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Mount Hope Nurseries

Lawrence
Kansas

Established 1869

STAYMAN'S WINESAP
See Page 15

Annual Catalogue

**Mount Hope
Nurseries**

Lawrence, Kansas

Established 1869

Foreword

MR. A. C. GRIESA was born in Bielefeldt, Germany, March 29, 1847 and early in life came to America and settled in Stuben County, New York. This section of the state was then, as now, the heart of one of the World's most famous tree-growing centers. In 1869 Mr. Griesa came West, and at Lawrence commenced growing trees in a small way, giving the establishment the name **MOUNT HOPE NURSERIES**. His honest, straightforward business principles, his perseverance and his careful, painstaking methods of growing trees, soon began to attract attention and patronage.

¶ Thus the business has been built up and increased year by year, and now after nearly a half century of elapsed time since the establishment, this nursery is one of the largest and most up-to-date in the West—occupying more than two hundred acres and equipped with the most modern conveniences for the growing, packing and shipping of the finest nursery stock grown.

¶ Located as we are at almost the exact geographical center of the United States, we avoid the extremes of temperature of the South or the North and we are here enabled, by location, to grow a wide variety of trees, fruits and flowers, nursery stock that is hardy enough for any section of our country and stock that is grown in the best soil and under the most favorable conditions in the Country. Here in this Kaw River valley are grown the apple seedlings for the world, a fact that is undisputed and a fact which is proof of "favorable location" if nothing more is said.

Annual Catalog

Being a book descriptive of the latest and best varieties of trees, fruits and flowers, with special emphasis on MOUNT HOPE NURSERY grown stock. We contend that it is better to plant good trees once than poor trees twice, and if you agree with us in this, then you are interested in what we have to say in the pages following.

This Catalogue has been prepared with great care. The selection of varieties embraces all the latest and most prominent introductions, as well as the most popular and thoroughly proved older sorts. It will, we think, form a most efficient and competent guide to the professional or the amateur in the selection of the choicest Fruits or Ornamentals for the Garden, Orchard, Park or Lawn.

To the planter or purchaser of nursery stock, at least three things are indispensable. First, varieties true to name; second, healthy, vigorous, well-matured trees or plants; and third, careful and judicious packing, without which all may be lost.

We give the most careful scrutiny to the propagation of varieties, endeavoring by all methods known to protect ourselves from error or imposition, and rejecting anything of which we have reason to feel suspicious. By such careful and consistent watching and attention, we are warranted in offering our stock as pure and absolutely true to name.

Our soil being of a character best suited to produce the healthiest conditions of growth—that solid, firm texture of the wood, with abundant fibrous roots, so necessary to successful transplanting—we are enabled to offer the products of our nurseries with entire confidence to planters in all sections of the country.

We give our packing and shipping careful personal supervision, and to still further protect our patrons as well as ourselves against loss in this direction, we employ the most skilled and competent workmen to assist us.

Through our system of securing the most of the new varieties that appear to have merit, and thoroughly testing them in our experimental orchards, vineyards, berry fields and beds, before listing them in our Catalogue and recommending them to our patrons, we have a tolerably good knowledge of what varieties are best adapted for this locality. Guided by our own experience from this plan, we have in the revision of this Catalogue dropped out a large number of varieties that have proved worthless with us, and added a number of new ones, some of which we can recommend to our patrons, while others have not been fully tested, but appear to be worthy of further trial.

GUARANTEE OF GENUINENESS

While the greatest diligence and care to have all trees, etc., true to label will be exercised, mistakes may occur, and in such cases, upon proper proof, the trees, etc., will be replaced free of charge, or the amount of money paid for them will be refunded, and it is mutually understood and agreed to between the purchaser and the seller that the guarantee of genuineness shall in no case make the nurseryman who sold the trees, etc., liable for any sum greater than that originally paid for the trees, etc., that proved untrue, nor for damage.

HOW TO CARE FOR NURSERY STOCK WHEN RECEIVED

Soak the trees with water, and either place them in a cellar and keep wet, or bury them in a trench, until the holes are ready for transplanting. If at all dry and shriveled, the best plan is to bury them root and branch in wet earth. If frozen, they should be buried in earth until the frost is removed.

PREPARATION FOR PLANTING

Plow and subsoil repeatedly, so as to thoroughly pulverize to a depth of 12 to 18 inches. When planting upon the lawn or grass plots, remove the sod for a diameter of 4 or 5 feet, and keep this space well worked and free from weeds. Dig the hole deeper and larger than is necessary to admit all the roots in their natural position, keeping the surface soil and subsoil separate. Cut off broken and bruised roots, and shorten the tops to half a dozen good buds, except for fall planting, when it is better to defer top-pruning until the following spring. If not prepared when your stock arrives, "heel-in" by digging a trench deep enough to admit all the roots, and setting the trees therein as thick as they can stand, carefully packing the earth about the roots, taking up when required. Never leave the roots exposed to sun and air, and "pudle" before planting.

PLANTING

Fill up the hole with surface soil, so that after the earth is settled the tree will stand as it did when in the nursery, except Dwarf Pears, which should be planted deep enough to cover 2 or 3 inches the quince stock upon which they are budded. Work the soil thoroughly among the roots, and when well covered tramp firmly. Set the tree as firm as a post, but leave the surface filling (of poorer soil) light and loose. Never plant the tree deeper than it was in the nursery.

Fall Planting.—When planted in the fall, all trees should be banked up at least one foot high until spring. This overcomes the tendency of the trees to leave out, protects them from mice, and prevents the roots from freezing before they have taken hold of the soil. In planting roses, shrubs, vines and other delicate stock in the fall, the tops should be nearly or quite buried with mellow earth during the first winter. The surplus earth should be removed early in the spring.

Commercial Planting.—To those who have the ground and a suitable location, we cannot too strongly urge the planting of commercial orchards. For a pleasant and healthful occupation, and for large and sure profits, there is nothing to which a farmer can turn his energies with more satisfactory results. Forty, eighty or one hundred acres, planted to apples and properly cultivated, will not fail to make a fortune for those who give the matter their attention.

Situated, as we are, in the center of the best apple belt in the world, we have made commercial planting a special study for years, and we make a few suggestions to prospective planters.

Select as few varieties as possible, of those that do best in your locality.

Plant young trees; those two years old are preferable.

Prepare your ground as for corn; keep well cultivated while orchard is young.

Plant the trees firmly and not too deep.

PLANT YOUNG TREES

We cannot too strongly recommend to our customers the procuring of young trees, especially for orchard planting, instead of selecting the largest that can be had to secure a more immediate effect. Young trees can be taken up with more perfect roots and will sooner become established in a new location. They can also be more readily trained to any desired shape. The largest and most successful planters invariably select young, thrifty trees as the surest to give thorough satisfaction in the end.

For small grounds, or for street planting, where it is necessary to make a show as soon as possible, large trees are often desirable, and when handled with care should not fail to do well, but with the general planter the average loss will be much less, and both time and money will be saved, if young trees are selected to commence with.

Pruning.—As the tree increases in age a judicious thinning of the branches must be attended to, always remembering that none should be displaced that will in any way mar its beauty. The best season for this operation is in the autumn, after the fall of the leaf, or early in the spring, but never during freezing weather. Never prune with a dull knife.

HOW TO WINTER TREES PROCURED IN THE FALL

The practice of procuring supplies of trees in the fall is becoming more and more general as each season demonstrates its wisdom. It is a more favorable time than spring, because of the colder weather and the lighter pressure of business with nurserymen, the freighting companies and the planter. Even when fall planting is not desirable by reason of the severity of the climate, or from other cause, the stock may be procured in the fall, and thus be on hand ready for the opportune moment in the spring. To insure success, you have only to get your trees before freezing weather, and bury them in the following manner: Choose a dry spot, where no water will stand during the winter, and with no grass near to invite mice. Dig a trench, throwing out dirt enough to put a layer of roots well below the surface, and place the trees in it, incline to an angle of 45 degrees or more. Widen the trench, throwing the soil on the roots and well up on the bodies of the trees now in position, then pack the earth closely and firmly around every root. This work cannot be too well done. Place another layer in the trench, leaning the tops on the others, and so on until all are in the trench; then finish by throwing up more soil until the tops of the trees are nearly or quite covered. It is also well to bank up the earth around the sides to insure more thorough protection. Care should be taken to fill solidly all the interstices among the roots, and to pack the earth closely about the roots in the trenches. When the work is done, the tops should be well covered with waste hay or straw, to protect them from drying winds. If at the time of "heeling-in" the ground does not contain sufficient moisture, water should be applied to prevent injury from severe drying.

TREATMENT OF NURSERY STOCK THAT HAS BEEN FROZEN IN THE PACKAGES OR RECEIVED DURING FREEZING WEATHER

Place the packages in a cellar or some such place, that is cool but free from frost, until completely thawed. Don't be in a hurry to open. The stock can remain in the packages for two weeks or longer if necessary without injury. If packages are covered over with sawdust, earth or something to exclude the air it will be better for the stock. After the frost is all out the stock can be opened up and packed away, or heeled in the ground until ready for planting. Treated thus, nursery stock will not be injured by the freezing.

PEDIGREED TREES.

Undoubtedly the greatest new idea in fruit growing is that which was started by Mr. George T. Powell of New York, about fourteen years ago. This idea is that of "pedigree" in fruits. By this idea Mr. Powell found that one can save several years of waiting, get bigger crops, make trees bear almost every year, secure larger and in every way better fruit, and furthermore even get trees that are practically immune from certain plant diseases and insect ravages. The old way to propagate trees was to bud or graft from scions taken

from non-bearing wood such as water sprouts. Trees propagated after this manner made quick, straight growths, but were lacking in the ability to bear fruit early in life.

This new idea of pedigreed trees is nothing more than to propagate only from bearing wood of trees of known record. Therefore we say this is a new

Whole Root and Piece Root Grafts; A Comparative Study.

idea, notwithstanding the fact that trees were propagated after this manner fourteen years ago. However, it is only very lately that a few nurserymen have taken up this new idea of propagation and we pride ourselves on being one of this few.

Trees propagated after this manner cost a few cents more each than the other class of stock but who cares for this? Is not the cost of a tree a very small item in the life history of an orchard?

Our scions for propagation come from the most successful orchards of Colorado, Montana, Oregon, Iowa and Kansas. On file in our office we have records of these orchards and records of individual trees from which our

Whole Root York Imperials.

scions have been cut. These pedigree records we are glad to furnish or show to any who are interested in this approved manner of propagation. Scions of this nature are secured by us at a great expense; if we did not put more expense into our trees we would not feel justified in asking you more for them.

Therefore we offer this new idea in horticulture to you for what it may be worth, demonstrating again, the readiness with which we grasp upon new and up-to-date methods, which not only seem to have real merit but which also have proven their practicability and worth.

WHOLE ROOT TREES

We have been talking whole root trees for many years and have urged strongly that the whole root tree is the cheapest to plant, all things considered. We all know that if the root system of a tree is defective then the whole tree must suffer. We speak of a chain being no stronger than its weakest link and as applied to trees we know that a weak root will make a weak and worthless tree.

The root system not only provides food for the tree but must function as an anchor for the tree and this is a very important factor to consider when the tree has attained large proportions and has on its branches a full crop of fruit. Trees blown over in orchards are a common sight in this Western country and in most every case do these trees show a very defective and inadequate root system.

Our apple are all budded or grafted on hardy seedling apple from French crab apple seed; this seedling being the most resistant to insect ravage and plant disease that we are able to procure. These, however, are not cheap seedlings.

Our cherry trees are all budded on the French seedling cherry stock, the Mahaleb; this, like the apple seedling above referred to, is the hardiest and in every way the best seedling that we can use for the propagation of the cherry. One important fact to note is that the Mahaleb stock **does not sprout**.

Plum trees as we grow them are budded on the French Myrobolan stock; again the best plum stock on which to bud our different varieties.

For peach seedlings we endeavor to get the mountain seedling pits from the Tennessee and Ozark mountain regions, knowing well that the mountain peach seedling is the hardiest of all peach trees.

Dwarf pear are budded or grafted on the Angiers quince stock, also an importation from France. This root permits of only a dwarf growth, but an extremely hardy one.

Apples

The first fruit, both in importance and general culture, is the Apple. Its period, unlike that of other fruits, extends nearly or quite through the year. By planting judicious selections of summer, autumn and winter sorts, a constant succession can be easily obtained.

There is no farm crop which, on the average, will produce one-fourth as much income per acre as will a good Apple orchard. As it takes from three to five years for an orchard to come into bearing, some people hesitate to plant, regarding the time and expense as in a great measure lost.

There seems to be no limit to the profitable production of the Apple. Take any particular year, and you cannot name another crop so reliable and so profitable as a well-cared-for Apple orchard. There is no reason to look for any change in this for many years to come. Even with farm products low and in little demand, there has been no year when there was not a good market for choice Apples at paying prices. Numerous examples of successful

Cooper's Early White.

Apple culture point the way to success. We may plant largely with every assurance of success if our plantations are properly cared for.

We offer the following varieties which are the best in cultivation at this time:

SUMMER APPLES

Alexander. A very large and beautiful deep crimson Apple, with pleasantly flavored yellowish white flesh. Very hardy. August and September.

Autumn Strawberry. Of good size, brilliant coloring and fair quality, this Apple is greatly valued for table and

market. Tree robust and productive. August and September.

Carolina Red June. Tree upright grower, early and abundant bearer. Fruit medium, oblong, surface smooth. Dark red, with white ground; flesh white, tender, fine-grained, juicy, acid, quality good; for table and market. June and July.

Cooper's Early. Size medium; color pale yellow, with faint blush on sunny side; flesh white, crisp, sprightly, mildly acid; a good cooking variety. Tree hardy, an early bearer and heavily productive.

Duchess of Oldenburg. A Russian Apple, and considered of great value farther north; here not often called for. Tree moderate grower and hardy; fruit medium size, surface

subacid, flavor good; quality best for table and kitchen. July.

Golden Sweet. Of fine size, color and quality; one of the very best sweet Apples. Forms a vigorous, spreading, fruitful tree. August.

High Top Sweet (Sweet June). Tree strong, upright grower, very productive; fruit small to medium, round, greenish yellow; flesh white or green-

York Imperial.

smooth; waxy yellow, with stripes and splashes of red; flesh white, tender and juicy; sour and good for cooking.

Early Harvest. The most popular summer Apple on our list. Tree healthy, vigorous grower and good bearer; fruit medium size, nearly round, somewhat flattened; surface smooth, clear waxy yellow, rarely blushed; flesh tender, juicy, acid to

ish white, fine-grained, tender; quality good; for table and kitchen. June and July.

Jefferis. Rather large, roundish; yellow skin, striped with red; rich, tender, juicy. This beautiful variety is unsurpassed for dessert. July to September.

Red Astrachan. Another Russian Apple that is very popular with planters. Tree vigorous, upright and pro-

ductive; fruit medium to large; surface smooth, marbled and striped on greenish yellow, flavor acid; for kitchen and market.

Summer Queen. Tree vigorous, large-spreading, productive; fruit medium, round, surface yellow, covered with mixed red and scarlet; flesh firm, yellow; flavor acid, spicy; quality very good; for kitchen. July and August.

ly valued as a table or market fruit on account of its handsome appearance and fair quality. Tree a vigorous grower and very productive. September.

Dominie (Wells' English Red Streak). Medium; skin greenish yellow; flesh very tender and pleasant; tree vigorous and prolific. October to December.

Mammoth Black Twig.

Yellow Transparent. A Russian variety, new and promising in the North; tree hardy and moderately vigorous; an early and good bearer; fruit medium to small; skin clear white at first, becoming pale yellow when fully mature, often with a fine clear blush cheek; flesh white, tender, juicy, subacid, good. Early August.

FALL APPLES

Chenango (Chenango Strawberry, Sherwood's Favorite). Large, oblong; red and yellow; very handsome; high-

Fall Pippin. Tree a strong grower, not an early bearer; moderately productive when old; fruit large, globular; surface smooth, rich yellow, sometimes blushed; flesh yellow, very fine-grained, flavor acid, quality best; for dessert, kitchen, market and drying. August to October.

Fameuse (Snow). Tree hardy, vigorous and productive; a fine Apple of medium size, round; surface pale yellow, nearly covered with red, made up of stripes and splashes; flesh snowy white, tender, fine-grained, juicy; flav-

or mild, subacid; quality good to very good.

Lowell. Tree strong, vigorous grower and good bearer; fruit large to very large, round; surface smooth, waxen yellow, not blushed, becoming greasy when kept indoors; flesh yellow, fine-grained, juicy; flavor subacid; quality good to very good; for table, cooking, drying, market. August and September.

Maiden's Blush. This is the well-known and deservedly favorite fall apple. Tree vigorous, upright grower, spreading, very productive; fruit medium to large, flat and very handsome; surface smooth, polished, pale waxen yellow, with rich blush; flesh white, fine-grained, juicy; quality good; for cooking, table and market. August and September.

