Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

62.47

1920

LIBRARY
RECEIVED
★ MAR 6 1920 ★
U. S. Department of Agriculture.

WEBER'S GUIDE

H. J. WEBER & SONS NURSERY CO.

NURSERY, MISSOURI

Introductory

WE TAKE pleasure in presenting you with copy of "WEBER'S GUIDE." On account of the high cost of paper and printing, we have decided to reduce our "GUIDE" to the minimum, hence have eliminated prices, and have taken out a number of varieties formerly carried and on which there was only limited demand. Should you be in need of anything not quoted in this "GUIDE," write us; we can probably furnish same.

We will issue in connection with this "GUIDE" semi-annual PRICE LISTS, and therefore, kindly request those who receive this "GUIDE" to retain it for future reference as it may be several years before we will publish our next edition, unless conditions become more normal than they are at present.

We desire to thank our many customers for their liberal patronage in the past and hope that we may be favored with your future business whenever in the market for anything in our line.

On account of the war the Nurseries of this country, as well as in foreign countries, could not produce their normal amount of trees, as well as young seedling stock on which to propagate our improved varieties, hence we are confronted with an extreme shortage in almost all lines of Nursery products. It will be a number of years before the Nurseries will again have a full supply. Until such time, prices will no doubt rule higher than was ever known; but with the higher cost of everything connected with the business, one could not expect low prices.

Fruit growers have received the highest prices ever obtained for their fruit, and with the increase in population and the foreign demand for our fruit products, we can see many years of prosperity for the fruit grower who takes care of his orchards.

Indications are that prices will be still higher next year. We, therefore, advise all who contemplate planting to get their orders in early; plant now, don't wait; you will lose money if you do.

Our facilities are the best of any nursery near St. Louis; we have a large frost-proof concrete storage house, 80x120 feet, 14 feet high, also storage cellar for bulbous stock. All packing and filling of orders is personally superintended by members of the firm in the best possible manner; no distance is too great for our mode of packing. For spring shipments we carry a complete line of stock in our storage houses and can make shipments at any time during the winter and up to May 1st, and later according to weather conditions. In the fall we begin shipping about October 15th. All orders are packed under cover, avoiding exposure to sun, wind, frost, etc.

We extend a cordial invitation to you to visit our Nurseries. We would, however, respectfully ask all those who can possibly do so to come during week days. Our office will be open to take orders on Sunday mornings during the months of October and November, March, April and May, to accommodate customers who cannot come on week days. Parties desiring to call for stock on Sunday must place their orders during the week, either by phone or letter, and we will pack them on Saturday. We have no order fillers on duty on Sunday.

Soliciting your correspondence, inquiries and favors, we are

Yours truly,

H. J. WEBER & SONS NURSERY CO., INC.

Established 1867.

Incorporated 1903.

Capital \$50,000.00.

200 Acres in Nursery.

LOCATION—Nurseries and office located on Gravois Road, one and one-quarter mile west of the St. Louis city limits. Nine miles southwest of the St. Louis Court House, and one and one-half miles west of the terminus of the Cherokee Street Car Line. We are one-half mile east of Gravois Station on the St. Louis, Cape Girardeau & Memphis branch of the Frisco R. R. We now have an Auto Bus Line leaving end of Cherokee car line every two hours passing by our office. Phone us for time of leaving.

For Terms and Condition of Sale, See Price-Lists Published Semi-Annually.

GENERAL DIRECTIONS FOR TRANSPLANTING TREES, SHRUBS, ETC.

Preparation of the Soil.—For fruit trees the soil should be dry, either natural or made so by thorough drainage, as they will not live or thrive on a soil constantly saturated with stagnant moisture. The soil should be well prepared by plowing at least twice beforehand, using a subsoil plow after the common one at the second plowing. On new fresh land, manuring will be unnecessary, but on lands exhausted by cropping, fertilizers must be applied, either by turning in heavy crops of clover, or well decomposed manure or compost. To insure a good growth of fruit trees, lands should be in as good condition as for a crop of wheat, corn or potatoes.

Preparation of the Trees Before Planting.—This is one of the most important operations to be performed, and one in which the most fatal errors are liable to be committed. The object of pruning is two-fold: First, to secure a head properly shaped and sufficiently open to the sun and air for the successful ripening of the fruit. Second, to prepare the natural balance between the roots and branches of the trees, that a healthy growth may be secured.

When young trees are removed from the nursery, roots are often broken or bruised, as will be the case however careful the digging, packing and transportation may be performed, and it becomes necessary that the balance should be preserved by a proper and judicious pruning. This pruning should be adapted to the size and condition of the tree, and at the same time the form should not be forgotten. It should be so close as to enable the roots to supply the demand for sap from the remaining branches, and at the same time, no growth already secured should be wasted.

In both Standard and Dwarf Trees, it will be usually found a safe rule to cut back, when pruning at transplanting, one-half of the growth of the previous season. The ends of the large roots should be made smooth with a sharp knife, where they have been roughly cut with the spade in digging, always cutting from the bottom of the root with an outward cut. New roots will form, and the injured parts heal more readily with this attention.

Planting with Dynamite.—We recommend the use of dynamite to every planter of trees. It is the up-to-date way of planting all kinds of trees.

- 1st. It is more economical than any other method.
- 2nd. It costs little or any more than digging a proper sized hole with the spade.
- 3rd. Dynamiting the soil conserves moisture and prevents the big losses during dry seasons that are common with spade-dug holes.
- 4th. Trees planted with dynamite make as much growth in two years as spade-set trees will in four years.
- 5th. Dynamite breaks up the ground for 12 to 15 feet in diameter and 5 feet deep, kills all insects and fungous growth contained in the soil.
- 6th. Dynamite-set trees bear fruit one to two years sooner than spade-set trees, and live longer.

Write to the **E. I. DuPont Nemours Powder Co.**, Wilmington, Delaware, and ask them to send you their "Instruction Book" on "Tree Planting" with dynamite.

Planting with Spade.—The holes should be dug large enough in the first place to receive the roots of the trees without cramping or bending them from their natural position. The tree having been properly pruned, should be held upright and the earth filled in around the roots, the finest and best soil from the surface being worked in among them, filling every space and bringing every root fully in contact with it. When the hole has been half filled, pour in a pail or two of water; let this settle well, then finish the planting by placing soil enough about the trees to raise the surface somewhat higher than elsewhere, and press the soil carefully down with the foot. Care must be taken against planting too deep; when the earth settles about the tree it should stand at the same height as when in the nursery. When set in Autumn, it is well to raise a mound of earth about the trees a foot or more in height. This will keep them from being swayed by the winds or thrown out by the frost during the winter. It should be removed in the spring. In planting Dwarf trees, the stock on which they are budded should be under ground.

Staking.—If trees are tall or in exposed situations, they should be supported by stakes to prevent injury from the action of the wind. Staking is done in the best manner by driving two strong stakes firmly in the ground, one on each side of the tree, about a foot distant from it, and fastening the tree between them with bands of straw or other soft material, so that it may be kept in an upright position without chaffing until the roots obtain a firm hold upon the soil.

Mulching.—This is properly done by placing a layer of coarse manure or litter from three to six inches deep about the tree, extending one to two feet further in each direction than the roots. This keeps the ground moist and of equal temperature, rendering watering unnecessary, and is in all respects preferable to it. Trees properly mulched are more certain to live and make much greater growth than those which are not so treated.

Cultivation After Planting.—Here is the grand opportunity for the success of the skillful fruit-grower. It is not enough for him that his trees are of the choicest sorts, selected with regard to the climate and adaptation to the uses for which they are designed; that they are properly pruned and planted in dry, mellow soil, thoroughly enriched and prepared for their reception; protected from the winds by properly staking, and that they are in perfect shape and thriftiness. He knows very well that all this may be properly and well done, at great expense, and without further care be followed by an entire failure, so he watches their growth and defends them from their enemies that the cankerworm and caterpillar do not find safe lodgment among

the branches; or the borers cut about them or the cattle obtain access to them by neglected gates or fence, and break down the branches. He is well repaid, for they thrive and grow rapidly; the shoots are vigorous; the bark clean and smooth, and soon a most abundant crop of superior fruit testifies to his wisdom and care. His neighbor, perhaps with better soil and equal care and experience in planting, having at the outset neglected these apparently trivial but really important matters, sees, instead of thrifty trees loaded with luscious fruit, the wreck of his hope in a few mossy, scraggy, misshapen specimens of what he considers his ill-fortune, and hastens to remove. He, too, is justly rewarded for his neglect, as is his more prosperous neighbor for care.

Those who are obliged to plant trees in a field of grain or grass should see that all such are carefully mulched with rough manure, and that the ground is kept loose and moist about the trees. A hoed crop is greatly preferable in such plantation for the first five years. After a growth for this time, standard apple, pear, cherry and plum trees will grow and produce fairly in turf. The dwarf trees and peaches should be well mulched every year with loose manure and the ground thoroughly cultivated. They will amply repay for this attention in the increased quantity and improved quality of the fruit.

Pruning.—Pruning after the first year should be varied according to the purposes of the planter and the variety of the tree. It should be trimmed as early as possible up to the height it is intended the future head should be, and the cutting off of large limbs may not in the future be necessary. The removal of large branches should be avoided in all cases whenever it is possible to do so, as decay is liable to commence at the point of separation and extend into the trunk; whenever it is done the wound should be carefully pared smooth and a coating of paint or grafting wax applied to protect it from the action of the weather. After the removal of lower branches until the head has reached the desired height, the only pruning needed is to remove such branches as are crossing and interfering with each other; and keep the heads in a symmetrical shape and well open to the sun and air. Trees should receive proper shape by judicious pruning and attention early in the spring of each year, while they are young, and very little pruning will be necessary afterward. When trees are to be pruned and trained for specific purposes and in a special manner, the orchardist will find full directions in the standard works on horticulture which may be read with great benefit and followed with success, but are beyond the scope of an ordinary catalog.

Grape Vines require a dry, mellow, well-drained soil, deeply worked and well enriched, with a warm, sunny exposure. In planting, give the roots plenty of room and settle soil firmly about them. A strong vine may be allowed to grow the first season without pruning. In November or December following, the growth should be cut back to three or four buds; the next season, allow but two buds to grow, which should make canes seven to ten feet long and be cut back to four or five feet the following winter, ready for fastening to the trellis. For the subsequent pruning of vines as well as trees, planters would do well to consult some practical work on the subject.

Berries should have a strong soil and be kept under constant cultivation. Mulching is of special value. Raspberries and Blackberries should have old wood cut out each year, and new canes pinched off when three feet high. Strawberries should be mulched late in the fall; uncover the crown early in spring; remove mulch after fruiting and spade in light dressing of manure.

Currants and Gooseberries need heavy mulching and pruning, so that new wood will have room to grow.

Roses should have a deep, rich, well-drained soil, and should be severely pruned every spring before the buds start, cutting back all the last growth to three or four buds, except climbing roses, which may be first allowed to partly cover the space desired. Old decayed branches should never remain. Every autumn compost should be placed around the stems of the plants and spaded into the ground in the following spring.

Treatment of Trees That Have Been Frozen in the Packages, Received During Frosty Weather, or After Long Exposure. Place the package, unopened, in a cellar or some such place, cool, but free from frost, until perfectly thawed, when they can be unpacked and either planted or placed in a trench until convenient to plant. Treated thus they will not be injured by the freezing. If dried from long exposure, bury entirely under the ground, soaking well with water, or place in water from 12 to 24 hours, and prune more closely than ordinarily.

Wintering Nursery Stock Procured in the Fall

In sections where the winters are very severe, it is not advisable to set out young trees and plants in the fall, but the practice of procuring them in the fall, covering them with earth during the winter and planting them in the spring is becoming more and more popular, as experience has demonstrated its advantages. In the fall, nurserymen are not hurried in their own planting; the season for shipping them is comparatively long, and the weather not nearly so changeable as in the spring. Railways are not so much hurried, and there is much less chance for injurious delays than in the spring. It being practicable to plant trees so procured as soon as the frost is out, they become thoroughly established the first season.

Some have an impression that trees dug in the fall and trenched in over winter are worthless. This is a great mistake. Peach and some other young trees, if left standing during their first winter, are frequently killed or injured by frost, while if dug in the fall and treated as described below, they come through bright and uninjured.

To insure success, select a spot where no water will stand during the winter; have no grass near to invite mice. Dig a

GENERAL DIRECTIONS FOR TRANSPLANTING TREES AND SHRUBS—Continued.

trench deep enough to admit one layer of roots, and sloping enough to allow the trees to lie at an angle of not more than 30 degrees with the ground.

Having placed one layer of the roots in this trench, cover them with mellow earth, extending well up on the bodies, and see that this is firmly packed, then add another layer of trees overlapping the first until they are all heeled in. As soon as this is done, cover the tops with evergreen boughs or corn stalks that they will be thoroughly protected from winds.

A Table Showing the Number of Trees or Plants to the Acre.

Distance.	No. of trees
1 foot apart each way.....	43,560
2 feet apart each way.....	10,890
3 feet apart each way.....	4,840
4 feet apart each way.....	2,702
5 feet apart each way.....	1,742
6 feet apart each way.....	1,210
7 feet apart each way.....	888
8 feet apart each way.....	680

Distance.	No. of trees
9 feet apart each way.....	537
10 feet apart each way.....	434
11 feet apart each way.....	360
12 feet apart each way.....	302
13 feet apart each way.....	257
14 feet apart each way.....	222
15 feet apart each way.....	193
16 feet apart each way.....	170
17 feet apart each way.....	150
18 feet apart each way.....	134
19 feet apart each way.....	120
20 feet apart each way.....	108
25 feet apart each way.....	69
30 feet apart each way.....	48

Rule.—Multiply the distance in feet between the rows by the distance the plants are apart in the rows, and the product will be the number of square feet for each plant or hill, which, divided into the number of feet in an acre (43,560), will give the number of plants or trees to the acre.

Distances for planting various fruits will be given under respective headings in this catalogue.

A COMPLETE SPRAY CALENDAR

For Winter and Summer as used and recommended by the B. G. Pratt Co., New York, Manufacturers of Scalecide and Sulfocide.

(Never omit "Standard Sprays" and add the "Special Sprays" as needed.)

After nine years of comparative work with most of the best-known commercial sprays, we have settled on the following spraying program in our own large orchard operations as giving the best results obtainable. Our apple crop last year packed 95%. A-grade from tree-run without thinning.

In the last few years many of our friends and customers have followed it with most gratifying results.

Mr. George T. Powell of Ghent, N. Y. writes: "Never produced a crop of apples of so fine a quality." Mr. C. J. Tyson, Orchard Manager, Tyson Bros., Inc., Flora Dale, Pa.—"It certainly does reduce the cost to a minimum and I am not at all sure the results do not at least closely equal anything we have used." Mr. E. S. Marlatt, Port Murray, N. J., writes: "It seems that everything you have brought out so far has proven a success. * * * My apple trees are the finest in this locality as well as the apples."

WINTER SPRAY WITH "SCALECIDE."

First Standard Spray.

(Dormant or Scale Spray.)

For Apples, Pears, Quinces, Cherries,

Peaches, Plums and Small Fruits.

Any time after the leaves begin to drop in the fall or early winter, providing it is not too cold, say about 40 degree Fahr., spray thoroughly from the topmost twig down to the ground and around the base of the trees with "Scalecide," 1 gallon to 15 gallons of water (3 to 50 gallons), using a fine, misty spray until the material runs, thoroughly saturating the trees. This is for scale insects, pear psylla, bud moth, case-bearer, eggs and larvae wintering on the trees, and fungous troubles, such as peach-leaf, curl, brown-rot canker, apple canker, collar rot, and the spores of scab on the trees.

If you should not get this spray on in the fall, it may be done any good day in the spring up to the time the buds start. While not as sure as fall spraying for leaf curl, it is the best time for aphids, leaf roller and tent caterpillars. Spray thoroughly.

SUMMER SPRAYS WITH "SULFOCIDE."

Special Spray No. 1.

(Sometimes called the "Scab," "Clusterbud" or "Pink" spray, and is almost becoming a Standard Spray.)

For Apples, Pears and Quinces.

When the buds are still in cluster, just before the blossoms begin to show color, use "Sulfocide," 1 quart to 50 gallons of water, without any poison.

Cal-Arsenate Powder, ½ lb. to 50 gallons of spray, may be added if chewing insects are feared.

For Peaches, Plums, Apricots and Stone Fruits.

When the buds are ready to open and just show color, use "Sulfocide," 1 quart to 50 gallons of water. Never use a poison of any kind with "Sulfocide" on peaches or stone fruits.

SECOND STANDARD SPRAY.

For Apples, Pears and Quinces.

For the control of Codling Moth (wormy fruit) and fungous troubles, but generally too late for scab.

This spray is most important and should never be omitted or delayed, and must be very thorough. As soon as the bees leave the blossom, and not later than ten days after the petals fall, spray with 1 quart "Sulfocide" to 50 gallons water and add ½ lb. Cal-Arsenate Powder. Do not use Arsenate of Lead when using "Sulfocide." Direct the spray with good force into the open calyxes of the newly formed fruit.

For Peaches and Stone Fruits.

For the control of Brown Rot, Scab, etc.

As the shucks are falling from the newly formed fruit, use "Sulfocide" alone, 1 quart to 50 gallons of water.

Repeat this spray every three or four weeks up to within a week of harvest.

Never use any poison with "Sulfocide" on stone fruits.

A separate spraying with Arsenate of Lead alone may be used after the "Sulfocide" is dry.

SPECIAL SPRAYS No. 2 and No. 3.

Where leaf spot or black rot is prevalent, or a late batch of codling moth is feared, repeat **Second Standard Spray** fourteen days later, and for the second brood, six weeks after the petals fall.

Never use Arsenate of Lead with "Sulfocide."

ORANGES AND CITRUS TREES.

"Scalecide" has been used for many years for the control of scale insects on citrus trees.

Use "Scalecide" 1 to 50 or 60 parts of water during the dormant season as you would Lime-Sulfur for scale. Repeat as often as necessary for White Fly, Rust Mite, etc., 1 to 75 or 80 after the fruit has formed.

For Scab and Fungus, use "Sulfocide" 1 part to 200 parts of water as you would Bordeaux Mixture or dilute Lime-Sulfur.

SPRAYING SMALL FRUITS.

Grapes, Currants, Gooseberries, Raspberries and Blackberries.

Never omit a dormant spray with "Scalecide," 1 gallon to 15 gallons of water, before the leaves come out—it will repay many times the cost and trouble. It cleans them of many insects and diseases, making the summer spray with "Sulfocide" more effective.

Spray just before blossoming with "Sulfocide," 1 part to 200 parts of water, and again when the fruit sets and as often as occasion demands.

Dust with 1 part Cal-Arsenate and 2 parts Lime for chewing insects.

SPRAYING VEGETABLES.

We spray everything in the garden subject to fungi once every two weeks according to weather conditions.

Beans, tomatoes, egg-plant, peppers, cucumbers, squash and melons should be sprayed every ten days or two weeks from the time they start through the ground with "Sulfocide," 1 part to 200 parts of water (1 qt. to 50 gals. or 1 oz. to 1½ gal. water). For chewing insects, add Cal-Arsenate to the "Sulfocide," ½ lb. to 50 gals., or dust the plants with a dust of 1 part Cal-Arsenate and 2 parts hydrated or slacked lime.

"Sulfocide" has been used for years by the vegetable growers of Florida with wonderful results. String beans and tomatoes are sometimes dipped in "Sulfocide" after picking to insure safe arrival at market.

Several years ago two men planted three acres of beans together. One wanted to spray and the other did not, so the patch was divided in two equal parts. The man who sprayed with "Sulfocide" sold his crop for over \$1,100; the man who did not spray picked only 36 hampers. (Address furnished on request.)

SPRAYING POTATOES.

We have not had occasion to use any other fungicide on our potatoes for ten years.

Potatoes require a little stronger mixture than other vegetables. Use 1 gallon "Sulfocide" to 150 gallons water, and add 2 to 3 lbs. Cal-Arsenate. This has proven effective in controlling blight, flea beetle and potato beetle. Start when they come through the ground and keep the new growth covered.

"Sulfocide" and Cal-Arsenate is one-half to one-third the cost of Bordeaux Lead and equally effective.

For Aphids on potatoes, "Sulfoleum" (a new spray), 1 part to 100, is very effective and cheap. It is also a fungicide.

SPRAYING FLOWERS.

For mildew and blight on roses, hollyhocks, carnations, chrysanthemums, peonies, etc., spray with 2 ozs. of "Sulfocide" to 3 gals. of water (1 part to 200 parts of water) every ten days or two weeks.

If 2 ozs. common laundry soap is added to 3 gals. "Sulfocide" spray, it will spread better and leave practically no marking on rose leaves.

If Aphids are present, add 1 teaspoonful Black Leaf 40 to each gallon of spray. "Sulfoleum", as recommended for potatoes and fruits, cannot be used on roses and some flowers.

FRUIT DEPARTMENT

STANDARD APPLES

The culture of the apple is one of the leading enterprises of the United States. Its period, unlike that of other fruits, extends nearly through the year. By planting judiciously a constant succession can be easily obtained of this indispensable fruit for market and for family use. We believe that no one with proper soil conditions and ample land should hesitate to plant a good apple orchard at once; the population of the United States is growing by bounds and the planting of apple orchards has not kept pace, hence the high prices now being received on the market for apples. Good apples are worth as much or more today than the best California oranges, and you don't have to go to California to grow them either. All you need is proper soil conditions, a little backbone and a determination to give your trees proper attention after planting and your success is assured.

Plant standard apple trees from 30 to 40 feet apart each way, according to the nature of the soil.

At 30 feet apart it takes 48 trees per acre; 40 feet apart it takes 27 trees per acre.

Our apples are all "crown grafted or budded" on branched roots. Grown on new land and free from insect and fungous diseases. None better grown anywhere.

Summer or Early Varieties

Carson—"New" Early red, said to ripen before Yellow Transparent, comes highly recommended from Indiana. You should try a few of these.

Benoni—A fine eating apple, striped and splashed with red. Tree upright grower. Early bearing.

Chenango—Large, oblong, conic, slightly ribbed; striped and splashed with bright crimson on whitish yellow ground; flesh white, tender, with a mild, sub-acid flavor. September.

Early Harvest—Medium to large, flat, pale yellow; good. Tree a fair grower and bearer. July.

Fameuse (Snow Apple)—Medium to large, a handsome deep crimson, white fleshed apple of high flavor and best quality; very productive. August and September. Tree is a strong, upright grower.

Livland—One of the finest of early apples, succeeds well over a wide section. Color clear, waxy white, striped and marbled crimson and pink; flesh tender and snow-white. July.

Oldenburg (Russian)—Medium to large; striped, mostly red. Best summer cooking apple; tree hardy, early and a good bearer. July and August. Tree upright grower.

Red Astrachan—Medium size, round, dark red on yellow ground; good market sort. Flavor fair. Good for cooking. Tree upright in growth. August.

Red June—Medium size, red; flesh white, tender, juicy, sub-acid; an abundant bearer. July. Tree an upright grower.

Yellow Transparent (Russian)—Skin clear white, changing to pale yellow when fully ripe; flesh white, tender, sprightly sub-acid; good early bearer. July. Tree an upright grower.

Autumn Varieties

King David—A beautiful apple, resembles Jonathan in color. Tree strong, vigorous grower, healthy, bears young. September.

Malden Blush—Large, flat, pale yellow; beautiful blush; mild, sub-acid, valuable for market, cooking and drying. September.

Rambo—Size medium, oblate, skin smooth, yellowish white in the shade; streaked and marbled pale yellow and red in the sun, and speckled with large, rough dots; very tender, rich, juicy, mild, sub-acid. Very good. Tree vigorous. Tender in some localities. September.

Wealthy—Fruit medium, oblate, skin smooth, whitish yellow shaded with deep red in the sun, splashed and spotted in the shade. Flesh white, tender, juicy, sub-acid, very good. August to September. This variety is, in our estimation, destined to take the lead of all other fall apples; it is par-excellence. Should be in every orchard.

Early Winter Varieties

Grimes—Medium to large, roundish, oblate, slightly conical, large specimens oblong. Skin yellowish white, with a mild sub-acid, agreeable good to best flavor. Tree a good grower and early annual bearer. No orchard should omit this variety. September to December.

Jonathan—Medium size, unless thinned on tree, when it becomes a fair size; form roundish conical; skin thin and smooth, the ground clear light yellow, nearly covered with lively red stripes and deepening into brilliant or dark red in the sun; flesh white, rarely a little pinkish; very tender and juicy; mild, sprightly vinous flavor. Tree slender and spreading. September to December.

Talman (Sweet)—Medium or rather large, roundish, oblate, slightly conical. Color clear white yellow with clear brownish line from stem to apex; flesh white, firm, rich, very sweet. Tree vigorous, hardy and productive. October.

Winter Varieties

Arkansas (Mammoth Black Twig)—A seedling of Winesap, which it resembles in every way except that the tree is a better and much more vigorous grower, more hardy, and the fruit is much larger. Color dark red; flesh firm; flavor mild. A good keeper. One of the best. October to May.

Arkansas Black—Large, very dark red, smooth, roundish flat, lightly dotted white; flesh yellow, sub-acid; long keeper. November to April.

Baldwin—A celebrated winter variety in the east. Large size, bright red; flesh yellow, juicy; very productive where it thrives. September to April.

Ben Davis—Large, roundish, oblong, red striped, very handsome. Mild, sub-acid, not rich. Tree very vigorous, hardy and productive. This is one of the safest and most profitable market apples grown in this country at present. October to March.

Black Ben—Of the Ben Davis type, said to be better than Gano. Fruit large, deep red, long keeper, good shipper and sells well on the market. September to February.

Delicious—This variety should be in every orchard. Fruit large, almost covered with beautiful dark red, blending to yellow at the blossom end. Sweet, pleasant flavor, only enough acid to make it pleasing. Flesh crisp, juicy, fine grained, melting. Tree a strong, stiff grower, blooms late. September to February.

Esopus (Spitzenburg)—Large, round, brilliant red, with gray dots. Flesh firm, rich, crisp, juicy, delicious. A fine apple where it succeeds. October.

Gano—Tree very healthy, vigorous, hardy, having stood 32 degrees below zero without injury. A rapid grower, large and spreading in orchard. Color bright red without stripes or blotches. Similar but superior to Ben Davis. Large and even in size. Prolific bearer and a good keeper. October to March.

Ingram—Seedling of Rawles Jennett. Originated with Martin Ingram of Green County, Missouri. Fruit medium in size; dark and light red in stripes. Flesh yellowish white; firm, crisp, very mild, sub-acid, aromatic flavor. Tree upright, vigorous and an abundant bearer. December to May.

Huntsman—Fruit large, flat, deep yellow; very mild, sub-acid, fine grained. Very good. Valuable for family and market. Tree fair grower and good bearer, but does not bear heavily while young. October to April.

Jennett (Rawles)—Medium to large when grown on good soil and not allowed to overbear; flat, conical, striped red, sub-acid; very good for market and family use. Good cider apple. October to April.

(Continued on next page)

WINTER APPLES—Cont'd.

Missouri—Large, oblong; color bright red, with numerous gray dots; very handsome and of fair quality; an early and abundant bearer; profitable market fruit. October to May.

Northern Spy—Fruit large, roundish, oblate, conical; greenish yellow, covered with light and dark stripes of purplish red; sub-acid, delicious flavor. Tree a strong, upright grower. September and October.

Northwestern (Greening)—A Wisconsin seedling of great promise, having taken first prize at their State societies. Tree a good grower and hardy. Fruit yellow, smooth, rich, of good size, resembling Grimes Golden in shape and color. Good quality. November to December.

