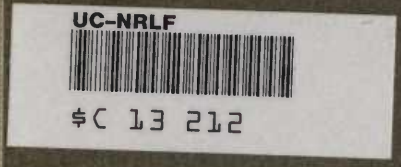
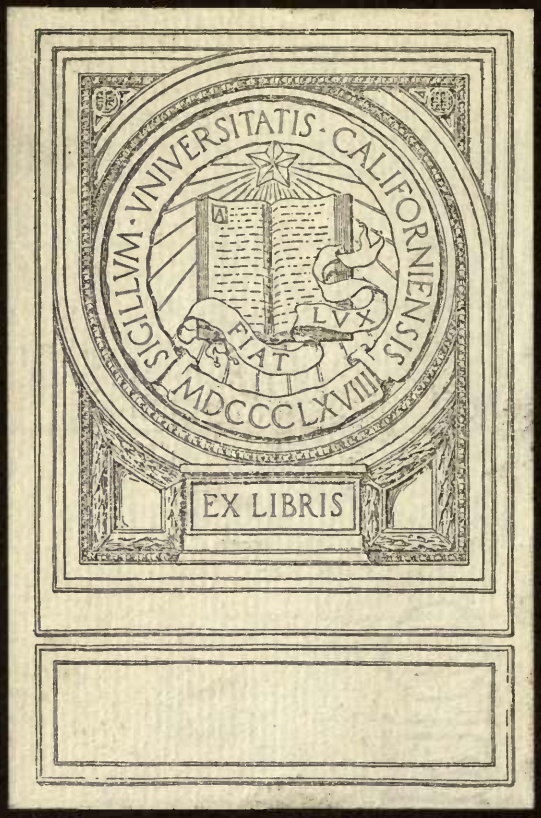
SB
472
S8



YE 00960


SIGILLVM · VNIVERSITATIS · CALIFORNIENSIS
FIAT
LVX
MDCCCLXVIII
EX LIBRIS

Secrets of Ornamental Planting

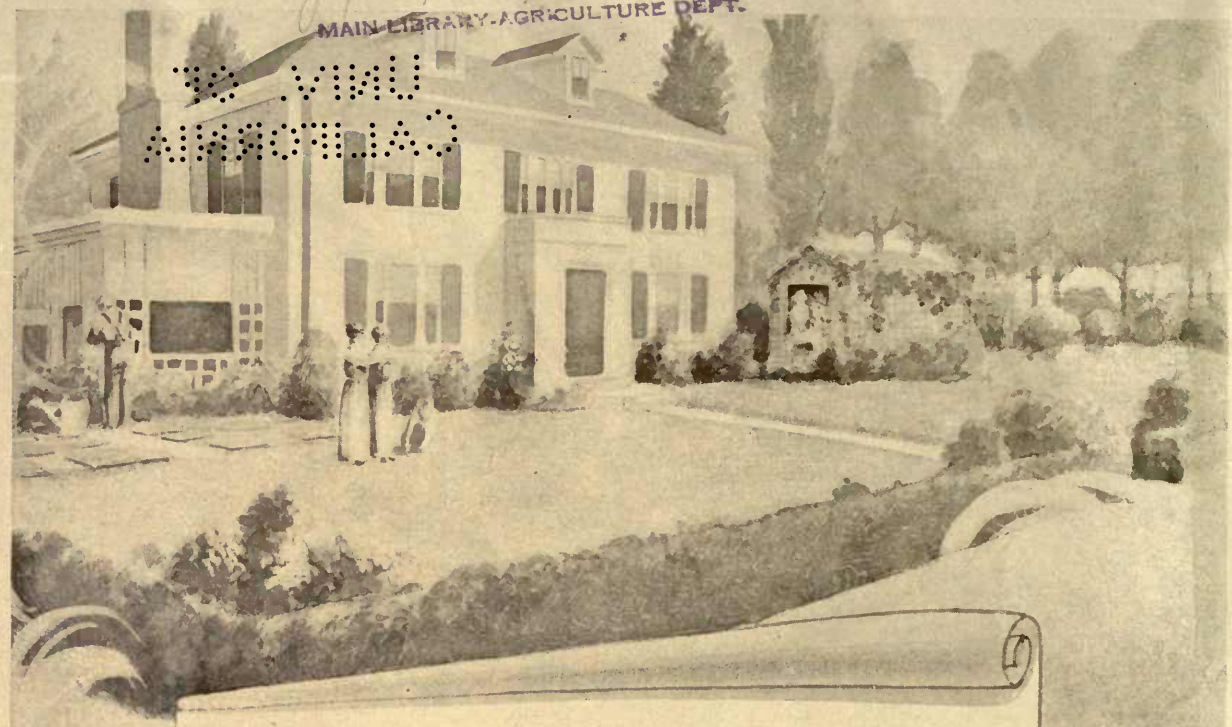
Comprising

"Landscaping Simplified
Hardy Ornamental Shrubs and Trees"
and
"The Rose Garden"

OFFICE AND ENTRANCE TO GROUNDS OF STARK BRO'S AT LOUISIANA, MO.

Stark Bro's Landscape Architects and Ornamental Nurserymen Louisiana, Mo.

Gift of Prof. E. J. Wickson
MAIN LIBRARY-AGRICULTURE DEPT.



"For ten years I have dreamed a dream about a home to be. For ten years both Molly and I have framed within our hearts that immortal phrase of Thomas Gray:

'And hie him home, at evenings close,
To sweet repast and calm repose.'

And—now the dream is *coming true!* That home of ours is to nestle amid a setting of stately trees—in grounds adorned by graceful clusters of pretty shrubbery. A hedge of harmonious style and shape will embrace it. A rose garden—Molly's fondest wish for years—will lend its gorgeous coloring to the landscape plan. Beautiful flowering vines will cling to the trellised walls.

"My dream—and Molly's—*is* coming true!"

Copyright 1916 by Stark Bro's, Louisiana, Mo.

SB472
S8

Secrets of Ornamental Planting

AMERICANS of the present generation have come to the realization that there is more to life than mere money-making. What is great wealth if one does not know how to enjoy and get pleasure from it? That is the question which they have asked. The American people themselves have supplied the answer by the great wave of interest in Landscape Gardening that has swept across our country. Within the past few years Americans have learned to enjoy their homes and to learn what a home really is. They have learned that it includes much more than a mere house in which to sleep. When they speak of their home, they think of a dwelling, whether large or small, nestling in a planting of arching shade trees and surrounded by beautiful flowering shrubs, with an expanse of green lawn, which gives a pleasing setting to the house. They think of the flowering rose garden, which is the delight of the entire family; then the private portion of the grounds, which is essentially an out-of-doors living room. Thus surrounded by Nature and beautiful growing plants, they learn what true enjoyment of a home can mean.

A typical American home, with open lawns well framed with trees and shrubs.

Keep the Children at Home

Another important reason why the home should be made attractive is to interest the children. With a pleasant home and an interesting garden and lawn, the children are apt to stay closer under the influence of the home life and will not "wander from the fold." Grown people, as well as children, like to spend their spare moments with Nature. If this were not true, we would have no parks or gardens. In the Springtime everyone gets a touch of Spring in his system and there is a strong desire to plant *something* just to see it grow. Everyone experiences this feeling at least once a year—in the Springtime—and with most of us the desire to always spend our idle moments near Nature is ever present because there in the garden and "out-of-doors living room" we know we will find recreation, privacy, and rest from the strenuous American business life.

Increased Value of Property

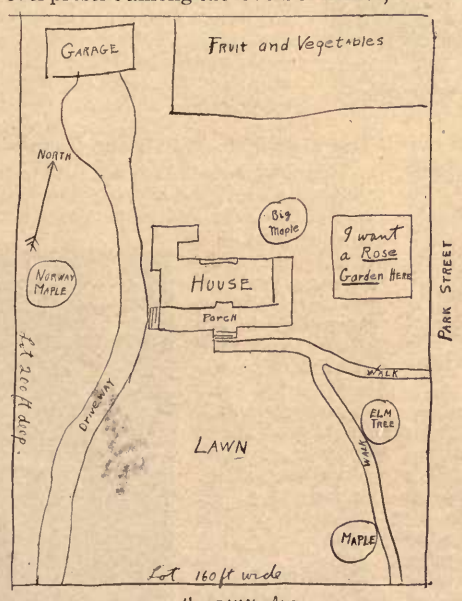
Entirely aside from the question of enjoyment of the home grounds, there is another and more practical reason why the home should be planted with beautiful shrubs and shade trees. In selling any property, it is a well-known fact that a coat of paint goes a long way toward closing the sale—so does a shrub and tree planting, but even more so. Just consider how much more inviting to a prospective buyer is the home shaded by beautiful trees and blended into its surroundings by means of graceful shrubbery, as compared with the house standing alone, unprotected from heat and sun and presenting a bare, forlorn and uninviting appearance. After this comparison just reflect that the difference in original cost between these two houses is only a very few dollars for the shrubs and trees. It takes only a year or two to accomplish these results and the cost is small. Looking at the question from a purely business standpoint, can you afford *not* to plant your home? If you want an expert answer to this question, inquire of any reliable real estate appraiser. A well-known business man of the city of Rochester recently told the writer that in his capacity as appraiser for one of the large trust companies of that city, the question of tree and shrubbery planting very often made a large difference in the appraised value, because it was readily conceded that a property correctly planted with trees was much easier to sell than one which was lacking in this respect. A planting planned by Stark Bro's expert Landscape Architects will often add 25 to 50 per cent to the ready cash value of a place.

American Homes

There are, broadly speaking, two classes of American homes. First, there are the large country estates and the expensive town or suburban residences. The owners of such properties can usually afford to pay a large fee for advice from local landscape architects. Stark Bro's landscape architects are frequently called upon to consult with owners of such properties and to carry out the plantings.

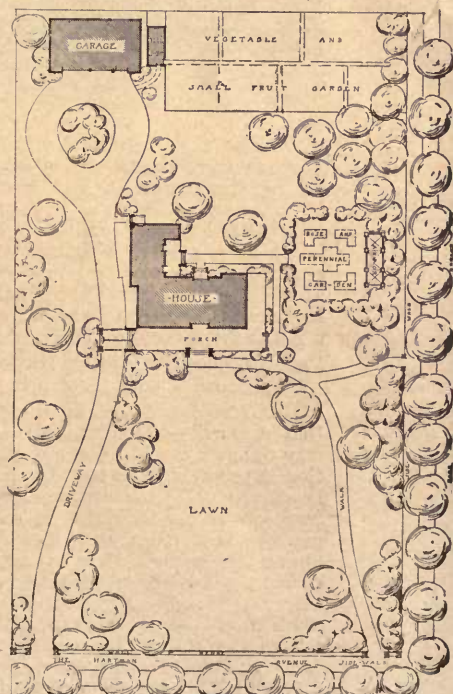
The Average American Home

However, the overwhelming percentage of American homes do not consist of such extensive proportions. The average American home is of *moderate or small size* and the surrounding grounds are *not* large. It would be regrettable if the wealthy Americans were the only ones who could enjoy the privileges of charming and beautifully planned home grounds. It is an unfortunate and sad reality that this condition of affairs has been largely true in *past* years. Do not misunderstand us; the desire has been ever present among the lovers of homes, but owing to the lack of experience and available information on landscape gardening, they have not known how to proceed to get the landscape effect that they desired. They had not had the opportunity to learn different characters of plant growth and the correct way to plant the grounds in order to gain a well-balanced and correctly planned home. On the other hand, they could not afford to employ a landscape architect and to stand the expense of his fee. The result has been very discouraging. Either all planting of shrubs, flowers and trees was entirely ignored and the home left bare, or else an attempt has been made to set a few trees and shrubs scattered about the lawn without any real understanding



Customer's Sketch Sent to Stark Bro's

This is the sketch from which Stark Landscape Department made the plan in next column. Study the above simple sketch—then make a similar one of your home grounds. Will you take advantage of this offer of free plans—see details pages 5 and 31.



Completed Plan Designed Free by Stark Bro's

526790

Panorama of one of Stark Bro's Ornamental Nurseries devoted exclusively to growing Shade Trees, Shrubs and Roses.

as to why or where they should be planted. This groping in the dark is founded on the desire to see something grow and to watch Nature, but the final result is always unsatisfactory, as the planting was *not considered as a whole* nor any general plan followed.

The Problem Solved by Stark Bro's New Method of Free Landscaping

Realizing the great need and desire of the American people for just this sort of service, we established some years ago a Landscape Department to furnish *free* landscaping service to all who desired it. We offer to *you* the opportunity to obtain free landscaping plans also free consultation with our landscape architects. Thus by eliminating the landscape architect's fee, by offering you shrubs and trees of only the highest quality and best kinds at a moderate figure, you are enabled to plant your home grounds at a very small cost. We hope that by this new method we have solved this great problem for the American people.

Acres of Hydrangeas
Growing in the Stark Nursery Blocks—will soon bloom on thousands of lawns.

Small Places Even More Important Than Large Grounds

Don't make the mistake of assuming that a small or moderate sized property requires a slight amount of attention in planning the landscape. This is *not* true. The small place requires *very careful* consideration in order to get the best effect out of a limited amount of space. It is even a more difficult problem than the large country estate. The planting on the small place must be so arranged that it makes the entire property appear as large as possible, therefore, someone understanding the principles of landscaping should plan your grounds. Expert advice in the planting of the small grounds by Stark Bro's landscape architects will prevent many expensive and unfortunate mistakes—and besides, it costs you nothing.

What Our New Free Offer Means to You

Stark Bro's plan of designing for you complete planting plans without charge will prevent many costly and disappointing mistakes. Our landscape experts must consider many things in drawing your plans: They must see that the color combinations are harmonious and that the skyline is not too regular, but presents an interesting effect. They must make the most out of existing conditions — a small place must be made to appear as extensive as possible, and the attractive views must be enhanced and framed in. The shrubs and trees they select must be hardy and adapted to the climate and soil in which they are to be planted, and last but not least, the ultimate and final effect of the entire planting must be harmonious, interesting and beautiful. This is the service that Stark Bro's Landscape Department is offering to you *free*. You can be sure that your place will be planned correctly and that it will be equally or more beautiful than your neighbor's.

The Men Who Plan Your Grounds

This department includes landscape architects who have had their training in the foremost American colleges of landscape architecture, in addition to years of practical landscape experience in the planning and planting of properties. All of these men are experts in their line. You can depend on their judgement, which is backed up by practical experience.

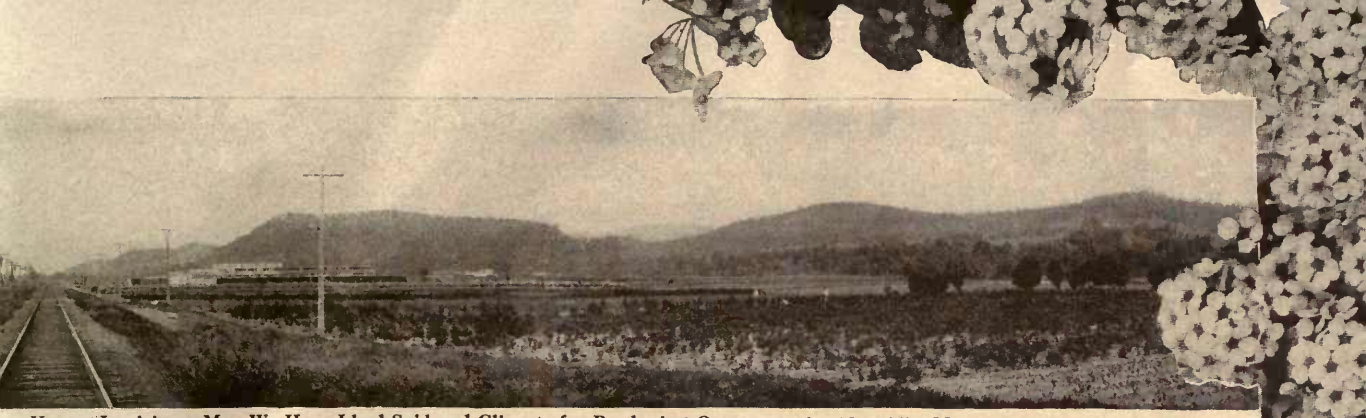
If Landscaping Plans Not Required Study This Book

If you decide that you do not care to take advantage of our free planting plans, you can carefully read the following pages of this book and thus learn to understand and master the important principles of landscape designing. They are expressed in clear language so that anyone can understand. We do not know of any book which has been issued up to this time that entirely fulfills the requirements of the American public for Landscape Gardening. The books now available are either too theoretical, having been planned for the sole use of landscape architects, or else they are too incomplete and do not cover the subject in a thorough and practical way. Study this book carefully—*Secrets of Ornamental Planting* will teach you how to appreciate and understand landscape planting and the characters of the different trees, shrubs and flowers. We have realized for years that there has been a big demand for just such a book as this one and now we are offering it to the American people with the hope that it will mark the beginning of a new era of civic and home improvement.

Stark Bro's—100 Years Experience

Behind this Landscape Department stands the largest nursery in the world and the oldest in America. This year marks the one hundredth anniversary of the founding of this institution. The growth of this great nursery has been a steady, healthy one. Stark Bro's have a reputation which is nation-wide—and even beyond the seas. For a hundred years, Louisiana,

A Missouri Home Before Planting Shrubs
This is the same house that is shown on the right. Note how tall and bleak this house looks before planting.



Here at Louisiana, Mo., We Have Ideal Soil and Climate for Producing Ornamentals. Note The Main Line of C. & A. R. R.

Mo., has been the fountain head of higher quality plants and trees. Since the founding of the nursery in 1816 by Judge James Stark, there have been four generations of Starks in this institution. This, the fourth generation, still cherishes the ideals of the early founders. They regard the work not merely as a business —not only as an industry—but as a public service. Thus Stark Bro's new method of giving free landscaping service is in harmony with the one-hundred-year-old policy of Stark Service to every *Stark customer*. So it has been that ever since 1816 the name of Stark has stood for all that grew best in Nature for the enjoyment of mankind.

Co-operation With Customer—Our Policy

Stark Bro's Landscape Department co-operates with the client—we want to know your ideas and wishes about the treatment of your home grounds so we can follow and adapt your suggestions to the design as far as possible. If you have a preference as to any particular kind of tree, shrub or rose, we will consider this in drawing the plans. In other words, your ideas and desires will be incorporated in definite plans, which will be in accordance with the best, accepted principles of landscape gardening. If some of your suggestions are not adapted to this particular problem, we will write and explain the reason to you. Briefly, our aim is to design a planting that will result in the greatest amount of pleasure and satisfaction to our customer.

Quality the Prime Essential

We believe with you that *quality* is the prime essential in nursery products. Things *must grow* and bear bloom, or else money and priceless time are wasted. The men whom we have gathered about us in these many years have the know-how of growing and training each individual shrub or tree. No tree or plant is any better than its roots—Stark Bro's plants have strong, thrifty root systems.

How To Obtain Free Landscaping Service

All that our Landscape Department requires to make a landscape planting plan of your grounds is a simple, rough outline sketch showing the shape and dimensions of the lot, location of the house, walks, driveways and other permanent buildings. To show you how simple a plan is required, we are reproducing on page 3 a sketch that one of our customers sent us. We also show the finished product—the planting plan that our landscape architects designed from the information shown on this rough sketch. Remember we made no charge whatever for drawing this plan and the cost of the shrubs and trees was moderate. It is a very simple matter to draw the sketch. Anyone can make this drawing in five minutes. Use Stark Bro's landscape sketch blank, because the ruled lines will make it easier and more simple for you to draw the sketch. You can step off the dimensions of your lot, etc., allowing about three feet for each step. If you can send photographs of your lot and house, they will be of assistance to our landscape architects, although photographs are not absolutely necessary. Be sure to indicate on your sketch which direction is North. Also give any information about adjoining property that you think would affect the design of your grounds.

A Three Months' Change—Planting by Stark Bro's

Compare with picture on the left—a good illustration of "before and after" effect of one of Stark Bro's Free Plans. Note hedge and shrubs.

Indicate the Amount You Desire to Spend Now

It is necessary also for us to know in a rough way if you are limited as to the amount you can spend this season. Possibly you want to do part of the planting this year and finish it next season. Sometimes the cost of the planting can be greatly reduced by making the shrub *clumps smaller* and using *smaller sized* stock, although the landscape effect will not be as quick nor as satisfactory as where larger sized stock is used. You will realize that it is important that we know how much you feel that you can spend, and whether you want to do all the work at this time or let it extend over a two or three years period.

A field of Stark Bro's Spirea—preferred by careful planters who consider quality.

Small Amount of Planting Sometimes Desirable

Please bear this point in mind. Our landscape architects in planning your grounds will use just the amount of stock and *kind* of stock that will produce the best landscape effect. We will not use a lot of unnecessary planting. Where we see that a very small amount of planting will be more effective than an extensive planting, you may be sure that we will consider our customer's interest first and above all. Our landscape architects are thoroughly trained men with the advantage of much practical experience. If we think that your home already has sufficient planting, we will tell you so.

Money and Time Wasted Unless Definite Plan Followed

A definite planting plan (either mental or on paper) is necessary for the best and most economical results. Don't waste your time, money and patience by "hit and miss" planting. An indiscriminate scattering of trees and shrubs will never be satisfactory.

Landscaping Simplified

There are two great divisions of landscape gardening.

First, there is the so-called formal school, which is also termed geometrical or artificial. This method was largely used in the formal gardens of the old world; however, it is not suited to American homes and American conditions of climate. The only place in this book where we will consider the formal type is under the subject of rose and flower gardens. For full explanation of this subject, see page 13, under "Gardens."

Naturalistic or Informal Landscaping

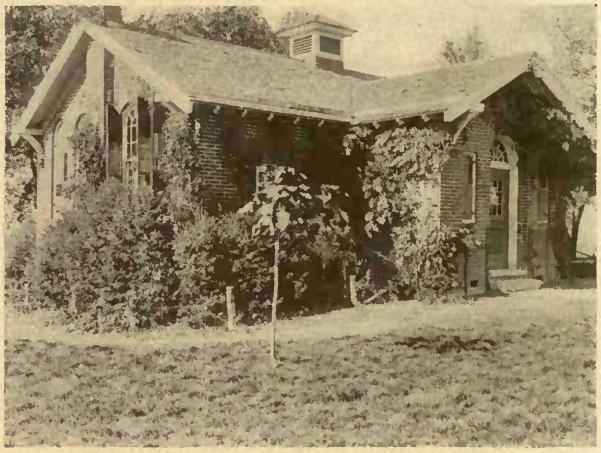
The *second* great division of landscape gardening and the one which we will consider in this book is known as the informal or naturalistic school. Naturalistic is probably the best name for this type of landscaping, because the name is self-explanatory. It is exactly what the name indicates—a planting that follows and imitates Nature. This is the one great principle to bear in mind—*make your landscape planting resemble the work of Nature.* The naturalistic planting gives a feeling of freedom and restfulness. Everyone knows that there is a certain enjoyment and relaxation in getting out among natural growing things. That is why all of us are drawn to the woods and parks—it is a pleasant and restful change after the strain of office, factory or housekeeping.

Naturalistic Planting Characterized by Irregular, Graceful Curves

Plantings of the naturalistic type, as they resemble Nature, must be irregular and uneven—no straight, hard geometrical lines. The shrub groups and borders are laid out in long, undulating, irregular curves that give a graceful and natural effect to the planting. Let us repeat again—the essence of naturalistic planting is Nature itself.

Landscaping the Typical American Home

In America the typical home is of moderate or small size. The large country estate or the big suburban property of the wealthy class is the exception rather than the rule. What we have to say in the following pages will appeal especially to the owner of the more moderate sized home, and this book will therefore *appeal to the vast majority of Americans.* However, the general principles and suggestions that we will explain will be applicable also to the larger and more extensive properties. Our aim is to explain in clear, concise and easy-to-understand language the general principles and practices of landscaping so that anyone can read this book and have a good understanding of the subject and thus prevent costly and unfortunate mistakes in laying out landscape plantings.



A Country Schoolhouse with Vines and Shrubs
When the children are young is the time to interest them in Nature and growing plants.

A Moderate-sized American Home Made Cozy by Shrubs
A few simple shrubs give this place a home-like attractiveness. Trees frame it and screen neighboring property. A low Barberry hedge would improve it.

Lack of Landscape Experience Cause of Most Mistakes

Very few persons have had the opportunity or time to devote to the study of landscape gardening, nevertheless they have had a desire to properly plant their lawns. As a result, they have planted a few shrubs and trees here and there scattered over the lawn without any definite plan or consideration of the effect on the property when taken as a whole. They have had the natural desire to see something grow and as a result their lawn becomes a sort of patchwork. The man who builds a house considers it a proposition to be taken as a whole. It is *not* a series of additions, such as building one room at a time. The same principle holds true in landscape planting—it is necessary that a general scheme or plan should be followed—no matter whether this plan is on paper or in one's head.

Home Grounds Divided Into Three Parts

Every property is divided into three main divisions or parts.

First, we have the semi-public portion of the home grounds. This includes the front lawn, entrance and all that portion of the grounds which can be viewed from the street or road, or by neighbors.

Second, we have the private portion of the place. This portion of the grounds is shut off from the public view and should be considered as a sort of an out-of-doors living room. Here is where the family can have privacy and solitude. Here is where the rose garden should be laid out.