Rambo. Tree strong, upright grower, abundant bearer; fruit medium to small on old trees; round, somewhat flattened at the ends; surface striped and splashed with scarlet on greenish yellow ground; flesh greenish white, tender, juicy; flavor subacid. September to December.

Wealthy. Highly valued for its extreme hardiness at the far North. Tree thrifty grower and good bearer; fruit medium, roundish; skin smooth, oily, mostly covered with dark red; flesh white, fine-grained, juicy, subacid, good. September and October.

WINTER APPLES

Apple of Commerce. A worthy variety that is little known. We have been growing this apple for several years and have never had enough to supply the demand. The fruit is highly colored and the best keeping apple we know of. Quality good.

Arkansas Beauty. Fruit large and handsome; a beautiful light crimson in the shade, darker in the sun, with indistinct splashes and stripes over the whole surface; flesh fine-grained, whitish in color, and tinged with red and yellow; flavor a rich subacid; quality very good; tree a good grower and abundant bearer; season late; an excellent keeper.

Arkansas Black. The tree is a beautiful, vigorous, upright grower, young wood very dark; fruit medium to large; fine flavor; beautiful dark color, almost black; flesh yellowish, slightly subacid, crisp. One of the best cooking Apples. January to July.

Ben Davis. More criticized and more extensively planted than any on the list; scarcely needs description. Everybody plants it for market, and nearly everybody for house use. They criticize its poor qualities and then buy more trees, taking care that a liberal proportion of each new order is Ben Davis. Tree thrifty, upright grower, of almost perfect shape; fruit large, round, sometimes variable in form; surface smooth, often polished yellow, covered and splashed bright red; flesh white, tender, juicy; flavor subacid, not rich; quality only good; for market and cooking. November to spring.

Baldwin. Tree strong, thrifty grower; fruit large, round, or somewhat flattened, sometimes irregular; surface smooth, yellow in shade, where exposed red; flesh yellow, juicy, rich; quality good; for table and cooking. October to December.

Collins (Ark.). Large, globular or a little oblate, inclined to conic, yellow washed and striped red; rather coarse, moderately juicy, subacid; mid-winter; sold as Champion by some.

Delicious. Still comparatively scarce, is becoming well known as a market variety. Brilliant dark red, with gold near blossom end, large size, fine quality. Tree very hardy and good grower.

Spitzenburg. Large, rich red obscurely striped; excellent flavor and quality; October to December; a favorite in Oregon and Washington.

Gano. Fruit is bright red on yellow ground, with no stripes; large, oblong, tapering to the eye; surface smooth, polished; dots minute; basin shallow, sometimes deep; eye large, cavity deep; brown in color; stem medium to long; core medium, seeds large. Tree very healthy, vigorous, hardy, having stood 32 degrees below zero without injury; a rapid grower; large and spreading in orchard; fruit-spurs numerous; shoots long, smooth, brown, with protuberances on the limbs like Ben Davis; an early, annual and prolific bearer. The tree much resembles Ben Davis. January to April.

Hubbardston's Nonesuch.

Tree vigorous grower, early bearer and productive; fruit large, fair, handsome, round; surface often uneven, yellow, covered with mixed red and broken stripes, presenting a rich brownish appearance; flavor acid, rich, quality very good; for cooking and table when fully ripe. October and November.

Ingram. Large; red, good flavor; an improved Janet and therefore a valuable sort. Bears unbelievably heavy crops and is absolutely dependable. A variety that we recommend.

Jonathan. Origin, New York. Season, November to January. A seedling of Spitzenberg, which it resembles in fruit, and is a much better tree. Hardy in latitude of Central Iowa, where it is a vigorous and productive variety; a delicious and strictly dessert apple that always commands highest market prices; fruit good size, roundish; surface is very smooth, clear light yellow, almost covered with rich, dark red on sunny side; flesh white, tender, juicy, spicy, aromatic. A leader in its class and worthy of the place.

King (Tompkins Co.). A superb red Apple of extraordinary size and fair quality; the flesh is slightly coarse, but tender and vinous; an

Grimes' Golden. This is one of the most popular Apples in cultivation. Tree strong, thrifty grower, with spreading branches; fruit medium or above, cylindrical; regular surface, yellow veined, russeted; flesh yellow, firm, very fine-grained, juicy; flavor subacid; quality rich; for dessert, cooking and market.

Huntsman. Tree very upright, thrifty grower and good bearer; fruit medium or above in size; color a rich yellow when fully ripe; shape round, considerably flattened at the ends; flesh pale yellow, somewhat coarse, juicy and rich, acid; very good; for table and market. November to March.

Reagan.

abundant annual bearer. November to March.

McIntosh. Good size, very attractive appearance; general effect, bright deep red; flesh very tender, perfumed, delicious; resembles Fameuse, but larger. November to January.

Mann. One of the newer sorts that promises to become popular. The tree is a strong, upright grower; fruit medium to large, roundish oblate; skin deep yellow when fully ripe, often with a shade of brownish red; flesh yellowish, half tender, juicy, mild,

pleasant subacid, good to very good. An early and annual bearer.

Minkler. Fruit medium, roundish oblate, slightly conical; pale greenish yellow, striped and splashed with two shades of red; flesh yellowish, compact, moderately juicy, mild, pleasant subacid; tree irregular grower, vigorous. January to April.

Winesap in being about one-fourth larger; quality as good as, if not better than Winesap. The tree holds its fruit until matured. The original tree, over 50 years old, is still vigorous and bearing. The young trees show great vigor, come to bearing very young, and are very productive. November to May.

Rome Beauty.

Missouri Pippin. Large, oblong, bright red, with numerous gray dots; very handsome and of fair quality; an early and very abundant bearer, and a very profitable orchard fruit; vigorous. December to March.

Mammoth Black Twig. Very large; dark red; vigorous grower. Was taken to the New Orleans Exposition and there named Mammoth Black Twig. Much interest was taken in the apple during its exhibition there, and it is now a foremost apple. The Winesap is its parent. An improvement on the

Northern Spy. Fruit large, conical, flattened; skin greenish yellow, striped and shaded with purplish crimson, and covered with a thin white bloom; flesh white, fine-grained, tender, very juicy, a pleasant subacid. November and December.

Rawle's Genet. Tree good grower, not so large as some; fruit medium, somewhat conical, regular; surface smooth, mixed and striped on yellow and green; flesh yellowish, crisp, fine-grained, juicy; flavor subacid; quality good to very good; for dessert, kitch-

en, market and cider. November to spring.

Northwestern Greening. Tree strong grower, crooked, spreading, productive; fruit large, varying in shape from round to flat; surface somewhat rough and russeted; color dull green, becoming yellow at maturity; flesh very yellow, juicy, with rich acid flavor; quality very good; for table use. September to November.

Rome Beauty. Tree thrifty, upright grower; fruit large to very large, roundish oblate, sometimes conical; surface smooth, pale yellow, striped and mixed with red; flavor subacid, not rich; quality good; desirable market fruit on account of its productiveness and fine appearance. November to January.

Reagan (Ark.). Large, oblate to conical, rich red to maroon, rarely striped; flesh white, mild subacid; late winter; sold as Black Ben Davis by some.

Senator (Oliver). One of the very best apples in our list. Planted largely in the West and Northwest and up to this time we have never been able to supply the demand. Its rich red color makes it particularly desirable. This valuable apple originated in the mountain region of Arkansas. The tree is a vigorous and symmetrical grower; an early and heavy bearer; flesh yellowish white, juicy, rich subacid, with an intense apple flavor. November.

Stayman's Winesap. Originated on the grounds of Dr. J. Stayman, Leavenworth, Kan.; tree hardy, vigorous, spreading, irregular, tough, wiry; droops like a weeping willow with loads of fruit, never breaking a limb; an early bearer and very productive; fruit medium size, round, approaching conic; skin smooth, greenish yellow, splashed and striped with red and purple, covered with a white bloom, dots small, gray, scattered; stem medium, rather slender; cavity wide, deep, much russeted, regular; calyx large, open or half closed; segments large, erect; basin rather narrow, abrupt, deeply furrowed; core medium; flesh yellow, firm, tender, juicy, rich, mild

subacid, aromatic; quality best. Season January to May. Dr. Stayman says of this variety: "It has never failed bearing a heavy crop. It is worth a whole race of winter apples." Professor Van Deman writes of this variety: "I am sure this apple will eventually supercede the old Winesap. To produce this one variety is worth almost a lifetime."

Talman Sweet. Tree hardy and strong grower; fruit medium, nearly round, somewhat flattened; surface smooth yellow; flavor sweet, rich; flesh yellow and firm; for baking and dessert. A most desirable and profitable variety. October and December.

Walbridge. Tree strong grower and productive; highly prized farther north for its extreme hardiness; fruit medium size; color pale yellow, shaded with red; flesh crisp, tender and juicy; quality good. Valuable for its keeping qualities. December to spring.

White Winter Pearmain. Tree moderate grower, with spreading top; fruit medium, handsome when fair, but sometimes scabs badly; surface smooth, yellow, sometimes bronzed; flesh yellow, fine-grained, tender, juicy; flavor mild, subacid, very rich; quality best; for table, kitchen and market it is very desirable. November to January.

Willow Twig. Tree good grower, branching and twiggy; good bearer; fruit globular; surface smooth, dull greenish yellow, marbled and striped dull red; flesh greenish yellow, juicy; flavor acid; quality only good; valuable for market and kitchen. November to spring.

Winesap. An old favorite; one of the best. Tree vigorous, with spreading top; fruit medium, conical; surface smooth, bright or dark red on yellow ground; flavor rich, acid to subacid; quality nearly best; for table, market, kitchen, cider. Very desirable on account of its productiveness and general good quality. One of the best apples grown.

Wismer's Dessert. Originated in northern Ontario, Canada. Tree iron-clad, hardier than Wealthy or Duchess and fully as productive; has withstood

the severe winters of that northern climate; size medium to large, beautifully colored with yellow shaded bright red in stripes and blotches; very handsome. In quality Wismer's Dessert excels any apple ever originated; subacid, mild, delicious, being entirely distinct from the flavor of any other apple, resembling that of a luscious ripe pear in its melting juiciness. December to April.

Wolf River. An apple particularly adapted to the West on account of its extreme hardiness; very large and handsome; flesh whitish, breaking,

pleasant, subacid; a good bearer and one to be depended upon for regular and profitable crops. November and December.

York Imperial. Generally known and popular with many of our most experienced orchardists. Tree moderate grower and productive; fruit large lopsided; surface smooth; color mixed bright red on yellow ground; flesh yellowish, tender, juicy; flavor mild subacid; quality very good; one of the very best for market, table and kitchen. November to spring.

Gano.

Crab Apples

The improvements in the varieties of the Crab Apple have kept pace with the other kinds of fruit. A few years ago it was regarded as fit only for cider, preserves and jelly, but there are varieties now that command a good price on the market for dessert purposes; especially is this the case with the Whitney. Besides being useful, these Apples are also very ornamental when in bloom, and when loaded with their highly colored fruits. The following are the most valuable varieties:

General Grant. Tree a vigorous and upright grower; fruit large, red to very dark red; flesh white, tender, mild sub-acid, excellent for dessert; a free grower. Oct.

Hyslop. Tree a moderate grower, making a beautifully shaped, thrifty tree; bears young; fruit large, nearly round, flattened at the ends; skin smooth; color dark, rich red on yellow ground; flavor very good. One of the most beautiful fruits grown.

Martha. A seedling of Duchess of

Oldenburg, which originated in Minnesota. Earlier than Transcendent; very ornamental, as well as a fine fruit; bears in profusion every year. September and October.

Transcendent. Tree strong grower, making a large, beautiful tree; an early and abundant bearer, perhaps the most valuable of this class; fruit large, round, skin smooth; color rich

yellow shaded with red; valuable for preserving and cooking; said to be one of the best for cider. August and September.

Whitney's No. 20. Tree thrifty, upright grower; fruit large, skin smooth, striped and splashed with carmine; flesh firm, juicy, of pleasant flavor. August.

Pears

The cultivation of this noble fruit is rapidly increasing as its value is appreciated. The range of varieties is such that, like apples, they can be had in good eating condition from August until early spring. The melting, juicy

Duchesse d'Angouleme.

texture, the refined flavor and the delicate aroma of the pear give it rank above all other fruits except the grape. But the pear, like most things highly

desirable and valuable, cannot be had without attention, labor and skill. The relative prices of the apple and pear, being about as one to ten, show at the same time the superior value of the latter, and the greater skill required to bring it to perfection.

There seems to be but one drawback to the profitable cultivation of the pear, either as Standard or Dwarf, and that is the "blight," which brings ruin to so many trees, and for which there is no known remedy. But pear trees do not all blight, as we can well testify when we visit any fruit market in their season. The good price of pears, the productive habit of the trees, their comparative freedom from other diseases and from insect enemies, make this a desirable fruit to plant for market; and the high quality and many ways in which it can be used to pleasure and profit make the planting of a liberal supply for home use scarcely less than a necessity. Standard trees are budded or grafted on seedling pear roots; Dwarf trees are budded on Angers quince roots.

Standard Pears should be planted 20 to 25 feet apart. They will grow on almost any soil, provided the subsoil is not too wet. Whenever this is the case, the ground should be thoroughly underdrained. In a very poor soil, a moderate top-dressing of manure in the fall will be of advantage. When a tree is assailed by the blight, cut off the part affected several inches below all appearance of disease.

Dwarf Pears should be planted 8 or 10 feet apart. At the time of planting, and every spring thereafter, they should be thoroughly pruned, shortening in the current year's growth about one-half, aiming to form a round and well-proportioned head. The ground should be well cultivated and enriched by a top-dressing of manure in the autumn, and well mulched in the spring. Pears grown on standards or dwarfs should never be allowed to ripen on the tree.

Gathering Pears. In order to retain the juice and best flavor, summer pears should be gathered at least ten days before they are ripe, and autumn pears at least two weeks before; winter varieties as soon as the leaves begin to drop.

Thinning the Fruit. When the trees are heavily laden the fruit should be thinned when about one-third grown, else the fruit will be poor and the trees injured.

The letters "S." and "D.," used in the descriptions of varieties, indicate favorable growth either as "Standards" or "Dwarfs," or both. Those designated as "moderate growers" are usually smaller trees.

Bartlett. S. and D. An old favorite, more generally known and highly esteemed than any other sort. Tree thrifty, upright grower; fruit large, irregular, pyramidal; skin thin and smooth, clear yellow, sometimes with faint blush on the sunny side; flesh white, fine-grained, buttery, juicy, sweet; quality best. August and September.

Beurre d'Anjou. S. and D. Tree good grower and bearer; fruit large, obtusely pyriform, sometimes nearly round; skin greenish, sprinkled with russet, sometimes shaded with dull crimson; flesh whitish, melting, juicy. September to November.

Buffum. D. Tree an unusually strong grower; fruit small to medium; skin fair, deep yellow and bright red,

sprinkled with russet dots; flesh white, buttery, juicy, sweet, excellent flavor. August and September.

Clapp's Favorite. S. and D. A splendid pear, resembling Bartlett, ripening a few days earlier; a cross between that variety and Flemish Beauty. Fruit large; color yellowish green, marbled with red in the sun; vinous, melting, rich. One of the best summer pears. August.

Duchesse d'Angouleme. D. Sometimes planted as a standard, but an especial favorite as a dwarf. Tree vigorous and productive; fruit of the largest size, with an uneven, somewhat knobby surface; skin dull greenish yellow, a good deal streaked and spotted with russet; flesh white, but-

tery and very juicy, with a rich, excellent flavor. September and October.

Flemish Beauty. S. Tree generally preferred as a standard. Fruit large; skin a little rough, pale yellow, mostly covered with patches of russet, becoming reddish brown at maturity on the sunny side; flesh yellowish white,

is highly recommended as less subject to blight than most others, though not in all cases free from blight. The Kieffer, by its good qualities of tree and fruit, has pushed its way to the front, so that it is today regarded as one of the most valuable kinds. Fruit large, golden yellow, blushed with red in the sun; flesh slightly coarse, juicy, melting. Tree a great bearer; fruit especially valuable for cooking and market.

Kieffer Pear.

juicy, and rich. September. Should be picked before it is fully ripe. One of the best.

Garber's Hybrid. S. Is kin to and very much like Kieffer, but is larger, of better quality, and ripens two or three weeks earlier; is as yellow as an orange. Immensely productive, bears at three years from the nursery. Valuable market fruit.

Kieffer. S. Tree one of the strongest growers, with rich, glossy foliage; is not recommended as a dwarf, but

Rutter. Fruit large and nearly globular; skin rough, greenish yellow; sprinkled with russet, flesh white, moderately juicy, nearly melting, sweet, slightly vinous; tree an exceedingly strong, vigorous grower, early and abundant bearer, and not subject to blight. October and November.

Seckel. S. and D. Tree a moderate grower, said to be less subject to blight than most varieties. Fruit small to medium, regularly formed; skin dull yellowish brown, with lively red cheek; flesh whitish, buttery, very juicy and melting, with a peculiarly rich, spicy flavor. Abundant bearer. August to October.

