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ESTABLISHED 1835.

DESCRIPTIVE CATALOGUE

... OF

Fruit & Ornamental Trees,

• • Grapes, • •

• • Roses, • •

• • Shrubs, • •

• • Etc., Etc. • •

HOOKER -NURSERIES,

ROCHESTER, N. Y.

THE H. E. HOOKER COMPANY,

PROPRIETORS.

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Established 1835.

DESCRIPTIVE CATALOGUE

—OF—

Fruit and

Ornamental Trees,

GRAPES, ROSES, SHRUBS, ETC.,

GROWN AND FOR SALE BY

HOOKE R NURSERIES,

THE H. E. HOOKER CO., Proprietors,

Rochester, N. Y.

The GELHAAR, FLEMING
& FULLER PRINTING CO.,

Rochester, N. Y.

PREFACE.

WE take pleasure in presenting a new edition of our Descriptive Catalogue, carefully revised and corrected by the addition of descriptions of new and promising sorts and the omission of such as greater experience and progress in horticulture and floriculture have proved no longer worthy of general dissemination.

We have not attempted a full and complete description of all varieties named, but shall be pleased to answer by letter any enquiries sent with stamp for reply, as to planting, cultivating, etc., and as to the most desirable sorts for planting in different localities, and for different purposes.

Nothing better illustrates the progress of our country, the advance in civilization its people are making, and the fact that they are learning to live better, than the greatly increased and continuing demand for nursery stock, both fruit and ornamental.

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 us, to protect ourselves from error or imposition, and rejecting anything of which we have reason to feel suspicious. By such careful and constant watching and attention, we are warranted in offering our stock as pure and absolutely true to name.

Good cultivation—by which we mean keeping the ground sufficiently fertile and at all times mellow and free from weeds, together with thorough drainage, either natural or artificial—is absolutely necessary to success. This, with judicious pruning, and proper selection of varieties, suitable for the locality, will, in nearly all portions of the United States, produce gratifying results.

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

We aim to keep fully abreast of an enlightened and cultivated taste, in the introduction of new and valuable varieties of fruit, and novelties and valuable acquisitions in ornamentals: accepting with pleasure everything that has real merit, we shall with equal readiness discard and discountenance the sale of worthless humbugs.

By careful consideration of the wants of our trade and faithful attention to business, we hope to continue to merit and receive a share of the patronage of lovers and buyers of choice fruits and ornamentals.

THE H. E. HOOKER CO.

Rochester, N. Y.

ADVICE TO CORRESPONDENTS.

(FOR OUR WHOLESALE TRADE ONLY.)

Please read before making out order.

CORRESPONDENTS will greatly oblige by observing, as far as possible, the following regulations:

1st. All orders by mail should be sent in as early as possible to insure prompt attention, as it is our rule to execute them in the order in which they come to hand; hence we cannot, except for extraordinary reasons, delay orders received first, for those coming late in the season and requiring attention at once.

2nd. Buyers ordering by letter, should write out the order plainly, *on a separate list*, and not in the body of the letter. It will prevent mistakes in the hurry of the packing season.

3d. *Give plain and explicit shipping directions.* When none are given we forward according to our best judgment; but in no case, except on orders made through our agents, do we assume any responsibility after the delivery of stock in good condition to the forwarders.

4th. All orders from unknown correspondents must be accompanied with a bank draft, *on some of the principal cities*, post office order, or money by registered letter; fractions of a dollar may be sent in postage stamps.

5th. Where particular varieties are ordered, and particular *ages* and *sizes of trees*, *kinds of stock*, etc., it should be stated whether, and to what extent, other varieties, sizes, ages, etc., may be substituted, in case the order cannot be filled to the letter, as happens occasionally in all establishments.

6th. All trees and plants are carefully labeled and packed in the best manner for any part of the United States, Canada, or Europe, for which a moderate charge is made, but no charge is made for the delivery of packages at the railroad.

7th. Our customers are requested to notify us immediately of any errors that may be committed in filling their orders, so that we may at once make ample amends, as we desire to conduct our business in all respects satisfactorily to those who favor us with their confidence.

CAUTION.

We caution the public against certain persons who are in the habit of using our catalogues and circulars, and representing themselves as our agents, but who in reality have no dealings with us. The reputation of our establishment has already been injured in several parts of the country by such parties.

See that orders given to agents are made out on our printed blanks *addressed in type at the top* to THE H. E. HOOKER CO., ROCHESTER, N. Y.

DIRECTIONS FOR TRANSPLANTING, Etc.

Preparation of the Soil.—Prepare a rich, deep bed of mellow soil, and have the land sufficiently drained to relieve the roots from standing water. To insure a fine growth, land should be in as good condition as is required for a crop of wheat, corn or potatoes.