Third, the service portion of the property which includes that part of the grounds that has the drying yards, service walk, vegetable and fruit garden. This division of the grounds is separated or screened off

The Gaudy Style—A Cluttered Foreground
Both the picture above and the one to the right were taken from the same front porch. Note the difference. The above view is spoiled by the scattered plants on the lawn.

both from the public and private portions by lattices covered with vines or by shrub border plantings.

The Semi-Public Portion

This is the part of the grounds which is most frequently seen. It consists of what is commonly known as the front lawn and it should present the best possible appearance. The entrances, drives and walks should be arranged so that they will be most convenient. The shrub groups and tree plantings should be so placed as to give the house the most effective setting.

Principles of Landscape Gardening

In every landscape planting the principle of unity is all important. To attain unity all that is necessary is to have the entire place treated in such a way that it will present a harmonious whole. In other words, the aim should be to make the home grounds like a picture. There should be one central idea or feature. In the home grounds, this central idea is the house, which is the dominant point of the entire planting. We must guard against breaking up the grounds into many individual parts. Every good picture has the one central idea with many subordinate or secondary features. It is often true that the simplest home planting is the most attractive.

How to Attain Unity or Picture Effect

To gain our picture effect, the first thing to consider is a large, open front lawn. Never plant shrubs and trees scattered over the yard. This breaks up the lawn into many parts and makes it appear much smaller than it really is. We should aim to increase its apparent size. Furthermore, shrubs and trees should never be planted in straight rows on the lawn, or any other part of the property. Of course there is an exception when we plant street trees along the highway. It is especially important that the lawn on small properties should be kept open, because in these cases, there is a very limited amount of space available and it should be made to appear as large as possible. And besides, the grass grows much better on the lawn when it is open to the sun. A green lawn is one of the most important parts of an effective landscape treatment.

The view from the front of the home should not be obstructed. If we were to plant shrubs and trees scattered over the lawn, it would entirely ruin the outlook. Instead, we must select the best views and then frame them with a planting of trees and shrubs.

The Stark Way of Landscaping
We design open lawns with borders of shrubs View framed by graceful trees. This illustrates Unity in Landscaping.

Planting About the House

We have already spoken of the planting about the house. Shade trees on either side of the house are useful for the protection they give from the bright sun in Summer and the cold, bleak winds in Winter. However, an even more important reason for planting trees relatively near the house is to frame in the home and to give a cozy, protected effect. Shrubs and trees both, when planted around the house, make it blend in closer with the surrounding landscape. The house seems to appear as if it belonged there and was a part of the entire natural surrounding. On the other hand think of a house standing on a bare lot with no planting to soften the hard architectural lines. This results in the house appearing artificial and out of place. In summer it is hot and uninviting; in winter it appears cold, bleak and unprotected.

Avoid Patchwork of Color

Another factor that must be considered in making the home grounds an effective picture is the general color scheme, which should be of a quiet tone. We may have contrast of different colors, such as dark, light and medium, but we must avoid a spotted or patchwork appearance. Use enough plants of one color in a group to prevent this spotted appearance. By blending the groups of the different colors together, we will get harmonious effects. As we have said before, the major portion of color should be quiet, such as the beautiful green and white of Spirea Van Houttei. Again, if you will refer to the landscape work of Nature, you will find that she grows shrubs in groups with the many colors blended together. There is no regularity in the way she lays out her plantings.

Avoid Monotony

Do not make the planting too dull or with too much of a sameness. We must have some variety in color, shape and arrangement of the plants. There must be a few accents, such as an upright shrub or tree or a bright flowering plant. The walks must be laid out in long, irregular, graceful curves. If possible, views in different parts of the grounds should be framed in so as to lend interest to the planting.

Other Principles of Landscape Gardening

Aside from the principle of unity (treatment as a whole), there are other important principles that must be considered in laying out the home grounds.

It is very often true that the simplest planting is the most effective. Although we must have sufficient planting to frame in the home, to create the effect of larger grounds and to give variety to the planting, still we do not want to overdo it. We must realize when it is time to stop planting. Don't clutter up the entire property with plants—leave plenty of wide open stretches of lawn and confine the shrub planting largely to the borders of the property and around the house.

Variety in Landscaping

A home planted with shrubs which has very similar characteristics would soon become dull and monotonous. In landscape planting, as well as other phases of life,

The charm of this beautiful home lies in the great open lawn, framing trees and surrounding foundation planting of flowering shrubs. The planting increases the cash value of this place 25 to 50%.

there must be variety. We must have variety in color, shape and size. By means of a bright color or a tree or shrub with unusual shape, we can incorporate accents in the general planting. These accents will make the entire planting more interesting to all who view it. For instance, one or two Lombardy Poplars with their very slender, upright growth would give a pleasing contrast to a planting of lower, round-headed trees. The graceful, drooping branches of the Weeping Willow, if not used too much, will make the planting more interesting; the golden colored foliage of Golden Elder (*Sambucus Aurea*) or the Golden Syringa (*Philadelphus Aureus*) gives a very striking contrast to the planting. However, these must be used very carefully indeed or else the contrast will be too striking. The beautiful white bark of European Birch is a character which should be considered in striving for variety. This also applies to the bark of European Sycamore, one of the finest and most satisfactory of all shade and street trees for American conditions.

Symmetry or Balance

Although it is not necessary to have one side of the planting exactly balance the opposite side, still it is advisable to have the general effect of color and mass on both sides of equal value. The question of symmetry or balance is of most importance when laying out the garden. This we consider more in detail when we take up the subject of "Gardens" on page 13.

Interest Maintained by Making the Planting Intricate

Landscape treatment of property may be very carefully and perfectly laid out, but if there are not enough interesting effects and views it may soon prove dull and monotonous. As we walk about the grounds we want to see new views, unexpected bays in the shrubbery—something to keep our interest continually aroused and active. In other words, we want to have a feeling that, as we walk about the grounds there is something to explore—some hidden beauties a little further on. In Nature's plantings our interest is kept aroused by a feeling that we are exploring; this is the same principle that we must keep in mind in landscaping the grounds by the naturalistic method.

Convenience and Compactness

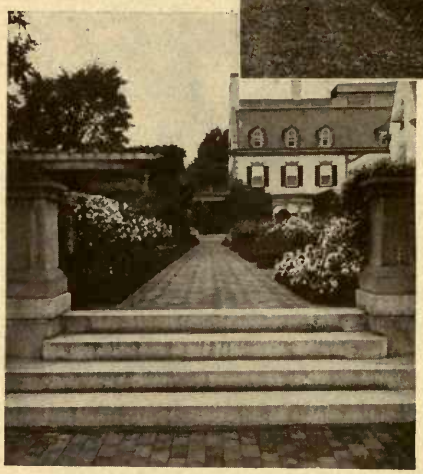
These two principles go hand-in-hand. The different parts of the home grounds should be so arranged that they will be easily accessible and convenient in going from one part to another. These same principles must be considered by the architect when planning the house. It must be convenient to go from one room to another without taking extra steps. The flower garden must be conveniently and closely located to that portion of the house which is most largely used, for the garden is essentially an out-of-doors living room. By locating the walks in the correct place, it will prevent the wearing of paths on the lawn. It is natural for anyone to go on the most direct line from one point to another. For further details as to laying out walks, see page 14. On small places it is particularly important to have different parts of the grounds planned so they will be most compact and convenient, thus getting the greatest possible use out of a limited area.

Privacy and Seclusion

Privacy is a necessary and sacred part of family life. The private portion of the grounds is the part which is probably the most appreciated and prized by the owner, the rose and flower garden, where the owner feels he can relax in the bosom of his family. Here he can walk and roam among his flowers, confident that he is not observed by the outside world. Only the one who has experienced the privilege and precious enjoyment of a private garden can appreciate what this means to the tired business-man or housewife.

A Good Landscape Design.

In making a successful and correct landscape planting all of the principles that we have explained above enter into the final and complete plan. In other words, it is a combination of all the principles and elements of landscape gardening. The final result of the planting is a beautiful and consistent whole—an interesting and attractive picture. Someone may ask how all of the principles can be combined, also if some of the principles are not directly opposed. Nature furnishes the answer. In Nature, we may have unity or treatment as a whole and also have variety and interest. Nature's plantings demonstrate the principle of simplicity. They also show that intricacy is a part of each planting of Nature. So it can be seen that this combination of all the principles of landscape gardening is pleasing and satisfactory.



Perennials in a Formal Garden
Give flowers and beauty from April to November. Plenty of variety to be found in such a garden.

A Few Don'ts for Home Planters

Don't clutter up your front lawn with a lot of scattered shrubs and trees. Remember that the big, open lawn is just as important as any part of the planting. Leave plenty of views and make them more beautiful by framing them with plantings of shrubs and trees.

A characteristic planting for a large estate or a park—graceful curving drives and naturalistic shrub clumps.

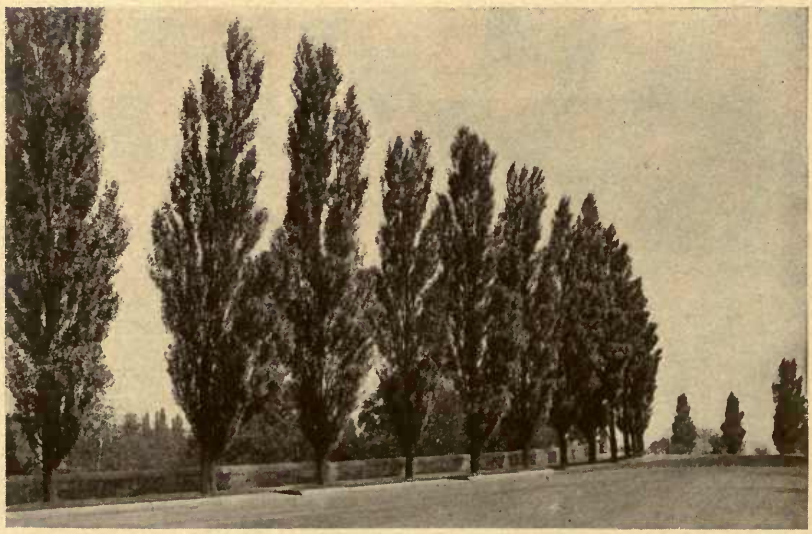
Don't plant trees too close to the house. They should be close enough to frame in the house and help to protect it in Winter and shade it in Summer. But remember that the house inside will require light and you do not want it too damp.

Don't overdo the planting. Home grounds that are made too elaborate will not be satisfactory.

Don't put flower beds on the front lawn. Very often we see a round or fancy shaped flower bed stuck out in the middle of a large, attractive lawn. This breaks up the expanse of the lawn and detracts from the picture effect at which we are striving. The house should be the center of our picture, but with flower beds breaking up the front lawn, it turns the attention from the central idea and besides, these formal, or regular shaped beds are not in harmony with the naturalistic style of landscaping. Flowers and roses are an important factor in Landscape Gardening, but they should be in the garden and *not* on the front lawn. When they are used on the lawn, they are unattractive when not in bloom and in the Winter these bare flower beds become very ugly.

Don't put unsuitable ornaments, such as iron vases, iron animals and artificial metal figures on the lawn. These are not in harmony with the naturalistic style. The only place that ornaments of this kind are in good taste on the home grounds is in the private portion or garden, where the treatment is more or less of the formal type. We explain this subject in detail under the heading of "Gardens."

Don't break up the lawn with too many drives and walks. Of course convenience requires that there be a certain number of walks and drives, but these should be held to the minimum. This is especially true on small grounds. Remember that wherever anything breaks up the wide expanse of the lawn it makes the place seem smaller. Sometimes the walks or drives are slightly sunken so they do not show up to such an extent.



An Avenue of Picturesque Lombardy Poplars.
A hardy quick growing tree. A universal favorite for avenue planting or for general landscaping both in Europe and America. Gives accent and variety to the skyline.

Don't make the planting too monotonous and bare. Often we see shrubs planted about a house in a sort of hedge form and again great rows of shrubs along the borders of the property. This is not the way that Nature would do the planting, therefore, it is not in keeping with the naturalistic style. The shrubs should be planted around the house in irregular, uneven groups, and the borders should be laid out in graceful curves with bays and framed-in views. The entrance to the grounds can be very effectively masked so that the visitor when entering the grounds will not see the entire place laid out before him, but instead will be led from point to point with an ever-changing view. However, the mistake should not be made of shutting in the place too densely. Remember that the front lawn and front view of the house should be semi-public. You do not want the place surrounded and hidden from view by a planting that would be essentially a prison wall.

In summing up the whole proposition, we might say that the aim in landscape gardening is to make the home attractive and pleasant, and all of the planting should be subservient to that one idea.

Special Features of the Home Grounds

(In this we take up the matter of the treatment of entrances and approaches to the house.)

Walks and Driveways

The entrance walk and driveways should be at right-angles to the road. Do not let them connect with the road at an oblique angle. If it is necessary to make a turn in the driveway or walk, this should be in long sweeping and graceful curves and the approach to the house should be direct and most convenient. A curved walk or driveway is much prettier and more effective than a straight hard line. However, we must not have useless curves and the general direction of the driveway or walks must always be towards the house.

It would appear ridiculous and artificial to curve a walk or driveway where a straight line would be the most direct way. However, in order to afford an excuse for curving the driveway, a clump of shrubs can be placed so that the driveway will appear to curve around the clump. We have already explained that there should be just as few walks and driveways as possible—only the ones that are absolutely necessary—but it is better to have a walk than to have a path worn on the lawn. If you find it difficult to stop the use of a path across any part of your property, you will find that a clump of shrubbery placed across the path will be one of the most effective ways to stop it.

Entrances

If the entrance gate is used, it should be of the same material and character as the house. If the house is of red brick, the entrance should be treated with the same material. If the house is of stone, or wood, the same principle will hold true. A training of clinging vines over the entrance gate will be found to be very effective.

The entrance should be located at the most convenient point. If most of the travel is in one direction, the entrance should be located at the point closest to the main direction of travel. Very often this results in the entrance being at one corner of the property. This gives an opportunity for a long, curved driveway leading up to the house. We have already explained why the entrance should be more or less hidden from the house. Clumps of shrubbery can be planted on either side of the entrance, largest shrubbery towards the center of the clump and the lower, spreading shrubs in front. As the visitor enters the masked entrance and drives towards the house, he continually gets a new view of the property. This is much more effective than if the whole grounds were spread out like a map so that everything was visible at one glance.

However, the view from the home should overlook the street or road and likewise the passer-by should get a good view of the house and its surrounding planting.

Planting Around the House

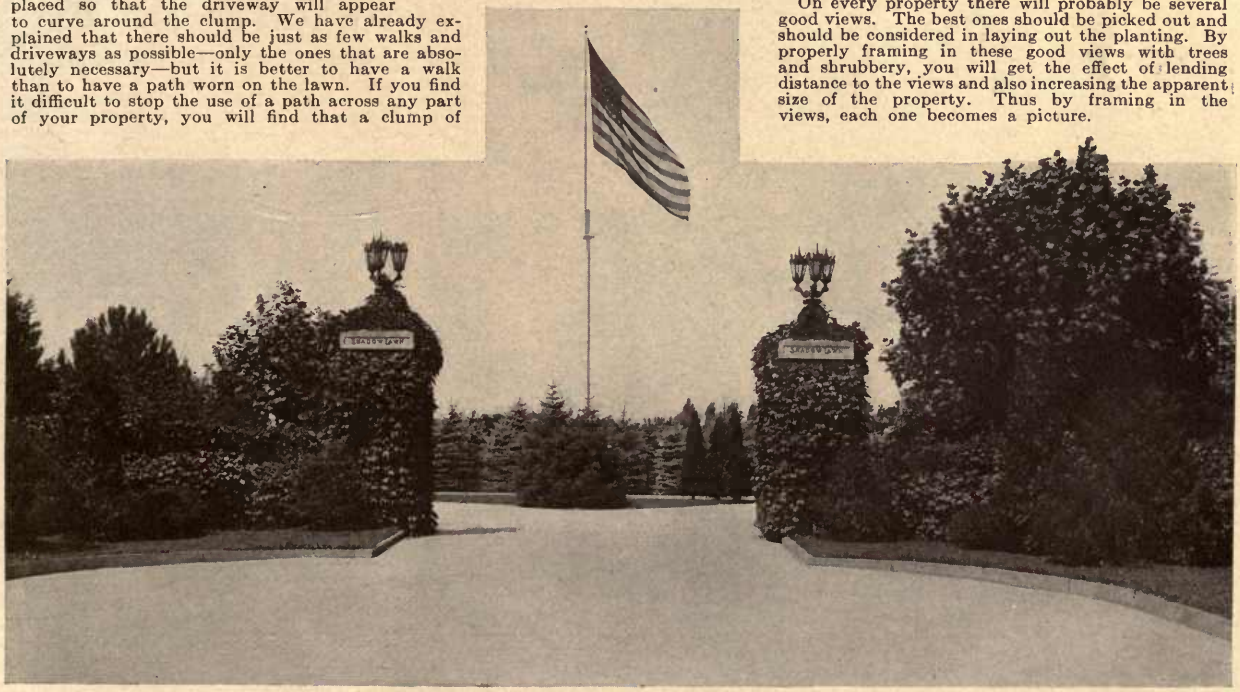
The planting of shrubs and trees about the house tends to tie the house to its surroundings and make it seem more a part of the whole picture. In other words, the shrubs are used to form a transition or connection between the house and the surrounding landscape. This shrub and tree planting helps to blend the various parts of the picture and to make it appear in keeping with the naturalistic surroundings.

When planting the shrub groups about the house, be sure that the groups are planted in irregular clumps. Do not plant them in a straight hedge effect around the foundation of the house. It should also be remembered that shrubs with foliage of fine texture are better suited for close planting around the house than the rougher and more irregular growing shrubs. For instance, shrubs with foliage of fine texture like Spirea Van Houttei, Japanese Barberry (*Berberis Thunbergii*), Spirea Billardi, Snowberry (*Symphoricarpus Racemosus*) and shrubs of this type are well adapted for planting near the house. Some of the best trees for planting near the house to form a frame and to protect the house in Summer and Winter are the following kinds: American White Elm, Tulip Tree, European Linden, Silver Maple, European Sycamore Norway Maple.

This Entrance Speaks for Itself

Nestled among the trees and flowering shrubs the house has a homelike privacy. This is the way Stark Bro's experts will plan your grounds.

On every property there will probably be several good views. The best ones should be picked out and should be considered in laying out the planting. By properly framing in these good views with trees and shrubbery, you will get the effect of lending distance to the views and also increasing the apparent size of the property. Thus by framing in the views, each one becomes a picture.



Photograph, Underwood & Underwood, N. Y.

The beautiful entrance to President Woodrow Wilson's summer home in New Jersey. The beautiful ivy covering the entrance posts and the shrub planting on either side is most effective. The trees give privacy, maintaining interest in the mind of the visitor.

The Stark Way of Framing a View
With the sturdy graceful Elm—America's greatest shade tree.

Shutting Out Undesirable Views

Very often there are certain views or outbuildings which are "eye-sores" when viewed from the house. These views can be blanketed out and hidden by a planting of trees. It is often desirable to use quick growing trees in order to attain this result as soon as possible. Out-buildings and barns can be hidden by plantings of high shrubs, and unsightly board fences can be blanketed out.

Flowering of Shrubs and Trees

In selecting the shrubs for the landscape planting of the home grounds, the flowering gives the time of flowering and the height to which the shrub grows.

Time of Blooming

The time of flowering is another important consideration. In planting shrub groups in borders, we want to plan to have shrubs some of which will be in bloom *throughout the season*, thus there will always be an interesting bloom from early Spring until late Fall. Starting out with the Forsythia, with its brilliant yellow bloom in early Spring before the leaves appear, then comes the Red Bud or Cercis followed by the attractive Deutzias. White Kerria (*Rhodotypus Kerrioides*) blooms early and continues to bloom all summer. Next comes that magnificent shrub, Spirea Van Houttei, which has been pronounced the *one best shrub*. With its white billows of flowers it presents a magnificent effect. After the flowers are gone, the foliage is of great landscape value, being of fine texture and a rich green. Following Spirea Van Houttei comes the Philadelphus, which is commonly called the Mock Orange or Syringa. This splendid old-time, fragrant shrub is a beautiful sight in bloom. Following it comes the Viburnum Opulus commonly called the High Bush Cranberry with its white panicles which are followed by brilliant scarlet fruit. Tamarix Africana also blooms at this time. Its pink blossoms gives the entire bush a pinkish cast. Indeed it is different in appearance from any other shrub. A clump of Tamarix on the lawn gives the effect of the spray from an ocean breaker.

June has been called the month of the roses and truly so, for in this month the roses seem to outdo themselves. However, in this month, many of our finest shrubs are also in bloom.

In June Weigela rosea presents its wealth of rose-colored flowers. There is also a white type and a red flowering type.

The Lilacs

Probably the finest and most popular of all the June flowering shrubs are the Lilacs. For generations Lilacs have been dear to the hearts of all lovers of Nature. The old-fashioned Lilac was very popular with our grandparents, but we are more fortunate in having numerous new and improved varieties, with a great variety of color and larger blooms. No landscape planting is complete without Lilacs. Next in season of bloom comes Spirea Billardi, with its long plumy spikes of feathery pink. Some of the shrubs which bloom late in the Summer and hold over until early Fall are the Hydrangea Paniculata Grandiflora (with blooms often eight or ten inches long and six inches in diameter) and Hibiscus Syriacus (Old-Fashioned Rose of Sharon). There are many colors in both single and double flowers of the latter and it should be planted much more largely than it is. There are certain shrubs, such as Hydrangea Arboreseens Grandiflora, Rosa Rugosa, White Kerria, etc., that bloom throughout the Summer.

Bright Colored Berries

Some shrubs are of great value not only because of their flowers, but because of their bright colored fruit. The long brilliant red berries of the Barberry are very interesting in the Fall and they last through the entire Winter. The Snowberry (*Symphoricarpus Racemosus*) has large clusters of pearl white berries in the Fall. The High Bush Cranberry (*Viburnum Opulus*) is not only valuable on account of its bloom, but because of the clusters of brilliant red berries, which appear in late Summer and hold over to the Fall.

Rosa Rugosa has red berries throughout the Summer at the same time the shrubs are blooming.

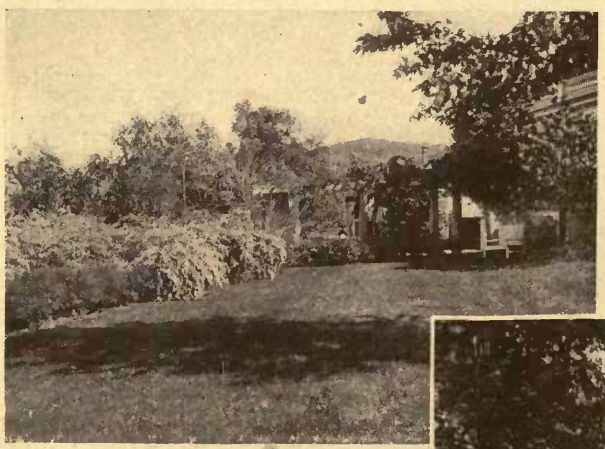
Characters of Growth

As far as habit of growth is concerned, shrubs are divided into three main classes: FIRST, we have the high growing shrubs which are used largely as a background; SECOND, we have the medium height shrubs, which can be planted immediately in front of the background and higher shrubs —these are called "fillers;" THIRD, we have the low-growing or dwarfy shrubs, which are used to edge down the groups of shrubs—these are called "facers."

In addition to the height growth of the shrubs they vary greatly in being upright, spreading or arching in their general character of growth. It is easily seen that by mixing the different kinds of shrubs we can get an interesting and varied effect, thus breaking the monotony. In Nature you will find a great blending of the many different kinds of shrubs with no regularity as to the planting. It is this natural blending, demonstrated in Nature's planting, that we should attempt to reproduce.

Planting a Shrub Group

We have explained how the different characteristics of shrubs, such as their manner of growth, their time and color of bloom, their general color value must be considered in making up the shrub groups. It is a combination of all these characteristics in their proper proportion that produces the successful shrub group. There are a number of general principles or rules that must be observed in planting the borders or groups. The tall shrubs should be planted in the background of the border or in the center of



Planned and planted by Stark Landscape Architects. A naturalistic shrub border of tall Viburnums, Spireas, Syringas, etc.

characteristics should be carefully considered. The color, size and time of flowering are all important. In planting a shrub group, be sure that the color of the different shrubs will be harmonious. Do not plant shrubs which have pink blossoms near those which have red blossoms, if the two shrubs bloom at the same time. However, if they have different times of blooming, it will be all right to have them in the same group. You should aim to have variety in color of bloom. This variety will lend interest and attractiveness to the planting. For instance, there are three types of Weigela: The rose-colored, the white blossoms and the red blossoms. The budded Lilacs give a good opportunity for using many different colors. By carefully studying the table given on page 20, you can select a variety of harmonious colors of bloom. This table also

This planting could be improved by planting some trees at the left corner of the house to pin it to the surroundings and counteract the effect that the house is slipping down the hill.

the group. Then around and in front of the taller shrubs we will plant the "fillers" or shrubs of medium height. Then on the outside or in front of the fillers we can plant our lower, spreading shrubs, which we have termed "facers." Bear in mind that you should plant the background or tall shrubs *first* and then work towards the front. Never begin in the front and work towards the back. Second, we must realize that in planting shrub groups or borders we are trying to imitate Nature. Nature never plants single specimens of shrubs when making up her natural shrub groups. Instead, she plants *several* of each kind in small groups and then these small groups are massed together in one large, harmonious group. If we should plant one shrub of each kind in a group we would get a spotted, unnatural effect. In other words, we must consider the shrubs as groups of each kind—not individual plants. By keeping this in mind, we can get harmoniously planted groups which will be interesting and varied.