Stayman—One of the best.

Rome Beauty—Large, roundish flat; bright red, mild, sub-acid, very good. A good grower and early bearer. November to March.

Stayman—Tree is a vigorous grower, drooping in habit and adapts itself to soils and situations; fruit large size, bright red color and produced in large quantities. A profitable market variety. October to March.

Winesap—Medium, conical, dark red; very smooth. Acid to sub-acid, juicy and rich, very valuable for both family and market. Tree very hardy and an early and constant bearer. December to April.

Yellow Belleflower—Large to very large, oblong, pale yellow, sometimes blushed; acid to sub-acid, rich and good. Tree a fine spreading grower and hardy. October to January.

York Imperial—Medium to large, oblate; color white, shaded with crimson; flesh firm, crisp, juicy and sub-acid; a good bearer and keeper; one of the best winter apples. November to April.

Crab Apples

Profitable for market, coming into bearing quite early. Some of the varieties are not only good for culinary purposes, but are especially desirable for table use.

Price, first class, 5 to 6 feet, 11/16 inch and up. . . Each Per 10
\$.50 \$4.00

Florence—Originated in Minnesota. Fruit medium in size; color carmine when well colored; flesh yellowish, fine, acid. Excellent for cooking and for jelly. Valuable for early market. Tree hardy and spreading; bears when young, and inclined to overbear.

Grant—Tree a vigorous and upright grower; fruit large. Color red to very dark red; flesh white, tender, mild sub-acid. One of the best. October.

Hyslop—Large size, beautiful dark crimson. Hangs in clusters. Good. September.

Large Red—About an inch in diameter, grows in clusters. Yellow, lively, scarlet cheek. Bears young and abundantly. September.

Peaches

Carman Peaches
a Standard
Profitable
Variety MORE FRUIT TREES
SHOULD BE
PLANTED

The planting of fruit in all its branches has not kept pace with the increase in population, and in consequence we are now confronted with an extreme shortage. All you need do is to refer to the prices that have been obtained the past summer for fruit of all kinds and you will see that the man that took care of his trees has reaped the reward that he is entitled to.

It is not necessary to stop growing farm crops because you are planting a new orchard; you can grow almost any kind of crops among your young planted trees for at least 3 years and it will be much better for your trees if they receive such extra cultivation. The only crops we do not advocate for young orchards, are Wheat, Oats and Timothy.

The Peach is probably the finest of our fruits, everybody delights in the flavor of a fine, juicy Peach. In this section, select high, dry lands, northern or western exposure preferred.

In order to preserve the continued healthy growth of the trees and the fine quality of the fruit, the trees should have careful and severe pruning at least every two years, so as to preserve a round, vigorous head, with plenty of young wood. The land should not be seeded to grass, but kept in constant cultivation. Fertilize with occasional crops of Cow Peas, Rye or other legume, plowing the crop in while in green state. Wood ashes are a fine fertilizer where it can be obtained. To keep out the borers wash the trunks annually with "Sulfocide," after first removing the earth from around the trunk, during the month of May; let the Sulfocide dry in for several days and then bank up the earth for about six inches above the level of the land; this should be removed during August. For Scale Insects, use "Scalecide" in the fall after leaves have fallen or Lime-Sulphur in the spring.

The following described varieties have been selected after fruiting a great many varieties in our orchards. They furnish a succession for over three months, commencing in early July.

Planted 20 feet apart, it takes 109 trees to plant an acre.

First Ripening

Wheeler—"We have fruited this variety in our experimental orchards and are well pleased with it; we recommend it very highly. Fruit good size, ripens very early; flesh white, juicy; tough skin making it a good shipper. Nearly covered with deep red. You should try some of these."

Alexander—About medium in size; greenish white, nearly covered with deep red. Very juicy, and of good quality. Adheres to the stone.

Mayflower—Originated in North Carolina; very early; color perfectly red; a valuable market sort. Perfectly hardy in bud and a heavy cropper.

Sneed—The earliest peach known; originated in the South, where it has fruited for several years, and, so far, has not failed to ripen eight to ten days before Alexander; and, on account of its earliness, has proven very profitable. Fruit medium size, creamy white, with light blush cheek; excellent quality, resembling its parent, Chinese Cling. Productive.

Arp—"Color flesh yellow. Mottled bright crimson. Excellent flavor, juicy. Free, good grower and productive."

Alton—"An early white freestone, larger than Carman, very sweet and luscious."

Triumph—Early yellow flesh peach; ripens with Alexander, blooms late; sure and abundant bearer; strong vigorous grower. Fruit good size, yellow with red and crimson cheek.

PEACHES—Cont'd.

Second Ripening

Carman—Large, resembles Elberta in shape; color creamy white, with deep blush; skin very tough; flesh tender, fine flavor and quite juicy. One of the hardiest in bud. In shipping qualities and freedom from rot it is unsurpassed. Profitable market variety.

Greensboro—The largest and most beautifully colored of the extra early peaches. A freestone; flesh white, juicy and excellent.

Third Ripening

Belle—Very large; skin white, with red cheek; flesh white, firm and excellent flavor; the fruit is uniformly large and showy; a very prolific bearer.

Champlon—Originated at Nokomis, Ill. Flavor delicious, sweet, rich, juicy, surpassing all other early varieties. Skin creamy white with red cheek. Early, productive and large. Perfect freestone.

Early Crawford—This very beautiful and best of yellow peaches is highly esteemed for market purposes. Fruit very large, oblong, shiny yellow, with fine red cheek; flesh yellow, juicy and excellent. Tree very vigorous and productive.

Mamie Ross (Cling)—Very large, oblong; color similar to Chinese Cling, but has more of a red cheek. With us one of the best early clingstones.

Mountain Rose—Large, white, washed with carmine; flesh tinted pink, juicy, vinous, sub-acid and good flavor. Very good.

Fourth Ripening

Ede—Large to very large; a rich orange yellow; flesh yellow, small stone; melting, rich, highly flavored. Freestone.

J. H. Hale—"Everybody has heard of this variety, ripens about the same time as Elberta, said to be larger and better flavored; highly colored. We have only a limited number to offer this year."

Elberta—Supposed to be a seedling of Chinese Cling, but is entirely free. Very large, yellow, with red cheek; flesh yellow, firm, juicy and of high quality; exceedingly prolific; sure bearer and hardy.

Fitzgerald—Fruit large; brilliant color, bright yellow, suffused with red; flesh deep yellow; good quality. Early September.

Oldmixon Cling—Fruit large, skin yellowish white, with red cheek; flesh pale white, very melting, juicy and rich; highly flavored.

Oldmixon Free—Fruit large, skin pale yellow, marbled with red, with deep red cheek. Flesh white, but quite red at the stone; tender, with an excellent, rich, sugary and vinous flavor.

J. H. Hale Peach

Fifth Ripening

Late Crawford—Ripens from 14 to 20 days later than the Crawford Early, and is larger in size; color about the same, only a little darker red and yellow. One of the best and finest yellow freestone peaches; moderately productive. Ripens here in August.

Golddust—A large, fine peach in every respect; color bright yellow shaded with red; juicy, sweet; valuable for canning.

Picquet—Very large, yellow with red cheek; flesh yellow, rich, sweet and of highest flavor. A most valuable acquisition. The most profitable and desirable of all late yellow peaches.

Stump—Very large, roundish; skin white, with bright red cheek; flesh white, juicy. One of the best late freestones.

Sixth Ripening

Krummel—Found in an orchard on the property of Mr. Krummel of St. Louis. Color a rich golden yellow, with bright red cheek; round, freestone; juicy. Ripens here about October 5th, and is a good keeper.

Salway—Large, creamy yellow, with crimson cheek; flesh deep yellow, juicy, rich, sweet.

Heath Cling—One of the finest canning peaches; good size; lemon shape; tree a good grower and an excellent bearer.

Henrietta—Late yellow cling. One of the well known sorts.

PEARS

There has never been too much good fruit, but there is always an abundance of poor, improperly sprayed fruit on the market on account of neglect in proper spraying.

It is the fruit that has been properly sprayed that commands the highest prices in our American as well as our Foreign markets.

Kieffer Pears

The cultivation of this noble fruit is extending as its value is appreciated. The Pear, like most things highly desirable and valuable, cannot be had without attention, labor and skill. One of the most important points in the management of the pear is to gather them in the proper time. Summer pears should be gathered at least ten days before they are ripe; and August pears at least a fortnight. Winter varieties if they hang so long, may be left until there is danger of frost; gather when on, gently lifting the fruit, the stem will readily separate from the limbs.

Place in a dark room until fully matured. The Pear succeeds on most soils, but probably does better on rather sandy loam. Dwarf pears must always be planted deep enough to cover the junction of pear and quince three or four inches, and about one-half of the previous summer's growth cut off each spring. The side branches should not be removed higher than one foot from the ground in Dwarfs, while Standard Pears may be trimmed to the height desired.

(The letters "D" and "S" appended to the descriptions of varieties indicate favorable growth, either as Dwarfs or Standards, or both.) Plant Standard varieties 20 to 25 feet apart; Dwarfs 10 to 12 feet apart.

(Continued on next page)

PEARS—Cont'd.

Early Varieties

Bartlett (S-D)—One of the most popular pears; large, buttery and melting, with rich flavor. Tree a vigorous and erect grower; bears young and abundantly.

Clapp Favorite (D-S)—Very large, resembling Bartlett in shape; ripening a few days earlier. Pale yellow, with brown dots. Juicy, delicate flavor.

Koonce (S)—Very early; tree vigorous, upright grower; free from blight; magnificent foliage. Fruit medium to large; skin yellow.

Tyson (S)—Rather above medium in size, melting and juicy, sweet and fine flavored; one of the finest summer varieties. Tree vigorous and upright in growth.

Vermont Beauty (S)—Tree a strong, vigorous grower; productive. Fruit medium size, roundish; skin yellow, nearly covered with carmine; flesh melting, sprightly, best quality; fine flavor and juicy.

Autumn Varieties

Barseck (Columbia) (S)—Good size, hardy, vigorous and productive; of highest quality, rich and well flavored; highly colored.

Anjou (S-D)—A large, fine pear, buttery and melting, with sprightly vinous flavor. Tree a vigorous grower and good bearer. Best on quince.

Claireau (S)—Very large, yellow and red. Flesh yellowish. Keeps solid a long time after gathering. Free grower and abundant bearer.

Angouleme (D)—The largest of our good pears; succeeds on pear, but attains its highest perfection on quince, and is a beautiful and vigorous tree. Most profitable for market.

Garber (S)—One of the Japan Hybrids; the best and handsomest of its class. Earlier than Kieffer, larger and much better quality; free from blight; very hardy. Immensely productive, bears young; excellent for canning or preserving.

Flemish (S)—A large, beautiful, melting, sweet pear. Tree vigorous and succeeds well in most parts of the country.

Howell (S-D)—One of the finest American pears. Large, handsome, sweet and melting; tree very vigorous, hardy and productive.

Kieffer (S)—This is a seedling raised from the Chinese Sand Pear crossed with the Bartlett. Skin rather rough. Color yellow, with red cheek in the sun. Flesh white, juicy, buttery

Bartlett Pears

and rich. Tree a very strong, upright grower. Very profitable for market.

Seckel (S)—The standard of excellence in pears. Small but of highest flavor. Tree a strong, slow, erect grower; very hardy and bears abundantly.

Sheldon (S)—Fruit medium; color greenish yellow, mostly covered with russet and a little brownish crimson in the sun. Juicy, rich, aromatic and sweet.

Louise (D)—A large, beautiful, first rate pear. Yellow with a dark red cheek; melting, buttery and rich. Tree a vigorous grower and most abundant bearer.

Worden (S)—Seedling of the Seckel, which it much resembles in flavor; is equally as luscious, more juicy, and fully as rich and inviting. Is far superior in appearance, size, form and color. Color bright red on one side and yellow on the other. Hardy; bears young; prolific; good keeper.

Winter Varieties

Lawrence (S)—Size medium to large; obovate; color a golden yellow; flesh melting, with a rich aromatic flavor. Tree a moderate grower and an abundant bearer.

Cherry

The Cherry is one of the finest and most delicate dessert fruits. The acid varieties are also highly esteemed for preserving and cooking purposes. Although a very perishable fruit, the period of its use may be prolonged to six weeks by a proper selection of varieties. The trees thrive well in any soil which is sufficiently well drained, but will not succeed a long time where the sub-soil is wet.

Our Cherry trees are all budded on Mahaleb stock, which makes a healthy tree, and does not sprout from the roots, which is a nuisance when common Morello stocks are used.

Plant 18 feet each way; 135 trees to the acre.

Bing (Sweet)—Very large, dark brown—almost black; flesh firm, sweet, rich and delicious. A noted western sort. Late.

Tartarian (Sweet)—Very large, black, juicy, rich, excellent; productive.

Dyehouse—A very early and sure bearer. Ripens a week before the Early Richmond.

Large Montmorency—Large, round, slightly heart-shaped; dark red, becoming nearly black when fully ripe.

May Duke—Medium, dark red, melting, rich, juicy, excellent. A reliable early cherry, nearly sweet.

Morello—Fair size, very dark red; rich, acid, juicy, good.

McAtmorency—Large red cherry, ripening ten to fourteen days after Early Richmond. Tree a slow but stiff grower; very profitable bearer; valuable late sour cherry.

Wood (Sweet)—Large, roundish, heart-shaped; light yellow shaded bright red; very good. Tree vigorous and productive.

Napoleon (Sweet)—Of fine appearance and the largest size; yellow and amber, with bright red blush; flesh firm, juicy, delicious. July.

Richmond—Medium size, light red; melting, juicy, sprightly acid flavor. Tree healthy and productive. One of the most popular early cherries.

Wragg—Very hardy, vigorous and productive; medium dark purple; fine quality.

Spanish (Sweet)—Large, pale yellow, firm, juicy and excellent. One of the best light colored cherries. Tree productive and a fine grower.

Montmorency Cherries

PLUM

The Plum tree will accommodate itself to most situations not absolutely wet, but produces its best fruit and most certain crops on heavy, clayey soil.

The great enemy of this, as well as other smooth-skinned fruits, is the curculio, and as a knowledge of a practical remedy for this pest is essential to the raising of good crops, a description of the only method for its destruction yet known is here given.

Shortly after the blossoms fall, and as soon as the presence of the insect is ascertained by his crescent-shaped mark upon the young fruit, procure a sheet large enough to spread over the entire surface of the ground covered by the branches of the trees; slit in the middle part way through to allow it to pass on each side of the trunk; then jar the tree thoroughly either with a heavy mallet upon the stump of a limb, or by shaking suddenly all the larger branches. The insects, which closely resemble pea bugs, or dried buds, will fall upon the sheet and remain dormant for some minutes; gather them up with the thumb and finger and destroy them. This operation repeated every morning for two or three weeks will save the crop. All stung fruit must be carefully destroyed to prevent increase of the insects, and thus render the work of the season comparatively easy. This remedy is sure and far more feasible than is sometimes supposed.

Plant 18 feet apart; 135 trees to the acre.

Foreign Varieties

Arctic—(Moore's Arctic). Small, purplish-black, juicy, sweet; immense bearer: one of the hardiest in bud and bloom. September.

Bradshaw—Large, dark red, flesh green, juicy, productive, fine for market.

Beck (Damson)—A fine freestone variety; habit of growth on the order of Blue Damson, only stronger; fruit as large as Shropshire, heavier cropper.

Damson (Common Blue)—A valuable market sort. It bears enormous crops. Thousands of bushels are annually sold on our markets. It is the best plum for preserving. August and September.

German (Prune)—A large oval variety, much esteemed for drying; color dark purple; a very agreeable flavor.

Lombard—Medium, round, oval, violet-red; juicy, pleasant and good; adheres to the stone. Tree vigorous and productive. A valuable market variety; one of the most hardy and popular. July.

Imperial Gage—Fruit large, oval, skin pale green, flesh juicy, sweet, rich and excellent. Tree very vigorous and productive.

Shropshire—An English variety of great merit for preserving. Tree very vigorous, hardy and an abundant bearer.

Monarch—Tree robust, dense foliage, abundant bearer. Fruit very large, roundish, oval, dark purplish blue. Freestone. September.

Japan or Oriental Varieties

This class of plums and their hybrids are strong-growing trees with light green foliage and attractive bloom, productive and usually commence bearing the third to fourth year after planting. They bloom very early, should be planted on north or west slopes and in sections not subject to late spring frosts.

Black Beauty—A cross between a Japan Plum and Damson, color almost black. Said to be one of the most productive and profitable varieties. Ripens in August.

Botan—Beautiful lemon-yellow ground, nearly overspread with bright cherry. Large to very large; oblong, tapering to a point like the Wild Goose; flesh orange yellow, melting, rich and aromatic. August.

Burbank—Large, nearly globular; clear cherry red, with a thin lilac bloom; flesh a deep yellow, very sweet and agreeable flavor. Hardy; one of the best for both garden and market planting. August.

Gonzales—Probably the finest of all Japan plum, bears young, trees upright in growth, fruit very large, excellent flavor. You should try a few of these, they are fine.

Wickson—A sturdy, upright grower, productive almost to a fault; fruit remarkably handsome, deep maroon; stone small; flesh fine texture, firm, sugary and delicious. Excellent keeper and fine shipper.

Chickasaw Varieties

Newman—Fruit medium, oblong; color bright vermilion. Adhered to the stone. Tree vigorous, foliage smaller than the Wild Goose. In fertility it is truly astonishing; its fruit ripens about August 15th and lasts until September 15th.

Wild Goose—Well known, large, deep red when ripe. Good quality; one of the best native plums; should be in every orchard. July.

Pottawattamie—Quality excellent; an immense early annual bearer; fruit medium size; tree perfectly hardy; a strong, vigorous grower.

Quince

The Quince is hardy and prolific, bearing its crops with great regularity. The fruit always commands a good market, and with most families is considered indispensable for canning and jelly.

The trees or bushes should have a good, rich soil, clean cultivation and an annual dressing of well rotted manure. Thinning out the twigs so as to keep the head open to the sun and air, and removing dead or decaying branches, is all the pruning that is required. Plant 10 feet apart each way; 435 trees to the acre.

Champion—Originated in Connecticut. The tree is a prolific and constant bearer; fruit averaging larger than the Orange but not so high colored; more oval in shape. Quality equally as fine, and a good keeper.

Orange—Fruit large, bright yellow color; a good bearer. The standard variety in quince.

Mulberries - Morus

American—Equal to Downing in fruit, but much hardier. Vigorous grower, very productive; the best variety for fruit; ripe from middle June to middle September.

Russian—Very hardy, vigorous grower; valuable for feeding silk worms, also relished by birds.

Downing—Very large, black, handsome, sweet, rich and excellent.

White—The common variety; valued for feeding silk worms.

Champion Quince

Moorpark Apricots

Persimmon - (American)

The Persimmon makes a very handsome ornamental tree, and is hardy in this section. The fruit, although pungent when green, becomes sweet and palatable if allowed to remain on the tree exposed to the early frosts.

Apricot

There is no fruit more delicious or beautiful than the Apricot, and its ripening between cherries and peaches renders it especially valuable. Its chief enemy is the curculio, which can be kept in check by the method suggested for plums. Plant the same as plums.

Superb—Seedling from Kansas. The best flavored, most productive hardy apricot yet produced. Quality is excellent. Medium size; light salmon color.

Moorpark—One of the largest; color orange-yellow, with red cheek; firm, juicy, with a rich flavor; very productive.

Early Golden—Small size; color pale orange yellow; juicy and sweet; exquisite flavor.

Nut Trees

The growing demand for nuts and the immense quantities imported annually is giving quite an impetus to the planting of nut-bearing trees in America. Many farms contain land that would be far better planted to nut trees than in anything else, and would pay better than farm crops, besides annually growing more valuable as timber. In planting ordinary nut trees we would advise planting the smaller size stock—say one or two year seedlings—for best results.

Chestnut (Japan or Giant)—A dwarf grower. Very distinct from other kinds, the leaf being long and narrow, of a dark green color. A fine ornamental tree in any situation. Commences bearing very young; two-year trees in nursery row frequently produce nuts. Nuts are of good size. The productiveness, early bearing and enormous size render these of great value.

Chestnut (American Sweet)—A valuable native tree, both useful and ornamental; timber very durable and possesses a fine grain for oil finish. Nuts sweet and of delicate flavor, and a valuable article of commerce. No farm should be without a grove of these where the soil is adapted to their growth.

Filberts (European Varieties)—The Filbert succeeds well in all soils where the common Hazel grows; fine for planting along timber belts, ravines, and can also be used in shrubbery groups in parks and large grounds.

Butternut (Juglans Cineria) (White Walnut)—A lofty, spreading tree, it is one of our finest native nut trees, valued for its tropical appearance, its beautiful wood, as well as for the nuts. Produces large, handsome, elongated nuts with rich, sweet, oily kernel; very nutritious. Tree grows rapidly and yields large crops in a few years. A fine tree to plant in the lawn near the house.

Walnut (American Black)—The large, oily nuts are borne in heavy crops. They are much relished and always bring a fair price in market. The tree grows quite fast; its wood is exceedingly valuable.

Walnut (Japan Sieboldi)—From the mountains of Northern Japan. Leaves of immense size; a charming shade of green.

Nuts resemble pecans and are produced in abundance, grow in clusters of ten to fifteen. Shell a little thicker than the English Walnut, but not so thick as the Black Walnut. Meat is sweet, flavored somewhat like a butternut, but less oily. Tree vigorous; handsome form; bears young, and very productive. Perfectly hardy in this section. Valuable as a nut and ornamental tree. Should be planted in all sections. Trees on our grounds are bearing good crops of nuts annually.

Walnut (Juglans Regia) (English Walnuts) **Pomeroy**—An acclimated, rugged variety, perfectly safe to plant throughout the North, wherever the peach tree is grown. Originated near Rochester, N. Y.; the hardiest of all. A fine lofty-growing tree with handsome, spreading head; produces large crops of thin-shelled, delicious nuts which are always in demand at good prices. An exceedingly handsome tree for the lawn. We have arranged with the disseminator to supply us with a limited number of trees for our customers.

Pecans—Hardy Northern grown, budded varieties. Varieties, Appomattox, Indiana, Mantura and Stuart. Orders for these varieties should be placed early so that we can place our order with the grower; we can only book orders as long as stock lasts.

Pecan Seedlings—This species of the Hickory may well rank first among our native nuts in value and cultural importance. It is advisable to plant 1 or 2-year seedlings.

Blackberries

Many kinds of blackberries will succeed, not only on good fruit land, but even on the most sandy, porous soil. They require the same treatment as recommended for raspberries, but in field culture should be planted in rows seven feet apart and three feet distant in the rows; in garden culture, plant rows five feet apart, and three feet distant in the rows. The pruning should be governed by the growth of cane and should be severe. Pinch back the canes in summer when three feet high, causing them to throw out laterals.

When planting 7 by 3 feet it takes 2,078 plants for an acre. When planting 5 by 3 feet apart it takes 2,904 plants for an acre.

Our Blackberry plants are all grown from root cuttings; they are free from disease.

Early Harvest Blackberry

Blowers—Originated in Chautauqua County, New York. Claimed to be the hardiest, most productive and the finest quality of all the blackberries. Large size, jet black, good shipper. We believe this variety has special merit.

Eldorado—Very vigorous and hardy, enduring the winters of the far Northwest without injury, and their yield is enormous. The berries are large, jet black, borne in clusters, and ripen well together; they are very sweet, melting and pleasing to the taste; have no hard core.

Early Harvest—This is one of the earliest blackberries in cultivation; a compact, dwarf grower; fruit medium size and fine quality; an enormous bearer.

Mersereau—A remarkably strong grower, upright, producing stout, stocky canes. An enormous producer of extra size berries, brilliant black, and retain their color under all conditions; extra quality; sweet, rich and melting; without core. Ripens with Snyder.

Snyder—Extremely hardy, enormously productive, medium size, no hard, sour core. Easy to pick, fruit in clusters, mostly on top like raspberries.

Taylor—One of the blackest blackberries grown. Fruit of the best quality, melting and without core; very productive and as hardy as the Snyder, which renders it very valuable. Late.

Dewberries

Lucretia—One of the low-growing, trailing blackberries; in size and quality it equals any of the tall-growing sorts. Perfectly hardy, healthy and remarkably productive, with large, showy flowers. The fruit, which ripens early, is often one and one-half inches long by one inch in diameter; soft, sweet and luscious throughout, with no hard core; ripe before late raspberries are gone. Should be mulched to keep berries from the ground.

Cumberland Raspberry

Raspberries

Will do well on any soil that will produce a good corn crop. Land should be thoroughly prepared and well enriched; ground bone is one of the best fertilizers. Keep well cultivated and free from weeds and suckers. As soon as they have done bearing, cut out the old wood to give vigor to the young canes. Spring is the best season to plant. Plant in rows six feet apart, three feet apart in rows, 2,420 plants to the acre.

Write us for prices on larger quantities.

Purple Sorts

Columbian—An improvement on Shaffer's, which it resembles, but the berry is much firmer, adheres to the bush much longer and retains its shape better, both on the market and for canning. Bush a stronger grower, attaining a very large size. One of the hardiest and wonderfully prolific. Unexcelled for productiveness, and stands at the head for canning, making jam, etc.

Red Sorts

Herbert—In hardiness it easily takes the first place, standing a lower temperature than any other kind. The canes are strong and vigorous, slightly prickly, leaves large and healthy and has never been known to be affected by anthracnose, or disease of any kind. Fruit bright red, somewhat oblong, larger than Cuthbert or Loudon. Flavor very sweet and juicy, the very best for table use. Enormously productive. Holds its size well to the end of the season. Five to six days earlier than Cuthbert.

King—Said by many to be the best early red raspberry. Plant a strong grower, hardy and productive. Berry firm; good shipper; large size; color bright scarlet.

St. Regis—This variety has proven its worth again during the season of 1917, producing fine crops of fruit. Begins to ripen with the earliest and continues to bear on young wood until October. Berries bright crimson, large size, rich sugary raspberry flavor. Flesh firm and meaty, a good shipper. Wonderfully productive, the first or main crop equalling any red variety known. Canes stocky, of strong growth, with abundant dark green leathery foliage. Try it.

Black Sorts

Cumberland—The largest of all black caps. A healthy, vigorous grower, throwing up stout, stocky well branched canes that produce immense crops of magnificent berries. Fruit very large, firm, quality about the same as Gregg; keeps and ships well as any of the blacks. The most profitable market variety.

Kansas—A strong, vigorous grower, standing extremes of drought and cold and bearing immense crops. Early, ripening just after Souhegan. Berries size of Gregg, of better color; jet black and almost free from bloom; firm, of best quality; presents a handsome appearance and brings highest price in market.

Plum Farmer—An early market variety. Fruit matures in a very short period. The berries are thick-meat, firm, with a bloom similar to Gregg. Berry large and very attractive when picked.

Yellow Sorts

Golden Queen—Large, beautiful fruits of a pale amber color; firm and delicious. The canes are hardy; of strong growth and very productive. A superior dessert fruit. Succeeds in all sections.

Gooseberries

Can not be shipped to states west of Iowa, Missouri and Arkansas, or to Minnesota, account embargo.