Preparation of Trees or other Stock.—We use great care in digging and packing, but the loss of some small roots and fibres is unavoidable. If stock is properly prepared before it is planted, no permanent injury will result from this, but the preservation of the natural balance between top and roots render a *vigorous cutting back of the former, absolutely necessary* in most cases. And therefore, prune off broken or bruised ends of roots, if any: (a smooth cut root granulates or makes ready to extend sooner than one broken off): cut back the tops to the extent of about one-half the previous season's growth, taking care at all times to prune in such a manner as will tend to develop a well-formed head, sufficiently open to admit air and light freely. To insure success, *Peach trees should have all the side branches cut off before they are planted.* Evergreen and other ornamental trees, the beauty of which depends on preserving their natural form, should be pruned very little. Hence, great pains should be taken in planting and caring for these. If not ready to plant when the stock arrives, "heel it in" by placing the roots in a trench and covering them with mellow earth, *well packed.*

Planting.—Make the holes large enough to admit the roots without cramping or bending, and deep enough to bring the tree to its natural depth. The fine surface soil should be used for covering the roots, and this should be carefully worked among them. If the ground is dry, it is well to pour in some water when the hole is partially filled. *See that the ground is firmly and solidly packed over all parts of the roots by exerting the full weight of the planter upon it,* so there will be no opportunity for dry air or frost to enter and destroy roots deprived of the full benefit of their natural protection. **OMISSION TO PACK THE EARTH SOLIDLY IS THE MOST FREQUENT CAUSE OF FAILURE IN PLANTING NURSERY STOCK.** Fill the holes full enough to be even with the surrounding surface after the fresh earth settles. Always remove the label when planting. If this is left until the tree is grown, the connecting wire often cuts into and destroys the tree or branch to which it is attached. *Never use manure in contact with roots.* When planting dwarf trees set them low enough to cover the stock upon which they are budded, but not lower. Large standard trees should be staked and tied, so that the wind will not loosen the roots. This should be so done that the bands will not chafe the trees. It is a very good way to drive two stakes and confine the tree between straw or hay bands, stretched from stake to stake.

Mulching.—When trees or bushes are planted, they should be mulched or covered with a layer of coarse manure or litter from three to six inches deep, for a space of say two feet more in diameter than the extent of the roots. This keeps the earth moist and of even temperature.

After-Culture.—Grass should not be allowed to grow about young trees or plants. The ground should be cultivated for a space of at least one foot outside the roots. If the ground is poor it should be enriched with surface application of manure. Pruning should be varied according to the condition of the tree, and the purpose of the planter. It should be done regularly every spring, before the buds swell any. In this way the removal of large branches will be avoided.

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 heave 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.

Injured Trees.—If trees are received in a frozen state, place the package unopened in a cellar, away from frost and heat, until thawed out, and then unpack. If partially dried from long exposure, bury entirely in the ground, or place in water from 12 to 24 hours.

WINTERING NURSERY STOCK PROCURED IN THE FALL.

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

There is a popular impression that trees dug in the Fall and heeled in over winter are worthless. *If the heeling is well done there could not be a greater mistake.* Peach and some other young trees, if left standing during their first winter, are frequently killed or injured by frost, while if dug in the Fall and treated as below described, they come through bright and uninjured.

To insure success, select a dry spot where no water will stand during winter, having no grass near to invite mice. Dig a trench deep enough to admit one layer of roots, and sloping enough to permit the trees to lie at an angle of not more than 30 degrees with the ground. Having placed one layer of roots in this trench, cover them with mellow earth extending well up on the bodies and *see that this is firmly packed.* Then add another layer of trees over-lapping the first, continuing as at first until all are heeled in. As soon as this is done cover the tops so well with evergreen boughs that they will be thoroughly protected from winds. Roses and other small stock may be wholly covered with earth.

PLANT YOUNG TREES.

We cannot too strongly recommend our customers to procure young trees, especially for orchard planting. They cost less, they can be taken up with more perfect roots, are much more likely to live, and will become sooner 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.

BEST DISTANCES FOR PLANTING.

Standard Apples.....	30 feet apart each way.
Standard Pears and strong growing Cherries.....	20 " " "
Duke and Morello Cherries.....	18 " " "
Standard Plums, Apricots, Peaches, Nectarines	16 to 18 " "
Dwarf Pears.....	10 to 12 " "
Dwarf Apples	10 to 12 " "
Quinces.....	10 to 12 " "
Grapes.....	rows 10 to 16 feet apart; 7 to 16 feet in rows.
Currants and Gooseberries.....	4 feet apart.
Raspberries and Blackberries.....	4 by 5 feet.
Strawberries, for field culture.....	1 by 3½ feet.
Strawberries, for hill culture.....	2 feet apart each way.

NUMBER OF TREES ON AN ACRE.

30 feet apart each way.....	50	10 feet apart each way	435
25 " "	70	8 " "	680
20 " "	110	6 " "	1210
18 " "	135	5 " "	1745
15 " "	205	4 " "	2725
12 " "	300	3 " "	4840

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

PROFIT OF FRUIT RAISING.

CRABS.

MR. ELIAS SHARPE, of Lockport, N. Y., who has been for many years endeavoring to find a hardy fruit that will be profitable to grow for market, and who has spent time and money with a lavish hand to secure this result, says that the most profitable apples that can be grown are the improved varieties of Crabs. He sent a quantity of this fruit to Boston one Fall, where one variety sold for \$16 per barrel, and the others at \$10 per barrel. MR. LOVANDO SHARPE, of the same place, after growing them with profit for several years, planted an orchard of 1,500 trees.

PEARS.