Spirea Van Houttei at the Home of President Stark
The billowy white banks of Spirea Van Houttei are the admiration of all. For planting around porches there is no better shrub.

In selecting the shrubs for the groups, be sure to get the kinds which will have bloom of different colors, but a harmonious combination, and also shrubs which will bloom early, then followed by those that will carry the bloom throughout the season.

Irregular Outline of Groups

In laying out the outline of the shrub border or group, the front line of the group should be irregular and naturalistic. Make the curves long and sweeping with bays in the shrubbery at irregular intervals. Sometimes the mistake is made of laying out a shrub border and making the boundary line or front of the border in regular, zigzag curves, all of the curves being just alike. This is altogether wrong and is not in keeping with the naturalistic style. Be sure that all of the curves of the shrub groups are irregular and laid out in graceful lines.

Evergreens in Landscaping

Evergreens are adapted for certain uses in landscaping. They have the advantage of holding their foliage not only in Summer but also in Winter. On the other hand, they do not give any beautiful bloom. Evergreens are of rather slow growth, but if you are willing to wait, they will make good screens for shutting out undesirable views, also as a windbreak. We will sum up the matter of evergreens by saying that they can always be used in the landscape planting, but they should be used in limited amounts. If too many evergreens are used they give a cold, stiff appearance.

Shade Trees

In history and in art, shade trees occupy an important position. Was it not under the immense American White Elm at Cambridge, Massachusetts, that the father of our country took charge of the Continental Army? In many parts of America there are enormous trees—true patriarchs of Nature—which have been standing for many centuries, long before Columbus sailed on his voyage of discovery.

It is becoming a general practice to plant our noble, native shade trees as monuments to commemorate great events. In many of the schools and colleges an important part of the graduating ceremony is the planting of the "class tree." It is indeed very appropriate to plant something that lives, grows and becomes more beautiful every year.

Shade Trees About the House

Shade trees are used for many purposes in landscaping the home grounds, but we will first consider the planting around the home. Trees should be planted behind in order to form a background, and on the sides to frame in the house, but they should *never* be planted directly in front of the home, as this will obstruct the view and detract from the general effect of the landscape planting. We often see the mistake of planting shade trees in the center of the front lawn. This is wrong because it not only obstructs the view, but it breaks up the wide expanse of the lawn, making it appear much smaller in extent. It also prevents a satisfactory growth of the grass and everyone knows that a beautiful green lawn is one of the most important parts of the landscape planting. Another point to bear in mind is the fact that the trees spread very much as they become older and for this reason it is not advisable to plant them too close to the house, as it will make the house damp and prevent the entrance of sunshine. Sunshine in the home is a necessity.

Shade Trees for Avenue, Street and Driveway

Shade trees are planted at regular intervals along avenues and streets. The distance of planting ranges from 20 to 50 feet. Some prefer to plant the trees rather close, say 20 to 25 feet, with the understanding that later every other tree will be removed thus allowing the proper development of the remaining trees. Another plan that is followed is to plant every other tree as a permanent tree, using for this purpose trees of moderate growth, but which are long-lived, such as European Sycamore, Norway Maple, English or American Linden, Sugar Maple or one of the Oaks. Some of these trees we have just mentioned, such as the Norway Maple, European Sycamore, American White Elm and English Linden are of fairly rapid growth, while the Sugar Maple and the Oaks are of slower growth.

In between the permanent trees, which we have just mentioned, are planted some of the very rapid growing shade trees. The plan is to let the very rapid growers furnish shade for a few years while the permanent trees are getting established and becoming large enough to furnish effective shade. As soon as the trees begin to crowd, the rapid growers (or temporary trees) are removed. Some of the best trees to plant for very quick growth are the following: Silver Maple, Box Elder Maple, Catalpa Speciosa, American White Ash, Carolina Poplar, Lombardy Poplar, Tulip Tree. Some of these trees are very rapid growers and of long life; can be used for permanent planting. We refer particularly to Silver Maple, American White Ash and Tulip Tree.

Street trees, as a rule, should be headed rather high and the trunks should be protected from injury, such as the gnawing of horses. There are many ways of protecting tree trunks, by the use of wovenwire, board protectors, etc. In case the bark is injured the wound should be smoothed down and the edges cut smooth, then painted. For full details of treatment of wounds and the kind of paint to use, see page 15.

Shrubs and evergreens make this well-planted entrance effective at all times. Note the long graceful sweep of the entrance walk and the cozy appearance of the home.

The Graceful Weeping Willow
A popular tree for lawns, parks and cemeteries. Thrives under many conditions and is an exceedingly rapid grower. Especially effective when planted near water.

Lawn Trees

There are certain shade trees which are not adapted for avenue planting or for framing in the house. However, these trees are very effectively used as individual specimens or in groups on the lawn. Trees of this character are very necessary for the successful

Silver Maple for Quick Results
One of the most satisfactory all-purpose trees grown—for lawn, avenue or screen planting.

execution of any landscape planting. We have in mind trees such as the Weir's Cut-Leaf Maple, Catalpa Bungei (Umbrella Tree), Weeping Willow, European White Birch, Cut-Leaf Weeping Birch, Red Bud (*Cercis Canadensis*), Russian Olive, Tea's Weeping Mulberry, Crimson Leaf Plum, Double-Flowering Crab, Moss Locust, American Sweet Chestnut, Black Walnut and Pecan—the latter three trees are not only beautiful for landscape purposes, but they bear a nut crop of splendid quality.

Trees as Screens

Under the heading of "Shutting Out Undesirable Views," we have explained the use of quick growing trees for this purpose. Instead of seeing a neighbor's backyard or barn, we can plant quick growing shade trees, which will quickly and effectively hide undesirable views. Where very quick results are desired, we advise the planting of Silver Leaf Maple, Carolina Poplar, Lombardy Poplar, Weeping Willow or Catalpa Speciosa. The medium-rapid growers, such as Linden, Tulip Tree, European Sycamore can also be used for this purpose, although the results would not be as quickly accomplished. Evergreens furnish screen in Summer and Winter, although it will take quite a long time for them to grow to the desired height.

Climbers

The following vines are best adapted for planting around the porches: Hall Japan Honeysuckle (*Lonicera Halleana*), Chinese Wistaria (*Wistaria Sinensis*), Japanese Clematis, (*Clematis Paniculata*), American Ivy (*Ampelopsis Quinquefolia*). In addition to these vines, climbing roses lend themselves admirably to training on porches. The best climbing roses for this purpose are the Dorothy Perkins, Climbing Baby Rambler, Climbing American Beauty, Baltimore Belle, Crimson Rambler and Trier.

In planting the vines and climbing roses for your porch use several different kinds, as they will blend well and will bloom at different periods. We suggest the following combination of climbers for porch planting.

Set No. 1. Dorothy Perkins rose, Japanese Clematis (*Clematis Paniculata*) and American Ivy (*Ampelopsis Quinquefolia*).

Set No. 2. Wistaria Sinensis, Dorothy Perkins rose and Climbing American Beauty.

Set No. 3. American Ivy (*Ampelopsis Quinquefolia*), Baltimore Belle rose and Hall Japan Honeysuckle (*Lonicera Halleana*).

Climbers for the Trellis and House

On arbors, pergolas or trellises, vines and climbing roses give a very pleasing effect. The aim should be to practically cover the entire trellis or arbor. Any of the combinations suggested for the porch will be well adapted for use on arbors.

Old tree trunks, or similar unsightly objects, may be entirely covered with vines. For this purpose, American Ivy (*Ampelopsis Quinquefolia*), Wistaria, Honeysuckle or Dorothy Perkins rose are best suited.

The best vines for covering the house are American Ivy and Boston Ivy.

These splendid vines cling to the wall by their own means and do not need any additional support. There is nothing more beautiful than a brick, stone or concrete building covered with these magnificent vines. They make the house much cooler in Summer. For centuries vines of this kind have been used on the famous old castles of Europe.

Covering Steep Banks

Frequently we are confronted with the problem of securing a green ground cover on steep banks where it is impractical or impossible to get a stand of grass. We have seen steep red-clay banks, which were continually caving in and were unsightly, made beautiful by planting Honeysuckle and Dorothy Perkins rose, which, in a very short space of time entirely covered the clay bank with a solid mat of bright green. When the roses were in bloom it was indeed a wonderful sight. (Full description of all the best climbers are given on page 25.)

Hedges—Living Fences

One of the most popular hedge plants is the California Privet. This is a very rapid growing plant which forms a solid, even green wall, and is easily trimmed. However, it is sometimes winter-killed and not adapted for Northern sections. There are other splendid Privets such as the Amoor River (Northern type), which is hardy and has a beautiful, fine foliage. This splendid hedge should be more largely planted as it is a rapid, hardy grower and satisfactory in every respect. The Ibota is perhaps the hardiest of all the Privets. It is very upright and has long, pointed, glossy leaves. The common privet (*Vulgaris*) is also popular.

Barberry—The Best and Hardiest

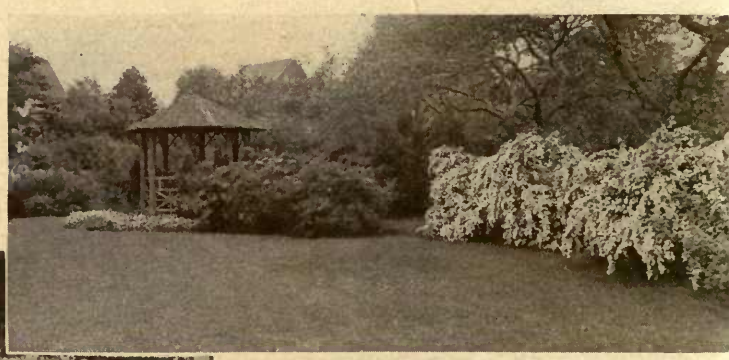
The Japanese Barberry as a hedge has more good qualities to commend it and fewer faults than any we know. It is of spreading growth and reaches only medium height. Its foliage is a beautiful light green, and it has a small yellow flower. The small thorns serve as a protection from intrusion. Oblong berries of a bright red color hang on during the winter. This is one of its most valuable characteristics, as very few hedges have any great beauty during the winter months. In addition to its other good points, Japanese Barberry is of iron-clad hardiness.

Naturalistic Hedges

Other plants which make good hedges are the Spirea Van Houttei, Philadelphus Coronarius, Lilacs, Japanese Rose (*Rosa Rugosa*), Weigela and Snowberry. Hedges of any of the plants just mentioned need not be trimmed after the first year or two, but if left to grow naturally will be very satisfactory. Spirea Van Houttei is one of the best shrubs for making a naturalistic hedge. After two or three years its branches begin to droop over in graceful curves clear to the ground (Illustrated on page 25). The foliage is of a splendid green, and when it is in bloom in the Spring it appears as a "snowbank of flowers."

The Japanese Rose (*Rosa Rugosa*) and the Rugosa Hybrids such as Conrad F. Meyer make an excellent hedge, as they are exceptionally vigorous growers with splendid foliage. The thorns act as a protection, and the attractive pink and white blossoms are followed by large, orange-red seed pods which have a good landscape value in the Fall after the blossoms are gone.

However, where a low flowering hedge is desired, the Baby Rambler type (Dwarf *Polyantha*) makes excellent hedges. These roses are not only hardy, but they are exceptionally free blooming—they are laden with masses of flowers from Spring until late Fall. Some of the best varieties for this purpose are the Clothilde Soupert (Flesh Colored) Baby Rambler (Red), Jessie (Pink), etc.



A Garden Retreat—Simplicity
No matter what the latent possibilities of beauty, Stark Experts will discover them. How quiet and restful is this scene—picturesque apple trees behind and Spirea in front.

Honeysuckle and Rose Hedge

One type of hedge of great beauty and also one which gives excellent protection from intrusion, is the following: a strong woven wire fence of medium height is placed where the hedge is desired; at intervals of three or four feet are planted (alternately) Hall Japan Honeysuckle and Dorothy Perkins rose, which will quickly make a solid, impenetrable hedge. Other combinations for this same purpose are the Hall Japan Honeysuckle, and Trier rose. Another combination is American Ivy (*Ampelopsis Quinquefolia*), Dorothy Perkins rose and Hall Japan Honeysuckle; and there are a number of other combinations that will give equally as good results.

A Charming Veranda View
A simple informal planting of shrubs adds brightness and cheer to the home. Attractive both to the owner who gazes from his porch and to the stranger who passes by.

Establishing the Lawn

The lawn is one of the most important parts of any successfully planted property and it should be maintained in proper condition. Before sowing any grass seed make sure that the ground is properly drained (sometimes it is necessary to put in tiled drainage although surface drainage is generally sufficient). The soil should be first plowed (or spaded). On a large percentage of lawns lime should be added. After you have spaded or plowed the soil, scatter lime over the surface of the ground. The best kind of lime to use is either the ordinary ground limestone (Calcium Carbonate) or air-slaked lime—these are the easiest and most agreeable forms to handle. The lime should be scattered over the ground so the general appearance of the ground will be white. A safe rule to follow would be to use about one-half ton on a square area with 100 ft. sides. It is a good plan to roll and rake the surface so as to get it even and smooth. Seed can be sown either in the early Fall or Spring. Very often it is recommended to sow the grass seed in the late winter or early Spring when the last snow is on the ground.

For a square area with 100 ft. sides sow about a bushel. The sowing of the grass seed should be done on a quiet day so it can be distributed evenly. You can sow the seed by hand, then lightly rake the seed. Protect the young seed from any trespassers. The best permanent lawn is grown from Kentucky Blue Grass, but it does not become established quickly. For quick results a mixture of the following will be satisfactory: Kentucky Blue Grass, Red Top and English Rye in the proportions of 4-2-1. For shady locations the following combination would give satisfactory results: Kentucky Blue Grass, Wood Meadow Grass, Various-leaved Fescue and Crested Dog's-tail used at the rate of 2-2-1-1 in order above named.

Manure should be applied in the Fall or very early Spring. However, manure has the disadvantage of carrying more or less weed seed which may become established in the lawn, but you can keep weeds cut out.

The Private Grounds

No matter whether we call the private grounds by the name of garden, out-of-doors living room or backyard, it should be made attractive and liveable—a place where all the family will be glad to linger after the day's work is done. The private grounds may consist of simply a lawn enclosed by shrubbery borders and possibly a perennial planting in front of the larger shrubs. However, in most cases the private portion of the grounds consists largely of the flower and rose garden. The garden should be closely connected with the house, as it is just a second living room, which is used in the Spring and Summer even more largely than the living room indoors. Therefore, it will be seen that a convenient location of the garden in reference to the house is very important. We have already explained the necessity for using shrub plantings to screen off the garden from the public portion of the grounds. For the same reason the planting between the garden and the entrance driveway should be so planned that visitors can not see the garden.

The Garden

In the garden the design of the beds and other features of the formal work is of equal importance as compared with the horticultural or plant material features of the garden. In laying out the formal garden it is well to bear in mind that as near as possible the garden should be on an even level or a regular, even slope. If the ground is too steep to secure this result a series of terraces can be used. In the formal garden we must keep away from the irregular, naturalistic lines. In other words, the design of the garden is regular and architectural in spirit. The garden is generally laid out so that the entire plan can be seen at a glance. The design of the garden is more a matter of regular shaped beds and walks instead of an irregular, naturalistic planting. The walks and beds of the garden are made up of a series of straight lines or arcs of circles. There are no irregular winding paths. In the formal garden the plant materials are used to emphasize the architectural and formal lines in addition to the horticultural beauty of the plant itself. The garden should be located so that the central walk or axis will be on a direct line with the main view from the house. Very often a doorway leading out from the living room of the house will form the chief viewpoint and the main walk or axis of the garden should be on a direct line with the doorway. The axis of the garden has been called the "backbone" of the design. On this main axis a garden should be balanced—each side the same size and value as the opposite side. Study the plan of the garden on page 3. Note how the main axis is centered on the entrance from the house.

Let Stark Bro's plant your home grounds like this and develop them so you will reap the fullest enjoyment. Our Experts choose plants adapted to your soil and climate. Stark ornamentals are planted successfully from coast to coast.

The Garden of Flowers

When we speak of the garden, we have in mind the flower or pleasure garden. There is, of course, a second meaning to the use of the term "garden," namely, the service or vegetable garden. For full explanation of Service and Vegetable Garden see page 14. In this chapter we will confine ourselves entirely to treatment of the pleasure or flower garden.

Formal in Treatment

Although we have stated in previous pages that the planting which is most adaptable to American homes and the American climate is the Naturalistic style, nevertheless the Formal style enters in to the planning of the flower garden to a certain degree.

The design of arrangement of the beds is formal in outline—this is due largely to the fact that if the beds are laid out in even, regular shapes they can be much more easily cared for and will give more satisfactory results. Also, the garden should be formal, because it is, in a sense, a transition between the formal lines of architecture in the house and the surrounding naturalistic planting. The formal garden is a sort of a half-way point between the architectural house and the irregular, naturalistic planting of the surrounding property.

Garden Objects

The formal garden is also characterized by garden objects or architectural features, such as seats, summer or garden houses, pergolas, sundials, statuary, etc., also water mirrors, which are nothing but regular shaped pools of water which are used with good effect in the formal garden—they can be planted with water lillies or kept clear of plants and thus used as a natural reflecting mirror.

In planting the garden you should decide on what your exact requirements are. You should know to what use you are going to put the garden—when you expect to enjoy and use it the most. If you are going to be away from home during a certain portion of the year, you want to use flowers and roses which will bloom before you plan to leave and also to include plants which will be in their glory when you return to your home.

Different Types of Gardens

There are several types of gardens, in so far as the character of plants to be used is concerned.

First, we have the flower garden, which is made up solely of annual and perennial plants. These plants either die down to the ground or are entirely killed out by the Winter.

Second, is the rose garden, in which many different types of roses are used. For full details of Roses see The Rose Garden, page 26.

Combination Garden

However, both the flower and rose garden have their good points and probably the logical garden for most home grounds is a "Combination Flower and Rose Garden."

Right in the Heart of the City

Your back yard can be transformed into a garden spot like this.

The Walks of the Garden

The garden walks should preferably be of grass. The green turf is more in harmony with the growing plants of the garden. Grass walks are easy to keep in condition; by proper care, the edges of the beds can be maintained in a smooth, regular manner. The grass walk is in itself a thing of beauty.

Gravel walks are sometimes used in the garden, but they are not beautiful and it is rather difficult to keep the gravel separated in distinct lines from the flower beds. This is accomplished sometimes by maintaining a narrow strip of turf between the gravel walk and the bed, or a small edging of dwarf plants can be used.

It is important that the garden walks should be of sufficient width to accommodate several persons walking abreast. To see the walks of a garden narrow and cramped detracts greatly from the general effect of the design. Of course the main walk or axis of the garden should be considerably wider than the cross-walks, although it will depend to a large extent on the size of the garden, but it is a safe rule to say that the main walk should never be narrower than five or six feet, and in many cases, it should run up as high as 10 or 12 feet in width.

Annual Plants

In the formal garden annual plants are very often used (when we refer to annual plants, we mean those kinds which die out every Winter, and which must be purchased and set out each season). This results in annual expenditure which may run into quite a sum. On the other hand, if hardy perennials and roses are planted, they are permanent. After they have been carefully planted out and have become established, they do not require additional expense for replacing as is the case with annual plants. We advise very strongly the increased use of roses and hardy perennials.

A Perennial Border

The border of old-fashioned perennials (plants which die to the ground each winter, but come up every year) is very popular these days—and deservedly so. Perennials grow very freely and because they are permanent, they are economical as one doesn't have to buy new plants every year. After once setting them out they become stronger and finer with each year's growth. The perennial border does not have to be planted in regular shaped beds. It can be planted irregularly in front of the shrub groups or borders and the green foliage of the shrubs will form a splendid background or the beautiful colored blooms of the perennials. Of course perennials are planted with very good effect in the beds of the formal garden but the true perennial border is generally planted in front of the shrubs, as we have just explained. In the formal garden, which is surrounded by a planting of shrubbery, it is a good plan to plant a perennial border in front of the shrubbery in addition to using some perennials in the beds of the garden. Some of the splendid perennials that have been popular in our grandmother's day and are still used with splendid effect are the following: Phlox, Iris, Chrysanthemum, Columbine, Anemone, etc. See description on page 19.

However, the most popular and the finest of all perennial plants is the paeony. For generations this splendid plant has maintained a deserved popularity equalled by no other perennial flower. It blooms in early Spring when its enormous brilliant colored blooms attract an unusual amount of interest and attention, especially so because it is in its glory just about Memorial Day. The paeony thrives in nearly every part of the United States, becomes established easily and is the source of an annual supply of beautiful bloom. In our grandmothers' day, the list of paeonies was very limited, but now with the many marvelous new varieties, we have practically every desirable color and the season of bloom is extended over a long period. We cannot too strongly recommend a planting of paeonies that will succeed with practically no care or attention, although they respond quickly to good treatment. See descriptions on page 24.

The Shape of Flower Beds

In considering the shape of the flower beds, it should be remembered that they form a part of the formal garden and therefore they should consist of regular shapes. Avoid all elaborate and fancy shaped beds. These unusual and elaborately shaped beds are undesirable because they are very inconvenient and difficult to maintain. They are not beautiful nor are they in harmony with the formal garden.

In laying out the beds remember that simplicity is always to be preferred. Simple shapes, such as squares, long rectangular shapes, with possibly a few circular beds are to be desired. The beds should not be too wide on account of convenience in picking the flowers. A safe rule to follow is this: Do not make the beds any wider than a distance that can be half reached across from either side. By picking the flowers from both sides of the bed you can thus conveniently reach all of the blooms.

Eugene Furst

A rich red rose of surpassing beauty.

Paul Neyron

Largest of all roses. Nearly thornless.

Keeping the Beds Regular

It will be found difficult sometimes to maintain the edge of the beds where it comes next to the sod in a straight, even line. By use of a sharp spade and cutting the edge of the turf after stretching a string for guiding, an even, regular outline of the bed can be maintained. In some gardens, especially where gravel walks are used, an edging of some small dwarfish growing plants is used to mark the edge of the beds. In the Missouri Botanical Gardens of St. Louis there is a very effective use of Japanese Barberry as an edging in one of the small formal gardens. It is necessary to keep the Barberry trimmed very close so it will not get very large, but it makes a very compact and neat edging.

In an edging where it is not desired to use an edging plant or to keep the edge of the beds cut in smooth, straight lines, a good permanent method of marking the edge of the beds is to form an edging of bricks, which are set in the ground at an angle of 45 degrees They should be set far enough in the ground so that they do not come above the turf edge more than two or three inches.

Service Grounds

We have already taken up an explanation of three divisions of the home grounds.

First, the semi-public part; second, the private part of the grounds, and third, the service portion.

The service grounds should be entirely separated from the semi-public and the private grounds. Although it will vary with each property, the service portion may consist of the drying yard, service walk (leading from the house to garage or stable), also the walk leading from house to the vegetable or fruit garden. By using screens of high shrubbery and even trees, the service section can be entirely shut out from view.

Service Garden

In the service garden we have a vegetable and fruit section, also roses and flower plants can be planted in the service garden to furnish an abundance of cut flowers for the home.

Where the space of the service garden is limited, the use of dwarf fruit trees is advisable. Stark Bro's grow a complete list of the dwarf fruit trees for the special purpose of providing smaller trees for the fruit garden. Dwarf apples can be planted as close as 12 or 14 feet apart. Dwarf pears the same. We grow a complete list of varieties especially adapted for the home fruit garden. By planting the dwarf trees they will bear younger and you can plant many more of the trees on a limited space than if the regular or standard trees were used. See complete list on page 25.

Care of Plants on Arrival

When your trees and shrubs arrive, you should plant them at once if possible; however, if they come during frosty weather, place them unopened in a cool, dry cellar, free from frost. When the weather moderates, unpack, and shake out the packing of moss and fibre before planting. Do not expose the roots to sun, air, wind or frost.

Snowberry (Symphoricarpus racemosus.)

Just a Glimpse

of the immense fields Stark Bro's devote exclusively to growing ornamental stock—every plant a specimen grown by experts.

Practical Suggestions

(The following directions, if followed, will prevent many unfortunate and costly mistakes.)

When to Plant

The time of planting can be covered in the broad assertion that either Fall or Spring planting is satisfactory.

Shrubbery and shade trees do exceptionally well when planted in the Fall, although this fact is not known by most people. Therefore most shrubbery and trees are usually planted in the Spring. The very hardy roses can be planted in the Fall, although as a rule roses should be planted in the Spring. After the roses have had one season's growth and become established they will go through the Winter without injury if given a very little attention. For details, see The Rose Garden, page 26. The time of planting is largely a matter of your convenience. If you have your grounds ready, plant in the Fall, but if you are not ready until Spring, do the planting then—suit your own convenience.

Planting Shrub Borders

First, stake out the outlines of your shrub groups or borders. We have already spoken in previous chapters about the planting of shrubs in groups and borders with irregular outlines, in order to secure a naturalistic effect. In making the outline of the border or group, a limp rope can be laid loosely on the ground and arranged so as to form rounded and graceful curves with deep bays. Then the outline can be marked with a spade. Another method is to use a rake handle or a stick to mark the outline. If you have not a detailed plan, it is best to sketch out on a piece of paper the general outline of the group and border planting, and then this outline can be transferred to the ground.