This fruit requires the same cultivation as the currant. The surest method to prevent mildew is to plant thickly in the rows and mulch deeply six or more inches with straw, tan bark, coal ashes, etc. Plantations thus treated have borne large crops for twenty years. The mulch retains moisture in the driest weather; the few weeds that push up are easily pulled, and the fruit is large and more evenly ripened. In mulching be sure that the ground is underdrained, or it is worse than useless. Good cultivating is better than half mulching. Put it on thick. In a dry season the extra amount of fruit will double pay for the material used, not to speak of the saving of labor and cleanliness of the fruit. The price is remunerative, and the demand is yearly increasing. The American varieties are not subject to mildew. To prevent mildew, spray the bushes as soon as the leaves appear in the spring, and several times during the summer, with potassium sulphide (liver of sulphur), one ounce to four gallons of water.

Plant in rows five feet apart, and the plants three feet apart in the rows—2,904 plants to the acre. Write for prices on larger quantities than quoted.

Downing—Size medium to large, oval, greenish white; plants vigorous, upright, very productive; never mildews.

Houghton—A vigorous grower; very productive; not subject to mildew. Flesh tender and very good. Red when ripe.

Josselyn (Red Jacket)—Large berry, smooth; very prolific and hardy; quality and foliage is the best.

Downing Gooseberries

Currants

Can not be shipped to states west of Iowa, Missouri and Arkansas, or to Minnesota, account embargo.

Currants should be planted in good, very fertile soil, with liberal manuring, and the tops should be cut back nearly to the crown, allowing only three or four canes to grow the first year. Prune more or less every year to get rid of old wood and keep the bushes open. Currant worms can be destroyed by white hellebore, one ounce to three gallons of water, and applied with a sprinkling can. Be sure to use the remedy as soon as, or before, the worms appear. Plant the same as Gooseberries.

Champion—Very productive, large bunch and berry; excellent quality; strong grower. The leading, well tested black sort.

Cherry—Very popular in market and brings several cents more per quart than any other old variety.

Fay—The best currant yet introduced; berries are large, uniform in size, with long stems, good flavor, and is very productive and easy to pick.

London—Largely planted in Michigan and regarded there as one of the best market varieties. Plant is extremely vigorous, with perfect foliage, which it retains through the season; an enormous cropper; ripens with Victoria; is large in bunch and berry.

Perfection—The color is a beautiful bright red. Size as large or larger than Fay, the clusters averaging longer. The Perfection has a long stem from the point of attachment to the bush to the first berry, making it easy to pick without crushing any of the berries. It is a great bearer, and on account of its great productiveness the plants should be kept well cultivated and fertilized, as should all heavy bearers. The Perfection ripens about the same time as the Fay. Quality rich, mild, sub-acid; plenty of pulp, with few seeds. Received the "Barry Medal" in July, 1901, the highest award given to any new fruit at the Pan-American Exposition. The Gold Medal was awarded this currant at the Louisiana Purchase Exposition in 1904.

Red Dutch—An old variety, excellent and well known as the stand-by variety.

Versailles—Very large, red; bunch long, of great beauty and excellent quality; one of the best and finest; should be in every collection.

Wilder—Introducer says: "Wilder will make twice as much wood as will Fay's Prolific, while setting as large fruit with double and triple the quantity; combines more good qualities than any red currant he has ever fruited." It is large, very productive, sweet and hangs a long time on the bushes in fine condition after fully ripe.

White Grape—An excellent and well known sort.

Grapes

Concord Grapes

There is scarcely a yard so small, either in country or city, that room for one to a dozen or more grape vines cannot be found. They do admirably trained up to the side of any building, or along the garden fence, occupying but little room and furnishing an abundance of the healthiest fruit. Make the soil mellow, and plant the vines somewhat deeper than they stood in the nursery. Plant about eight feet apart, along the fence or building. For vineyard purposes make rows eight feet apart, six feet in rows. To plant an acre, 6 to 8 feet, requires 908 plants. Write us for prices on larger quantities.

Black or Blue Sorts

Campbell—The wonderful new seedling of the distinguished horticulturist, George W. Campbell, of Ohio. Vine healthy, hardy, vigorous, and a profuse bearer; bunch and berry large and handsome; quality A1; ripens with Moore's Early, but keeps either on the vine or in the house for weeks. A very great acquisition.

Concord—The old stand-by. A large, purplish black grape; vines remarkably hardy, vigorous and productive. Very popular; best market sort.

Moore—Bunch medium, berry large, round, with heavy bloom; vine exceedingly hardy, entirely exempt from mildew or disease. Its earliness makes it desirable for an early market. Two weeks earlier than Concord.

Worden—A splendid large grape, of the Concord type, but earlier, and in every way as healthy. Quality good to best.

Red or Amber Sorts

Agawam (Rogers' No. 15)—Berries very large, with thick skin; pulp soft, sweet and sprightly; very vigorous; ripens early.

Brighton—Bunch large, well formed; berries above medium to large, round; excellent flavor and quality; one of the earliest in ripening.

Strawberry

Owing to labor conditions the last year or two, we decided to discontinue the growing of Strawberry Plants until conditions change. We will, therefore, not have any to offer for the year 1920.

GRAPES—Continued

Catawba—Bunches of good size, rather loose; berries large, round; when fully ripe of a dark copper color, with a sweet, rich musky flavor.

Delaware—Bunches small, compact, shouldered; berries rather small, round; skin thin, light red; flesh very juicy, without any hard pulp, with an exceedingly sweet, spicy and delicious flavor.

Woodruff—A large, handsome, red grape, supposed to be a seedling of Concord; remarkably showy, very large bunch and profitable market sort. The vine is a strong grower, with healthy foliage and entirely hardy; ripens early.

White Sorts

Diamond—Grape from Concord seed, fertilized with Iona. In vigor of growth, color and texture of foliage and hardness of vine it partakes of the nature of its parent Concord, while in quality the fruit is equal to many of the best tender sorts, and ripens two weeks earlier than the Concord.

Niagara—Vine remarkably hardy, strong grower; bunches very large and compact, sometimes shouldered; berries large; light greenish white; semi-transparent, slightly ambered in the sun; skin thin but tough, and does not crack; quality good; very little pulp, melting and sweet to the center.

Rhubarb or Pie Plant

This deserves to be ranked among the best early fruits of the garden. It affords the earliest material for pies and tarts, continues long in use and is valuable for canning. Make the bed very rich and deep. Plant in rows four feet apart and the plants three feet distant. Set the roots so that the crowns are about an inch below the surface.

Linnaeus—Large, early, tender and fine; the very best of all.

Asparagus

For garden culture dig a trench 18 inches wide and 12 inches deep, trenches 4 feet apart; fill in some well rotted manure in bottom of trench; then cover same with top soil about 2 inches. Plant on top of that, 18 inches apart in the row, and only cover the plant about 2 inches with good, fine soil, filling in the balance by degrees as the plant grows up. Give them a top dressing of manure annually, early in spring after loosening the beds on top by forking them over.

Write us for prices on larger quantities.

If wanted by parcel post add 15c for 25 plants, 50c for 100 plants, 1,000 lots should be sent by Express or Freight.

Columbian—It produces shoots which are white and remain so as long as fit for use. In addition to the marvelous advantage of its white color, the Columbian Mammoth White Asparagus is even more robust and vigorous in habit, and throws larger shoots and fully as many of them as the Conover's Colossal.

Conover—A mammoth variety of vigorous growth, an old and well tried sort; very popular.

Argenteuil—A fine and profitable variety; stalks mammoth in size; attractive color, sweet and tender; an immense yielder and very early.

Palmetto—Of Southern origin. It is earlier, a better yielder, more even and regular in its growth, and in quality equal to that old favorite, Conover's Colossal.

We are the Western Distributing Agents for the B. G. Pratt Company, New York, for "Scalecide" and "Sulfocide," write us for prices and literature.

We are agents for Deming Spray Pumps, send for Catalogue and Price List.

Write us for prices on Cal-Arsenate, Arsenate of Lead, Bordeaux and Nicotine 40%.

ORNAMENTAL DEPARTMENT

Landscaping

While we do not undertake Landscape work ourselves, we have connection with a number of competent Landscape Architects to look after this part of the work.

Our business is the growing and supplying of trees and plants of all kinds described in our catalogue for Landscape work.

If you are contemplating any Landscape work write us giving description of what is desired and we will be pleased to refer you to someone who can take care of your proposition and make estimate of cost, etc.

A few dollars spent for trees and shrubs to improve your property will increase its value far more than the expenditure.

Brief Suggestions to Planters

What to Plant—Impressed with the importance of planting only the most hardy ornamental trees and shrubs, and in order that our patrons may be spared much disappointment and expense, we have, as far as possible, omitted from our catalogue anything that is liable to suffer from severe cold. We have with great pains secured, both at home and abroad, all valuable hardy material, so as to render our assortment of this class as complete as possible. An examination of this catalogue shows what an extensive variety of stock is offered, enabling the planter, by a judicious use of the same, to accomplish any desired result with perfectly hardy trees, shrubs and plants. For convenience we have grouped the trees under the following heads: Deciduous Trees, Weeping Deciduous Trees, Ornamental Shrubs, Vines and Climbers, Hedge Plants, Roses (Hybrid Perpetual, Everblooming, Climbing, Trailing, etc.), Evergreen Shrubs, Perennials, Hardy Bulbs, Tender Bulbs and Greenhouse Plants.

For Parks and Extensive Grounds—No difficulty can be experienced by anyone in making selections for this purpose. But we cannot impress too strongly the importance and value of flowering shrubs for effective masses and groups. There are many who imagine that Rhododendrons and Azalea are indispensable. This is a great error. In this latitude both Rhododendrons and Azaleas require prepared soil and protection while hardy shrubs like the Weigela, Deutzia, Spiraea, Hardy Hydrangea, Japan Quince, Double-Flowering Almonds, Lilac, Snowball, Althea, Paeony, Phlox and Japan Anemone, when planted in masses, produce a magnificent effect, need no protection and demand little skill or care in their management. What grand masses of bloom can be had throughout the season by the proper

use of the various families. Then the purple and variegated-leaved trees and shrubs may also be planted in such a manner as to afford a rich and striking contrast. Groups of flowering trees form superb objects at the blossoming season, and it is strange that planters do not employ them more.

Highly effective groups can be formed of trees and shrubs possessing bright colored bark in winter.

For Lawns and Small Places—Whatever specimens are planted should be of the finest species, of moderate size, of graceful habit of growth and handsome foliage. A pendulous tree or one with variegated foliage may be occasionally introduced and will add to the beauty of the grounds. Depend mainly upon dwarf shrubs for small places, and in selecting, aim at securing a succession of bloom. Dwarf evergreens are very useful, and in small grounds hardy herbaceous border plants can be used with the most satisfactory results. A proper selection will afford as much bloom as ordinary bedding plants, and at half the trouble and expense.

(Continued on next page)

Brief Suggestions to Planters

When to Plant—Deciduous Trees, Shrubs and Vines can be planted either in Spring or Fall. Spring is the best time for Evergreens generally.

How to Plant—Preparation of the Roots: Cut off smoothly all bruised or broken roots up to the sound wood; this prevents their decaying and hastens the emission of new roots and fibers.

Preparation of the Top—This consists in cutting back the top and side branches in such a way as to correspond with the more or less mutilated roots, as follows:

Trees with branching heads should have the small branches cut clean out, and the larger ones, intended for the frame-work of the tree, cut back till within two or three buds of their base. In cases where there is an abundant root, and small top or few branches, the pruning need be very light; but where the roots are small and the top heavy, severe pruning will be necessary. These remarks are applicable to all Deciduous Trees and Shrubs. Evergreens seldom require pruning, but Arborvitae and other Evergreens planted in hedge rows may be advantageously shorn immediately after planting.

Pruning—As practiced by some people, has the effect to render trees and shrubs unnatural and inelegant. We refer to the custom of shearing trees, particularly Evergreens, into cones, pyramids and other unnatural shapes. Every tree, shrub and plant has a habit of growth peculiar to itself, and this very peculiarity is one of its beauties. If we prune all trees into regular shapes we destroy their identity. The pruning knife, therefore, should be used to assist nature, and handled with judgment and care; to top off straggling branches, to thin the head of a tree

which sometimes becomes too dense, and to remove dead wood. Sometimes it becomes necessary to prune severely to keep a tree from attaining too great size.

Shearing may be practiced on hedges, but never on trees or shrubs.

Pruning Shrubs—Many persons train and shear them into regular shapes, imagining that regular outline adds to their effect and beauty. While symmetry and regularity of outline are to be admired in a shrub, this quality should never be gained at the expense of health and natural grace. Each shrub has its peculiarities of habit and foliage, and we should aim to preserve them as far as possible. Judicious pruning to secure health and vigor is necessary, but trimming all kinds of shrubs into any one form shows a lack of appreciation for natural beauty, to say the least. Weigelas, Deutzias, Forsythia and Mock Orange flower on the wood of the previous season's growth, hence these shrubs should not be pruned in winter or spring, but in June, after they have finished flowering, when the old wood should be shortened or cut out, thus promoting the growth of the young wood which is to flower the following season.

Spireas, Lilac, Altheas and Honeysuckles may be trimmed during the winter or early in the spring, but the branches should only be reduced enough to keep them in good shape. The old growth should be occasionally thinned out and the suckers and roots sprouts removed when they appear. The best time, however, for pruning all shrubs is when they have done flowering.

The Hydrangea Paniculata Grandiflora should be severely cut back and thinned early in spring.

Deciduous Ornamental Trees

Classification of Ornamental Trees.

For the convenience of purchasers we have classified the various ornamental trees as follows:

Pruning Evergreens—Use the knife occasionally to thicken the growth and preserve the shape. This can be done in April or May, just before the trees start to grow.

Large specimen trees are planted with less risk when dug with ball of earth. We make extra charge for this, but where it is possible to do so, it well repays the extra expense.

Class I—Trees Suitable for Street and Avenue Planting:

Acer Dasyarpum (Silver Leaved Maple).
Acer Platanoides (Norway Maple).
Acer Saccharinum (Sugar Maple).
Ailanthus Glandulosa (Tree of Heaven).
Celtis Occidentalis (Hackberry or Nettle Tree).
Fraxinus Alba (White Ash).
Liriodendron (Tulip Tree).
Platanus Occidentalis (American Sycamore).
Platanus Orientalis (European Sycamore).
Populus Fastigiata (Lombardy Poplar).
Populus Monolifera (Carolina Poplar).
Populus Nigra (Grecian Poplar).
Quercus Palustris (Pin Oak).
Quercus Rubra (Red Oak).
Salisburia (Maiden Hair).
Tilia Americana (American Linden).
Tilia Europaea (European Linden).
Tilia Platyphyllos (Large Leaved European Linden).
Ulmus Americana (American Elm).

Class II—Trees with Cut or Lanceolated Foliage:

Acer var. Weirii Laciniatum (Wier's cut-leaved Maple).
Acer Polymorphum (Japan Maple).
Acer Polymorphum Atropurpureum (Purple Japan Maple).
Acer Polymorphum Atropurpureum Dissectum (Purple cut-leaved Japan Maple).
Alnus Glutinosa var. Laciniata Imperialis (Imperial cut-leaved Alder).
Betula Alba var. Lacinata Pendula (Cut-leaved Weeping Birch).
Sorbus Quercifolia (Oak-leaved Mountain Ash).

Class III—Trees with Colored Foliage:

Acer Platanoides var. Reitenbachii (Reitenbach's Maple).
Purple foliage in fall.
Acer Platanoides var. Schwedlerii (Schwedler's Maple).
Purple foliage in spring.
Acer Polymorphum var. Atropurpureum (Japan Maple).
Purple foliage.

Acer Polymorphum var. Atropurpureum Dissectum (Japan Maple). Purple foliage.
Betula Alba var. Atropurpurea (Birch). Purple foliage.
Fagus Sylvatica var. Purpurea Major (Beech). Purple foliage.
Fagus Sylvatica var. Purpurea Riversii (Beech). Purple foliage.
Prunus Pissardi (Plum). Purple foliage.
Populus Canadensis var. Aurea Van Geertii (Poplar). Yellow foliage.
Populus Alba Bolleana (Poplar). Silver foliage.
Quercus Robur Pedunculata var. Concordia (Oak). Yellow foliage.
Salix Regalis (Silver Willow). Silver foliage.

Class IV—Trees Producing Conspicuous Flowers:

Aesculus (Horse Chestnut).
Aralia (Angelica Tree).
Catalpa Kaempferii and Speciosa.
Cercis (Red Bud).
Chionanthus (White Fringe).
Cornus (White and Red Flowering Dogwood).
Crataegus (Thorn). White and Scarlet Flowering.
Cytisus (Golden Chain).
Halesia (Silver Bell).
Koelreuteria (Varnish Tree).
Liriodendron (Tulip Tree).
Magnolia, in variety.
Persica (Peach). Double Flowering.
Prunus Friloba (Plum). Double Flowering.
Prunus Padus (Bird Cherry).
Pyrus (Crab) in variety.

Class V—Weeping Trees. See Weeping Trees in this Catalog.

For descriptions, see under proper headings in this catalog.

For sizes larger or smaller than quoted herein, write us. We frequently have specimen stock of certain varieties and always have younger or smaller stock than we quote. Describe the class of stock desired and we will quote on such as we can supply.

In order to make it easier for planter to select trees for particular purposes, we have adopted letters to denote the various classes, as follows:

T—Denotes trees that attain a height of 50 feet and over at maturity.

M—Denotes trees that attain a height of 25 to 40 feet at maturity.

S—Denotes trees that attain a height of 8 to 15 feet at maturity.

D—Denotes trees that attain a height of 2 to 8 feet at maturity.

Large Government Contract

During the winter of 1918 we were awarded one of the largest contracts for Nursery Stock that has probably ever been awarded to a Nursery in the Central States.

This contract was for the United States Housing Corporation, for work at Davenport, Iowa, and Rock Island, Ill.

This contract called for over 30,000 Ornamental Shade Trees, Shrubs, Vines and Roses.

It took seven cars to load this stock, deliveries were made on time and we were complimented upon the manner in which we handled this order.

Our firm was the only one of the bidders that would bid on the entire contract.

We make a specialty of filling large orders for Parks, Cemeteries and Public Works.

Japanese Maple

Norway Maple

DECIDUOUS TREES

Nomenclature

The names of Trees, Shrubs, Perennials, etc., published in this Catalogue are in accordance with the recommendations adopted by the American Joint Committee on Horticultural Nomenclature, representing the American Association of Nurserymen, Ornamental Growers' Association, American Society of Landscape Architects, American Pharmaceutical Association, American Association of Park Superintendents.

ACER-MAPLE

A. negundo. (Ash Leaved Maple or Box Elder.) M.—A fine rapid-growing variety, with handsome, light green foliage and spreading head; very hardy; desirable for street planting and succeeds in many sections where other varieties do not thrive.

A. platanoides. (Norway.) T.—A native of Europe. Its large, compact habit, broad, deep green shining foliage, render it one of the most desirable species for streets, parks and lawns.

A. platanoides var. *Schwedleri.* (Purple Norway Maple.) M.—The beautiful leaves attract attention at all seasons, but are especially fine in spring, when their gleaming red and purple contrasts brightly with the delicate green of other trees. In mid-summer they are purplish green in autumn golden yellow.

A. saccharinum. (Silver Leaved) T.—A hardy rapid growing native tree of large size, valuable for producing a quick shade. Excellent for street planting. Our stock of these is very large in all sizes.

A. saccharinum var. *pyramidalis.* (Pyramidal Silver Maple.) T.—Grows in perfect pyramidal shape on the order of the Lombardy Poplar; the best of the pyramidal-growing trees. We recommend it very highly for Avenue planting; also for making screens. Our trees are low branched.

A. saccharinum var. *Wierii.* (Wier's Cut-leaved Silver Maple.) T.—One of the best cut or dissected-leaved trees, being of rapid growth it soon produces an effect. Young shoots slender and drooping.

A. saccharum (Sugar.) T.—A very popular American tree, and for its stately form and fine foliage justly ranked among the very best, both for lawn and avenue.

JAPANESE MAPLE

A. palmatum atropurpureum. (Purple-leaved Japan Maple.) D.—Forms a bushy shrub; foliage dark purple and deeply cut; very ornamental. The hardest and altogether the best of the Japan Maples.

We have discontinued all other varieties of Japan Maple, as the above is the best and only one that is satisfactory in this section.

AESCULUS—Chestnut

A. hippocastanum (Horse). T.—This magnificent, large sized tree has no superior on the lawn. In the spring it is profusely covered with panicles of white flowers dotted with red.

A. hippocastanum alba plena. (Double White Flowering Horse Chestnut.) T.—A splendid variety, with double white flowers in large panicles, and of fine pyramidal growth. This variety bears no nuts to litter the lawn and is highly recommended on that account. One of the best ornamental trees.

A. carnea rubicunda. (Double Red-flowering Horse Chestnut.) M.—Flowers showy red. One of the most valuable lawn trees. Forms a round head and leaves are of a deeper green than the white flowering sort.

ALNUS—Alder

A. glutinosa (European or Common Alder). M.—Foliage roundish, wedge-shaped; growth rapid.

AMYGDALUS—Almond and Peach

Amygdalus. (Almond Double-flowering.)—See Deciduous Shrubs.

A. Persica. (Double-flowering Peach.) S.—Very ornamental. Flowers pure white and double; superb.

A. Persica rubra. (Double red-flowering Peach.) S.—Flowers semi-double, bright red, fine.

A. triloba. (Double-flowering Plum.) D.—A beautiful small tree or shrub of fine habit, with elegant, double, rosy flowers, set very closely on slender branches.

ARALIA—Angelica Tree

Very ornamental foliage, small tree, adapted to a variety of soils, but thriving best in well-drained situations. The immense, finely divided foliage, large, showy heads of white flowers, followed by the showy-colored seed clusters, render them very effective. As lawn plants or for use in sub-tropical effects they will be found very useful.

A. spinosa (Hercules Club). S.—A very showy sort, yet which produces suckers quite freely. Immense clusters of small, white flowers in July.

A. pentaphylla. See *Acanthopanax*, Deciduous Shrubs.

BETULA—Birch

The various varieties of Birches are considered among the most graceful of the deciduous trees, and are almost indispensable in producing decorative effects. The various barks are always attractive.

B. alba (European White Birch). T.—Of which Coleridge says: "Most beautiful of forest trees, the lady of the woods."

We have some large specimen trees that should be dug with ball of earth. Prices on application.

B. alba laciniata pendula. (Weeping Cut-leaved Birch.) See Weeping Trees.

B. nigra (Black or Red Birch).—A moisture-loving, graceful tree; with numerous slender branches and torn and rugged bark.

B. papyrifera. (Paper or Canoe Birch.) T.—Native of America, makes a large tree, foliage large and handsome, bark brilliant white.

B. populifolia. (American White Birch.) M.—An American species, with triangular taper-pointed, smooth, glossy leaves. Rapid grower.

CARAGANA—Pea Tree

C. Siberica. D.—A handsome dwarf tree with bright yellow flowers in May and June.

CASTANEA—Chestnut

See Nut Trees.

CATALPA—Indian Bean

C. bignonioides nana. (Chinese Catalpa.) (Bungei.) D.—A small species that grows 8 to 10 feet high, as broad, forming a great bush clothed with a dense mass, heart-shaped leaves. Among our hardy shrubs there are but few, if any, that are more effective as foliage plants for park or lawn. When grafted on a stalk of one of the tree species 5 or 6 feet high it makes a handsome standard tree, with a very dense and symmetrical globular head.

C. speciosa. (Western.) T.—One of the most rapid growers. Large heart-shaped, downy leaves, and compound panicles of white flowers, tinged with violet and dotted with purple and yellow.

This is one of the most valuable of timber trees, valuable for lumber, tie and fence posts. Every farm should have from one to five acres in timber belt of this valuable tree.

CELTIS—Hackberry or Nettle Tree

C. occidentalis. M.—A native tree that deserves more general planting. Leaves are light green, glossy, pointed. Not subject to insect pests. Branches are slender and grow horizontally, forming a wide-shaped head. Thrives in all soils.

Select specimens from 3 to 5 inches in diameter. Prices quoted upon application.

CERASUS—Cherry

See Prunus.

Aesculus Horse Chestnut**CERCIS—Red Bud**

C. canadensis. (American Judas.) M.—A small tree of irregular rounded form, with pretty foliage, and very showy when in bloom; the branches and twigs are covered with a dense mass of small pink flowers in the fifth month before the leaves expand.

CHIONANTHUS—White Fringe

C. virginica. S.—A small native tree, with ash-like leaves and clusters of snow-white flowers, resembling an elegant fringe.

CORNUS—Dogwood

C. florida. (White Flowering.) M.—An American species, of spreading irregular form, growing from 16 to 20 feet high. The flowers are produced in spring before the leaves appear; they are white and very showy. Popular.

C. florida rubra. (Red Flowering.) M.—Recently introduced. A variety producing flowers suffused with bright red; blooms when quite young. One of the finest flowering trees.

CRATAEGUS—Thorn

C. coccinea. (Scarlet-fruited Thorn.) M.—A fine native variety. Single white flowers in spring, scarlet fruit in autumn.

C. crus-galli. (Cockspur Thorn.) S.—A well known native thorn; has long sharp spines or thorns; fruit bright red; valuable for hedging.

C. oxycantha var. *alba plena*. (Double White Thorn.) S.—Has small double white flowers. A highly ornamental variety, on account of both foliage and flowers. Makes a striking contrast when planted with the double scarlet.

C. oxycantha var. *Paulii*. (Paul's Double Scarlet Thorn.) S.—Flowers bright carmine red. Superior to any of its color.

CYTISUS—Golden Chain

See Laburnum.

EUONYMUS—Spindle Tree

See Deciduous Shrubs.

FRAXINUS—Ash

A class of large, ornamental trees, adapted to a great variety of soils. Of quite rapid growth and possessing many desirable characters for lawn, street and park planting.

F. americana. (American White.) M.—A rapid growing native tree, valuable for planting along streets or in parks; may be extensively planted for timber; largely used in the manufacture of agricultural implements.

F. lanceolata. (Viridis) (Green Ash.) M.—A pretty tree of medium size, with leaves plain green on both sides.

For Weeping Ash—See Weeping Trees.

For Mountain and Oak-Leaved Ash—See Sorbus—Deciduous Trees.

American White Birch**GINKGO—(Salisburia) (Maiden Hair Tree)**

G. biloba. T.—A native of China and Japan, forming a medium or large tree; leaves fan-shaped. Tree of a rapid growth and belonging to the Conifera.

The Ginkgo being a hard tree to transplant, we advise digging with ball the same as with evergreens. The cost of balling, burlapping and delivering will be extra, according to size of tree wanted.

GYMNOCLADUS—Kentucky Coffee Tree

G. dioica. (Canadensis.) M.—A strikingly ornamental, irregular, open-topped tree, with peculiar rough-barked and twigless branches and immense, broad, double-compound foliage of a peculiar bluish-green color. The flowers are white, in open racemes, followed by immense long, brown pods. A picturesque and desirable tree.

HALESIA—Silver Bell

Brown light green foliage, dense growing trees of small size and well adapted for lawn culture and grouping with other plants. Their chaste, pure white flowers are produced in abundance along the entire length of the branches as the leaves appear in the spring, and give a very charming picture. Best grown in well-drained soil in somewhat sheltered position.

H. tetraptera. (Carolina.) S.—The hardiest species. Very choice.

JUGLANS—Walnut

See Nut Trees.

KOELREUTERIA—Varnish Tree

K. paniculata. M.—A charming small tree, a native of China, with glossy, divided foliage and large terminal panicles of showy golden-yellow flowers in July, followed by curious bladder seed-vessels. Its pleasingly colored foliage and neat habit of growth, with its showy flowers, render it a very desirable lawn tree.

