands who come to us.

Look at this letter we reproduce. It shows to what extent our Information Bureau is used, and we like and encourage such confidence. It is quite natural that through this service we have in the past made thousands of friends and customers. That is why it is good business to extend the work.

Do not feel, however, that you will obligate yourself by asking our assistance. This help we extend is free—without any restrictions—and right here let us say that any suggestions or advice we give will be independent of our desire to sell you our plants.



Hagerstown Maryland, Oct. 14 1910.

Thos. Meehan & Sons.

Dear Sir:-

I am going to venture to ask you for information on a point, being unable to get any from other sources.

I have read that the Japanese dwarf their trees by root-pruning. Can you tell me anything about the process which would enable me to use it. I have a very fine little hemlock brought from the mountain which I would like to keep dwarf, for a house plant. Can you tell me at what time the pruning should be done or anything about it. I was referred to you by a lady who said she had been in correspondence with your firm for years, and that you were very obliging about giving information, and knew more than any other people in the country.

Thanking you in advance for anything you may be able to tell me,

Very truly yours,

THOMAS MEEHAN & SONS

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A spreading lawn specimen is always to be had by planting a beech. Look at the tree in the centre background—how pleasing and natural is the effect. It is a towering Tulip Poplar.

Deciduous Trees for Ornamental Purposes

WARREN J. CHANDLER



VERY nearly every one realizes the need for trees, and the value they add to almost any property.

The great problem is, usually, "What kind of trees shall I use?"

It is easy to understand the prevailing perplexity when one looks at the extensive list of native trees and foreign kinds now recognized as essential to modern gardening.

However, the question may be simplified by a brief review of needs and conditions.

For example, a wise selection for a bleak, dry hillside is narrowed to about a dozen kinds.

Unfortunately, many will entrust the selection

to a local gardener whose good experience has been limited. The result is a selection which is either commonplace or fails to yield a vigorous and thrifty growth with permanent satisfaction.

Plants may live in uncongenial locations, but be not pleasing to the eye, especially when contrasted with the vigorous, thrifty habit of a similar plant in a happy position.

It is the purpose of these notes to give the best general selection for specific positions and purposes. Where desirable, a few notes have been added.

For convenience in determining the classes into which trees may be grouped, the consideration most important is that of location.



Here is the result of planting a River's Purple Beech. Compact growth to the ground, rich, purple foliage and a specimen of such size and proportion as to individualize the property.

Apart from the ideal location, that of an open position, with rich loamy soil and natural drainage, there are three extremes where care must be exercised in selection—*i. e.*, the wet or swampy position, the dry bank or hilltop, and the seashore.

TREES FOR DRY SITUATIONS.

On knolls, hillsides, banks and under similar conditions, some trees will flourish while others would prove a dismal failure. Those we suggest will do with a minimum amount of moisture.

In setting out trees in such positions, if possible, give at the start a goodly quantity of rich soil with some well-rotted manure mixed with it. This provides food for the establishment of the tree. A summer mulch around each plant is beneficial, conserving the moisture and giving nourishment.

Where exposed to strong winds, a temporary bracing of the tree by wiring it to stakes at three different points from the trunk will give it a chance to become "set." Care should be exercised to see that the trunk is protected from the wire to avoid cutting.

Those trees best suited to positions above mentioned are as follows:

(Figures in parenthesis represent approximate height of trees at maturity.)

Ailanthus, *Ailanthus glandulosa* (40 to 50 ft.).

White Birch, *Betula alba* (40 to 50 ft.).

Kentucky Coffee, *Gymnocladus Canadensis* (40 to 50 ft.).

Honey Locust, *Gleditschia triacanthos* (40 to 50 ft.).

Yellow Locust, *Robinia pseudacacia* (50 to 60 ft.).

Varnish Tree, *Koelreuteria paniculata* (25 to 30 ft.).

Chinese Cedrela, *Cedrela Sinensis* (50 to 60 ft.).

Basswood or Linden, *Tilia Americana* (60 to 70 ft.).

Empress Tree, *Paulownia imperialis* (50 to 60 ft.).

Chinese Cork Tree, *Phellodendron* (40 to 50 ft.).

Scarlet Oak, *Quercus coccinea* (50 to 60 ft.).

Red Oak, *Quercus rubra* (50 to 60 ft.).

Rock Chestnut Oak, *Quercus prinus* (40 to 50 ft.).

Hercules Club, *Aralia* (12 to 15 ft.).

(A small tree, with several stems in place of one leader.)

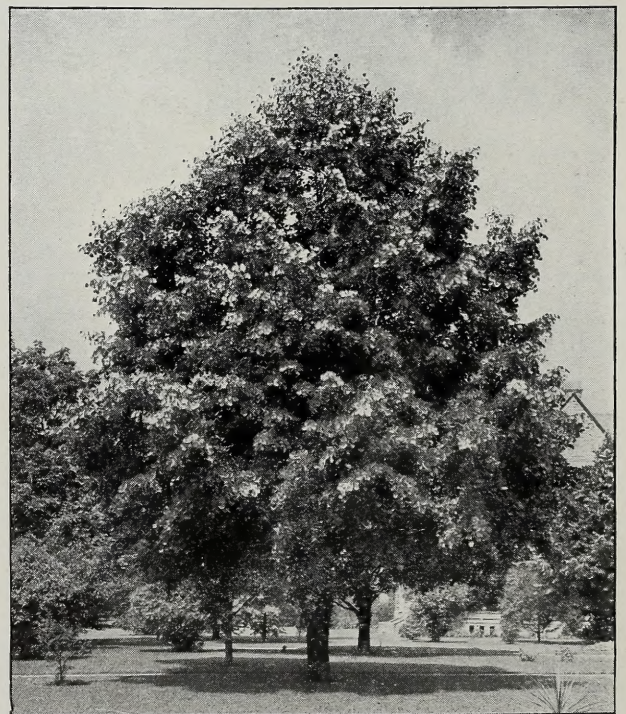
English Cork Maple, *Acer campestre* (20 to 25 ft.).

Tartarian Maple, and its variety *Ginnale*, *Acer Tataricum* (15 to 20 ft.).

Mountain Maple, *Acer striatum* (15 to 20 ft.).

TREES FOR MOIST AND SWAMPY SITUATIONS.

It is a prevailing impression that situations favored with much moisture are suitable for all trees, but such is not the case.



Quick growth with pleasing final results is secured when you plant the American Linden. Here, too, is a shade as well as an ornamental tree.



The existence of water on a property is excuse enough for the planting of some weeping Babylonian Willows.

The list which follows is known to us to do exceptionally well, but certain care is necessary to get the best results.

Where soil is heavy and clayey a tree, on being set out, should have artificial drainage in the form of broken stone, ashes or sand in the bottom of the hole. If undue moisture exists, a mounding of the soil around the trunk will effect a surface drain.

Where feasible to do so, the trenching of sour soil in the autumn, allowing it to remain in this condition over winter, will sweeten and improve it.

The following trees are the very best for such locations:

Sweet Gum, *Liquidambar styraciflua* (40 to 50 ft.).

Sour Gum, *Nyssa multiflora* (40 to 50 ft.).

Tulip Tree, *Liriodendron tulipifera* (60 to 75 ft.).

Red or Swamp Maple, *Acer rubrum* (40 to 50 ft.).

Willow, in variety, *Salix* (various heights).

Pin Oak, *Quercus palustris* (50 to 60 ft.).

Swamp White Oak, *Quercus bicolor* (40 to 50 ft.).

Bald Cypress, *Taxodium distichum* (40 to 50 ft.).

Swamp Alder, *Alnus* (30 to 40 ft.).

Silver Maple, *Acer dasycarpum* (60 to 75 ft.).

Red Birch, *Betula rubra* (40 to 50 ft.).

Bitternut, *Carya amara* (50 to 60 ft.).

Elm, in variety, *Ulmus* (30 to 75 ft.).

Buttonwood, or Plane, *Platanus* (75 to 80 ft.).

Magnolia Tree, varieties (various heights).

SEASHORE TREES.

Along the Atlantic coast there are some trees which thrive unusually well and are worthy of special mention.

At the seashore, trees should invariably be braced with wires till well rooted.

Kentucky Coffee, *Gymnocladus Canadensis* (40 to 50 ft.).

English Oak, *Quercus Robur* (30 to 40 ft.).

Chinese Cedrela, *Cedrela Sinensis*.

Tree of Heaven, *Ailanthus* (50 to 60 ft.).

Ash, in variety, *Fraxinus* (25 to 30 ft.).

Japanese Tamarisk, *Tamarix* (small bushy trees).

Willows, in variety, *Salix* (various heights).

Honey Locust, *Gleditschia triacanthos* (40 to 50 ft.).

Sweet Gum, *Liquidambar styraciflua* (40 to 50 ft.).

Sassafras (35 to 40 ft.).

Small-leaved Lime, *Tilia Europæ* (40 to 50 ft.).



The floral display alone recommends the Horse Chestnut, yet its shade and general ornamental qualities are not to be ignored.

- Alder, *Alnus* (30 to 40 ft.).
- Hercules Club, *Aralia* (12 to 15 ft.).

TREES FOR SPECIAL EFFECTS.

Special effects are secured by using those with particular characteristics, such as flowering, berried, weeping, dwarf-growth, etc.

In the following groups are listed the best trees under their respective classes, with such information as may be wanted.

FLOWERING TREES.

America is rich in a big assortment of native flowering trees, but credit is also due to Japan and China for their many valuable additions.

In listing these, the approximate height at maturity is given, and also color of flowers.

Wistaria Tree, *Pterostyrax hispidum* (35 ft.). White; graceful.

Magnolia—Chinese, Japanese and American varieties (10 to 40 ft.). White, pink and red.

Empress Tree, *Paulownia imperialis* (35 ft.). Lavender; very fragrant.

Catalpa (35 ft.). White; showy.

Cherries, *Cerasus* (10 to 12 ft.). Chinese, Japanese and European various varieties.

Flowering Peach, *Amygdalus Persica* (10 ft.). White, pink or red.

Flowering Apples, *Pyrus* (10 to 25 ft.). Various.

Red Bud, *Cercis Canadensis* (25 ft.). Light pink.

Japanese Judas, *Cercis Japonica* (10 ft.). Deep pink.

White and Pink Dogwood, *Cornus florida* and *flore rubro* (20 to 25 ft.).

Flowering Horse Chestnuts, *Aesculus* (40 to 50 ft.). White and red.

Yellow Wood, *Cladrastis tinctoria* (25 ft.). White.

Chinese Cedrela, *Cedrela Sinensis* (50 ft.). White.

Styrax Japonica (15 ft.). White.

Yellow Locust, *Robinia pseudacacia* (40 ft.). White.

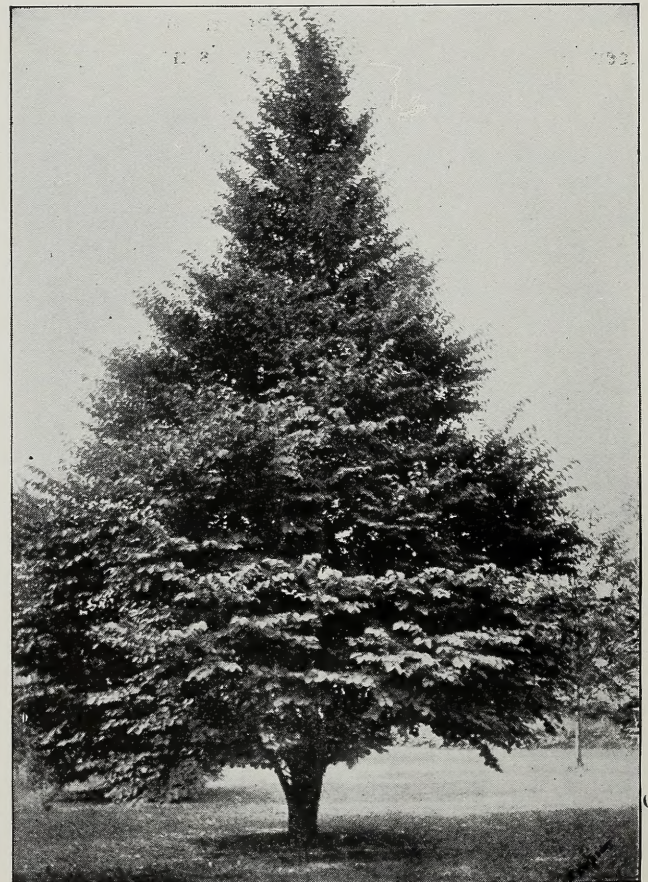
Hardy Orange, *Citrus trifoliata* (20 ft.). White.

Linden, *Tilia* (50 ft.). Yellow.

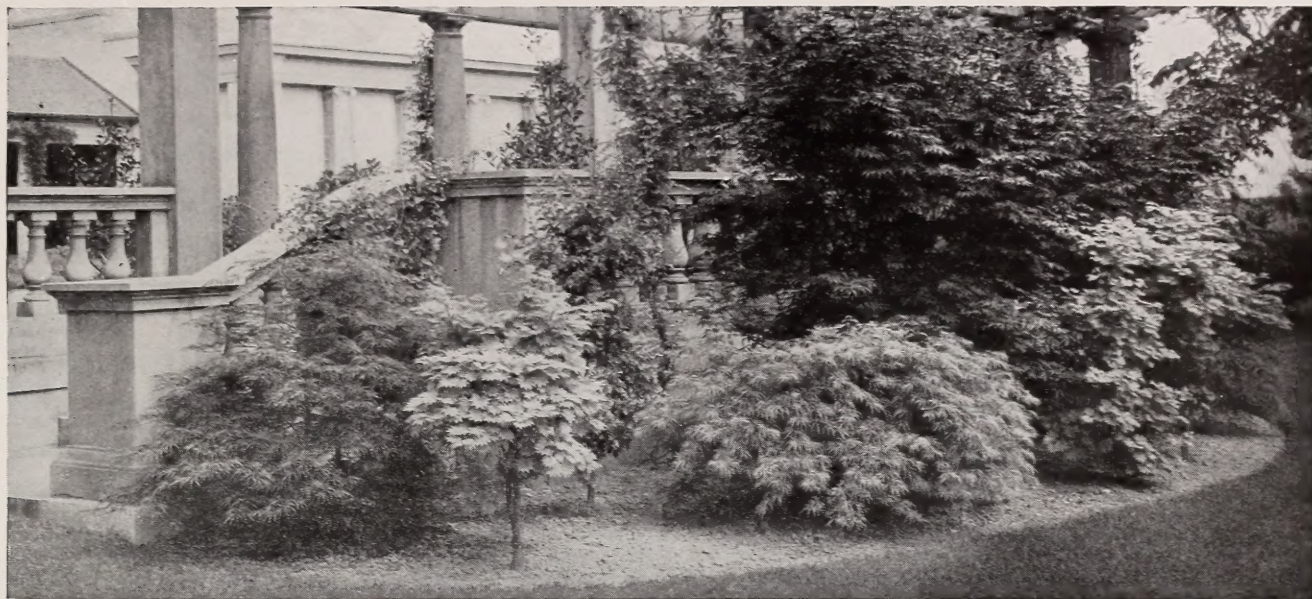
Franklin Tree, *Gordonia pubescens* (12 ft.). White.

Tulip Tree, *Liriodendron tulipifera* (60 ft.). Green, yellow, blotched orange.

Flowering Ash, *Fraxinus Ornus* (20 ft.). White.



Here is a tree worthy of a position on every lawn. The Katsura Tree, *Cercidiphyllum japonicum*. Grand foliage, pleasing form, and autumn coloring to the leaves.



Here is shown the pleasing effects resulting from a grouping of Japanese Maples. They are suitable for planting on properties large or small.

Varnish Tree, *Kalreuteria paniculata* (25 ft.). Orange, yellow.

Norway Maple, *Acer platanoides*. Yellow.

Red Maple, *Acer rubrum* (50 ft.). Reddish orange.

English Laburnum, *Laburnum vulgare* (15 ft.). Yellow.

Sorrel Tree, *Oxydendrum arboreum* (25 ft.). White.