The market value of the Pear is a good indication of the amount of attention which this fruit deserves. The following are a few examples: DR. C. W. GRANT, of Newburgh, gathered four hundred specimens from a tree of the Flemish Beauty, only eight years planted, which he sold for \$30. T. G. YEOMANS, of Walworth, on one occasion sold nearly his entire crop of one variety at 12 cents each by the barrel; at another time, one barrel, filled with one hundred and twenty-five pears, sold for \$35.65, and eleven barrels for \$315. T. R. AUSTIN, near Boston (says HON. MARSHALL P. WILDER), set out 500 Dwarf Pears. They commenced bearing in about three years, and have borne regular and abundant crops ever since. An account was kept of the sales from them for the second six years, which amounted to \$3,498. They occupy about an acre. A wagon load of pears of the Beurre D'Anjou variety was sold by E. MOODY, of Lockport, N. Y., in Boston, for \$500. We learn that the same man sold at the same place sixty-three barrels of the same variety at about \$20 per barrel, or \$1,200 for the lot. This is a very choice variety of pear.

CHERRIES.

The Cherry can be grown for market with great profit. Many varieties are regular and abundant bearers, and fruit commands a high price in the market. They can be sent by express, in baskets, to even distant markets, and thousands upon thousands of bushels are being dried or canned every year. For canning they bring about ten cents per pound, and at this price \$1,000 per acre would be a very low estimate of sales of a full grown orchard.

PLUMS.

This fruit always finds a ready market at good prices, and as is well-known, the trees are remarkably productive. It is estimated that an acre of Plums should produce on the average from 150 to 200 bushels of fruit, which at \$4 per bushel (a low average price) would make the handsome total of \$600 to \$800 per acre. That this is a low estimate can be seen from the fact that from 135 to 170 trees should be planted on an acre, and that good single trees will produce at least ten dollars' worth of fruit.

PEACHES.

MR. ARNOLD, of Starkey, N. Y., bought a fruit farm of fifty acres, about one-half in peaches, and the balance in apples, cherries, grapes and berries. Price paid for farm, \$11,000. In the fall of the same year he sold peaches to the amount of \$5,000, the buyer doing his own packing and marketing. He also received over \$1,000 from the other fruits, thus realizing more than half the purchase money of the farm during the first six months. Equally favorable results could be given in a great number of instances if space permitted.

QUINCES.

Orange Quinces have frequently brought \$5 per bushel in the eastern markets, and CHAMPION Quinces will do even better. Planted at ten feet apart each way we have 430 trees to the acre. After a short time these bushes may be expected to bear from one-half to one bushel each: this gives at least 200 bushels per acre, and at even \$2.50 per bushel we have an income of \$500 per acre.

GRAPES.

FRANKLIN DAVIS & Co., of Richmond, Va., say: "There is no fruit, excepting, perhaps, the strawberry, that yields so great, so quick and so certain a return for the attention necessary for its production, as the grape." Vines have frequently been known to produce *fifty pounds* of fruit the fourth year from planting, and at the common price of fine grapes, fifty pounds would be worth from \$4 to \$6. Planted ten feet apart, an acre holds 436 vines. If each vine produces only two dollars' worth, the income would amount to \$872 per acre.

RASPBERRIES.

Raspberries, both red and black, may be made very profitable with good cultivation. The demand for them is well illustrated by the fact that one of the canning houses in this city *canned ten tons of Raspberries in a single day*. The canning houses pay from 8 to 10 cents per quart for black and 10 to 12 cents for red varieties, but even at these prices leading growers who have the facilities for so doing prefer to dry their entire crops.

CURRENTS.

Considering the ease with which currants are grown (for if our directions are followed, the trouble from worms is not worth considering) there are few fruits that pay better than currants. They can be shipped to distant markets. The demand for them for household use, canning, drying, preserving and making jelly, is constant and increasing. They may be relied upon to bring good prices.

GOOSEBERRIES.

The demand for canned Gooseberries, for use as table sauce and in making pies, seems to be unlimited, and this has caused an unusual degree of interest in this fruit. When we say that some of the most experienced producers of canned fruits have made plantations of from 10,000 to 20,000 plants of Downing Gooseberry, some idea of the interest in this fruit may be gathered. The fruit can be picked while green and shipped 1,000 miles without injury. They commence to bear at once and bring from \$3 to \$5 per bushel.

BLACKBERRIES.

One grower reports that he has received about \$650 an acre for his Blackberries. The bushes averaged 100 bushels per acre, and sold at from twenty to twenty-two cents a quart.

William Parry, the well-known fruit grower of Cinna-minson, N. J., says that "at the average price at which Blackberries have sold in the market for ten years, a field with ordinary treatment will yield from \$400 to \$500 per acre, net."

COLOSSAL ASPARAGUS.

Peter Henderson, one of the largest gardeners, and the highest authority on this subject, says the Asparagus crop sometimes yields \$1,000 per acre, and for ten years, beginning with the planting, an average annual *profit* of \$400 per acre.

Fruit Department.

SELECT APPLES.

The first fruit in importance is the apple. Its period of ripening, unlike that of other fruits, extends nearly or quite through the year. By making judicious selections of Summer, Autumn and Winter sorts, a constant succession can be easily obtained of this indispensable fruit for family use.

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 six to eight years for an orchard to come into bearing, some people hesitate to plant, regarding the time and expense as in a great measure lost. In reply to this we would quote the remarks made by O. C. Chapin, of East Bloomfield, N. Y., to J. J. Thomas. He said that he considered the yearly growth of each apple tree planted in his immense orchard of over one hundred and fifty acres, to be worth fully one dollar before they commenced bearing. He has had experience of nearly half a century, and he says he considers this a low estimate. At fifty trees per acre, this would make a yearly increase of value of fifty dollars per acre.