LIQUIDAMBER—Sweet Gum

L. styraciflua. T.—A large native tree, with rough, corky bark and shining, deep lobed, star-shaped leaves, changing to deep crimson in the autumn.

The Gum, like the Tulip and Birch, are hard trees to transplant; we recommend digging the larger sizes with ball and burlapping. We charge extra for this work, according to size tree. We will have some large specimen trees to offer for spring delivery. If interested, write for prices.

Catalpa Speciosa**MAGNOLIA**

M. accuminata. (Cucumber Tree.) T.—A beautiful and symmetrical tall tree, with large leaves; excellent for lawns and avenues.

M. glauca. (Sweet Bay or Swamp Magnolia.) S.—When planted in moist soil this makes a handsome tree of medium size. Its leaves are glossy, laurel-like, almost evergreen. In June its pure white flower-cups are lovely and grand.

MAGNOLIA—Chinese Species and Their Hybrids

On account of the Federal Horticultural Board, Washington, D. C., having placed an embargo on almost all of our imported trees, we will be unable to supply our customers with this beautiful tree; which has been so much admired wherever seen in bloom.

LIRIODENDRON—Tulip Tree

L. tulipifera. T.—One of our very largest native trees, with large, smooth, shining leaves, greenish-yellow flowers and an umbrageous head.

The Tulip, like the Gum and Birch, are hard trees to transplant; we recommend digging the larger sizes with ball and burlapping. We charge extra for this work, according to size tree. We have some large specimen trees to offer for spring delivery. If interested, write us for prices.

MALUS—Crab

M. ioensis. (Bechtel's Double Flowering Crab.) S.—The beauty and delicate fragrance of the bloom of the sweet-scented crab is a theme for poets and this new variety is a gem among hardy plants. The flowers are sometimes mistaken for small pink roses, and the perfume tends to increase rather than correct the delusion.

M. floribunda. (Single-Flowering Crab.) S.—Flowers beautiful carmine in bud; white when open; May. Fruit very ornamental in autumn.

M. floribunda atrosanguinea. (Red-Flowering Crab.) S.—Flowers crimson, in great profusion. A very fine variety.

M. Halliana Parkmanii. (Parkman's Crab.) S.—Dwarf habit, foliage dark green, hangs on late. Flowers very double, drooping, dark rose, retaining their color until flowers drop. A very fine variety.

M. Schneideckerli.—A new variety on which we have been unable to get description.

M. Nedwetzkiana.—Another new variety on which we have been unable to get description.

Quercus Alba—White Oak**PERSICA—Peach**

See Amygdalus under Deciduous Trees.

PLATANUS—Sycamore or Plane

The Sycamore is probably the hardiest of all street trees for our larger cities. It can stand more abuse than any other tree we know of, is not affected with many of the injurious insect pests that infect other varieties of trees, it can stand the smoke and gases better than can most other ornamental street trees. We recommend the Sycamore for general planting in large cities, manufacturing cities and cities lying along rivers on lowlands where the other finer trees would stand very little chance of surviving for any length of time.

P. occidentalis. (American Plane.) T. A tree of the largest size, growing rapidly, very ornamental and entirely hardy. Fine for street planting.

P. orientalis. (European Plane.) T. A lofty, wide-spreading tree; large five-lobed leaves; valuable for its handsome foliage and free growth; makes an excellent street tree.

This is undoubtedly the best variety of the Sycamores for general street planting, on account of its more compact growth than the American variety. Holds its foliage later in the fall. We do not recommend it, however, for low-lying cities, such as East St. Louis, Ill. The variety (Occidentalis) is best for such locations.

We have probably the largest stock of Oriental Planes in the West.

POPULUS—Poplar

P. nigra italica. (Lombardy Poplar) (Lombardy). T.—This grows to an immense height, and is remarkable for its columnar growth. In landscape work breaks the monotony of the lower, round-topped trees. One of the characteristic trees of Lombardy and other parts of Italy.

We have over 30,000 of the above variety growing in our Nurseries, enough trees to plant a row 60 miles long.

See cover page what can be done with this most valuable tree in Landscape Gardening.

P. deltoides monilifera. (Carolina Poplar) (Carolina). M.—A vigorous, healthy native tree of rapid growth, pyramid in form, with large, glossy leaves; valuable for park or street planting.

We have some large size trees of the above variety that will caliper 4 to 7 inches for immediate effect; if interested write us for prices and state number you could use.

P. alba pyramidalis. (Belleana) (Silver). M.—New pyramidal form, leaves dark green on upper side, brilliant silver underneath. Very beautiful.

P. canadensis var. geerti. (Golden.) M.—The golden yellow foliage, retaining its brilliancy throughout the season.

P. nigra var. graeca. (Grecian.) M.—Leaves roundish cordate, with a short, sharp point, and small, somewhat regular teeth, smooth on both sides; tree spreading, much more so than P. Deltoides Monilifera, and we think longer-lived. A very pretty Poplar for street planting.

Platanus orientalis (European Sycamore) used for Street Planting**PRUNUS—Plum, Cherry**

Comprises the genus Cerasus (Cherry) and Prunus (Plum). These contain many beautiful flowering and bright foliaged varieties.

P. avium alba plena. (Double-flowering Cherry) (Cerasus). M.—The doublewhite flowers, like little roses, cover the tree completely.

P. cerasifera Pissardii. (Purple-leaved Plum.) S.—A very remarkable and beautiful tree with black bark and dark purple leaves, remaining so until late in the fall.

P. Cerasus Rhexii (Flowering Cherry). S.—A fine double white flowering variety, a profuse bloomer, flowers rose-like.

P. padus. (Bird Cherry.) M.—A rapid-growing, beautiful tree, with glossy foliage and long bunches of white, fragrant flowers in May, succeeded with fruit like black currant.

P. serotina (Wild Black Cherry). M.—Our native wild cherry, a most beautiful tree and one that should be more largely planted.

P. triloba. See Amygdalus in Deciduous trees.

QUERCUS—Oak

Q. alba. (White Oak.) T.—One of the finest American trees, of large size and spreading branches; leaves lobed, pale green above and glaucous underneath.

Q. macrocarpa (Mossy Cup or Burr Oak). T.—A native tree of spreading form. Foliage deeply lobed, and the largest and most beautiful among oak leaves. Bark corky.

Q. palustris. (Pin Oak.) M.—Foliage deep green, finely divided; assumes a drooping form when it acquires age. One of the most valuable for street planting.

Q. rubra. (Red Oak.) T.—An American species, of large size and rapid growth, foliage purplish red in the fall.

SALISBURIA

See Ginkgo in Deciduous Trees.

SALIX—Willow

S. caprea. (Goat Willow.) S.—Also known as Pussy Willow, catkins silky, preceding the leaves; very useful for early effects.

S. vitellina. (Golden Willow.) M.—Grows into a massy low-headed tree. Light green leaves and brilliant golden-yellow bark in winter.

S. vitellina britzensis. (Salmon Barked Willow.) L.—A form of the above with yellow bark on the younger wood, tinted with red.

For the Weeping Forms of Salix (Willow)—See Weeping Trees.

SORBUS—Mountain Ash

S. aucuparia. (Mountain Ash.) M.—A small tree with shining, pinnated leaves and large cymes of white flowers, followed by clusters of bright red fruit.

S. aucuparia quercifolia. (Oak Leaved Mountain Ash.) M.—A hardy tree of pyramidal habit. Foliage simple and deeply lobed, bright green above and downy beneath. A fine lawn tree.

TAXODIUM—Cypress

T. distichum. (Deciduous Cypress.) T.—A distinct and handsome tree of slender habit, with soft, feathery foliage. The trunk is as straight as an arrow and tapers regularly from base to tip, as stiff and dignified as a church spire. All

though a native of Southern swamps, it does well in cities; it is a favorite in our St. Louis parks, especially "Tower Grove Park," in which are some of the finest specimens. Our stock of these valuable trees is very fine.

The Taxodium, like the Gum, Tulip and Birch, should be dug with ball of earth in the larger sizes. We charge extra for this to cover extra labor, material and delivery cost. Write us for quotations, stating number of trees wanted.

TILIA—Linden

T. americana. (American.) T.—A fine pyramidal tree with large-sized leaves and fragrant flowers.

T. platyphyllos. M.—A tree of about the same size as T. Vulgaris, but readily distinguished from it by its larger and rougher leaves.

T. vulgaris (Europaea). M.—A fine pyramidal tree, with medium-sized leaves and fragrant flowers.

ULMUS—Elm

U. americana. (American.) T.—The noble, drooping, spreading tree of our woods. One of the grandest of park and street trees. Select specimens.

Weeping Elm. See Weeping Tree.

WEEPING TREES**ACER—MAPLE**

A. saccharinum var. Wierii (Wier's Cut-leaved Maple).—See Deciduous Trees.

BETULA—Birch

B. alba laciniata pendula (Cut-leaved Weeping Birch). T.—Trunk straight, slender, white as snow; branches hanging in long, pendulous threads from a great height; leaves finely cut; a universal favorite.

MORUS—Mulberry

M. alba pendula (Weeping Mulberry). S.—A graceful and beautiful hardy tree, forming a perfect umbrella-shaped head, with long, slender, willowy branches, drooping to the ground and gracefully swaying in the wind. Foliage small lobed and of a delightful fresh, glossy green. Admirably adapted to cemetery planting.

SALIX—Willow

S. babylonica (Babylonian Weeping Willow) M.—A well-known and most graceful tree of large size. Its fresh, bright green tint and long, wavy branches make it very attractive.

S. blanda (Wisconsin Weeping Willow). M.—Of drooping habit and beautiful form. The most hardy of all Weeping Willows.

S. elegantissima. (Thurlo's weeping Willow). M.—Larger, hardier and more spreading than the Bablonica. A fine variety where a large size tree is desired.

SORBUS—Mountain Ash

S. aucuparia pendula (Weeping Mountain Ash). D.—A picturesque little tree, excellent for lawn specimens or for covering arbors. It has beautiful pinnate foliage and bears white flowers in broad corymbs in May and June, followed by clusters of bright red currant-like fruit.

ULMUS—Elm

U. glabra Camperdownii (Camperdown Weeping Elm). S.—One of the finest weeping trees for the lawn. With broad foliage and branches drooping gracefully to the ground.

DECIDUOUS ORNAMENTAL SHRUBS

Our collection of Hardy Shrubs is one of the finest and most complete in the West. To parties desiring to lay out new grounds, or to fill out missing sorts, we would kindly ask correspondence, or, better, an inspection of our stock, which we will be pleased to show at all times.

To make it easier for planter to select shrubs for particular purposes, we have adopted letters to denote the average height to which the various shrubs grow at maturity.

T—Denotes shrubs that grow 12 to 15 feet high.

L—Denotes shrubs that grow 8 to 12 feet high.

M—Denotes shrubs that grow 6 to 8 feet high.

S—Denotes shrubs that grow 3 to 6 feet high.

D—Denotes shrubs that grow 2 to 3 feet high.

Weber's Shrubs

Are Preferred
By The Most
Particular

ACANTHOPANAX— Aralia

A. pentaphyllum. S.—Shrub with long, slender branches and few spines. Fine for rocky slopes; foliage bright green, shiny. Flowers green in long umbels.

AMELANCHIER—Ser- vice Tree or Shadblow

See Deciduous Trees.

AMORPHA—False Indigo

A. fruticosa. T.—A large, spreading bush with pinnate leaves and slender spikes of deep purple flowers; blooms in June, after most of the spring-flowering shrubs are over.

AMYGDALUS—Almond

A class of ornamental shrub or small tree introduced from the mountains of Asia Minor, and succeeding well in common garden soil. The flowers are very showy, produced in great abundance, and useful for their earliness. Fine plants to use in grouping or for lawns.

A. nana (Double Pink). S.—Small double pink flowers borne in abundance in May.

A. nana (Double White). S.—Small double white flowers borne in abundance in May.

ARALIA

See *Acanthopanax* in Deciduous Shrubs.

A. spinosa.—See Deciduous Trees.

BACCHARIS—Groundsel Tree

B. halimifolia. M.—A pretty shrub with dark green foliage; especially attractive in autumn, with its fluffy white seed pods.

BERBERIS—Barberry

B. licifolia (Holly-leaved Barberry). S.—Resembles a Mahonia in appearance. The attractive, glossy, dark green, prickly foliage remains on well into the winter.

B. Thunbergii. D.—From Japan. A very pretty species of dwarf habit, small foliage, changing to a beautiful coppery red in autumn. Valuable as an ornamental as well as hardy hedge.

BUDDLEIA—Butterfly Bush

B. davidii magnifica. S.—A most beautiful shrub and one that should be in every garden. A splendid shrub for park planting. It makes large shrubs even from small plants the first season. Single plants will often have 50 or more flower spikes the first year. The second year after planting it generally begins to bloom in June and continues throughout the summer until frost nips it. The flowers are produced on long, graceful stems that terminate in tapering panicles of beautiful lilac-colored flowers of miniature size and borne by the hundred on flower heads frequently 10 inches long. This admirable shrub should be classed as semi-herbaceous, as it sometimes freezes back to the ground in severe winters, but comes up again from the roots. A mulch of manure, leaves or other suitable material should be given before heavy freezing weather sets in. You should try one of these; you will be delighted with them.

Berberis Thunbergii (Barberry) Fine for Borders or Hedges

CALYCANTHUS—Carolina Allspice

C. floridus. M.—A well-known native bush, bearing double, purple, fragrant flowers.

CALICARPA

C. purpurea.—A pretty dwarf shrub, growing from 1 to 4 feet high, more at home south of the Ohio River, but can be planted farther North if given a sheltered position and winter protection. Blooms profusely during August with small axillary clusters of pink flowers, these followed by berry-bunches colored a light violet. If top freezes back, young shoots will come up and flower same season.

CARAGANA—Pea Shrub

See Deciduous Trees.

CARYOPTERIS

C. incana (Mastacanthus) (Blue Spirea). D.—A handsome, hardy perennial plant recently introduced from China. It is of a vigorous growth, producing flowers in great profusion the whole length of its branches, even young plants in small pots flowering freely. The color is of rich lavender or sky blue. A valuable plant either for bedding or pot culture.

CEANOTHUS—New Jersey Tea

C. americanus. S.—A low bush, an early bloomer, small white flowers in great profusion.

CEPHALANTHUS—Button Bush

C. occidentalis. S.—A native shrub with globular heads of white flowers in July.

CLETHRA—Sweet Pepper Bush

C. alnifolia. S.—A pretty little shrub that blossoms freely for several weeks in summer; very fragrant white flowers, in slender racemes; an excellent honey plant for bees.

COLUTEA—Bladder Senna

Fast-growing shrub, thriving in any soil. *C. arborescens* (Tree Colutea). L.—July. Foliage compound, of a pleasing green; flowers pea-shaped, yellow and brownish red, followed by showy, curiously inflated, reddish seed pods. This is the shrub which grows native on Mount Vesuvius, and the last one seen in ascending the crater.

CORNUS—Cornel or Dogwood

A valuable class of shrubs, with handsome variegated foliage in some, ornamental bark in others, and all with showy heads of flowers, followed by ornamental fruits. All of easy culture in most soils.

C. alba siberica (Siberian Red Dogwood). M.—A possible form of the *Cornus Sanguinea*, with intensely colored bark of the deepest crimson. Fine.

C. alternifolia (Alternate-leaved Dogwood). M.—Flowers creamy white, in large bunches, very fragrant; foliage large. Distinct in habit of growth.

C. Amomum (sericea) (Silky Dogwood). S.—Varies in height according to conditions, from 3 to 10 feet. Purplish branches and black fruit in winter. Flowers in dense cymes, greenish white in early summer.

C. mas. (Cornelian Cherry). M.—April, a small tree or large shrub with showy, yellow flowers in early spring, followed by deep scarlet fruit.

C. paniculata (Gray Dogwood). M.—Ash-colored bark, leaves pointed, green above, whitish beneath; flowers greenish-white; fruit white.

C. sanguinea (Red Dogwood). M.—June. Flowers greenish white, in flat cymes, followed by white fruit; bark deep red and very attractive in winter. When planted with other shrubs, the effect in winter is very striking. As a single lawn shrub it is well adapted, owing to its low branching habit and ornamental broad foliage. One of the best.

C. stolonifera (Wild Red Dogwood). M.—A native species with smooth, slender branches, which are usually red in winter.

C. stolonifera aurea (Yellow Branched Dogwood). M.—A very pretty shrub for winter color effect, bark bright yellow.

CORYLUS—Hazel or Filbert

C. americana (American Hazel). M.—The common American Hazel.

C. avellana atropurpurea (Purple-leaved Filbert). M.—A very conspicuous shrub, with large, dark purple leaves. Distinct and fine.

CYDONIA—Japan Quince or Fire Bush

C. japonica. M.—Flowers very abundant, brilliant crimson scarlet. Fine for hedging.

Deutzia Gracilllis**DESMODIUM**

D. penduliflorum. D.—A low-growing shrub with rose-colored flowers in September. Dies to the ground in winter.

DEUTZIA

Showy Japanese shrubs of the highest ornamental merit, and adapted to all good soils. Their clean foliage, upright, dense growth, free flowering nature, renders them especially valuable. Prices unless otherwise noted:

D. scabra candidissima (Double White). M.—Very pretty pure white.

D. scabra crenata. M.—The beautiful white single-flowered species that is a mass of bloom in June. Often preferred to the double sorts.

D. gracilllis (Dwarf). D.—A low bush, three or four feet in diameter; flowers pure white and graceful. One of the prettiest and most popular small shrubs. Fine for winter forcing.

D. lemoinei. S.—A hybrid obtained by Mons. Lemoine, of France, by crossing the well-known *Deutzia Gracilllis* with *Deutzia Parviflora*. Flowers pure white, borne on stout branches, which are of upright growth. Habit dwarf and free-flowering. A decided acquisition.

D. pride of Rochester. M.—A fine double variety, rather earlier than *D. Crenata*. Flowers pink in bud, white when fully expanded.

D. rosea plena (Double Pink). M.—All the *Deutzias* are valuable and very profuse bloomers in the sixth month. This is one of the prettiest, tall-growing varieties.

DIERVILLA—Weigelia

See Weigelia in Deciduous Shrubs.

ELEAGNUS—Oleaster

E. longipes (Also "edulis" or "multiflora"). S.—A handsome, shapely, silver-leaved shrub, with an ornamental, reddish brown bark in winter; perfectly hardy and easy to grow; the bright yellow flowers appear in June on long stalks, but the greatest value of the shrub is in the fruit, which is produced in the greatest abundance along the whole length of the branches, oval in shape and about one-half inch long; color deep orange red; very showy and attractive. The fruit is not only very ornamental, but has a sprightly, sharp, pleasant flavor, and makes a delicious sauce when cooked.

E. angustifolia (Russian Olive). T.—A large shrub, sometimes of tree form, with long, narrow, silvery green foliage. The flowers are yellow followed by yellow fruit.

EUONYMUS—Strawberry or Spindle Tree

E. alatus (Cork-barked Euonymus). S.—Dwarf compact habit; wood very corky; leaves small; fruit red. Foliage turns bright red in fall. One of the very finest shrubs for autumn effect.

Hibiscus Syriacus (Althea) Used as a Hedge

E. americanus (American Burning Bush). L.—Very conspicuous in the autumn and winter, when loaded with scarlet seed-pods, from which the orange-colored berries hang on slender threads.

E. Bungeanus. L.—Very attractive on account of its rather large, yellowish fruits, which are borne so profusely and remain so long upon the branches.

E. europaeus (European Burning Bush). L.—From Europe, and a favorite in old gardens; of good size, with rosy-red pods.

EXOCHORDA—Pearl Bush

E. grandiflora. L.—A very hardy and handsome shrub from northern China and Japan, forming a bush 10 to 12 feet high in as many years. The pure white flowers are borne in clusters on light, wiry branches, which bend beneath their load of bloom enough to be airy and graceful, and the unexpanded buds are like small, round beads of pearly whiteness.

FORSYTHIA—Golden Bell

Prices, unless otherwise noted:

F. intermedia. M.—A form with erect, arching branches, foliage resembling *Viridissima*, and flowers like *Fortunii*. Very free flowering.

F. suspensa. M.—A very early and showy spring bloomer; flowers bright yellow; branches long and slender.

F. suspensa Fortunei. M.—Grows upright; foliage deep green; flowers bright yellow.

F. viridissima. M.—A fine hardy shrub. Leaves and bark deep green; flowers yellow. Very early in spring.

HALESIA TETRAPTERA

See Deciduous Trees.

HAMAMELIS—Witch Hazel

H. virginica. M.—A tall shrub; yellow flowers; late in fall, just before the leaves fall. Foliage changes to bright colors in the fall.

HIBISCUS SYRIACUS—Althea or Rose of Sharon

These are very fine, hardy, free-growing, flowering shrubs, of very easy cultivation, and very desirable on account of their late summer blooming. Should be in every garden. Our collection comprises a great variety of colors and shades. (See descriptions below.) Prices, unless otherwise noted:

H. alba fl. pl. L.—Semi-double, pure white.

H. anemoneflora. L.—Very large flower, measuring 3½ to 4 inches across; semi-double, red with a very deep red base on outer petals. Stamens showing prominently.

H. ardens. L.—Double violet, 2½ to 3 inches across flower; petals quilled; vigorous; very fine.

H. boul de Feu. L.—Large, 3½ to 4 inches across flower; very double, well formed, light rose; petals flecked at base with cardinal; one of the finest reds; vigorous.

H. coelestis. L.—Single, flowers large, of a delicate shade of azure blue, showing red base.

H. duchesse deBrabant. L.—Large, reddish lilac flowers.

H. jean d'Arc. L.—One of the best; flowers pure white, double; strong grower.

H. Lady Stanley. L.—Very double, white with beautiful blush markings, cardinal base.

H. Lucy. L.—Double, bright red, the brightest of our collection. A shade deeper than *H. Anemoneflora*.

H. purpurea. L.—Purple, semi-double, showing cardinal base.

H. rubra. L.—Double red.

H. rubis. L.—Single red, showing cardinal base, single and almost identical with *Coelestis Rubra*.

H. variagata fl. pl. M.—Variegated leaves, flowers very double, seldom open.

HYDRANGEA

H. arborescens. S.—This beautiful shrub is being sent out under various names, as "Snowball Hydrangea," "Hills of Snow," etc. This new American Hydrangea is believed to be the most beautiful, hardy flowering shrub introduced for many years.

The plant attains a height of five or six feet, with about the same breadth, is far more graceful than the old form of *Hydrangea Arborescens*. Flowers are borne in large trusses, beautifully formed and of dazzling whiteness, rendering it a plant of peerless beauty. Seems to do best in rather damp or shady location.

The flowers, when cut, remain in good condition a long time, thus making the plant especially useful for cut flowers.

H. paniculata grandiflora (Bush Shape). M.—This is one of the most valuable hardy shrubs in cultivation. It attains a height of six to eight feet, and is perfectly hardy in all parts of the country. The flowers are white, borne in immense pyramidal panicles nearly a foot in length. It commences flowering in July and continues until November. This is the finest flowering shrub for cemetery planting we know of.

H. paniculata grandiflora (Tree Shape). M.—These are fine specimen plants, four to five feet high, trained to tree shape, with about three feet of straight stem and nice shaped heads. Should bloom profusely the first year.

HYPERICUM (Gold Flower)

H. Moserianum.—Forms a shiny-leaved shrub. 2 to 2½ feet high with slender, well branched stems, bright golden yellow flowers all summer. Tops usually die down in winter.

Hydrangea

Philadelphus or Mock Orange

ILEX—Black Alder or Winterberry

I. verticillata. M.—A hardy native shrub with attractive foliage and habit. Very ornamental in autumn and winter when covered with brilliant red berries.

KERRIA (Corchorus)—Globe Flower

Handsome, free-flowering shrub, thriving in common garden soils.

K. japonica. Single yellow flowers, free-flowering. Bark green; a fine shrub for edging shrubby groups, sometimes kills back to near the ground line, but sprouts readily and soon regains its former size.

K. japonica fl. pl. S.—All summer. Handsome, light green, finely toothed foliage and showy flowers, freely and continuously produced.

LIGUSTRUM—Privet

The Privet is now one of the best known shrubs, both for hedging and for ornamental planting on the lawn. All of the varieties offered have merit, some for their foliage, some for their berries. They are almost evergreen and of dense habit and bear shearing to any extent.

L. amourense (North). (Amour River Privet.) A distinct type which has been found hardy in the North. Foliage and habit of growth almost identical with the variety grown in the South. Flowers white, fruit black.

L. ibota. M.—The form is spreading, with curving branches. Foliage grayish green; flowers pure white, seeds bluish-black. A good border shrub and hedge plant.

L. ovalifolium. (California Privet). M.—A vigorous, hardy variety, of fine habit, and foliage nearly evergreen. Makes a desirable ornamental shrub as well as hedge. California Privet has long been recognized as one of the very best plants for hedge purposes, as it is remarkable for its beautiful, dark green, glossy foliage, its quick, strong and symmetrical growth, its freedom from insects and scale, and its ability to withstand pruning and trimming into any desired shape. Our stock comprises upwards of 100,000 plants in the various sizes.

L. ibota Regalianum (Regel's Privet). M.—A fine, hardy variety, desirable when grown singly as a specimen, or in mass planting; also suitable for hedges. This is one of the berried varieties.

L. vulgaris. (English Privet.)—Grayish green leaves, white flowers and black fruit. Very hardy.

LONICERA TARTARICA—Upright Honeysuckle

Prices, unless otherwise noted:

L. fragrantissima. M.—In sheltered situations the dark green leaves of this shrub are retained nearly all winter. Its pretty pink and white flowers are numerous, but not very showy. Delightful fragrance. It is easily trained into a handsome bush.

L. ledebouri. S.—A distinct species with red flowers in May.

L. morrowi. M.—A fine variety from Japan; valuable for its handsome red fruit.

L. ruprechtiana. S.—A fine variety from Manchuria, especially valuable for its showy red fruit.

L. tartarica alba. M.—Creamy white, fragrant flowers; form a high bush. May and June.

L. tartarica grandiflora rubra. M.—A beautiful shrub, very vigorous, and producing large, bright red flowers striped with white in June.

L. tartarica rosea. M.—Pink flowers, which contrast beautifully with the foliage. June.

PHILADELPHUS—Syringa or Mock Orange

For grouping with other shrubs, forming large screens or hedges which may not require pruning, or used as single specimen lawn plants they are desirable. They will bear heavy pruning and quickly resume their free, semi-pendulous, picturesque effect.

Prices, unless otherwise noted:

P. coronarius (Mock Orange). L.—Early June. Fragrant pure white flowers, in dense clusters so numerous as to bear the branches down when flowering. One of the best.

P. coronarius aureus (Golden Syringa). D.—A dense growing form, with clear, golden-yellow foliage well retained in color all summer. One of the best golden-foliaged shrubs offered.

P. coronarius flore plena (Double-flowered Syringa). L.—Partially double flowers; very fragrant.

P. coronarius grandiflorus (Large Flowering). L.—Has showy large flowers, slightly fragrant; branches somewhat straggling.

P. coronarius lewisi (Gordon's Syringa). L.—Vigorous grower and profuse bloomer; flowers slightly fragrant; late bloomer.

P. lemoinei. M.—A charming variety of upright growth; flowers small yellowish white, fragrant, completely covering the plant.

PHYSOCARPUS—Opulaster

P. opulifolius (Spirea). (Nine Bark.) M.—A strong-growing shrub with white flowers.

P. opulifolius luteus. M.—Very conspicuous from the golden hue of its foliage; of strong growth.

POTENTILLA (Cinquefoil)

P. fruticosa.—A bright flowered little shrub that thrives in moist places where many others refuse to grow. Of upright habit; with narrow compound, silky foliage and bright yellow flowers from mid-summer until frost.