Sheldon. S. Tree moderate grower and good bearer, fruit medium size, or above; roundish oval; skin yellow or greenish russet, with a richly shaded cheek; flesh melting, juicy, with a brisk, vinous flavor. Sept. and Oct.

Vermont Beauty. S. This beautiful and valuable pear originated on Grand Isle, Lake Champlain; is very hardy, having endured extremely cold weather, and has never lost a bud from either cold or blight. Vigorous grower; free from leaf blight; an annual and abundant bearer. In quality the fruit approaches nearer that most delicious of pears, the Seckel, than any other pear on the market. The fruit is full medium size, yellow, covered on the sunny side with a bright

carmine-red, making it exceedingly attractive and handsome; flesh melting, rich, juicy and aromatic. Ripens with and after Seckel, though much larger in size and more attractive in appearance. Cannot fail to prove a

general favorite and very valuable.

Wilder Early. S. Size medium; greenish yellow, with a brownish red cheek and numerous dots; flesh white, fine-grained, melting, excellent; about three weeks earlier than Bartlett.

Cherries

Cherry culture has been a success when proper attention has been given to the selection of varieties and their culture. No crop can be grown with less expense, no fruit is in greater demand nor any that sells more quickly. The demand for cherry trees is increasing every year. Eastern Colorado is planting thousands of acres of Wragg and other Morello varieties annually, and we have seldom been able to supply the demand. The hardy, thrifty varieties of the Morello type may be freely planted with confidence of profitable results.

The cherry tree should be planted in naturally dry or well drained soil; in soil where water will have no chance to remain near the roots for any considerable time. Cherry trees must have "dry feet."

The most successful varieties in general cultivation are:

Belle Magnifique. Large, late, red, excellent for cooking and fine for table when fully ripe; rather acid, tender, juicy and rich. Tree a slow grower, but a most profuse bearer. Last of June.

Black Tartarian. Very large; bright purplish black; half tender, juicy, very rich, excellent flavor; productive; vigorous. June 1.

Dyehouse. This variety partakes both of the Morello and Duke in wood and fruit. A very early and sure bearer; ripens a week before Early Richmond, is of better quality and quite as productive. Free. May and June.

Early Richmond. Everywhere the most popular. Tree strong, thrifty grower, making a large, symmetrical head; fruit medium size; dark red, melting, juicy; sprightly acid flavor, and especially valuable for cooking purposes; tree an early and abundant bearer. Last of May.

English Morello. Tree moderate grower, hardy; an early and great bearer; the most valuable of the late varieties; fruit large, round; skin dark red, becoming nearly black when fully ripe; flesh dark red, tender,

juicy, and of a pleasant subacid flavor when fully ripe. July.

Governor Wood. One of the best of all the sweet cherries. The tree makes a fairly healthy growth. The same is true of Black Tartarian and many others of the same class.

May Duke. One of the best cherries. Fruit roundish, obtuse, heart-shaped,

Wragg.

growing in clusters, and when fully ripe of a rich, dark red; flesh reddish, tender and melting, very juicy, and when fully ripe of a rich, excellent flavor. May and June 1.

Large Montmorency. This is a cherry of the Early Richmond class, some larger and about ten days later;

a strong, upright growing tree and good bearer. By experienced horticulturists considered one of the most valuable varieties.

Ostheim. A fine late Cherry from Germany. It has done well in the West, and promises well as a late profitable sort. Fruit large, dark

liver-colored when fully ripe; juicy, rich, almost sweet; tree a slender grower, almost hardy.

Wragg. Originated in Iowa. Medium to large; stem long; dark purple when fully ripe. A variety well adapted for the high latitude and prairie regions of the Northwest. July.

Plums

Burbank.

Diseases and Enemies of the Plum. The prevalence of the disease of the Plum commonly known as the "black-knot," which has so much discouraged people in the Eastern states from giving to the plum its merited share of attention has as yet done little damage west of the Mississippi river, but its appearance should be guarded against, and its ravages prevented by keeping the trees in healthy condition, which is done by good cultivation, and removing the knot by amputation on its first appearance. Nothing is more favorable to the growth of the black fungus or knot than neglect. But the great enemy of the plum is the insect known as the curculio, a small, dark brown beetle, which punctures the fruit in depositing its egg, from which is hatched the destructive grub that causes the fruit to drop prematurely and rot.

Two ways of destroying the Curculio and saving the crop of fruit are recommended. (1) Spread a large sheet, prepared for the purpose, under the tree, and then jar the tree so as to shake down all fruits that have been stung, as well as all the curculios; destroy both insects and stung fruits. Begin to do this as soon as the blossoms fall, and keep it up daily, or at least tri-weekly, until the fruit is half grown. The morning is the best time to do this, when the insect is chilled and stupid. (2) The best remedy, and the one generally adopted now, is the spraying of the trees. If those who really desire to grow fine crops of this most delicious fruit will try either of these systems, and follow it up rigidly, they will be successful.

Abundance. Medium to large; round, with pointed apex; skin greenish yellow ground, overlaid with dull purplish carmine; flesh light greenish yellow, juicy and sweet, with a touch of subacid and slight apricot flavor; cling; quality best; pit small; strong growing, upright, very prolific. Abundance has been, perhaps, more widely and extensively planted throughout the country than any other of the Japanese plums. It is one of the most popular and prolific early sorts in the plum growing sections of the North.

America. About the size of Wild Goose, golden yellow with pink blush; a young, abundant bearer; cling; a Japan-American hybrid.

Beauty of Naples. A new variety of the highest promise; size large; color greenish yellow; flesh firm, juicy and very fine flavored; tree very hardy and prolific. Middle of September.

Bradshaw. Fruit very large; dark violet-red; flesh yellowish green, juicy and pleasant; productive and vigorous. Middle of August.

Burbank. The best of all the Japan sorts of plums; nearly globular, clear cherry-red, with a thin lilac bloom; the flesh is deep yellow color, very sweet, with a peculiar and very agreeable flavor; tree vigorous, with strong upright shoots, large, broad leaves; begins to bear usually at two years. It blooms late, and consequently is more likely to escape the late spring frosts. The plum for the West.

Damson. Fruit small, oval; skin purple, covered with blue bloom; flesh melting and juicy, rather tart; separates partly from the stone. September.

German Prune. A large, long, oval variety, much esteemed for drying; color dark purple; of very agreeable flavor. September.

Imperial Gage. Above medium size, oval, golden green; flesh juicy, rich, delicious, free from stone; tree of good growth and habit; productive. One of the very best plums and very popular in some sections of the country. Mid-August.

Lombard. Perhaps the best of the European varieties now in cultivation. Tree vigorous, hardy and productive; fruit of medium size, roundish oval, slightly flattened at the ends; skin delicate violet-red, paler in shade; flesh deep yellow, juicy and pleasant. August.

Miner. One of the improved native varieties. Fruit medium size, oblong, skin dark purple; flesh red, soft, juicy, with vinous flavor; excellent for canning and cooking, and one of the best for market; tree hardy, vigorous and productive.

Monarch. Large; nearly spherical, deep purplish blue, with thin bloom; flesh pale golden green, juicy, pleasant; free from stone when ripe; trees come into bearing young and yield abundant crops. We consider this one of the most valuable and profitable plums. September.

Moore's Arctic. Originated in Maine, and celebrated for its remarkable hardiness, great bearing qualities and freedom from curculio; fruit grows in large clusters, large, dark purple; flavor very fine, both for preserving and dessert. A long keeper.

Pottawattamie. Large pretty fruits of bright yellow, marked with pink and white dots. Even small trees load themselves with fruit. August.

Red June. A very handsome plum, about a week earlier than Abundance. By all odds the best Japanese plum ripening before Abundance. Medium to nearly large size, deep vermillion-red, with handsome bloom and very

showy, flesh light lemon-yellow or whitish, firm and moderately juicy, very slightly subacid to sweetish, of good, pleasant quality; pit small; tree upright, spreading, vigorous and hardy, and as productive as Burbank.

Satsuma. Fruit medium to large; broadly conical, with a blunt, short point; suture very deep; skin very dark and dull red all over, with greenish dots and an under-color of brown-red; firm, very juicy, quality good; cling; flesh so firm and solid as to enable it to be kept long in fine condition after being picked. We are each year more and more impressed with its great value as a market plum. It is excellent for preserving, and a splendid keeper for the retail trade. It succeeds in many sections, and, where it does succeed, it is one of the most desirable.

Shipper's Pride. This plum originated in Northwestern New York, near the shore of Lake Ontario, and has never been known to freeze back a particle in the severest winters. Size large; color dark purple; flesh firm and excellent. September 1.

Shiro. Very productive of medium sized clear light yellow fruits, having a thin white bloom and firm, pleasantly acid flesh. Very hardy and vigorous; valuable for cold sections where some of the best sorts will not thrive. Ripens before Burbank.

Shropshire Damson. An English variety of great merit for preserving; large and much more desirable than the common Damson. Tree vigorous grower, hardy and abundant bearer. October.

Wickson. New. A remarkably handsome and very large deep maroon red plum of the Kelsey type. Long-cordate, or oblong pointed; flesh firm, deep amber-yellow, clinging to the small pit. There is apt to be a hollow space about the pit, as in Kelsey. Of first quality; an excellent keeper. Cross of Burbank with Kelsey, Burbank furnishing the seed.

Wild Goose. The most popular plum with some fruit growers. Tree a vigorous, upright grower; fruit medium to large, rich golden yellow, richly shaded with red; flesh yellow, juicy, flavor rich and good.

Peaches

Peach trees should be planted 16 or 18 feet apart. To secure healthy, vigorous and fruitful trees and fine fruit, the following points should be well attended to: (1) Keep the ground clean and mellow. (2) Keep the heads low—the trunk should not exceed 3 feet in height. (3) Give them an occasional dressing of wood ashes; soap-suds also are good. (4) Prune every spring, shortening the shoots of the previous year's growth. This keeps the head round, full and well furnished with bearing wood. Cut weak shoots back about one-half, and strong ones about one-third, but see that there is left a sufficient supply of fruit-buds. Sickly and superfluous shoots should be cut out clean. The fruit is borne on wood of the previous season's growth, hence the necessity of keeping up a good supply of vigorous annual shoots all over the tree. Young trees should be well mulched every spring.

Arp Beauty. A variety of Texas origin, resembling but ripening about a month before Elberta; the best quality early yellow peach.

Arkansas Traveler. Medium size, round, shaded with red; flesh melting, splendid in quality. Ripens a trifle earlier than Alexander, which it much resembles.

Alexander Early. Large, well grown specimens measure 8 inches in circumference handsome and regular in form, with deep maroon shade, covered with the richest tint of crimson; rich and good in quality, with a vinous flavor; adheres to the stone; should remain on the tree until fully ripe. Late June.

Belle of Georgia. Very large, white with red cheek; flesh white, firm, excellent flavor; very prolific; excellent shipper; freestone; ripens with Crawford's Early or before.

Bonanza. Very large and white, sometimes slightly blushed; firm, fine-grained, and desirable. In maturing, it is the latest sort we propagate.

Capt. Ede. Resembles Elberta in color and flavor, but tree is hardier; a strong grower and productive. Quality good; bears when Elberta fails but the wonderful popularity of Elberta has kept it in the background. When

Practically frost, rot and curculio proof; vigorous, prolific, of fine appearance and flavor, and with ability to carry in good order from Texas to New York. Such is Carman.

Champion. Fruit large, beautiful in appearance; flavor delicious, sweet, rich and juicy; skin creamy white, with red cheek; freestone. The peculiarity of this great acquisition is its hardiness. It stood a temperature of 18 degrees below zero in the winter of 1897-8, and produced an abundant crop the following season; and again in 1905 produced a full crop, when the

Crosby.

better known it will be wanted by commercial planters everywhere.

Carman. The best we consider none too good; hence, at a large cost, we secured of the originators, J. and J. W. Stubenrauch, of Mexia, Texas, this great Texas seedling peach. Think of an Elberta in size, appearance and quality, ripening in season with Early Rivers, or twelve days after Alex-

peach crop was a universal failure. August 15.

Chinese Cling. A large, creamy white peach, finely shaded and marbled with red; the white flesh is red at the stone, very juicy, rich and vinous. First of July.

Crawford's Early. This beautiful yellow peach is highly esteemed for market purposes. No other variety

has been so extensively planted. Fruit very large, oblong; skin yellow, with fine red cheek; flesh yellow, juicy, sweet and excellent; productive; free. July 1.

Crawford's Late. Fruit of the largest size; skin yellow, or greenish yellow, with dull red cheek; flesh yellow; productive; one of the best; free. Late August and September.

Crosby. Medium size, roundish, with distinct seam on blossom end; skin light golden yellow and very downy; flesh bright yellow and rather firm. Ripens between Early and Late Crawford. Tree of rather dwarfish habit. Has won special favor on account of great hardiness. A recent introduction that has attracted very wide attention on account of its disposition to produce good crops in "off years," when other varieties usually fail.

Early Rivers. A large and very attractive creamy white peach, with a delicate pink cheek. The rich, melting flesh is delightfully sweet and spicy. Distinctly beautiful and delicious. Late July.

Elberta. Very large and well colored; all things considered, the finest yellow freestone in cultivation; no one can go amiss by planting it. Fruit perfectly free from rot; one of the most successful shipping varieties. August 20.

Elberta Cling. A large, round, high quality, yellow peach, carrying a bright red cheek; an Elberta in appearance and a splendid clingstone.

Fitzgerald. Originated on the north shore of Lake Ontario, and in that cold region the original tree has borne ten successive crops. Large orchards are being planted in Canada; if it succeeds as well in other sections it will prove one of the most valuable varieties ever produced. One of the best posted growers in Michigan says of it: "Fitzgerald showed fruit on one-year-old trees. I am most favorably impressed with it; as large or larger than Crawford's Early, with the smallest pit I ever saw and the most brilliant color. I am going to set 1,000 trees in the spring. It is of Crawford type and color, grows sim-

ilar to it, and ripens between Early and Late Crawford. The flesh is of a rich, deep yellow and very high character. Certainly a very fine thing; went through last winter with a smaller percentage of dead buds than anything else in my orchard, standing alongside of Crosby."

Family Favorite. Free; seedling of Chinese Cling of better color; clear waxen complexion, with blush; large, firm, valuable for shipping, canning or drying; prolific. Late July.

Foster. Large; deep orange-red, becoming very dark red on the sunny side; flesh yellow, very rich and juicy, with subacid flavor; earlier than Early Crawford; very handsome. The originator says that the fruit always sells at a fancy price.

Gold Drop. The almost translucent golden colored flesh of this peach renders it exceedingly attractive in market, where it sells at highest prices. The tree is hardy, bears early and profitably. Late September.

Greensboro. The largest and most beautifully colored of all the early varieties. Double the size of Alexander, ripening at same time. Parts clear from seed when fully ripe; flesh white, juicy and good.

Heath Cling. Downing calls this peach "The most successful and delicious of all late clingstones." Tree vigorous and moderately productive; fruit very large, and narrowing to both ends; skin downy, cream colored, white with faint blush in the sun; flesh greenish white, very tender and melting, juicy, with the richest, highest flavor; quality very best. Sept.

Indian Cling (Indian Blood.) Large, deep claret color with red veins; downy; flesh red, very juicy and refreshing. Highly valued by all lovers of Indian peaches. Last of August.

Lemon Cling. Large, oblong, having a swollen point similar to a lemon; skin yellow, with red cheek; flesh yellow, firm, juicy and sweet; tree a fine grower. August.

Lemon Free. Almost lemon-shaped, pointed at the apex; color a pale lemon yellow when ripe. Quite large, the finest specimens measuring over 12 inches in circumference; of excellent

quality; ripens after Late Crawford; is immensely productive.

Mayflower. It is a week earlier than the Sneed, heretofore the earliest peach known. Unlike Sneed and the other early varieties it is a red peach, absolutely red all over, even before it gets ripe enough to ship. Carries to market in fine shape and sells well, as it is the only early peach that is well

Oldmixon Free. Large, pale yellow, with a deep red cheek; tender, rich and good; one of the best. September 1 to 15.

Salway. Fruit large, roundish, deep yellow, with a deep, marbled brownish red cheek; flesh yellow, firm, juicy, rich and sugary. A new English variety, and a late showy market sort. Freestone. September 30.

Smock Free. Fruit large, oval; skin

Captain Ede.

colored. A strong thrifty grower inclined to overbear, should always be thinned.

Mountain Rose. A freestone of medium size. Has a good reputation. White, mottled with red; flesh white, stained at the stone; sweet and juicy. Good for all purposes, especially as an early market peach. Mid-August.

Oldmixon Cling. Large, pale yellow, with red cheek; juicy, rich and high-flavored; one of the best clingstone peaches. September.

orange-yellow, mottled with red. A good market sort. September 15.

Sneed. The most remarkable early peach yet introduced. It ripens a week to ten days earlier than Alexander, and belongs to an entirely different type from Alexander; very distinct in tree and fruit, belonging to the Chinese Cling type; size medium; color white, with bluish on cheek.

Stump the World. Very large, roundish; skin white, with a bright red cheek; flesh white, juicy and good. Late September.