Yellow Buckeye, *Pavia flava* (40 ft.). Light yellow.

Red Buckeye, *Pavia rubra* (12 ft.). Various.

Chinese Pagoda Tree, *Sophora Japonica* (30 ft.). White.

Hercules Club, *Aralia spinosa* (12 ft.). White.

Photinia villosa (12 ft.). White.

TREES WITH COLORED FOLIAGE.

This group is restricted to trees having distinctive foliage not produced by fall coloring. The latter class has been separately treated.

The description following maturity size designates foliage color.

Japanese Maple, *Acer polymorphum* and *Japonicum*, in variety (4 to 15 ft.). Varied colors from green and yellow to crimson and intermediate shades.

Copper and Purple Beech, *Fagus purpurea* and variety *Riversii* (20 to 30 ft.). Purple.

Golden Oak, *Quercus Robur concordia* (15 to 20 ft.). Rich yellow.

Schwedler's Purple Sycamore, *Acer* (30 to 40 ft.). Purple most pronounced in early spring.

Reitenbach's Maple, *Acer platanoides Reitenbachii*. Purple in late summer.

Silver-leaved Linden, *Tilia Europea argentea* (30 to 35 ft.). Silver on under side of leaf, bright green above.

Bolleana Poplar, *Populus alba Bolleana* (30 to 40 ft.). White and wooly on under side of leaf.

Golden Poplar, *Populus monilifera Van Geerti* (30 to 35 ft.). Golden foliage.

TREES WITH AUTUMNAL FOLIAGE COLORING.

Sweet Gum, *Liquidambar styraciflua*. Beautiful blendings of crimson red and bronze.

Red Maple, *Acer rubrum*. Bright scarlet.

Sour Gum, *Nyssa multiflora*. Rich scarlet and red.

Sugar Maple, *Acer saccharinum*. Yellow and red.

Dogwood, *Cornus florida*. Subdued shades of red and brown.

Oaks, *Quercus*. Scarlet and pin oak are particularly bright in color. *Rubra* has a beautiful blend of red and green.

Cherry, *Cerasus Sieboldi*. Dark red.

Japanese Katsura Tree, *Cercidiphyllum Japonicum*. Yellow and purple.

Hawthorns, in variety, *Crataegus*. Mostly scarlet and orange.

Tulip Poplar, *Liriodendron tulipifera*. Bright yellow.

Sorrel Tree, *Andromeda arborea*. Scarlet.

Sassafras. Orange and scarlet.

Ginnale Maple, *Acer Tataricum Ginnale*. Dark red.

Japanese Striped-bark Maple, *Acer rufinerve*. Scarlet.

TREES WITH SHOWY FRUIT.

Many trees grown for edible fruit, as the apple, pear, peach, etc., are ornamental, but there are others with berries and fruit of various forms which are highly attractive.

The following are the showiest:



We are sorry that the immense panicles of late summer flowers do not show in this illustration of the *Araha spinosa*, which is in the centre. It is a most ornamental plant. To the right is a good specimen of River's Purple Beech, and the tall tree in the background is the Deciduous Cypress.

European Mountain Ash, *Pyrus Aucuparia*. Orange.

Flowering Crabs, *Pyrus*. Yellow or scarlet.

Hawthorns, in variety, *Crataegus*. Scarlet, orange or red.

Dogwood, *Cornus florida*. Scarlet.

Magnolia, in variety. Scarlet seeds in fleshy pods.

Photinia villosa. Scarlet.

Prickly Ash, *Zanthoxylon piperitum*. Reddish black.

TREES WITH CHARACTERISTIC WINTER BARK.

White Birch, *Betula alba*. Silvery white.

Chinese Cork Tree, *Phellodendron*. Deeply ribbed cork bark.

Red Birch, *Betula rubra*. Shaggy reddish-brown bark.

Striped Maple, *Acer striatum*. White penciling, clearly defined.

American Beech, *Fagus ferruginea*. Ashen gray bark.

Willows, *Salix*. Bright scarlet, yellow and golden barks.

TREES OF PENDULOUS HABIT.

There is a big demand to-day for pendulous and weeping trees, despite the contentions of some that they are unnatural and inartistic.

The formal garden is one position in which they are often a necessity.

Here are the best:

Teas' Weeping Mulberry, *Morus Tatarica Teas' Weeping*.

Weeping Babylonian Willow, *Salix Babylonica*.

Kilmarnock Willow, *Salix caprea pendula*.

Camperdown Elm, *Ulmus montana pendula*.

Wier's Cut-leaved Maple, *Acer dasycarpum Wierii*.

Cut-leaved Weeping Birch, *Betula alba laciniata pendula*.

Cut-leaved Japanese Maple, *Acer polymorphum dissectum*.

Weeping Japanese Cherry, *Cerasus rosea pendula*.

Chinese Weeping Lilac, *Syringa Pekinensis pendula*.

Weeping Siberian Pea, *Caragana arborescens pendula*.

Weeping Ash, *Fraxinus excelsior pendula*.

Pendulous Linden, *Tilia Europea Parmentieri*.

Weeping Beech, *Fagus sylvatica pendula*.

SLENDER OR COLUMNAR TREES.

As screens for special purposes or for landscape effects, there is a continual demand for columnar trees.

Lombardy and Bolleana Poplar, *Populus*.

Ginkgo or Maidenhair Tree, *Salisburia adiantifolia* or *Ginkgo biloba*.

Bald Cypress, *Taxodium distichum*.

Pyramidal English Oak, *Quercus Robur fastigiata*.

Monumental Elm, *Ulmus campestris Monumentalis*.

Pyramidal Birch, *Betula alba fastigiata*.

Chinese Cypress, *Glyptostrobos Sinensis pendula*.

GLOBE-HEADED OR STANDARD TREES.

Globe-headed Catalpa, *Catalpa Bungei*.

Meehan's Globe Mulberry, *Morus alba globosa*.

Globe Norway Maple, *Acer platanoides globosa*.

Standard Japanese Maples, *Acer Japonicum* and *polymorphum*, in variety.

Standard Sand Cherry, *Cerasus pumila pendula*.

Globe Ash, *Fraxinus excelsior globosa*.

DWARF TREES.

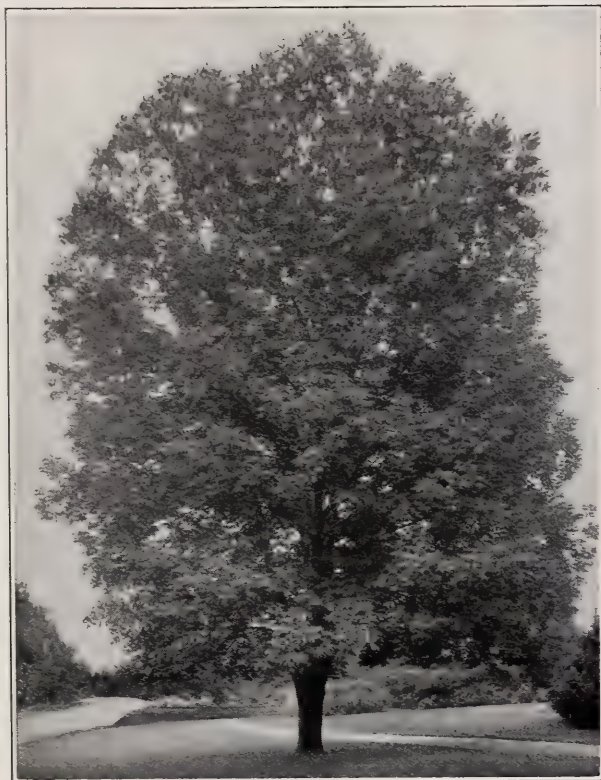
Some very choice trees useful on the broad lawn as well as on the limited property.

Japanese Judas, *Cercis Japonica* (6 ft.).

Japanese Maples, all varieties (4 to 15 ft.).

Dogwoods, *Cornus florida* and *flore rubro* (10 to 15 ft.).

Ginnale Maple, *Acer Tataricum Ginnale* (10 to 15 ft.).



Here is shown the possibilities in using the American Ash. It seems to do well in poor soil, which is a good point to remember.

Globe Norway Maples, *Acer platanoides globosa* (6 to 8 ft.).

Dwarf Horse Chestnut, *Pavid macrostachya* (6 to 8 ft.).

In the foregoing notes I have treated the questions of what trees to plant in certain locations demanding special selections and also classified the various kinds of trees in convenient groups for selection purposes.

These groups will, no doubt, be of great convenience to those unacquainted with the characteristics of our large list of ornamental trees, but in addition will, no doubt, be felt a need for enlightenment as to the differences between many of the varieties.

That this article may treat thoroughly all phases of the question, each individual group will be analyzed, with a summary of their important differences, and special notes of interest.

THE MAPLES. *Acer*.

Of all trees, the Norway Maple, *A. platanoides*, is one of the best known and liked. Of perfect form, round and compact, rich broad foliage, seldom diseased, thriving in a variety of positions, and especially in somewhat heavy soil, it is an ideal street and lawn tree. Its yellow flowers are showy.

Schwedler's Purple Maple is a variety and alike in all except color of leaves. The Sycamore Maple is very similar, as is its purple-leaved variety.

The Sugar Maple, *A. saccharinum*, pleases largely through its fall showing of color in the foliage. It grows more rapidly and makes a larger specimen than the Norway, and takes more to well-drained soils.

Where rapid growth is a necessity we call on the Silver Maple, *A. dasycarpum*. It assumes very large proportions if given room. Brittle wood is an enemy to longevity.

Wier's cut-leaved is a graceful variety, with pendulous branches.

The Red Maple, *A. rubrum*, is only valued for colored flowers, and autumn foliage, and for moist places.

The Tartarian Maples are of dwarf habit, with numerous small leaves, and very ornamental. Excellent for screening.

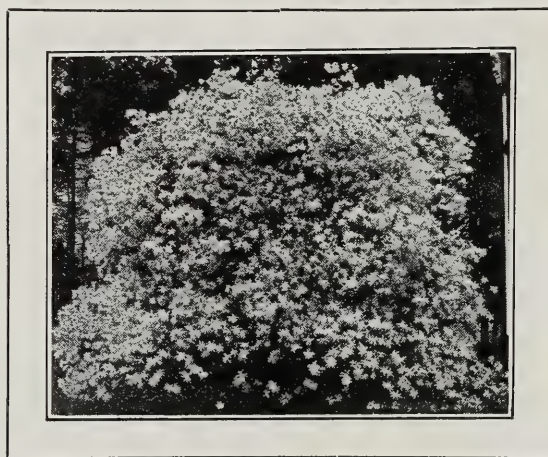


The Pin Oak leads in popularity. Its rapidity of growth, beautiful foliage and many other fine qualities are the cause.

JAPANESE MAPLES.

Among all dwarf-growing trees, the Japanese Maples stand as the best. There are beautiful variations in leaves, with superb colorings, and finally a graceful style of growth.

The most popular is the rich, blood-red, foliaged form, *A. polymorphum atropurpureum*. It develops into a full-rounded specimen, and will, in course of years, grow 15 feet in height and



A perfect shower of pure white, star-shaped blossoms come annually on *Magnolia Stellata* when it is thriving in a good location.

breadth. The parent of this, with green leaves, makes one of the prettiest specimens imaginable. It is a pity the colored one has overshadowed this.

The cut-leaved forms, *A. polymorphum dissectum*, with green and crimson foliage, are superb for decidedly dwarf effects. Their habit is low and spreading—specimens usually sweeping the ground on all sides.

The rich golden foliage of *aureum* is quite in contrast with the deep olive-green of *Japonicum*, and the former is dwarf, while the latter has a more upright and vigorous style.

The delicate veining of *reticulatum*, yellow on a green ground, is very attractive and showy, especially in the early season.

The divided leaves of *aconitifolium* are singular and attractive, with the same outline as the broad, undivided leaf of *palmatum*. The former has rich crimson coloring in autumn, as also the star-shaped leaves of *ampelopsilobum*.

The only narrow-foliaged kind is *cristatum*, with crested leaf.

Where a most pleasing effect is desired, none are more effective than the true variety, *polymorphum*. The feathery foliage, bushy form and general attractiveness of it is winning many admirers.

Good effects from this wonderful group of dwarf trees are secured by grouping a selection

of varieties, effecting showy contrasts in form, foliage and color.

THE BIRCHES. *Betula*.

Every one admires the silvery white bark of the European White Birch, *B. alba*, and the Paper Birch, *papyracea*, which is pure white. The latter is distinct in having broader foliage, and a more open habit of growth. The Cut-leaved Birch is a variety of the former. Its graceful pendulous branches make it one of the handsomest trees in cultivation.

A pyramidal form of the White Birch, *B. alba fastigiata*, is very attractive, but seldom seen.

Along water courses we find the beautiful Red Birch, *B. rubra*, displaying its shaggy reddish-brown bark.

THE OAKS. *Quercus*.

Twenty years ago there was but little interest in oaks for ornamental use. To-day they rank among the very best.

Some look upon it as a slow-growing tree, but that is not the case. A Red Oak will easily outstrip a Norway Maple; and a Pin Oak will make 3 to 4 feet of growth under favorable conditions.

One of the most durable trees, adding beauty and value with age, the oak may be looked upon as the finest of all our native trees.

The Pin Oak, *Q. palustris*, has a particularly artistic cut, and appeals to many. The real merit of the tree, however, is found in its adaptability to a great variety of soils and locations. It is a fine avenue tree, and moves with greater ease than most oaks.



With its drooping racemes of pure white flowers, resembling the Wistaria in form, the *Pterostyrax* is beautiful when in flower.



The orange yellow blossoms of the Tulip Poplar are well named.

The Scarlet Oak, *Q. coccinea*, is quite similar in leaf to the Pin Oak. The former, however, is a bold, free-growing tree and has much more color in the fall foliage.

The large leaf of the Red Oak, *Q. rubra*, and bold, open growth distinguish it. It is one of the fastest growing oaks. The Black Oak, *Q. tinctoria*, is, however, as rapid in growth, and not unlike it.

The shaggy bark of the Swamp White Oak, *Q. bicolor*, places it beyond confusion with any others, and for quick growth it does not disappoint.

A grand oak, and one which should, without exception, have a position on every estate of any size, where the owner is planting for future generations, is the White Oak, *Q. alba*. Its huge branches are frequently as large as individual trees.

At Christmas time, and for a long period afterward, the Turkey Oak, *Q. cerris*, will still have its rich green foliage. It is one of the best trees for persistency of leaves. These are small and slightly lobed, resembling somewhat the English Oak, *Q. Robur*. The latter is a fine oak, and when given a favorable position will make good headway and develop into a large specimen. Especially good for seacoast.

The Golden Oak, *Q. Robur concordia*, is a variety of the English.

The Laurel Oak, *Q. imbricaria*, has long entire leaves, very closely resembling the English Laurel. It is quite distinct from most other oaks, and the common name is well merited.

The Mossy Cup or Burr Oak, *Q. macrocarpa*, has very large acorns, enclosed in a mossy cup, thus giving the common name.

An unusual and imposing oak is the Japanese or Daimio Oak, *Q. dentata*. The branches are very heavy and the leaves extra large. There are many other kinds of oaks, such as the Water or Southern Oak, *Q. aquatica*, a small round-headed form; the true Chestnut Oak, *Q. Castanea*, with its glossy-green leaves like a chestnut; the Rock Chestnut Oak, *Q. Prinus*, with its lobed leaf and strong vigorous growth, and others too numerous to mention.

The kinds described will be the ones usually desired.

THE LINDENS. *Tilia*.

The busy bee knows that of all the trees the sweetest flower is the Linden. If you have ever been near one in flower, you'll agree with the bee.

The Linden is a rapid growing tree, with very handsome foliage and smooth, pleasing bark.



Wier's Cut-leaved Maple is popular with many for its graceful weeping habit and beautiful, finely divided foliage.

The American Linden, *T. Americana*, is a very strong, bold growing tree, with large leaves, producing good shade. These, however, sometimes fall rather early.

The English Linden, *T. Europæa*, is more compact in habit, of slower growth and of prettier formation.