RHODOTYPOS—White Kerria

R. kerriodes. L.—A choice and rare Japanese shrub, recently introduced. It is a slender branched bush, with very pretty, deeply veined leaves, and pure white flowers, borne at intervals all summer.

RHUS—Sumach

R. canadensis (aromatica) (Fragrant Sumach). S.—A native variety, exhaling a strong odor. Flowers a greenish white; leaves lobed.

R. copallina (Dwarf Sumach). S.—Shining green foliage, changing to rich crimson in autumn; greenish yellow flowers in August.

R. cotinus (Purple Fringe). L.—A much admired small tree or shrub for its curious fringe of hair-like flowers that cover the whole surface of the plant in middle summer.

R. glabra (Smooth Sumach). L.—Very effective in autumn with its crimson seeds and foliage.

R. glabra laciniata (Cut-leaved). M.—A variety with deeply cut, fern-like foliage. An elegant plant for groups on the lawn.

R. typhina (Staghorn Sumach). L.—A large shrub or tree, brilliant foliage and scarlet fruit in autumn.

R. typhina laciniata (Staghorn Sumach). L.—A large shrub or tree, brilliant foliage and scarlet fruit in autumn. A very pretty effect among shrubby collections.

RIBES—Currant

Vigorous, remarkably healthy plants of easiest culture. Besides this ornamental foliage and flowers, the fruit of several of the varieties is showy and very attractive. Valuable for grouping as a class or with other shrubs.

R. gordonianum (Gordon's Currant). M.—May and June. A valuable hybrid with orange-red flowers in showy spikes. Very choice.

R. odoratum (aureum) (Missouri Currant). M.—May. Golden yellow, spicily fragrant flowers in showy racemes. Foliage shining and glabrous, taking on showy autumnal coloring.

R. sanguineum (Double Crimson Flowers). M.—Flowers very double, showy. This and its type do best in somewhat protected situations.

ROBINIA—Locust or Acacia

R. hispida (Rose or Moss Locust). M.—A native shrub of spreading, irregular growth. Flowers rose-colored, in long clusters in June and at intervals through the summer.

See Deciduous Trees for the Grafted Standard Trees of this Variety.

SAMBUCUS—Elder

Rapid growing shrubs with ornamental foliage, flowers and fruit. Will thrive in all soils, but give best fruiting results in that of a moist nature. The Golden Elder is one of the finest golden-leaved shrubs, and is very useful. It shows its color best on a dry soil.

Viburnum—Snowball**SAMBUCUS—Cont'd.**

S. canadensis (Common American Elder). L.—Broad panicles of white flowers in June; reddish purple berries in autumn. A well-known native shrub.

S. canadensis aurea (Golden). L.—A beautiful golden-foliaged form. Very useful for foliage effect.

S. nigra (Black-berried Elder). L.—Of medium growth, with purplish-black berries in September.

S. nigra laciniata (Cut-leaved). L.—Deeply cut foliage.

S. nigra variagata (Variegated). L.—Foliage beautifully variegated with silver and green.

S. racemosa (Red-berried Elder). L.—White flowers in panicles in spring, followed by bright red berries.

SPIREA—Meadow Sweet

An indispensable class of small to medium-sized shrubs, embracing a wide range of foliage, habit of growth, color of flowers and season of blooming. All of easiest culture in all soils.

S. arguta. S.—Of dwarf habit; flowers clear white. The best early-flowering White Spirea. Early May.

S. bumalda Anthony Waterer. D.—A new crimson-flowered variety; one of the most beautiful of dwarf flowering shrubs. It makes a low, compact bush, 15 to 18 inches high, and is covered nearly the whole growing season with large umbels of deep crimson flowers. Perfectly hardy, it makes a fine, compact plant for low clumps or for bedding purposes. Grown as a pot plant, it is a fine plant for house decorations.

S. Bumalda. S.—A spreading, low bush, with dark leaves brightened by corymbs of pretty, light pink flowers in May, and at intervals all summer.

S. Billardi. M.—Medium sized shrub, producing spiked panicles of flowers, bright rose color.

S. callosa alba. D.—Of compact growth, with upright branches, crowded with large, flat clusters of white flowers nearly all summer.

S. Douglasii. M.—Immense terminal spikes of deep rose-colored flowers. One of the best.

S. opulifolia. (See Physocarpus.)

S. prunifolia. fl. pl. M.—Very distinct, with numerous small, double white flowers, blooming early.

S. Reevesiana (Lance-leaved—Single). M.—One of the most ornamental; showy flowers, pure white, in umbels and very numerous.

S. Reevesiana flora plena (Lance-leaved—Double). M.—A perfect gem, each individual flower as double as a Ranunculus and very conspicuous.

S. salicifolia (Willow-leaved). M.—Long, narrow, pointed leaves, and rose-colored flowers in June and July.

S. callosa rosea.—Flowers rosy-red, in flat corymbs. June.

S. callosa superba.—Flowers deep rose-red. A fine garden variety.

S. C. Froebeli. (Froebel's)—Flowers bright rosy-red, in flat umbels, one of the most attractive of the Spireas. Blooms in June, 2 to 3 feet high.

S. Margarita (Margaret's)—Flowers soft pink. A plant of free growth, which should be allowed plenty of room to develop; it carries a great quantity of bloom.

S. Lindleyana (Lindley's)—Flowers white, in large terminal panicles. Grows 6 to 8 feet high.

S. Thunbergii (Thunberg's). S.—Dwarf habit and round, graceful form, branches slender and somewhat drooping; foliage narrow and yellowish green. Flowers small, white. Esteemed on account of its neat, graceful habit and early blooming.

S. Van Houtte. M.—The grandest of all the Spireas. It is a beautiful ornament for the lawn at any season, but when in flower it is a complete fountain of white bloom, the foliage hardly showing. Clusters of twenty to thirty flat, white florets make up the racemes, and these clusters are set close along the drooping stems. Perfectly hardy and an early bloomer.

SYMPHORICARPUS—St. Peter's Wort

S. racemosus (Snowberry). S.—Flowers inconspicuous, rose-colored in June and July; leaves thin, dark green; fruits large, milk-white, clustered; persistent until late in winter.

SYRINGA—Lilac

S. japonica. M.—A species from Japan, becoming a good sized tree. Foliage dark green, glossy; leathery; flowers creamy white, odorless, in great panicles. A month later than other Lilacs.

S. josikea (Hungarian Lilac). M.—A fine, distinct species of tree-like growth, with dark shining leaves and purple flowers in June, after the other Lilacs have done blooming. Esteemed for its fine habit and foliage.

S. persica alba (Persian Lilac). M.—Of more slender growth and finer foliage than the Common Lilac.

S. rothomagensis (chinensis) (Rouen Lilac). M.—A distinct hybrid variety, with reddish flowers; panicles of great size and very abundant.

S. villosa (Japan Lilac). M.—A species from Japan. Large branching panicles; flowers light purple in bud, white when open, fragrant. Especially valuable for late flowering. Single.

S. vulgaris (Common Purple Lilac). M.—Large shrub with larger leaves and flowers than above. Flowers bluish purple.

S. vulgaris alba (Common White Lilac). M.—Flowers in slender panicles, pure white and fragrant.

SYRINGA—Single or Double Varieties

For a number of years we have been collecting the finer varieties of "Foreign Lilacs" from various sources and believe we now have as fine a collection as can be found anywhere.

The great improvement in the Lilac in the last eight or ten years has been marvelous. No park or large ground is now complete without a good collection of these delightful novelties. The flowers so far surpass the old varieties that there is no comparison, excepting that they are of the Lilac family.

It has been nothing unusual for us to cut spikes of some of these varieties that measured 12 to 14 inches in length and from 6 to 8 inches in breadth from three and four-year-old plants that brought from 15 cents to 25 cents per spike in the flower market.

In describing the varieties we mention those that are double; those not so described are single. All are beautiful in their distinct shades and markings. They all attain a height of from 8 to 12 feet in time, depending on location and soil.

► *S. V. Chas. X.*—Large trusses, rather loose, reddish-purple. Single.

S. V. Michael Buchner.—Clear lilac. Double.

S. V. Marie Le Gray.—Pure white.

S. V. Mme. C. Perrier.—Creamy-white. Double.

S. V. Souv. de Ludwig Spaeth.—Blackish-red.

S. V. Mme. Abel Chatanay.—Pure white; large panicles. Double.

S. V. Mme. Lemoine.—Pure white. Double.

S. V. President Grevy.—Large trusses, rosy lilac. Double.

TAMARIX—Tamarisk

The Tamarisks are hardy shrubs, of strong growth, foliage light and feathery, their flowers delicate and fringing, usually in some light shade of red or pink. Will grow anywhere.

T. africana. L.—A tall, graceful shrub with small foliage like a Juniper, and delicate small rosy-purple flowers, produced in spikes; very pretty.

T. gallica indica. L.—Pink flowers in longer, more wand-like sprays.

T. hispida estivalis (New). L.—A new variety, raised from *T. hispida*. More vigorous and not so compact. In July the branches are covered on the half of their length with numerous inflorescences of large flowers of a nice bright carmine.

T. odessana (Caspian Tamarisk).—A new variety, with pale rose flowers, blooming earlier than *T. gallica*.

VIBURNUM—Snowball

V. dentatum (Arrow-wood). M.—A fine shrub for massing for foliage effect. Flowers greenish white.

V. Lantana. L.—A large, robust shrub, with soft, heavy leaves and large clusters of white flowers in May, succeeded with red fruit; retains its foliage very late.

V. Lentago (Sheepberry). L.—Foliage light glossy green. Flowers creamy white, very fragrant.

V. Opulus (High Bush Cranberry). L.—Very ornamental. Berries resembling small cranberries, hang until destroyed by frost late in fall.

V. Opulus sterile (Common Snowball). L.—An old and well-known shrub, bearing large balls of pure white flowers.

V. tomentosum. M.—The single form of *V. plicatum*; flowers pure white, borne along the branches in flat cymes, in the greatest profusion, early in June. Perfectly hardy, vigorous and free blooming. Desirable.

V. tomentosum plicatum (Japan). M.—A rare and exceedingly beautiful species of Japan; flowers in large, globular heads; pure white, hanging long on the bush; a very choice and desirable shrub.

VITEX

V. agnus castus (Chaste Tree).—A graceful shrub, growing from 5 to 6 feet high, with dense spikes 6 to 8 inches long, of lilac-colored flowers late in summer.

WEIGELIA—Diervilla

Beautiful shrubs that bloom in June and July. The flowers are produced in so great profusion as almost entirely to hide the foliage. They are very desirable for the border or for grouping, and also as specimen plants for the lawn.

W. amabilis. M.—A fine pink flowering variety; one of the best.

W. Abel Carriers.—M. Bright rose; a choice sort. One of the best.

W. candida. M.—Of vigorous habit, flowers pure white and produced in great profusion in June, and continue to bloom at intervals through the summer.

W. Desboisii. M.—A beautiful variety with deep, rose-colored flowers, resembling *Rosa*, but flowers much darker. One of the best.

W. Eva Rathke. M.—A charming new Weigelia; flowers brilliant crimson; a beautiful, distinct, clear shade.

W. floribunda. M.—A fine variety; flowers dark red. A profuse bloomer.

W. hybrida Lavellei. M.—A new hybrid sort, with dark, reddish purple flowers, that bloom more than once during summer.

W. rosea (Florida). M.—One of the most popular shrubs known. Flowers bright rose.

W. nana variegata. S.—An exceedingly pretty variety, the variegation being very distinct.

W. Van Houtte.—M. Flowers clear carmine, a good grower.

XANTHOCERAS—Chinese Chestnut

X. sorbifolia. L.—Forms a shrub or small tree, foliage resembling that of the "Service Tree" flowers five-petaled, white, reddish copper-colored at base, disposed in racemes about eight inches long; flowers expand in April or May with the leaves. Very floriferous. Requires protection until established.

ORNAMENTAL VINES AND CREEPERS

AKEBIA

A. quinata.—A beautiful, hardy Japanese vine, with unique foliage and chocolate purple flowers of delightful fragrance, in large clusters.

AMPELOPSIS

A. quinquefolia Engelmanni (Engelmann Ivy).—Shorter jointed than *Quinquefolia*. A good climber; grows 6 to 10 feet in a season.

A. quinquefolia (American Ivy or Virginia Creeper).—Has beautiful digitate leaves that become rich crimson in autumn; a very rapid grower. One of the finest vines for covering walls, verandas or trunks of trees.

A. tricuspidata Veitchi (Boston Ivy).—Of Japanese origin; entirely hardy, with foliage turning brilliant red in autumn. It clings tightly to walls, and is unsurpassed as a basket or vase plant.

ARISTOLOCHIA—Dutchman's Pipe

A. siphon.—A fine, hardy climber and well known in some parts of the country as Chinese Yam. The tubers grow very large and are edible like sweet potatoes. The vine is a beautiful, rapid grower, producing sweet-scented flowers.

Lonicera—Japonica Halleana

BIGNONIA—Trumpet Vine

B. radicans (American Climbing Trumpet Vine).—A splendid, hardy climbing plant, with large trumpet-shaped scarlet flowers in August.

CELASTRUS—Bitter Sweet

C. scandens.—A native climber, with handsome, glossy foliage and large clusters of beautiful orange-crimson fruits, retaining all winter. Very bright in effect and charming for winter decorations.

CLEMATIS

A beautiful class of hardy climbers, excellent for pillars or trellises. They delight in a rich soil and sunny situations, and are perfectly hardy.

C. coccinea.—A native Southern species, quite hardy, flowers small, bright scarlet; a very interesting plant.

C. Henryi.—A magnificent, large white flower, a free grower and bloomer.

C. Jackmannii.—Deep violet purple, with a rich velvety appearance. One of the best.

C. paniculata.—A vine of very rapid growth, quickly covering trellises and arbors with handsome, clean, glossy green foliage. The flowers are of medium size, pure white, borne in immense sheets, and of a most delicious and penetrating fragrance.

C. Ville de Lyon.—Probably the best of the red varieties.

DOLICHOS JAPONICA—Kudzu Vine

See *Pueraria Thunbergiana*.

EUONYMUS

E. radicans.—An evergreen vine, with dark green foliage; will cling to walls like ivy.

E. radicans variegata.—An evergreen vine with variegated foliage that clings to walls like ivy. Strong pot grown plants.

HEDERA—Ivy

The Ivies are evergreens and frequently suffer from exposure to the bright sunlight in winter. For this reason the north side of a wall or building is a better situation than the south.

H. helix (English Ivy).—A familiar evergreen vine, dark green leaves, favors shady location. The young wood sometimes winter-kills in this climate, due to the action of the sun more than the cold. Suitable to cover buildings, rocks, trellis work, graves, and as a carpet under trees in places where grass will not grow.

LONICERA—Honeysuckle

L. japonica aurea reticulata.—A variety with beautifully variegated foliage; leaves netted and veined with clear yellow; flowers yellow and fragrant.

L. japonica chinensis (Chinese Evergreen).—Blossoms at intervals through the summer and retains its foliage late in winter. Flowers nearly white.

L. japonica Halleana.—Color white, changing to yellow, very fragrant, blooms from June to November.

L. Periclymenum belgica (Monthly Fragrant).—A fine rapid growing variety; flowers large and very fragrant; color red and yellow; a constant bloomer.

L. sempervirens (Scarlet Trumpet).—A strong, rapid climber; blooms very freely the entire season; bright red, trumpet-shaped flowers.

LYCIUM—Matrimony Vine

L. chinense.—Very hardy; grows anywhere. The slender, drooping branches are somewhat thorny and bear grayish green leaves. Flowers small, pink and purple, from June to September, and are then succeeded by a profusion of bright scarlet and orange fruits through late fall and winter. A good plant for covering trellis work and bowers; also for covering bare places or rock.

PERIPLOCA—Silk Vine

P. gracca.—A beautiful, rapid growing climber. Fine to twine around an old tree or other support; will grow 30 to 40 feet in height. Flowers purple, brown, in auxiliary clusters. Foliage glossy.

Pueraria Thunbergiana (Kudzu Vine)

PUERARIA THUNBERGIANA—Kudzu Vine (Dolichos)

P. thunbergiana.—This is without a doubt the fastest growing vine we know of; we have grown and recommend same to our customers wanting a fast-growing vine for covering arbors and trellises, also for covering rocky slopes; for a number of years it is only lately that we have become acquainted with its other good qualities.

WISTARIA

The Wistaria is one of the most decorative of vines, and for porch decoration without too much shade it has no superior. The long, twining branches bear great sprays of foliage, while its charming flowers sway with every passing breeze.

W. sinensis (Chinese).—Flowers in clusters, pale blue, sometimes gives a second crop of flowers in the fall.

W. sinensis alba.—Of similar habit to *Chinensis*, with pure white flowers.

W. Multijuga.—From Japan; dark blue flowers, similar to *Chinensis* but darker.

PLANT VINES

TO HIDE UNSIGHTLY OBJECTS, TREE STUMPS, FOUNDATIONS, OUTBUILDINGS, ETC.

HOME GROUNDS

Their Planning and Planting by
PROF. L. H. BAILEY

If you are contemplating doing some Landscape work, you should have a copy of this book.

(Price 50 cents.)

OUR SPECIAL PRICE TO YOU
ONLY 20c IN POSTAGE STAMPS.

EVERGREENS—CONIFERAE

Our trees have all been transplanted two or three times, are handsome, selected trees, well branched and rooted, suitable for lawns, etc.

Evergreens can be most successfully transplanted a short time before they are ready to start into growth in the spring. They can also be planted safely very early in the fall. The soil to receive them should be mellow and fine, and great care taken that it is well packed about the roots after they have been well spread out in a natural position.

Wherever possible we dig with ball of earth and wrap same in damp burlap; otherwise we pack roots in wet moss immediately after digging.

Caution.—Do not let the sun or wind strike the roots of Evergreens even for a few minutes; you will kill them if you do. Plant immediately on receipt; give thorough drenching of water, but do not apply over the foliage.

Specimen trees and sizes not quoted herein will be priced on application.

ABIES—Fir

A. Canadensis (Hemlock).—See Tsuga.

A. Concolor (White Fir).—The best strain of this hardy western tree. Grows rapidly and forms magnificent specimens. Pale, glaucous blue needles.

A. Douglassii.—See "Pseudotsuga."

BIOTA—Arborvitae

See Thuja.

JUNIPERUS—Juniper or Cedar

J. chinensis Pfitzeriana (Pfitzer's Juniper).—Very distinct, being of a striking graceful habit; the color of foliage a bright silvery green; perfectly hardy.

J. communis hibernica (Irish Juniper).—One of the most popular Junipers known. Rigidly upright and formal in character, resembling a green column.

J. counarti (Counarti Juniper).—Of pyramidal habit, branches graceful of a pleasing dark green. A beautiful tree in every way.

J. Sabina (Savin Juniper).—A spreading form, with deep, dark green foliage. Very valuable for rockeries, grouping and border planting.

J. Sabina prostrata.—Dull-shining green leaves. Makes a very pleasing effect when planted on terraces; also used for covering rocks and bare, sunny, exposed positions where other sorts will not grow.

J. Sabina Tamariscifolia (Gray Carpet Juniper).—A distinct trailing variety of Sabina. Fine or edging evergreen groups.

J. Schottii.—A fine hardy evergreen of columnar habit. Foliage light green and feathery.

J. Virginiana (Red Cedar).—One of the most valuable trees for screens and windbreaks; perfectly hardy; too well known to need description. Our trees are all extra well shaped and have been several times transplanted.

J. Virginiana glauca (Silvery Red Cedar).—Fine, vigorous grower; cone-shaped, and having a peculiar whitish color.

PICEA—Spruce

P. alba (White Spruce).—Of compact, pyramidal form, and greater symmetry than that of the Norway Spruce, but possibly of less vigorous growth; elegant silvery foliage.

P. canadensis (Black Hill Spruce).—In habit of growth something like *P. Alba*, except that foliage is of a bluish green. A very pretty, compact growing evergreen.

P. excelsa (Norway Spruce).—Rapid in growth, gracefully drooping in habit, dense in structure, regular in outline and perfectly hardy.

Select specimens 6 to 12 feet high priced upon application.

P. pungens (Green Form Colorado Spruce).—Of pyramidal habit and compact growth; leaves bluish green. A free grower and perfectly hardy. This is the common variety.

P. pungens glauca (Blue Form Colorado Spruce).—This is the selected blue form of the Picea Pungens. Only a small percentage of this variety produces the true blue foliage.

P. pungens Kosteri (Koster's Blue Spruce).—The richest colored of the tinted evergreens, hardy, vigorous grower, elegant habit. A beautiful tree for any lawn with its silvery blue sheen. We handle only the very best imported grafted trees of this variety.

PINUS—Pine

P. nigra austriaca (Austrian Pine).—From Central Europe. Leaves or needles stiff and dark green. Hardy everywhere and one of the most valuable conifers for windbreaks, belts, etc.

P. cembra (Swiss Stone Pine).—Short-branched, forming a narrow, dense pyramid. Hardy.

P. flexilis (Limber Pine).—On the order of White Pine, only that the foliage is longer and more flexible. One of the prettiest of the Pine family.

Specimen White Pine—Pinus Strobus

P. montana Mughus (Dwarf Mountain Pine). Very distinct, leaves short, stiff, a little twisted and thickly distributed over the branches; does not grow tall, but spreads over the ground, generally assuming a globular form; very dense.

P. ponderosa (Bull Pine).—Dark green leaves. Branches spreading; one of the most important of the Pine family. Hardy.

P. strobus (White Pine).—An old and well known native tree of rapid growth and entirely hardy.

P. sylvestris (Scotch Pine).—A rapid grower; very hardy, from the central portion of Europe, with short, rigid, light green leaves. Very valuable for screens and for masses.

Specimen Trees quoted upon application.

P. Banksiana (Jack Pine).—Bright green needles; very hardy. The best of the Pines for dry arid soils and the North.

PSEUDOTSUGA

P. Douglassii (Douglas Fir).—Large, conical form; branches spreading, horizontal; leaves light green above, glaucous below.

THUYA—Arborvitae

T. occidentalis (American Arborvitae).—A well known native species of great value. It forms an upright conical tree of only medium size, and is especially valuable for screens and hedges.

T. occidentalis globosa (Globe Arborvitae).—Same shade of green as Pyramidalis.

T. occidentalis Wareana (Siberian Arborvitae).—Forms a dense, broad, regular pyramid with dark green foliage. Very hardy.

T. occidentalis Douglassii (Douglas Golden). In habit of growth same as *T. Occidentalis* except that the young tips are of golden hue; the best of the golden foliage Thuyas.

T. occidentalis pyramidalis (Pyramidal Arborvitae).—Of upright pyramidal compact habit. Very desirable.

T. orientalis aurea nana (Berkman's Golden Arborvitae) (Also Biota Orientalis Aurea Nana). The most popular Biota grown. This conifer is of dwarf, compact and symmetrical habit. A perfect gem for small gardens, cemetery lots or formal planting. For window boxes and vases this variety is most effective.

T. orientalis (Chinese Arborvitae).—Pyramidal growth, densely clothed with fresh, lively green foliage; very hardy; one of the best.

TSUGA—Hemlock

T. canadensis.—A native species of undoubted worth and beauty. Entirely hardy, with drooping branches and dense habit.

"If you do not find the sizes desired quoted in this catalogue, write us; we frequently have larger or smaller grades to offer—we only give the average grades usually ordered for general landscape work. The price of Evergreens are figured for their intrinsic value, times transplanted and shape. Evergreens that have been grown close together in nursery row are spindly, ill-shaped and of very doubtful value for general planting and rarely ever make good specimen trees."

Evergreen Shrubs

Evergreen shrubs are coming into use more and more, as they are so desirable in landscape work. The foliage helps out and enlivens the bareness of deciduous trees and shrubs in winter. They are all fond of shady places and are suitable for north sides of houses, garages and north hillsides.

The soil for this class of shrubs should be carefully prepared with leaf mold, peaty soil, and should be mulched annually with well decomposed manure or partly decomposed forest leaves. Spring is the proper time to transplant.

AZALEA AMOENA—(Imported)

A bushy, dwarf grower with small green leaves that deepen to a lustrous coppery hue in winter. In April or May the whole plant is covered with a mass of brilliant, claret-colored flowers that retain their beauty for several weeks. Very ornamental and desirable for edging of drives and walks or for bordering beds of Kalmia, Ilex, etc.

A. amoena hinodegiri.—A bright scarlet form of the well-known Azalea Amoena, but far surpasses it in brilliancy and general beauty; a profuse bloomer; foliage evergreen.

ILEX—Holly

The Hollies are coming into demand as people get to know what splendid ornamental plants they are. The foliage is always beautiful, the flowers interesting and the fruits ornamental. A group of Hollies is always a source of pleasure.

I. opaca (American Holly).—This is our native Holly, but is a rare plant in our American nurseries. We expect to have some fine plants for spring, 1918, delivery.

I. Verticillata.—See Deciduous Shrubs.

Mahonia aquifolia (Holly-Leaved Mahonia).—A native species of medium size, with purplish, shiny, prickly leaves, and showy, bright yellow flowers in May, succeeded by bluish berries. Its glossy foliage and neat habit render it a very popular plant for decorative purposes.

Kalmia latifolia (Mountain Laurel).—A beautiful native evergreen shrub, with shining foliage and dense clusters of pink or nearly white flowers in spring.

ON ACCOUNT EMBARGO BY FEDERAL HORTICULTURAL BOARD, WE ARE UNABLE TO SUPPLY IMPORTED RHODODENDRONS, BOXWOODS AND BAY TREES.

The Rose is Justly the Queen of Flowers

ROSES

Soil.—Roses delight in a clay loam, enriched with well-rotted barnyard manure. Dig up the soil thoroughly to a depth of 12 to 15 inches, pulverize well; do not raise beds above the level of the surrounding soil. Soak the bed occasionally during the summer with weak manure water.

Location.—Roses delight in an open, airy situation, unshaded by trees and buildings. Always plant in solid beds and each class for itself.

When to Plant.—We advocate planting Hybrid Perpetuals, Ramblers, Prairie, Wichuraiana, Moss, Rugosa, Australian and Sweet Briars in the fall, wherever possible. If planted in spring, should be planted as early as possible before growth starts. Hybrid Teas, Tea, China, Polyantha and Climbing Hybrid Teas are best planted in the spring, during April and May. Pot grown plants are best in these classes and can be planted the same as Geraniums or other bedding plants, at any time after severe freezing weather is past.

Protection.—As soon as severe freezing weather sets in, raise the earth around the plant three or four inches, cover entire bed with dry, light manure, then cover with leaves, straw, or evergreen boughs, weighting with light pieces of wood or tree branches.

Soil Conditions.—No Roses should be planted at any time that the soil is in a wet, soggy condition. The soil should be in a loose, friable condition. The plants should be firmly packed, first with the hands and then with the foot; be careful not to bruise the roots, or to break the ball on the potted class excepting to remove some of the top soil of the ball. Be sure to give your plants a good soaking of water immediately after planting. The following day after planting and thoroughly watering, loosen up the soil around the plants to a depth of about one-half inch, so as to form a loose soil mulch. Water at intervals according to weather conditions, until the plants have become well established after which little or no watering need be given except in extreme drought condition, when a good thorough soaking about once a week will be found very beneficial. Watering should only be done late in the evening at any time, and the ground raked over the following morning. If you will follow these instructions, you should have no trouble in raising a fine lot of Roses.