Triumph. Ripens with Alexander, blooms late, has large flowers, and is a sure and abundant bearer; the tree makes a very strong growth, bears young and yields abundantly. The fruit is of large size, with a very small pit; skin yellow, nearly covered with red, dark crimson in the sun; flesh bright yellow, free when fully ripe; of excellent flavor; the fruit is a good shipper, and in quality is far superior to anything that ripens anywhere near its season.

Victor. An early peach, ripening before Sneed. Tree a good grower and immense bearer. Flesh greenish white, juicy; pleasant subacid flavor, semi-cling. Latter part of June.

Wager. Large; yellow, splashed with red; flesh yellow, juicy and of good flavor. While high excellence in quality cannot be claimed for Wager, the tree has such remarkable vigor and vitality that it is not only an abundant, but an unusually regular bearer. Freestone. August.

Wonderful. Originated in New Jersey. Large to very large; uniform in shape and size, color rich golden yellow, overspread with carmine and crimson; flesh yellow, highly flavored and firm, bright red at pit, which is small and parts freely from the flesh. Ripe in October, and keeps well.

Superb Apricots.

A delicious fruit of the plum species, valuable for its earliness. It is liable to be attacked by curculio, and requires the same treatment as the plum; ripens in July and August.

Superb. Originated at Lawrence, Kansas, by Mr. A. H. Griesa. This is without question the best apricot now being offered. It is a chance seedling from a Russian seed. Its points of excellence are in the magnificent tree, which is large and spreading, with broad, glossy leaves. It is perfectly hardy, and in productiveness has no superior. In quality it is better than Early Golden. Color a beautiful yellow

with slight blush; flesh firm and solid. One of its many desirable traits is its long season, covering a period of three weeks. If we were asked if it has any weak points, we would answer emphatically, no. To all lovers of apricots (and who is not?), we would say, plant the Superb; plant it now. An eminent authority speaks of the Superb as follows: "Superb, a hardy seedling from Lawrence, Kan-

sas, where we saw it two years in full fruit, has produced more fruit of larger size and better quality than any other, native or foreign." Better and more constant bearer than any one hundred others. Exhibited at the Nurserymen's Convention, where its exquisite quality, in comparison with others, was conceded by all. Superb, raising the average in size and quality of this excellent fruit, is worthy of extensive cultivation. Some Eastern firms would make fortunes out of it.

Moorpark. One of the largest. Orange, with red cheek; firm, juicy,

with a rich flavor; very productive. August.

Early Golden. Small; pale orange, juicy and sweet; hardy and productive. July 1.

Alexander. Large, oblong; yellow, flecked with red; flavor sweet and delicate; one of the best. July 1.

Alexis. Origin Russia. Tree strong, fruit large. Yellow, with red cheek; very sweet and of rich flavor. Bears well if given warm location. Mid-July.

J. L. Budd. Large; cheek red; sweet, juicy, extra fine. A hardy, strong grower and profuse bearer. The best late variety. August 1.

Nectarines

A most delicious, smooth-skinned fruit, which thrives wherever peaches will grow, but it is liable to be stung by the curculio, and requires the same treatment as the plum.

Boston. Large, handsome, oval in shape; bright yellow, with deep red cheek; flesh yellow to the stone, with a good, pleasant, but not very high flavor. Ripens in the early fall.

Breda. A splendid large variety of exquisite flavor. Creamy white, with pale blush. Tree a vigorous grower and very prolific.

Select Quinces

The quince is attracting a great deal of attention as a market fruit. The tree is hardy and compact in growth, requiring but little space. Productive, gives regular crops, and comes early into bearing. The fruit is much sought after for canning for winter use. When put up in the proportion of about one quart of quinces to four of other fruit, it imparts to them a most delicious flavor. It flourishes in any good garden soil kept mellow and well enriched. Prune off all the dead and surplus branches, and thin out the fruit if bearing too freely.

Bourgeat. New. The strongest and most distinct grower of all quinces, with large foliage and very handsome fruit. Keeps longer than most other sorts. Very promising.

Bourgeat.

Champion. A new variety, originated in Connecticut, where it is exciting marked attention. The tree is described as a strong grower, a prolific and constant bearer; fruit averaging larger than the orange, more oval in shape, quality equally fine and a longer keeper.

Meech's Prolific. A valuable quince, remarkable for its early and regular bearing and great productiveness. The fruit is of good size and form and bright orange yellow; flesh very fragrant, delicious and tender. Unsurpassed for cooking.

Missouri Mammoth. The largest

quince in cultivation; perfect in shape, very rich and aromatic; tree vigorous, productive; an early bearer and free from blight.

Orange. Large, roundish, bright golden yellow; cooks tender and is of excellent flavor; valuable for preserves or flavoring; very productive; most popular and extensively cultivated variety. October.

Rea's Mammoth. This seedling of the Orange Quince has all the good qualities of that variety; its fair, handsome fruit is fully one third larger. We consider this the best of all the quinces.

Grapes

Almost every one can find room for from six to a dozen or more grape vines. They can be trained up the side of any building or over a garden fence, but the best and cheapest way to grow them, either in small or large quantities, is on a wire trellis.

Brighton

Work the ground deep for grape vines, and plant a little deeper than they were in the nursery. Make the rows 8 feet apart and plant vines 6 to 8 feet apart in the rows. Some of the tender varieties would be benefited by laying the vines flat on the ground during the winter, with a light covering of earth or litter.

Agawam. Red, large, round, early, and of great vigor of growth; rich, high, peculiar aromatic flavor. Considered by Mr. Rogers as the best of his strictly red hybrids.

Brighton. Our experience with the vine and fruit of the Brighton has convinced us more and more thoroughly of its superiority as a family grape. Its remarkable vigor and hardiness of vine, large, compact bunches, rich wine shade of the ripened berry, delicate skin, tender almost seedless pulp, sugary juice and rich flavor, are com-

bined qualities that are not united to such a degree in any other sort with which we are acquainted. It ripens a week or ten days before the Delaware, and bears most abundantly; having thick, large foliage, it is enabled to withstand the heat of the summer, and being a vigorous grower, it exhibits extreme hardiness, and is enabled to endure the winter in extreme localities. We commend this sort especially as a standard variety for the vineyard or garden.

Catawba. Well known as the great wine grape of Ohio, Kentucky, etc. Bunches large and loose; berries large, of a coppery red color, becoming purplish when well ripened; two weeks later than Isabella. Where not subject to rot, still holds its own as one of the best varieties.

Concord. A popular variety, universally healthy, vigorous and productive; flesh somewhat buttery, moderately juicy and sweet; bunch large, nearly black, with bloom; early. Much is said about some grape to take the place of Concord, its poor quality, etc., but the fact is generally recognized that the man who plants and cares for Concord vines will get bountiful crops of grapes, and if they are allowed to remain on the vines until fully matured the quality is excellent. No other grape can be planted with the confidence that is felt in the Concord.

Delaware. Holds its own as one of the finest grapes. 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; vines moderately vigorous, very hardy and productive; ripens two weeks before Isabella.

Eaton. Bunch very large, weighing 12 to 20 ounces; compact, often double-shouldered; berries very large, many one inch in diameter; round, black, covered with a heavy blue bloom; adheres firmly to the stem; skin thin, but tough; pulp tender, dissolving readily in the mouth; very

juicy; good as Concord, with much less of the native odor. Ripens with Concord or a little earlier.

Early Ohio. Briefly, its points of merits are extreme earliness, hardiness and productiveness; the berry is black, smaller than Concord, firm in texture; the vine is thrifty, a strong, rapid grower and an abundant bearer. Its exceeding earliness makes it a decided acquisition.

Empire State. Very large bunches composed of medium sized berries;

Niagara.

juicy, rich, sweet and sprightly. Holds its color and flavor a long time.

Green Mountain (Winchell). New. Found growing in a garden on the side of the Green Mountains in Vermont, at an altitude of 1,400 feet, where it ripens its fruit perfectly. Vine strong, vigorous, healthy, very

hardy and productive; bunch long, compact, shouldered; color green or greenish white; skin thin; pulp exceedingly tender and sweet. Very early, being three weeks earlier than Concord.

Hartford Prolific. Bunches rather large; berries large, globular, almost black, covered with a beautiful bloom; flesh sweet and juicy; ripens two weeks before Isabella; valuable for its hardiness, abundant bearing and early maturity.

pale green or light color; sweet, juicy and sprightly.

Moore's Diamond. A most desirable new white grape originated by Jacob Moore, of Brighton, New York. A seedling of the Concord fertilized with the Iona. Bunch large; berry large and nearly free from pulp, which makes it almost transparent when held up to the light; quality excellent; strong, vigorous grower, hardy and productive. Ripens a few days before Concord.

Vineyard of Concord.

Ives' Seedling. Vine healthy, strong grower; fruit bunch medium to large; flesh sweet and juicy, but foxy and puffy. A desirable market grape on account of its good keeping qualities; it colors early, but ripens later than Concord.

Lindley. Of fine color and quality, with bunches and berries of medium size, borne in good crops on a vigorous, healthy vine. One of the best red grapes. Ripens with Concord and keeps as well.

Martha. Seedling of Concord, which it resembles in growth and hardiness: bunch of good size, and berry large;

Moore's Early. Seedling of Concord, combining the vigor, health and productiveness of Concord; 10 days earlier than Hartford; in quality hardly to be distinguished from Concord. This grape has taken the first prize at the Massachusetts Horticultural Society each year since 1872, when first exhibited, and the \$60 prize of same society for the best new seedling in the fall of 1877. A valuable acquisition. Bunch large; berries very large, black.

Niagara. Bunch medium to large, compact, sometimes shouldered, being large, roundish, uniform; skin thin

but tough, pale green at first, changing to pale yellow when fully ripe, with a thin, whitish bloom; flesh slightly pulpy, tender, sweet before it is fully ripe; it has a musky odor, which disappears when fully ripe; vine vigorous, healthy and productive; ripens with Concord.

Pocklington. Seedling from Concord. The vine is thoroughly hardy, both in wood and foliage; is a strong grower, never mildews in vine or foliage. This is called a white grape, but the fruit is a light golden yellow, clear, juicy and sweet to the center, with little or no pulp; bunches very large, sometimes shouldered; berries round, very large and thickly set; quality, when fully ripe, superior to the Concord. Ripens with the Concord.

Salem. Bunch large and compact; berry large, of a light chestnut or Catawba color; thick skinned, perfectly free from hard pulp; very sweet and sprightly, with a most exquisite aromatic flavor; as early as Delaware, having never failed to ripen in the most unfavorable seasons for the last six years; keeps well.

Vergennes. Berries large, round, somewhat loosely set on bunches of medium size; skin thick and tough, making it a good keeping sort; flesh quite pulpy and of pleasant flavor. Ripens with Concord.

Wilder. Clusters very large, compact, shouldered; berries very large, round, with sweet, tender, sprightly flesh. A vigorous, productive sort that ripens with Concord.

Worden. Seedling of Concord, which it greatly resembles in appearance and flavor, but the berries are larger. The fruit is said to be better flavored, and to ripen several days earlier. These qualities give it the foremost rank among native grapes.

Wyoming. A very early, medium-

Moore's
Diamond.
(See page 32.)

sized red variety; bunch small but compact; skin bright red, sweet, very agreeable, were it not for the slight foxy odor apparent when first gathered.

Small Fruits

These may everywhere be successfully cultivated, and yield large returns at comparatively small expense. They should have a place in every garden. Since the introduction of self-sealing jars and cans, they can be had throughout the year almost as fresh as when gathered. If any thoughtful farmer will figure up the returns from a berry patch as compared with one of his heavy crops by area, he will be convinced as to the profits.

Strawberries

The ground should be prepared the same as for other crops; if not already rich, make it so by manuring. Mark out the rows the desired width, and set plants 12 to 18 inches apart in the rows. If set 12 inches apart in rows 4 feet apart, an acre will require 10,890 plants, same as if set 16 inches in rows 3 feet apart. In early winter, when the ground is frozen, cover the whole with long straw, which should not be removed from the plants in the spring, but allowed to remain on the ground as a mulch, to keep the berries clean the next summer. Varieties marked with a star (*) are pistillate or imperfect-flowering. When staminate or perfect-flowering sorts are planted near them they are often the heaviest bearers of all, but unless these varieties are near enough to furnish pollen they will not yield much fruit. All unstarred sorts are perfect flowering. **Strawberries should be planted in the spring.**

Aroma. This is our best and most profitable late strawberry. It can-

show no weakness of any kind. Fruit very large, roundish conical, rarely misshapen, glossy red, of excellent quality, and produced in abundance. Same season as Gandy.

Aroma.

not be beaten for quantity of fruit produced, or in quality of fruit. Plants

Beder Wood. Large, roundish conical; bright scarlet, moderately firm, fair quality; plant vigorous and very productive. A very valuable early sort for home use or near market.

***Bubach No. 5.** A wonderful berry in vigor of plant and yield of fruit, even under careless culture. The fruit is in many instances enormous, and the average is large and handsome. It is exceedingly productive and very valuable for a nearby market. Mid-season.

Captain Jack. A most vigorous grower, healthy and productive; berries large, handsome and solid.

***Crescent.** Medium, conical, bright scarlet, very uniform in size. A beau-

tiful berry, beginning to ripen very early, and continuing in fruit a long time. Has been shipped 200 miles without changing color. It is astonishing in its productiveness. The plants are wonderful in growth, taking entire possession of the ground to the exclusion of weeds and grass. At home on all soils, and popular where known.

***Greenville.** Resembles Bubach, but is firmer and a better shipper; uniform in size, regular outline, excellent quality; plant a strong grower, free from rust, and one of the most productive.

***Haverland.** Profitable by reason of its productiveness and earliness, but is hardly firm enough for distant shipment; requires deep, heavy soil; plant exceedingly vigorous and healthy; fruit large, handsome and good, though not of the best quality; rather long in shape, and of a bright, glossy crimson. Early.

Jessie. A stout, luxuriant grower; foliage light green, large and clean; the berry is very large, continuing large to the last picking; it is of beautiful color, fine quality, good form, quite firm, having been shipped 600 miles in good condition.

Miner's Prolific. One of the handsomest strawberries, rich in quality and, when the season is favorable, productive.

Parker Earle. A splendid new berry, which originated in Texas, and is named in honor of Mr. Parker Earle. Berries uniformly large, regular, conical; color glossy scarlet-crimson, ripening to the tip; no hollow core; quality good; flowers perfect and always setting in perfect fruit; plant extremely vigorous, healthy and enormously productive. It has yielded

15,000 quarts per acre, and all things considered, is beyond doubt the most valuable variety in existence.

***Sample.** A strong plant that succeeds well on nearly all soils and yields astonishing crops of uniformly large, fine berries, pointed, conical, rich scarlet, firm and of fair quality. A money maker for the marketman, and destined to become one of the standard sorts for all sections. It is being planted in immense quantities.

Senator Dunlap.

Senator Dunlap. A fine, fancy market berry and always superb for the table. A giant in size; it is deep red, globular, high-flavored, delicious. In healthy vigor and fruitfulness it is unsurpassed.

***Warfield.** Possesses beauty, firmness, earliness, good flavor, productiveness. Is not immensely large, but quite satisfactory.

Raspberries

One of the choicest of the small fruits, coming into use as the strawberry season ends. Nothing can be more refreshing than a dish of raspberries. Should be planted 4x6 feet apart in a deep soil; one that will retain moisture well in a drought. In training, allow only a few canes to grow from each plant, cutting away all suckers, to throw the strength into the stalk for bearing. All old canes should be removed when the bearing season is over. Tender varieties should be protected during the winter in the northwest states.

Kansas.

BLACK CAPS

Cumberland. This new raspberry is placed upon the market after having been thoroughly tried for a long period of years. It originated some nine years ago with David Miller, a life-

long horticulturist and fruit grower, located near Harrisburg, Pa., who has during all this time carefully and thoroughly tested it under all conditions. It is now offered with the full assurance that it is the most profitable and desirable market variety yet known, because of its immense size, firmness and great productiveness, well entitling it to first place among black caps.

Gregg. This is decidedly the largest and most prolific black cap we have seen, and one of the most popular raspberries in cultivation.

Kansas. Originated at Lawrence, Kan., by Mr. A. H. Griesa. It is healthy, vigorous and not subject to leaf blight; produces strong, healthy tips; fruit large, as fine a

berry as Gregg and equally as good a shipper; ripens among the earliest; very prolific.

Ohio. A very strong growing, hardy sort; fruit as large as Mammoth Cluster and more productive; valuable for market and much esteemed for drying.

RED VARIETIES

Cardinal. Originated at Lawrence, Kan., by Mr. A. H. Griesa. This is certainly the most remarkable plant in cane growth ever introduced. It is a strikingly beautiful bush to look at and its remarkable cane growth is extremely hardy. The thermometer registered 26 degrees below zero the winter of 1911-12, and it withstood this severe test without apparent injury. Its productiveness is all that could be desired. It will produce twice the amount of fruit of any other purple sort. Color of berry is a little darker than Columbian; a little more acid in flavor; berry rounder, of the same size or larger. It is doubtless the best of its kind ever introduced.