Plant Irregular and Natural Groups

In planting the groups and masses of shrubs, it is advisable to spade up all of the ground where the shrubs are to be planted and to smooth it over by hoeing or cultivation, mixing in well rotted manure if possible. Be sure to plant the shrubs in an irregular manner—not in straight rows or lines. However, enough shrubs of each kind should be planted together in the different groups in order to form a definite effect of color or tone. The larger shrubs, of course, are planted in the middle of the clumps; the lower, dwarfish growers are planted in front of the taller ones and on the outside of the groups.

Distance Between Shrubs

In planting shrubs, the distance between the plants should be regulated somewhat by the character of growth; for instance, a large growing shrub such as Snowball or Philadelphus should not be planted closer than three and one-half to four feet between plants. Shrubs of medium growth can be planted three or three and one-half feet apart. In this class are Spirea Van Houttei, Weigela, Hydrangeas, etc. Smaller growing plants such as Japanese Barberry and Snowberry, can be planted as closely as two or two and one-half feet. Planting at these distances will give the desired effect very quickly, however, if you are willing to wait longer to get the effect of shrubbery masses, you can plant the shrubs further apart.

How to Plant

We have already spoken of the planting distance for shade trees. Note paragraphs on page 11. The distance between street trees ranges from 20 to 40 feet. When clumps of shade trees are planted, they can be set as close as 8 to 10 feet, with the understanding that some of them will be cut out later. In planting a tree or shrub, dig large, deep holes, which will receive the roots easily without crowding or bending. Keep the top, rich soil separate from the bottom soil, and then when the tree is planted, this top soil can be worked in around the roots. Be sure to prune the roots of your trees—that is, cut off all the broken and bruised ends, making a slanting cut with a sharp knife, cutting from the under side so the cut surface will rest against the bottom soil.

The tree should be planted at about the same depth it stood in the nursery row, sometimes two inches deeper. The dark ring at the base of the trunk shows the depth the tree stood in the nursery. Throw in some of the best top soil and work it in well about the roots. Tramp and pound the soil in hard, leaving no air pockets around the roots. Fill the hole three-fourths full, and if the soil is very dry, several gallons of water can be poured in at that time, although the soil is generally moist enough without the water. After letting the water sink in fill up the hole with loose dirt, being sure not to tramp the top two or three inches of soil. When planting in the Fall, it is a good plan to mound up the dirt around the tree or shrub to a height of 6 to 10 inches. This can be raked down level the next Spring. It is a good practice to place well rotted manure about the base of the tree or shrub on the surface of the ground.

Also, a mulch of dead grass and leaves can be raked up about newly planted trees. This will help to prevent the evaporation of moisture in the ground and will also furnish plant food as it rots.

How to Plant a Hedge

In planting the hedge, dig a trench about one foot wide and 12 to 18 inches deep. Keep the top soil separate from the bottom soil. The plants should be set 8 to 10 inches apart. This applies to Privets, Barberry and similar plants, while the larger shrubs like Spirea Van Houttei and Philadelphus can be planted 12 to 18 inches apart. The hedge may be set in a single row, or if a quick effect is desired, set two rows of plants leaving about 10 inches between the rows; and the plants in the rows are set 8 inches apart and alternated. In planting the hedge, work in the rich top soil around the roots and tramp it in hard. A mulch of well rotted manure can be placed on the surface of the ground.

Pruning Shade Trees

Although there are exceptions, the general rule for pruning shade trees and shrubs is to *do as little pruning as possible*—only enough to keep the dead and broken limbs cut out and to thin out the old branches of the shrubs when they become too thick.

Shade trees can be pruned in any season, but the best time to prune is in late Winter or early Spring. Pruning at this time causes the trees to make a more vigorous growth. It is much better to prune the trees a little every year, cutting out all broken, rotted or undesirable branches rather than make severe prunings at long intervals. In cutting out the big branches, use a saw, and cut the branch close to the trunk and nearly parallel with it.

Frequently, it is desired to repair the rotted parts of trees. Cavities in the trunks of the trees can be filled with concrete, and this will frequently result in the saving of splendid shade trees. In filling these cavities, it is absolutely essential to cut out and remove all the decayed wood, and then to wash this decayed wood with an antiseptic such as Corrosive Sublimate (1 part to 1000 parts water)(Poison—handle carefully) or with some good paint such as White Lead. Then the whole cavity can be filled with cement

Pruning Shrubs

Immediately after planting shrubs, the tops should be headed back one-third or one-half of their growth, as this will tend to make them become more dense and more bushy. After the first year or two, shrubs will not need much pruning—just enough to keep the old dead wood cut out and in a vigorous growing condition.

In pruning shrubs, keep in mind their blooming habit, that is, *whether they bloom on new wood or on the growth made during the previous season.* Most of the Spring flowering shrubs bloom on the last season's growth. This is true in the case of the Spirea Van Houttei, Weigela, Forsythia, Lilacs, Viburnums, Wistaria, and for this reason these plants should not be pruned until after they have bloomed. Most of the summer blooming shrubs, like Hydrangeas, Philadelphus (Mock Orange), Hibiscus (Rose of Sharon) and bush roses bloom on the wood which has been grown during the *same season*, and therefore, they should be pruned heavily in late winter or very early Spring, causing them to make a vigorous growth the following Summer.

Pruning the Hedge

Immediately after planting, the hedge should be headed back. The Privets should be cut back to within 4 to 6 inches of the ground. Japanese Barberry, Spirea, Philadelphus and Rosa Rugosa should have the tops cut back one-half of their growth, immediately after planting. For the firs two years, trim the hedge frequently, keeping it cut low and bushy. In pruning, cut back the growth to within two inches of the last pruning—that is, leave two inches of growth each time the hedge is cut.

An interesting sky line. Try to imagine how unattractive this home would be if there were no trees near it.

A vine-covered porch showing the uses of American Ivy, also a foundation planting of hardy Spirea, Hydrangea and other shrubs.

Paint for Covering Wounds

As mentioned in a previous paragraph, White Lead is one of the best paints for covering tree wounds, but you should be sure to use pure White Lead mixed with raw Linseed Oil. Do not use a house paint or any paint which has a drier. Mix the White Lead to about the consisteney of buttermilk, and if a dark color is desired, add lampblack.

Shade and Ornamental Trees

A home without shade trees is difficult to imagine. You may have a *house* without trees, but never a true home. Trees give a certain dignity and character to any place. In summer they protect the house from extreme heat; in winter they ward off the cold blasts. Trees form the framework of every landscape planting. Shade trees planted on either side of the house and on the boundaries of the property give a feeling of coziness and seclusion. It is our aim to make the home grounds a "picture" of which the trees are the frame.

Best Street and Avenue Trees

American White Elm (*Ulmus Americana*).
European Linden (*Tilia Platyphyllos*).
Norway Maple (*Acer Platinoides*).
Pin Oak (*Quercus Palustris*).
Tulip Tree (*Liriodendron Tulipifera*)
Silver Leaf Maple (*Acer Dasycarpum*).
Carolina Poplar (*Populus Monolifera*).
European Sycamore (*Platanus Orientalis*).

Trees for the Lawn

American White Elm (*Ulmus Americana*).
American White Ash (*Fraxinus Americana*).
Norway Maple (*Acer Platinoides*).
Silver Leaf Maple (*Acer Dasycarpum*).
Wier Cut-Leaf Maple (*Acer Dasycarpum Wierii*)
European Linden (*Tilia Americana*).
European Sycamore (*Platanus Orientalis*).
Pin Oak (*Quercus Palustris*).

The Catalpa Bungei with its almost rain-proof roof of green leaves makes a splendid lawn specimen. In great demand among Stark customers.

Lombardy Poplar (*Populus Nigra Fastigiata*).
European White Birch (*Betula Alba*)
Cut-Leaf Weeping Birch (*Betula Alba Laciniata Pendula*).
Red Bud (*Cercis Canadensis*).
Crimson-Leaf Plum (*Prunus Pissardi*).
Umbrella Catalpa (*Catalpa Bungei*)
Tea's Weeping Mulberry.
Russian Olive (*Eleagnus Argentea*).
Babylonian Willow (*Salix Babylonica*).

Trees of Rapid Growth

Tulip Tree (*Liriodendron Tulipifera*).
Carolina Poplar (*Populus Monolifera*).
Norway Poplar (*Populus Norway*).
Lombardy Poplar (*Populus Nigra Fastigiata*).
Catalpa Speciosa.
Silver Leaf Maple (*Acer Dasycarpum*).
Wier's Cut-Leaf Maple (*Acer Dasy. Wierii*).

BOTANICAL NAME	COMMON NAME	Approx. Height in Feet	GROWTH	HABIT and FORM
Acer Dasycarpum	Silver Maple	50-60	Rapid	Pyramidal
Acer Dasycarpum Wierii	Wiers Cut-lf. Maple	50	Rapid	Pyramidal
Acer Negundo	Box Elder	40–50	Rapid	Round
Acer Platanoides	Norway Maple	40–50	Medium	Round
Acer Platanoides var. Schwedleri	Red Leaf Maple	30–40	Medium to Slow	Pyramidal
Acer Saccharum	Sugar Maple	40–60	Medium	Pyramidal
Betula Alba	European White Birch	40–50	Medium to Rapid	Pyramidal
Betula Alba Laciniata Pendula	Cut-lf. Wpg. Wh. Birch.	50	Medium to Rapid	Weeping
Catalpa Bungei	Umbrella Catalpa	6–10	Rapid	Round
Catalpa Speciosa	Common Catalpa	40	Rapid	Pyramidal
Cercis Canadensis	Red Bud	15–25	Medium	Vasiform
Diospyros Virginiana	Persimmon	40	Medium	Oval
Eleagnus Argentea	Russian Olive	8–12	Medium to Rapid	Round
Fraxinus Americana	American Ash	50–80	Rapid	Pyramidal
Gymnocladus Canadensis	Kentucky Coffee Bean	40	Rapid	Oval
Liriodendron Tulipifera	Tulip Tree	40–60	Medium	Oval
Magnolia Stellata	Star Magnolia	6–10	Medium	Round
Magnolia Soulangeana	Soulange's Magnolia	10–20	Medium	Oval
Morus Tatarica Pendula	Tea's Wpg. Mulberry	6–10	Rapid	Weeping
Platanus Occidentalis	American Sycamore	130–170	Rapid	Oval
Platanus Orientalis	European Sycamore	80	Rapid	Oval
Populus Nigra Fastigiata	Lombardy Poplar	80–90	Very Rapid	Columnar
Populus Monolifera	Carolina Poplar	40–50	Very Rapid	Pyramidal
Populus "Norway"	Norway Poplar	50–60	Very Rapid	Pyramidal
Prunus Pissardi	Crimson Lf. Plum	15–20	Medium	Oval
Prunus Vesuvius	Royal Purple Plum	20-30	Rapid	Oval
Pyrus Atropurpurea	Stark Purple Leaf Crab.	15-20	Medium	Oval
Pyrus Parkmanni	Parkmann's Flw. Crab.	8–12	Medium	Oval
Quercus Alba	White Oak	40–50	Slow	Oval
Quercus Palustris	Pin Oak	50	Medium	Pyramidal
Quercus Rubra	Red Oak	80-90	Slow to Medium	Oval
Robinia Hispida Rosea	Moss Locust	12	Rapid	Oval
Robinia Pseudacacia	Black Locust	60-80	Rapid	Oval
Salisburia Adiantifolia	Maiden Hair Tree	60	Medium	Pyramidal
Salix Babylonica	Weeping Willow	40	Very Rapid	Weeping
Salix Caprea	Pussy Willow	12	Rapid	Oval
Tilia Americana	American Linden	80-90	Rapid	Oval
Tilia Platyphyllos	European Linden	75	Rapid	Oval
Ulmus Americana	American White Elm	60–80	Medium to Rapid	Vasiform

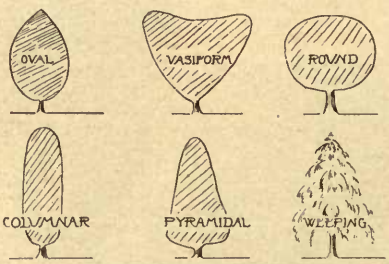


Diagram of Tree Forms

The above diagrams will be useful in referring to the last column of the above table.

Box Elder or Ash-Leaf Maple (*Acer Negundo.*)
Weeping Willow (*Salix Babylonica*).

Weeping Trees

Cut-Leaf Birch (*Betula Alba Laciniata Pendula*)
Wier's Cut-Leaf Maple (*Acer Dasycarpum var. Wierii*).
Weeping Willow (*Salix Babylonica*).
Tea's Weeping Mulberry (*Morus Alba, var. Tatarica Pendula*).

A Graceful Weeping Tree

Tea's Weeping Mulberry with its long slender drooping branches is one of the finest weeping trees. Appropriate for cemetery and lawn planting. Grown in enormous blocks by Stark Bro's

ASH, AMERICAN, *Fraxinus Americana.* A stately, symmetrical tree of spreading habit attaining a height of 80 feet. Of rapid growth. Excellent for shade and ornamental planting. Foliage glossy green and divided. One of the choicest of our grand old native trees, quick in growth, with massive trunk and sturdy limbs, valued alike for street, timber and lawn planting.

BIRCH, CUT-LEAVED WEEPING WHITE, *Betula Alba Laciniata Pendula.* An excellent ornamental tree with finely cut, fern-like foliage. Slender pendulous branches. Perfectly hardy, of rapid growth, and not particular as to soil although a slightly moist location is preferable. Will grow 50 feet or more in height.

BIRCH, EUROPEAN WHITE, *Betula Alba.* Attains a height of 50 feet or more. A rapid growing symmetrical tree of graceful form and slightly drooping branches. Small glossy green foliage. The white bark which is more conspicuous in older trees is a dainty touch to the surrounding greens of the landscape.

Sugar Maple—A permanent native tree.

CATALPA BUNGEI, *Umbrella Catalpa.* A broad-foliaged tree of dwarf habit, 8 to 10 ft. in height. Neat, compact, round head on slender trunk. Requires little or no trimming. Used extensively for planting on either side of walk leading to residence where area is limited; also for Japanese gardens and other formal effects.

CATALPA SPECIOSA, *Lady Cigar Tree, Western Catalpa.* A hardy western tree of rapid growth and often 60 feet in height. Valuable for fence posts and ties. Flowers mottled white succeeded by long dark brown beans which are attractive during the early winter months. A good tree for grove planting where quick shade is desired. Thrives equally well in moist or dry soils.

CHERRY, DOUBLE FLOWERED, *Cerasus Japonica Rosea Pendula.* A weeping Japanese tree of graceful appearance. Pink flowers in early May literally cover the branches.

CRIMSON LEAF PLUM, *Prunus Pissardi.* One of our best purple leaved trees. Of medium size and perfectly hardy. Foliage and twigs dark purple forming a striking contrast when planted near the border. A good specimen tree.

ELM, AMERICAN, *Ulmus Americana.* An old favorite used for many purposes. Of graceful spreading habit with slightly drooping branches. Is adapted to a variety of conditions. Easily transplanted. An excellent avenue tree and unexcelled as a rapid growing shade tree—one that needs no introduction. The best of all native trees.

FLOWERING CRAB, *Pyrus Parkmanni.* A very attractive small tree or shrub, 8 to 12 feet in height. Semi-double rosy-pink flowers are followed by small dark red fruits which ripen in late autumn. A beautiful display in the border or as specimens on the lawn.

KENTUCKY COFFEE BEAN TREE, *Gymnocladus Canadensis.* A native tree attaining large size. Of rapid growth, producing heavy spreading branches. Flowers green in June followed by long pods which produce the beans said to have been used by early settlers for coffee. A clean, stout, shade tree, desirable for street and lawn planting. It seems immune from disease, and in winter the blunt twigless branches give it a unique individuality.

LINDEN, AMERICAN, *Tilia Americana.* A valuable native tree of rapid growth forming a broad round open top. Fragrant creamy-white flowers borne on winged stalks in July. A honey-bee favorite. Adapted to a variety of soils. Wood utilized for veneering. A good avenue or specimen tree.

LINDEN, BROAD LEAVED EUROPEAN, *Tilia Platyphyllos.* A broad leaved European species often 75 feet in height. Leaves green and rough. Used as a specimen tree for shade. The famous tree of Parisian and Berlin streets that is holding its own on American soil as one of the foremost for avenue planting. More pyramidal and uniform in habit than American Linden.

LOCUST, BLACK, *Robinia Pseudacacia.* A native rapid growing tree with spreading branches. Long drooping clusters of creamy white, pea-shaped, fragrant flowers in Spring. Good background tree for border. The timber is so durable that it is in demand for many commercial purposes.

MAGNOLIA SOULANGEANA, *Magnolia Soulangeana.* A beautiful small tree to 20 feet, producing large pinkish flowers in April before the leaves. A strong growing variety from China. Very desirable as specimen plant.

MAGNOLIA, STAR, *Magnolia Halleana Stellata.* A Japanese shrub or small tree attaining the height of 10 feet. Flowers white and produced abundantly in early Spring before the leaves making the plant very attractive. Excellent as a specimen plant on a lawn.

MAIDEN HAIR TREE OR GINKGO, *Salisburia Adiantifolia.* A medium fast growing tree to 60 feet; from the Orient. Foliage yellowish green and fernlike. Prefers a moist deep soil. Good for specimen or groups near the border. It is especially valuable in the eastern states where it withstands city conditions most successfully. Immune from insects and diseases.

American White Ash—A splendid native tree of rapid growth and long life.

MAPLE, ASH LEAVED or BOX ELDER, *Acer Negundo.* A large native tree of rapid growth and spreading habit. Adapted to a variety of soils but succeeds best in a moist location. Planted extensively in the West where it endures both the cold and arid conditions.

MAPLE, MONUMENTAL SUGAR, *Acer Saccharum Monumentalis.* A variety of the preceding, of distinct and attractive appearance. Of tall spiry form. Longer lived than Lombardy Poplar. Excellent for breaking the sky-line in massed planting.

MAPLE, NORWAY, *Acer Platanoides.* An excellent compact, round headed tree of medium growth, rarely exceeding 50 feet in height. Requires little or no pruning. Strong, uniform and perfectly hardy. Leaves dark green until late autumn when they turn a bright yellow. It is one of the best ornamental trees and is popular in all lawn, park, cemetery and street plantings. By many of the best authorities it is quoted as one of the few trees that will grow satisfactorily under city conditions.

MAPLE, PURPLE LEAF NORWAY, *Acer Platanoides var. Schwedleri.* An attractive variety of the above species. Spreading, about 40 feet in height. Young foliage a bright red, turning to a dark purplish green, bright yellow in autumn. Excellent as a specimen tree or when grouped with other trees for contrast.

MAPLE, SUGAR, *Acer Saccharum.* A fine round headed tree with spreading branches. Of moderate growth and long duration. An excellent avenue tree and as a specimen where dense shade is desired. Valuable also for its sugar production. Leaves bright green, changing to golden yellow and orange in Autumn.

MAPLE, SILVER LEAF, *Acer Dasycarpum, Acer Saccharinum.* A rapid growing tree used extensively for both street and lawn planting where immediate results are desired. Grows to 60 feet in height. Foliage silvery beneath. Easily transplanted and very hardy. Not particular as to soil, and succeeds under varied conditions. Of spreading habit, but may be pruned severely to any height or form desired.

MAPLE, WIER'S CUT LEAF, *Acer Dasycarpum Wierii.* A strong growing tree with finely cut foliage and drooping branches. Hardy and easy to transplant. An attractive specimen tree on the lawn. Very desirable quick growing tree on account of its graceful habit.

MULBERRY, *Morus.*

"Abundance." A vigorous, productive tree of upright habit. Long, slender, glossy black fruit of excellent quality. Unquestionably the best of all varieties of this popular quick growing ornamental fruit.

"Downing." A rapid growing tree of shapely form. A prolific bearer of good quality, glossy, black fruit. A fine shade tree. Sometimes planted in the orchards to attract the birds from the other fruit.

"Globe Headed." A strong rival of the well-known and ever popular Umbrella Catalpa. It develops a perfectly formed round head without pruning. Especially attractive when grafted on stems 5 or 6 feet from the ground.

"Gorgeous." Its name is in itself a complete description, luscious jet black fruit, clean, beautiful foliage and quick growth; usually bears when three years old. Originated by E. H. Riehl of Ill. Experiment Station, from whom we secured it for introduction to the trade. The largest of all mulberries.

"Monarch." A rapid growing tree attaining large size. Berries white, sweet and rich with a long ripening season. Very prolific. Tree attains greater size than any other Mulberry.

"New American." A hardy vigorous grower and very productive. Large, sweet, glossy black berries. Ranks among the best for fruit and is unsurpassed in ornamental value for lawn and specimen planting although like other Mulberries, it should not be planted where ripening fruit will fall underfoot on walks.

Carolina Poplar
8 years after planting. Splendid for quick results.

Mulberry (*Continued*)

"*Russian.*" A very hardy, vigorous growing tree with bushy top. A form of M. alba. Fruit small, of little value. Sometimes used for hedges and low windbreaks.

"*Teas Weeping.*" An excellent, graceful weeping tree with long branches that sweep the ground. A favorite for cemetery planting and on other limited areas. A strikingly effective addition to any ornamental planting. It ranks as one of the best weeping trees in cultivation. To 10 feet in height.

OAK PIN, *Quercus Palustris.* A beautiful tree of spreading habit growing to 50 feet in height. Unexcelled for street planting, being a very shapely tree. A fine specimen tree for the lawn. Foliage bright green turning to scarlet and yellow in autumn. As the tree grows the branches droop giving it a beautiful and characteristic outline. This variety is one of the easiest oaks to transplant.

OAK, RED, *Quercus Rubra.* A native species of rather fast growth to 80 feet. Leaves pink when unfolding, later dark green and deeply cut turning a dark brownish crimson in Autumn. Bears large acorns. Ideal for planting where a fast growing oak is desired. A beautiful lawn tree and favored for street planting.

OAK, WHITE, *Quercus Alba.* One of our large native deciduous trees of medium growth. It makes a beautiful specimen tree when given sufficient space to develop. A long lived tree excellent for lawn, timber or park planting. Leaves cling till winter is well advanced, a most pleasing characteristic of this variety.

POPLAR, CAROLINA, *Populus Monolifera (Deltoides.)* A widely known tree of rapid growth. The heart-shaped leaves are glossy and attractive. Often planted on the avenue, but should be topped occasionally to make it bush out. If left unpruned, it soon attains the height of 40 or 50 feet. Fine for windbreak when planted close together. It withstands easily conditions under which other trees die.

POPLAR, LOMBARDY, *Populus Nigra Fastigiata.* A familiar Italian tree from the province, Lombardy. A very rapid growing tree, the height often exceeding 80 feet. Excellent to break the skyline in massed planting, as an accent in the landscape, as a windbreak or a screen. The most common and popular of all columnar trees.

POPLAR, NORWAY, *Populus Norway.* An excellent tree of the Carolina type but of more rapid growth and by many it is considered hardier. Termed "The Sudden Sawlog" in the west. Should be planted extensively where quick results are desired and is especially valuable for planting around new buildings. First brought to the attention of horticulturists in 1897 in Faribault Co., Minn., but is now in demand throughout the country.

PERSIMMON, *Diospyros Virginica.* A medium sized native tree to about 40 feet in height. Much prized for the round, orange yellow fruit which is edible after frost. Of moderate growth with deeply furrowed bark.

PLUM, ROYAL PURPLE, *Prunus Vesuvius.* A choice variety somewhat similar to P. Pissardi, but in many ways superior to it. A vigorous grower with very large crimson leaves and deep rich colored fruit. Originated by Luther Burbank.

RED BUD, *Cercis Canadensis.* A small tree or shrub seldom attaining 25 feet in height. Foliage heart shaped. The small red flowers are thickly set on the branches in early spring before the leaves appear. Decidedly one of the best flowering shrubs and worthy of extensive planting.

ROSE ACACIA or MOSS LOCUST, *Robinia Hispida Rosea.* A dwarf tree to 12 feet. Large drooping panicles of rose colored flowers in May. Branches with bristles like the Moss Rose. Foliage bright green and divided. Splendid for the border and natural planting.

RUSSIAN OLIVE or SILVER LEAVED OLEASTER, *Elaeagnus Argentea.* A small tree or shrub to about 12 feet with small willow-like foliage, silver-white in appearance. Flowers small, yellow and fragrant, succeeded by yellow fruit. Perfectly hardy and makes a successful hedge plant. Combined with other shrubs in a border planting it presents a novel and striking contrast that results in exclamations of delight.

SYCAMORE, AMERICAN or WESTERN PLANE TREE, *Platanus Occidentalis.* A native tree of immense size. Of rapid growth and spreading habit. Leaves large with pointed lobes. Successfully used as street trees. Globe-shaped heads of seed persist until late winter. The mottled white and brown bark on the sturdy limbs and trunks of old trees is very conspicuous in winter landscapes.

The graceful white birch against a background of green gives a touch of dainty beauty.

Tulip Tree—a favorite lawn tree bearing tulip-shaped flowers.