Pruning.—This should be done during March. For Hybrid Perpetuals remove about one-third to one-half of the previous year's growth. Strong-growing varieties require less pruning back than weak-growing ones. In the everblooming class two-thirds of the previous year's growth should be removed. Cut out all old or decayed wood annually, also all feeble branches and such as are crowding each other. Some of the Hybrid Perpetual varieties can be made to bloom again in the fall, if pruned soon after spring blossoming time is over.

Insects and Diseases.—Do not let these discourage you. There are now a number of remedies, easily applied, that will rid your plants of any insects very quickly if applied promptly.

TO THE ROSE LOVER

We are annually devoting more space to the growing of Roses, the Queen of all flowers and expect to add annually the newer varieties as they prove their merit. We call special attention to our list of Hybrid Tea, China and Polyantha Roses, which for this section and farther south are the most satisfactory. For northern sections we call attention to our selected list of Hybrid Perpetual, Hardy Climbers, Wichuraiana and Rugosa Roses.

Being located near the City of St. Louis, from where all shipments are made, we can get shipments to you in the quickest possible time.

Give us a trial order.

HYBRID PERPETUAL ROSES—Rosa Hybrida Cifera

This class of roses is admirably suited for garden culture, for the formation of rose beds, hedges and permanent plantations, where hardy varieties of roses are desired. They are of easy culture and luxuriant in a deep rich soil. They are benefited by mulching in the fall of the year. Prune according to the habit of growth, cutting back close all weak shoots and shortening the long canes to a convenient length.

The plants offered by us are strong field-grown, delivered in dormant condition. Fall or early spring delivery.

Alfred Colomb.—Carmine crimson; large, full, fine globular form.

American Beauty.—A variety too well known to require description; color a rich red, passing to crimson; fragrant. A rapid grower and constant bloomer.

Anne de Diesbach.—Bright rose color, very large and showy; particularly fine in bud; flower slightly cupped. A vigorous grower; one of the best.

Baron de Bonstetten.—Flowers large, very double and full; color a rich dark red, passing to deep, velvety maroon; highly scented.

Captain Hayward.—Bright scarlet, very vivid in summer and glowing in autumn. Large, full flower.

Clio.—Flesh color; flowers often six inches in diameter; very fine.

Frau Karl Druschki.—Very fine, large, beautiful, pure white. The best white Hybrid Perpetual introduced in years.

General Jacqueminot.—Brilliant crimson; very large, globular and excellent; a free bloomer; unsurpassed in its clear, rich crimson, scarlet color.

George Ahrends (Red Druschki).—Bright red-carmine to delicate rose; extremely large, full and deliciously scented, very floriferous. Long stiff stems.

George Dickson.—The color is a velvety black scarlet crimson. Strong grower, producing large flowers four to five inches across.

Hugh Dickson.—Brilliant crimson, shaded scarlet; very large and beautiful form. Vigorous grower, with handsome foliage; very fragrant.

J. B. Clark.—Intense scarlet, shaded crimson-maroon; very dark and rich; fragrant.

Marshall P. Wilder.—A favorite variety; it certainly is a grand rose. Color deep, rich, glowing red.

Mrs. John Laing.—Delicate pink, fragrant, a continuous bloomer.

Paul Neyron.—Flowers of immense size, often five inches in diameter. Color deep, clear rose, very fresh and pretty. The plant is a strong, healthy grower, with glossy foliage, and is one of the most prolific bloomers in the Hybrid class, young plants in the nursery rows blooming almost without intermission from June to late October.

Prince Camille de Rohan.—Very dark. This rose is of a rich, velvety crimson, passing to an intense maroon-shaded black, large, full flowers. One of the darkest roses and very handsome.

Ulrich Brunner.—Extra large, bold flowers, full and globular. Color rich, glowing crimson, elegantly flamed with scarlet.

HYBRID TEA, TEA, CHINA AND BOURBON ROSES

This class of roses is suitable for general cultivation, as they are usually our very best roses, blooming continuously throughout the season. Require more care in winter protection than do the Hybrid Perpetuals in this climate and further north, but well repay the extra care in a goodly supply of fine flowers when roses of the hardy variety are scarce.

(Not ready for delivery before latter part of April and early May, according to weather conditions. Customers will do well to leave the time of shipment to us.)

NOTICE.—In case we are sold out on any one grade or variety, we reserve the right to substitute a variety of same color or send either the next larger or smaller grade, changing prices accordingly. If it is not desirable that we do this, please so state on your order.

HYBRID TEA, TEA, CHINA AND
BOURBON ROSES—Cont'd

Antoine Rivoire (H. T.).—A vigorous grower, with fine-shaped buds and flowers; color salmon flesh in center to the edge of its petals, shading to a creamy white, with a delicate pink tinge; very fresh and clean.

***Betty (H. T.).**—Coppery-rose, overspread with golden yellow.

Colonel R. S. Williamson (H. T.).—Color satiny white with deep blush center; blooms large, well formed, with high pointed center and carried on stiff stems.

Clothilde Soupert (Polyantha).—Here we have a rose that for bedding out doors or for pot culture is hard to beat. Frequently the entire foliage is hidden with bloom. Medium-size flower, variable color, from almost pure white to deep pink. Always in bloom.

Duchesse of Wellington (H. T.).—Intense saffron-yellow, stained with deep crimson, deepening with the development of the flower to a coppery-yellow of a distinct new shade. Style of flower similar to Killarney.

Etoile de France (H. T.).—The gold medal rose of France, and claimed by the raiser, J. Pernet Ducher, to be the finest rose he has ever sent out. Strong, vigorous grower. Flowers clear red crimson velvet; very fragrant and keeps well.

Etoile de Lyon (Tea).—This is the best yellow bedder to date. Color lemon-yellow, buds and blooms very double and of large size. A good, free bloomer.

Gen. Superior Arnold Janssen (H. T.).—This rose has all the good qualities of "Jonkheer J. L. Mock" and "General Superior Janssen," and is just between them in color, being a deep, glowing carmine, carried erect on stiff, robust stems. Very free and in every way a noble, first-class rose.

***General McArthur (H. T.).**—Vivid crimson scarlet, the most beautiful shade, retains its brilliancy when flowers have expanded.

Gruss an Teplitz (China).—One of the brightest colored roses grown. Color dark rich crimson, changing to bright scarlet, shading to velvety red. Blooms continually; flowers good sized and delightfully fragrant. One of the finest and most useful bedding roses extant.

Hadley (H. T.).—Deep, rich, velvety crimson, retaining its brilliancy throughout the year. Well-formed large buds on rapidly growing stiff stems.

Hermosa (China).—It would be but a waste of words to write a lengthy description of Hermosa. It is too well known and too great a favorite. It is always in bloom and always beautiful; the color is the most pleasing shade of pink, very fragrant. A grand rose for bedding or pot culture.

Helen Gould (H. T.).—Free growing and vigorous for its color, it is remarkably constant in blooming, every new shoot producing a flower. The blooms are bright rosy carmine red, the buds well formed, the fragrance is delightful, and taken altogether, it is a variety that should be generally planted.

Jonkheer J. L. Mock (H. T.).—This grand rose is the strongest growing in the Hybrid Tea class. The blooms, which are produced with the greatest freedom, are carried on stiff, erect stems, and are of the largest size, of perfect formation and highly perfumed. Color clear, imperial-pink; a glorious flower.

Kaiserin Augusta Victoria (H. T.).—Strong grower, free bloomer, perfect flowers. Large, fine buds, pure white, does not pink up when planted out. A superb variety.

Killarney (H. T.).—Brilliant sparkling pink with large, pointed buds, broad, wax-like petals with silvery edges and enormous semi-double flowers of exceeding beauty.

Killarney White (H. T.).—A pure white sport from the pink parent; the newest thing in forcing rose, admittedly a strong competitor of The Bride.

La France (H. T.).—An old and well-known variety. Color silvery-rose shades, with pink, it has a satin sheen over all its petals. Hardy, continually in bloom; first-class in every way.

Laurent Carle (H. T.).—Brilliant velvety carmine, with long buds borne on long stems, opening into large flowers of perfect form and fullness. Extremely vigorous grower.

Mme. Caroline Testout (H. T.).—A charming rose. Clear, bright satiny-pink; flowers very large and extremely showy, quite distinct.

Mme. Jenny Gillemot (H. T.).—Buds long and pointed, deep saffron-yellow, opening canary, with dark golden shadings; blooms large, petals immense; opens very freely; a fine upright grower of branching habit; exquisitely beautiful; very large in size.

Mme. Second Weber (H. T.).—Rosy-salmon, deepening in color as its long, pointed buds open and expand into blooms of enormous size; petals of heavy texture and beautiful in form.

Mme. Jules Grolez.—An exceedingly free blooming variety, with very bright, large, full, finely formed flowers; buds beautiful. Color a distinct and charming shade of satiny-pink.

Maman Cochet (Tea).—This is our favorite rose. It is of the largest size; the flower is built up or rounded and very double; the color is a deep rosy-pink, the inner side of the petals being a silvery rose, shaded and touched with golden yellow. Very vigorous; deliciously fragrant.

Marie Guillot (Tea).—One of the standard varieties of Tea Roses, which as yet has not been equalled by any rose of its color, splendid for any use. Especially desirable for summer rose beds. Color pure white, sometimes tinted pale yellow.

Marie Van Houtte (Tea).—This exceedingly lovely rose cannot be surpassed by any rose of its color. In the open ground it is truly magnificent. The flowers are extra large and are deliciously fragrant. The color is pale canary yellow, shading to pale rose.

Meteor.—The color is rich, velvety crimson, exceedingly bright and attractive.

Milady.—In color similar to Richmond, yet richer and darker in the bud; opens perfectly at all seasons and is exceptionally full. Of sturdy habit, splendid foliage and great productiveness.

Mrs. Aaron Ward.—A most striking color—Indian-yellow shading to lemon-cream at edges of petals. Very large and full, of refined form, cupped and very deep, effectively showing the golden heart.

Mrs. Geo. Sawyer.—Brilliant rose-pink, or bright peach-pink. Flowers large, well formed, fairly full, with petals of good substance. Freer in growth and bloom than Killarney; breaks in rapid succession, throwing up three to four foot canes carrying heavy, leathery foliage, every shoot tipped with a bud.

President Taft.—This rose was raised in Cincinnati, the home of President Taft, and was named in his honor. It is a remarkable pink rose. Color a shining, intense, deep pink.

Rhea Reid.—Flowers large, rich red, very double, fragrant, and continuous bloomer; strong grower; resists mildew and black spot.

Radiance.—Brilliant rosy-carmine, shaded with rich opaline-pink tints in the flower, which is large, full, of fine form, with cupped petals.

Richmond (H. T.).—This is said to be the best red forcing variety yet produced. Strong grower. Color deep red, long pointed buds; elegant dark foliage.

Souv. de Pres. Carnot (H. T.).—Long beautifully pointed buds, developing into large, full and double flowers with thick, heavy, shell-pink petals. A delicate flush-white, shaded a trifle deeper at the center, very slightly suffused with lawn.

Sunburst (H. T.).—This magnificent giant yellow Rose is a fine forcer; it stands head and shoulders above all others of its color and will rank with American Beauty and the Killarneys in value and grandeur. It has long, pointed buds, which can be cut tight for market. The color is orange-copper or golden-orange and golden-yellow; edge of petals lighter; all intense shades, extremely brilliant in effect. It puts all the yellows to sleep when it comes to bedding in the garden. The golden-yellow color stays right with the flower until it fully finishes.

White La France (H. T.) (Augustine Guinnoisseau).—This is a beautiful rose of the La France type; color a fawn white.

White Maman Cochet (Tea).—A sport from Maman Cochet, which it resembles in every particular except color, which is pure white, occasionally tinged with blush.

William Shean (H. T.).—Purest pink, petals shell-shaped, four to five inches long; flowers of immense size and substance and of perfect form; free blooming and distinct.

William R. Smith (H. T.).—White, with beautifully blended shadings of salmon and rose-pink. A splendid bedding rose.

DWARF POLYANTHA ROSES—Rosa
Polyantha

Miniature roses derived from the Climbing Polyanthas. Of dwarf habit, profuse bloomers. Fine for bedding or for edgings. Perfectly hardy.

Baby Rambler.—"The new dwarf everblooming Crimson Rambler." The greatest advertised, the most talked of rose ever introduced in America. Like Crimson Rambler in bloom except that it is dwarf and a true everbloomer. In bloom all the time. A most wonderful rose.

Baby Rambler, White (Catherina Ziemet).—In habit of growth like Baby Rambler Red, but with small double white flowers in clusters. Fine for cemetery planting.

Baby Dorothy.—A prolific producer of pure pink flowers.

Jesse.—Bright cherry crimson, on order of Richmond in color. Fine for pot culture, bedding or massing; blooms continually until frost.

Mrs. Cutbush.—Bright, deep pink; blooms in large clusters throughout the growing season; one of the choicest.

CLIMBING EVERBLOOMING ROSES

Cl. American Beauty.—A seedling from American Beauty with Wichuraiana and Tea blood in its veins. Same color, size and fragrance as American Beauty, with the addition of the climbing habit. Good foliage and better blooming qualities. One plant of this new rose will produce twenty times as many flowers in June as the old American Beauty, besides blooming occasionally during the summer.

Cl. Clothilde Soupert.—Ivory-white, shading toward center to silvery-rose; perfectly full and double; rapid climber, abundant bloomer and perfectly hardy.

CLIMBING ROSES—Cont'd

Cl. Gruss an Teplitz.—Vivid fiery crimson; an exact duplicate of the bush rose of this name except that it is a vigorous climber, producing a sheet of dazzling bloom.

Cl. Kaiserin Aug. Victoria.—A climbing "Sport" of the fine variety whose name it bears, identical with it in hardiness, freedom of bloom, color and size of flowers.

RAMBLER ROSES—Rosa Polyantha

Under this class we list the Rambler sorts; they are perfectly hardy and are suitable for trellises, fences, porches, pillars, pergolas, arches, etc., etc.

American Pillar.—Large single flowers of rich, rosy-pink, approaching brilliant carmine, golden yellow stamens; profuse bloomer. Originated by the U. S. Government Department of Plant Introduction.

Crimson Rambler.—The well-known rose, of which there have probably been more planted than any one-half dozen other varieties put together. Strong grower, flowers in panicles of 30 to 40 blooms, color bright vivid crimson.

Dorothy Perkins.—See Wichuriana Roses.

Excelsa.—See Wichuriana Roses.

Flower of Fairfield.—Said to be an everblooming Crimson Rambler. Color deep crimson in large clusters.

Queen of the Prairie.—See Prairie Roses.

Tausendschoen or Thousand Beauties.—Flowers when opening are a delicate shade of pink, changing to rose carmine. It gets its name from its many flowers and the variation in coloring. A beautiful rose.

Yellow Rambler (Aglala).—A new, hardy, yellow climbing rose; blooming after the same manner as Crimson Rambler, in cluster; flowers of medium size in immense clusters; very sweet scented. Color a clear yellow.

White Dorothy Perkins.—See Wichuriana Roses.

White Rambler (Thalia).—In habit of growth, foliage, manner of blooming and shape of flower this is identical with C. Rambler, differing only in color, which in Thalia is a pure, clear white.

AUSTRALIAN ROSE—Rosa Lutea

Harrison's Yellow.—Deep golden-yellow.

Persian Yellow.—Deep golden-yellow; an old favorite; blooms once a year.

PRAIRIE ROSES—Rosa Setigera

This class is perfectly hardy and requires no protection.

Baltimore Belle.—Nearly white with a faint blush.

Queen of the Prairie.—Large clusters of red flowers.

MOSS ROSES—Rosa Mucosa Bifera

This class has always been a favorite in old gardens. There is nothing prettier than the Moss rose when in bud, and the delicious fragrance. Perfectly hardy.

Blanche Moreau.—A fine white.

Crimson Globe.—Deep crimson.

Elizabeth Rowe.—Color deep pink.

Princess Adelaide.—Rose-pink.

Salet.—Rose-pink.

SWEET BRIARS, HYBRIDS—Rosa Rubiginosa Hybrida

English Sweet Briar.—The old time Briar rose of the English gardens.

Rosa Multiflora Japonica.—Largely used in shrub collections and with the Rugosa, Australian and Briars.

ROSA RUGOSA

This class of roses is especially adapted to hedges, or for shrubbery collections, the splendid foliage, the flowers and later the seed pods, make this class one that should be more largely used in landscape work.

Each Per 10 Per 100

Conrad F. Meyer.—Large double flowers, clear silvery-pink, extra fine.

New Century.—Beautiful rosy-pink, in clusters of full and double flowers.

Nova Zembla.—Flesh-white.

Rugosa Alba.—Single pure white.

Rugosa Alba.—Single deep rosy carmine.

WICHURIANA ROSES

This class of roses is admirable for covering trellises, walls, fences, trailing over rocky places, slopes, etc.

Dorothy Perkins.—A splendid new climbing rose. In foliage and habit of growth it is remarkably like Crimson Rambler; the flowers are double, of good size and borne in clusters. The petals are very prettily rolled back and crinkled; buds remarkably handsome; color a clear shell pink and holds a long time without fading.

Excelsa (Red Dorothy Perkins). W.—It is a good deal to claim for a rose, but we are within bounds when we describe Excelsa as a brilliant Crimson Rambler flower on glossy, varnished Wichuriana foliage. The flowers are very double, produced in large trusses of thirty to forty, and almost every eye on a shoot produces clusters of flowers. The color is intense crimson maroon, the tips of the petals tinged with scarlet. The finest of all Crimson Ramblers.

Hiawatha.—Glowing ruby-crimson, with a clear white eye; single flowers in clusters; light glossy green foliage; excellent for climbing, trailing or forcing.

Lady Gay.—Cherry pink, fading to soft white. The flowers in large, loose trusses, together with the buds and foliage, form a mass of beauty from base of vine to tips of branches.

White Dorothy Perkins.—Identical with the favorite rose Dorothy Perkins, excepting that it is white. It has no rival as a white climber. You should try it.

Wichuriana.—Strong grower in any soil. Flowers single, pure white, in great profusion during the month of July.

ACCOUNT EMBARGO FEDERAL HORTICULTURAL BOARD, WE ARE UNABLE TO SUPPLY TREE ROSES.

Climbing American Beauty Roses

A PRACTICAL HANDBOOK OF Trees, Shrubs, Vines and Herbaceous Perennials

By JOHN KIRKEGAARD

Formerly Assistant to Director of the Royal Botanical Gardens, Copenhagen, Denmark. Latterly Twenty Years in American Forestry and Botanical Work.

This practical reference book is the logical result of years of practical work in the author's career. He has sought, and successfully, the simplest form of explanation and instruction in the message which he conveys from each plant and growing thing to the amateur or gardener who seeks to be tree-wise, shrub-wise and vine-wise. No book of recent years is so comprehensive and so practical as this volume. Exhaustive descriptions, variations from type and more technical matter must be sought in the Horticultural Encyclopedias, for in these pages the author stands as the interpreter of the plant to the planter. The character of information may be summed up in the sub-title of the book—**The Hardy and Ornamental Varieties: Their Characteristics: Use: and Treatment.**

Adequate space is given to articles upon injurious insect pests, the adaptability of plants for certain purposes, planting, pruning, spraying and cultivation. In short, the author has endeavored to include whatever information the householder needs with which to secure the proper selection, care and treatment of such trees and plants as are best adapted to his purpose, then to aid him in properly caring for them.

Illustrations in Sepia. Planting Plans. 410 pages. 8vo. Beautifully bound in cloth. Price \$2.50 net. Mailing price, \$2.71.

SELECT HARDY PERENNIALS

Although popularly known as old-fashioned plants, Perennials have never been so popular as they are at the present time, and we feel safe in saying that a permanent taste has been developed which is certain to continue and make Perennials as popular in the United States as they have been in the horticultural centers of Europe for many years. Cultivation is of the simplest, beginning with any good soil for a foundation, which may be enriched with any good fertilizer, such as well decomposed cow manure or bone meal, deeply dug, well pulverized, in season as early as possible, so as to enable them to become well rooted and established before hot, dry weather sets in, keeping the ground well stirred, and where it is convenient to water beds during hot, dry weather, a mulch of any loose material, which will keep the soil from baking will be found very beneficial.

Short grass, the rakings of the lawn after cutting, will be as good for this purpose as anything. A covering of manure should be applied in the fall. This may be forked into the soil early in the spring, beyond this, little care need be given, the occasional staking of a plant, the cutting off of decaying flowers, which will prolong the flowering season of many species, and the dividing and replanting occasionally of such varieties that have become too large, being all that is needed. The following list has been made with special pains as to worthy varieties, large range of colors and different styles of growth. We shall endeavor to add yearly to our list any varieties that we think worthy and discard such as we think undesirable.

General Descriptive List of Hardy Perennial Plants

NOTE.—All orders for Perennial plants will be shipped at the proper time for planting, unless instructed to the contrary, you will do far better to let the Nurseryman decide as to the best time to plant. We will, however, comply with your wishes regarding shipment, as far as possible, and where stock is ready.

ARCHILLEA—Melfoil or Yarrow

A. millefolium (Rose-flowered Yarrow).—Rosy-lilac flowers, from June to August. Grows 18 in. high.

A. Ptarmica ("Boule de Neige") ("Ball of Snow").—Flower and habit same as "The Pearl," excepting that the flowers are more perfect, with fuller centers, which makes it appear purer in color. Grows 18 to 24 inches high.

ACONITUM—Monkshood

A. Napellus.—Large, dark blue flowers; August and September. Grows 3 to 4 feet high.

AGEPODIUM—Bishop's Weed

A. Podagraria.—A rapid-growing plant, with neat green and yellow variegated foliage, thriving in any soil; makes a fine border for a bed of shrubs or for covering waste ground. Grows 1 foot high.

AGROSTEMMA—Rose Campion

A. coronaria.—Bright crimson flowers on stems 2½ to 3 feet high.

ANCHUSA—Sea Bugloss

A. italica ("Dropmore Variety").—A great improvement on the common form; grows 5 to 6 feet high, with spikes of beautiful blue flowers the entire season.

ANEMONE—Windflower

A. canadensis (Pennsylvanica) (Pennsylvania Windflower).—The prettiest of our native Windflowers, producing its large white flowers, which are slightly tinged with rose on the reverse side, in the greatest profusion from June to August; an excellent plant either for the border or rockery, and succeeds equally well in sun or shade; 12 to 15 inches high.

ANEMONE JAPONICA—Japanese Windflower

These beautiful Windflowers are one of the most important hardy plants. They begin blooming early in August and continue until cut down by frost. Excellent for cutting, lasting many days in good condition. The plants grow two to three feet high and are perfectly hardy if given several inches of mulch during the winter. They can be used in solid beds or borders or in clumps through the hardy border.

A. japonica rubra.—Beautiful rosy-red, stamens bright yellow.

A. japonica alba.—Large, snowy-white, very choice.

A. Queen Charlotte.—Very large semi-double flowers of La France pink, a color that is rare among hardy plants.

A. whirlwind.—Large semi-double pure white flowers; very free.

ANTHEMIS—Marguerite

The hardy Marguerites are among the most satisfactory summer-blooming perennials. In bloom all summer.

A. tinctoria.—Of dense, bushy habit, with large, golden-yellow flowers. Grows about 15 to 18 inches high.

ANTHERICUM

A. liliago (St. Bernard's Lily).—A pretty species, bearing spikes of white flowers during May and June; 18 inches high.

AQUILEGIA—Columbine

The Columbines are old favorites that succeed in any ordinary garden soil. The varieties offered are a selection of the best kinds; 2 feet high.

A. canadensis (Common American Columbine).—The native bright red and yellow variety, and one of the brightest.

A. chrysantha.—The beautiful golden-spurred "Columbine." Flowers golden-yellow; blooms in the early spring.

A. coerulesa.—This is the true blue form of "Rocky Mountain Columbine," one of the handsomest of the family.

A. Helena.—Large blue and white flowers.

A. Nivea Grandiflora.—Large white.

Plant Flowers to Beautify your home grounds, to hide unsightly foundations, in borders, or hedge, or in artistically arranged beds, to make your grounds radiate with their beauty and fragrance.

ARABIS—Rock Cress

A. alpina.—Desirable early spring flowering plant, adapted to the rock garden and border; forms a dense carpet, completely covered with pure white flowers early in the season; 6 inches high.

ARTEMISIA

Fine for the border or among shrubbery, foliage ornamental, can be used for carpet or ribbon bedding; permits of cutting back.

A. abrotanum (Old Man).—Dark green, finely cut foliage, with pleasant aromatic odor; 2 feet high.

A. stelleriana (Old Woman).—Deeply cut silvery foliage; much used in carpet bedding. 18 inches high.

ASTERS—Hardy

Michaelmas Daisies or Starworts.

These are among the showiest of our late-flowering hardy plants, giving a wealth of bloom at a season when most other hardy flowers are past. The collection offered below is made up of the choicest varieties, only the weedy sorts being eliminated.

A. laevis.—Lavender blue; 4 feet.

A. Mrs. F. W. Raynor.—Light reddish-violet; 4 feet.

A. novae angliae.—Bright violet purple; 4 feet.

A. novae angliae rosea.—Bright purplish mauve; 4 feet.

A. White Queen.—Large white; very free; 4 feet.

BAPTISIA—False Indigo

B. tinctoria.—Produces spikes of bright yellow flowers during June and July; 2 to 3 feet high.

BOLTONIA—False Chamomile

Among the showiest of our native hardy perennial plants, with large single aster-like flowers. The plant is in bloom during the summer and autumn months, and with its hundreds of flowers open at one time produces a very showy effect.

B. latisquama.—Pink, slightly tinged with lavender; 4 to 5 feet high.

B. asteroides.—Pure white, very effective; 4 to 5 feet high.

Asters

CAMPANULA—Bell Flower

The Bell Flowers are among the most important of the hardy plants, combining a wide range of habit and color with perfect hardiness.

C. persicifolia (Peach Bells).—Blue salver-shaped flowers during June and July; 2 feet.

C. persicifolia alba.—Identical with the above, but with single white flowers; very pretty and free flowering; 18 to 24 inches.

C. pyramidalis (The Chimney Bell Flower).—The most conspicuous of all Campanulas, and an attractive plant for herbaceous border, forming a perfect pyramid 4 to 5 feet high, crowded with large, salver-like blue flowers.

C. medium (Canterbury Bells).—Plants grown from the very best strain of seed; in mixed colors only; 3 feet.

CARYOPTERIS

C. mastacanthus (Blue Spirea).—See Shrubs.

CENTAUREA—Hardheads or Knapweed

Of easy culture, delight in open, sunny position, producing a wealth of bloom, make a fine display in the border, or for cutting.

C. macrocephala.—Very large, thistle-like golden yellow flowers, useful for cutting and showy in the border. July and August.

CERASTIUM—Snow in Summer

C. tomentosum.—A desirable, low-growing plant with silvery foliage and white flowers, suitable for the rockery or for covering graves or steep banks; can also be used for carpet bedding.

CHRYSANTHEMUM—Moonpenny Daisy

C. Burbank's Shasta Daisy "Alaska".—An improvement on the original, very free-flowering, blooms $4\frac{1}{2}$ to 5 inches across, of pure white.

C. maximum "Triumph".—A free-growing plant, not exceeding 3 feet in height; in bloom from early July until October. Flowers Daisy-like, 3 inches and over in diameter, pure white with a golden center; of great substance; will last a week or more when cut.