Columbian. New. A most vigorous grower; canes 10 to 16 feet in length; roots deep; hardy; fruit very large, somewhat conical; color dark red,

seed small; delicious; very valuable both for canning and table use. Fruiting season usually long. An excellent shipper; very productive and valuable market sort.

Cuthbert. One of the few kinds that may be pronounced perfectly hardy. The canes are tall and vigorous and enormously productive; berries very large, conical, rich crimson, very handsome, and so firm they can be shipped hundreds of miles by rail without injury. Flavor rich, luscious, best; begins to ripen moderately early and holds until all others are gone.

Loudon. Canes strong and hardy; berries of large size, good color and excellent quality. Its wonderful vigor and hardiness, together with productiveness and fine quality, make it very desirable for either home use or a market fruit.

Early Harvest.

BLACK-BERRIES

These require the same kind of soil and treatment as raspberries, except that they should be planted in rows 8 feet wide and 4 feet apart in the row. For self-sustaining bushes, clip off the points of the growing canes as soon as the plants are about 4 feet high, and repeat the operation several times, until they assume the form of a bush. Mulching is of great advantage to both raspberries and blackberries.

Early Harvest. This is the earliest of blackberries, and an old and well-tried sort. The fruit is of medium size, glossy black, and firmer than any other blackberry known.

Erie. Cane strong; berry large; almost round, of rich quality, handsome and firm. Plant hardy, vigorous and

productive, bending its canes with fruit.

Kittatinny. Begins to ripen soon after Early Harvest and continues long in bearing; is ripe as soon as black, and is much earlier, sweeter and better in all respects than the majority of blackberries. The great fault of Kittatinny is the rust, which sometimes will destroy a whole plantation. When it escapes rust, the best blackberry known.

Mersereau. This early mammoth iron-clad blackberry originated in Northwestern New York, where the mercury often drops to 15 or 20 degrees below zero, and where it has proved its extreme hardiness. It has never been known to winter-kill nor to be affected with rust. Its cardinal points are these: Hardiness of cane, great productiveness, immense size and high quality. Its season is early to midsummer, ripening with Snyder. Not an untried variety, but one with

an unprecedented record that is being extensively planted.

Rathbun. Large, juicy and high flavored; soft throughout and no hard core; sweet and delicious; carries well to market; propagates from tips.

Snyder. Extremely hardy, enormously productive; fruit of medium size, with no hard, sour core; half as many thorns as Kittatinny, and these are straight and short; most prolific blackberry grown; comparatively free from rust; safe and profitable berry to plant. Has been a standard market berry over a wide range of country for years. Succeeds and yields well everywhere; is a great favorite in the North on account of its hardiness.

Taylor, or Taylor's Prolific. Strong, upright grower; berry large, late; should be planted with an early sort for a succession of fruit. The strong point with Taylor is endurance and heavy crops.

Lucretia Dewberry

Fruit very large, luscious and handsome; perfectly hardy, a strong grower and enormously productive; a superb and very profitable market fruit. The vines should be allowed to remain on the ground during winter, and be staked up early in the spring.

Currants

Currants should be planted 4 feet apart in the garden. Sawdust or tan-bark should be used as mulch. The currant flourishes in almost every kind of soil, but to have the fruit in perfection, plant in rich, deep soil, and give good annual pruning and cultivation. When plants are grown as stools or bushes, the older and feebler suckers should be cut out. When grown in the form of a tree, with single stem, the bearing wood should be thinned, and the stem and root kept free of suckers.

Champion (Black). A new variety from England; pronounced to be the finest black currant ever brought to notice. The bushes are very large and the flavor of the fruit excellent.

Cherry. The largest of all red currants; berries sometimes more than half an inch in diameter; bunches short; plant very vigorous and productive when grown on good soils and well cultivated.

Pomona. Fruit of good size and flavor, bright red, has long stems and hangs in fine condition after ripen-

ing; is a good shipper; bush bears early and is wonderfully prolific; a good market sort.

Fay's Prolific. For size, beauty and productiveness the most remarkable red currant ever grown. A. M. Purdy of Palmyra, N. Y., says: "We counted over thirty large clusters on a branch received by us measuring 14 inches in length. The berry is fully equal to Cherry currant, while the flavor is much superior. The stems are double the length on an average, and the fruit hangs on well, never dropping, as in

other currants. We measured bunches 4 and 6 inches long."

Perfection. Berries are a beautiful bright red and larger than Fay's Prolific. In quality it is said to be superior to anything in the market today; rich, mild, subacid flavor, with plenty of pulp and few seeds, clusters are long and size of berry is maintained to the end.

Red Dutch. An old, highly esteemed sort, hardy and reliable; fruit medium size, bright red and of best quality. It is well to plant some high-priced new kind if you want a pet, but if you want currants, plant Red Dutch.

White Grape. Very large yellowish white, sweet or very mild acid; excellent for the table, because of its mildly acid flavor and large, handsome clusters of golden green or white berries. The finest of the white sorts; very distinct, having a low, spreading habit and dark green foliage; very productive.

Gooseberries

The bushes should be planted the same distance apart as currants. They should be annually and rather severely pruned by thinning all feeble and crowded branches. Mulch the same as currants.

Downing. Fruit larger than Houghton; roundish, light green, with distinct veins; skin smooth; flesh rather soft, juicy and very good. Vigorous and productive.

Houghton. A medium sized American variety, which bears abundant and regular crops, and never mildews; fruit smooth, red, tender and very good; very valuable. No variety has yet been found that gives better satisfaction.

Industry. The best English gooseberry yet introduced; of vigorous, up-

right growth; a greater cropper than any known variety; berries of the largest size and of most excellent flavor, both pleasant and rich; color, when fully ripe, dark red.

Pearl. Similar to Downing, but with fruits a little larger; it is also even more robust and fruitful in habit.

Red Jacket. An American seedling of large size; smooth, prolific and hardy, of best quality. Has been well tested over a wide extent of territory by the side of all the leading varieties

Perfection
Currant.

and so far the freest from wildew, both in leaf and fruit, of them all. A wonderful cropper, with bright, clean, healthy foliage.

Smith's Improved. Large, oval, light green, with bloom; flesh moderately firm, sweet and good; vigorous grower. Where conditions are right it is a valuable variety.

Dwarf Service or Juneberry

Grows 4 to 6 feet high, branching out from the ground like currants; re-

sembles the common Service or Juneberry in leaf and fruit, but the fruit is larger, and in color almost black, beginning to bear the second year after transplanting, and bears profusely.

Asparagus

This earliest and finest of spring vegetables is among the easiest cultivated and most profitable. A bed once planted suffers no deterioration for thirty years or more, if it is properly attended to and well manured.

See that the ground is well drained, naturally or otherwise; work it up fine and deep, and make it very rich with well-rotted barnyard manure. Place the plants 8 inches apart in rows 3 feet apart. Spread out the roots in a trench made deep enough to permit their crowns to be covered with 3 or 4 inches of mellow earth. Give the bed liberal dressings of manure at intervals, and, except near the seashore, three pounds of salt per square yard early every spring. Do not cut for use until the second season.

Conover's Colossal. This variety is much superior in size and quality to any of

the old common sorts, being remarkably tender and fine flavored. The large green shoots, 1 to 2 inches in diameter, are sent up thickly from the crowns, making it a very profitable variety.

Palmetto. Until recently we believed that Conover's Colossal was the

best sort known, but we are now forced to concede that the Palmetto is earlier and a better yielder, and more even and regular in its growth, and that it will eventually supersede the old favorite. It has been tested both north and south, and has proved entirely successful in every instance.

Rhubarb or Pie Plant

This deserves to be ranked among the best early products of the garden. It affords the earliest material for fine pies and fresh table sauce, continues long in use, and is valuable for canning. Make the ground rich and deep, as recommended for asparagus. Plant four feet apart each way.

Early Scarlet. Smaller than Myatt's, but extremely early and very highest quality. The best extra early sort for home or market.

Myatt's Linnaeus. Those who have never grown this variety, which is of superior quality will hardly recognize the old "Pie Plant." It is an early,

tender variety, without being in the least tough or stringy, with a mild subacid flavor.

Victoria. This variety, if planted in a rich soil and properly cultivated, will produce tender stalks 3 feet long, and from 1 to 2 inches in diameter.

Mr. A. C. Griesa, Founder of the Mount Hope Nurseries and views of the same.

American Sweet Chestnuts.

Nuts

BUTTERNUT, or WHITE WALNUT

A fine native tree, producing a large, longish nut, which is prized for its sweet, oily, nutritious kernel.

CHESTNUT

American, Sweet. A valuable native tree, useful and ornamental; timber is very durable, and possesses a fine grain for oil finish. Nuts sweet, of delicate flavor, and are a valuable article of commerce.

Japan. Very distinct from all other chestnuts, dwarf grower; productive, usually producing nuts when two or three years old. Nuts of immense size, far surpassing all other kinds; of fair quality when outside skin is removed.

HICKORY

Shellbark. To our taste no other nut that grows, either foreign or native, is superior to this in quality; it possesses a peculiar, rich, nutty flavor

excelled by none. The tree is of sturdy, lofty growth. The wood is highly prized for making agricultural implements.

WALNUT.

Black. A native tree of large size and majestic form, beautiful foliage. The most valuable of all trees for its timber, which enters largely into the manufacture of fine furniture and cabinetware, and brings the highest price in market.

French, English or Madeira Nut. A fine, lofty growing tree, with a handsome spreading head. Where hardy it produces immense crops of its thin-shelled, delicious nuts, which are always in demand at good prices. Not hardy enough for general culture in the North.

Japan Sieboldi. One of the finest ornamental trees. Nuts produced in clusters; resembles butternut in shape and quality; smaller, with smooth and thinner shell. Worthy of extensive planting.

ORNAMENTAL DEPARTMENT

WHILE most people appreciate well-arranged and well-kept grounds, large or small, many fail to realize that they can have equally fine grounds. They have tried a few shrubs or roses, perhaps, growing in thick turf, with no attention given to pruning or cultivating. Under such circumstances good results cannot be expected.

Aside from the pleasure of having fine trees, shrubs, vines and flowers in the grounds surrounding a home, few realize how much these add to the commercial value of a place. A purchaser having to decide between a house with bare, unkempt grounds, and one surrounded by fine ornamentals, invariably chooses the latter at a marked advance in price, because he sees that he will at once enjoy what it would otherwise take some years to secure. Sagacious men are led by a knowledge of these facts to plant fine trees and shrubs about vacant lots they are intending to put on the market. Lots thus planted readily secure purchasers at good prices, when bare grounds go begging.

HOW TO PLANT.

Do not make the mistake of planting at random. A fine, well-cut lawn is one of the handsomest features of a place. Trees may be planted along a lane or avenue leading to the house, or dotted about the lawn on lines radiating from it. This will secure light and air, with good views. When practic-

able, upright shrubs and roses should be planted in beds, each class by itself, about the borders of the grounds. These beds should be well cultivated and the plants annually pruned. When the growth of the plants has made them very thick, some should be taken out. It will not do to plant so little that years must elapse before a fine effect will be produced. A surplus should be planted at first, and this gradually taken out. Vines should be planted near to and allowed to climb upon and about the house, or they may be trained on posts, arbors or stakes, placed in suitable locations on the lawn.

WHAT TO PLANT.

A detailed list of desirable ornamental trees and shrubs would be little less than a recapitulation of our entire list, but as few have room for all, we here present a list of the most desirable in each class, and refer the reader to the proper places in the catalogue for descriptions of them:

Flowering Trees. May—White Dogwood, Magnolias in variety, Judas Tree, Horse-Chestnut. June—White Fringe, Laburnum, Mountain Ash, Thorns in variety, Catalpa Bungei, Lindens in variety. July—American Sweet Chestnut.

Trees valued for their form and foliage. White Fringe, Magnolias, Cut-leaved Weeping Birch, Kilmarnock Willow, Weeping Mountain Ash, Oak-leaved Mountain Ash, Camperdown Weeping Elm, European Linden, Salisburia, Norway Maple, Purple-leaved Maple, Wier's Cut-leaved Maple, Purple-leaved Beech, Tulip Tree.

Evergreen trees. Norway Spruce, Austrian Pine, Irish Juniper, American Arborvitae, Pyramidal Arborvitae, Concolor Fir, Colorado Blue Spruce, Hemlock.

Upright-flowering shrubs. April—Evergreen Honeysuckle (*Lonicera fragrantissima*). May—Forsythia, Japan Quince, Spiraea prunifolia, Lilacs in variety, Tartarian Honeysuckle. June—Deutzia gracilis, Deutzia crenata, Snowball (*Viburnum plicatum*), Weigelia in variety, White Fringe, Golden-leaved and Plain Syringa, Calycanthus (at intervals during the summer), Golden-leaved Spirea. July—Spirea callosa, Spirea callosa alba. August and September—Altheas in variety, Hydrangea paniculata grandiflora, Anemone.

Climbing and trailing shrubs. Clematis in variety (flowers from June to November), Ampelopsis Veitchii, American Ivy, Climbing Honeysuckle in variety (flowers all summer), Bignonia or Trumpet Vine, Wistaria, Chinese Matrimony Vine.

Roses. Climbing and Moss (bloom in June), Hybrid Perpetual and Perpetual Moss (bloom at intervals all summer), Tender Roses (bloom constantly).

Upright Deciduous Trees

ASH. *Fraxinus*

White. A rapid growing native tree of fine, symmetrical outline; a valuable street or park tree, and should be extensively planted for timber, as the demand for it is very great for the manufacture of implements, railway cars, furniture, etc.

BEECH. *Fagus*

Purple-leaved (*F. purpurea*). Discovered in a German forest. An elegant, vigorous tree, growing 40 to 50 feet high. Foliage deep purple, changing to crimson. Like all varieties of the Beech this is difficult to transplant, hence small trees 3 feet high are preferable.

BIRCH. *Betula*

Purple-leaved (*B. populifolia purpurea*). A variety possessing the vigorous habit of the species, and having rich purple foliage.

Cut-leaved Weeping. See Weeping Trees.

CATALPA. Indian Bean

A valuable class with ornamental foliage and flowers, and of easy culture on common soils. Leaves of immense size and heart-shaped. Flowers borne

in large, upright panicles. Flowers in July, when few trees are in bloom. Valuable for lawn, street or park planting. They are of rapid growth and flower when quite young.

C. Bungei (Umbrella Catalpa). Originated at Lawrence, Kansas, by Mr. A. H. Griesa. Grafted on stems 6 to 8 feet high, it makes an umbrella-shaped top without pruning. Perfectly hardy, and flourishes in almost all soils and climates. Leaves large, glossy, heart-shaped, deep green; lie like shingles on a roof; always make a symmetrical head. One of the most unique trees; a valuable acquisition, desirable for lawn, park and cemetery planting.

C. Speciosa. A variety originating here in the West. More upright and symmetrical in its growth than the common Catalpa (*C. syringaefolia*), and blossoms two or three weeks earlier. Very valuable for timber, fence posts, railroad ties,

Catalpa Bungei.

etc., possessing wonderful durability. A very ornamental and valuable tree; able acquisition, desirable for lawn, park and cemetery planting.

CHESTNUT. *Castanea*

American. A well-known forest and nut-bearing tree. Of great value for ornamental purposes.

Japan. Tree medium sized and decidedly ornamental. It fruits when very young; nuts are much larger than the Spanish, and equal to it in flavor. Believed to be a great acquisition. Not very hardy, and should not be planted through the extreme North.

CRAB. *Pyrus*

Bechtel's Double-flowered American (*P. coronaria*). One of the most beautiful of the many fine varieties of flowering crabs. Tree of medium size, covered in early spring with large, beautiful double fragrant flowers of a deli-

cate pink color. From a distance the flowers have the appearance of small roses. A great acquisition, and certain to become very popular as soon as known. Blooms when quite young.

Flowers of
Bechtel's
Flowering
Crab.

(See page 47)

DOGWOOD. *Cornus*

American White (*C. florida*). A native tree of fine form and beautiful foliage, growing from 20 to 25 feet high, producing white flowers 3 inches in diameter, early in the spring before the leaves appear. A very desirable tree.

Red flowering. First disseminated by the late Thomas Meehan and considered a great acquisition.

ELM. *Ulmus*

Noble trees for street or lawn planting.

American White (*U. Americana*). A native tree of large size, with open spreading head and graceful drooping branches. Very popular in nearly all sections, and valuable for street planting. Succeeds admirably even where the soil is somewhat heavy and damp.

Camperdown. See Weeping Trees.

English (*U. campestris*). A native of Europe, forming a tall, erect tree, with slender branches and small leaves. When fully grown, forty to fifty feet high.

HORSE-CHESTNUT. *Aesculus*

Red-flowered. One of the finest trees in cultivation. Has showy red flowers; blooms a little later than the white.

White-flowered. The common, well-known species; a hardy, healthy tree, free from all diseases; covered in May and June with magnificent erect spikes or panicles of white flowers, slightly marked with red.