The average prices paid for the fruit are steadily on the increase, and the immense demand for home consumption, foreign shipment, canning and evaporating, assures us that prices will continue to increase.

If apples are planted at the rate of fifty trees per acre, rows of peach trees can be planted between the apples, which, growing more quickly than the apple trees, soon protect them from winds, and thus prove a great benefit to them. After eight or ten years of productiveness, as the space is needed for the apples, the peach trees may be removed, leaving the orchard better for the protection, and at the same time having yielded the planter a large return for his outlay and labor.

SUMMER.

- ✓ **Early Harvest** (Yellow Harvest)—Medium to large; pale yellow; fine flavor. Tree a moderate, erect grower, and a good bearer; a beautiful and excellent variety for both orchard and garden. Middle to end of August.
- ✓ **Early Strawberry**—Medium, striped with deep red; tender, sub-acid, and excellent; a poor grower, but productive. August.
- ✓ **Golden Sweet**—Rather large; pale yellow; very sweet and good. Strong grower and good bearer. August.
- ✓ **Keswick Codlin**—Large, conical; tender, juicy, acid; excellent for cooking. Tree erect, vigorous, productive and early in bearing. July to October.
- ✓ **Primate**—Above medium; straw color, tinged with blush, tender, fine grained, juicy and sub-acid; a moderate grower and abundant bearer. Ripens August and September.
- ✓ **Red Astrachan**—Large, roundish; nearly covered with deep crimson; over-spread with a thick bloom; juicy, rich, acid, beautiful. The tree is a vigorous grower, with large foliage, and a good bearer. August.
- ✓ **Sweet Bough**—Large; pale, greenish yellow; tender and sweet. Moderate grower and good bearer. August.
- ✓ **Sops of Wine**—Medium size, oblong, red; flesh white, often stained; mild and pleasant; productive. August and September.

YELLOW TRANSPARENT APPLE.

Tetofsky—A Russian apple which has proved profitable for market growing. The tree is an upright, spreading grower, forming an open head: comes into bearing extremely early, usually the second year after transplanting, and bears every year. Hardy as a Crab. Fruit good size, nearly round: yellow, beautifully striped with red: flesh white, juicy, pleasant, acid, aromatic. July and August.

Williams' Favorite—Medium size, roundish; flesh, yellowish white; flavor very mild and agreeable: bears abundantly. Very popular in Massachusetts, especially about Boston. August and September.

Yellow Transparent—A new Russian variety imported in 1870 through the Agricultural department. Pronounced by some who have seen it as "the most valuable early apple ever introduced." Tree an upright grower and a very early and abundant bearer. Fruit of good size; skin clear white, turning to a pale yellow: flavor acid, and very good. Ripens from ten days to two weeks earlier than Early Harvest.

AUTUMN.

Alexander—(Emperor)—Of Russian origin. Large: deep red or crimson; flesh yellowish white, crisp, tender with pleasant flavor. Very hardy. October.

Arabskoe—Arabian Apple—Large; three inches in diameter, roundish, inclining to conical; greenish yellow ground, mostly covered with purplish red and a light bloom; flesh fine grained, white, juicy, sub-acid: a moderate grower; foliage very large; over four inches long, with long stalks; a beautiful apple. Ripe here in October, but will keep later.

- Autumn Strawberry**—Medium, streaked; tender, juicy, sub-acid, fine: vigorous and productive. September and October.
- Colvert**—Of large size; striped; sub-acid, tender; a strong grower and great bearer. October.
- Duchess of Oldenburg**—Of Russian origin. Large size, roundish; streaked with red and yellow; flesh whitish, juicy; flavor sprightly, sub-acid; tree a vigorous grower, very hardy; very early and abundant bearer. While it is indispensable in the North, it is almost equally so in the South. We confidently recommend it for the orchard as one of the most valuable sorts for market, or in the garden for domestic use. September.
- Fall Jenetting**—Large, oblate; pale greenish white, with a blush; tender, juicy, mild and sub-acid. Tree vigorous, spreading and productive. November.
- Fall Pippin**—Very large, yellow; tender, juicy and rich. Tree vigorous. October to December.
- Fameuse**—(Snow Apple)—Medium size, roundish, oblate; whitish ground, striped with deep red; flesh very white, juicy and pleasant. Tree very hardy; one of the most valuable Northern sorts. November and December.
- Gravenstein**—Large, striped and beautiful; tender, juicy and high flavored; vigorous and productive. September and October.
- Haas**—(Gros Pommier, Fall Queen)—Medium size; pale greenish yellow, shaded and striped with red; tender, juicy, sub-acid. Tree vigorous and very hardy; upright grower; bears early and abundantly. September to November.
- Iowa Beauty**—A new variety, originated in Northern Iowa, from seed of Golden Russet. The tree is perfectly hardy, free from blight, and one of the most beautiful growers. It is almost fine enough to be called an ornamental tree; the fruit is mild acid, and about the shape and size of the wealthy. Color yellow, with pinkish shade, slightly sprinkled with red. Season September and October.
- Jersey Sweet**—Medium, striped red and green; very sweet, rich and pleasant. Good grower and bearer. September and October.
- Maiden's Blush**—Medium size, flat, quite smooth and fair; pale yellow, with beautiful red cheek; tender, sprightly, pleasant acid flavor. Fair grower and good bearer. September and October.
- Peach**—(Irish Peach)—Medium size, round or a little flattened; yellowish green, streaked with brownish red; flesh white, tender and juicy. Tree a moderate grower and very hardy; highly prized in extreme North. September.
- Porter**—Rather large; yellow; tender, rich and fine. Moderate grower, but productive. September.
- Pumpkin Sweet**—(Pumpkin Russet)—A very large, round, yellowish russet apple, very sweet and rich. Tree a *vigorous*, rapid, upright grower; valuable. October and November.
- Rambo**—Medium; yellowish streaked with dull red and somewhat dotted; mild, tender and good. Fine grower productive; more especially valuable at the West. October to December.
- Red Bietigheimer**—A rare German variety, recently introduced. Fruit large to very large; skin pale green color, mostly covered with purplish crimson; flesh white, firm, sub-acid, with a brisk, pleasant flavor. Tree a free grower and abundant bearer. This is one of the largest and handsomest of apples, and promises to be extensively cultivated. September and October.
- St. Lawrence**—Large; yellowish, striped and splashed with carmine. Flesh white, lightly stained, crisp, juicy, tender and vinous. Tree hardy and productive. September.
- Sherwood's Favorite, or Chenango Strawberry**—Medium size, oblong, and indistinctly ribbed; of a light color, splashed with dark crimson; flesh white, juicy, very mild and tender, slightly sub-acid, good. September.
- Smokehouse**—Large; yellow, shaded with bright red; flesh firm, crisp, juicy and fine flavored. Especially esteemed in Pennsylvania. October to November