The Silver-leaved variety, *T. Europæa argentea*, is equally compact, and the silver color on the under side of the leaf. This is very attractive when stirred by the breeze.

T. Europæa laciniata rubra has finely cut foliage, and, during the winter, bright-red twigs.

THE WILLOWS. *Salix*.

The thought of willows brings usually to mind the common weeping form, *S. Babylonica*, which is unquestionably beautiful, particularly when planted near water.

In direct contrast to this one is the Laurel-leaved Willow, *S. pentandra*. The dark-green foliage of this kind is bright and shining, surpassing the English Laurel.

Where distinctive effects in winter are desired, the Flame-barked Willow, *S. vitellina Britzensis*, and the Golden-barked Willow, *S. vitellina*, will satisfy.

In early spring every one is drawn to the Pussy Willow, *S. caprea*, by its cheerful display of catkins, so commonly termed "pussies." This bush

tree is highly pleasing for use in rear of shrub borders.

The weeping variety, known as the Kilmarnock Willow, *S. caprea pendula*, is like an open umbrella, and is good for formal work, usually grafted on stems (5 to 6 ft.).

The Golden Weeping Willow, *S. aurea pendula*, is a most beautiful willow, with bright yellow bark.

THE BEECHES. *Fagus*.

The broad, spreading habit of the beech is one of its most pleasing characteristics.

The American Beech, *F. ferruginea*, is known to almost every one by its ash-gray bark, the prey to many a small boy's jack-knife, carrying such scars forever. A group of American Beech reaching maturity make a sight worth many years of waiting.

The English Beech, *F. sylvatica*, is not as open in growth as the American, and the leaves are not so long, and are darker in color. It has the peculiarity of carrying its dried leaves over until spring, the buds at that time pushing them off. A weeping variety, *pendula*, makes one of the most singular and interesting lawn specimens, attaining a great height.

Two sterling varieties of this form are Rivers' Purple and Copper Beech, *F. sylvatica purpurea*. The former is by far more beautiful in color; the latter is bushier and considered by some of handsomer outline. There is also a graceful weeping purple variety, new and as yet scarce.

The Fern-leaved Beech, *F. sylvatica asplenifolia*, is a grand variety for lawn planting, the finely divided leaves being unusually pleasing, especially in a well-developed specimen. The leaves of the Cut-leaved Beech, *F. sylvatica heterophylla*, are not so finely cut.

A new variety of the English form, just introduced by Thomas Meehan & Sons, is *F. sylvatica styracifolia*, named because of its resemblance in foliage to the *Styrax Japonica*, having long, dark-green entire leaves, quite distinct from the usual beech leaf.

THE ASH. *Fraxinus*.

The ash is a most valuable tree for sidewalk or lawn planting, and does well in a great variety of soils, especially in Central and Northern States.

The American White, *F. Americana*, grows to a large size, and is distinguished by the light silvery color on the under side of the leaf. The Green Ash, *F. viridis*, does not grow so large, and is a more round-headed tree.

The English Ash, *F. excelsior*, does well in moist soil and retains its feathery foliage until very late in the autumn. It is more compact than the American, and is a beautiful tree.

There are weeping forms, with green and golden barks grafted on tall stems from which the branches droop in angular directions, ones with finely cut foliage, dwarf golden mottled yellow and green leaves, and many others too numerous to mention.

The Flowering Ash, *F. Ornus*, has flowers in feathery bunches. It makes but a small tree suitable for lawn or as a background for shrubs.

The Blue Ash, *F. quadrangulata*, is distinguished by its four-angled stems; the Black Ash, *F. sambucifolia*, has very broad leaves.

THE ELMS. *Ulmus*.

New England, robbed of her noble elms, would be in many districts bare of shade trees. This grand tree is worthy of representation on every lawn.

To be sure, it has insect enemies, but so have others which are frequently not so worthy. Thus far the Japanese Elm, *U. parvifolius*, seems to have escaped all attacks. It is a small lawn tree, of beautiful proportions, and ranks among the best of all trees. The small shiny green leaves would not always be recognized as those of an elm.

As a rule, we should first speak of the American Elm, *U. Americana*. For rapid growth, and in its grand development, it surpasses all other shade trees in gracefulness. Fine for avenue and lawn.

The Slippery Elm, *U. fulva*, is very similar, but a little more spreading. There is a rare weeping form, *U. Americana pendula*, which is decidedly pendulous.

The Winged or Wahoo Elm, *U. alata*, has curious wing-like bark. It does not make a large tree like the others.

The English Elm, *U. campestris*, makes a beautiful lawn specimen. The leaves are smaller than the American and are retained until late in the autumn. There are many forms of this elm, all with individual merits.

The Wych Elm, *U. montana*, develops into a fine big specimen, not so very much removed in general appearance from our Slippery Elm.

The well-known dwarf weeping Camperdown Elm, *U. montana pendula*, is a variety of the Scotch Elm. Its branches grow horizontally, like a huge umbrella.

The Cedar Elm, *U. crassifolia*, has small shining green leaves, which are very ornamental.

The Cork or Rock Elm, *U. racemosa*, is a quick grower of upright habit. It has corky bark,

from which it gets the common name of Cork Elm.

THE FLOWERING APPLES. *Pyrus*.

It is too bad that such wonderfully attractive flowering trees as the apples are not better known.

Take the Bechtel's Double-flowering Apple, *P. Ioensis* "Bechtel's." The double pink-white blossoms open in May, and when in full bloom the tree resembles a huge rosebush. The blossoms, two inches and over in diameter, are also fragrant.

Parkman's Crab Apple, *P. Malus Parkmanni*, has beautiful deep pink buds and when open the white blossoms hang in clusters of four and five each.

The Chinese Flowering Apple, *P. Malus spectabilis*, double white, is also showy.



The large silky flowers of the rare Franklin Trees, *Gordonia pubescens*, are produced in the late summer and fall. They are of great beauty.

Our sweet-scented native crab, *P. coronaria*, bears a profusion of light-pink blossoms in May.

THE FLOWERING PEACHES. *Amygdalus Persica*.

With foliage and wood identical with the fruiting peach, these are noted for the striking beauty of the double flowers. They are of good size, abundant and in three colors—white, pink and crimson.

THE FLOWERING CHERRIES. *Cerasus*.

From China and Japan we get some beautiful single and double-flowering cherries, from pure white to deep red.

The Weeping Cherry, *C. rosea pendula*, is from Japan, and distinct from those mentioned above in its drooping branches. In full flower a well-

developed specimen of this plant is beautiful beyond description.

The European Bird Cherry, *C. Padus*, with its pure white racemes of flowers, makes an attractive show, and the berries which follow are the delight of birds.

The red bark of the Wild Red Cherry, *C. Pennsylvanica*, is pleasing. It also bears white flowers, followed by small red berries.

The Wild Choke Cherry, *C. Virginiana*, resembles *Cerasus Padus*, except for being dwarfer in habit of growth.

THE MAGNOLIAS.

The lover of flowering trees finds in the magnolias full enjoyment. The blossoms are exquisite and of goodly size in most cases.

Of our native kinds in the North, the Sweet Bay or Jersey Magnolia, *M. glauca*, is best liked. The small white blossoms open in June and are sweetly scented. This, combined with the glossy green foliage, makes a pleasing tree. In the South it is evergreen. The real Southern Evergreen Magnolia is *M. grandiflora*, not hardy north of Philadelphia.

A most uncommon one is *M. Fraseri*. The large canary-yellow flowers are deliciously scented. They open in May. The leaves are exceedingly large; in growth it is a tree.

The Cucumber Magnolia, *M. acuminata*, is excellent for avenue or lawn use, developing into a fine shade tree.

The same may be said of the Umbrella Magnolia, *M. tripetala*, with its large leaves. It does not grow so tall, but is more spreading.

For large leaves, *M. macrophylla* exceeds all. It is not uncommon to find them 2 to 2½ feet long and 10 inches broad. This is a very uncommon tree and not easy to locate.

Of bush form, the Purple-flowered Magnolia, *M. purpurea*, is quite popular. It is not hardy far north.

From China and Japan we have received treasures among magnolias, the most of which are more or less common.

The well-known pink and white magnolia, *M. Soulangeana*, is probably the best known. Closely resembling this are the varieties: *Speciosa*, *Norbertiana*, *Alexandrina* and others. There is a distinct variety of *Soulangeana* called *nigra*, the blossoms of which are a deep red. Habit of growth the same as the parent plant.

The pure white sweet-scented Yulan, *M. conspicua*, is unquestionably the very choicest large white-flowered magnolia.

There is one other beautiful white one, *M.*

stellata or *Halleana*, the Star-flowered Magnolia. It is dwarf and shrub-like and the first to open in the spring, the flowers frequently being in such profusion as to almost hide the branches.

In *M. Lennei* we have a superb variety, with large cup-form blossoms, rosy-pink to red on the outside, almost white inside. Excellent foliage.

THE HORSE CHESTNUTS AND BUCKEYES. *Æsculus* and *Pavia*.

These are especially good in heavy soil where many will not thrive. They are satisfactory street trees in the Middle and Northern States.

The American Buckeye, *Æ. glabra*, is well known as a quick grower and attains a good size in favorable locations, but is generally smaller and bushier than others.

The European, *Æ. Hippocastanum*, bears fine panicles of white flowers to be had in single and double form. It attains very large proportions.

One of the showiest of all is the Red-flowered Horse Chestnut, *Æ. rubicunda*. The flowers are of a good rich red, tinged with yellow.

There is a yellowish cast to the otherwise white blossoms of *Æ. Lyoni*, known to some as *Pavia Lyoni*.

The Yellow Buckeye, *P. flava*, bears light yellow flowers in profusion, but does not gain the height of the horse chestnuts, 30 to 40 feet being an average.

The Red-flowered Buckeye, *P. rubra*, is variable, reaching in some situations 15 to 20 feet, in others being only a shrub. The flowers, too, vary from light yellow to dark red. All the *Pavias* are bushy and less tree-like than the true *Æsculus*.

THE CATALPA.

Considerable interest has been awakened in the *Catalpa* in connection with its great value as a forestry tree. This refers, however, to the western *Catalpa*, *C. speciosa*, and not to the *catalpa* so commonly found along the Atlantic coast, *C. bignonioides*. This latter species is more spreading and not regular, as in the case of *C. speciosa*.

There is a golden variety of the *bignonioides* called *aurea*, which has a shade of yellow laid over the green.

The Japanese *Catalpa*, *C. Kaempferi*, is but slightly different.

Speciosa may be looked upon as the best for shade or lawn ornamentation, and is decidedly beautiful in June, with its large panicles of white flowers.

CONTINUED ON PAGE 30

Old-Fashioned Hardy Perennials for Garden and Border

ERNEST HEMMING



THE Old-fashioned Hardy Perennials are a group of plants which once planted are a permanent feature in the garden. They form the backbone or framework of most flower gardens, and are very essential, whether for elaborate gardens or but a simple border. Having them it is possible to do without annuals, bulbs, half-hardy plants and other flowers commonly met with, but with the latter without incessant attention and successive replanting the garden deteriorates. The perennials are like invested capital, which gives annual returns whether we labor or not.

The only places in which they are not usually suitable is in formal beds on lawns, where set designs in color are wanted, and which can only be produced with Coleus, Geraniums and other summer-bedding plants.

The accompanying plan will give an idea of what is meant by the formal old-fashioned garden.

The plan illustration is a very simple one, and

it will be readily understood that of such there is no limit to size or elaborateness. These may be planned to include tea houses, garden seats, sundials and other accessories and features, according to requirement.

It is always best to employ the services of a professional landscape gardener to prepare special plans, unless one is well-equipped with time and money, for after all professionally made plans are usually a saving in the end.

Simple gardens that are planned and planted by the owner, or which, like Topsy, "just grewed," are a constant source of interest and pleasure, and it is to the owner of such these notes are directed, to enable them to make their own selections.

Hedges for surrounding the gardens, edgings for the walks or beds, formal trees and evergreens, are treated separately.

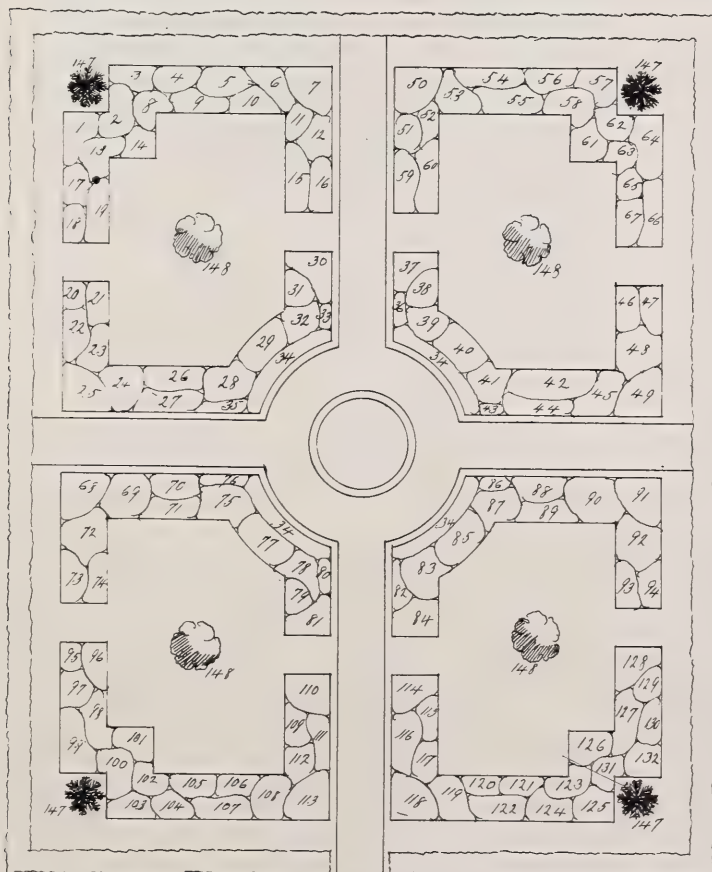
Formal gardens may be made in areas 50 feet square and upward, but where the property is not large enough to accommodate one a border makes a delightful arrangement. The latter is a feature

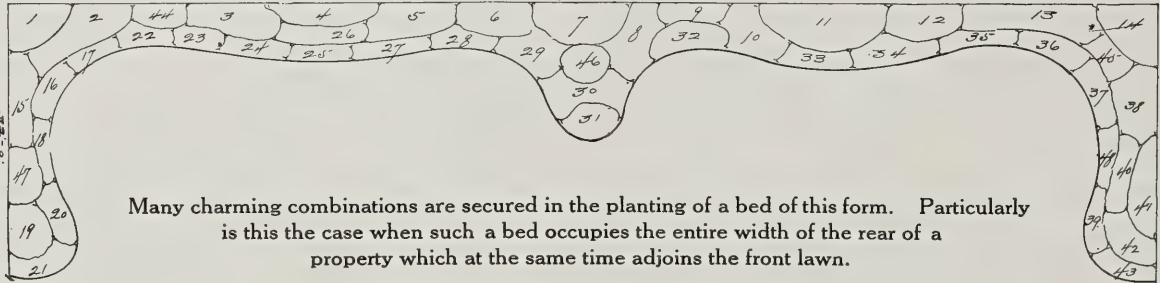
that may be adapted to almost any plot of ground however small. Borders may be made as small as 12 to 18 inches in width, and be merely a straight line, or 10 feet deep or more, with long, sweeping curves. Very deep borders should have shrubs planted in the background to relieve the flatness, or something bold and heavy in those positions where the border is very deep.

Plan illustration No. 2 will give an idea of the manner in which the plants should be arranged.

Several plants set in a group give a mass effect that cannot be obtained with single plants.

If economy is a consideration, and it is not important to have the perennials fill up the beds the first year, fewer plants may be used and the vacant spaces filled with annuals. The perennials will increase in a year or so and completely fill up the beds. Some kinds are so much stronger-growing than others it is necessary to reduce the sizes of the clumps occasionally to keep them within bounds, while others will require every encouragement to help them hold their own.