LABURNUM

Common, or Golden Chain. Bears long, pendent racemes of golden flowers in June; smooth and shiny foliage. Very showy and beautiful, and valuable for every lawn. When fully grown, 15 to 20 feet high.

LARCH. *Larix*

European (*L. Europea*). A beautiful, rapid growing tree, of irregular, pyramidal form, with small, drooping branches. Very desirable and universally sought in all sections. When fully grown, 30 to 40 feet.

LINDEN. *Tilia*

American (*T. Americana*). Rapid growing, beautiful native tree, with very large leaves and fragrant flowers.

European (*T. Europea*). A very fine pyramidal tree, with large leaves and fragrant flowers. Only desirable on large grounds.

LOCUST

Black, or Yellow (*Robinia pseudacacia*). A large native tree of rapid growth, valuable for shade as well as quite ornamental. The very fragrant white or yellowish flowers are disposed in long, pendulous racemes, and appear in June.

Honey, or Three-thorned Acacia (*Gleditsia triacanthos*). A rapid growing tree, with delicate foliage of a beautiful fresh, lively green, and strong thorns; makes an exceedingly handsome, impenetrable hedge.

MAGNOLIA

One of the most beautiful of flowering trees. Being difficult to transplant, small 2 to 3 feet high are preferable.

M. Acuminata (Cucumber Tree). A beautiful pyramidal growing native species, growing to the height of 60 to 70 feet, with large, glossy leaves; flowers yellow, tinted with bluish purple.

M. Conspicua (Chinese White). Tree of medium size and shrub-like growth. Flowers are large, pure white, very numerous, and appear before the leaves.

M. Lennei. Recently introduced. Foliage large; flowers purplish crimson or magenta, and, although not a handsome grower, a superb variety; very expensive.

M. Soulangeana. A French hybrid. A rather irregular grower; foliage large, glossy and massive; flowers very large, 3 to 5 inches in diameter, white and purple. Very effective.

M. Speciosa. A good grower of fine form. Flowers a little smaller and of a lighter color than those of *M. Soulangeana*, but are produced in wonderful profusion. This is the best variety.

American Elm. (See page 48.)

MAPLE. *Acer*

Ash-leaved (*A. Negundo fraxinifolium*). A fine, rapid growing variety with handsome light green pinnated foliage and spreading head. Very hardy.

(LUMBE
ST JOSEPH MO.)

Norway Maple.

Norway (*A. platanoides*). A native of Europe. Its large, compact habit, broad, deep green, shining foilage and its vigorous growth render it one of the most desirable species for streets, parks and lawns.

Schwedler's Norway (*A. Schwedlerii*). A beautiful variety, with young shoots and green leaves of a bright purplish and crimson color, which changes

to purplish green in the older leaves. One of the most valuable trees of recent introduction.

Silver-leaved (*A. dasycarpum*). One of the most ornamental of the species; the under surface of the leaves a soft white. It is exceedingly rapid in its growth, often making shoots 6 feet long in a season. Valuable as a street tree.

Sugar, or Rock (*A. saccharinum*). The well-known native variety. Valuable both for the production of sugar and as an ornament in lining streets and avenues. A stately form and fine, rich foliage render it justly popular as a shade tree.

Wier's Cut-leaved (*A. Wierii laciniatum*). A Silver Maple with remarkable and beautiful dissected foliage. Of rapid growth; shoots slender and drooping, giving a very graceful appearance. While it makes a large tree if undisturbed, it will bear any amount of pruning and may be easily adapted to small lawns.

MOUNTAIN ASH.

Sorbus

European (*S. aucuparia*). A fine hardy tree. Head dense and regular, covered from July till winter with large clusters of bright scarlet berries.

Oak-leaved (*S. quercifolia*). A hardy tree of fine habit; height and breadth from 20 to 30 feet; foliage simple and deeply lobed. A very fine lawn tree.

Weeping. See Weeping Trees.

Carolina Poplar.

MULBERRY. *Morus*

Downing's Everbearing. The beauty of this as a lawn or street tree is quite enough to commend it; but in addition it yields an abundant supply of its large, refreshing berries for about three months. "I speak what I think when I say I had rather have one tree of Downing's Everbearing Mulberry than a bed of strawberries."—Henry Ward Beecher.

Russian. A hardy, rapid growing tree; foliage abundant. Fruit of no value.

POPLAR. *Populus*

Carolina. A remarkably rapid, luxuriant grower; leaves large, glossy, pale to deep green. Valuable as a street or shade tree when shade is desired quickly. It will also be found useful for planting as a screen to hide unsightly buildings, etc.

Poplar Volga. Has the compact upright habit of the Lombardy; hardy and holds its foliage well.

Balm of Gilead (*P. Balsamifera Candicaris*). A strong growing spreading native tree; esteemed for its vigor and hardiness; leaves broad and heart-shaped, green above and rusty white beneath; makes a good street tree and is perhaps the best of the poplars for shade.

SALISBURIA. Maidenhair Tree, or Gingko

Adiantifolia. A rare, beautiful tree from Japan, with remarkable fern-like foliage. A rapid grower.

TULIP TREE. Liriodendron

Tulip Tree (*L. Tulipifera*). A magnificent rapid growing tree of pyramidal form attaining a height of 150 feet, with light green, glossy fiddle-shaped leaves and greenish-yellow tulip shaped flowers; also known as white wood. like foliage, distinct and fine. Especially desirable for planting on lawns or

Weeping Deciduous Trees

The different varieties of "weeping," or pendulous trees make attractive and graceful ornaments to the landscape, and add much beauty to a planting of shrubbery, breaking up the stiff lines of deciduous or evergreen trees, and making a most pleasing variation. They are often used as single specimens on the lawn with marked effect. In our list will be found all of the kinds which we deem particularly attractive. Customers will, however, be saved from disappointment if they will realize that it is impossible to deliver them from the nursery with the form and

Teas' Weeping Mulberry. (See page 51.)

shape which they will attain with age. It can no more be done than fruit trees could be delivered with the fruit on.

BEECH. *Fagus*

Weeping (*F. pendula*). Of wonderful grace and beauty when covered with its rich, luxuriant foliage, but quite ungainly in appearance when divested of its leaves. Grows to a height of 30 feet.

BIRCH. *Betula*

Cut-leaved Weeping (*B. pendula laciniata*). This tree is indeed a picture of delicacy and grace. It presents a combination of attractive characteristics of which no other variety can boast. Mr. Scott, in his "Suburban and Home Grounds," says of it: "No engraving can do it justice. Like the palm tree of the tropics it must be seen in motion, swaying in the lightest breeze, its leaves trembling in the heated air, its white bark glistening through the bright foliage and sparkling in the sun, to enable us to form a true impression of its character." Makes a large tree. Of but little beauty when delivered from the nursery, but it develops into a thing of beauty.

Common Weeping Willow. (See page 54.)

ELM. *Ulmus*

Camperdown Weeping (*U. Camperdowni pendula*). Beyond a question one of the most satisfactory weeping trees in cultivation. The growth is rapid and the foliage is luxuriant; it forms a fine shaped head, and is very hardy.

MOUNTAIN ASH. *Sorbus*

Weeping (*S. pendula*). One of the best known and most popular weeping trees. It is of easy culture, great hardiness and thrives in all soils. Its straggling branches, twisting and turning in every direction, with no training whatever, make a most picturesque and novel sight. Covered during the autumn with bright red berries. It is budded on stems about 5 feet high.

MULBERRY. *Morus*

Teas' Weeping. The most graceful and hardy weeping tree in existence. Wholly unlike anything heretofore introduced. Forms perfect umbrella-shaped head, with long, slender, willowy branches, drooping to the ground. All who have seen it agree that in light, airy gracefulness, delicacy of form and motion, it is without a rival. It will undoubtedly take foremost place among weeping trees; it has beautiful foliage; is wonderfully vigorous and healthy; is one of the hardiest, enduring the cold of the North and heat of the South; safe and easy to transplant. Admirably adapted for ornamenting small or large grounds, or for cemetery planting.

WILLOW. *Salix*

Babylonica. Our common well-known weeping variety. Forms a large, round-headed graceful tree. Requires plenty of room, and where space can be spared is quite desirable.

Kilmarnock (*S. caprea pendula*). The best known and most universally planted of the finer weeping ornamental trees. Its great hardiness, vigorous growth, adaptability to all soils, easy culture, fine form and unique appearance render it a general favorite. It does not grow in height, but the branches droop gracefully to the ground. It occupies very little space, and will thrive near larger trees, and is, therefore, invaluable for small inclosures. It is also well adapted for cemetery lots.

Evergreen Trees

Desirable in all ornamental planting, as they retain their foliage through the winter, adding a tone of warmth and verdure, and imparting a charm to the landscape that deciduous trees are incapable of. They should be judiciously planted on small as well as on large grounds. On the latter the larger kinds can arrive at full development, and should be planted at distances sufficient to allow of their natural and symmetrical growth without crowding. The Arborvitaes, Junipers, Dwarf Pines and Retinosporas, on account of their small size, are most suitable for small lots; but nearly all species and varieties look well on small grounds while the trees are young.

Evergreens can be most successfully transplanted a short time before they are ready to start into growth in the spring. The roots must not be exposed to wind or sun. The soil to receive them should be made mellow and fine, and great care taken that it is well packed about the roots after they have been well spread out in their natural position.

For shelter and screens to break the wind, for concealing unsightly objects; for division lines or ornamental fence; for border to vegetable, flower gardens, etc., the different varieties are well adapted.

Our trees are all nursery-grown, bushy stock with good roots.

In the following list we confine ourselves strictly to perfectly hardy species and varieties, such as are most useful for general planting. In transplanting evergreens so much depends on the care of the planter in protecting roots from air and sun, that we cannot guarantee them further than that delivery shall be made in first-class condition. We recommend spring planting for evergreens.

Irish Juniper. (See page 55.)

ARBORVITAE. *Thuja*

American (*T. occidentalis*). A well known variety of great value; it forms an upright, conical tree of only medium size and is, all things considered, the finest evergreen for screens, being hardy and more easily transplanted. It grows rapidly, and with little care; or rather, by easy management; it soon forms a most beautiful hedge, very dense and perfectly impervious to the sight. It is not adapted to turn stock, but forms a most desirable and ornamental screen to divide the lawn from other parts of the grounds, or for any similar purpose.

Chinese (*T. Orientalis*). Often called the original Arbor Vitae; a bushy tree of compact columnar or pyramidal habit. Foliage bright green in summer, assuming tones of brown and bronze in winter. A very formal appearing tree and very desirable for planting in tubs or large vases as porch plants, or in any manner where a formal effect is sought. Very beautiful and at the same time one of the hardiest evergreens in our collection. A native of China or Japan.

Colorado Blue Spruce.

Pyramidal (*T. pyramidalis*). Of upright, compact habit, resembling Irish Juniper; desirable.

Harrisoni. A neat little tree; branchlets all tipped with white. Unique in effect.

Hoveyi (Hovey's Golden). A distinct, compact, hardy American evergreen; dense and conical, with light golden green foliage.

JUNIPER. *Juniperus*

Irish. A very pretty little tree or shrub, forming a neat, tapering column of deep green foliage; very hardy and desirable for planting on lawns, or in cemetery lots, where larger evergreens are not admissible.

Red Cedar. A well-known American tree; varies much in habit and color of foliage, some being quite stiff, regular and conical, and others loose and irregular. It makes a fine ornamental hedge plant.

Savin Juniper (*J. Sabina*). A dwarf, spreading shrub with trailing branches; thrives in poor soils and is valuable for rock work.

PINE. *Pinus*

Austrian, or Black. From Central Europe, where it grows over one hundred feet high. Remarkably robust, with long, stiff leaves and deep green foliage; hardy everywhere, and valuable for planting as windbreaks, screens, etc.

Scotch. A native of the British Isles. A fine, robust, rapid growing tree, with stout, erect shoots and silvery green foliage. Very hardy; valuable for shelter.

White, or Weymouth Pine (*P. Strobus*). Tall, stately and most beautiful of all our native pines. This is also among the quickest growing, longest lived and most generally useful. The needles are long, silvery blue, and plummy in effect; the trees grow naturally into symmetrical specimens and makes a most imposing feature on the lawn when grown singly. It is particularly valuable for the formation of fine backgrounds and shelter belts for large lawns. A valuable timber tree for even the poorest soils.

RETINOSPORA

Squarrose-leaved (*R. squarrosa*). A distinct variety, with slender branches and very light bluish green foliage; hardy and handsome.

SPRUCE. *Picea*

Colorado Blue, or Rocky Mountain (*P. pungens*). A magnificent evergreen from the Rocky Mountains. Very hardy; foliage a handsome blue.

Douglas (*Tsuga Douglasii*). Conical form, branches spreading. A very desirable variety.

Hemlock (*Tsuga Canadensis*). An elegant tree with drooping branches and fine yew-like foliage; perfectly hardy and quite distinct; of undoubted worth and beauty. Makes a fine ornamental hedge.

Norway (*P. resinosa*). Of very rapid growth and gracefully drooping habit when of some size; dense in structure, regular in outline and perfectly hardy; will bear shearing or cutting well, and hence is well adapted for planting in hedges or screens. Very popular, and deservedly so, and is largely planted.

Concolor Fir (*A. Concolor*). A very beautiful species with yellow bark on the young branches; leaves green, arranged in double rows; equal in color and beauty to the Colorado Pine Spruce.

Hedge Plants

Hedges are valuable as a defense against animals, as windbreaks to protect orchards, gardens or farms unduly exposed, and as ornamental fences or screens to mark the boundaries of a lawn or cemetery lot.

To secure a good hedge it is necessary to plant well. Dig a wide, deep trench, and work the soil thoroughly into the roots. Stamp the ground firmly

so that each plant will be set as solidly as a post, then mulch heavily with loose manure for a distance of one to two feet on either side, according to the size of the plants. This is especially necessary with evergreens, and all exposure of the roots to the sun and air must be strictly avoided. Evergreens should not be planted in the fall.

Amoor River Privet. (See page 63.)

LOCUST, Honey. Very hardy, and the cheapest and the best for defensive hedges; also very ornamental.

QUINCE, Japan. Unquestionably the finest of all plants for an ornamental hedge. Grows very compact; will submit to any amount of pruning, while the brilliant and showy scarlet flowers make it exceedingly attractive.

ORANGE, Osage. Highly esteemed at the West and South. Not hardy enough for the northern states.

(See Privet page 62-63.)

EVERGREEN HEDGES FOR WINDBREAKS.

SPRUCE, Norway, is the best. Its vigorous habit, rapid, dense growth, when properly sheared or pruned, large size and entire hardness, are characteristics not easily obtained in any other evergreen.

ARBORVITAE, American, comes next. Belts of pines are also useful as a protection.

Hardy Flowering Shrubs

We might extend our list of ornamental shrubs almost indefinitely, but as we desire to send out only the best of each class, we are necessarily confined to the following varieties. Our list is designed particularly for those who have small places, yet we feel confident that it embraces all the desirable kinds for the most extensive grounds. While we aim to give the merits of each one due attention, we do not intend to exaggerate in describing a single variety. We are positive that no one will meet with disappointment in selecting from our descriptions. Some of the very finest varieties are exceedingly ungainly when sent from the nursery, and customers must understand if one kind looks better than another when delivered, that it is not because we did not take as much pains with it in the nursery.

Althea, or
Rose of Sharon.

ALTHEA, or ROSE OF SHARON. *Hibiscus Syriacus*.

The Altheas are fine, free-growing flowering shrubs of very easy cultivation. Desirable on account of flowering in August and September, when nearly every other shrub or tree is out of bloom. They are of good size, many-colored, trim and attractive. Tree Altheas are very desirable, and the handsomest flowering tree we know of. Perfectly hardy and can be had in various colors if desired. Entirely free from all insect pests; always give delight and satisfaction. Require pruning each spring.

Variegated-leaved Double flowering (*H. flore pleno folia variegata*). A conspicuous variety, with foliage finely marked with light yellow; flowers double purple. One of the finest variegated leaved shrubs.

ALMOND. *Prunus*

Dwarf Double-flowering (*P. Japonica*). A well-known beautiful small shrub with handsome double pink flowers early in spring.

Double White-flowering (*P. Japonica alba*). A pretty sort with double white flowers.

BARBERRY. *Berberis*

European (*B. vulgaris*). A fine shrub with yellow flowers in drooping racemes, produced in May or June, followed by orange-scarlet berries.

Purple-leaved (*B. purpurea*). A very handsome shrub, growing from 3 to 5 feet high, with violet-purple leaves and fruit. Makes a fine ornamental hedge.

Thunberg's (*B. Thunbergii*). A lovely species of dwarf habit and small bright shining foliage, which changes to intense coppery red in autumn. It is unsurpassed for making beautiful hedges.

Deutzia Gracilis.

CALYCANTHUS. Sweet-Scented Shrub

The wood is fragrant; foliage rich; flowers of rare chocolate color, having a peculiarly agreeable odor. Flowers in June and at intervals afterwards.

DEUTZIA

This valuable species of plants comes to us from Japan. Their hardiness, luxuriant foliage and profusion of attractive flowers render them, deservedly, among the most popular of flowering shrubs. The flowers are produced in June in racemes from 4 to 6 inches long.