SYCAMORE, EUROPEAN or ORIENTAL PLANE, *Platanus Orientalis.* An erect tree of rapid growth. Easily transplanted. More desirable than the American species. Extensively used for avenue planting in cities where it successfully withstands smoke, dust and traffic. Remarkably free from insects and diseases. Prefers a deep moist soil but thrives in a variety of soils from seashore to mountaintop. Such authorities as City Forester Koenig of St. Louis commend it for general and universal street planting.

Black Walnut—valued for its shade and beauty as well as for the splendid nuts it bears.

TULIP TREE or YELLOW POPLAR, *Liriodendron Tulipifera.* An excellent tree of large proportions and rapid growth. Often attains a height of 60 feet. Fragrant, tulip shaped, bright green and orange yellow flowers borne very freely during June. A very attractive and desirable tree on the lawn, but is slightly hard to transplant if very large. When established it succeeds well in any soil and easily repays for care in planting.

WILLOW, PUSSY, *Salix Caprea.* A small tree or shrub to 12 feet. Of upright habit. Produces fleecy flower buds in early Spring which are very attractive. Good in the border planting in moist soils for a natural effect.

WILLOW, WEEPING, *Salix Babylonica.* The well known Weeping Willow whose long pendulous branches droop so gracefully. An admirable shade tree for planting near the water edge. Grows to a height of 40 feet. Very rapid growth, succeeds easily.

Nut Trees

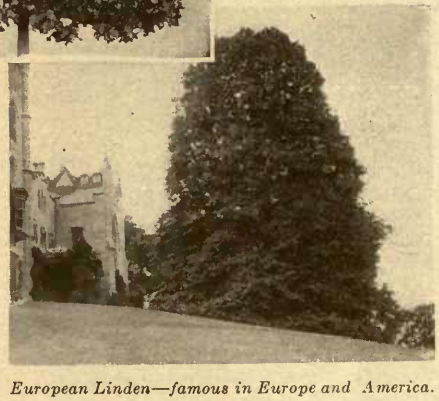
CHESTNUT, AMERICAN SWEET. A large native ornamental tree of symmetrical habit. Bears sweeter nuts of fine flavor but are not quite as large as the others. Fine for specimen groups on the landscape.

CHESTNUT, COOPER, *Grafted.* Tree a rapid grower bearing large nuts of good quality.

CHESTNUT, ROCHESTER, *Grafted.* A hardy, vigorous tree of rapid growth. Not particular as to soil. Adapted to the same conditions as our native species. Profitable as well as ornamental.

FILBERT, ENGLISH, *Corylus Avellana.* A hardy branching shrub to 8 feet bearing a good quantity of edible nuts. A vaulable border plant both as an ornamental and as an economic plant.

HICKORY, MISSOURI MAMMOTH. A native of the rich alluvial bottoms of the Mississippi Valley. Tree grows to a great height. Nuts large and of good quality.



European Linden—famous in Europe and America.

HICKORY, SHELLBARK. A commonly-known tree of our forest. Recognized by its stout grey branches, open top and shaggy bark which makes it look very picturesque. Bears large crops of high quality nuts though not as large as the preceeding.

PECAN, ILLINOIS SEEDLING. Originated in Pike Co., Ill. A thrifty tree producing extra large nuts.

PECAN, MISSOURI SEEDLING. Produced from seed of tree bearing extra large nuts near our home nursery.

The American White Elm
The grandest of all American trees; of fairly rapid growth and long-lived. Stark Bro's blocks of Elm are in great demand.

PECAN, PABST, *Grafted.* Nut of excellent quality and of moderate size. Shell soft, parting well from meat. The paper-shell pecans are not hardy in the north.

PECAN, STUART, *Grafted.* The most popular paper-shell pecan. Tree a vigorous grower bearing nuts of good quality in abundance.

PECAN, VAN DEMAN, *Grafted.* A large nut of good quality. Oblong in shape with moderately thin shell.

WALNUT, BLACK, *Juglans Nigra.* A large spreading tree to 50 feet with divided foliage. Extensively planted as a timber tree as the wood is very valuable. Perfectly hardy and prolific, bearing large rich nuts of good quality.

WALNUT, JAPAN, *Juglans Sieboldiana.* A hardy tree from Japan. An abundance of small, thin-shelled, sweet nuts of good quality produced in clusters. Tree a vigorous grower and ornamental. Bears young.

WALNUT, WHITE (BUTTERNUT), *Juglans Cinerea.* Rather fast growing tree, attaining large size. Rough oblong nuts with very rich meat. Perfectly hardy.

Evergreens

CONCOLOR FIR, *Abies Concolor.* Very hardy, grows rapidly, withstands heat and drouth. Foliage varies from light green to deep blue. Long-lived, attaining a height of 60 to 80 feet.

DOUGLAS FIR, *Abies Douglasi.* Dark green foliage slightly drooping—a large stately tree.

BOXWOOD PYRAMID. A dwarf growing evergreen plant somewhat resembling privet. Good for low hedges but not hardy north.

COUNARTI JUNIPER, *Juniperus Counarti.* A very hardy pyramidal shaped Juniper. The dense, dark green foliage lies close to the ground. Can be sheared.

JUNIPERUS PFITZERIANA. Uniform growth; requires no trimming. Used extensively for lawn and cemetery planting.

JAPANESE TRAILING JUNIPER, *Juniperus Procumbens.* Dwarf form.

SCHOTTI JUNIPER, *Juniperus Schotti.* A native Rocky Mountain species; graceful in habit with dark green foliage. Moderately rapid in growth, dense and symmetrical.

RED CEDAR, *Juniperus Virginiana.* A compact tree varying somewhat in color and form. Foliage bright green in Summer and assuming a darker hue in Winter.

SILVER CEDAR, *Juniperus Virginiana Glauca.* A vigorous growing variety with conspicuous light colored foliage.

SAVIN JUNIPER, *Juniperus Sabina.* A fine low growing Juniper for massing in groups.

LEE GOLDEN JUNIPER, *Juniperus Ell. Lee.* A tall grower. Will endure heat and wind well.

JUNIPERUS SABINA PROSTRATA. A very low growing, prostrate form with dull green foliage.

WHITE SPRUCE, *Picea Alba.* Excellent for windbreaks. A long-lived, rapid-growing tree that does well anywhere.

NORWAY SPRUCE, *Picea Excelsa.* Our well-known spruce. Foliage dark green; fine. Tree pyramidal to 45 feet in height. Hardy.

COLORADO BLUE SPRUCE, *Picea Pungens Glauca.* Foliage bluish to dark green. Branches in whorls extending horizontally.

BLUE SPRUCE, GRAFTED, *Picea Pungens Kosteriana Glauca.* Drouth-resistant. Compact in growth. Good for shelterbelts.

DWARF MUGHO PINE, *Pinus Mugho.* A dwarf form suitable for low planting.

WHITE PINE, *Pinus Strobus.* One of the best native pines with smooth bark, horizontal branches bearing dark green foliage arranged in groups of five.

SWISS STONE PINE, *Pinus Cembra.* Small, compact tree of a bluish-green color.

AUSTRIAN PINE, *Pinus Austriaca.* A robust grower, withstanding severe conditions.

AMERICAN ARBOR VITAE, *Thuya Occidentalis.* A good hedge plant. Foliage scaly of bright green color, slightly lighter on under side. Pruned to desired height and shape.

DOUGLAS GOLDEN ARBOR VITAE, *Thuya Occidentalis Aurea.* A golden yellow variety of the preceding.

PEABODY'S GOLDEN ARBOR VITAE *Thuya Occidentalis Lutea.* A yellow foliaged evergreen broadly pyramidal in form.

Norway Maple
Easily queen of all the Maples; forms a dense round head; probably the most popular shade tree for lawn and avenue.

HEMLOCK *Tsuga Canadensis.* A very graceful tree with fern-like foliage. Thrives in partial shade.

SIBERIAN ARBOR VITAE, *Thuya Occidentalis Warreana Siberica.* Another hardy form well known as a hedge plant.

Hardy Perennials

ASTER TATARICA. An excellent variety with bright purple flowers and heavy foliage. 5 ft. in height. Fall blooming.

ANCHUSA, *"Dropmore Variety."* Stems 3 to 5 ft. in height, bearing showy, deep blue flowers from spring until late summer.

BALL OF SNOW, *Achillea "Boule de Niege."* Small double white flowers, borne profusely on slender, graceful branches. An erect, compact grower. Better than the Pearl. Fine for cutting. Not particular as to soil. To 2 feet in height.

BLANKET FLOWER, *Gaillardia Grandiflora.* One of the best perennials. Large, daisy-like flowers, with dark, reddish-brown centers, blending through all shades to orange-crimson at the petal tips. 2 ft. high.

CANTERBURY BELLS, *Campanula Calycanthema.* A most popular "cup and saucer" variety with rose-colored flowers, often 3 inches long. Grows to 3 ft. in height.

FOXGLOVE, *Digitalis Rosea.* An old, well known favorite with rose colored, bell or thimble shaped flowers, densely arranged at the ends of the slender branches. Blooms July and August. Height 4 ft.

CHRYSANTHEMUM, *Pompon Varieties.* Hardy varieties of the bachelor button type are very attractive in the border. Pink, yellow or white colors. To 3 ft. in height.

GOLDEN GLOW, *Rudbeckia.* An excellent, tall growing, hardy perennial plant, with hundreds of bright, golden yellow flowers as large as dahlias, on slender stems. 7 ft.

GERMAN IRIS, *Iris Germanica.* Should have a prominent place in every perennial collection. Excellent, large, beautiful, showy flowers. Fine effect when planted near water. May or June. We grow the blue, white and yellow varieties.

JAPANESE IRIS, *Iris Kaempferi.* Immense flowers in June and July, produced on stout stems 3 ft. high. Red flowers.

MALLOWS, *Hibiscus Moscheutos.* Large flowers resembling the old time Hollyhock. Vigorous grower with strong upright shoots to 5 ft. Flowers produced in July and August. Both pink and white colors.

MOUNTAIN BLUET, *Centaurea Alpina.* Similar in appearance to the Corn flower. Large violet-blue, flowers on 3 ft. stems.

ORIENTAL POPPY, *Papaver Orientale.* Immense flowers of a bright flaming scarlet color, wearing at the base of the cup, formed by the petals, a maltese cross of purple black. A thrifty grower to 3 ft.

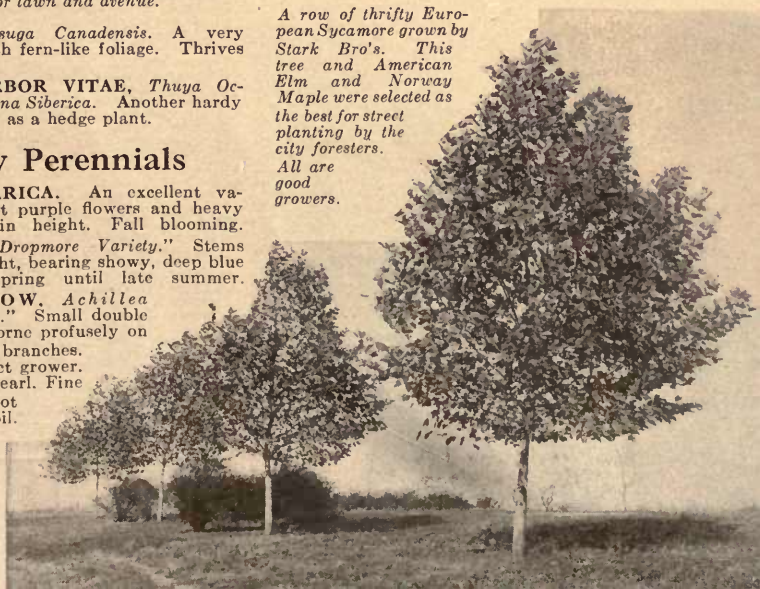
PHLOX. The huge clusters of beautiful colored flowers terminating the many leafy shoots, make this plant most attractive. A border of hardy perennials is incomplete without the Phlox. Supplied in the following colors: white, white-red eye, pink, red.

ROCKY MOUNTAIN COLUMBINE, *Aquilegia Coerulea.* The showy, light blue flowers on slender branches are very showy in early spring. Height about 2 ft.

ZEBRA GRASS, *Eulalia Japonica Zebrina.* A variegated grass with green leaves, banded yellow. Rarely over 18 in. in height.

WIND FLOWER, *Anemone Japonica Alba.* Very attractive. Of rapid growth to 2 or 3 ft. in height. Flowers pure white with yellow center—August till November.

PAEONIES, described on page 24.



A row of thrifty European Sycamore grown by Stark Bro's. This tree and American Elm and Norway Maple were selected as the best for street planting by the city foresters. All are good growers.

Hardy Flowering Shrubs

The correct planting of naturalistic shrub borders and shrub groups is one of the most important factors in attaining a good, naturalistic landscape planting. The shrubs in groups and borders must be irregular in outline with graceful, sweeping curves and deep bays. The outline of the groups must be irregular and also the sky-line or perspective must be uneven and naturalistic. There must be accent in the planting, such as a shrub or tree of very slender, upright growth. It is necessary to study the characteristics of the different shrubs before making up your shrub group. The taller, more upright shrubs should be used in the background or in the center of the group. Then the shrubs of medium height should be used in front of these, while on the very edge we use the low, spreading shrubs which are known as "facers." Everyone has seen the character of undergrowth which appears on the edge of a forest. There you will see the large shrubs in behind and the lower, spreading shrubs in front. This is exactly the same effect at which we are striving when we plant a naturalistic shrub border.

Amid the Deutzias on Stark Bro's office lawn.

Japanese Barberry—The universal hedge plant; ideal low growing shrub for foundation planting (at the left).

FLOWERING SHRUBS IN ORDER OF BLOOM.

(Including many of the best species.)

APRIL.

Cercis Canadensis—Red bud.
Tamarix Africana—Tamarisk.
Forsythia—Golden Bell.
Spirea Thunbergii—Dwarf Spirea.

MAY.

Lonicera Tatarica—Tartarian Honeysuckle.
Spirea Van Houttei.
Prunus Pissardi—Purple eaf flowering plum.
Prunus triloba—Rose tree of China.
Lilacs, in variety.
Lonicera Morrowii—Bush Honeysuckle.
Deutzia gracilis—Dwarf Deutzia.
Viburnum lantana—Wayfaring tree.
Lonicera Tatarica—Bush Tartarian Honeysuckle.
Deutzia Lemoinei—Lemoine's Deutzia.

JUNE.

Viburnum opulus—High bush Cranberry.
Viburnum opulus, var. sterilis—Snowball.
Cornus alba—Red stemmed Dogwood.
Deutzia scabra—"Pride of Rochester."
Weigela, in variety.
Philadelphus coronarius—Mock Orange or Syringa.
Hydrangea arborescens grandiflora.

JULY.

Syringa Japonica—Tree Lilac.
Symphoricarpus racemosus—Snowberry.
Spirea Billardi—Billard's Spirea.
Spirea Anthony Waterer.

AUGUST AND LATER.

Althea—Hibiscus.
Hydrangea paniculata grandiflora.

SHRUBS WITH BRIGHT COLORED FRUITS.

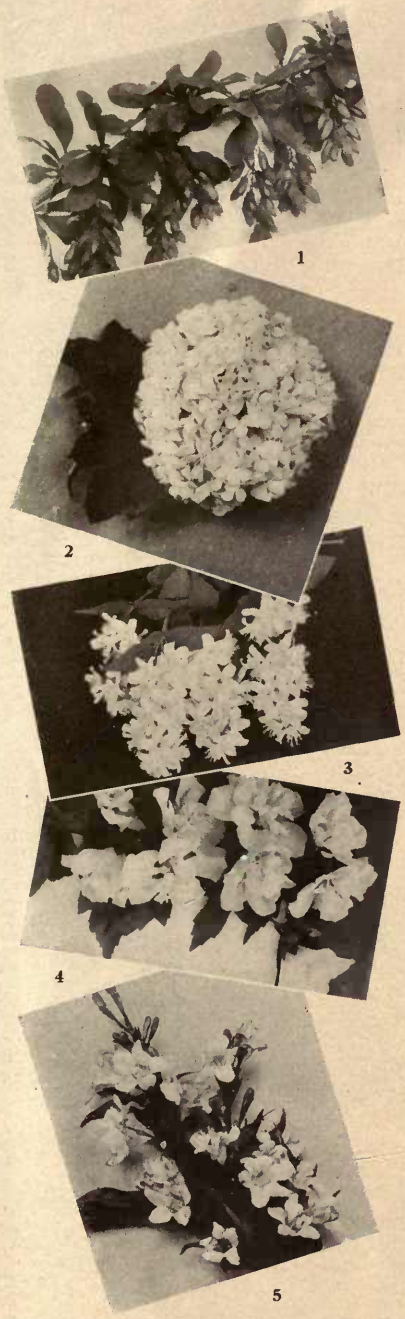
Berberis Thunbergii—Japanese Barberry.
Berberis vulgaris—Common Barberry.
Cornus Florida—Flowering Dogwood.
Euonymus alatus—Strawberry tree.
Rosa rugosa—Japanese Rose.
Symphoricarpus racemosus—Snowberry.
Viburnum opulus—High bush Cranberry.

Carolina Allspice (Calycanthus), a charming spicy scented shrub that should be in your next order from Stark Bro's.

A wonderful effect with Hydrangea arborescens grandiflora—the everblooming Hydrangea.

Botanical Name	Common Name	Height When Fully Grown	Time of Flowering	Color of Bloom	Habit of Growth
Amelanchier canadensis	June Berry	10 ft.	May	White	Erect
Aralia spinosa	Hercules Club	20	August	White	Erect
Aralia pentaphylla	Angelica Tree	10	June	Yellow	Erect
Berberis Thunbergii	Japanese Barberry	4	June	Yellow	Spreading
Berberis vulgaris	Common Barberry	6	May–June	Yellow	Spreading
Berberis vulgaris atropurpurea	Purple lf. Barberry	6	May–June	Yellow	Spreading
Buddleia var. magnifica	Butterfly Bush	4	June	Blue	Spreading
Calycanthus floridus	Car. Allspice, Strawberry Bush	4–6	June–July	Reddish Brown	Spreading
Cephalanthus occidentalis	Button Bush	5–7	July	White	Spreading
Cercis canadensis	Red Bud or Judas Tree	16–25	April	Pink	Erect
Cornus alba "Siberica"	Red Stemmed Dogwood	8	June	White	Arching
Cornus florida	Flowering Dogwood	10–15	May	White	Erect
Cornus florida var. rubra	Red Flowering Dogwood	12–16	May	Pink or Red	Erect
Deutzia gracilis	Dwarf Deutzia	2	May	White	Spreading
Deutzia Lemoinei	Lemoine's Deutzia	3	May	White	Spread.-Arch.
Deutzia scabra	"Pride of Rochester"	6	June	Pink	Spread.-Arch.
Diervilla florida	Weigela rosea	6	May–June	Pink	Spreading
Diervilla florida var. candida	White Weigela	6	June	White	Erect-Spread
Diervilla hybrida Eva Rathke	Weigela Eva Rathke	4	June–July	Crimson	Spread.-Erect
Euonymus alatus	Burning Bush	8	June	White	Spread.-Erect
Forsythia Fortunei	Fortune's Golden Bell	5	April	Yellow	Erect
Forsythia suspensa	Golden Bell	8–10	April	Yellow	Spread.-Arch
Hamamelis virginiana	Witch Hazel	20	Nov.	Yellow	Erect
Hibiscus	Althea or Rose of Sharon	5–10	July–Sept.	Various	Erect
Hydrangea arborescens, var. grandiflora	Hills of Snow	4–5	June–Aug.	White	Spreading
Hydrangea paniculata grandiflora	Large Flow'g Hydrangea	8	July–Oct.	White	Spread.-Arch.
Ligustrum amurense	Amoor River Privet	10–15	July	White	Spreading
Ligustrum Ibota	Ibota Privet	8–10	July	White	Spreading
Ligustrum ovalifolium	California Privet	10–12	.....	.....	Spread.-Erect
Ligustrum Regelianum	Regels Privet	3–6	.....	.....	Spread.-Arch.
Ligustrum vulgare	Common Privet	12–15	.....	.....	Spread.-Arch.
Lonicera fragrantissima	Fragrant Honeysuckle	4–6	Apr.–May	Pink	Erect-Arch.
Lonicera Tatarica var. rubra	Tartarian Honeysuckle	5	May–June	Pink	Erect-Spread.
Lonicera Tatar. var. alba	White Tar. Honeysuckle	6–9	May–June	White	Erect-Spread.
Lonicera Tatarica. var. rosea grandiflora	Pink Flow'd Honeysuckle	6–8	May–June	Pink	Spreading
Philadelphus aureus	Golden Syringa	3	May–June	White	Spread.-Arch.
Philadelphus coronarius	Mock Orange	10	May	White	Spreading
Philadelphus Gordonianus	Gordons Syringa	12	June	White	Spreading
Philadelphus Lemoinei	Lemoine's Syringa	4	May–June	White	Spread.-Arch.
Prunus triloba	Rose Tree of China Double-Flow'g Plum	5–7	May	Rose	Erect
Rhodotypus kerrioides	White Kerria	3–5	May	White	Spread.-Arch.
Rosa rugosa	Japanese Rose	5	May–July	White	Spreading
Rhus cotinus	Smoke Bush	10–15	July	Yellowish Green	Erect-Spread.
Rhus glabra	Smooth Sumach	10–12	July	Cream	Erect
Rhus typhina laciniata	Staghorn Sumach	15	July	Cream	Erect
Sambucus canadensis aurea	Golden Elder	8	June	White	Spreading
Spiraea Bumalda, var. "Anthony Waterer"	Anthony Waterer Dwarf Spirea	2	August	Crimson	Spreading
Spiraea Billardii	Billard's Spirea	6	August	Crimson	Spreading
Spiraea opulifolia var. aurea	Ninebark or Golden Spirea	7	June	White	Spreading
Spiraea Thunbergii	Thunberg's Spirea	4	May	White	Spreading
Spiraea Van Houttei	Spirea Van Houttei	6	May	White	Spread.-Arch.
Symphoricarpus racemosus	Snowberry	3	May	Pink	Arch.-Spread.
Syringa vulgaris	Common Lilac	10–15	May	Purple	Spread.-Erect
Syringa vulgaris var. alba	Common White Lilac	6	May	White	Erect-Spread.
Syringa Japonica	"Giant Tree Lilac"	15–20	June	Yellowish-White	Erect
Syringa hybrida	Hybrid Lilac	.....	.....	.....	.....
"Belle de Nancy"	.....	6	May	Rose	Spread.-Erect
"Frau Dammann"	.....	6	May	White	Spread.-Erect
"Henri Sladek"	.....	6	May	Reddish-Purple	Spread.-Erect
"Ludwig Spaeth"	.....	6	May	Purple	Spread.-Erect
"Mme. Abel Chatenay"	.....	6	May	White	Spread.-Erect
"Michael Buchner	.....	6	May	Deep Lavender	Spread.-Erect
"Pres. Grevy"	.....	6	May	Blue	Spread.-Erect
"Marie Legraye"	.....	5	May	White	Spread.-Erect
Syringa Persica	Persian Lilac	5	May	White	Erect-Arch.
Syringa Rothomagensis	Rouen or Chinese Lilac	10–12	May	Purple	Arching
Tamarix africana	Tamarisk	8	April	Pink	Erect
Viburnum dentatum	Arrow Wood	6	June	White	Erect
Viburnum lantana	Wayfaring Tree	10	June	White	Erect
Viburnum opulus	High Bush Cranberry	8	May–June	White	Erect-Arch.
Viburnum opulus var. sterilis	Snowball	10–12	May–June	White	Spread.-Erect
Viburnum plicatum	Japan Snowball	8	May–June	White	Spread.-Arch.
Yucca filamentosa	Adam's Needle	2	June–July	White	.....
Weigela rosea	Rose Weigela	6	May–June	Pink	Spreading
Weigela candida	White Weigela	6	June	White	Erect-Spread.
Weigela hybrida var. Eva Rathke	Red Weigela	4	June–July	Crimson	Spread.-Erect

A Select List of Shrubs



A magnificent group of hardy flowering shrubs for a lawn or garden border. The Hibiscus and Weigela being used in the background while Barberry and Deutzia are used as "facers" in front and the Snowball either in the border or as a specimen near it.

1. *Berberis vulgaris (Common Barberry).*
2. *Viburnum opulus sterilis (Snowball).*
3. *Deutzia Lemoinei.*
4. *Hibiscus (Althea)*
5. *Weigela rosea.*

AMELANCHIER CANADENSIS, *June Berry.* Large shrub or tree of upright habit and slender, spreading branches. White flowers profusely borne in early spring, usually before the leaves appear, and succeeded by red edible berries. Very ornamental in the border.

ARALIA SPINOSA, *Chinese Angelica Tree* (Hercules Club)—A large shrub or tree to 20 ft., with heavy, prickly stems. Foliage large and divided. Hardier than A. Chinensis. Fine for rockery and dry soils. Gives a fine sub-tropical appearance.

ARALIA PENTAPHYLLA, *Five-leaved Angelica Tree.* A prickly shrub of neat appearance, bearing dense foliage of bright green color on graceful, drooping branches. Flowers greenish-white, in June. Fine for rocky slopes, banks and mass planting. Grows well under city conditions and makes a splendid shrub where others fail. Grows to 10 ft., but may be topped any height desired.