Many charming combinations are secured in the planting of a bed of this form. Particularly is this the case when such a bed occupies the entire width of the rear of a property which at the same time adjoins the front lawn.

When planting or making a selection of plants for a hardy garden, especially when not familiar with the names of the plants, the principal thing a person wants to know is when they bloom, what color they are, and to what height they grow.

Spring-flowering Group

After the long winter the first flowers of spring always give a thrill of pleasure, however modest and insignificant they may be.

Next to the bulbous plants, such as Crocus, Snowdrops, Daffodils and Tulips, the Hardy Perennials come out in quick succession, so that in a good collection there is not a day but there is something new and interesting.

They flower so early no time should be lost in planting, or they will be in bloom before the spring planting is done.

None of the early spring-flowering herbaceous plants are very tall. It might be said that they do not have time to grow before they flower, so should be usually placed well to the front of bed or border when planted in combination with summer- and fall-blooming plants.

Some, however, are taller and more robust growing than others, and to assist in arranging them they are separated into groups.

Low-growing plants to be kept in the foreground—

English Daisy,	Perennial Candytuft,
Lily-of-the-Valley,	Dwarf Iris,
Sweet William,	Mountain Pink,
Garden or Scotch Pink,	Globe Flower,
Geum,	Violet.

Taller and more robust plants for central positions—

Columbine,	German Iris,
Astilbe,	Lupine,
Bleeding Heart,	Lychnis,
Foxglove,	Pæony,
Native Geranium,	Oriental Poppy,
Day Lily,	Spiræas.
Rocket,	

Summer-flowering Group

When we come to the summer-flowering group there are so many it is difficult to make a selection

of the best. A collection of the different kinds of Phlox alone make a very fine showing.

Of some kinds there are both low and tall-growing species, but the following will show the usual gradation:

Low-growing plants to be kept in the foreground—

Betony,	Day Lily,
Bellflower,	Lavender,
Gas Plant,	Flax,
Funkia,	Stokesia,
Gaillardia,	Lychnis.

Stronger-growing plants for more central positions—

Achillea,	Sneezewort,
Amsonia,	Iris,
Chamomile,	Bergamot,
Baptisia,	Young's Evening Primrose,
Blackberry Lily,	Phlox,
Centaurea,	Salvia,
Snakeroot,	Thermopsis,
Clematis recta,	Tritoma,
Coreopsis,	Veronica,
Delphinium,	Sea Holly.
Cornflower,	
Gypsophylla,	

Taller-growing plants for the background—

Plume Poppy,	Loosestrife,
Heliopsis,	Polygonum,
Meehans' Mallow Marvel,	Thalictrum,
Hollyhock.	Golden Glow.

Fall-flowering Group

Plants in the fall-flowering group are all more or less tall-growing and consist of such kinds as Michaelmas Daisy, Starwort, Eupatorium, Sunflowers, Golden Rod and Vernonia, so should invariably be placed where tall plants are needed.

The Chrysanthemum and Japanese Anemone, while fairly tall and robust plants, should be kept well to the front, as they dominate the garden at that time of year, little else being in bloom.

Descriptive List

Many of our readers already have gardens or borders established and perhaps only wish to add to their collection a few new varieties or a few

plants to give them a trial and make their acquaintance.

A dry list of botanical names is all right for the expert, but to the average flower lover and gardener conveys little meaning. For this reason the following is a much abridged list, merely mentioning the most noteworthy, and treats them rather in groups than individual varieties, special note being made of those kinds which have the longest season of bloom:



The beautiful, delicate bell flowers of *Campanula persicifolia*—violet blue in color.

ANEMONE—WINDFLOWER.

The Japanese Anemones are good for cutting, but do not do well in every location. They are always worth a trial. *A. Japonica alba* is white, *rosea* pink, *rubra* red, Whirlwind semi-double white, and Queen Charlotte a beautiful semi-double La France pink. Give them partial shade.

AQUILEGIA—COLUMBINE.

There is a great variety of form and color in Columbines, and all are good. The most robust and reliable are the varieties of *A. vulgaris*, many of which are double. Three dwarf kinds are *A. flabellata nana alba*, a lovely white; *A. Cana-*

densis, scarlet, and *A.* (the best for dry soils) *nana plenissima*, dark blue. *A. chrysantha* is a tall-growing, yellow kind, with loose, airy effect. Then there are the beautiful Erskine Park Hybrids and others. The Rocky Mountain Columbine, so popular, is the poorest and most unreliable grower of all in the Eastern States.

ASTER—MICHAELMAS DAISY.

The Michaelmas Daisies are perennial—not the large-flowering annual China Asters.

Although American, their splendid qualities are esteemed in Europe more than they are here. The showiest and best are:

A. Nova-Angliæ—purple, with rose and white varieties.

A. Novi-Belgii—numerous varieties in white lavender and shades of blue and purple.

CAMPANULA—BELLFLOWER.

Among the showiest and best for flower cutting in the garden—so very lasting.

The Canterbury Bells, *C. Media*, are in blue, white and pink, and both single and cup-and-saucer form. The latter goes under the name of *Calycanthemum*.

Other good kinds are *C. glomerata*, with the flowers bunched at the top of the stem, and *C. persicifolia*, blue and white, large flowering, with fine, long stems.

The Platycodons are the Japanese Bellflowers. Extremely good for cutting and they flower nearly all summer long.

CENTAUREA—PERENNIAL CORNFLOWER.

The perennial Cornflower most resembling the well-known annual is *C. montana*. It is somewhat lower-growing, but has larger flowers in dark-blue and rose colors, and is a constant bloomer.



Unlike the well-known Corn Flower, this beautiful strong-growing variety reaches 4 to 5 feet and makes a show with its rich yellow blossoms. It is *Centaurea macrocephala*.



Quite distinct from all other perennials. This is *Echinops* the Globe Thistle. The ball-shaped flowers are a bright steel blue.

C. macrocephala is a bold-growing kind, with huge globular heads of yellow flowers—very handsome.

C. ruthenica is a pretty mixture of pink and white.

CHRYSANTHEMUM.

(See elaborated notes in November BULLETIN.)

COREOPSIS—TICKSEED.

If there is one plant above all others that you can "cut and come again" it is *C. grandiflora*. It has a very lengthy season of flowering, and the bright, golden yellow flowers have splendid decorative value. *C. senifolia* is distinct and attractive.

DELPHINIUM—LARKSPUR.

Who does not want in his garden some of those exquisite blue spikes of the Perennial Larkspur? The trouble is we see them and read about them in England 6 to 8 feet high, and are then disappointed with anything less. The largest spikes come in spring and early summer, but secondary spikes of blooms are produced at intervals through the summer, giving a long blooming period. The fault is not in the plants, but in the climate and in not being acquainted with them well enough to know just what they want. The tall kinds are *D. elatum*, but they are much hybridized. Beautiful strains are English hybrids, Erskine Park Hybrids, Gold Medal Hybrids, etc.

D. Chinense is the Chinese Larkspur and has a loose, spreading habit, with blue and white flowers.

D. formosum—beautiful indigo blues, also

somewhat spreading, not so tall and "spikey" as the English kinds.

DIANTHUS—PINK.

Among the Dianthus are included the Sweet William, *D. barbatus*, which has a great range of color, and the lovely garden pink, *D. plumarius*, with its delicious, clove-scented fragrance.

Some good varieties are Her Majesty, Perpetual Snow, and Mrs. Sinkins, white; Lord Lyons, deep pink; Variabilis, white with maroon marks.

DICTAMNUS—GAS PLANT.

A rather uncommon and interesting plant. There is both a red and white variety. Rather slow-growing, but very desirable.

DIGITALIS—FOXGLOVE.

An old-fashioned garden would not be complete without the insistent spikes of the Foxglove. The purple is the best known. Then there is a white one and a good yellow, *D. grandiflora*.

D. lanata is very distinct and curious, having dense spikes of flowers gray and white and a longer period of bloom than the others.

EUPATORIUM.

E. ageratoides. Produces large quantities of white bloom, good for cutting. It does not begin to flower until late, but when it does the supply for cutting is continuous.

E. caelestinum is blue, very beautiful, but not so hardy as above.



Stokesia cyanea or Stokes' Aster reminds one something of a Chinese Aster. The blue of the flower is very attractive.



In autumn, when the garden begins to show signs of winter, the bright blossoms of the Anemone renew the floral display.

E. purpureum is a handsome, bold-looking plant of large proportions, 6 to 9 feet, fleshy purple flowers.

FUNKIA—PLANTAIN LILY.

It is the foliage, rather than the flowers, that make the Plantain Lily so desirable, although the flowers, too, are very showy, especially those of *F. subcordata grandiflora*. This has large, white, waxen fragrant flowers—sometimes known as the August Lily.

All the Funkias are somewhat partial to shaded places, so are extremely valuable on that account, as growing where many will not.

GAILLARDIA—BLANKET FLOWER.

A grand plant for a somewhat dry, sunny position. Crimson, yellow and brown are the prevailing colors beautifully blended in each daisy-like flower. Has rather a low-spreading habit and blooms nearly all summer long.

GYPSOPHILA—BABY'S BREATH.

Dainty, light, feathery sprays of flowers that are a joy to the decorator, both when fresh cut and when dried.

G. paniculata is quite mist-like. *G. Bokejeka* is

a little coarser. Dwarf kinds are *G. cerastioides* and *G. repens*.

HELENIUM—SNEEZEWORD.

For mass effects there is nothing to beat the Helenium. *H. autumnale superbum* is yellow. *H. var. superbum rubrum*, a reddish-brown. Other good kinds are *H. Bigelowii*, *Riverton Gem* and *Riverton Beauty*.

The early spring-flowering one, *H. Hoopesii*, is quite distinct from any of the above. It is not suitable for mass effects, but splendid for cutting. The orange-colored, daisy-like flowers are very rich.

HELIANTHUS—SUNFLOWER.

Every one knows the Perennial Sunflower. They are nearly all strong-growing and tall.

The one with large, double, dahlia-like flowers is *H. multiflorus plenus*, with variety *Soleil d'Or* and others. *Maximilliana* is good and so is *orgyalis*, but plant them where there is lots of room to spread or where very tall plants are wanted.

HEMEROCALLIS—DAY LILIES.

All flowers of the lily type are desirable. The Hemerocallis especially so, because they are so



Foxgloves—the real, old-fashioned flowers of our grandmother's garden. They will always be popular.

adaptable and hardy. The yellow and orange colors suit the most fastidious. By planting the different kinds, a very long season of bloom can be secured. *H. flava*, the Lemon Lily, is the great favorite. *H. Thunbergii* is equally good and is later.

HIBISCUS—MEEHANS' MALLOW MARVELS.

A specialist on hardy perennials, with a large business of his own, when he first saw the Mallows in our nursery, said: "If it had been my fortune to produce these Mallows I should feel quite satisfied with my life's work." He meant it, too.

Give them an open position, where the ground is deep, rich and moist, and plenty of room, as they make large bush-like plants, 5 to 6 feet high, and as many feet through when well-grown. They make nice centerpieces in a garden.

The colors are crimson, red, shades of pink and white.

HOLLYHOCK.

These are so well known as to need no remarks. They thrive best in rather sandy, deep, well-drained soil.

IRIS—FLEUR DE LIS.

There are so many different species and varie-

ties of Iris that they are a garden in themselves. The main groups are:

Iris Germanica (Garden Flags) which are to be seen in almost every garden. The range of color is very great, all shades and mixtures of purples, blues, lavenders, yellows, browns and white. Rather indispensable for soil rather light and poor.

Iris pumila (Dwarf Iris). Having the same range of color and general appearance as above, but a little earlier and but from ½ to 1 foot.

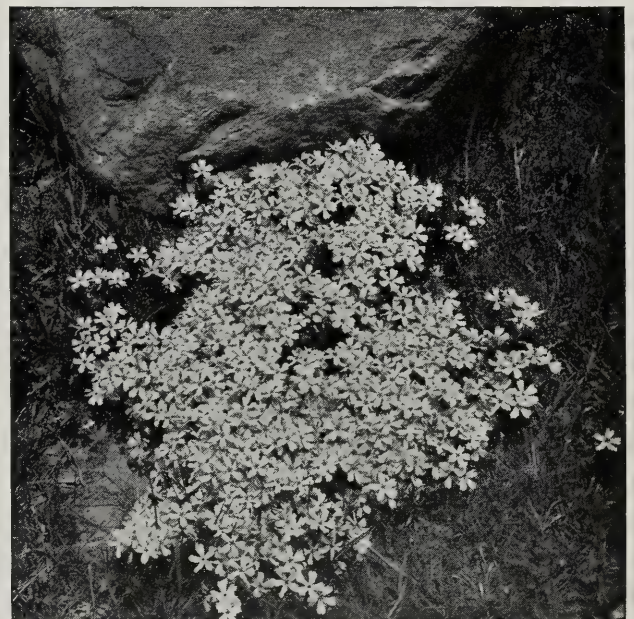
Iris laevigata (Japanese Iris). Flower much later than the above. At their best in July. The colors are white, all shades of purple, blue and pink, with veinings and markings peculiar to themselves. All have a bright yellow flame of color at the base, making a beautiful contrast, especially in the dark-purple self. The petals are at least twice as large as other Iris. They are imported from Japan under names that are unwritable and unpronounceable by the occidental—so many are sent out under number.

LOBELIA.

L. cardinalis is such an intense red color there is nothing quite like it. Give it a moist position if possible. *L. siphilitica* is blue, but not so showy as above.

LYCHNIS.

This genus includes such old friends as the Mullein Pink, Ragged Robbin, Maltese Cross, Scarlet Lightning, Flower of Jove and others. All good, showy things and very reliable.



One of the best flowers for a ground carpet is the Mountain Pink or Moss Pink—*Phlox subulata* in variety.

MONARDA—BERGAMOT.

The peculiar fragrance of the root, leaves and flowers, to say nothing of the attractiveness of the flowers, warrant it a place in every garden.

M. didyma splendens is especially fine, being brilliant scarlet.

M. fistulosa—pinkish purple and a white variety.

M. mollis is a pleasing soft pink.

All grow about 2 to 2½ feet high and are rapid-spreading.

ŒNOTHERA—EVENING PRIMROSE.

The Evening Primroses seem to know the time of day one is most likely to take a stroll in the garden, and are best at that time. Their yellow flowers seem to have a phosphorescent gleam in the twilight.

Œ. Missouriensis has very large flowers and is very low-growing, and has a very long season of bloom.

Œ. Youngii is about 2 feet high and flowers profusely.

Œ. speciosa is white, in height intermediate of the two.

PAEONIES.

There are four groups of Pæonies in general cultivation.

P. Moutan, or Tree Paeony. The name is a little misleading, as it is rare that they reach 5 or 6 feet. They are a true bush, however, having woody stems that do not die down in winter like the others.

When well-grown they are extremely beautiful, but somewhat difficult to grow, and not so adaptable as compared with the herbaceous kinds.

It is the satiny texture of the flowers, combined with the delicate shades of color, that make them so enchanting.

Pæonia tenuifolia, or Fennel-leaved Pæony.

A charming kind that has very finely cut foliage and dark crimson flowers. There is both a double and single form. The earliest of all Pæonies and one which every one likes as soon as they see it. The tops die down during the hot summer months.

P. officinalis. The double form of this is the real old-fashioned Crimson Pæony that blooms early. There is also a pink and a nearly white one.

The main group of Pæonies is the Chinese group, or *P. Sinensis*. There are thousands of varieties—single, anemone-flowered, semi- and full-double, in every conceivable shade of pink, red and white. Some almost approach a yellow in cream and straw shades. Progressive nurserymen do not keep poor varieties, and it is safe



Do you know this beautiful and graceful flower? It is *Veronica virginica* and worthy of a place in every hardy garden.

to leave the actual selection to him, simply naming color preference.

Pæonies like deep, rich soil and good, open positions. Plant in the fall for best results, and do not plant too deep; crowns about 2 inches under the surface of the soil is all right.

PAPAVER—POPPY.

The annual Poppies are perhaps the best known, but while they are very fine they will not take the place of the perennial Oriental Poppy, with its flaring red flower.