Stump—A well-trying apple, but recently introduced to the public. Of good size : roundish, conical. Flesh firm, crisp, tender, sprightly sub-acid, good. Greenish yellow, shaded with red. Beautifully fair, and has commanded the highest prices wherever shown. October to December.

Sweet Russet.—An apple of the highest quality, being rich and sweet, of large size, slightly conical. The tree is a strong grower and heavy and annual bearer. By far the best of its class, being unsurpassed for family use, and should be in every collection. Season, October to December.

Titovka—(Titus Apple)—Large : three and one-quarter to three and a half inches in diameter : roundish, tapering slightly to crown : color greenish yellow striped and marbled with light red in the sun : usually with a light bloom ; flesh rather coarse, tender, juicy, very mild acid. Tree a *free* grower and very productive. Foliage very large. Ripe in September.

Twenty Ounce—Cayuga Red Streak—Very large, nearly round : yellow striped with red. Quality good. Vigorous and good bearer. Popular as a market variety. November to December.

WINTER.

Antonovka—(Russian)—Tree perfectly hardy, a true "Iron Clad." Fruit large, resembling Grimes' Golden, only more oblong, and, when ripe, has a light golden color. February and March.

Acubafolia—This is a Russian Apple of real merit, nearly as large as Baldwin : of fine appearance, and a rich sub-acid flavor. Good for both eating and cooking, and keeps well into January. Tree perfectly hardy, and very productive.

Bailey Sweet—Large, deep red : tender, rich, sweet. Vigorous, upright, and good bearer. November to April.

Baldwin—Large, roundish : deep bright red ; juicy, crisp, sub-acid, good flavor. Tree vigorous, upright, and very productive of fair, handsome fruit. In sections where it thrives, one of the best and most popular winter apples. January to April.

Belle de Boskoop—Pronounced one of the most beautiful and profitable of the Russian varieties. Large, bright yellow, washed with light red on sunny side, and sometimes with a sprinkling of russet ; flesh, crisp, firm, juicy, sprightly sub-acid ; quality very good ; a late keeper.

Bellefleur, Yellow—Large : yellow, with blush cheek : very tender, juicy, sub-acid, in use all winter. Very valuable. A moderate grower and good bearer.

Ben Davis—(New York Pippin, Kentucky Streak, etc.)—A large, handsome striped apple of good quality. Tree very hardy, vigorous and productive : a late keeper : highly esteemed in the West and South-west.

Bethel—Large : deep red : flesh crisp and tender. A native of Vermont, where it is highly prized for its quality and the extreme hardness of the tree ; a moderate grower. December to February.

Bottle Greening—Resembles Rhode Island Greening in size and flavor : but tree a better grower and much hardier. A native of Vermont. December to March.

Clark's Orange—New Iron Clad. Originated in Pewaukee, Wis., where for five successive years it received the first premium at the State fair, and was declared entitled to the highest award of the Society, on seedlings. Fruit medium to large, nearly round like an orange : skin yellow, covered partially with vermilion and carmine striped : very smooth and beautiful : flesh white, juicy, sub-acid. Good for dessert or cooking. November to January.

Cooper's Market—Medium, conical : yellow, striped with crimson : flesh white, tender, brisk, sub-acid : vigorous, upright grower. December to May.

Delaware Red—Medium to large : bright red, highly colored : flesh fine grained : crisp, juicy, sub-acid : excellent. Remarkable for its long keeping qualities, and an early and abundant bearer. November to February.

Fallwater (Fornwalder, Tulpehocken)—Very large, globular : yellowish green, dull red cheek ; juicy, crisp, pleasant sub-acid flavor. Tree a strong grower, very productive, even while young. November to March.