BERBERIS THUNBERGII, *Japanese Barberry.* A charming little plant that adapts itself to almost any planting and environment. Its tiny little leaves turn to a gorgeous orange-red before they fall in late autumn. Masses of small, sharp thorns add to its effectiveness as a barrier, while its loads of scarlet berries give it unrivaled beauty during the winter. It is impartial as to soil and is as fond of sun as shade. It endures all sorts of clipping and abuse—in short, it is our most valued hedge plant. Height 4 ft.

BERBERIS VULGARIS, *Common Barberry.* An European species, growing to 6 ft. Stocky in appearance; an erect, sturdy grower that thrives in any soil. Clusters of golden flowers are produced in May, followed by orange-scarlet berries which are adherent throughout the winter. Although secondary to B. Thunbergii, it is popular as a hedge plant as well as effective in border planting.

BERBERIS VULGARIS ATROPURPUREA, *Purple Leaved Barberry.* Shrub of upright habit, bearing purple foliage throughout summer; being a variety developed from the above. Reddish-purple berries in autumn. Height 6 ft. Effective for contrast in mass plantings. Good specimen plant for variety.

BUDDLEIA VARIABILIS MAGNIFICA, *Butterfly Bush.* Beautiful shrub to 4 ft. with large clusters of lilac colored flowers which attract butterflies in large numbers. Sometimes winter kills to the ground and should be given slight protection during winter. Fine for border front.

CALYCANTHUS FLORIDUS, *Carolina Allspice.* A widely known shrub with dark green foliage, bearing chocolate colored, spicy, aromatic flowers in May. Sometimes called Strawberry Bush, as the odor is somewhat similar to that of the strawberry fruit. Height from 4 to 6 ft. Succeeds in any well-drained rich soil and in shady or sunny locations. A good border plant for massed effect.

CEPHALANTHUS OCCIDENTALIS, *Button Bush.* A sturdy native, round topped shrub of rapid growth, preferring a damp soil, but will thrive in upland. Height 5 to 7 ft. Flowers white, in globular heads, during July. Bright, glossy foliage. Recommended for bog planting, in moist soils and at water edges.

CERCIS CANADENSIS, *Red Bud.* A native shrub or medium sized tree which produces wonderfully beautiful coral pink, pea-shaped flowers in great profusion in the spring, before the leaves unfold. Height 16 to 25 ft. Leaves heart-shaped. A good background tree for borders and equally valuable as specimens or in groups.

CORNUS ALBA (SIBERICA), *Red Stem Dogwood.* A highly ornamental shrub attaining the height of 8 ft. Clusters of white flowers, succeeded by bright red berries in autumn. Should be planted in shrubbery border where the bright red stems will show to advantage during winter. The very best of the red twigged varieties.

CORNUS FLORIDA, *White Flowering Dogwood.* A native shrub from 10 to 15 ft. high. Flowers in great profusion in May. Very showy. Leaves waxy. Rather slow growth with spreading branches. Some of the most enchanting results in ornamental planting are attained by the use of this beautiful Dogwood. Indispensable for lawn or landscapes, as specimens, or in border.

CORNUS FLORIDA RUBRA, *Red Flowering Dogwood.* A pink flowering variety of the preceding, furnishing a delightful contrast when planted in combination, but is somewhat less hardy and free flowering.

DEUTZIA GRACILIS. An old fashioned, dense shrub of dwarf habit. Flowers pure white and abundantly produced on graceful, drooping branches in May. Very desirable for massing along front of border. Height rarely exceeds 2 ft. Often used for forcing in the hothouse. Equally good in sun or shade. Slightly tender in northern states.

DEUTZIA LEMOINEI, *Lemoine's Deutzia.* One of the hardiest Deutzias. Flowers pure white, borne abundantly along the slender branches. Slightly larger and much hardier than Gracilis. Shrub of spreading habit to 3 ft. A fine shrub massed near the house or as a specimen plant.

DEUTZIA SCABRA, *"Pride of Rochester."* One of the earliest flowering Deutzias. Flowers double; borne in profuse panicles during the early part of May. Sometimes winter-killed in more northern states. Often attains 6 ft. At its best in the border, where it readily proves its right to the claim of being the finest tall growing Deutzia.

EUONYMUS ALATUS, *Winged Burning Bush.* Compact spreading shrub to 8 ft. Flowers small in May or June, followed by red berries. Foliage beautiful crimson in autumn. Very attractive as a border or specimen plant. Particularly interesting and ornamental because of its curious corky-winged bark on twigs and branches.

FORSYTHIA FORTUNEI, *Fortune's Forsythia.* A vigorous shrub with upright or arching branches. Flowers yellow, thickly set on slender twigs before leaves appear, making it a very valuable early flowering shrub. A good 5 ft. plant for front of border

FORSYTHIA SUSPENSA. A graceful, drooping shrub, which, when trained on a trellis, will grow to 8 to 10 ft., but when left alone, rarely exceeds 4 ft. An excellent shrub for front of border or entrance planting; also extensively used on banks and slopes. Conspicuous yellow flowers, freely borne early in April, before its elegant foliage opens.

HAMAMELIS VIRGINIANA, *Witch Hazel.* Shrub or small tree to 20 ft., bearing small, yellow flowers in spring or autumn. Succeeds best in rather sandy soil and moist places. Perfectly hardy. Valuable for deep border planting.

Hydrangea P. G.—immense blooms that are very popular.

Spirea Van Houttei —the one best shrub.

HIBISCUS, *Altheas.* Double red. A profusion of beautiful double red flowers in July and August. Bush upright growing to 5 ft. Altheas are familiar shrubs, deserving of more popularity. They grow almost anywhere from Canada to the southern coast.

HIBISCUS, *Altheas.* Double purple. Very attractive in flower, being an unusually fine purple color.

HIBISCUS, *Altheas.* Double rose. Double pink flowers similar in habit to the foregoing.

HIBISCUS, *Altheas.* "Snowdrift." A profusely flowering single white variety.

HIBISCUS SYRIACUS, *Rose of Sharon.* Fine single purple flowers in profusion. Fine for border planting; 6 to 8 ft. in height.

HIBISCUS TOTUS ALBA, *White Rose of Sharon.* A beautiful pure white single variety. Bush 6 ft. in height.

HYDRANGEA ARBORESCENS GRANDIFLORA (STERILIS). *Hills of Snow.* An erect shrub to 4 or 5 ft. with large white balls of flowers in July and August, resembling the Snowball, but larger. Very attractive planted in large groups in the border.

HYDRANGEA PANICULATA GRANDIFLORA. A beautiful shrub to 8 ft., bearing immense cone-shaped clusters of white flowers in July and August; almost sterile; turns a bright pink, and finally, to bronze, as they become older. Very attractive when planted at the extremity of a neck of planting extending out on the lawn or as specimen plants near the house. It should be cut back every spring before growth starts. There is no shrub more showy than this old favorite.

LONICERA FRAGRANTISSIMA, *Fragrant Bush Honeysuckle.* Sweet scented, white flowers, in May; not very showy. Height 4 to 6 ft. with dark green foliage. Sparingly in border where deep color is desired.

LONICERA GRANDIFLORA ROSEA, *Pink-flowered Honeysuckle.* Large pink flowers, followed by red berries which are very showy in late summer. Good border plant. Like others of this group, it is hardy and transplants easily.

LONICERA MORROWI, *Japanese Bush Honeysuckle.* An open spreading bush from Japan, bearing dark green leaves and white flowers in May, followed by bright red berries, which are very ornamental in late summer. Height 6 ft. Adapted to border planting.

LONICERA TATARICA ALBA. Large white flowers, followed by very ornamental scarlet berries in August. A very useful shrub for general planting; slender upright branches and excellent dark green foliage.

LONICERA TATARICA RUBRA. Deep pink flowers in May. The bright red berries are very ornamental in late summer. Height 5 ft. Good for front of border planting. The flowers contrast beautifully with the foliage. This and L. Grandiflora Rosea appear to fine advantage when planted together.

PHILADELPHUS CORONARIUS. Sometimes grows 10 ft. high. Creamy white, and very delightfully fragrant. Flowers are produced freely in May and June. Presents a very ornamental and attractive appearance in the border. It is of spreading habit and its arching branches should be allowed sufficient room to fully develop. Good specimen plant on the lawn. Without hesitation, we commend it to every planter.

PHILADELPHUS CORONARIUS AUREUS, *Golden Syringa.* A variety of P. Coronarius, with golden yellow foliage throughout summer. Flowers sparingly. Of compact growth, to 3 ft. Very effective for edges of shrubbery.

PHILADELPHUS GORDONIANUS, *Gordon's Syringa.* A fine shrub, with flowers similar to the preceding, but later in period of bloom and scentless. Grows to 12 ft. and is especially adapted to the border where tall spreading plants are desired. Practically immune from insect pests, and, like the other varieties, named, is a strong, vigorous grower and thrives in partial shade as well as in sunny locations.

Spirea Billardi
"Pink Plumed Spirea."

PHILADELPHUS LEMOINEI, *Lemoine's Syringa.* A sweet-scented hybrid, smaller than the preceding, rarely exceeding 4 ft. Erect growing, with small foliage. Creamy white flowers in June entirely cover the plant. Used at edge of border or for entrance plantings.

PRUNUS TRILOBA, *Flowering Almond.* A Chinese shrub which produces abundant pink, double rose-like flowers before the leaves appear in the spring. Very attractive.

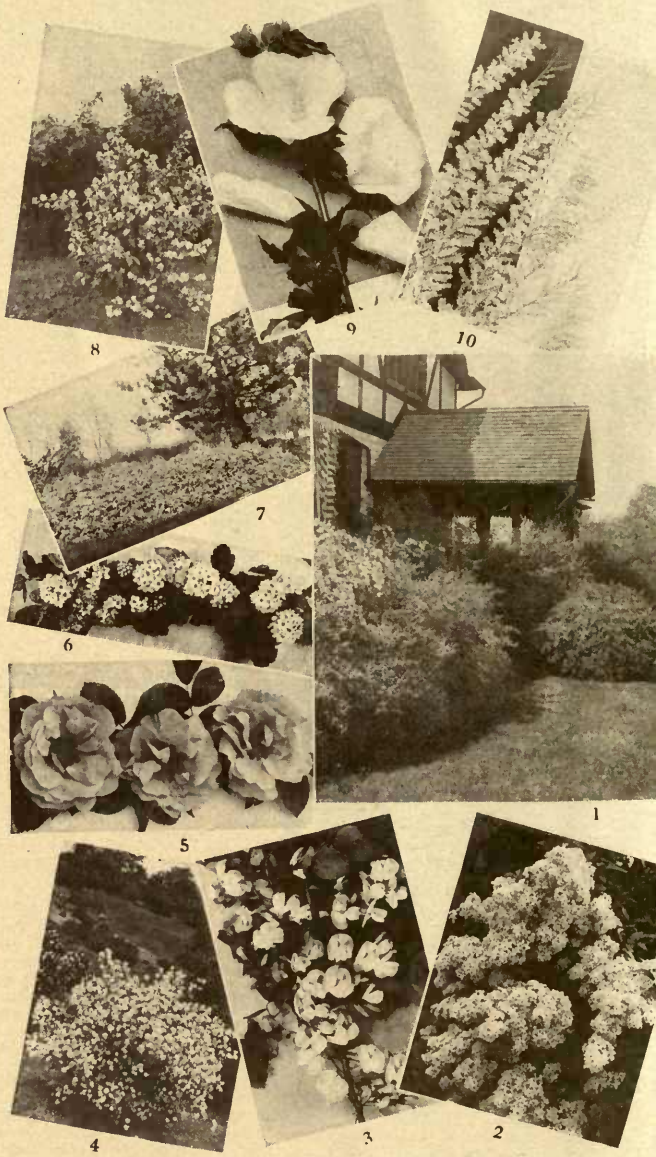
RHODOTYPUS KERRIOIDES, *White Kerria.* Introduced from Japan. 3 to 5 ft. high. Flowers white; late May, followed by conspicuous lustrous black seeds which cling to the plant all winter. Foliage light green, turning golden yellow the latter part of summer. Requires little attention and is one of the very best low shrubs.

ROSA RUGOSA, *Japanese Rose.* A beautiful bush to 5 ft. with rich, dark green crumpled foliage, which in itself, is sufficient to make this sturdy rose a part of every ornamental planting. Flowers single red or white, followed by large attractive orange-red fruits. Fine for hedge and mass planting.

RHUS COTINUS, *Smoke Bush, Purple Fringe.* A native of Europe, growing from 10 to 15 ft. high. The feathery flowers are purplish and cover the entire bush, giving it the striking appearance of smoke, from a distance. A good specimen plant or for background in deep borders.

RHUS GLABRA, *Smooth Sumac.* A tall shrub, 10 to 12 ft. in height, with smooth bark. Flowers, July, produced at the end of branches, followed by clusters of dark crimson berries. Bright colored foliage; very attractive in autumn. One of the best for massing in the border.

RHUS TYPHINA LACINIATA, *Cut Leaved Staghorn Sumac.* Shrub



The Shrubs Illustrated Above

1. *An ideal planting about a cottage door.*
2. *Persian lilac (Syringa persica).*
3. *Rose Acacia or Moss Locust (Robinia hispida).*
4. *Philadelphus coronarius (Fragrant Garland Syringa.)*
5. *Japanese Rose (Rosa Rugosa)*
6. *Golden Spirea (Spirea opulifolia aurea).*
7. *Golden Elder (Sambucus aurea).*
8. *Philadelphus Gordonianus (Gordon's Syringa).*
9. *Althea or Rose of Sharon (Hibiscus).*
10. *Tamarix Africana (Tamarisk).*

or small tree attaining 15 ft. Very picturesque with its finely cut fern-like foliage. The crimson berries and brilliant colored foilage are very attractive in autumn. Will grow in dry soil as well as almost any other. Good for deep border planting or individual groups.

SAMBUCUS AUREA, *Golden Elder.* A golden leaved variety of the common European Elder. Very attractive. Will grow to 8 ft., but can be pruned back into a neat shrub any height. Large clusters of white flowers in June or July, followed by black berries in August. Very good for contrast in dark places of the border.

SPIRAEA "ANTHONY WATERER." A very good variety of S Bumalda, bearing flat clusters of bright pink flowers throughout summer, starting in June. Height 2 ft. A dwarf shrub which is very desirable for planting about the building.

SPIRAEA BILLARDII, *Pink-Plumed Spirea.* A shrub of rather open habit, with small foliage. Vigorous and hardy, 6 ft. in height. Flowers densely clustered at the end of long, slender branches; July and August. Good border plant, showy and attractive. Splendid also for cut flowers and interior decoration.

SPIRAEA OPULIFOLIA AUREA, *Golden Spirea.* A vigorous growing shrub to 7 ft. with golden yellow foliage. Flowers white in June. Good for contrast in deep colored borders.

SPIRAEA THUNBERGII, *Thunberg's Spirea.* A graceful bush with slightly drooping branches and narrow pale green foliage. Of dwarf habit, rounded graceful form, growing to 4 ft. Flowers single white, borne very early in spring, being the first Spirea to bloom. Its neat habit makes it desirable for border fronts and around buildings.

SPIRAEA VAN HOUTTEI. One of the best shrubs on the list. Best of all varieties of Spirea. Grows to 6 ft., bearing clusters of small white flowers in May and June which almost entirely cover the bush, giving it the appearance of a huge snowball from a distance. Of graceful drooping habit and well adapted to grouping in front of buildings or around entrances. Also a fine border plant. A neat, elegant shrub that can not be too highly recommended.

SYMPHORICARPUS RACEMOSUS, *Snowberry.* A low growing shrub to 3 ft. Flowers small, pink, followed by large, pure white berries which remain on the plant late into winter, causing the slender branches to bend with their load. Desirable for front of border or around entrances.

Syringa-Lilac

COMMON PURPLE LILAC. Purple tints; slightly smaller flowers and clusters than the budded varieties. A widely known shrub; most common and indispensable species, equally adapted to the small lawn or the large estate. Height 6 ft.

COMMON WHITE LILAC. A white flowered variety of the above species, very similar. Height 6 ft. Claims introduction to America by the Pilgrims, and with the revived interest in old-fashioned gardens, it shares the popularity of the other lilacs.

GIANT TREE LILAC. A late blooming variety producing large clusters of attractive white flowers after most other varieties are past. Sometimes attains the height of 15 to 20 ft.

BELLE DE NANCY, *Budded Lilac.* Large double flowers of a satiny rose color blending to white towards the center. An excellent variety.

FRAU DAMMANN, *Budded Lilac.* Large, single white flowers in immense clusters. A strong grower to 6 ft. Universally considered one of the best white lilacs cultivated.

HENRI SLADEK, *Budded Lilac.* Immense clusters of dark, reddish-purple flowers. One of the best. Originated in our nurseries and named after one of our employees who first propagated it. An improved variety of Ludwig Spaeth.

LUDWIG SPAETH, *Budded Lilac.* Single flowers of large size. Of a dark, purplish-red color. Among the finest on the list. Very attractive and thoroughly distinctive.

MADAME ABEL CHATENAY, *Budded Lilac.* A creamy-white variety with large double, very fragrant flowers. Without doubt the finest white lilac.

MICHAEL BUCHNER, *Budded Lilac.* A dwarf, but a vigorous grower. Flowers very double, pale lilac color. Worthy of a place in every lilac group.

PRESIDENT GREVY, *Budded Lilac.* Large, individual double flowers of a very beautiful, distinct blue color. The best blue.

MARIE LE GRAYE, *Budded Lilac.* Large trusses of single pure white flowers which are very fragrant. Very free grower to 5 ft.

PERSIAN LILAC, *Syringa Persica.* Large clusters of purplish-lilac flowers borne in June, on slender, arching branches. Quite fragrant. An early flowering sort in June. 5 ft. high.

ROUEN LILAC, *Syringa Rathomagensis.* A fine, free blooming sort with large trusses of beautiful reddish-purple flowers. A good variety. Its narrow leaves are different from those of any other lilac.

TAMARIX AFRICANA, *Tamarisk.* A feathery, ight green foliaged plant of upright habit, growing to 8 ft. in height. Flowers small, bright pink, borne in slender clusters; April or May. Adapted to damp places or seashore planting. Will give variety to the border.

20 19 18

11

17 16 15

12 13 14

A Cholce List of Shrubs

11. *A vista through an entrance flanked with Spirea.*
12. *President Grevy Lilac—14 inches tall.*
13. *Crimson Spirea (Spirea Anthony Waterer)*
14. *White Flowering Bush Honeysuckle (Lonicera).*
15. *Bush Honeysuckle in Clumps.*
16. *A branch of Philadelphus coronarius.*
17. *Snowball (Viburnum Opulus Sterilis).*
18. *Madame Abel Chatenay Lilac.*
19. *Aralia Pentaphylla (Angelica tree).*
20. *Snowberry (Symphoricarpus racemosus).*

Weigela Rosea "Rose Weigelia." Its masses of trumpet-shaped blooms are unsurpassed in beauty.

VIBURNUM DENTATUM, *Arrowwood.* A native shrub with slender, smooth branches. Flowers in June; creamy white, borne in flat clusters, sometimes 6 in. in diameter and followed by dark blue berries. Height 6 ft. Suitable for damp places in the border; succeeds well in shade.

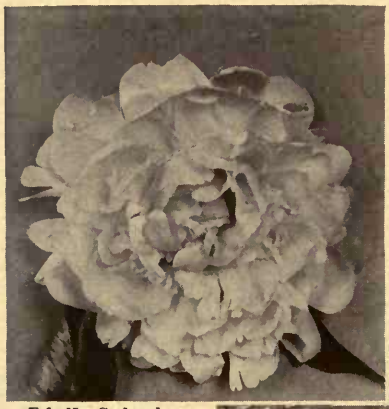
VIBURNUM LANTANA, *Wayfaring Tree.* An upright growing shrub of compact habit, to 10 ft. White flowers in May, followed by pink berries which later turn red, then black. Very attractive fruit. Good for tall border planting.

Viburnum lantana—with its misty appearance and splendid bloom.

VIBURNUM OPULUS, *High Bush Cranberry.* A showy shrub bearing flat clusters of pure white flowers. The bright red berries, resembling the cranberry, make it one of the best red berried shrubs for winter effect. Height 8 ft.

VIBURNUM OPULUS STERILIS, *Snowball.* A variety of the above, but much more attractive, with its large, round heads of pure white sterile flowers, which are so familiar on Decoration Day. Makes a fine specimen plant and is good in the border where it attains the height of 10 or 12 ft.

VIBURNUM TOMENTOSUM PLICATUM, *Japanese Snowball.* A free growing shrub of spreading habit, often attaining 8 ft. in height. Flowers pure white. n June, produced in large clusters.



Edulis Suberba.
One of the leaders—very early.

WEIGELA ROSEA, *Rose Weigela.* A spreading shrub with arching branches; large tubular flowers in early June, varying from light to dark rosy-pink color, freely borne on the stout branches. Height 6 ft. Leaves dark green. Thrives in any soil, but prefers damp and somewhat shaded positions in a good garden soil. A delightful shrub for massing about foundations when kept pruned in. Useful as specimens, and desirable for groups or masses.

Festiva maxima—growing in our fields—very late.

WEIGELA CANDIDA, *White Weigela.* A free-flowering, white variety of the preceding. Strong, upright grower to 6 ft. Continues to bloom throughout the summer.

WEIGELA HYBRIDA var. EVA RATHKE, *Red Flowering Weigela.* A shrub to 4 ft. with clusters of brilliant, carmine-red flowers on erect branches in spring and autumn. An attractive border plant; easily the best and most popular of all hybrids of this genus. We can recommend but few other plants that will give such universal satisfaction as this and the other species of Weigela; they are hardy and of easy cultivation.

YUCCA FILAMENTOSA, *Adams Needle.* A hardy plant with broad pointed sword-shaped foliage. Flowers are creamy white, thickly set, on a tall stem, in June. Very showy when in blossom. Good for planting in front of border or in groups separately.

Paeonies

This favorite of the old fashioned garden, which our grandmothers called the "Piney," is increasing in popularity each year. The many new valuable varieties give an ever-increasing interest to their planting. The largest blooms of any of the hardy garden flowers. Can be planted in front of the shrub border. In full bloom Decoration Day and are grown for profit with great success. Require little care. Description of other hardy flowers, page 19.

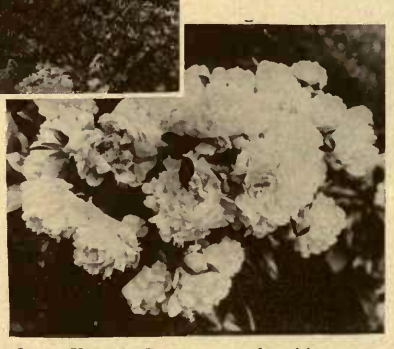
High Bush Cranberry
(Viburnum Opulus)—Valued for bloom and red berries.

ASSORTED VARIETIES. Our own selection of many kinds. The best varieties we grow and representing the most harmonious colors.

FESTIVA MAXIMA. Probably the largest and most popular Paeony. Borne on long, stiff stems; white, slightly suffused shell pink; late.

EDULIS SUPERBA. Large, rose-pink, fluffy bloom. A charming flower and one of the earliest blooming.

EUGENE VERDIER. Broad, full flowers; white, evenly tinted with shell pink. A fine sort. Late.



Queen Victoria Paeony—worthy of its name. Paeonies have been the favorite perennials for three generations.

Wisteria Sinensis
Admired for porches and pergolas; purple and white bloom. An excellent climber and fast grower.

OFFICINALIS RUBRA. Rich, deep crimson. Known as the "Decoration Day Peony," because of its blooming season.

QUEEN VICTORIA. Magnificent white, edged with pink. Faultless in form and very popular.

FELIX CROUSSE. Large, round, perfectly double. Deep crimson, marked with cardinal at base of petals. Late.

Vines and Climbers

NO part of the planting gives to the home a more private or sheltered appearance than do vines and climbing roses. The graceful, twining vines on the porch are most attractive. A veranda without vines is at all times open to the public gaze and is without privacy or shade. A vine-covered porch shuts out the glaring sunlight, allowing just enough sunshine to enter, so as to make it bright and pleasant. The vines can be trained around the columns of the porch or on a trellis. Wooden trellises or wire are best for training vines. They are more permanent than cord. On certain sides of the porch it may be advisable to train the vines so as to form a solid covering, shutting out all sunlight; it is best to leave the other sides partly open. In other words, train your vines around the columns and across the top, thus making a frame with vines, and leaving an open space in the middle for the view. This gives a very pleasing effect, especially if flower boxes, filled with bright and interesting flowers are placed between the columns.

ASIATIC CREEPER, *Ampelopsis Heterophylla.* Hardy vine with heart-shaped leaves and greenish-white flowers, in July, followed by blue berries. Good on low walls or trellis.

AMERICAN IVY, *Ampelopsis Quinquefolia.* An excellent climber with beautiful green, divided leaves which turn a bright crimson in autumn. Fine for covering old tree trunks, trellises, stone walls, etc. A rapid grower and perfectly hardy.

BOSTON IVY, *Ampelopsis Veitchii.* A hardy vine with small, neat, compact foliage. A familiar vine used extensively for covering churches, stone or brick residences and walls. Clings tightly to any support. A rapid grower, but produces a lighter vine than the preceding.

DUTCHMAN'S PIPE, *Aristolochia Sipho.* A tall, rapid growing, twining vine, bearing curious pipe-shaped flowers of a purplish-brown color. Leaves very large, affording a dense shade. A fine porch climber.