In most situations the plants grow in early spring and flower in May and June, then the tops die off, but put in their appearance again in the fall.

PENTSTEMON.

The Pentstemons are particularly good for sunny places during the hot, dry spells. When all vegetation seems to be drying up the Pentstemons look quite happy.

P. barbatus, also known as *Chelone barbatus*, is very attractive, having long spikes of coral red bells, and in other shades of color. The spikes are a little sprawling, but otherwise good.

P. Digitalis is strong-growing, upright and compact. One to 3 feet high. White in color.

Other desirable sorts are *P. diffusus* and *P. pubescens*.



Fortunate is the perennial enthusiast who has a moist position where he may have Japanese Iris. The largest of the Iris come from this species.

GARDEN PHLOX.

Phlox are a garden unto themselves. There is nothing quite equal to them in all-round good qualities.

Formerly they consisted of white and a few dull shades of pink and purple, but not so now. There are varieties of the most vivid crimson, the clearest and softest shades of pink, clear mauves and purples and snowy whites.

The colors are apt to deteriorate in old plants. The secret of success is keep your plants young.

The following are some of the best out of the hundreds in cultivation:

Aurora Borealis—Orange red, purple center.

Carran d'Ache—Rosy carmine.

Champs Elysees—Rich purple crimson.

Coquelicot—Fine pure scarlet, with deep carmine eye.

Eugene Danzanvilliers—Lilac, shading white. One of the most distinct. Very pleasing.

Gen. Chanzy—Salmon scarlet.

Independence—Large pure white.

La Vague—Beautiful combination of rosy-pink and lavender.

L'Esperance—Bright lilac, beautifully shaded.

L'Evenement—Salmon pink.

Lord Raleigh—Dark rich violet.

Lothair—Brilliant salmon, cardinal eye.

Mad. P. Langier—Bright red, vermilion center.

Moliere—Salmon, tinted rose.

Prof. Schlieman—Bright lilac rose.
Princess Louise—White, small pink eye.
Queen—Beautiful pure white.
Richard Wallace—White, crimson center.
Terre Neuve—Lilac, crimson center.
Wm. Robinson—Tall salmon-pink. Very bright.

PHYSOSTEGIA.

Good, tall plants bearing spikes of lavender flowers. The most interesting is *P. Virginica*, Obedient Plant. The individual flowers will stay where they are pushed, either to the right or the left. There is also a white variety.

PYRETHRUM.

P. uliginosum is like the wild ox-eye daisy, but much taller. Very good for cutting in July and August.

It is a pity that the charming double varieties of *P. roseum* are not more adaptable to the American gardens. They are such a feature in the European ones.

Sometimes they may be seen here doing excellently, so they are certainly worth trying. They do not like a hot, dry place.

RUDBECKIAS.

The popular "Golden Glow" is the best known of the Rudbeckias, but it does not give a very good idea of what the others are like.



Very few know this flower though it is decidedly pretty. It is *Thermopsis Caroliniana*, and the pea-shaped blossoms are a golden yellow.

The Black-eyed Susans, *R. fulgida*, *R. Newmanni*, *R. subtomentosa* and the Coneflowers are more representative, and quite unlike Golden Glows in being dwarf. They have rich orange-yellow flowers, with dark cone-like centers.

R. Maxima is uncommon and distinct, sending up flower stems 5 feet high and having rich, glaucous-green foliage.

Echinacea purpurea is known as the purple Coneflower. Has remarkable lasting qualities.

SALVIA—SAGE.

The Scarlet Sage is a representative of the Sage family, but is not hardy. Good kinds that will winter are:

S. argentea. A remarkable plant with leaves covered by silvery hair and with white flowers. It is very attractive and handsome.

The flowers of the common Sage, used for flavoring, warrant it a place in the flower garden, where it will always be convenient when the cook wants a few leaves.

Other hardy kinds are *S. nutans*, with nodding blue flowers, and *S. azurea grandiflora*, a beautiful azure blue. They are rather sprawling, but worth growing on account of the color of the flowers.

SOLIDAGO—GOLDEN ROD.

These are so common that they are often less planted in the garden than they should be. We grow lots of poorer things just because they are not native.

The best are *S. sempervirens*, with broad green leaves; *S. Canadensis*, tall and plumy; *S. senotina*, *S. lanceolata* and *S. nemoralis*, late.

SPIRÆAS.

All the Spiræas are good for cutting—so much so that a number of them are used for forcing in the greenhouse.

All like an abundant supply of water, so should be given a moist position. The pink varieties are delicately colored.

THERMOPSIS.

T. Caroliniana stands quite alone in its distinctness. The tall compact spikes of yellow flowers are unusual, though much like the Larkspur. It is very hardy, robust and of an ornamental habit—not perhaps so old-fashioned as many of the preceding, but none the less worthy of a place in every hardy garden.

TRADESCANTIA—SPIDERWORT.

Very interesting and pretty plants for partially shaded places. Had in blue, white and purple.

TROLLIUS—GLOBE FLOWER.

The Trollius, or Globe Flower, is certainly rich. They resemble somewhat large buttercups, but one



A golden yellow, double Buttercup with rich, glossy green foliage, known botanically as *Ranunculus acris fl. pl.* It loves a moist situation and is a rampant grower.

must see them growing in the English gardens to really appreciate them. Give them a position where the ground is rich, deep, moist and cool.

VERONICA—SPEEDWELL.

The largest and handsomest of the Veronicas is *V. longifolia subsessilis*, whose fine blue spikes reach the height of 2 feet. *V. Virginica* is the tallest white kind. Other kinds are perhaps best adapted for rock gardens and as cover plants.

VIOLA—VIOLET.

Such modest plants can hardly be recommended for the hardy flower garden; they are not showy enough. It is better to plant them by themselves in border, bed, or frame, to give a supply of their fragrant blossoms. The old-fashioned, hardy kinds are perhaps not so large as those grown in the greenhouses, but they are a great deal more fragrant.

Catalogues may be referred to for complete details of height, color and time of flower, and all the numerous varieties.

Up-to-date nurseries will always have many good things too numerous to catalogue independently, and the garden lover will find it desirable to occasionally get a trial collection of little known things.

WILL YOU HELP?

You will see by going through this number of the "Garden Bulletin," that it is sure to benefit the garden owner. Do you know of persons who will be interested in seeing a copy? If you do we would appreciate their names and addresses.



The foliage, flowers and fruit of the Shellbark Hickory—*Cary alba*.

Nut Trees

STANLEY V. WILCOX.



WHAT tree could one plant that would return pleasure and profit in so great a measure as some variety of hardy nut? In nearly every nut tree there is a symmetrical habit of growth, beauty for park or lawn ornamentation, a harvest of delicious nuts and timber unsurpassed for many purposes.

The encroachings of cities, of lumbermen's inroads, of insect pests and fungous attacks are causing a steady decline, which can only be overcome by a liberal replanting.

Let us briefly consider some of the most adaptable and desirable kinds, confining ourselves chiefly to those with quite a range.

THE CHESTNUT.

There is material for a volume in itself on this interesting tree, and our enthusiasm must be curbed to condense all we should like to say into a small space.

Let us consider the Chestnut in this order :

Castanea Americana, the Sweet American Chestnut.

Castanea Japonica, the Japanese Chestnut.

Castanea pumila, American Chinquapin.

Castanea vesca, Spanish Chestnut and its varieties—Paragon, etc.

American Chestnut.—No other tree, we fancy, is more familiar, no other nut more largely sought than the Sweet American Chestnut. Other varieties produce larger, more meaty nuts, but there has yet to be produced a nut of this size so sweet.

Individual specimens of this favorite attain magnificent proportions, spreading and majestic. In plantations or groves they are slender, upright trees, with straight trunks of great height.

The destructive fungus has discouraged large plantings, and until a positive remedy is discovered attention of planters had best be turned to the Japanese and Spanish varieties, which have thus far proven almost immune.

The Chinquapin.—This variety should be more largely planted. The nuts, though small, are very sweet and palatable; and the dwarf, shrubby habit of growth is ornamental and an effective screen.

As with all Chestnuts a well-drained soil and sunny exposure is most suitable.

The Japanese Chestnut.—To those who slight nut trees on account of the years one must wait, sometimes, before they commence bearing, the Japanese Chestnut will commend itself. The smallest trees hold up proudly their large burrs containing large, glossy nuts at a very tender age.

The nuts are larger than the Americans and, although not as sweet, are decidedly good—best when cooked.

The bushes never attain a height of more than eight to twelve feet, and are useful, therefore, as a shrub in ornamental plantings. The leaf is bright and glossy, and adds greatly to the attractiveness.

The Spanish Chestnut.—This Chestnut produces a large nut which, however, is encased in a skin which uncooked is bitter. The tree is a sturdy grower and not so hardy as our native kind. Like the Japanese, it is free from disease.

It is variable, and many good kinds have been selected and named. Of these, the Paragon is the best known and most deserving.

Mostly propagated by grafting, these varieties are known as "Grafted Chestnuts."

The nuts of the Paragon are more edible in a raw state than the Spanish, and are of large size. This variety is to be highly recommended for orchard planting. Small trees will bear three or four years from the graft, and a six- or seven-year-old tree can be looked upon for a fair crop annually.

Although used as individuals, they are at their best planted in orchards or groves. The cultivation received when so planted is of great benefit.

Numbo, Ridgely and the Sorber are other varieties of merit.

Chestnuts are transplanted with some difficulty, and it is a wise plan to order extra plants to fill in possible failures.

THE HAZELS.

The Filbert, Hazel, or Cob Nut are all names given to the nuts of *Corylus Americana* and *Corylus avellana*. The nuts are most useful, indeed, for the table, and are grown abroad in large quantities.

The American Hazel (*Corylus Americana*) is a useful tall shrub for many purposes. This species is useful for thicket plantings, does well



The Big Shagbark Hickory which develops into a specimen of greater proportions than the *alba*. This is *Carya sulcata*.



Could one wish for a more attractive specimen tree. This is the usual form of the Spanish Chestnut, *Castanea vesca*.

in partial shade, and will succeed in any well-drained soil. The leaves are broad and rugged, and the shrub is, on the whole, beautiful all the year round.

The nuts, which are brown, small and roundish, ripen in September, and should be gathered as soon as the edge of the husks start to turn color.

Of the European form there are many improved kinds, such as Cosford's Thin Shell and Garibaldi, a very large nut. There are also many types used in ornamental plantings exclusively. Two of the best known are the Cut-leaved and the Purple-leaved varieties.

THE HICKORY.

Like the Chestnut, the Hickory needs little or no introduction, except to explain certain varieties. It is popular for the same reason that makes most things popular—*i. e.*, "It is a good servant."

There are many varieties, mostly all quite commendable trees. The best are:

Carya alba, Shellbark.

Carya amara, Bitternut.

Carya microcarpa, Small-fruited Hickory.

Carya porcina, Pignut.

Carya sulcata, Big Shag-bark Hickory.

Carya tomentosa, White Hickory, Mockernut.

Carya oliviformis, the Pecan, differs so much in its requirements of climate it is treated more superficially than it deserves.

The Shellbark, or Shag-bark, bears a nut which for goodness is hard to excel.

Hickories are hard to transplant and difficult to graft or bud. For this reason but little improvement has been made in the nuts as yet. Hales' Paper Shell, a variety with a comparatively thin shell and full of meat, is one of the best improvements.

Taken all in all, the Shellbark is a very ornamental tree at all times of the year. The broad, compound leaves, the pendulous blossoms, the large angular hulls, which enclose the sharp pointed white nuts, the shaggy bark and large buds make it an interesting study.

The Bitternut and Pignut bear nuts that are decidedly "puckery." But for their ornamental qualities and value for forestry purposes they would have no mention.

The Mockernut is another splendid park tree. It attains a large size and is very long-lived. In comparison with others it is of rather slow growth.

A characteristic of this variety, and, in fact, of Hickories in general, is that they will succeed in poor soil and cold climates. They like to be near water courses.

The Kingnut, or Big Shag-bark Hickory, is another splendid tree for general planting.

As all the Hickories are rather difficult to transplant, on account of the long tap roots, it is best to start with medium-sized trees and cut them back severely when planting. It is almost an essential that nursery-grown trees be secured if one would succeed with them.

The Pecan is, without doubt, the best of our native nuts. It is receiving marked attention by southern planters at present, and may be had in improved varieties.

In the Northern States only the hardiest kinds will succeed, and none of them will do much farther north than Connecticut.

Fifty feet apart is not too much to allow Hickories. As a single specimen it is much admired.

THE WALNUT.

The most important Walnuts are:

Juglans cinerea, The Butternut.

Juglans nigra, American Black Walnut.

Juglans regia, English or Persian Walnut.

Juglans Sieboldiana, Japanese Walnut.

The American Black Walnut has a high flavor peculiarly distinctive, and should be cultivated more. It attains a very large size, and should be planted well apart to give lots of spread to the roots.

As a timber tree the Black Walnut is hard to equal and of increasing value.

The Butternut is also a highly flavored nut, and a favorite. Both it and the Black Walnut thrive best in deep, moist soil.

The English Walnut has long been noted as a desirable tree. It was introduced by the early

settlers, but seems never to have become very common here, due very likely to unsuitable conditions. In Pennsylvania trees raised from hardy types will do splendidly on well-drained hillsides. Philadelphia has had trees bearing bushels of nuts.

The *Juglans Sieboldiana* has proven perfectly hardy, and is deserving of a place in our hardy tree plantings. A peculiarity of the nuts is that they are borne in large clusters.

THE ALMOND.

The Almond is one of the oldest nuts in cultivation, but for our Northern States it is of little or no use. As hardy as the Peach, it was thought at different times that it could be cultivated in our eastern peach-growing sections. These attempts have not been successful, due largely to the disastrous early frosts. It could be used in many positions, however, for a specimen tree.

Here and there one is occasionally seen, and sometimes these trees bear regularly and profusely.

THE BEECH.

Every one is more or less familiar with the gray-barked American Beech. While mostly considered as an ornamental tree, its nuts, though small, are sweet and rich.

The English variety is a favorite also. Its uses are legion—a nut bearer, a forest tree yielding timber suitable for fuel, and for manufacturing; as an ornamental shade tree, it has many varieties, such as the Weeping type, the Purple-leaved and the Fern-leaved kinds.

So many of our nuts have possibilities as ornamental trees, they should certainly receive more consideration as such. For specimen plantings in parks, cemeteries, private estates, etc., they should supersede many trees now used for such purposes.

Tax on Christmas Trees

In view of the article in the December GARDEN BULLETIN, the following newspaper notice will be interesting and seem to contradict some of the previous statements:

"To conserve the forests of the Green Mountain State a bill which is expected to pass is in the legislature. It places a tax of twenty-five cents on every Christmas tree shipped out of the state. Should the bill pass, the Vermont Christmas tree will disappear from the markets of Boston and New York.

"The legislature already has placed a tax of five cents on Christmas trees."



The flowers of the Wild Bird Cherry, *Cerasus Padus*, and also the rich, glossy black berries which follow are the choicest of dessert to a wide range of songsters.

Fruit-bearing Plants to Attract Birds

HARRY BROWN

As a fitting introduction to these notes let me quote the following from a recent book:

"If the bird-lover's door-yard is so small as to hold only one tree, no other one will attract so many feathered visitors as the Russian Mulberry. Robins, catbirds, tanagers, grosbeaks, wax-wings, orioles and thrushes are not by any means the only appreciative visitors with the poor sense to prefer the insipid, sweet fruit to the very best berry God ever made. Scientific farmers are now systematically planting Mulberry trees (*Morus tatarica*), June Berries (*Amelanchier*) and Choke Cherries (*Cerasus Virginiana*) as counter attractions to their strawberry beds, whose fruit ripens at the same time. Especially myriads of flies, ants, wasps and other insects that come to sip the syrup of over-ripe mulberries draw insectivorous birds, as well as more dainty feasters."—*Blanchan*.

There are many ways in which plants are beneficial to man, but one of the most important and most neglected ways is by giving food to song and insectivorous birds, serving to keep these desirable birds longer about the premises.