- ✓ **Franklin Sweet**—A new sweet apple which originated in Franklin, Co., Maine, and is considered very desirable. It is considered perfectly hardy and good quality. Fair size, flesh white and very juicy; color similar to Bellflower; keeps through January without any trouble and has been kept until March. We think it a very valuable Winter sweet apple.
- ✓ **Gano**—Originated in Missouri. Form conical, good size and smooth; deep red, shaded on sunny side to mahogany, very attractive; flesh pale yellow, fine grained, tender, pleasant, mild, sub-acid; is a good shipper and keeper; tree healthy, vigorous and hardy. An annual and prolific bearer. February to May.
- ✓ **Gideon**—Raised in Minnesota from Crab seed by Mr. Gideon. An upright grower; medium to large; color yellow, with vermillion blush on sunny side. Mild acid; quality, very good. December to March.
- ✓ **Golden Russet**—Medium size; dull russet with a tinge of red on exposed side; flesh generally crisp, juicy and high flavored. Tree a vigorous grower and a great bearer. Very popular. November to April.
- ✓ **Grimes' Golden** (Grimes' Golden Pippin)—An apple of the highest quality; medium to large size; yellow. Tree hardy, vigorous, productive. January to April.
- ✓ **Hubbardston Nonesuch**—Large; Striped yellow and red; tender, juicy and fine. Strong grower and good bearer. November to May.
- ✓ **Hurlbut**—Medium size, conical; yellow, shaded with red stripes, and splashed with darker red; flesh white, crisp and tender, juicy, mild sub-acid; quality excellent; begins to bear while young and continues with regular and constant crops; very hardy and suited to the extreme North. In season during mid-winter.
- ✓ **Hybernal**—A new, hardy variety of good size, rather acid, and ripens about mid-winter; the tree is a vigorous grower, perfectly hardy, and quite spreading in its habits. This is the only variety yet introduced which will stand the severe winters of the Northwest as well as the Duchess of Oldenburg.
- ✓ **King** (Tompkins County)—Large and handsome; striped red and yellow. Tree vigorous and productive; one of the best. November to May.
- ✓ **Lady Apple**—A beautiful little dessert fruit; flat, pale yellow, with a deep red cheek; juicy, rich and pleasant. November to May.
- ✓ **Lankford Seedling**—Originated in Kent County, Md. Tree a stout grower; bears young and every year; flesh firm, juicy, mild, sub-acid. January to March.
- ✓ **Longfield**—A Russian variety imported some years since. Tree a free, upright grower, early and abundant bearer. Medium to large; yellow, with a flush on the sunny side like the maidens Blush; rich, sprightly, sub-acid; quality as good as Fameuse and somewhat like it. December to March.
- ✓ **Magog Red Streak**—Origin, Vermont. Bears annually large crops; valuable for its extreme hardness, vigor, productiveness and long keeping; fruit medium or nearly so; roundish, inclining to oblong; skin yellow, shaded with light red over half the fruit; flesh yellowish; a little coarse, moderately juicy; mild sub-acid. December to March.
- ✓ **Mann**—"Fruit medium to large, roundish oblate, nearly regular; skin deep yellow when fully ripe; flesh yellowish, half fine, half tender; juicy, mild, pleasant, sub-acid. Good to very good." The tree grows straight and symmetrical and makes a large tree in the orchard. It is an early and annual bearer.
- ✓ **McIntosh Red**—An exceedingly valuable, hardy Canada sort. Medium size, nearly covered with dark red. Flesh white, fine, very tender, juicy and refreshing. A good annual bearer of fair, handsome fruit. Resembles the Fameuse, but larger and more hardy and fully equal in quality to this standard sort. November to February.
- ✓ **Monmouth Pippin** (Red Cheek Pippin)—Large; greenish yellow, with a fine red cheek; juicy, tender and good. Tree erect, vigorous and productive. Keeps well till March or April.

✓ **Nodhead** (Jewett's Fine Red)—Medium sized : greenish white, striped and splashed with crimson, having a dull, grayish bloom : flesh tender, juicy, almost sweet. Popular in Northern New England on account of its great hardiness. A great grower and bearer, but needs well manured land.

✓ **Northern Spy**—Large, roundish, slightly conical, somewhat ribbed ; striped, with the sunny side nearly covered with purplish red. Flesh white and tender, with a mild sub-acid, rich and delicious flavor ; in perfection in January and keeps till June. The tree is a strong, upright grower, and forms a very compact head ; should be kept open by pruning, so as to admit the air and light freely.

✓ **N. W. Greening**—A hardy variety of Wisconsin origin, about the size and color of the R. I. Greening : is a very late-keeping winter apple. The tree is a handsome grower, and is especially recommended for Northern sections.

✓ **Peter**—We take pleasure in calling the attention of all lovers of fine fruit to this new hardy sort. Origin Wealthy seed, and in form, size and color an exact duplicate of the parent, but differing in flavor and season, keeping from four to six weeks longer. At the Iowa State Fair in 1886 the Peter apple was pronounced by the judges to be superior to the Wealthy in every respect. The tree is harder than the Duchess or Wealthy.

✓ **Pewaukee**—A seedling from Duchess of Oldenburg. Fruit medium to large, surface bright yellow, partially covered with dull red ; flesh yellowish white, breaking, juicy ; flavor sub-acid, rich, aromatic, spicy, something like the Jonathan : quality good to best. Tree strong grower and very hardy. January to June.