BITTER SWEET, *Celastris Scandens.* A vigorous growing native vine. Very attractive in winter with its bright crimson berries. Large leaves and yellow flowers.

CLEMATIS "HENRYI." A free blooming, creamy-white variety. Flowers large and attractive. One of the best.

CLEMATIS "JACKMANNI." A rich, violet-purple flower of large size. A free growing vine which blossoms abundantly. Fine for trellis or porch.

CLEMATIS "MADAME ANDRE." Large beautiful crimson-red flowers throughout the season. Vine a vigorous grower and much desired as a trellis climber.

CLEMATIS PANICULATA GRANDIFLORA. A very popular variety with great masses of small fragrant, white, star-shaped flowers. A rapid and vigorous grower, covering an arbor or trellis in a short time. The feathery seeds are very attractive after the leaves have fallen. A most desirable climber.

HONEYSUCKLE, HALL'S JAPAN, *Lonicera Halleana.* A half evergreen vine retaining its foliage until late in winter. Flowers white, turning to yellow as they grow older. Good for covering low walls. Trained on a fence, it makes a beautiful hedge.

TRUMPET HONEYSUCKLE, *Lonicera Sempervirens.* A vigorous, rapid grower, with bright red flowers. Attractive on walls.

TRUMPET CREEPER, *Tecoma Radicans.* A robust native vine of twining habit. Flowers trumpet-shaped and orange-colored. Used quite often along low walls.

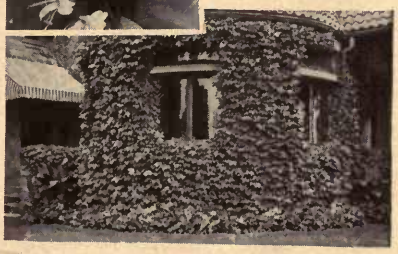
WISTERIA SINENSIS. A graceful vine of rapid growth. Flowers pea-shaped and pale blue, in long clusters. A good porch and arbor climber.

WISTARIA SINENSIS ALBA. Similar to the preceding, but with white flowers. A beautiful climber.

Clematis Paniculata
Virgin's Bower.

American Ivy
A universal favorite quick grower, healthy.

Hall's Honeysuckle



Hedges for Living Fences

THE use of wooden, wire or iron fences around the home is becoming a thing of the past. These fences are expensive to keep in repair, and they are far from being things of beauty. Is it not better to plant a hedge which will grow stronger, more beautiful and more permanent every year instead of requiring additional repairs? Hedges have appropriately been called "living fences." They serve as a protection from outside intrusion, and at the same time are beautiful. Hedges can be used for marking boundary lines of the your property where division is desired. How much prettier is this wall of solid rich green than an ugly artificial looking fence! A hedge is usually made up of straight, hard lines. In order to make it appear more naturalistic, a few groups of the same plant or other shrubs can be planted in clumps at irregular intervals along the hedge and they will break up the straight lines of the hedge.

BARBERRY, JAPANESE, *Berberis Thunbergii.* One of the hardiest and best hedge plants. See description under shrubs.

PRIVET, IBOTA, *Ligustrum Ibota.* The hardiest Privet. Excellent for hedges. Of upright habit with narrow green leaves and clusters of fragrant white flowers. Good for massed planting.

PRIVET, CALIFORNIA, *Ligustrum Ovalifolium.* The most familiar of hedge plants. Flowers pure white in July. Foliage glossy green. Will grow in city or at seashore. Can be pruned to any height. Excellent hedge plant, but cannot rely on hardiness north.

PRIVET, REGELS, *Ligustrum Regelianum.* A variety of the preceding. Readily distinguished by the almost parallel slender branches which slightly droop, giving the plant a most graceful appearance. Fine for border planting.

PRIVET, COMMON, *Ligustrum Vulgare.* A half evergreen form with dark green foliage and white flowers. June or July. Leaves turn purplish in the fall. Excellent for massing in the border.

PRIVET, AMOOR RIVER, NORTH, *Ligustrum Amurense.* A shrub of upright growth with shiny foliage and white flowers. Hardier than the California Privet. An excellent hedge plant. A good border plant for massing when unpruned. Has proved hardy in Maine, with the thermometer registering 38 degrees below zero.

MOCK ORANGE, *Philadelphus Coronarius.* An excellent high hedge to 10 ft. Used extensively as a screen to shut out undesirable views. Described more fully under shrubs.

SPIREA VAN HOUTTEI. The best 5 ft. hedge plant. Slender, drooping branches.

Japanese Barberry
Heads the list of hardy hedge plants—it is considered an ideal hedge—red berries in Winter.

The Home Fruit Garden

The following is a select list of the best varieties for home use. Each fruit is given in its order of ripening—earliest ripening sorts first, latest ripening sorts last:

Dwarf Apple. Liveland Raspberry, Henry Clay, Wilson Red June, Grimes Golden, Stark King David, Stark Delicious.

Crab Apple. Florence.

Dwarf Pear. Stark Seckel, Duchess, Anjou, Triumph and Gold Nugget.

Cherry. Dyehouse, Stark Gold, Montmorency Stark, Suda Hardy.

Quince. Missouri Mammoth, Van Deman.

Apricot. Superb and Stella.

Peach. Red Bird Cling, June Elberta, Eureka, Alton, Stark Early Elberta, J. H. Hale, Sea Eagle, Krummel October, Mammoth Heath Cling.

Plum. Mammoth Gold, Early Gold, America and Omaha.

Small fruits may be planted in a separate part of the garden or they can be planted in rows between the fruit trees.

A hedge of Spirea Van Houttei grown from Stark Bro's stock. A magnificent naturalistic hedge.

Boston Ivy
Beautiful on stone or brick.

The following are the proper distances for planting of the different small fruits:

Grape Vines. 8 ft. apart; currant and gooseberry, 4 ft; blackberry and raspberry, 3 ft. apart in the row and rows 5 ft. wide

Rhubarb. 3 ft. apart.

Asparagus, 1½ ft. apart, rows 3 ft. wide.

California Privet
A standard hedge plant, one of a group of Privets all of which are splendid for hedges. Each has its peculiar value but none are more popular than this.

The Rose Garden

The Rose is the nationa flower, and in all sections, and under all conditions, it is grown by careful, jealous hands, and its first blossoms each season are eagerly awaited.

The artist has spread its glory on the canvass, the poet has sung of its beauty and its sweetness. Youth, manhood, old age—all peoples, in all walks of life, have proclaimed the Rose the "Queen of Flowers." No flower can ever take the place of the Rose with the American people.

They should be growing in great beds on all home grounds. Roses will repay the care given them by a wealth of sweetest, brightest blossoms and bring pleasure to the heart of their owners.

Stark Bro's Quality Roses

Rose growers have produced Rose varieties by the thousands, and from this great list we have selected the choicest ones. The most beautifully colored, the most perfectly formed, keeping in mind the fact that strong growth, vigor and hardiness is necessary. The kinds we offer are the best—the choice from the Rose gardens of the world and are grown according to the perfect Stark growing method. They are practically all on their own roots. We have found from experience that only a few varieties, should be grown by the budding method. The plants we offer are strong, field-grown stock, which has had two years' growth in the nursery. The small, light, weak-rooted stock that is sent out at cheap bargain prices, is a snare and a delusion—will never give satisfaction to the customer and is very hard to make live. On the other hand, extra strong, heavily rooted, field-grown plants, which are delivered to the customer from our nursery in a dormant condition, become quickly established, and make a strong, thrifty growth the first season, furnishing considerable bloom the same year they are planted. Stark Bro's Roses are **not** tender, weak plants, grown under glass. On the contrary, they have had two years in the nursery to become adapted to out-of-doors conditions of heat and cold; they are delivered to the customer with roots and tops in moist, plump condition.

Walks in Rose Gardens

In the rose garden of the American home, grass paths, or walks are preferable. They are more in harmony with the surrounding naturalistic planting than paths of artificial material, such as gravel, crushed stone, etc. However, the paths and walks can be made to suit the convenience of the owner.

Rose Beds

The rose beds should be sunk one to two inches below the level of the grass walks. The rose requires a great deal of moisture and by keeping the beds sunk below the level of the walks it helps to preserve the moisture that is in the soil. In past years the mistaken idea that rose beds should be mounded high above the surrounding grounds has been a source of disappointment to the persons who have tried to grow roses this way. In the beds mounded high there is a greater loss of moisture in the soil, the roses do not make as good growth, nor do they bloom as well as when the beds are slightly sunken. But roses do not like "wet feet"—plant them in well-drained soil

The rose bed should not be too wide. The bed which contains two to four rows of roses will be of sufficient width. By picking roses from both sides of the flower bed all of the roses should be reached without stepping off of the turf walk. The beds should not be so wide that it will be necessary to stand in the soil in order to reach the roses.

Location and Soil For Roses

Practically every home has certain spots where roses will thrive. Roses will succeed in any average soil, although they respond quickly and surprisingly to applications of rich, black soil and well rotted manure, or other fertilizer. If you have a *real desire* to grow roses, you can do so and without a great deal of trouble or expense.

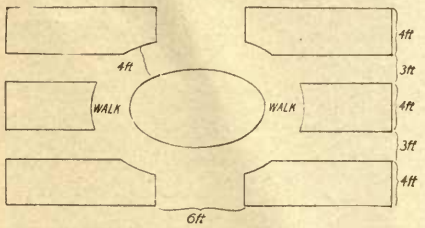
Location of Rose Garden

Other things being equal, the location sheltered from the North winds is preferable for the garden, thus a place located at the South or Eastern side of the house will be best. A planting of shrub borders will furnish considerable protection. However, the question of protection from the North is not of such great importance if the individual rose plants are given proper treatment before the Winter season opens. A mounding up of dirt and mulching will give the necessary protection. For further information on Winter protection, see page 27.

Trees near the garden are of no great disadvantage if they do not shade the garden more than half of the day. However, it is important to keep the tree roots separated from the flower beds. The rose is a heavy feeder and it will not do well if it has to share the plant food with encroaching tree roots. Bear in mind that the tree roots extend out far from the trunk of the tree—at least as far out as the spread of the tree. When the rose beds are made, all tree roots should be removed.

The garden can be surrounded by a border planting of flowering shrubs, which should be planted more or less irregularly in outline. In front of the shrubs, hardy perennials can be planted and then the formal garden with its beds will become enclosed.

In the rose garden it is very often advisable to plant a hedge entirely surrounding the garden. The hardy Japanese Rose (*Rosa Rugosa*) makes a splendid hedge and very suitable for the rose garden, or any of the other good hedge plants can be used.



A suggested outline of a rose garden—note the width of beds and walks. Make your bed arrangement very simple.

Fertilizing Roses

Sometimes the soils may be too heavy (too much clay), in which case, it is often advisable to add a few loads of lighter loamy or sandy soil. Ground limestone or air-slaked lime will also be beneficial to the soil which tends to be too heavy. A stimulant for the rose is Nitrate of Soda, which can be applied in very small quantities early in the season when there is plenty of moisture in the ground. This will result in strong wood growth. However, it is very concentrated and if it is applied it should be in limited quantities. A small handful is enough to each plant. Do not let it come in direct contact with the plant or it may burn it. It should be sprinkled on the soil. Under "time to plant," we have advised Spring planting for most roses. It is a good plan, therefore, to start preparing the rose beds the previous Fall or in early Spring. The manure can be placed on the surface of the beds and allowed to remain over the Winter. The Spring rains will help dissolve the plant food and then later in the Spring the beds can be spaded up and made ready to receive the roses. Liquid manures are also used with very good results; they can be applied to the rose beds any time during the growing season, although it will be most effective in May and June. Liquid manure can be made by suspending a burlap sack containing a bushel of cow manure in a barrel of water for several days This solution can be applied direct to the rose bed or slightly diluted. One to two quarts applied to each plant about once a week would be sufficient.

New Roses from Stark Bro's Great Rose Test Gardens

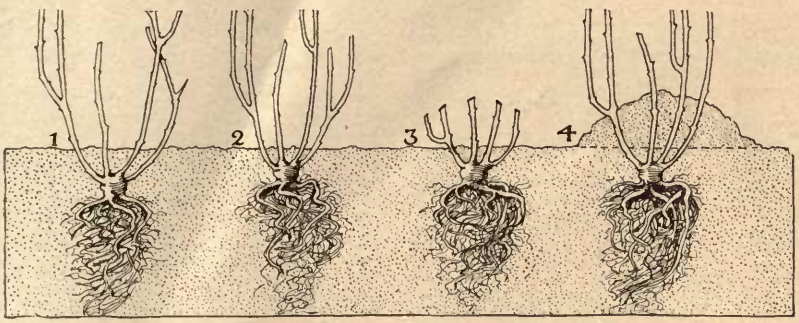
Many hundreds of roses that show great merit and promise are thoroughly tested by our Rose Experts. If they meet with our high standard of requirements they are then offered to Stark customers.

Soil and Drainage

The soil where the rose beds are located should be well drained; roses will not do well if the ground is wet and soggy. Also, wet soil tends to become acid and no ornamental or rose will do well in an acid soil. If the spot you have selected for the rose garden is poorly drained and wet, it is a simple matter to remedy. One good method of draining the flower bed is to dig a trench about 2 or 2½ feet deep and put in a layer of broken stone (or other drainage material). This will allow the surface water to drain off quickly. Also, very wet soil may be drained by using a system of tiled drainage. However, most soils require no special drainage.

Preparing the Beds

The preparation of the soil for the roses should be at least two or three weeks ahead of planting time. If the soil is in fairly good condition, very little treatment will be necessary, except that it should be spaded deeply, broken up and in fine, mellow condition. When spading the soil it is always a good idea to spade in well rotted manure. Rotted leaves are also good for this purpose. Of commercial fertilizers, probably the best is ground bone, but in applying all fertilizers and manures, keep in mind that the fertilizer should be spaded in deep and this work should be as far ahead of planting as possible so that fertilizer and manure will have time to dissolve. Later on, after the roses are planted, the top or surface applications of manure and fertilizer can be made. In using manure in the flower beds, bear in mind that the best kinds are from the cow or horse stable. When spading up the ground the manure or other fertilizer can be scattered on the surface of the ground and then spaded in. Aim to spade the ground deeply and to get the loose top soil underneath the lower soil. The



How to Plant—Pruning—Winter Protection

No. 1 shows rose bush planted too deep. No. 2 is planted just right. No. 3 illustrates proper pruning immediately after planting. No. 4 shows dirt mounded up the following Fall for protection against Winter injury.

roots of the roses will go down to considerable depth, therefore the top rich soil and manure should be at some depth under the surface of the ground.

Laying Out the Beds

Of course it is understood that the roses should be kept in beds by themselves. Do not try to mix roses and other flowering plants in the same flower bed. The beds can be laid out in any manner desired, but they should not be too complicated. An arrangement of simple rectangular beds, possibly a circular bed will give most pleasing effects. See diagram on page 26. Do not make the beds in fancy scrolls, as beds of this kind are not only unsatisfactory, but they are hard to maintain in neat condition.

Winter Protection

Many of the roses, especially the Hybrid Perpetual class are hardy enough to go through the Winter without any protection whatever; however, it is very little trouble to furnish a moderate protection and it is always safest to do this. Some of the more tender sorts of the Tea and Hybrid Tea class are not so hardy and should by all means be protected. After a frost or two has occured in the Fall to ripen up the tops of the rose bushes, the soil should be mounded up and packed in about the base of the bush to a height of 6 or 8 inches. In order to make it easier to apply the mulch, the rose bushes can be headed back to within one foot of the ground. See diagram on this page. Assuming that the dirt had been mounded up about the base of the bush, the next step is to apply a coating of rough manure on the surface of the beds. Then on top of this, a layer of dead leaves can be placed, or in case it is not convenient to secure dead leaves, straw or corn fodder can be used for this purpose. Weight the leaves or straw down so it will not blow away.

IMPORTANT. Do not make the covering or mulch too thick and heavy or it will smother out and kill the roses. When the Spring begins to open up, the mulch can be removed gradually from day to day, then the tops headed in closer, as described in the paragraph on pruning. It is not advisable to attempt to protect the climbing roses further than mounding up the earth about 10 or 12 inches about the base of the plant. Practically all of the climbing roses are hardy enough to take care of themselves without protection.

Time to Plant Roses

As a general rule, roses should be planted in the Spring. This applies to the Central-West and the Northern states. In the South, Fall planting is to be preferred, also there are many of the hardier climbers, Rugosa type, and some of the Hybrid Perpetuals, which can be planted very successfully in the Fall, even in the colder climates. However, as a general rule, it is safest to plant in the early Spring. Fall planting of hardy shrubs and most shade trees gives splendid results.

Receiving the Plants

When stock is received from the nursery, it should be unpacked and all packing material shaken out from the roots, but be sure that your beds are ready to receive the plant before you unpack. Do not expose the roots of the plants to sun, wind or frost. While you are planting one bush, keep the roots of the other plants covered up with a wet sack or cloth. Sometimes when the plants are delayed in transit, they may become somewhat dried and shrivelled, in which case the roots can be dipped in thin mud just before planting, and in extreme cases it may be advisable to bury the plants in moist earth for two or three days before planting. This will give them an opportunity to become plump before being set out.

Pruning the Roots

Give each plant a careful pruning with a sharp knife, cutting off all broken or bruised roots. The holes to receive the plants should be dug large and deep so that the roots can be spread out. When planting, work the soil in well around the roots and spread the roots out so that they will be in their natural position. Do not plant the rose bush too deep nor too shallow. By examining the plant carefully, you will easily recognize the depth at which the plant stood in the nursery row, as all of that portion of the plant which was above the ground in the nursery will be more or less green, while the portion that was underground will be brownish or dirt colored. The following is a safe rule: Plant the rose bush one to two inches deeper than it stood in the nursery. See diagram on this page.

Distance of Planting

The distance of planting depends on the type of rose. The strong Hybrid Perpetual roses should be planted about 2½ or 3 feet apart. Teas and Hybrid Teas can be planted about 2 feet apart while the Dwarf Polyantha, such as Baby Rambler, Clothilde Soupert, Jessie, etc., can be planted as close as a foot to 18 inches apart. Climbing roses can be planted as close as is required to cover the desired space.

Pruning the Tops

Immediately after planting the roses, use a sharp knife to prune back the tops. As the plant comes from the nursery, the top will be anywhere from 1 to 2½ feet in height. Most of this top should be cut off immediately after planting, each cane being headed in so that there are only three or four buds left on the cane. See diagram, this page. In cutting back, prune about a quarter of an inch above a bud which points out from the center of the bush. This will tend to make the rose bush spreading instead of tall and spindly. If there are too many canes on the bush some of them should be cut out entirely, always removing the weaker branches. For further details, see paragraph on Pruning on following page.

After the rose is planted it is advisable to mound the dirt up to a height of 3 or 4 inches about the canes. This moist earth will keep the canes plump until they get started to growing. Later in the Spring, after they start growing, the mound about the plant can be leveled down.

After the roses have been set out, they should be frequently cultivated or hoed, at least once or twice a week. Whenever it rains the surface soil will pack down and when it dries will be hard, therefore, cultivate soon after each rain. This is important, as frequent cultivation maintains a dust mulch, which prevents the evaporation of the moisture in the soil.

Planting

Pack the soil in tight around the roots; leave no air pockets. A lack of firming the soil is often responsible for the failure of rose bushes to live. After the hole has been half filled with earth, pour in one or two buckets of water and allow it to settle. Then fill up the rest of the hole with dirt. The soil may be moist enough not to require any water, but some water will do no harm and may be a great help in assisting the plant to get established quickly. The top two or three inches of the soil should not be tramped, but should be put in loose.

Rose Enemies

As is the case of all other growing plants, the rose has certain enemies; however, by careful watching and a little attention, the rose enemies can be kept well under control, and will give very little trouble.

Mildew on Rose Foliage

In wet seasons a powdery white mildew may get on foliage and young buds. This is controlled by spraying or sprinkling with a solution of Potassium Sulphide, which can be procured from your local drug store. Use one ounce of Potassium Sulphide to two gallons of water. The solution should be applied when the first signs of mildew appear and then applied at intervals of a week or ten days until it is controlled.

Another material that will control the mildew is Bordeaux Mixture. Also the simple method of dusting flowers of sulphur upon the foliage is effective in preventing mildew. This should be applied early in the morning when the dew will assist in holding it on the foliage.

Dorothy Perkins
Makes a charming hedge when trained on a fence

Photograph, Underwood & Underwood, N. Y

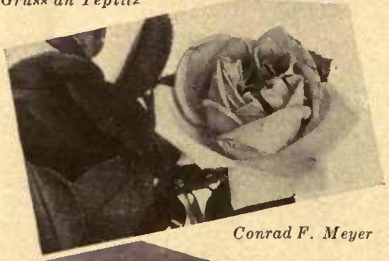
Roses for everybody—Madame Caroline Testout, the official variety of The Rose Festival of Portland, Oregon. Succeeds everywhere.

Leaf-Eating Insects

Sometimes certain insects eat the foliage of the rose. The Rose Slug, which is a slimy snail-like insect, eats the green out of the

Kaiserin Augusta Victoria

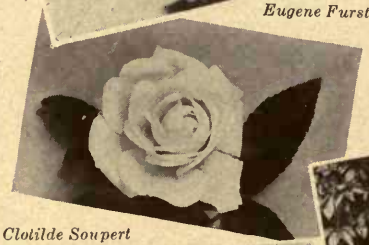
Gruss an Teplitz



Conrad F. Meyer

Clio

Eugene Furst



Clotilde Soupert

Madame Plantier

leaves, leaving the veined net-work or leaf-skeleton. The Rose Beetle also eats the foliage. These can be controlled by spraying with Arsenate of Lead at the rate of one pound of Arsenate of Lead to 12 gallons of water. This should be applied as soon as the work of the insect is noted. Powdered White Hellebore dusted on the foliage will also control the Rose Slug. Be sure to get fresh Hellebore from your drug store. When it turns yellow, it loses strength. Also, the Rose Beetle can be controlled simply by hand picking and dropping in a pan of Kerosene, which will immediately kill the insects.

Plant Lice or Aphis sometimes attack tender shoots of the rose, but they are easy to control by dipping the shoot in a solution of NICOTINE or ordinary soap (one pound of soap to 6 gallons of water). These solutions can also be sprayed on the plants if desired.

A Record of the Rose Garden

There are so many valuable and interesting new varieties of roses that are being originated every year that it will be desirable to keep a record of all varieties which are planted in each garden. A small diagram of each bed can be made and in addition, the roses may be labeled with some sort of metal label which will not be affected by the weather.

After-Care of Roses

After the rose bushes are planted, they will not require much attention with the exception of frequent cultivation and in dry seasons, water will be very beneficial. If the rose bushes tend to grow too upright, the terminal bud can be pinched back and this will make the canes branch out.

Pruning Roses

On page 27 we have already explained the method of pruning both the roots and tops at planting time.

The following Fall after planting the tops can be cut back to within a foot of the ground to make it more convenient for adding the mulch as a winter protection.

Pruning is very important for success in rose growing. As a general rule, the rose bush should be pruned heavily (of course the climbing roses and ramblers will require very little if any pruning, except cutting out the dead wood and weaker branches—climbers take care of themselves). After the first season's growth the plant should be pruned the following Spring. Head it back to within 8 or 10 inches of the ground, cutting out the weak canes and leaving only the stronger canes to develop. Bear in mind that severe pruning tends to make stronger growth. Therefore, some of the weaker growing kinds require the most severe pruning. Also, severe pruning tends to make the flowers larger. As we have already explained, the canes should be cut back to within a quarter of an inch from a bud that points outward from the middle of the bush. This makes the branches spread.

Of course, all dead wood should be removed. The number of canes that should be left should range from 4 to 8. Of course, wherever the tops had been injured by winter weather, they should be cut back to good, live wood. Bear in mind the general rule that very vigorous growing kinds will not require as severe pruning as the weak growers; Rosa Rugosa (Japanese Rose) requires very little pruning. It is considered more from its value as a shrub rather than flowers.

Hardy Garden Roses

Roses—The Several Classes

(Climbing Roses—see page 30.)

With the great advance in improved varieties of roses we now have roses which bloom from early Spring to Fall of every shade and color imaginable and with delightful fragrance and yet these wonderful new roses are thrifty growers and hardy in most severe climates. When you plant a rose garden, you have a relatively *permanent planting*—bushes which will grow stronger year after year and will fill the home with beautiful fragrant roses throughout the Spring and Summer and until late Fall. Because of its permanency, a rose garden is more desirable than a flower garden made up entirely of plants which die out in the winter and require replacing the next Spring with additional trouble and expense. There are thousands of roses, but after thorough testing, our Rose Experts have selected the following list as the best. Following the name of each variety is given the initials, which indicate the class to which it belongs. Note following abbreviations for rose classes:

H. P.—Hybrid Perpetual.
H. R.—Hybrid Rugosa.
R.—Rugosa or Japanese.
H. T.—Hybrid Tea.
H. C.—Hardy Climber.
T.—Tea.
Poly.—Polyantha or Baby Ramblers
Moss—Moss.

ANNA DE DIESBACH (*H. P.*) An old and well-known variety of grandmother's garden. Flowers large, full and of bright pink.