In the following list will be found a variety of plants of which the seeds are food for various birds. The migrating birds will not be held out of their usual summer or winter resorts, but will make their stay longer where there is good food.

The flowers and berries make it worth while planting them purely for ornamental purposes.

(The figures in parenthesis denote height at maturity.)

Cerasus Padus. (*European Bird Cherry*.) (30 to 40 feet.) The black berries hang in attractive racemes and are much liked by birds. Flowers are ornamental.

Cerasus Pennsylvanica. (20 to 25 feet.) The small, bright-red, sour fruit ripens in June.

Cerasus serotina. (*Wild Black Cherry*.) (30 to 35 feet.) The black fruit ripens toward autumn.

Cornus florida. (*White-flowering Dogwood*.) (20 to 25 feet.) Beautiful red berries, borne in clusters, ripen in October.

Cornus paniculata. (8 to 10 feet.) This upright-growing shrub ripens its white fruit in July.

Cornus alternifolia. (*Blue Dogwood*.) (8 to 10 feet.) Blue-black berries, ripen in early August.

Cornus sericea. (*Silk-leaved Dogwood*.) (6 to 8 feet.) The fruit ripens in August, changing from white to blue-black.

Aralia spinosa. (*Hercules Club*.) (10 to 15 feet.)

Aralia Japonica.

Aralia Mandschurica.

The small, black berries of *Aralia* are borne in large clusters at the terminus of thick, thorny stems. *Mandschurica* ripens in August, followed by *spinosa* and *Japonica*.

Betula. (*Birch*.) (40 to 50 feet.) The first of the birches to ripen is the Red or Water Birch in June, followed by the English White,

Poplar Birch, Sweet and Yellow. The wild canaries delight in pecking at the catkins.

Lindera Benzoin. (*Spice-bush.*) (6 to 8 feet.) The red berries ripen in September. The plant likes a moist situation.

Chionanthus Virginica. (*White Fringe.*) (10 to 12 feet.) As these blue-black berries ripen in September the robins will take them as fast as they change color. As they ripen successively they give food for about two weeks.

Nyssa multiflora. (*Sour Gum.*) (40 to 50 feet.) The blue-black berries ripen in the middle of September. Good autumn coloring.

Morus. (*Mulberry.*) (20 to 30 feet.)

Morus alba. White-fruited.

Morus rubra. Red-fruited.

Morus tatarica and "Downing's Everbearing." Black-fruited.

The mulberries ripen in July, when they are much desired by birds, especially robins.

Photinia villosa. (10 to 12 feet.) The small, red berries, ripening in September, will be taken by birds almost as fast as they color.

Sassafras officinale. (30 to 40 feet.) These black berries are very much liked. Ripen about the middle of August.

Amelanchier. (*June Berry.*) (8 to 10 feet.)

The fruit of these plants is much desired. Birds start feeding on them as soon as they have changed to a dark-red color and before fully black and ripened.

Juniperus Virginiana. (*Red Cedar.*) These berries make good food through the winter.

Ampelopsis Virginica. (*Virginia Creeper.*)

Ampelopsis Veitchii. (*Boston or Japanese Ivy.*)

Both varieties have black fruit, ripening in October.

The following is a list of berries not much sought after by birds, but they will be eaten where other foods are scarce:

Celtis occidentalis. (40 to 50 feet.) Brown. Ripens in November.

Berberis. Red fruit. Ripens in October.

Pyrus arbutifolia. Red fruit. Ripens in October.

Pyrus melanocarpa. Black-fruited. Ripens in October.

Sambucus. (*Elder.*) Ripens in June and July.

Sambucus Canadensis. Black fruit.

Sambucus var. alba. Amber fruit.

Sambucus racemosa and pubens. Red fruit.

Beech and small Oak acorns.

Roses. The fleshy part of the rose hips are often eaten by birds.

A New School of Horticulture for Women

An attractive booklet reveals the fact that a School of Horticulture for Women has been founded in Pennsylvania during the past year.

Although the movement is somewhat new in this country, few there be that will question woman's fitness to follow the profession of horticulture, either as a hobby or a means of livelihood.

Thousands of women make gardening their hobby and are benefited in health by it. Those who follow the profession as a means of livelihood will be helped a long way on the road to success by a course of study and training at a good practical school.

It is with considerable gratification we notice the Pennsylvania School of Horticulture for Women is a near neighbor, and we gladly give it an appropriate welcome. It was founded and is under the control of an efficient and altruistic management.

The movement should have the interest and support of all true friends of progress.

Nut Growers Unite

At a meeting at the Botanical Museum in Bronx Park, New York City, on November 17, 1910, the Northern Nut Growers' Association was organized, with Dr. Robert T. Morris, of New York City, as president; Mr. T. P. Littlepage, of Washington, D. C., as vice-president, and Dr. W. C. Deming, of Westchester, New York City, as secretary and treasurer. The Executive Committee consists of Prof. John Craig, of Cornell University; Mr. Henry Hales, of Ridgewood, N. J.; Prof. C. P. Close, of the Maryland Experiment Station, and the president and secretary.

Membership in the society is open to all persons who desire to further nut culture, without reference to place of residence or nationality.

The annual dues are \$2; life membership, \$20.

Appreciating Plants' Needs

Recently I put my lily-of-the-valley bed in condition for winter. This bed is somewhat elevated, and during the season past the soil had washed a little. To the casual observer the bed would seem well-prepared for winter, but I noticed that all over the surface of the ground the young feeding rootlets were exposed to the wind and weather.

I am having about an inch or two of good, rich loam spread over the ground, forming a good winter blanket for these plants. Next spring I'll get my reward in a wealth of bloom. W. J. C.



The Destructive Tent Caterpillar

S. MENDELSON MEEHAN.

One of the most familiar insect pests is the Tent Caterpillar's.

However well known, few persons prepare and continue to stamp them out.

The accompanying illustration is a snap-shot, and does not reveal the caterpillars which are swarming over the "tents" so clearly shown.

A cluster of eggs to be found on trees infested with the tent caterpillars.

Apart from the necessity for getting rid of these pests, the study of their life-history, habits, and the methods for combating them is of intense interest, while the knowledge gained will make riddance of them comparatively easy if one apply the knowledge intelligently and promptly as required.

The trouble begins with the deposit of a mass of eggs by a moth on the small limbs of trees. These egg masses are easily discernible, but may be confused with those of the canker worm, which



How appropriate is the common name, Tent Caterpillar when we see the formation as shown in this illustration.

they resemble. (One species of canker worm does not lay eggs until autumn.) Eggs of the tent caterpillar are laid in July and hatched the following spring. An illustration shows the egg masses which are covered or "varnished" by the insect with a viscid liquid.

These eggs hatch very small caterpillars in spring, which at once commence to feed on the leaves and young growth of the tree.

These little caterpillars grow very rapidly, and for protection at night and from bad weather they spin silken "tents," usually in the fork of branches.

In about six weeks (say mid-June), they are

full-grown—about two inches—and ready to go into the dormant chrysalis state.

The tents are forsaken and convenient places, loose bark, boards, etc., are sought out, beneath which to spin the silken, yellow cocoons within which they are to undergo transformation to a moth. This latter is accomplished within a few weeks, and in July we have the result—pretty little brown moths, to all appearance harmless little things, but soon actively "sowing the seeds" of much future trouble.

What is to be done? On a few small trees egg masses may be sought out, scraped from the trees and destroyed.

Those of the canker worm, by the way, may be confined to the lower parts of trees by preventing the wingless female "moth" from ascending high. A band of sticky material or other prevention will accomplish this. The eggs are necessarily deposited below the obstacle.

Next, the young caterpillars may be poisoned with Paris green. Have all materials ready for use on an hour's notice; don't permit delay. Mix equal parts of lime and Paris green to prevent the latter injuring the tender leaves. Use as a powder; or, in liquid mixture, one pound Paris green, one pound lime, 200 gallons of water.

Still another method is to take a lighted torch, holding it momentarily beneath the tents, and so destroying the caterpillars gathered there. Be sure they are "at home" before attempting the work.

Sticky bands have no value except as an obstacle to passage down the trunk as the caterpillars go off to spin their cocoons, or to the canker worm in preventing the wingless moth from ascending.

A loose cotton band some times acts as the shelter which the caterpillars are looking for, and consequently the cocoons may be spun on the trunk, where they can easily be gathered.

It is dangerous to smear some sticky substances directly on the trunk of small trees of which the bark is comparatively young and tender. A band, not too tight to prevent expansion of the trunk, is the better, and this should never be placed before June, or remain after the fall season has closed.

Subscribe Now

If you are a subscriber you are fortunate, as the coming numbers of the Bulletin are full of valuable information.

If you are not, by all means subscribe at once—only 50 cents for one year.

Two Uncommon Maples

After the beautiful display of autumn colored foliage, and when the leaves, their short course run, have fallen, many Nature lovers lose, for the time being, their interest in the trees.

It is at this time, however—

“When yellow leaves a few or more do hang
Upon those boughs which shake against the cold,
Bare ruined choirs, where late the sweet birds
sang”—

that we should notice and study closely the beauties in bark and twig coloring.



Only in winter are we able to fully appreciate the beauty of this bark—that of the *Acer striatum* or *Pennsylvanicum*.

The beauty of the Striped-barked Maple (*Acer Pennsylvanicum*, syn. *striatum*) at this time of year is such that it seems to almost force itself before us. The beautiful dark-green bark, with the outstanding stripes of white, form a wonderfully striking combination. Atop of this we have the crimson twigs of the present year's growth.

Another maple with similiarly striped bark is *Acer rufinerve*, a variety from Japan. Unlike the kinds usually known as Japanese Maples, this variety is of fairly rapid growth. It resembles the *Acer striatum* in many ways, and in addition surpasses it in the glory of its fall tints.

Here, then, we have two maples which are of equally easy culture as the others of this family. They are hardy, do well in a variety of locations, have pretty, attractive leaves, and color well in the fall. Is it not a source of wonder therefore that they are not more often planted?

J. Horace McFarland, in a recent book, speaks

of the infrequent planting of *Acer striatum*, and places the blame chiefly on the shoulders of the nurseryman. He says, in part: “The trees are difficult to transplant, and for that reason they are not usually listed.”

While the nurseryman is, without doubt, at fault in not more often recommending these maples, I must differ in opinion as to the cause. These varieties, I should say, transplant with very little difficulty. Young trees, nursery-grown from seed, can be handled with the greatest ease, and in the case of large quantities of quite large seedlings collected from the woods hardly a tree has been lost.

Possibly, large trees from the woods would move with difficulty, but this is true with the majority of trees so growing.

As to the uses we may put such trees:

In groups, or, as single specimens, they are equally attractive. Attaining only medium height, they can be grown to single stem or to several stems, and are very effective either way.

The beautiful leaves and bark form cheerful contrasts with the more sombre trees usually planted, and in such instances both lend and take, enhancing greatly the beauty of the planting.

When securing trees of these varieties do not expect to start with too large specimens.

Not attaining the dimensions of the Norway, Sugar and other well-known kinds, trees for planting will be correspondingly smaller. Trees four to six feet are usually of sufficient size to start with.

Once the winter beauty of these maples is fully appreciated, and they are more frequently used, other trees with similar characteristics will find a place in our plantings and relieve, to some extent, the dependency on the evergreen trees and shrubs for winter effects.

STANLEY V. WILCOX.

The Marechal-Neil Rose

To the Editor of *The Press*.

SIR: Please give me the story of the naming of the Marechal-Neil Rose.

W. C.

PHILADELPHIA, November 14, 1910.

The Marechal-Neil Rose has the following history: Neil, while soldiering in Italy in 1859, found a rose, a slip of which he took back with him to France. When the time came for him to be made marshal, he presented the Empress Eugenie with one of the roses grown from this slip, which pleased her greatly, being the first one of the kind she had ever seen. He told her the story of the little slip from which the flower came, and it so impressed her that she said to him, “I will christen this rose M. le Marechal.”

Planting a Tree

What do we plant when we plant a tree?
We plant the ship which will cross the sea;
We plant the mast to carry the sails;
We plant the planks to withstand the gales—
The keel, the keelson, and beam, and knee;
We plant the ship when we plant the tree.

What do we plant when we plant the tree?
We plant the house for you and me;
We plant the rafters, the shingles, the floor;
We plant the studding, the lath, the doors,
The beams, and sidings, all parts that be;
We plant the house when we plant the tree.

What do we plant when we plant the tree?
A thousand things that we daily see;
We plant the spire that out-towers the crag;
We plant the staff for our country's flag;
We plant the shade from the hot sun free;
We plant all these when we plant the tree.

—HENRY ABBEY.

The writer of the above lines has struck a right chord and has brought out of the simple action of planting a tree more than is thought of by the ordinary planter. He must be a student of economics, an advocate of conservation, a patriot, and as well a humanitarian.

Without going into the economic uses of a tree, and confining ourselves mainly to the planting of trees for shade, we must all lament the fact that in our large cities, as well as in many of the smaller towns and townships, tree planting is not taken up by the people as it should be.

Then, too, when it is done there is not enough thought given to the operation. Perhaps it is well to add, not the right thought.

With the real estate promoter the one thought uppermost is, the increased value such planting will have on his proposition. "It will look better to the prospective buyer and give it a more homelike appearance," he says.

With the mere selfish planter the main thought is just bare utility and immediate results, with no thought whatever to the future aspect of such planting.

In both the above cases there is invariably an unwise selection made, which in future years will bring anything but commendation on the planter.

"You see it takes a deal of insight to know what's going to be," was a remark made by an old gardener, when commenting on a planting he had in mind. He uttered a truism. Foresight must spring from insight, and this should be taken as a basic principle of good planting.

The desperate hurry in which we live is not conducive to foresight and gives but little encouragement to the thought of planting for pos-

terity. Yet some such planting is continually being done, we are happy to say, by some individuals.

The writer, when visiting Princeton, N. J., some time ago had the honor of meeting such a man. Driving in company with him from his office to his home (a distance of two miles perhaps) we passed hundreds of trees of mature size—real old giant maples, ashes and others.

Pointing to them with pride he remarked that these were planted by himself in his early days, saw them grow up year by year, had the pleasure of their grateful shade—a pleasure not enjoyed by him alone, but by hundreds of others.

In view of the writer, as these notes are being penned, are fifty or more grand old specimens of oak, ash, cherry, birch, elm, magnolia and linden really worth going miles to see.

They stand a living monument to the foresight of the late Thomas Meehan, who, with characteristic forethought, planted and nurtured them some fifty years ago.

Many other cases might be cited, but these alone will suffice to show the true planting spirit. They took of the best material at hand, and many have since blessed the forethought which planted not only for themselves, but for succeeding generations.

EDWIN MATTHEWS.

Get Ready to Plant

Plan your work for the spring at this time and do not let the matter slip by until spring is upon you.

Your order for plants, to get the best attention should be in hand early in March at least, before then if possible.

Good, Clean Plant Foods

Your lawn and garden yearly need food to produce the results you want.

In getting this food, see that it is of the best. Our Wood Ashes and Bone Meal are pure, unadulterated, and will give the maximum results.

MEEHANS' PURE BONE MEAL

25 lbs. \$.75 100 lbs. \$ 2.00
50 lbs. 1.25 1 ton (2000 lbs.) . . . 30.00
1 ton, delivered locally 32.00

MEEHANS' UNLEACHED WOOD ASHES

50 lbs. \$ 1.00 1 bbl. (200 lbs.) . . . \$ 2.75
100 lbs. 1.50 1000 lbs. 11.00
1 ton (2000 lbs.) . . . 22.00; delivered locally . . . 24.00

We can quote very low rates on carload lots.
Quantity Required.—One pound for each 10 square feet; 1½ to 2 tons to the acre.

THOMAS MEEHAN & SONS
Germantown, Philadelphia, Pa.

Anemone—"Windflower"

Comparatively speaking, the number of perennials that do well in the shade are few. The Anemone family belongs to this few, one and all of them giving good results in shady nooks, providing, of course, the shade is not dense to the suffocating point and they are not in too close proximity to greedy roots of trees, in which position one can only expect moss to grow.