CHRYSANTHEMUM—Hardy

This class of beautiful plants is now so universally popular for out-door bedding, and justly so. They produce a lavish profusion of blooms, giving color, life and beauty to the garden at a time when other plants have been nipped by frost. They are quite hardy, but it is well to give a slight covering of leaves or manure during winter. Grows from 2 to 3 feet high.

C. Bride of Keston.—Deep pink.

C. Estolb Yellow.—A fine yellow.

C. Goaches Crimson.—Bronzy-crimson, outer petals shading to yellow.

C. Golden Queen.—Yellow.

Julia Lagravere.—Rich garnet.

C. La Parisienne.—A fine white.

C. Old Homestead.—Pink.

Princess of Wales.—A fine white.

President.—Rich purplish crimson.

Soeur Melanie.—Pure white.

Strathmeath.—Rosy pink.

Victor.—Rosy crimson.

C. Vivian Prince.—Yellow.

CONVALLARIA—Lily of the Valley

A lovely little hardy perennial widely planted everywhere for its delicate sprays of drooping white bells and their delightful fragrance.

CLEMATIS—Shrubby

C. recta.—A fine variety, growth erect, with handsome, pure white flowers in large, showy clusters; June and July; 2 to 3 feet high.

C. Davidiana.—A most desirable variety; fresh, bright green foliage and tubular bell-shaped flowers of deep lavender blue during August and September. Fragrant; 2 to 3 feet high.

COREOPSIS

C. lanceolata.—This handsome variety is now probably the most popular perennial plant in cultivation. It begins to flower early in June and continues in flower until cut down by severe freezing weather. It is continually one mass of golden-yellow. It is easily grown, is perfectly

Campanula—Bell Flower

hardy and succeeds in almost any position, and after once planted takes care of itself. The flowers, which are of graceful form, are invaluable for cutting for decorative purposes; 18 inches high.

DELPHINIUM—Hardy Larkspur

The hardy Larkspurs are one of the most important and most satisfactory plants in the herbaceous garden, and should be planted extensively even in the smallest garden. Their long spikes of flowers are produced continuously from June until late in the fall, if the precaution is taken to remove the flower stems before they can produce seed.

D. grandiflorum chinese.—A very pretty and effective variety, with large, open panicles of handsome flowers, varying in color through all the lighter shades of blue to almost white; should be in every collection; 18 inches high.

D. grandiflorum chinese album.—A pure white form of above.

D. formosum.—Probably the best known and most popular of the Larkspurs, producing long spikes of deep blue flowers, with white eye; one of the best; 3 to 4 feet high.

D. belladonna.—Cannot be recommended too highly on account of its large, lovely sky-blue flowers, which are heightened in richness by a distinct silvery sheen; remarkably free-flowering; beginning in May, it continues a mass of bloom until late in fall; 3 to 4 feet.

D. hybridum.—One of the finest strains of mixed hybrids, consisting of the best named varieties. The plants are of strong, vigorous habit, with large flowers in spikes two feet and over long, the majority running in the lighter shades of blue.

DIANTHUS

D. barbatus, Single Mixed (Sweet William).—Too well known to require description. Grown from choice strain, mixed colors; 18 to 24 inches high.

D. Double Giant Mixed.—A fine strain of this popular flower.

DIANTHUS PLUMARIUS—Hardy Garden Pinks

Dwarf, hardy Pinks, bearing double flowers of rich colors, decided improvements on the old sorts; 6 to 9 inches high.

D. Delicata.—Soft, pleasing, delicate rose.

D. Elsie.—Bright rose, maroon center.

Continued on next page.

Digitalis (Foxglove)**DIANTHUS PLUMARIUS—Cont'd**

- D. *Excelsior*.—Light rose-pink, with deeper shadings.
 D. *Her Majesty*.—Large flowers of purest white.
 D. *Homer*.—Rosy-red with dark center.
 D. *Juliette*.—White, laced crimson.
 D. *Souv. de Salle*.—Soft rosy-red.
 D. *White Reserve*.—A nicely fringed pure white.

DICTAMNUS—Gas Plant

- A very showy border perennial, having fragrant foliage and spikes of curious flowers, giving off during hot weather a fragrant volatile oil, which ignites when a match is applied to it.
 D. *fraxinella*.—Showy, rose-pink flowers, with deeper veins; 18 to 24 inches high.
 D. *alba*.—Pure white; 18 to 24 inches high.

DIELYTRA OR DICENTRA

- D. *spectabilis* (Bleeding Heart or Seal Flower). Adapted for out-door planting, doing splendidly in semi-shaded position or for forcing for early spring blooming. It bears long racemes of graceful, heart-shaped pink flowers; 18 inches high.

DIGITALIS—Foxglove

- D. *gloxiniæflora*.—The old-fashioned Foxgloves are always pretty. We can supply them in the following shades:
 White, Purple Lilac, Rose. Grow 3 to 5 feet high.
 D. *ambigua* (Grandiflora).—Showy flowers of pale yellow, veined brown.

EUPATORIUM

- E. *coelestinum*.—A pretty, hardy plant, with light blue flowers similar to the Ageratum; begins to flower in July and continues until frost; a most desirable and showy plant, and a color that is always scarce; 18 to 24 inches high.
 E. *urticaefolium* (Ageratoides).—A useful border plant of strong free growth, with minute white flowers in dense heads; August and September; 3 to 4 feet high.

FUNKIA—Plantain Lily (Hosta)

- F. *caerulea*.—Blue, broad green leaves; 18 to 24 inches.
 F. *subcordata*.—Pure white, lily-shaped, fragrant flowers; borne in large clusters; 12 to 18 inches.
 F. *lancifolia undulata*.—One of the best variegated-leaved plants; fine for edgings; lavender flowers; 12 to 18 inches high.

GAILLARDIA

- G. *aristata* (Grandiflora).—Gaillardias are among the showiest and most effective of hardy perennial plants. Beginning to flower in June, they continue one mass of bloom the entire season. They will thrive in almost any position or in any soil, but respond freely to liberal feeding. Being perfectly hardy, they require absolutely no protection, taking care of themselves. The flowers are large, from 2½ to 3½ inches in diameter. They are produced on long stems and are excellent for cutting, and of the most gorgeous colorings. The center is dark red brown, while the petals are variously marked with rings of brilliant scarlet crimson, orange and vermilion, and often a combination of all these colors in one flower; 18 to 24 inches high.

GERANIUM—Crane's Bill

- G. *sanguineum*.—A desirable plant either for the rockery or border, with pretty cut foliage, forming a compact bush with bright crimson-purple flowers, and continues in bloom from early in the summer until late in the autumn; 18 inches high.

GYPSOPHILA—Baby's Breath

- G. *paniculata*.—A beautiful, old-fashioned plant. It forms a symmetrical mass 2 to 3 feet in height and as much through, of minute pure white, gauze-like flowers. Valuable for cutting. August and September.

GRASSES—Hardy Ornamental

- For single specimens, beds or groups on the lawn nothing gives a finer effect than these. They are now largely used in prominent positions in many of the public parks, etc.

- Arundo Donax*.—Will grow from 15 to 20 feet in this climate; must be covered in winter with light manure or old hay, enough to keep frost out. Poles should be cut before covering in fall. Beautiful for center in large group of ornamental grasses or hiding unsightly objects. Will multiply yearly by sending up new canes.
Arundo Donax variegata.—A beautiful variegated form of the above. Foliage creamy white and green, growing 6 to 8 feet high.

- Elymus glaucus* (Blue Lyme Grass).—A handsome grass, with narrow glaucous silvery foliage; well adapted for the border or edge of beds containing taller sorts. Grows about 3 feet high.

- Erianthus ravennae*.—Grows from 8 to 12 feet high, frequently throwing up from 30 to 50 flower spikes. It resembles the Pampas Grass, but blooms more abundantly.

- Eulalia gracillima univittata*.—Of compact habit, with very narrow foliage, of a bright green color, with a silvery midrib; 4 to 6 feet high.

- Eulalia japonica variegata*.—A very graceful, tall variety from Japan. Its long, narrow leaf-blades are striped green, white and often pink or yellow. It throws up stalks from 4 to 6 feet in height, terminated with a cluster of flower spikes.

- Eulalia japonica zebrina* (Zebra Grass).—The long blades of this variety are marked with broad, yellow bands across the leaf. It makes a very attractive specimen plant for the lawn; 4 to 6 feet high.

- Festuca glauca* (Blue Fescue).—A pretty dwarf, tufted grass, with glaucous foliage.

- Phalaris arundinacea* (Variegated Ribbon Grass, or Gardener's Garter).—Large variegated foliage; an excellent grass for bordering large beds; 18 to 24 inches high.

HARDY FERNS

- In almost every garden suitable positions can be found for a few Hardy Ferns. They do best in shady or semi-shady positions, in rich but well-drained soil, where they can be liberally supplied with water during dry weather. Ground should be enriched with a liberal quantity of leaf mold, peat or other like material.

- *Denotes varieties that require shade.
 **Denotes varieties that succeed in half-shady places.

- **Aspidium Goldianum* (Shield Fern).—24 to 36 inches.

- ***Asplenium Felix-Foemina Victorine* (Queen of Lady Ferns).—12 to 15 inches.

- ***Asplenium Felix-Foemina Multifidum*.—12 to 15 inches.

- ***Asplenium Felix-Foemina Setigerum*.—15 to 18 inches.

- ***Lastrea Felix-mas* (Male Fern).—15 to 28 inches.

- ***Lastrea Dilitata*.—18 to 24 inches.

- ***Onoclea Struthiopteris* (Ostrich Fern).—24 to 36 inches.

- ***Osmunda Cinnamomea* (Cinnamon Fern).—24 to 36 inches.

- ***Polystichium Braunii*.—15 to 18 inches.

- ***Polystichium Setosum*.—12 inches.

- Polystichium Lobatum*.—15 to 18 inches.

HELIOPSIS—Orange Sunflower

- Similar in general habit to *Helianthus*, but commencing to flower early in the season; of dwarfer habit, rarely exceeding 3 feet in height; very valuable for cutting.

- H. pitcherianus*.—A desirable, hardy herbaceous plant growing from 2 to 3 feet high and a perpetual bloomer, beginning to flower early in the season and continuing in bloom the entire summer. The flowers are of a beautiful deep golden-yellow color, about 2 inches in diameter, of very thick texture, and are very graceful for cutting.

HELIANTHUS—Hardy Sunflowers

- The perennial Sunflowers are among the most effective hardy plants for large borders, for planting among shrubbery or as clumps on the lawn. They are remarkably free-flowering, will succeed in any soil, and are invaluable for decorative purposes as cut flowers during the summer.

- H. maximilliana*.—A most graceful single-flowered variety, growing from 5 to 7 feet high, continuing in bloom very late in the season. The flowers are produced in long, graceful sprays, which make it invaluable for cutting purposes.

- H. Soliel d'Or*.—Deep golden-yellow, quilled petals, not unlike a Dahlia; 4 feet; August and September.

- H. orgyalis*.—A tall variety, with medium-sized, single golden-yellow flowers during September; 6 feet.

HELENIUM—Sneeze-Wort

- H. autumnale*.—Grows from 5 to 6 feet high, with broad heads of deep golden yellow flowers during late summer.

- H. Riverton Gem*.—Covered from August to October with brilliant old-gold suffused with bright terra-cotta flowers, changing as they mature to a wall-flower red; 2 to 3 feet.

Gaillardia

HEMEROCALLIS—Day Lily

H. fulva (Yellow Day Lily).—A most useful and desirable herbaceous plant, producing its large, fragrant, yellow flowers during July and August in the greatest profusion. The plants grow about 3 feet high.

H. fulva Kwanso (Double Orange Lily).—A double-flowering form of the Orange Lily, and a most desirable herbaceous plant, that deserves being planted very largely; large orange-colored flowers shaded copper; bloom the greater part of summer; 30 to 36 inches high.

H. aurantiaca.—One of the finest flowers, fully 6 inches in diameter, color a rich Indian-yellow throughout; in bloom from the end of June to the close of July; height 2 feet; requires protection in winter.

HIBISCUS—Mallow

A desirable border plant, with large foliage and large showy flowers of delicate coloring, produced during the entire summer.

H. moscheutos ("Crimson Eye").—Flowers of immense size, often measuring 20 inches in circumference. The color is of the purest white, with a large spot of deep velvet crimson in the center; 4 to 5 feet high.

H. moscheutos (Swamp Rose Mallow).—Flowers 6 inches in diameter, of a light rosy-red color, with darker eye; 4 to 5 feet high.

NEW MALLOW MARVELS

This remarkable plant was introduced a few years ago and has been widely sold throughout the United States, giving the best of satisfaction. The individual flowers are very large, often ten inches across. Plants begin to bloom about mid-summer and continue for a long time.

We have a nice stock of Crimson, Red, Pink and White shades in mixed colors.

HOLLYHOCKS—Superb Double

Few hardy plants combine as many good qualities as the Hollyhock. For planting in rows or groups on the lawn, or for interspersing among shrubbery, they are invaluable. The flowers form perfect rosettes of the most lovely shades of yellow, crimson, rose, pink, orange, white, etc. The Hollyhock requires a rich, deep soil, well drained, and will repay in quantity and elegance of bloom any extra care. A slight protection during the winter will be beneficial. We offer extra strong one-year clumps that are certain to produce grand spikes of flowers this season.

Double—White, Pink, Salmon, Yellow, Maroon and Red.—Grow 5 to 6 feet high.

IBERIS—Candytuft

I. sempervirens.—Produces innumerable flat heads of pure white flowers during April and May; 8 to 10 inches high.

IRIS GERMANICA—Fleur de Lis

The German Iris is one of the most desirable early spring flowering plants. The flowers are of large size and exquisite colors. No garden should be without a collection of these popular flowers. We have a fine list of varieties. Grow about 2 to 2½ feet high, unless otherwise mentioned.

I. Boy Blue.—Standards and falls a beautiful avender-blue.

I. Celeste.—Delicate light lavender-blue.

I. Cherion.—Standards lilac-mauve; falls violet-mauve.

I. Florentina Alba.—Very free-flowering white.

I. Edith.—Standards light plumbago-blue; falls purple.

I. Gazelle.—White, frilled rich mauve.

I. Hector.—Light bronze, stained with purple; fine.

I. Honorabilis.—Standards golden-yellow, falls rich mahogany brown.

I. Jordain.—Both standards and falls light mauve.

I. Johan de Witt.—Standards bluish-violet; falls deep violet-purple.

I. La Tendresse.—Ageratum-blue throughout.

I. Lord Salisbury.—Standards amber-white; fall dark violet-purple.

I. Mrs. H. Darwin.—Standards white, falls reticulated violet.

I. Pallida Dalmatica.—One of the finest of the type, strong, vigorous habit, growing in good soil 4 feet high, with exceptionally large, fragrant flowers, standards lavender, falls lavender shaded blue; exquisite in every way and fine for massing.

I. Pumila.—Dwarf, bluish purple; first to flower; 3 to 6 inches. April and May; fine for borders.

I. Shakespeare.—Standards straw-yellow, veined with burnt umber; falls deep carmine violet.

Sherwin Wright.—(Golden Yellow). A beautiful golden yellow Iris. Plants grow about 2 feet high; the flowers are produced in lavish profusion, of splendid texture and stand well above the foliage. No markings or shadings, clear golden yellow.

I. Spectabilis.—Light and deep violet-purple.

I. Tinnæ.—Deep ageratum-blue.

New Varieties Iris Germanica.

Archevêque (Archbishop).—"S" Deep velvety violet with "F" purple.

Caprice.—(New). "S" reddish purple. "F" deeper purple.

Crepuscule.—"S" and "F" delicate violet purple, quite devoid of markings.

Edward Mitchell.—(New). "S" broad; "F" long and wide. Whole flower is deep wine red.

Isoline.—"S" lilac-pink; "F" purplish old rose. A splendid flower and deliciously scented.

Jeanne d'Arc.—Clear lilac and white.

Loreley.—"S" light yellow; "F" ultra marine blue.

Monsignor.—"S" Blush lavender; "F" Violet with white pencillings at throat.

Oriflame.—"S" light blue; "F" violet purple; extra fine large flower.

Prosper Langier.—Deep velvety crimson with deeply veined throat. "F" very broad.

Rhein Nixe.—(New). "S" White, very large. "F" Rich violet purple, narrow white edge.

Tamerlan.—"S" pale violet; "F" Deep purple. A new and splendid variety.

Stormcloud.—"S" Slaty blue and bronze; "F" purple.

ON ACCOUNT EMBARGO BY FEDERAL HORTICULTURAL BOARD, WE ARE UNABLE TO IMPORT JAPAN IRIS PLANTS.

LATHYRUS—Perennial Pea

L. latifolius.—The hardy, climbing Pea. We have these in the following colors: Red, Pink and White.

LAVANDULA—Lavender

L. vera.—This is the true Sweet Lavender; grows about 18 inches high; delightfully fragrant blue flowers in July and August.

LIATRIS—Blazing Star

L. pycnostachya (Kansas Gay Feather).—Spikes of light rosy-purple flowers; 4 to 5 feet.

LILIUM—Lily

A few Liliums should be scattered through all herbaceous borders. Most of the varieties offered can be planted in the early spring, excepting such as are noted in the description.

Lilies do best in the hardy border where they get the benefit of the shade from the surrounding plants.

L. auratum.—Flowers very large, delicate ivory-white, thickly dotted with rich chocolate-crimson spots. A bright golden band runs through the center of each petal. The finest of all lilies.

L. candidum.—The old-fashioned pure white garden lily. One of the hardiest. Should be planted in early fall.

L. mempomene.—Flowers large and abundant; rich blood-crimson; heavily spotted.

L. tigrinum fl. pl. (Double Tiger Lily).—Orange-scarlet, with dark spots.

L. speciosum album.—White, shaded with slight rose tint on the ends of the petals.

L. speciosum rubrum.—White, heavily spotted with rich crimson spots.

L. Umbellatum.—Flowers in great heads, crimson and orange. Makes a great showing wherever planted. One of the hardiest and most permanent of the hardy lilies.

LOBELIA

Handsome border plants, preferring a moist deep loam.

L. cardinalis (Cardinal Flower).—Rich, fiery cardinal flowers; strong plants, often producing 10 to 15 spikes; 12 to 24 inches long.

LUPINUS—Lupine

L. polyphyllus.—An effective plant producing large spikes of blue flowers. Blooms the latter part of May and early June; grows about 3 feet high. Plant in well-drained garden soil and water during dry weather, but only late in the afternoon.

LYCHNIS—Campion

L. chalcedonica fl. pl. (Jerusalem Cross).—A fine perennial, producing immense heads of vermilion scarlet flowers, far exceeding in brilliancy many of the brightest Geraniums. A gem for cutting, and one of the showiest border plants; 2 to 3 feet high.

L. chalcedonica.—A most desirable plant, heads of brilliant orange-scarlet flowers, grows 2 to 3 feet high and blooms all summer.

L. Haageana.—Brilliant orange-scarlet flowers in May and June; 12 inches.

Iris Germanica

LYSIMACHIA

L. clethroids (Loose-Strife).—A fine, hardy variety, growing about 2 feet high, with long, dense, recurved spikes of pure white flowers.

L. nummularia (Creeping Jenny or Moneywort).—Valuable for planting under trees or shrubs where grass will not grow, where it quickly forms a dense carpet.

MONARDA—Bergamot

M. didyma.—Flowers bright scarlet, produced in spikes; July and August; 2 to 3 feet.

OENOTHERA—Evening Primrose

O. speciosa.—A rare, pure white variety, with flowers three inches across, blooming the entire summer; 18 inches high.

PAEONIAS—Herbaceous

There is no flower that gives more pleasure to the grower than the Paeonia. It is probably the most showy spring flowering plant in our entire list of hardy plants. Easy to grow, requiring very little care and attention, excepting fertilization annually of some well-rotted manure. Every garden should have a goodly supply of this valuable flower. Our collection is not a very large one, but the varieties have been selected from a long list, and only those having special merit have been selected.

All plants will be strong divisions with from 3 to 5 eyes.

Atrosanguinea.—Rosy-red, twilled center. Mid-season.

Bryant's White.—Large, very double, pure white, very fine. Early.

Charlemagne.—Very large, blush pink, a fine variety. Late.

Dorchester.—Large Hydrangea pink, a very good variety. Late.

Festiva Maxima.—Very large, one of the best whites. Early.

Floral Treasure.—Large, pale lilac rose, one of the best commercial sorts. Mid-season.

Gloria Mundi.—Very large, flesh pink. Mid-season.

Grandiflora (Richardson's).—Light rose, of very large size; a splendid variety. Late.

Lady Bramwell.—Silvery rose. Very fine.

La Tulipe.—White, outer guard petals striped crimson. Mid-season.

Mad. de Verneville.—Large, pure white. Early.

Maud Muller.—Light pink. Mid-season.

Model de Perfection.—Light pink, very good commercial sort. Late.

Mons Mallett.—Large, delicate flesh pink. Mid-season.

Perfection.—(Richardson's). Pale shell pink, very fine. Late.

Villa de Nancy.—Pink, very fine.

PAPAVER—Poppy

P. orientale (Oriental Poppy).—Nothing can equal these in gorgeous effect, and, whether planted singly or in masses, their large flowers, rich, brilliant colors and freedom of bloom render them conspicuous in any position. We offer them in mixed colors; 18 to 24 inches high.

P. Goliath.—Fiery-scarlet.

PENTSTEMON—Beard Tongue

P. barbatus (Chelone).—Spikes of brilliant scarlet flowers; height 3 to 4 feet; June to August.

P. laevisgatus digitalis.—Large spikes of long purple white flowers, with purple throats, during June and July; 2 to 3 feet.

PHLOX PANICULATA—Hardy

The Perennial Phloxes are among the most useful and desirable of our hardy herbaceous plants, and should be planted largely. They succeed in any position and can be used to advantage either as single specimens in the mixed border, or as large clumps or beds in the garden or lawn. Range in height from 1 to 3 feet.

Albion (Medium).—Very large panicles of pure white flowers with a faint aniline-red eye.

B. Comte.—Brilliant, rich French purple.

Bacchante.—Tyrian rose with crimson-carmine eye. Medium.

Bridesmaid.—Pure white, with large crimson-carmine eye.

Champs Elysee.—A bright rosy-magenta; very effective.

Crepuscule.—Shading from a deep crimson centre, through rose-lilac to a white edge. Medium.

Elizabeth Campbell.—Bright salmon-pink, with lighter shadings and dark crimson eye.

Eclairer.—Brilliant rosy magenta, with large lighter halo. Tall.

Europa.—A white variety with decided crimson-carmine eye; flowers and trusses very large.

Festiva Maxima Paeonias

Frau Anton Buchner.—The finest white variety yet introduced, having the largest truss and individual flowers. Medium.

Grideur.—Soft mauve rose, suffused and overlaid with a lively shade of cerise.

Henry Murger (Tall).—A beautiful variety; white, crimson-carmine center.

Jeanne d'Arc (Tall).—A good standard late white.

La Vague.—Pure mauve, with aniline-red eye. Medium.

Mrs. Jenkins (Tall).—The best tall early white for massing.

Pantheon (Tall).—Bright carmine-rose.

Riverton Jewel.—Lively shade of mauve-rose, illuminated by a carmine-red eye. Dwarf.

R. P. Struthers (Tall).—Rosy-carmine, with claret-red eye.

Rosenberg.—Bright reddish-violet, blood-red eye. Medium.

Rynstrom.—An improvement on the variety Pantheon. Same color.

Von Lassburg (Medium).—The purest white; flowers larger than any other white.

W. C. Egan.—One of the largest flowered varieties in cultivation; color effect a pleasing shade of soft pink.

PHLOX SUFFRUTICOSA

Early Flowering Hardy Phlox.

Miss Lingard.—A very fine white variety; begins to flower after the middle of June and continues throughout the season. Largely used for cut flowers.

PHLOX SUBULATA—Moss or Mountain Pink

A pretty creeping type, with moss-like evergreen foliage, which in early spring is hidden beneath a mass of bloom. One of the very best plants in our collection for the rockery, and invaluable for covering graves or carpeting the ground. Grows about 6 inches high.

P. s. lilacina.—Light lilac.

P. s. rosea.—Bright rose.

P. s. alba.—Pure white.

P. s. atropurpurea.—Purplish-rose.

PHYSOSTEGIA—False Dragon Head

One of the most beautiful of our midsummer flowering perennials, forming dense bushes 3 to 4 feet high, bearing spikes of delicate tubular flowers, not unlike a gigantic heather.

P. virginica speciosa.—Bright but soft pink; 3 to 4 feet.

P. alba.—Pure white; very fine; 3 to 4 feet.

PLATYCODON—Balloon Flower, or Japanese Bell Flower

P. grandiflorum.—Deep blue, cupped, star-shaped flowers; 1½ to 2 feet.

P. grandiflorum album.—An exceedingly pretty white variety; blooms from June to October; 1½ to 2 feet.

P. grandiflorum mariesii.—Deep blue bell-shaped flowers, nearly 3 inches across on 1 foot high plants.

PLUMBAGO—Lead-Wort

P. larpentae.—Of dwarf, spreading habit, growing 4 to 6 inches high, useful as an edging plant or for the rockery; covered with beautiful deep blue flowers during the summer and fall months.

PYRETHRUM

P. coccineum (Hybridum Fl. Pl.).—Too much cannot be said of this grand hardy perennial. No class of plants gives a wider range of colors, while the form and substance of the flowers is all that could be wished. Their main season of blooming is in June; but if the old flower stems are removed they will give a fair sprinkling of flowers in the autumn. The bloom is similar to that of an aster, and ranges in color from pure white and yellow and the various shades of pink and red to deep purple. The plants we offer are seedlings grown from an extra select strain.

RANUNCULUS—Crow-Foot

R. repens (Bachelor's Button).—A pretty double-flowering, bright golden-yellow Buttercup. Grows 2½ feet high and blooms during May and June.

RUDBECKIA—Cone Flower

R. laciniata.—A glorious plant, and one that should find a place in every garden. Without question the best hardy plant introduced in many years. It is of fine habit and vigorous growth, attaining a height of from 4 to 6 feet, and begins to flower early in the season, and continues until late in the fall. The flowers are produced in enormous quantities on long stems, and resemble a fine double golden-yellow Cactus Dahlia, and as a cut flower for vases, etc., it has no equal.

R. Echinacea purpurea (Giant Purple Cone Flower).—Flowers about 4 inches across, of a peculiar reddish-purple, with a remarkably large cone-shaped center of brown, thickly set with golden tips in spiral lines; form bushy plants from 2 to 3 feet high, and blooms from July to October.

SALVIA—Meadow Sage

S. azurea.—A Rocky Mountain species, growing 2 to 3 feet high, producing during August and September pretty, sky-blue flowers in the greatest profusion.

SEDUM—Stone Crop

The dwarf or creeping varieties are suitable for rock work, covering graves, dry, sunny banks and carpet bedding.

S. acre (Golden Moss).—Creeping; foliage and flowers bright yellow; 2 to 3 inches high.

S. spectabile (Stone Crop).—One of the prettiest erect growing species, attaining a height of 18 inches, with broad, oval, light green foliage and immense, showy heads of handsome rose-colored flowers; indispensable as a late fall-blooming plant.

S. spectabile Brilliant.—A rich-colored form of the preceding, being a bright amaranth-red.

SPIRAEA—Goat's Beard

S. filipendula (Double-flowered Drop Wort).—Numerous corymbs of double white flowers and pretty, fern-like foliage; 1 to 2 feet.

S. filipendula purpurea (Palmata) (Crimson Meadow Sweet).—One of the most beautiful hardy plants, the deep purple red of the stems and branches passing into the crimson-purple of the broad corymbs of flowers, which are produced very freely during June and July. 3 feet.