BABY RAMBLER (*Poly.*) (*Mad. Norbert Levavasseur.*) A dwarf bushy plant with large, compact clusters of bright crimson flowers, borne in profusion. A hardy, vigorous, continuous bloomer. Fine for edging around taller growing varieties. It is also used as a pot plant for indoor culture and hedges.

BURBANK (*China*). Free blooming with cherry-rose colored flowers. A good bedder.

CATHERINE ZEIMET (*Poly.*) Flowers pure white in immense clusters. Fragrant. All the characteristics of the Baby Rambler type. Good for edging.

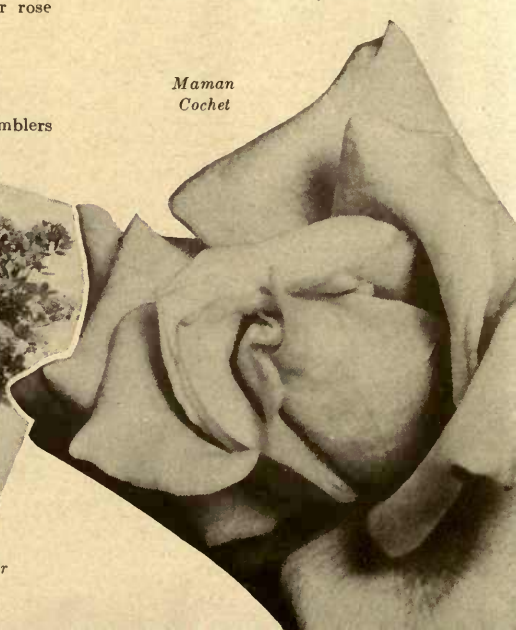
CLIO (*H. P.*) A vigorous grower. Flowers large, globular, flesh color shaded to pink in center. A free bloomer. Very good as a garden variety.

CLOTHILDE SOUPERT (*Poly.*) One of the very best bedders. A familiar ivory-white

General Jaqueminot

Baby Rambler

Maman Cochet



variety shaded pink towards the center. Excellent for borders. Too much can hardly be said of blossoming qualities of this well-known dwarf. Truly a magnificient rose.

CONRAD F. MEYER (*H. R.*) Beautiful large flowers of a clear silvery rose color. Very vigorous, hardy and fragrant. A hybrid rugosa. Often used for hedge. Ever-blooming.

ERNA TESCHENDORF (*Poly.*) A dwarf free flowering variety. Red flowers slightly larger and darker than Baby Rambler. Very pleasing results can be obtained by placing a border of this variety around the taller growing sorts. Dwarf rose hedges are popular.

EUGENE FURST. (*H. P.*) A large full rose of a deep red color. Its distinct characters make this a most valuable rose for the garden It should be included in every collection.

GEN. JACQUEMINOT (*H. P.*) An old favorite. A large full flower of crimson-scarlet color. A fine garden variety. It does well with little care and succeeds under various conditions.

GLOIRE LYONNAISE (*H. P.*) A free blooming, almost thornless hybrid of pale lemon color. Nearest yellow of the Hybrid Perpetuals. A good bedding or garden variety

GEN. McARTHUR (*H. T.*) A splendid garden rose of fine shape. Brilliant crimson scarlet color. A good bedding sort.

GRUSS an TEPLITZ (*China*). An excellent bedding variety with clusters of semi-double fragrant flowers of a bright red color which later change to a velvety-crimson. It is seldom without flowers — a flashing red from Spring till Fall.

HELEN GOULD (*H. T.*) A free grower with bright red flowers. Good bloomer. A fine garden variety and should be planted extensively where a variety of free flowering nature is the prime consideration.

HERMOSA (*China*). A profusion of bright pink, very double, fragrant flowers borne in clusters throughout the season. A well-known variety used extensively as a bedder.

HUGH DICKSON (*H. P.*) Vigorous growing, perpetual bloomer. Free flowering and fragrant. Color brilliant crimson. Large size and good form. An excellent variety.

J. B. CLARK (*H. P.*) A vigorous grower producing large beautiful flowers of a deep scarlet color shaded blackish-crimson.

JESSIE (*Poly.*) A new Baby Rambler. Good for edging or pot culture. Large cluster of bright crimson flowers. Shows to best advantage when planted as a border.

JONKHEER J. L. MOCK (*H. T.*) Flowers large, full, fragrant, borne on stout, erect stems. Color beautiful soft pink inside and carmine outside. A good cut-flower variety. It is a vigorous grower and requires only a slight mulching during the winter months.

KAISERIN A. VICTORIA (*H. T.*) A distinct variety with white flowers shaded lemon. Free bloomer, full and fragrant. Vigorous.

Jonkeer J. L. Mock

KILLARNEY (*H. T.*) Large buds and flowers of a deep sea shell pink color. Fine for forcing and cut-flowers. A free bloomer. Deserves a prominent place in every garden.

KILLARNEY WHITE (*H. T.*) A grand white forcing rose. Sport from Killarney but more double. Fine in bud or flower. Planted extensively for cut flowers in the garden and forced for the commercial trade.

LA FRANCE (*H. T.*) A large, full flower of a silvery pink color and fragrant. A free bloomer from Spring until frost.

LADY ASHTON (*H. T.*) Free flowering, large, and of fine form. Long pointed buds. Soft, clear pink color.

MADAME CAROLINE TESTOUT (*H. T.*) Of sturdy habit and free flowering. Flowers silvery rose with deeper center. One of the best Hybrid Teas.

MADAME JULES GROLEZ (*H. T.*) Free flowering and attractive. Well formed flowers of a deep satiny pink color. A good bedder.

MADAME PLANTIER (*H. P.*) Pure white flowers of medium size produced abundantly early in the season. Extremely hardy. Valuable Decoration Day variety. Often known as the Cemetery Rose and as it requires little care is a very suitable variety for this sort of planting.

MAGNA CHARTA (*H. P.*) Extra large, full flowers of a bright rosy pink color. Double, good form and fragrant. A hardy strong grower adapted to garden planting.

MAMAN COCHET (*T.*) A most valuable, beautiful rose. One of the best grown. Large and full. Long pointed buds. Color rich coral-pink. A good cut flower and bedding variety. Delightfully fragant, blooms all summer.

MRS. AARON WARD. (*H. T.*) Coppery-orange color. Very beautiful. Pinkish-fawn when full open. Fine for forcing and used extensively by commercial florists.

MARSHALL P. WILDER. (*H. P.*) Large, full, well-formed. Deep rich red, fragrant.

MRS. B. R. CANT (*T.*) Sweet scented flowers of deep rose color. Free flowering and attractive in autumn. Good garden variety. Called Red Maman Cochet

MRS. JOHN LAING (*H. P.*) A profusion of large bright pink flowers. Perfectly hardy. Full and double. An excellent variety.

NOVA ZEMBLA (*H. R.*) Large double white flowers with a pleasing pink blush. A sport of C. F. Meyers. Fine bedder.

ORLEANS (*Poly.*) A geranium-red variety of the Baby Rambler type. Free bloomer and splendid keeping qualities. A favorite.

PAUL NEYRON (*H. P.*) Immense flowers of a deep rose color. The large well-formed buds on the stout stems are very desirable for cutting. Stems nearly thornless.

PERSIAN YELLOW (*Austrian.*) A familiar rose of grandmother's garden. Clusters of double yellow flowers in early spring.

PINK MOSS (*M.*) An excellent pink with beautiful moss covered buds and branches. Blooms retain their beauty quite a long while.

PRESIDENT TAFT (*H. T.*) A fine pink rose. Vigorous, good size and form; fragrant.

PRINCE C DE. ROHAN (*H. P.*) Full, dark, velvety crimson maroon variety.

RADIANCE (*H.T.*) A constant bloomer with brilliant rosy carmine flowers. Large size,

Radiance *Killarney*

Paul Neyron

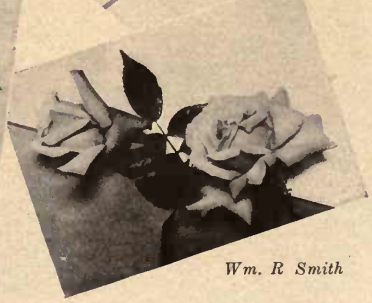
Pink Moss

Snow Queen (Druschki)

Mrs. John Laing

Ulrich Brunner

Marshall P. Wilder



Wm. R Smith

full and fragrant. An excellent rose. It has the qualifications of a cut-flower, or bedder.

RED MOSS (*M.*) A beautiful old-time red rose with mossy buds and stem. A favorite in the informal garden.

RHEA REID (*H. T.*) A new red forcing rose, also a good garden variety. Large double rich red flowers of exceptional beauty.

ROSA RUGOSA ALBA (*R.*), White Japanese Rose. A white form of Rosa Rugosa.

ROSA RUGOSA (*R.*) A beautiful single red rose from Japan. Foliage dark green and crumpled. Extensively used as shrubbery.

SIR THOMAS LIPTON. (*H. R.*) Best pure white rugosa rose. Beautiful foliage, continual bloomer and vigorous. Double.

Thousand Beauties (Tausendschoen)—a new climber that has created a sensation.

Baltimore Belle—Asplendid climber for arches, walls and porches.

SNOW QUEEN (*H. P.*) Often called White American Beauty. An excellent pure white rose, probably the very best white. Very hardy and vigorous. A profusion of pure white flowers of large size.

SUNBURST (*H.T.*) an excellent forcer. Long pointed buds of coppery-orange color changing to golden yellow when full.

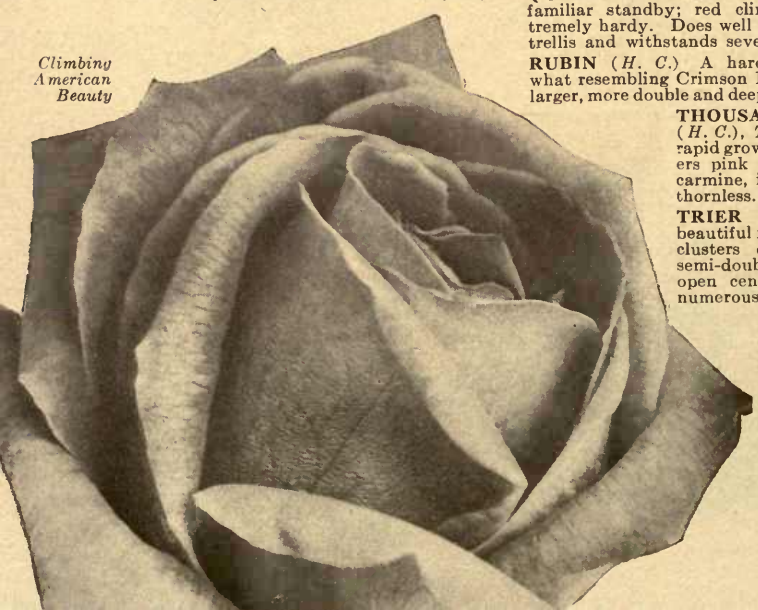
ULRICH BRUNNER (*H. P.*) A fine cherry-red rose of immense size. A seedling of Paul Neyron. Of fine form and fragrant. The flowers are supported on long stiff stems which makes this a desirable cut-flower.

WHITE COCHET (*T.*) A large fragrant hardy rose of pure white color with outer petals tipped pink in autumn.

WM. R. SMITH (*T.*) Rose pink flowers with beautiful flesh tints. A vigorous grower, large and full. A good bedder. Deserves a place in every garden. None more beautiful.

Tree or Standard Roses

These are grafted on hardy rose stalks about four or five feet from the ground. We offer three varieties: Snow Queen (white), Gruss an Teplitz (red), J. J. L. Mock (pink).



Climbing American Beauty

Hardy Climbing Roses

Because of graceful growth, profusion of beautiful blossoms, vigor and extreme hardiness, the popularity of the hardy climbers is greater than ever before. (We list only the hardy varieties.) They present a magnificent sight with their billowy masses of roses when trained on porches, arbors, arches or any other support. Even the unattractive artificial fence can be changed into a graceful rose hedge by planting some of the many beautiful climbers.

AMERICAN PILLAR (*H. C.*) A popular large single variety. Color deep pink with yellow stamens in the center. Very floriferous, vigorous and hardy. The flowers are some times three or four inches across. They last for a long while, and are followed by brilliant red berries.

BALTIMORE BELLE (*H. C.*) This is a well-known old favorite. The flowers are white tinted with pink. It is a variety that withstands winter well and is an excellent climber. Succeeds without care.

CHRISTINE WRIGHT (*H. C.*) A new rose of lasting quality. Bright clear pink and double.

CRIMSON RAMBLER (*H. C.*) A variety noted for it profuse clusters of bright crimson, double flowers. A vigorous growing climber, the shoots often growing to 8 feet in height during one season. It is well known and will survive in a variety of conditions.

CLIMBING BABY RAMBLER (*H. C.*) *Miss Messman.* A climbing, everblooming form of the Baby Rambler type. The same color, vigorous, and deserving of a place on every porch, trellis or arch.

CLIMBING AMERICAN BEAUTY (*H. C.*) A hybrid of American Beauty with all its good qualities. Flowers large, deep pink and fragrant. Vigorous and very profuse bloomer. Excellent for porch, pergola, etc.

DOROTHY PERKINS (*H. C.*) Immense clusters of beautiful double pink, fragrant flowers. Perfectly hardy and a vigorous grower. Can be used to advantage as a porch climber or on the trellis. Heavy growth of foliage and many thousands of perfectly formed flowers.

DR. W. VAN FLEET (*H. C.*) A very rapid growing climber. Deep flesh color. Flowers full and double on long stems. Pointed buds.

EVER-BLOOMING CRIMSON RAMBLER (*H. C.*) A magnificent rose. Similar in every respect to Crimson Rambler, but having an extended blossoming season.

EXCELSA (*H. C.*) *Red Dorothy Perkins.* An excellent brilliant-crimson climber. Foliage glossy. Best of the crimson ramblers.

HIAWATHA (*H. C.*) Large clusters of single brilliant scarlet flowers with yellow stamens in the center.

LADY GAY (*H. C.*) A vigorous, very floriferous variety with rose-pink flowers.

QUEEN OF PRAIRIE (*H. C.*) An old familiar standby; red climbing rose. Extremely hardy. Does well on arbor, porch or trellis and withstands severe conditions.

RUBIN (*H. C.*) A hardy climber somewhat resembling Crimson Rambler, but with larger, more double and deeper colored flowers.

THOUSAND BEAUTIES (*H. C.*), *Tausendschoen.* A rapid growing climber. Flowers pink deepening to rosy carmine, in clusters. Nearly thornless.

TRIER (*H. C.*) A most beautiful rambler with large clusters of creamy white semi-double flowers. The open center is filled with numerous bright yellow anthers which give to the rose a distinct yellow color from a distance. A favorite surpassing Yellow Rambler of which it is a seedling.

WHITE DOROTHY PERKINS (*H. C.*) A white flowering sport of the well-known Dorothy Perkins.

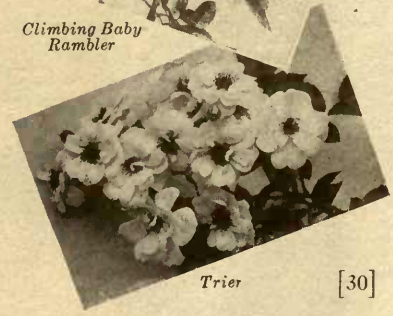
Queen of Prairies

American Pillar

Dorothy Perkins

Excelsa

Climbing Baby Rambler



Trier

Stark Bro's New Free Landscaping Service —and Free Planting Plans

When you plant a tree or shrub be sure that it is placed just where it belongs, and that it will produce the proper landscape effect. You can make your grounds beautiful and attractive—no matter what the size — if the proper shrubs, trees and plants are selected and arranged according to a correctly prepared plan.

Stark Bro's Landscape Architects Know Your Requirements

Each one of our trained Landscape Architects knows, when he is told the size of your grounds, the location of your house, out buildings, walks, etc., just what is required to make the house and surroundings show to best advantage. He prepares plans every day for grounds of all sizes and shapes. That is his business, his calling, and naturally his judgment, his advice, would be valuable to you. Why not take advantage of this new free offer of service and free plans?

Beautify Your Home Grounds at Small Expense

Stark Bro's have perfected a plan to give to every man and woman, who is interested in beautifying the home, the free service of one of our Landscape Architects, and to co-operate with you in improving your grounds. Give us your ideas and desires, and tell us just what kind of trees and shrubs you prefer. We will take your suggestions and adapt them to the design in accordance with the best principles of landscape gardening. All we ask you to do is to send us a rough sketch of your grounds, showing the size of your lot —no matter if it is only 30 feet wide. Give the location of out buildings, fences, trees, walks, etc. Our Landscape Man will study it carefully, prepare a blue print planting plan embodying up-to-the-minute ideas in Landscape Architecture, showing just what shrubs, vines, trees and plants to use and where to plant them.

Lafayette, Ga., Oct. 25th, 1915.

MESSRS. STARK BRO'S,
Louisiana, Mo.

Dear Sirs: Enclosed you will find a very rude sketch outline—it at least gives the proportion—of our recently completed bungalow, and of the lawn surrounding it. We wish to take advantage of your very kind and generous offer to draw free plans for the lawn. While ours is small and very modest, we are all the more anxious it should be treated in just the right way. The lot is perfectly bare of shade trees, shrubs or flowers. In fact, we are just preparing to have it sown to grass seed.

We have quite a large lot in the rear, which we are planning to devote to flower and kitchen gardens, a vineyard, small fruits, nuts, etc.

We have received orders from you, and have been very much pleased. Any suggestions you may make will be gladly received.

Very truly,

(Signed) MRS. A. S. SPARKS.

P. S.—Please mail to my new address your new free book, "Secrets of Ornamental Planting."

Ames, Iowa, April 1, 1915.

STARK BRO'S,
Louisiana, Mo.

Gentlemen: Some time ago I received from you a booklet entitled "Landscaping Simplified." I have just been able to go through it and I am delighted with the good sound principles of landscape design and the proper arrangement of shrubbery that you advocate in it.

Your pictures have been well selected to bring these principles out with effect.

Very truly,

(Signed) FRANK H. CULLEY,
Prof. of Landscape Gardening,
Iowa State College.

Columbia, Mo ,Sept. 22, 1915.

STARK BRO'S,
Louisiana, Mo.

Gentlemen: It gives me pleasure to commend you on the stock which you furnished me during last season. I found the size and condition of ornamental plants very satisfactory, and will be glad to have your estimates on my orders for the coming season.

Cordially yours,

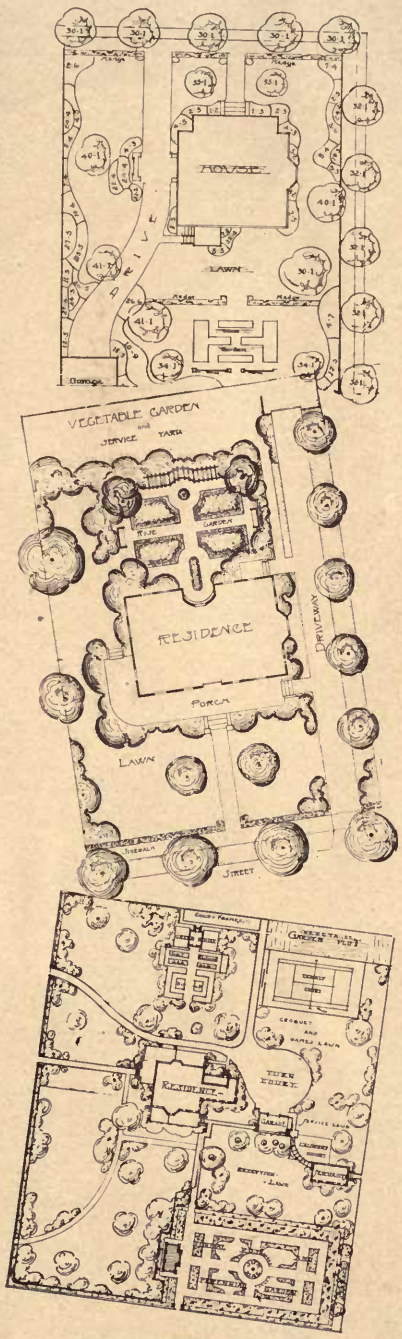
(Signed) H. F. MAJOR,
Landscape Architect.

Costs Only Two Cents

No charge whatever is made for this service, and you are under no obligation to spend a cent with us. We will, however, include with the blue print a list of stock selected by our Landscape Experts and show you what it will cost to plant your grounds exactly as the Architect has outlined. It will surprise you how small the cost will be.

Right now, while your mind is on the subject, prepare the rough sketch as outlined on page 5. It won't take over five minutes of your time. Mail it to us today. The cost to you is only two cents—the price of a postage stamp Mail your sketch early, so our Landscape Architects will have sufficient time to give careful attention to your design.

Send us the sketch today.



Stark Landscape Plans

Top plan shows outline of planting with the key numbers which correspond to numbers and names of plants on Stark Bro's estimate blank that goes with each plan. This is a suburban home. The planting is unusually moderate in cost.

The middle plan illustrates the great possibilities on a small city lot. Note the Rose Garden.

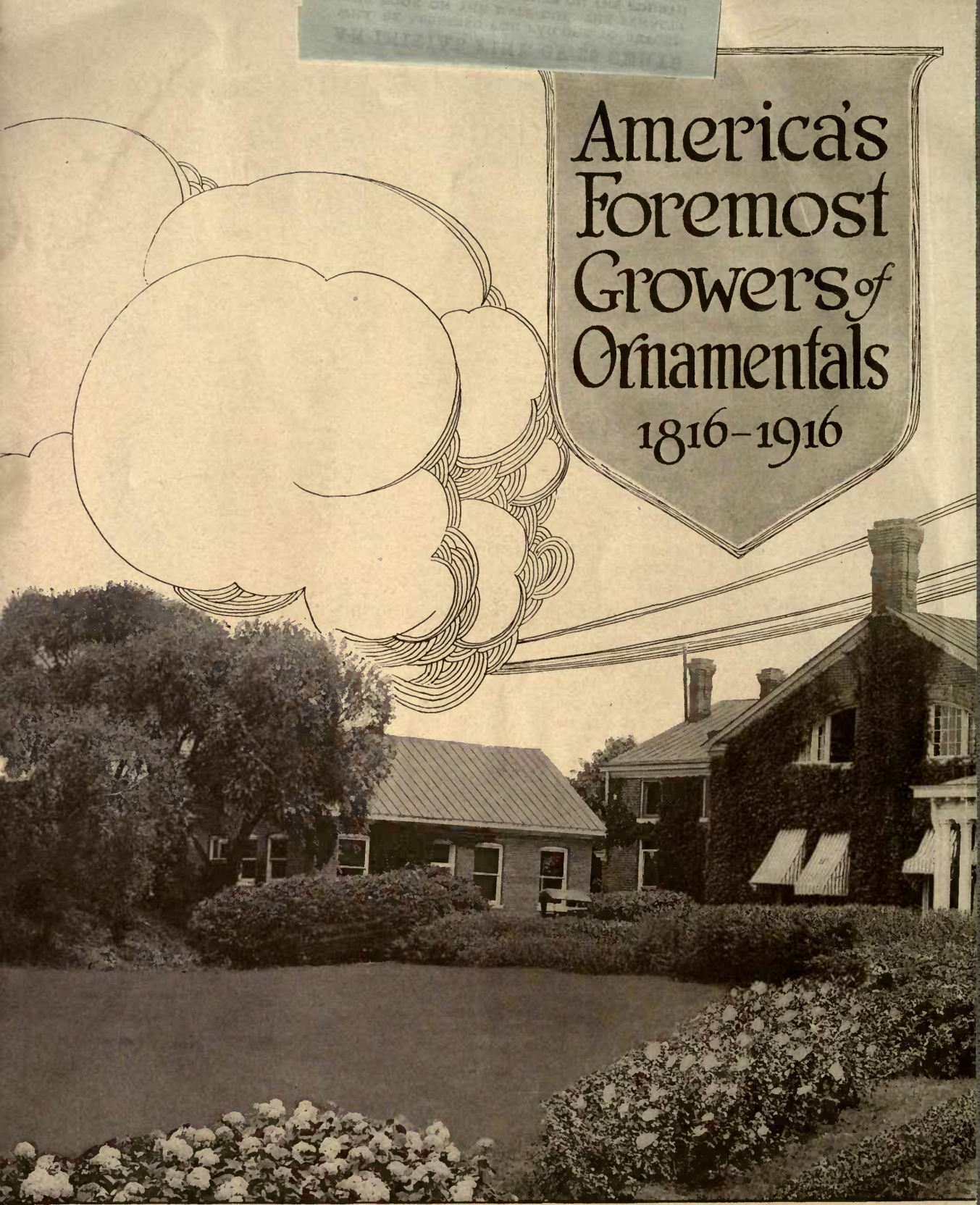
The lower plan shows a large country home with a beautiful naturalistic planting. Stark Bro's Landscape Architects plan all sizes and kinds of homes.

Stark Bro's—Louisiana, Mo.

Landscape Architects and Ornamental Nurserymen

The Commonwealth Press, Chicago

America's Foremost Growers of Ornamentals
1816–1916



Stark Bro's Landscape Architects and Ornamental Nurserymen **Louisiana, Mo**

Photomount
Pamphlet
Binder
Gaylord Bros.
Makers
Syracuse, N. Y.
PAT. JAN 21, 1908

YE 00960

526799

UNIVERSITY OF CALIFORNIA LIBRARY