Even so, the little *Anemone nemorosa* of the woods holds its head bravely in positions we would scarcely give it were we to bring it within the "pale of civilization," so to speak. We can make a sharp division in this group of plants, between those that flower in the spring, as *A. sylvestris* and *A. pulsatilla*, and those that bloom in the fall, like *A. Japonica*, and its varieties.

We may or may not be strongly drawn toward the former class, but the Japanese kinds have ever been in great demand. The latter are charming flowers and so valuable for cutting purposes. Furthermore, blooming in the autumn when flowers of this type are scarce, makes them indispensable. Lastly, they are amenable to unfavorable shady positions in the hardy garden.

When massing the pink and white varieties together, let the white predominate, especially if the position afforded them is a shady one.

How distinct and beautiful the white star-like flowers show up in such a position.

Spring is the best time to plant them.

E. M.

INTELLIGENT AND RELIABLE GARDENERS

There are any number of men, professing to be experienced, seeking situations as gardeners and superintendents.

In our own business we have had men on our nursery, assisting for some weeks, and later learn they have professed to be experienced, and cited their service at our establishment as evidences.

Are you in need of a gardener or superintendent? We have an up-to-date file of a limited number of real, valuable and thoroughly experienced men.

If you are seeking a gardener, write us. There is no charge made to either party. It is a satisfaction to us to see intelligent help employed on private estates.

THOMAS MEEHAN & SONS
Germantown, Philadelphia, Pa.

Deciduous Trees

(CONTINUED FROM PAGE 12)

The Globe-headed *C. Bungei* is in big demand for formal planting, being one of the first trees to be largely used for this purpose.

THE TREE DOGWOODS. *Cornus*.

Although found growing wild in so many localities, the White Dogwood, *C. florida* is in great demand among growers. It is always used in creating natural effects in woodland plantings, etc., but is equally good as an open lawn specimen. It is grand in flower, fruit and foliage.

The Red or Pink Dogwood, *C. florida flore rubro*, was unknown 20 years ago, but through the efforts of Thomas Meehan & Sons it was introduced throughout the United States, and abroad as well.

It is a grand companion plant to the white one. The flowers are a deep pink, and wonderfully attractive.

Very few plants of the Weeping Dogwood, *C. florida pendula*, are to be found, but this is not surprising, as weeping trees are not so popular as the natural forms. The weeping character is similar to that of the Weeping Beech.

The Japanese Dogwood, known as *C. Kousa*, and by others as *Benthamia Japonica*, is very similar to *C. florida*, but has not as good a record as the former for hardiness above Massachusetts.

THE LOCUSTS. *Gleditschia* and *Robinia*.

One sterling merit of all the locusts is their willingness to thrive in soils good and bad.

The Honey Locust, *G. triacanthos*, has been used for years as a service hedge and is almost impenetrable. It is a beautiful ornamental tree as well, the green leaves retaining color to the last. It is very hardy.

The Yellow or Black Locust, *R. Pseudacacia*, is a sight in spring with its racemes of white flowers. Well known, too, as a lumber tree.

The Viscid Locust, *R. viscosa*, though native, is rarely seen. It bears short racemes of cream-colored flowers.

THE TREE OF HEAVEN. *Ailanthus*.

Extremely rapid growing and thrives in soil which would not grow other trees.

The one with the offensive smelling flowers is rightly objected to, but the seed-bearing, female kind does not carry an odor. Specify "female," therefore, when you order.

CEDRELA.

The Chinese Cedrela, *C. Sinensis*, resembles the *Ailanthus* in foliage, but has many superior merits. The drooping racemes of white flowers

Flowering Magnolias

of Our Own Growing

WHEN you buy Magnolias be sure to inform yourself about the quality of the plants. If there is need to get some plants of better quality than others it is in the case of Magnolias.

Magnolias similar to those we grow (unfortunately there are few) are possible to transplant with risk of loss reduced to a minimum.

The greatest of care is exercised, first in the growing and finally in the digging and shipping. You get plants as near perfect as possible. We lift as much soil with the roots as they will hold.

On the other hand, there have been great losses in transplanting Magnolias, due almost entirely to poor stock and indifferent handling. Here are some beautiful plants we have, in the very choicest variety, with vigor that insures success, if carefully planted.

Let us know your needs and we will see that your order gets early and careful attention.

Garnet-flowered Magnolia (*Magnolia Soulangiana nigra*)

A new and decidedly attractive variety with very deep red blossoms, similar in form to the pink one of which it is a variety.

	Each	Per 10	Per 50
1½ to 2 feet	\$1.25	\$10.00	\$40.00
2 to 2½ feet	2.00	16.00	67.50
2½ to 3 feet	2.50	20.00	

Pink Magnolia (*Magnolia Soulangiana*)

This well-known, large-flowered, light pink Magnolia needs no description. It is seen in almost every garden of any size or consequence. Our plants are grand.

	Each	Per 10	Per 50
2 to 3 feet	\$1.25	\$10.00	\$40.00
3 to 4 feet	2.25	18.00	75.00
4 to 5 feet	2.75	22.00	90.00
6 to 7 feet	3.75	30.00	125.00

Purple Magnolia (*Magnolia purpurea*)

Somewhat shrub-like in habit. Produces purple blossoms after many kinds are through flowering. Not hardy in the extreme north.

	Each	Per 10	Per 50
1½ to 2 feet	\$1.00	\$8.00	\$32.50
2 to 3 feet	1.50	12.00	50.00
3 to 4 feet	2.00	16.00	67.50

Blood Red Lennei Magnolia

The large, cup-shaped blossoms are decidedly showy, being deep red on the outside, pure white inside. A superb kind.

	Each	Per 10	Per 50
3 to 4 feet	\$2.25	\$18.00	\$75.00



The beautiful, star-shaped blossoms of the dwarf, sweet-scented Yulan Magnolia.

Sweet Bay (*Magnolia glauca*)

In early June, following the others, this well-known Magnolia produces medium sized, cup-shaped, pure white blossoms which are quite fragrant. The foliage is rich and glossy, evergreen in the South, and almost so in the North. Scarce to get in good stock. These we offer are superb.

	Each	Per 10	Per 50
1 to 1½ feet	\$.75	\$6.00	\$25.00
1½ to 2 feet	1.25	10.00	40.00
2 to 3 feet	1.50	12.00	50.00

Yulan Magnolia (*Magnolia conspicua*)

Large, pure white, sweet-scented blossoms surpassing all others in beauty as a large, white Magnolia.

	Each	Per 10	Per 50
2 to 3 feet	\$2.00	\$16.00	\$67.50
3 to 4 feet	2.50	20.00	82.50
4 to 5 feet	2.75	22.00	90.00
5 to 6 feet	3.25	26.00	107.50
6 to 7 feet	3.50	28.00	115.00

Star-flowered Magnolia (*Magnolia Stellata or Halleana*)

Almost covering the plants with its shower of blossoms, this beautiful dwarf, bushy-growing Magnolia is one of the most ornamental. The flowers are tinted pink in bud, opening pure white and are delicately scented.

These plants of ours we will match with any in the country as being superior.

	Each	Per 10	Per 50
1½ to 2 feet	\$1.50	\$12.00	\$50.00
2 to 2½ feet	2.00	16.00	67.50
2½ to 3 feet	2.50	20.00	82.50
2½ to 3 feet, heavy	3.00	24.00	100.00
3 to 3½ feet specimens,	\$4.00 each		

SPECIAL MAGNOLIA GROUP. These seven glorious Magnolias are most excellent for grouping as a special Magnolia group, remembering that *purpurea* and *stellata* are dwarf in habit. Here is a special offer, one each of the seven described, in the smallest size offered of each for **\$9.00**

THOMAS MEEHAN & SONS, Germantown, Philadelphia, Pa.

are attractive and in final development the tree attains good full proportions. Excellent for shade on avenue or lawn.

THE ALDERS. *Alnus*.

The low, swampy position is an ideal location for the alder with its distinctive pendent catkins.

The Black or European Alder, *A. glutinosa*, grows quickly, and develops into the largest tree of all the alders.

The Speckled Alder, *A. incana*, is a dwarf tree, thriving in moist situations.

The Cut-leaved Alder, *A. incana imperialis laciniata*, is admired for its deeply cut leaves.

THE SORREL TREE. *Andromeda*.

Of all Andromedas the *A. arborea*, or Sorrel Tree is the only one having tree-like tendencies.

In July the racemes of white flowers are showy, but the autumn treat in brilliantly colored foliage surpasses all other merits. Attains a height of 20 to 25 feet in time.

THE ARALIAS.

One is sometimes in doubt as to whether or not to include the aralias among trees. They are bushy in form, but in some varieties grow to 15 feet in height.

A. spinosa is possibly the showiest when in flower, in August. The huge panicles of white flowers are followed by clusters or bunches of dark-blue berries.

The Japanese Aralia, *A. Japonica*, is very similar to Aralia spinosa, differing in having smaller foliage and being bushier.

Dimorphanthus Mandshuricus is almost the same as *A. spinosa*, but blooms about a week earlier, and seems to be a little sturdier and stronger in habit of growth.

THE PAPAW. *Asimina*.

The foliage of the Papaw, *A. triloba*, is very attractive, and fruit, which is somewhat like a banana, is much liked by some.

THE MULBERRIES. *Morus*.

The name mulberry usually brings to the average persons' mind the small white or violet mulberries. This is the fruit of the native *M. alba*, which is a rapid growing tree much cultivated in some localities as a source of food for silkworms.

M. rubra is the Red Mulberry.

If better known, Downing's Everbearing Mulberry, a variety of *rubra*, would be largely planted, as the fruit, 2 to 3 inches in length, is delicious and comes, successively, from June until September.

Of all mulberries, *Teas' Weeping* is possibly the best known. This is a decided weeping tree, and very formal, useful therefore in work of this class and also for general lawn ornamentation.

THE HORNBEAMS. *Carpinus*.

Used for screening and large hedge purposes. Bushy growing and never gaining great height. The American and European are very similar,

GARDENER—An Irishman, 30 years of age, married, with one child, desires situation as private gardener. Gardening has been his sole training, and he can furnish the best of references. If you are interested address J. H., care of THOS. MEEHAN & SONS
Germantown, Phila., Pa.



ORDINARILY we do not recommend the moving of large trees. They do not seem to quickly recover from transplanting.

Just at this time, however, we have a limited collection of unusually fine trees, not exceptionally large. Unlike the majority of large trees, these we speak of have had recent transplantings and very little check would occur in moving them.

These trees are from 12 to 25 feet high, depending on the kind, and run from 3 to 6 inches in diameter at the trunk.

Not one is overgrown and each is well formed and of pleasing appearance. Just the trees for *immediate* and *effective* results.

Among the collection are beautiful specimens of

American Horse Chestnuts	Green Ash
Chinese Cedrelas	Japanese Planera
Golden Weeping Willows	Bolleana Poplars
English Elms	American Lindens
Red Birch	Sweet Gums

and others as popular and ornamental

The prices we can name on these trees are exceptionally reasonable. It will be feasible to ship them at least 300 to 400 miles distant.

If you are in the least interested please write us *at once* as early visitors to our grounds frequently take these choice plants. Some will have to go later on to make room for incoming stock from Europe.

THOMAS MEEHAN & SONS

Germantown, Phila., Pa.

the latter differing only in being more twiggy in growth.

THE NETTLE TREE. *Celtis*.

The leaves of the American Nettle Tree, *C. occidentalis*, are somewhat similar to the elm, though smaller. It bears brown berries in the autumn.

The Chinese Nettle Tree, *C. Sinensis*, has bright green shining foliage of great beauty, which it retains until December, sometimes January.

THE JUDAS. *Cercis*.

The American Red Bud or Judas, *C. Canadensis*, gets to be 20 to 25 feet, and the small blossoms, appearing along its otherwise naked branches in May, are light pink.

There is a variety with pure white blossoms, *C. Canadensis alba*.

The Japanese Judas, *C. Japonica*, is hardly more than a shrub, rarely getting over 10 feet in height. It bears blossoms much deeper in color and is compact.



Truly these are fringe blossoms and to see them is to appreciate them as they deserve. The rich green foliage of the *Chionanthus* is also extremely ornamental.

THE YELLOW WOOD. *Cladrastis*.

A grand tree and worthy of wider introduction. The racemes of fragrant, peashaped, white blossoms come in early June. The foliage is a beautiful green. Get one for your lawn.

THE PERSIMMON. *Diospyros*.

Though not generally known, the Native Persimmon, *D. Virginiana*, makes a pleasing ornamental tree. The fruit, when fully ripe, is enjoyed by many. The dark-green foliage is very persistent.



A Valuable Book of 100 Pages

If you are intending to set out hardy trees or plants this Spring, whether one or a thousand, be sure to have us send you this valuable price list.

It is a convenient handbook of prices on a most complete collection of desirable and dependable stock.

It is also an honest book in its claims and statements.

Send today for a copy—it is free for the asking.

THOMAS MEEHAN & SONS

Germantown, Philadelphia, Pa.

Poor "Grass Seed" is Worse than None

The purchaser who gets a cheap grass seed is harboring future trouble. Not only does poor grass seed fail to produce a satisfactory sod, but it establishes weeds in the very ground in which you don't want them. Our grass seed sells at \$5.50 per bushel, but if we were to sell you the usual grass seed commonly marketed, we could do so for \$2.75 per bushel, and make the same rate of profit. This statement is not a claim alone, but a fact. When you buy **our seed** you get seeds of good lawn grasses, not **weed seeds** and **chaff**. Decide now to at least test our seed. It is decidedly reasonable in the end.

PEERLESS GRASS SEED

1 qt.	\$.25	1 bu. (20 lbs.)	\$5.50
1 qt., postpaid30	5 bu. lots, per bu.	5.25
10 bu. lots, per bu.			5.00

SHADY LAWN GRASS SEED

1 qt.	\$.35	1 bu. (20 lbs.)	\$6.00
1 qt., postpaid40	5 bu. lots, per bu.	5.75
10 bu. lots, per bu.			5.50

Quantity Required.—One quart for 300 square feet; 1 acre requires 4 to 5 bushels.

THOMAS MEEHAN & SONS

Germantown, Philadelphia, Pa.



Superb Blood-Red Japanese Maples

This Spring we shall sell several large blocks of wonderfully fine Meehan-grown Japanese Maples, the equal of which cannot be found in another American nursery.

Imported Japanese Maples, though handled by a great many dealers, are not to be compared with home-grown stock.

We know, by experience, that it is impossible to buy at any price, plants that approach our home-grown stock.

Take these fine blocks from which we will sell this Spring, the plants in them are superb.

Our broad, bushy Blood-leaved Maples are as full and bushy for their size as this specimen.

- Full and extremely bushy.
- Have been frequently transplanted.
- Are very well rooted.
- Fully acclimated.
- Far better color than the common stock.

These points indicate as far as description can the superior quality there is in these Meehan-grown plants.

You should, however, see these plants to really appreciate their great value. If you are near our nurseries this Spring, call and we will gladly show you the plants.

The rich, blood-red Japanese Maple should brighten every lawn and garden. It is so intense in color—especially in the strain we have, which has been commented on by many as being decidedly more intense in color than that of the ordinary stock. The vigor of our plants no doubt is the cause of this intensity of color.

As a single specimen, in groups of three or more, or grouped with other varieties, in any case you get decidedly beautiful effects.

Decide now to get some beautiful plants, that cannot be surpassed in quality—at very reasonable prices.

ORDER EARLY—Not after the season has advanced too far, as early planting of Japanese Maples is essential to good returns. Spring is the best season for planting all Japanese Maples.

Meehan-grown Blood-Red Japanese Maples

1 to 1½ ft.	\$1.00 each	5 for \$4.00	50 for \$32.50
1½ to 2 ft.	1.25 “	“ 5.00	“ 40.00
2 to 2½ ft. bushy,	1.75 “	“ 7.00	“ 60.00
2½ to 3 ft.	“ 3.00	“ 12.00	“ 100.00
3 to 3½ ft.	“ 4.00	“ 16.00	“ 132.50
3½ to 4 ft.	“ 5.00	“ 20.00	“ 167.00
3 to 4 ft. specimens \$5.00 to \$8.00 each		
4 to 4½ ft. extra \$6.50 each, 5 for \$26.00		
4½ to 5 ft. superb \$8.00 to \$10.00 each		

Japanese Maple Collection

Very few people know the decidedly beautiful effects possible in combining various varieties of Japanese Maples in a group.