STATICE (Great Sea Lavender)

S. Latifolia.—A most valuable plant either for the border or rockery, with tufts of leathery leaves and immense candelabra-like heads, frequently 1½ feet high and 2 feet across, of purplish-blue minute flowers during July and August; these if cut and dried, last in perfect condition for months.

STOKESIA

S. cyanea.—One of the prettiest and most distinct hardy plants in our collection. It produces showy aster-like deep lavender-blue flowers, frequently 5 inches across, in clustered heads from early in June until cut down by severe frost in the fall. Grows about 18 inches high.

S. cyanea alba.—Identical to the blue variety above in every way except color, which is pure white.

Phlox**THALICTRUM—Meadow Rue**

Very graceful, pretty flowering plants, with finely cut foliage; great favorites for planting in the hardy border.

T. aquilegifolium.—Elegant, graceful foliage and masses of rosy-purple flowers; 3 feet.

T. aquilegifolium album.—Pure white flowers; 3 feet.

TRITOMA—Flame Flower or Torch Lily

Splendid summer and fall-flowering plants, with stately flower scapes and magnificent, dense terminal spikes of highly-colored flowers, familiarly known on account of their shape and glowing colors as the "Red Hot Poker" plant.

T. Pfitzerii.—A grand improvement on Tritoma Uvaria Grandiflora. The spikes, which are produced with considerable more freedom than in the old variety, are of gigantic size, frequently 4½ feet high, and with heads of bloom over 12 inches long, of a rich orange-scarlet, shading to salmon rose on the edge; first-class acquisition.

TROLLIUS—Globe Flower

T. europaeus.—A giant buttercup in appearance. The plant grows from 2 to 2½ feet high and produces large, bright yellow, globular flowers, 2 inches in diameter, from May until August.

VERONICA—Speedwell

Most desirable hardy plants, the tall-growing sorts being admirably adapted to the border, while the dwarf varieties are excellent rock plants.

V. incana.—Bright, silvery foliage, with spikes of amethyst blue flowers; 1 foot high.

V. longifolia subsessilis.—Should be planted in spring, begins to bloom in mid-July and continues to mid-August, grows about 3 feet high, flowers deep blue. Should be mulched in winter and watered at times during dry weather.

V. rosea.—A most desirable variety; bright rose flowers; 1½ feet high.

V. spicata.—A fine border plant, grows about 1½ feet high, producing long spikes of white flowers.

VINCA—Periwinkle, or Trailing Myrtle

V. minor.—An excellent dwarf evergreen trailing plant that is used extensively for carpeting the ground under shrubs and trees, or on graves where it is too shady for other plants to thrive.

YUCCA—Adam's Needle

Y. filamentosa.—Among hardy ornamental foliage and flowering plants this can be classed at the head of the list. Its broad, sword-like foliage and tall branched spikes of large, fragrant, drooping, creamy-white flowers make it an effective plant for all positions; 5 to 6 feet high.

GREENHOUSE DEPARTMENT

We have quit growing Cut Flowers and are now devoting our entire range of glass to the growing of pot plants for Spring planting and to the propagation of Hardy Perennials.

TIME OF SHIPMENT.—We will ship all orders at the best time for planting. If you want special shipments made on certain dates, please state so on your order. Use order sheet enclosed in catalogue.

METHOD OF SHIPMENT.—Greenhouse plants should never be shipped by freight. Express is the proper way to ship this class of plants.

PARCEL POST SHIPMENTS.—Add 10 per cent to amount of bill for local, first, second and third zones; 15 per cent for fourth and fifth zones, and 20 per cent for sixth and seventh zones. We are in St. Louis, Mo., zone.

GENERAL LIST OF VARIETIES

ABUTILON—Flowering Maple

Savitzii.—Foliage green and white; extensively used for bedding.

ACALYPHA

Macafeana.—A splendid variegated bedding plant with crimson and bronze mottled foliage.

ACHYRANTHES

Acuminata.—Bronzy-purple foliage.

Aurea.—Greenish-yellow foliage, red veins.

AGERATUM—Floss Flower

Stella Guernsey.—A fine dwarf blue, fine for bedding and borders.

Mont Blanc.—Large flowered white.

ALTERNANTHERA

Bright foliage plants of dwarf habit, much used for carpet bedding.

Aurea Nana.—Bright yellow and green foliage.

Brilliantissima.—Dwarf growing, bright red foliage.

Spectabilis.—Dwarf; bright red foliage.

ALYSSUM—Sweet Alyssum

Little Gem (Carpet of Snow).—The dwarf white variety so much used for edging. 10 cts.

ANTIRRHINUM—Snapdragon

Daphne.—Soft blush pink.

Defiance.—Orange or russet-red.

Golden Queen.—Rich, pure yellow.

Firebrand.—Rich, deep red.

Rose Queen.—Rich rose.

Mont Blanc.—Pure white.

ASPARAGUS

Plumosus Nanus.—Fine for single pot plants and indispensable for floral decorations.

Sprengeri.—Graceful pot plant for house decoration or for hanging baskets.

ASPIDISTRA

The Aspidistra is the easiest of all decorative plants to grow well. Give it a loamy soil and plenty of water, and it will ask for nothing more. A useful plant for the veranda in summer, and for hardiness has no equal as a house plant at any season; it will succeed even in a comparatively dark hall where few other plants would live.

Lurida.—Green-leaved.

Lurida Variegata.—A pretty variegated form, the foliage being striped with white.

BEGONIA—Flowering Varieties

Popular house plants. *Argentea*, *Guttata*, *Flambeau*, *Dewdrop*, *Metallica*, *Otto Haeker*, *Rubra*, *Warcewice*, etc.

Rex Varieties.—Fine pot plants for house decoration, basket and vases.

CANNAS

Allemania. (Orchid Flowered). Salmon with golden markings. 5 ft.

Ami Pichon.—Velvet red; 4 to 4½ feet.

Buttercup.—Deep Buttercup yellow, almost pure; very effective; 3 feet.

Crimson Bedder.—Similar to Chas. Henderson, but of more robust growth.

Duke of Marlborough.—Deep crimson; 4 to 4½ feet.

Florence Vaughan.—Yellow, spotted red. 3 to 3½ feet.

Gladiator.—Deep yellow, freely dotted with red, a popular bedder. 4½ ft.

Hungaria.—The ideal pink bedding Canna; flowers large, in good-sized trusses, produced early, freely and continuously. The color is like the Paul Neyron rose. 3½ feet.

Continued on next page.

CANNAS—Cont'd.

J. D. Cabos.—Bright orange. 3 to 3½ ft.

J. D. Elsie.—Bright vermilion scarlet, overlaid with orange; a fine bedder. 3½ feet.

King Humbert.—The finest bronze leaf Canna in our list. Flowers 6 inches in diameter, brilliant orange scarlet, with bright red markings, foliage broad and massive of a rich coppery-bronze. The best bronze bedding variety. 5 feet.

La France.—Bronze-leaved, deep red salmon, mottled throat. 4 to 4½ feet.

Louisiana (Orchid-Flowering).—Soft, glowing scarlet, with orange throat markings. 6 feet.

Louis Revershon.—Fine dark leaved variety. Flowers very large, of a cochineal-red color. 4½ to 5 feet.

Meteor.—A good bedding variety, robust habit, green foliage and enormous trusses of large, bright blood-red flowers, freely produced.

Mlle. Berat.—The nearest approach to a pink in a first-class bedder. 4 feet.

Mrs. Geo. A. Stroblein.—Good sized flowers and trusses of crimson-red, foliage irregularly overlaid with dark chocolate bronze. 4 to 5 ft.

Queen Charlotte.—Makes a gorgeous display when planted in masses. Color a wide ragged band of yellow, bordering a center of scarlet, suffused carmine. 3½ feet.

Wm. Greisinger.—Full spikes and well-opened flowers of bright yellow, thickly studded with scarlet. The center petal is all red, the lower petals red, broken up throughout by wavy threads of gold. 3 to 4 feet.

CALADIUM ESCULENTUM—Elephant's Ear

A very effective plant for the border or for single specimens and clumps on the lawn. Should be placed in good rich garden soil and should receive plenty of water and fertilizer throughout the summer. Bulbs must be taken up in the fall and kept in a dry, warm place.

CALLA LILIES

A well-known plant that requires no description.

CINNAMON PLANT

A pretty green-leaved plant, fine for window box or conservatory use. The leaves give a cinnamon scent when being rubbed with the fingers.

COLEUS

Twelve leading sorts. Best plants for carpet bedding and borders for Canna beds.

CLERODENDRON

Balfouri.—A beautiful greenhouse climber, and admirably suited for house culture, flowering most profusely with bright scarlet flowers, enveloped in a creamy-white calyx.

CROTONS

Splendid decorative plants for conservatory use or for use in carpet bedding. Fine selection of varieties.

CYPERUS—Umbrella Plant

Alternifolius.—A splendid aquatic plant.

DRACENA

Noted for the odd and beautiful foliage.

Fragrans.—An excellent house plant with broad dark green foliage; grows under the most adverse conditions.

Terminalis.—Rich crimson foliage, marked with pink and white.

DAHLIAS

Emily (Show).—Solferino, with white markings; very large.

Galathea (Cactus).—Medium sized flower, splendid form, delicate soft pink.

Grand Duke Alexis (Quilled).—Large, massive flowers, ivory white with faint tinge of rose at extreme end of petals.

H. Wearing (Cactus).—Pure salmon, bright amber at base of petals; long narrow petals. Model flower.

Libellule (Cactus).—Splendid form, free-flowing, sulphur-yellow, shaded with capucine-red.

Pink Pearl (Cactus).—Mallow-pink at base of petals, shading to white at tips.

Princess Victoria (Show).—Medium size, early and free-flowering. Primrose-yellow. Fine cutting variety.

Rheinkoenig (Cactus).—Giant. Very large, white, splendid form, borne on long stiff stems. Probably the best of the whites. Each, 35 cts.

Red Hussar (Show).—Pure cardinal-red.

Susan (Show).—Beautiful soft shell-pink, splendid form, early and free-flowering; long stems; splendid for cutting.

White Swan (Show).—Good, free-flowering white.

EICHORNIA—Water Hyacinths

Crassipes Major.—A very free-growing and showy floating aquatic, bearing flowers of delicate lilac-rose in trusses like a Hyacinth. Does splendidly outdoors in summer.

EUONYMUS

Kewensis.—New variety, small dark green foliage. A fine rock plant or ground cover. Grows close to the ground, fine under trees where grass will not grow.

For *Radicans Vegeta*, see Vines.

FERNS

Nephrolepis Scotti.—Identical to Boston Fern, except that it is more compact and the foliage is smaller; a fine decorative plant.

Nephrolepis Bostoniensis (Boston Fern).—A wonderfully healthy, rapid-growing house plant; well known.

Nephrolepis Whitmanii (Ostrich Plume Fern).—The most valuable plant of this type. The fronds are dense, broad and graceful.

FERNS—For Fern Dishes

We have at all times a good supply of the most desirable varieties.

FICUS—Rubber Tree

Elastica.—Best house or table decoration plant.

GERANIUMS

Our list of geraniums is not a long one, but is made up of the most popular bedding sorts.

Alphonse Ricard.—Bright vermilion-scarlet, large florets and trusses; a fine scarlet bedder. Double.

John Doyle.—Semi-double. Blooms in large, round trusses, bright vermilion-scarlet.

Mrs. E. G. Hill.—Beautiful salmon; a fine large flower. One of the best.

Jean Viaud.—Bright clear mauve-pink, very large trusses. Double.

Beacon.—Deep vermilion-scarlet. Single. Exceptional color.

Mme. Recamier.—Beautiful pure white bedder. Double.

S. A. Nutt.—One of the best rich, dark crimson bedders. Double.

Mad. Barney.—Extremely large, double flowers; brilliant rose. A splendid bedding variety.

Heteranthe.—Exceptionally large trusses, semi-double, clear orange-scarlet.

Dahlia

A. H. Trego.—Dazzling crimson-scarlet. Double.

Mad. Salleri (Dwarf).—Silver-leaved Geranium. Fine for massing or bordering. Leaves small, clear green, edged with pure white; rarely grows over 6 inches high.

Ivy Leaved.—Fine for baskets or vases, or where a trailing or climbing plant may be desired.

Scented Leaves.—Noted for their scented leaves. We have the rose, lemon and nutmeg.

HEDERA—Ivy

H. Helix (English Ivy).—A familiar evergreen vine, dark green leaves, favors shady locations. The young wood sometimes winter-kills in this section, due to the action of the sun more than the cold. Suitable to cover buildings, rocks, trellis work, graves and as a carpet under trees in places where grass will not grow.

HELIOTROPE

A favorite flower with everyone.

HIBISCUS

Sinensis.—Single red and pink, double red and pink.

IOLEPIS

Gracilis.—A useful plant with graceful, grass-like, dark green drooping foliage, fine for vases, baskets or window garden.

IVY

German or Parlor Ivy.—A valuable vine for hanging baskets, vases and for conservatory use.

LANTANAS

Well-known useful summer bedding plants; the varieties offered are of dwarf habit.

Alba Perfecta.—The best white.

Comtesse de Biencourt.—A splendid pink.

M. Schmitt.—A fine yellow.

Leo Dex.—A fine red.

LANTANA

Running.—Showy bedding or basket plants.

LEMON PONDEROSA

This wonderful Lemon is a true everbearing variety. The tree blooms, sets fruit and ripens fruit at the same time. Fruit frequently weighs as much as 4 pounds. Has a thin rind for such large fruit. Very juicy, fine for lemonade and for culinary purposes.

MESEMBRYANTHEMUM—California Pink

Dwarf trailing annual plants. Flowers pink; prized for its singular icy foliage.

MOONFLOWER

Mexican.—The fastest growing climbing annual.

MYRIOPHYLLUM—Parrot's Feather

Proserpinacoides.—Long, trailing stems, clothed with whorls of the most exquisite foliage, as delicate as the cypress vine. An aquatic plant.

ORANGE OTAHEITE

A valuable and distinct variety of the Orange family. Suitable for conservatory culture in this climate. Is a dwarf, compact grower, with glossy, deep green foliage; the flowers have a decided odor of the Orange trees of Florida, exceedingly floriferous, producing a wonderful profusion of pure white flowers of delicious fragrance. Plant fruits when only 12 to 15 inches high, and is a beautiful winter-blooming plant for house culture. Strong plants ready to bloom and set fruit.

PALMS

Cocos Weddelliana.—The most graceful of the smaller Palms. Its slender, erect stem is freely furnished with gracefully arching leaves of a rich

Areca Lutescens.—One of the most graceful and beautiful Palms in cultivation. The foliage is of a bright green with rich, golden-yellow stems.

Kentia Belmoreana.—Of dwarfer habit than *Fosteriana*, but with more spreading leaves. The *Kentias* are the hardiest house plants. They are of slow growth and are less affected by dust and dry atmosphere.

Kentia Fosteriana.—Of taller habit than the *Belmoreana*; somewhat heavier foliage.

Latania Borbonica (Fan Palm).—Too well known to need description.

Pandanus Veitchii (Screw Pine).—One of the best and most attractive decorative plants for the house. The leaves are light green, beautifully marked with stripes of white and gracefully curved.

Petunias**PHILODENDRON or MONSTERA**

Spectabile.—An interesting hothouse plant with large heart-shaped, dark green leaves with light veins.

Giganteum.—Of strong climbing habit, with large deep green foliage; a splendid wall plant for a warm conservatory.

PLUMBAGO

Capensis.—Light lavender-blue.

SALVIA—Scarlet Sage

Zurich.—A splendid dwarf variety, growing about 2 feet high, and is especially valuable on account of being the earliest to bloom, flowering 10 days in advance of any other sort.

SANSEVIERA

Zeylanica.—An elegant variegated plant, especially adapted for house decoration, the thick, leathery leaves standing the heat and dust of the house with impunity.

STEVIA

Variegated.—A variegated form of *Stevia*, foliage white and green. Dwarf habit, used for bordering and carpet bedding.

STIGMAPHYLLON

Ciliatum.—One of the prettiest tender climbers in cultivation, with large yellow, orchid-like flowers, produced very freely during the summer months. It is especially adapted for training over the pillar or on the walls of a conservatory, but will do equally well in the open air in summer.

TRADESCANTIA

Wandering Jew.—Splendid plants for basket and window boxes.

TUBEROSES

One of the most delightfully fragrant and beautiful of the summer-flowering bulbs. For outdoor planting set bulbs about May 10th to 15th, after danger of frost is over.

Double Pearl.—The best double variety.

Single.—The old-fashioned single.

PETUNIA

Large Flowering, Single Fringed.—Mixed seedlings, ready for delivery May 1st.

Large Flowering, Double Fringed.—Assorted colors, ready for delivery May 1st.

Single Star Shape.—60 cts.

VINCA—Vines

Major Variegata.—A popular plant for vases, basket and window boxes; trailing vines.

Major Harrisii.—Habit of growth like the above, excepting that the foliage is green and yellow.

Verbenas**VINCA—Periwinkle**

A splendid plant for bedding or for borders; grows 18 to 24 inches high; always clean and blooms continuously throughout the summer. Flowers single.

V. Alba.—White.

V. Aurea.—Rose.

V. Aurea Reticulata.—White, with red eye.

VERBENA

We have a nice collection of assorted colors.

When you send your order to us you may feel sure that you will receive the very best stock and fair treatment. Our 53 years in business speak for our dependability.

GENERAL INDEX

	Page		Page		Page		Page
Directions for trans- planting trees or shrubs.....	1	Butternut.....	8	21 Mahonia.....	21	Ribbon Grass.....	27
Evergreens.....	21	Button Bush.....	16	Flame Flower.....	30	Robinia.....	18
Evergreen shrubs.....	21			Floss Flower.....	30	Rock Cress.....	26
Fruit Department.....	3	Caladium.....	31	Forsythia.....	17	Rose Champion.....	25
Greenhouse Depart- ment.....	30	California Pink.....	31	Foxglove.....	27	Rose of Sharon.....	17
Introductory.....	2nd Cover	Calla.....	31	Fraxinus.....	14	Roses.....	22-23-24
Instructions on Spray- ing and when to ap- ply.....	2	Callicarpa.....	16	Funkia.....	27	Rubber Tree.....	31
Nut Trees.....	8	Calycanthus.....	16			Rudbeckia.....	29
Ornamental depart- ment.....	11 to 20	Campnula.....	26	G			
Ornamental Shrubs.....	16	Campion.....	28	Gaillardia.....	27	Salisbury.....	14
Ornamental Trees.....	13	Candytuft.....	28	Gas Plant.....	27	Salix.....	15
Ornamental Vines and Climbers.....	20	Canna.....	30	Geraniums.....	27-31	Salix, Weeping.....	30-32
Perennials.....	25	Caragana.....	13	Ginkgo.....	14	Sambucus.....	18
Roses.....	22 to 24	Cardinal Flower.....	28	Globe Flower.....	18-30	Sansevieria.....	32
Terms, Conditions and General Remarks.....	1	Caroline Allspice.....	16	Goat's Beard.....	30	Scarlet Sage.....	32
		Caryopteris.....	13	Golden Bell.....	17	Sea Bugloss.....	25
A		Castanea.....	13	Gold Flower.....	17	Sea Lavender.....	30
Abies.....	21	Catalpa.....	13	Golden Glow.....	29	Seal Flower.....	26
Abutilon.....	30	Ceanothus.....	16	Gooseberry.....	9	Sedum.....	30
Acacia.....	18	Cedar.....	21	Grapes.....	10	Shrubby.....	26
Acalypha.....	30	Celastrus.....	20	Grasses.....	27	Silk Vine.....	20
Acanthopanax.....	16	Celtis.....	13	Grousel Tree.....	16	Silver Bell.....	14
Acer.....	13	Centaurea.....	26	Gymnocladus.....	14	Snap-Drageon.....	30
Acer, Weeping.....	15	Cephalanthus.....	16	Gypsophila.....	27	Sneeze Wort.....	27
Aceulid.....	13	Cerastium.....	26			Snowball.....	19
Achyranthes.....	30	Cerasus.....	13	H		Snow in Summer.....	26
Achillea.....	25	Cereis.....	14	Hackberry.....	13	Sorbus.....	15
Aconitum.....	25	Chaste Tree.....	19	Halesia.....	14	Sorbus, Weeping.....	15
Adam's Needle.....	30	Cherry.....	6	Hamamelis.....	17	Speedwell.....	30
Ageratum.....	30	Cherry, Flowering.....	15	Hardheads.....	26	Spindle Tree.....	17
Aegopodium.....	25	Chestnut.....	8-13	Hardy Asters.....	26	Spiraea.....	19-30
Agrostemma.....	20	Chestnut, Chinese.....	19	Hardy Garden Pinks.....	26	Spruce.....	21
Akebia.....	20	Chionanthus.....	14	Hardy Larkspur.....	26	St. Peter's Wort.....	19
Alder.....	13	Chrysanthemum.....	26	Hardy Sunflower.....	27	Startworts.....	26
Almond.....	13-16	Cinnamon Plant.....	31	Hazel.....	16	Statice.....	30
Alnus.....	13	Cinquefoil.....	18	Hedera.....	20-31	Stevia.....	32
Althea.....	17	Clematis.....	20-26	Helenium.....	27	Stigmaphyllon.....	32
Alternanthera.....	30	Clerodendron.....	31	Helianthus.....	27	Stokesia.....	30
Alyssum.....	30	Clethra.....	16	Heliotrope.....	31	Stone Crop.....	30
Amelanchier.....	16	Coccos.....	32	Heliopsis.....	27	Strawberry.....	10
American Ivy.....	20	Coleus.....	31	Hemeroallis.....	28	Strawberry Tree.....	17
Amorpha.....	16	Columbine.....	25	Hercules Club.....	13	Sumach.....	18
Ampelopsis.....	20	Colutea.....	16	Hibiscus.....	17-28-31	Sunflower.....	27
Amygdalus.....	13-16	Cone Flower.....	29	Holly.....	21	Swamp Magnolia.....	14
Anchusa.....	25	Convallaria.....	26	Hollyhocks.....	28	Sweet Gum.....	14
Anemone.....	25	Corechorus.....	18	Honeysuckle.....	18-20	Sweet Alyssum.....	30
Angelica Tree.....	13	Coreopsis.....	26	Hydrangea.....	17	Sweet Pepper Bush.....	16
Anthemis.....	25	Cornel.....	16	Hypericum.....	17	Sweet William.....	26
Anthericum.....	25	Cornus.....	14-16			Sycamore.....	15
Antirrhinum.....	30	Corylus.....	16	I		Symphoricarpus.....	19
Apple.....	3	Crab.....	14	Iberis.....	28	Syringa.....	18-19
Apricot.....	8	Crab Apple.....	4	Ilex.....	18-21		
Aquilegia.....	25	Crane's Bill.....	27	Indian Bean.....	13	T	
Aralia.....	13-16	Crataegus.....	14	Iris.....	28	Tamarisk.....	19
Arborvitae.....	21	Creeeping Jenne.....	29	Iris, German.....	28	Tamarix.....	19
Arabis.....	26	Croton.....	31	Isolepis.....	31	Taxodium.....	15
Areca.....	32	Crow-foot.....	29	Ivy.....	20-31	Thalictrum.....	30
Aristolochia.....	20	Currant.....	9-18	J		Thorn.....	14
Artemisia.....	26	Cucumber Tree.....	14	Japan Quince.....	16	Thuya.....	21
Arundo Donax.....	27	Oxylonia.....	16	Jerusalem Cross.....	28	Tilia.....	15
Ash.....	14	Cyprus.....	15	Judas Tree.....	14	Torch Lily.....	30
Ash, Mountain.....	15	Cytisus.....	14	Juglans.....	8	Tradescantia.....	32
Ash, Weeping.....	15			Juniper.....	21	Tritoma.....	30
Asparagus.....	10-30	D		Juniperus.....	21	Trollius.....	30
Aspidistra.....	30	Dahlia.....	31	K		Trumpet Vine.....	20
Aster.....	26	Day Lily.....	28	Kalmia.....	21	Tsuga.....	21
Azalea.....	21	Delphinium.....	26	Kentia.....	32	Tuberoses.....	32
		Desmodium.....	17	Kentucky Coffee Tree.....	14	Tulip Tree.....	14
B		Deutzia.....	17	Kerria.....	18		
Baby's Breath.....	27	Dewberry.....	8	Knapweed.....	26	U	
Bacharis.....	16	Dianthus.....	26	Koeleruteria.....	14	Ulmus.....	15
Bachelor Button.....	29	Diela.....	27	Kudzu Vine.....	20	Umbrella Plant.....	31
Balloon Flower.....	29	Dielytra.....	19				
Baptisia.....	26	Dierivilla.....	19	L		V	
Barberry.....	16	Digitalis.....	27	Landscaping.....	11	Varnish Tree.....	14
Beard Tongue.....	29	Dogwood.....	14-16	Lantana.....	31	Verbena.....	32
Begonia.....	30	Dolichos.....	20	Larkspur.....	26	Veronica.....	30
Bell Flower.....	26	Dracena.....	31	Latania.....	32	Viburnum.....	19
Berberis.....	16	Dutchman's Pipe.....	20	Lathyrus.....	28	Vine.....	30-32
Bergamot.....	29			Lavendula.....	28	Vitex.....	19
Betula.....	13	E		Lavender.....	28	Virginia Creeper.....	20
Betula, Weeping.....	15	Eichornia.....	31	Leadwort.....	29		
Begonia.....	20	Elder.....	18	Lemon.....	31	W	
Biota.....	21	Eleagnus.....	17	Lilac.....	19	Walnut.....	8
Birch.....	13	Elephant Ear.....	31	Liatris.....	28	Wandering Jew.....	32
Birch, Weeping.....	15	Elm.....	15	Ligustrum.....	18	Water Hyacinth.....	31
Bishop's Weed.....	25	Elm, Weeping.....	15	Lilium.....	28	Weigelia.....	19
Bitter Sweet.....	20	Elymus.....	27	Lily.....	28	White Fringe.....	14
Black Elder.....	18	Erianthus.....	27	Lily of the Valley.....	26	White Kerria.....	18
Blackberry.....	8	Eulalia.....	27	Linden.....	15	Willow.....	15
Bladder Senna.....	16	Euonymus.....	14-17-20-31	Liquidamber.....	15	Windflower.....	25
Blazing Star.....	28	Eupatorium.....	27	Liriodendron.....	14	Winterberry.....	18
Bleeding Heart.....	26	Evening Primrose.....	29	Lobelia.....	28	Wisteria.....	20
Blue Fescue.....	27	Exochordia.....	17	Locust.....	18	Witch Hazel.....	17
Blue Spirea.....	16			Lonicera.....	18-20		
Boltonia.....	26	F		Loose-strife.....	29	X	
Boston Ivy.....	20	False Chamomile.....	26	Lupine.....	28	Xanthoceras.....	19
Box Elder.....	13	False Dragon Head.....	29	Lupinus.....	28		
Buddleia.....	16	False Indigo.....	16-26	Lychins.....	28	Y	
Butterfly Bush.....	16	Ferns.....	27	Lycium.....	20	Yucca.....	30
		Ferns, Tender.....	31	Lysimachia.....	29		
		Festuca.....	27			Z	
		Ficus.....	31	M		Zebra Grass.....	27
		Filberts.....	8-16	Magnolia.....	14		
		Fire Bush.....	16				

WEBER'S GUIDE

LOMBARDY POPLARS

H. J. WEBER & SONS NURSERY CO.

NURSERY, MISSOURI