✓ **Plumb's Cider**—A native of Wisconsin, where its hardiness has been abundantly proved. Tree vigorous, round-headed and productive. Flesh whitish, fine, tender, juicy, mild, sub-acid. September to January.

✓ **Rawle's Janet** (Never Fail)—Medium, roundish, ovate : greenish yellow, striped with red ; crisp, rich and juicy ; one of the best and longest keepers in the South and South-west.

✓ **Rhode Island Greening**—Large ; greenish yellow : tender, juicy and rich, with rather an acid flavor : growing strong and spreading : an abundant bearer. December to April.

✓ **Russet, Roxbury or Boston**—Medium to large ; greenish or yellow russet ; crisp, good, sub-acid flavor. Tree vigorous and productive ; very popular on account of its long keeping. June.

✓ **Salome**—Tree a strong grower ; equals Wealthy in hardiness ; an early and annual bearer ; fruit of medium and uniform size : quality very good, which it retains even into Summer : keeps well with ordinary care until July.

✓ **Seek-no-Further** (Westfield)—Medium to large ; slightly russeted with dull red stripes ; tender, rich, spicy and fine. Good grower and bearer. November to February.

✓ **Smith's Cider**—Medium ; striped : flesh tender, juicy, sub-acid ; very popular in Pennsylvania and Western States. December to March.

✓ **Stark**—Esteemed in Ohio as a long keeper and valuable market fruit. Fruit large, roundish ; skin greenish yellow, much shaded with light and dark red, and sprinkled with brown dots : flesh yellowish, juicy, mild sub-acid. January to May.

✓ **Sutton Beauty**—Fruit medium to large, roundish, handsome : skin waxen yellow, striped with crimson ; flesh whitish, tender, juicy, sub-acid ; quality very good ; keeps remarkably well. Tree a free, handsome grower, and productive. One of the most valuable market varieties in Western New York.

✓ **Talman's Sweet**—Medium : pale yellow, slightly tinged with red : firm, rich, and very sweet. The most valuable baking apple : vigorous and productive. November to April.

✓ **Wagener**—Medium to large ; deep red in the sun ; flesh firm ; sub-acid and excellent : very productive : bears very young. December to May.

- ✓ **Walbridge**—Medium size; striped with red; handsome and of excellent quality. Vigorous grower and productive. Very hardy and considered of great value in the North and North-west. March to June.
- ✓ **Wealthy**—A native of Minnesota, where it has proved perfectly hardy, vigorous and productive. Fruit of medium size, red, streaked with white: quality good. December to February.
- ✓ **Winesap**—Medium; dark red; sub-acid, excellent. Tree a moderate grower and abundant bearer. A favorite market variety in the West. December to May.
- ✓ **Wolf River**—A new and beautiful fruit of the very largest size. Originated near Wolf River, Wisconsin, and may well be classed among the iron-clads. Skin greenish yellow, shaded with crimson; flesh white, juicy, tender, with a peculiar, pleasant, mild, sub-acid flavor. Tree a strong, stout grower, and a great bearer. January and February.
- ✓ **York Imperial**—Of medium size, truncated, oval, angular. Skin greenish yellow; flesh tender, crisp, aromatic. Highly esteemed in Pennsylvania, where it originated.

EXTRA HARDY OR IRON=CLAD APPLES.

The opinion has prevailed that the attempt to produce valuable apples in the northern sections of New York, New England, and the adjoining portions of Canada, Wisconsin, Minnesota, and other sections unfavorable for general fruit growing, must prove a failure. While this is true as to many varieties successfully grown in more temperate or favorable regions, its general application is quite erroneous. Experience in growing Russian or other varieties of northern origin, has shown that a limited variety of fine apples can be grown as far north as Montreal, and that some of these varieties may be planted with equal profit in all sections, North and South.

Below we give a list of the most valuable extra hardy apples, with reference to the pages of this catalogue on which descriptions of them may be found :

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SELECT CRAB APPLES.

Within the past few years much attention has been given to improving this class of fruits, because of their adaptability to cold sections where only a few varieties of apples can be successfully grown. These efforts have been attended with marked success. Crab apples succeed equally well in all sections, and are valuable for cider, preserving, jelly, ornament, and some of the improved sorts are excellent for eating. Sent to the Eastern markets they command a very high price.

Excelsior—Raised from seed of Wealthy, in Minnesota. Very hardy, productive, and one of the best flavored varieties. September.

General Grant—Tree an erect, vigorous grower; fruit in dense clusters; of high quality, equal to Duchess of Oldenburg. October to December.

Hyslop—Almost as large as Early Strawberry Apple; deep crimson: very popular on account of its large size, beauty and hardiness. Keeps well into the winter.

Lady Elgin—Fruit beautiful, resembling the Lady Apple. Flesh yellowish, moderately juicy, mild, sub-acid. Tree a vigorous grower, and very productive. November and December.

Martha—Gideon's new seedling, No. 5, from Minnesota. Immensely vigorous, hardy, producing every year. Mr. Gideon says: "For sauce it surpasses any apple we ever grew." A great acquisition. October.

Montreal Beauty—Fruit large, bright yellow, mostly covered and shaded with rich red: one of the most beautiful of all Crabs in appearance. Flesh yellowish, rich, firm and acid. Very good. October and November.