Double-flowering (*D. crenata flore pleno*). Flowers double white, tinged with rose. One of the most desirable flowering shrubs in cultivation.

D. gracilis (Slender branched). A charming variety, introduced by Dr. Siebold. Flowers pure white; so delicate that they are very desirable for decorative purposes.

Pride of Rochester. A new variety said to excel all others in size of flower, length of panicle, profusion of bloom and vigorous habit. A charming acquisition. White flowering.

D. scabra. Flowers bell-shaped, in small bunches; foliage oval, very rough underneath; dwarf habit.

Waterer's (*D. Watereri*). A cross between *D. gracilis* and *D. crenata*. Flowers large, of purest white, and borne in immense profusion.

DOGWOOD. *Cornus*

Red-branched (*C. sanguinea*). A native species. Very conspicuous and ornamental in the winter, when the bark is blood-red.

Variegated (*C. elegantissima variegata*). One of the finest variegated shrubs of rapid growth. Foliage beautifully marked with creamy white and tinged with red, while some leaves are entirely white. Should be in every collection.

ELDER. *Sambucus*

A well-known shrub which blossoms in the spring, and afterwards is covered with handsome berries. There are several varieties.

Cut-leaved (*S. laciniata*). A strong grower, with elegant divided foliage. One of the desirable cut-leaved shrubs.

Golden (*S. aurea*). Beautiful variety with light yellow leaves, which hold their color well and render the plant very conspicuous and effective.

Hydrangea Paniculata Grandiflora (See page 62).

ELAEAGNUS

E. longipes (Japanese Silver Thorn). A remarkable new shrub from Japan. Foliage glossy, silvery tinge underneath; bark covered with peculiar brown spots which remain all winter. Flowers not large, but the bush is covered in July with large bright red berries, which are edible and of a sprightly and agreeable flavor. Foliage remains good until late in autumn. A very desirable acquisition.

EUONYMUS. Burning Bush; Strawberry Tree

A very ornamental and showy bush, whose chief beauty consists in its brilliant rose-colored berries, which hang in clusters from the branches until

midwinter. Planted with a background of evergreen the effect of contrast is very fine.

FILBERT. *Corylus*

Purple-leaved (*C. avellana atropurpurea*). A vigorous shrub with large, deep purple leaves; very ornamental. Produces good fruit.

FORSYTHIA

F. viridissima (Golden Bell). A very singular and quite ornamental shrub. Its branches in the early spring, before the leaves appear, are covered with bright golden yellow, pendulous flowers.

FRINGE. *Chionanthus*

Purple, or Smoke Tree. A very elegant and ornamental large shrub, with curious hair-like flowers, being of a pinkish brown color, give it the names

Hydrangea Paniculata Grandiflora, Tree Form.

Purple Fringe and Smoke Tree. The blossoms are in July, sometimes literally covering the tree, and remaining all summer.

White (*C. Virginica*). One of the finest shrubs with large leaves and racemes of delicate fringe-like greenish white flowers, in May and June.

HONEYSUCKLE, UPRIGHT. *Lonicera*

The following species and varieties are of erect, shrubby habit, and form beautiful specimens when properly trimmed.

Fragrantissima. A spreading shrub with deep green foliage and very fragrant small flowers, which appear before the leaves; foliage almost ever-green; most desirable.

Red Tartarian (L. Tatarica). A beautiful shrub. Vigorous, and produces large, bright red flowers striped with blue, in June.

White Tartarian (L. Tatarica alba). A large shrub, having white flowers in May and June.

HYDRANGEA

H. paniculata grandiflora. A fine, hardy shrub, growing to the height of 8 or 10 feet. Flowers white, in great pyramidal panicles a foot long, produced

Snowball.

in August or September, when most other shrubs are out of bloom. Very elegant and showy.

H. paniculata grandiflora, Tree Form. Grown with great care and expense in tree form, making it immensely desirable where medium sized flowering trees are wanted instead of bushy shrubs. Difficult to propagate. It will always be rare and costly. (Illustrated page 61.)

PRIVET. *Ligustrum*

California (L. ovalifolium). Of great value as a hedge, and of such positive beauty as to be attractive when grouped with other shrubs. When planted singly it forms a very compact, dense, upright shrub of medium size. The leaves are so glossy as to have the appearance of having been freshly varnished. The foliage hangs on until late in the winter, making it nearly ever-green. Not so hardy as Amoor River Privet.

Amoor River Privet (*L. Amurense*). A valuable ornamental shrub for hedges and borders; very hardy; foliage glossy green and holds its color almost the entire year; will stand shearing to any extent.

QUINCE, JAPAN.

Cydonia Japonica

Scarlet. Has bright scarlet crimson flowers in great profusion early in spring. One of the best hardy shrubs. Makes a beautiful ornamental hedge. For defense against boys and cattle it has no superior, and for ornament no equal.

RUDBECKIA.

Golden Glow

Offered for the first time in summer of 1896, and already immensely popular. A hardy perennial plant growing 6 to 8 feet high, freely branched, and bearing hundreds of exquisite golden yellow blooms on long, graceful stems. Indispensable to lawn or garden.

SNOWBALL.

Viburnum

Common (*V. opulus sterilis*). The Snowball is a favorite with everyone, and, next to the lilac, the best known of all shrubs. It can be found everywhere, showing its popularity.

Japan (*V. tomentosum plicatum*). The Japan Snowball deserves to be planted as freely as the common variety. Its beautiful imbricated leaves make it attractive at all times, and when covered with its clusters of globular, white flowers, it is the most beautiful shrub we know of. It is suitable to any location where a fine shrub is wanted, and cannot be too extensively planted.

Lilac.

IRIS

Japan (I. Kaempferi). These are fine border plants, bearing, in June and July, very large, showy flowers on stems 3 feet high. Colors are very brilliant and striking, in shades of azure-blue, royal purple, pale violet, yellow and white, and many of them closely resemble immense orchids.

LILAC. *Syringa*

Well-known and beautiful hardy shrubs; very ornamental in the spring; flower in May.

Frau Dammann. This produces the largest clusters of white Lilacs of the common species known in cultivation, and also the purest white. Highly desirable.

Ludwig Spaeth. This is, without doubt, the most beautiful variety of the old purple Lilac ever produced. The single blossoms, as well as the clusters,

Spirea Van Houttei.

are very large and of a splendid dark purple-red color, not only as buds, but even when the blossoms are fully expanded.

Persian Purple. Foliage resembles the Pivert more than the Lilac. Flowers are most abundant and very delicately tinted.

Persian White. Similar to the purple, except that the flowers are pure white.

President Grevy. A lovely blue. Flowers large and double, measuring $\frac{3}{4}$ -inch in diameter; its clusters are large, at least 10 inches in length and 5 inches across. A grand Lilac.

Purple, Common (*S. vulgaris*; Common, or Old-fashioned Lilac). The familiar species of all fine old gardens, with dense panicles of lilac flowers, still the most fragrant of any.

White, Common (*S. vulgaris alba*). Pure white, very fragrant flowers.

PLUM. *Prunus*

Purple-leaved (*P. Pissardii*). The finest purple-leaved small tree or shrub of recent introduction. The young branches are very dark purple; the leaves when young are lustrous crimson, changing to dark purple, and retain this beautiful tint until they drop, late in autumn. Flowers small, white, single.

Double-flowering (*P. triloba*). A very pretty little shrub, hardy and de-

Spirea Anthony Waterer.

sirable. The flowers are upwards of an inch in diameter, semi-double, of a delicate pink color, appearing in May, and completely covering the branches.

SPIRAEA

Anthony Waterer. A delightful new variety. Flowers dark crimson, and constantly in bloom. Grows to 3 feet in height. It is a superb variety and is very popular. The best shrub of recent introduction.

Arguta. A variety of great promise, with fine, delicate, drooping foliage. The plant is entirely covered in early spring with a profusion of wreaths of white flowers. Although of slender growth, it attains a height of 6 feet. A beautiful variety.

S. Callosa alba. A white flowering variety of dwarfish habit; very fine. Remains in flower all summer.

Golden Leaved. A beautiful dwarf plant with golden yellow foliage. It keeps its color the entire season, and creates a very pleasing effect among other shrubs.

Yacca Filamentosa.

One of the most beautiful shrubs grown. It has sprays of rosy flowers in May. It improves them to cut them back in early spring.

WEIGELA. Diervilla

W. amabilis, or splendens. Of robust habit; large foliage and pink flowers; blooms freely in autumn. A great acquisition.

S. Prunifolia flore pleno. A beautiful shrubs from Japan, with double white flowers in May. One of the choicest Spireas.

S. Van Houttei. The most showy of all the Spireas, and one of the very best flowering shrubs in cultivation. The plant is a rather tall upright grower, with long, slender branches that droop gracefully with their weight of foliage and flowers. Flowers pure white, in great clusters and whorls, forming cylindrical plumes 2 or 3 feet long. This is one of the hardiest of all the Spireas. (Illustrated page 64.)

Thunberg's Spirea (S. Thunbergii). Dwarf habit and rounded graceful form; branches slender and drooping; flowers pure white and borne the entire length of the twigs; foliage narrow and long, turning to orange scarlet in the fall.

SYRINGA, or MOCK ORANGE. **Philadelphus**

Common, or Fragrantissima. An invaluable shrub of vigorous habit, very hardy, with large, handsome foliage and beautiful white flowers, produced in the greatest profusion at the blossoming season. Flowers in June after the Weigela.

Golden-leaved (P. aurea). A very pretty plant of medium size, with golden yellow foliage. It keeps its color the entire season, and will be found valuable for creating pleasing and striking contrasts with purple-leaved shrubs. Very effective in masses.

SUMACH. Rhus

Cut-leaved (R. glabra laciniata). A very beautiful shrub of moderate size, and elegant deeply cut, fern like foliage, which changes to a deep red in autumn.

TAMARIX

T. Africana. Dense growing, upright shrubs, elegant feathery, beautiful foliage.

W. candida. Thought by some to be the best of all. Of vigorous habit; an erect grower. Flowers pure white, produced in great profusion in June. The plants continue in bloom through the summer.

W. rosea. An elegant shrub with fine, rose-colored flowers. Introduced from China by Mr. Fortune, and considered one of the finest plants he has discovered. Quite hardy. Blooms in May.

Variegated-leaved. Leaves bordered with yellowish white, finely marked. Flowers bright pink.

YUCCA. Adam's Needle

Y. filamentosa. An evergreen, with large, dense, circular tufts of long, stiff, sharp-pointed leaves, from the center of which rise the flower-spikes in early spring. They are 3 to 4 feet high, stout, branching near the top, and supporting hundreds of large, drooping, waxen-white flowers, that remain perfect for several weeks. The effect of a good clump in full bloom is striking and has much the effect of statuary.

Herbaceous Peonies.

PEONIES

It is surprising that so noble a flower, almost rivaling the rose in brilliancy of color and perfection of bloom, and the rhododendron in stately growth, should be so neglected. The first point in their favor is hardiness. It may be truly said of them that they are "hardy as an oak." In the severest climates the plants require no other protection than they afford themselves. Then their vigorous habit and healthy growth, freedom from all diseases and insects, are important arguments in favor of

their cultivation. Growers of roses know well that their flowers are obtained by great vigilance and care. Not so with the Peony, which, when once planted, all is done. Each succeeding year adds to their size and beauty. The foliage is rich and glossy, and of a beautiful deep green color, thus rendering the plants very ornamental, even when out of flower. No other flower is so well adapted for large, showy bouquets. The Peony may be planted either singly on the lawn or in borders; when the lawn is extensive a large bed makes a grand show, surpassing a bed of rhododendrons. It is really the flower for the million. Assorted colors. Flowers in June.

TREE PEONIES

P. Moutan. This is a class of hard-wooded plants which do not die down in winter like the others, hence are called Tree Peonies. They are early to flower and are beautiful in bloom. The flowers are of large size and there is a variety of color. These plants cannot be too highly recommended.

DWARF HARDY PHLOX

These are justly esteemed as the finest of herbaceous plants. They are of dwarf habit, perfectly hardy, of very easy culture, and yield a profusion of bright, showy bloom. They are hardly equaled by any other hardy plant for the decoration of the garden.

No flowers of recent introduction are giving so much satisfaction as the dwarf, large flowered, Perennial Phloxes. They come into flower in July and continue a long time. They can be made to bloom in the autumn by pinching off the shoots about the first of June and again in July. They are of the easiest culture, blooming the same season as planted, and satisfy every one who plants them. The best time to plant is in the fall. They are benefited by a mulch during the winter. Our collection has been selected from the finest varieties.

Hardy Climbing Vines

Ornamentals of this class are so hardy, so easily grown, and so beautiful that they deserve greater attention than they receive. No artist can produce pictures equal to the wealth of beauty displayed by the elegant Wistaria, the graceful Honeysuckle, or the charming and magnificent Clematis when in the glory of full bloom, and there is nothing in art that will in any degree compare with the gorgeous autumnal hues of the Ampelopsis.

AMPELOPSIS.

Virginia Creeper, or American Ivy.

A. quinquefolia. A native vine of rapid growth, with large, luxuriant foliage, which in autumn assumes the most gorgeous crimson and purple coloring.

A. Veitchii. Japan. Leaves a little smaller and more ivy-like in form than the foregoing. Overlapping each other, they form a dense sheet of green. It grows rapidly and clings to the surface of even a painted brick wall with great tenacity. The foliage is especially handsome in summer, changing to a scarlet

Hall's Japan Honeysuckle.

crimson in autumn. For covering walls, stumps of trees, rocks, etc., no plant is more useful or beautiful.

ARISTOLOCHIA. Dutchman's Pipe

A. Siphon. A rapid growing vine with magnificent foliage 10 to 12 inches in diameter, and curious, pipe-shaped, yellowish brown flowers.

CHINESE MATRIMONY VINE. Lycium Vulgare

A vigorous, hardy climber. It will soon cover any desired space. It has dark green foliage, beautiful flowers and loads of small berries, which far surpass the holly berries which are seen in all parts of the country at Christmas time. The Chinese Matrimony Vine is regarded as indispensable where a hardy climber is desired.

CLEMATIS

The different varieties and species of Clematis now in cultivation are of the highest beauty and utility. They vary greatly in their foliage and flowers, and are adapted to various uses. Some of them, such as our common native sort (*C. Virginiana*), and the European (*C. Flammula*), and *C. paniculata* from Japan, are very fragrant and are particularly attractive on this account. The large flowered varieties, like the well known *C. Jackmani*, are extremely showy and produce great numbers of their beautiful flowers.

These plants are trained on trellises, and over porches and pillars. All are hardy, of easy growth, and will adapt themselves to nearly or quite all soils.

C. paniculata. A native of Japan. A beautiful and rapid growing climber, which in a very brief time will cover any ordinary veranda. The flowers are small, pure white and delightfully fragrant and are borne in enormous masses, almost conceal-

Clematis Jackmani (See page 68.)

ing the foliage. Entirely free from blight and insects, and regarded as a great acquisition. Perfectly hardy and needs no protection whatever.

Edouard Andre. First seen in this country at the World's Fair at Chicago. Flowers large, abundant and a beautiful red. Beyond doubt the finest of its class, but scarce and very expensive.

Henryi. This is the finest of all white Clematis, and should find a place in every collection. It is not only a vigorous grower, but is a remarkably free and continuous bloomer, beginning with the earliest and holding on with the latest. Flowers large, of a beautiful creamy white, with reddish chocolate anthers. Art cannot produce a picture corresponding in any degree to the wealth of beauty found in the flowers of this variety. Especially desirable. June to October.

Wistaria.

changing to yellow. Very fragrant, covered with flowers from June to November.

Monthly Fragrant (L. Belgica). Blooms all summer. Flowers red and yellow. Very sweet.

Scarlet Trumpet (L. semperflorens). A strong grower, and produces scarlet inodorous flowers all summer.

IVY. *Hedera*

American (Virginia Creeper). See *Ampelopsis*.

English (I. Helix). The Ivy, being an evergreen, not very hardy, and suffering from exposure to the winter sun, should be planted on the north side of buildings or walls. It is very effective grown in pots, for inside decoration.

Jackmani. This is, perhaps, the best known of the fine perpetual Clematis, and should have credit for the great popularity now attending this family of beautiful climbers. The plant is free in its form of growth, and an abundant and successful bloomer, producing flowers until frozen up. The flowers are large, of an intense violet purple, remarkable for its velvety richness. Introduced in 1862—since which time many new varieties have been brought forward—Jackmani has no superior, and very few, if any equals. July to October.

Ramona. Said to be an American seedling of the Jackmani type; one of the strongest growers; flowers lavender-blue, similar to the above. This variety invariably gives satisfaction.

HONEYSUCKLE. *Lonicera*

Hall's Japan (L. Halleana). A strong, vigorous, evergreen variety, with pure white flowers

TRUMPET VINE. *Bignonia*

B. capreolata. A splendid climber, vigorous and hardy, with clusters of large, trumpet-shaped, scarlet flowers in August.