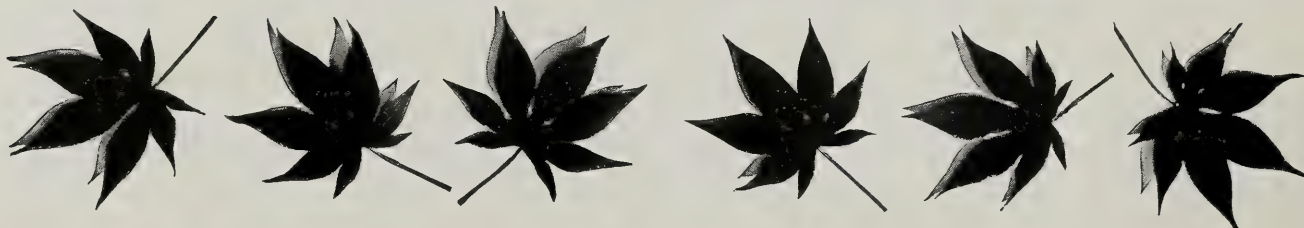
The crimsons, greens and yellows always harmonize. Set a group out on your lawn and you'll be delighted with the effect.

Here is a fine selection for the purpose:

- 2 Japanese Blood-leaved Maples 2 to 2½ ft.
- 1 Golden-leaved Japanese Maple 1½ to 2 ft.
- 1 Green Polymorphum Maple 3 to 4 ft.
- 2 Red Fern-leaved Japanese Maples 1 to 1½ ft.
- 1 Green Fern-leaved Japanese Maple 1½ to 2 ft.
- 1 Ivy-leaved Japanese Maple 2 to 3 ft.

These 8 fine well-developed specimens, from 1 to 4 feet high, for \$13.00.

THOMAS MEEHAN & SONS
Germantown, Philadelphia, Pa.



The Japanese kinds do not prove hardy in the North.

CYPRESS. *Taxodium*.

There is no denying the great beauty and value of the Deciduous Cypress. *T. distichum*. Beautiful fern-like foliage, stately form and final value as a timber tree.

Another cypress of similar foliage is *Glyptostrobus Sinensis pendula*. It is columnar in growth, and has pendulous shoots when young. It is known as the Chinese Cypress.



Few on seeing the Flowering Ash, *Fraxinus Ornus*, for the first time, would imagine it was of the ash family.

KENTUCKY COFFEE. *Gymnocladus*.

An excellent shade tree and also attractive in flower; it is to be regretted that more Kentucky coffees have not been planted. It has the added merit of thriving at the seashore. Give it a place on your grounds.

SWEET AND SOUR GUMS.

Both of these gum trees are showiest in the autumn, with their brilliant fall dress of scarlet, crimson and brown.

The star-shaped leaf of the Sweet Gum, *Liquidambar styraciflua*, quickly identifies it.

The Sour Gum, *Nyssa multiflora*, has an entire leaf, which is, up to fall, bright rich green.

THE TULIP TREE.

What a towering tree the Tulip Tree, *Liriodendron tulipifera*, develops into. It is truly a noble tree at maturity. The beautiful leaves are much admired, as also the tulip-like flowers, greenish yellow, blotched orange. Transplants with difficulty unless severely pruned.

EMPRESS TREE. *Paulownia*.

Unlike all other trees, this one has the distinctive feature of producing large panicles of fragrant blue, trumpet-shaped flowers, appearing before the leaves.

A grand lawn tree, resembling the Catalpa in foliage.

THE LARCHES. *Larix*.

Though much like and related to the fir, the Larch is deciduous and therefore may be spoken of here.

The American and European are very similar. Both of conical form, the shoots of the European, *L. Europaea*, have a pendulous habit, and are slender in twig and branch.

The Japanese Larch, *L. leptolepis*, is beautiful, the needles being broad and the young wood yellowish brown.

PTEROSTYRAX.

Picture sprays of Wistaria flowers, pure white and in profusion over a tree, and you have this grand tree in full bloom. Its foliage, too, is broad and rich green. It is a treasure from Japan.

GINKGO OR SALISBURIA.

We have also to thank the Japanese for the tall, stately Ginkgo or Maidenhair Tree. The exquisite rich green foliage resembles our Maidenhair Fern in form, though, of course, much larger. A grand avenue or lawn tree.

SASSAFRAS.

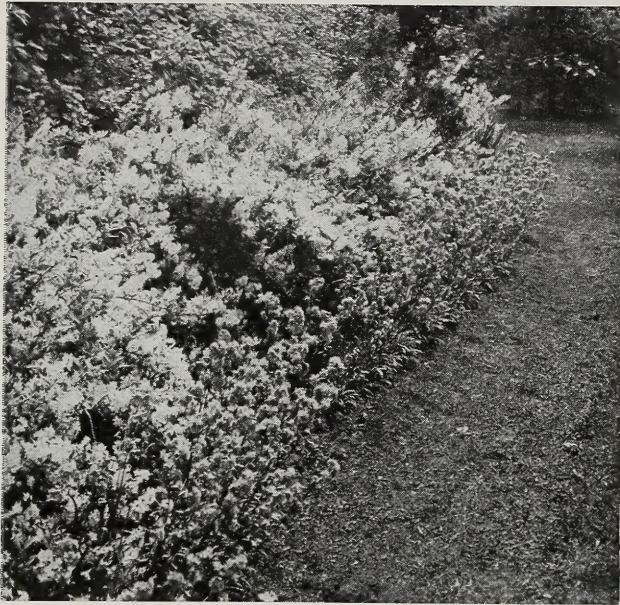
The deep yellow fall coloring of this well-known native tree is particularly pleasing. Previous to which they are a rich green.

PAGODA TREE. *Sophora*.

Here is a tree distinctive in appearance and not frequently met with.

The dark-green divided leaf is very attractive, and in the Japanese form, *S. Japonica*, the panicles of yellow-white flowers are decidedly showy in August.

There is another form, *S. violacea*, differing from the others in having light-blue flowers.



“Great-Big” Shrubs

You can get quick, immediate results from these “special” shrubs we have to offer.

They are above the usual grades and are particularly fine in form and vigor.

For screening, shrub-border planting, or as individual specimens, they are sure to please.

Carefully note the good size of all of them, and the high quality of the selection, and decide to let us send you the group.

\$10.00 Collection

2 Meehans' Variegated-leaved Althaea	4 to 5 ft.
2 Golden Bells	4 to 5 ft.
2 White-flowered Bush Honeysuckles	4 to 5 ft.
2 Pink Spiraea Billardi	4 to 5 ft.
3 Early-flowering Hydrangea paniculata	4 to 5 ft.
2 Spiraea callosa	5 to 6 ft.
2 Hungarian Lilacs	4 to 5 ft.
3 Mock Oranges	4 to 5 ft.
2 Viburnum tomentosum	4 to 5 ft.
3 Stephanandra flexuosa	4 to 5 ft.
2 Persian Lilacs	4 to 5 ft.

25 shrubs, easily worth \$13.50

\$5.00 Collection

1 Mock Orange	4 to 5 ft.
1 Golden Bell	4 to 5 ft.
1 Hungarian Lilac	4 to 5 ft.
1 Chaste Shrub	4 to 5 ft.
2 Early-flowering Hydrangea	4 to 5 ft.
1 Meehans' Rose of Sharon	4 to 5 ft.
1 Stephanandra flexuosa	4 to 5 ft.
1 Persian Lilac	4 to 5 ft.
2 Bush Honeysuckle	4 to 5 ft.
1 Pink Spiraea Billardi	4 to 5 ft.

12 shrubs, worth at least \$6.75

THOMAS MEEHAN & SONS
Germantown, Philadelphia, Pa.

Future of Garden Bulletin

Many readers of MEEHAN'S GARDEN BULLETIN have expressed themselves as highly pleased with its invaluable and practical contents.

The consensus of opinion is that there is nothing in the field of horticultural publications that covers the same facts, with the same degree of helpfulness, and at such a trifling expense to the reader.

These good friends will be glad to know that deeply laid plans are maturing, and “copy” is in preparation for perhaps the most valuable series of practical articles concerning hardy plants of all kinds that has ever been published.

Every number forthcoming in the current year will contain articles in this series, and no one can afford to miss one issue.

We are pleased to be in the unique position of being well equipped to give this valuable contribution to the garden-loving public.—S. MENDELSON MEEHAN, Editor.

Interesting Plant Discoveries

An explorer of the U. S. Department of Agriculture has spent the year exploring the plant resources of Southwestern Asia. Among the large number of interesting things he has secured is a variety of alfalfa from Erivan, which is said to be longer lived than the Turkestan; a species of Medicago from an altitude of over 4000 feet, which is already being utilized in the work of creating new hybrid alfalfa for the Northwest; a wild almond from the Zarafshan Valley, found growing on the dry mountain sides at an altitude of 6000 feet; a drought-resistant cherry for home gardens in the Northwest; and a collection of apricots with sweet kernels from Samarkand; the Afghasian apple and special varieties of pears for trial in the Gulf States; some remarkable olives, which have withstood zero temperatures and still borne good crops of fruit; late and early varieties of Caucasian peaches for trial in the Southwest; seeds collected in the Caucasus from wild plants of the true Paradise apple, which is used as a dwarf stock for the purpose of obtaining seedlings not infected with crown gall; scions of a newly produced crab apple, reported to be a better keeper than American crab apples; the Slew Abrikose, a variety of apricot with a skin as smooth as that of a nectarine; a remarkable drought-resistant poplar for the Middle West; and a wild strawberry, fruiting at the end of February on the dry calcareous cliffs of the Caucasus.



An abundance of bloom is always in the hardy garden from the time the Iris flowers until—

\$10.00 Hardy Garden

There are 129 very fine perennials, many new and some favorite roots, all in good flowering size. There is \$13.00 worth at least in this group.

We know that no collection could surpass this one at the same price.

This collection will very nicely plant 175 square feet.

- 4 Sweet Williams
- 4 Silver King Iris
- 4 Josephine Iris
- 5 Hardy Phlox
- 5 English Larkspur
- 3 Dahlias (assorted)
- 4 Purple Cone Flowers
- 4 Hardy Asters
- 5 Dwarf Variegated Grass
- 5 Hardy Chrysanthemums
- 3 Bronze Day Lily
- 3 Evening Primroses
- 3 Pink Starwort
- 5 Bellflowers (assorted)
- 4 Yellow Coreopsis
- 3 Scarlet Bergamot
- 3 Blue Baptisia
- 4 Scotch Pinks
- 3 New Red Helenium
- 4 Blue Day Lily
- 3 Stokes' Asters
- 4 White Perennial Spiraea
- 4 Blue Speedwell
- 3 Thermopsis Caroliana
- 4 Hardy Corn Flowers
- 10 Sisyrinchium—Blue-eyed Grass
- 1 Mallow Marvel, 2 year (give ample room)
- 2 Double Paeonies (mixed colors)
- 20 Groff's Hybrid Gladioli (mixed)

Plenty of Flowers from Spring 'til Fall

The owner of a well-selected collection of perennials secures pleasure from a constant supply of blossoms, from early Spring until late Autumn.

At the same time they are the result of little care and continue from year to year to give increasing returns with only the initial cost. Where perennials were grown by the hundreds ten years ago they are now raised by the thousands.

In all America there is not a better all-round collection than ours and few to equal it.

Into our famous **Hardy Garden Collections** go the best we grow, selected to give a variety of *color* and *bloom*, over as broad a season as possible. These collections are not only carefully made up, but at the price offered are decidedly reasonable.

Let us have your orders early—you'll be better pleased with plants set out in advance of any growth.

\$5.00 Hardy Garden

Into this collection go 56 of our choicest perennials and roots, of good size and sure to produce satisfactory results this season.

Take this collection and buy the plants anywhere, and for the same quality in selection and stock you would pay at least 20 per cent more.

Here is a selection, judge yourself of its value:

- 2 Old-fashioned Hardy Chrysanthemums.
- 2 Double Paeonies (mixed colors)
- 2 Hardy Yellow Coreopsis
- 3 Blue Speedwell
- 3 Sweet William (mixed colors)
- 3 Silver King Iris or Flag
- 4 Hardy Phlox
- 2 Dahlias (assorted colors)
- 10 Gladioli (mixed colors)
- 2 Hardy Aster Tataricus
- 3 Purple Cone Flowers
- 10 Dwarf Variegated Grass
- 3 Single Mixed Hollyhocks
- 2 New Red Helenium
- 3 Improved English Larkspur
- 2 Bellflowers



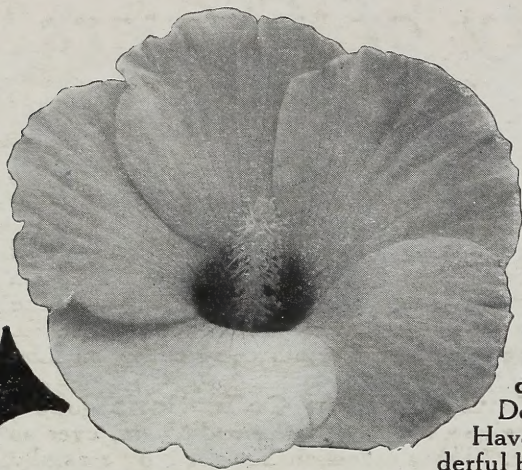
—the hardy Chrysanthemums defy Jack Frost in the Autumn.

Thomas Meehan & Sons

Germantown

PHILADELPHIA, PA.

Meehans' Mallow Marvels



Are the richest and best creation of the century. Not another novelty or introduction for years equals the Mallow Marvels in value or popularity. They amaze all by their sterling qualities.

One salesman last year said he sold them to every customer who came into the store without any effort. Everyone recognizes how far superior they are to all other Perennials for creating **distinct striking effects.**

Do you know them?

Have you seen their wonderful blooms?

Blossoms 8 to over 10 inches in diameter in crimson, rich blood red, and soft, pleasing shades of pink, perfectly hardy, will grow in almost any good soil and are almost exempt from disease and insects.

Order some this Spring, you'll get results right away—in August, and what is more, you'll be pleased.

Get them from us—we are the originators and you are sure of getting the genuine plant.

Big two year roots in shades of red, pink or crimson, 75c each.

10 for \$ 6.00
50 for 25.00

Extra sized roots—will produce extra large bushes, \$1.00 each

10 for \$ 7.50
50 for 32.50



Why not have such a real, helpful guide at hand each month and keep posted on the best and most up-to-date horticultural information.

"Meehans' Garden Bulletin" mailed monthly, for one year for 50 cents. It is a clean, up-to-date paper with no objectionable advertising within its pages.

Why not sit down and send in your subscription at once?

Special Combination Offers

Do you intend ordering some Mallow Marvels this Spring? You should have them on your grounds to get a show in August.

If you do order and would like to receive the "Garden Bulletin" for one year at the same time, grasp the following special offers:

1 Two year Root of Mallow Marvels }
1 Year Subscription "Garden Bulletin" } \$1.00

3 Mallow Marvels (3 colors) }
1 Year Subscription "Garden Bulletin" } \$2.50



Here is a paper for the Amateur Gardener

You need not be in the least acquainted with plants or horticultural topics to get real help and value from

"Meehans' Garden Bulletin"

It talks to you in a practical, easy, understandable way, excluding technical terms and phrases. It gets down to "bed rock" facts, and you are enlightened to an extent not reached by the average garden publication.

Monthly there appear such articles at the following:

- "Tying the House to the Grounds."
- "Screening the Unsightly."
- "The Old-Fashioned Garden."
- "The Combination of Herbaceous Plants with Shrubs."
- "Practical Talk on Roses."
- "What Vines to Plant and Why."
- "Notes by a Landscape Expert."

THOMAS MEEHAN & SONS

Germantown, Philadelphia, Pa.