B. radicans. An old-time favorite, grown in nearly every old garden. Flowers perfect trumpet-shaped, bright scarlet. A rapid grower. One of the finest vines for covering old stumps, fences, trellises, etc. Blooms almost continuously through the summer.

WISTARIA

American (*W. frutescens*). A smaller, more slender form than the Chinese, with smaller clusters of purple flowers.

Chinese Purple (*W. Sinensis*). A most beautiful climber of rapid growth, and producing long, pendulous clusters of pale blue flowers. When well established, makes an enormous growth; it is very hardy, and one of the most superb vines ever introduced.

Chinese White (*W. Cinensis alba*). Introduced by Mr. Fortune, from China, and regarded as one of his greatest acquisitions.

Roses

Climbing Roses.

Cultivation.—Roses require plenty of manure and good cultivation. Old and decayed branches and at least half the previous season's growth should be cut away early each spring, and a little cutting back after the first blooming will insure more late flowers. The so-called tender Roses must be carefully protected in winter by covering them with leaves and evergreen boughs; and the hardy sorts will be rendered more vigorous and productive of fine flowers, if they too, are similarly protected.

Insects.—If the "thrip" or fly appears, syringe the plants daily with a strongly steeped solution of tobacco stems (one pound of stems to five gallons of water), or a solution of whale-oil soap (one pound of soap to eight gallons of water), until the insects are mastered. Rose bugs, which work at the flowers, must be picked off. The presence of the rose caterpillar can be detected by its glueing two or more leaves together to form a shelter. These leaves should be promptly pressed together with the thumb and finger. Insects which eat the leaves can be destroyed by applying white hellebore when the

foliage is damp. The secret of success in destroying all species of insects lies in applying the appropriate remedy as soon as the insects appear.

Our Roses are strong plants, grown out-of-doors, well rooted and every way desirable. They have already bloomed before being sent out, and are in every respect much better and stronger plants than the ones that are so fully advertised and sent out by mail, which are small, tender shoots, started in a greenhouse, and after a few weeks sent out before they have established growth and constitution enough to stand the shock of transplanting. A noteworthy feature of our soil is that it is not affected to any great extent by either drought or wet, and hence it produces a very healthy and hardy growth

Margaret Dickson.

both in wood and root. It is a rich, heavy, black loam, underlaid with a porous clay. We frequently grow roses six feet tall from the bud in one season. There is no disappointment in such plants.

HARDY HYBRID PERPETUAL, OR REMONTANT ROSES

In this class are included the so-called "Hybrid Noisettes," also a few of the "Hybrid Teas." These two groups contain some very beautiful varieties, which cannot be omitted from any good list of Roses for outdoor cultivation, but as they are much more tender than the others in this class, they must

be thoroughly protected in winter by a covering of forest leaves or other light litter. We also include the Summer Roses (Hybrid China and others), blooming but once in a season, but very hardy and beautiful. As for the rest of this

American Beauty.

class, it comprises many of the most beautiful Roses in cultivation, and as they are hardy and easy of culture, with the desirable habit of producing a

second crop of flowers in the autumn, they must be, as a class, the most popular and reliable for the multitude of planters. To insure their blossoming freely in the autumn, however, they must be cut back in the summer, and a portion of the first crop of flowers sacrificed.

The most of our Roses are propagated on their own roots from cuttings. They are never liable to throw up suckers of an inferior kind.

BABY RAMBLER

Or the Everblooming Dwarf Crimson Rambler.

This great novelty and promising Rose originated in the nurseries of Levavasseur & Sons, Orleans, France.

Coquette Des Alpes.

It is a cross between the Crimson Rambler and Gloire des Polyanthus, preserving the prolific flowering qualities of the latter, but with the color of Crimson Rambler (clear brilliant ruby rose). It can therefore be called a Perpetual Dwarf Crimson Rambler. The bush is very vigorous and absolutely hardy, reaching a height of 24 to 30 inches. It will begin to bloom in early June and continue throughout the entire summer until late frosts. Being entirely different from any other rose now known, it will be in great demand, and it is a variety that every lover of Roses should make room for in his or her collection.

Alfred Colomb. Brilliant carmine-crimson ; very large, full, of fine globular form and extremely fragrant.

Anne de Diesbach. One of the best and most satisfactory Hybrid Perpetual Roses. A strong, vigorous grower; extremely hardy, producing very large, double flowers of a lovely shade of carmine, and delightfully fragrant.

M. P. Wilder.

American Beauty. Large, globular; deep pink, shaded with carmine; delicious odor; has proved a most desirable variety for forcing in greenhouse. (Illustrated page 73.)

Baron de Bonstetten. Rich, velvety maroon, large and full; a splendid sort.

Clio. A Rose of perfect form and finish, with broad, thick petals, high, full center, beautiful from pointed bud to fully opened flower. The color is a delicate satiny blush, with slightly deeper center. The plant is strong and blooms freely, displaying its great flowers on good stems against large, rich leaves.

Coquette des Alpes. White, slightly shaded with carmine; form semi-cupped; wood long-jointed; larger flowers than the other. The strongest grower of the entire class.

Coquette des Blanches. Pure white, sometimes faintly tinged with pink; flowers of medium size, somewhat flat, but full and very pretty; growth more

bushy and symmetrical than any of the others. One of the hardiest. Later than the rest in coming into flower, but continuing to produce immense quantities of beautiful white Roses in large clusters throughout the season until frost.

Earl of Dufferin. New and expensive. One of the finest Roses of recent years; red, velvety crimson, shaded with dark maroon. Large flowers, finely formed, vigorous grower. One of the finest dark Roses; should be in every garden.

Fisher Holmes. One of the choicest of perpetual Roses. Bush is vigorous and produces freely of superb blossoms. Color brilliant carmine-crimson.

Dorothy Perkins.

Francois Levet. Cherry-red; medium size, well formed; one of the Paul Verdier style very free bloomer and vigorous grower.

Frau Karl Druschki. Very large, perfect form and snow white; a vigorous grower and a free bloomer.

General Jacqueminot. Brilliant crimson, large and very fine; one of the handsomest and most showy Roses of this color, beautiful in the bud; semi-double when well blown. Of fine free growth; a universal favorite.

General Washington. Fine crimson, very full and double; a moderate grower; one of the handsomest of Roses when well grown.

John Hopper. A seedling from Jules Margottin, fertilized by Mme. Vicot.

Rose Wichuraiana.

Bright rose with carmine center, large and full; light red thorns, not numerous. A profuse bloomer and standard sort.

Jules Margottin. Bright cherry-red; large and full; free-flowering and hardy.

Jubilee. A grand new Rose, first offered to the public in the summer of 1897; as yet scarce and high. It is a true Hybrid Perpetual, perfectly hardy, blooming in fall as well as in early summer; bush vigorous; foliage dark green; an abundant bloomer; flowers very large, reaching 6 inches across under high culture; color purest and deepest red, shading to deep crimson and velvety maroon.

La Reine. Brilliant glossy rose; very large, cupped and beautiful. A very hardy, useful Rose.

Marshall P. Wilder. Raised from the seed of General Jacqueminot. It is of vigorous growth, with healthy foliage; flowers large, semi-globular, full and well formed; color cherry-carmine. In wood, foliage and form of flower, it resembles Alfred Colcomb.

Mrs. John Laing. New. As a bedding Rose this is undoubtedly one of the best varieties yet introduced, being hardly ever out of bloom all summer. Color a beautiful shade of delicate pink; of large size and very fragrant. It is also a good forcer from January onwards.

Madam Georges Bruant. A seedling from the Japan Rose, *Rosa rugosa*, and Tea Rose, *Sombreuil*. From these it gets its exquisite sweetness and its ever-blooming character. Considered by the best judges to be of great value.

Paul Neyron. This magnificent Rose is by far the largest variety in cultivation; very double and full, of a beautiful deep rose color, and delightfully fragrant; borne upon vigorous upright shoots in great abundance throughout the entire season. We recommend this variety very highly for general planting, as it is calculated to give more satisfaction to the masses than any other known variety.

Persian Yellow. Deep, bright yellow; small, but handsome double; a very early bloomer, and much the finest hardy yellow Rose.

Pierre Notting. Blackish red, shaded with velvet; globular in form, very large and full, and one of the finest dark Roses. Needs some winter protection.

Prince Camille de Rohan. Deep velvety crimson, large, moderately full. One of the darkest in cultivation and a splendid Rose. The plant makes a strong, healthy growth, and has clean, glossy foliage; blooms almost without intermission all summer.

Soliel d'Or (Sun of Gold). A strong, hardy rose; large, full and double; golden orange-yellow tinged with red and rosy-pink; a magnificent rose.

Ulrich Brunner. A superb Rose; a seedling from Paul Neyron; extra large, bold flowers, full and globular; petals large and of good substance; color rich, glowing crimson, elegantly lighted with scarlet; fragrant. We cannot recommend this variety too highly.

Victor Verdier. Fine bright rose, shaded with carmine; very hardy and a fine bloomer. A splendid Rose.

HARDY CLIMBING ROSES

Baltimore Belle. Pale blush, nearly white, double. The best white climbing rose.

Crimson Rambler. A remarkable new Rose from Japan; very popular; vigorous, often growing 10 to 18 feet the first season, a splendid climber and unequaled as a pillar Rose tied to a stake; brilliant flowers in immense masses holding their color for a long time. Words fail to do it justice.

Dorothy Perkins. This magnificent new variety is the result of a cross of *Wichuraiana* with that grand old Rose *Madam Gabriel Luizet*. It is perfectly hardy, having withstood a temperature of 20 degrees below zero, and

with no snow to protect it. The flowers are of large size for this class of Rose, and are borne in clusters of from 10 to 30; very double. The petals are prettily rolled back and crinkled. The buds are remarkably well formed, being pointed in shape and just the right size for the buttonhole. Color clear shell-pink; does not fade, and is very fragrant, a quality not often possessed by other climbing roses. There was a bed of this variety at the Pan-American Exposition, and Wm. Scott, superintendent of horticulture, expressed himself as follows in the "Florist's Review:" "They have flowered splendidly; have been very brilliant. This seems to me to be a great acquisition. The individual flower is larger than the Crimson Rambler."

Gem of the Prairie. Carmine-crimson, occasionally blotched with white. A cross hybrid between Mad. Laffay and Queen of the Prairie.

Greville, or Seven Sisters. Crimson, changing to blush; flowers in large clusters; not as hardy as others.

Pink Rambler. Resembles Crimson Rambler in every respect but color, which is clear pink. One of the most attractive of the set. The mature buds often change to creamy white.

Queen of the Prairie. Bright rosy red, frequently striped white; large, compact, globular.

White Rambler. A remarkably free bloomer, producing medium-sized pure white flowers in large clusters.

Yellow Rambler. Has the same characteristics as the Crimson Rambler, but not as hardy.

MEMORIAL ROSE

There is nothing more handsome for covering rockeries, mounds or embankments; especially valuable for cemetery planting. It readily adapts itself to any soil, and will do well under any conditions. The pure white single flowers appear in greatest profusion during the month of July, after the June Roses are past, while its almost evergreen foliage makes it very desirable at all seasons of the year. Its natural habit is to creep like an ivy, but it may be trained to climb, and used to good effect in covering walls and trellises.

MOSS ROSES

Comtesse de Murinais. Pure white; large, very desirable; the finest white Moss.

Crested. Deep pink buds, surrounded with mossy fringe and crest. Beautiful.

Glory of Mosses. A moderate grower. Flowers very large; appear to best advantage when full; color pale rose.

Perpetual White. Pure white.

Salet. A vigorous grower and perpetual bloomer. Light rose, large, full. The best of the class. A true perpetual Moss, blooming at intervals from June until November.

White Bath. White, sometimes tinged with flesh; attractive in bud and open flower. This is by far the best white Moss.

TRAILING OR CREEPING ROSE, WICHURAIANA

A low, trailing species, its stems creeping on the earth almost as closely as the ivy. The flowers are produced in the greatest profusion, in clusters on the end of every branch, after the June Roses are past, from the first week in July throughout the month. They are pure white, 1½ to 2 inches across, with yellow stamens, and have the strong fragrance of the Banksia Rose. It is

quite hardy, with the exception of the latest immature growth, which may be cut back to some extent. This variety has proved valuable as a covering for banks, rockeries, etc., and for use in cemeteries. A distinct and valuable variety from Japan. (Illustrated page 77).

ROSA RUGOSA. Japan Rose

This beautiful race of Roses was first introduced by Commodore Perry. Grows 4 or 5 feet high, and has beautiful, large, glossy foliage, distinctly wrinkled. The flowers are 3 inches across, produced in terminal clusters of ten to twenty flowers, and bloom all season, succeeded by large, handsome, orange-scarlet fruits. In two colors, red and white.

TREE ROSES

These are grafted on tall stems of the Dog Rose, forming a half-weeping head 3 or 4 feet from the ground. They can be furnished by colors only; but the particular varieties grafted in the head cannot be named. Orders must be by color only. Red, White, Pink and Yellow.

Flowering Bulbs to be Planted in the Fall

CROCUS

In various colors. Single and double.

HYACINTHS

Among the bulbs used for winter flowers, the Hyacinths stand foremost on the list. Two methods are employed in flowering the Hyacinth in winter, one in glasses filled with water, the other in pots or boxes of soil.

LILIUM. Lily

The Liliums are entirely hardy, and with a few exceptions quite fragrant, and most of the varieties are exceedingly beautiful.

Auratum (Golden-banded Lily of Japan).

Lancifolium roseum. Rose-spotted.

Lancifolium rubrum. Red-spotted.

LILY-OF-THE-VALLEY

The Lily-of-the-Valley is as hardy as any plant can possibly be, and when planted in the open ground will increase pretty rapidly. For the house we have what are called "pips"—young roots with flowering stems, that will bloom in a few weeks after planting, and will flower well in baskets of damp moss, or potted. For the garden we can ship either in the spring or autumn.

TULIPS

Owing to the late spring frosts, bedding plants cannot safely be planted before the early spring-flowering bulbs are through blooming. Without these bulbs, for one or two months of beautiful spring weather, our gardens would present a bare appearance. We know of nothing that for the money invested will give a more gorgeous show during early spring, and there is nothing more easily grown than the Tulip. They thrive well in almost any soil. Should be planted October and November.

Single, Double and Mixed. Early and late.

ANEMONE JAPONICA. Wind Flower

Double White-flowering. New and beautiful, but rare as yet, and expensive.

White-flowering, "Whirlwind." A distinct and beautiful variety of the preceding. Flowers $2\frac{1}{2}$ inches in diameter, pure white, center golden yellow, borne in great profusion from September to November. Very desirable and effective as a pot-plant, and in lines or masses in beds of mixed borders.

Formulas for Grafting Wax

We are so often asked for the formulas for making grafting wax that we have printed below the formulas which seem to be the best.

1. The most common formula is: Resin 4 parts by weight; beeswax 2 parts; tallow 1 part. Melt together and pour into a pail of cold water. Then grease the hands and pull the wax until it is nearly white.

2. For use in cold weather when the above will not work, take 6 pounds resin, 1 pound beeswax, and 1 pint linseed oil; apply this hot all over the joints with a brush. It should be put on about one-eighth of an inch thick.

3. For warm weather use make as follows: Four pounds resin, 1 pound beeswax, and from one-half to a pint of raw linseed oil. Melt all together gradually pour into cold water and pull. The linseed oil should be entirely free from cotton-seed oil.

DISTANCE BETWEEN TREES AND PLANTS IN PLANTATIONS

Standard Apples, 30 to 40 feet apart each way. In poor soil, 25 feet may be enough.

Standard Pears and Cherries, 20 feet apart each way. Cherries will do at 18 feet, and the dwarf-growing sorts, Dukes and Morellos, even at 16 feet.

Standard Plums, Peaches, Apricots and Nectarines, 16 to 18 feet apart each way.

Quinces, 10 to 12 feet apart each way.

Dwarf or Pyramidal Pears, Cherries and Plums, 10 to 12 feet apart each way. The greater distance is better where land is not scarce.

Dwarf Apples, on Paradise stock (bushes), 6 feet apart.

Currants, Gooseberries and Raspberries, 3 to 4 feet apart.

Blackberries, 6 to 7 feet apart.

Grapes, 8 to 10 feet apart.

NUMBER OF TREES OR PLANTS ON AN ACRE AT VARIOUS DISTANCES

At 4 feet apart each way.....	2,729	At 15 feet apart each way.....	200
At 5 feet apart each way.....	1,742	At 18 feet apart each way.....	135
At 6 feet apart each way.....	1,200	At 20 feet apart each way.....	110
At 8 feet apart each way.....	680	At 25 feet apart each way.....	70
At 10 feet apart each way.....	430	At 30 feet apart each way.....	50
At 12 feet apart each way.....	325		

The number of plants required for an acre, at any given distance apart, may be ascertained by dividing the number of square feet in an acre (43,560) by the number of square feet given to each plant, which is obtained by multiplying the distance between rows by the distance between the plants. Thus, strawberries planted three feet by one foot gives each plant three square feet, or 14,520 plants to the acre.

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