Orange—Tree moderate grower, an annual and abundant bearer. Fruit larger than Transcendent. Flesh firm, crisp, juicy and delicious. October to December.

Quaker Beauty—A new, hardy, strong-growing sort; bears large crops of fine fruit. December to May.

Transcendent—All things considered, this is one of the most valuable varieties of Crab Apples grown. Tree remarkably vigorous, growing to a good size, and immensely productive. Fruit very large, from one to two inches in diameter. Excellent for sauce and pies, being juicy and crisp: is also by many considered a good eating apple. Skin yellow, striped with red. September and October.

Van Wyck—Large: skin mottled with bright red; sweet. Tree vigorous.

Whitney's Seedling—Large, averaging one and a half to two inches in diameter; skin smooth, glossy green, striped, splashed with carmine; flesh firm, juicy and rich. Said to be a great bearer and very hardy. Tree a vigorous, handsome grower. Has no superior if equal.

SELECT PEARS.

The cultivation of this noble fruit is rapidly extending 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. For small grounds and market planting we would advise planting mainly Dwarf Trees.

The melting, juicy texture, the refined flavor, and the delicate aroma of the Pear, give it rank above all other fruits, except the grape. The Pear like most things highly desirable and valuable, cannot be had without attention and labor. The relative prices of the Apple and the Pear being about as one to ten, purchasers of the latter can well afford to give the trees the high cultivation necessary to secure the best results.

Dwarf Pears are the result of budding Pears on Angers Quince stocks, and they must always be planted SUFFICIENTLY DEEP to cover the junction of the Pear and Quince, two or three inches—the soil made rich and well tilled, and about one-half the previous summer's growth cut off each spring. Under this treatment Dwarfs are everywhere successful. The side branches should not be removed higher than one foot from the ground in Dwarfs, while Standards may be trimmed to the height of three or four feet if desired. Train in pyramidal form. Ripen the fruit in the house. Gather when, on gently lifting the fruit, the stem will readily separate from the limb. Place in a dark room until fully matured. Winter Pears may hang on the trees until there is danger from frost, then place in a dry cellar to ripen.

The letters "D" and "S," appended to the descriptions of varieties, indicate favorable growth either as "Dwarfs" or "Standards," or both.

SUMMER.

- ✓ **Bartlett**—Large size, often with a beautiful blush next the sun; buttery, very juicy and high-flavored. Tree a strong grower; bearing early and abundantly; very popular. Last of August and first of September. Grows best as a Standard.
- ✓ **Beurre Giffard**—An excellent variety; medium; greenish yellow, red in the sun; very early. Tree slender but healthy; very productive. August. D. and S.
- ✓ **Brandywine**—Medium size; dull greenish yellow, with a little russet; high flavored and good quality; melting, sugary and vinous. Tree a vigorous upright grower and uniformly productive. In season during August and September. D. and S.
- ✓ **Clapp's Favorite**—Large size; pale lemon yellow; flesh fine grained, juicy, melting; rich and buttery; a cross between Bartlett and Flemish Beauty; earlier than Bartlett, and resembling the Flemish Beauty in growth, having its fruit evenly distributed over the tree, of a uniform size. It is equally hardy with Flemish Beauty; a good grower and productive. In season during August and September. *Care should be taken to pick the fruit at least ten days before it would ripen upon the tree.* D. & S.
- ✓ **Doyenne d'Ete**—Small size, yellow, with a blush on sunny side, melting and sweet, with pleasant flavor. Tree a strong grower and very productive. In season during August. D. and S.
- ✓ **Lawson, or Comet**—A new, choice, and reliable Pear. The tree is a vigorous, upright grower, productive, bears young and early in the season; foliage clean and healthy, and its introducer says has never been affected by blight. Fruit good size, yellow, flushed with the most beautiful crimson; flesh crisp and juicy; a firm good shipper, and a salable and valuable market variety. August.
- ✓ **Le Conte**—Tree very vigorous and productive, partaking of the nature of the Chinese Sand Pear, of which it is a seedling. Fruit large, skin smooth, pale yellow. Quality fair. Does not succeed at the North.
- ✓ **Manning's Elizabeth**—Below medium size; bright yellow, with a lively red cheek; dotted with brown and red dots; flesh juicy and melting. A beautiful dessert fruit. Tree a moderate grower.
- ✓ **Margaret**—(Petite Marguerite). Medium size; skin greenish yellow, with brownish red cheek, and covered with greenish dots. Flesh fine, melting, juicy, vinous and of first quality. Tree a vigorous, upright grower, and an early and abundant bearer. Succeeds admirably as a standard or dwarf. The finest Pear of its season and worthy of special attention. Ripens latter part of August. D. and S.

✓ **Osband's Summer**—Medium size, inclining to round; juicy and melting, with a rich, sugary flavor, and often slightly perfumed. Tree moderately vigorous, an erect grower and very productive. In season during August.

✓ **Souvenir du Congress**—A remarkably fine variety of very large size and most showy appearance; skin smooth, bright yellow, flushed with brilliant red or carmine; flesh very juicy, and firm to the core. The tree is an upright grower, vigorous and very productive. Specimens often weigh from one to two pounds, and are exceedingly showy. August and September.

✓ **Tyson**—Above medium size; deep yellow at full maturity, slightly russet, with a crimson cheek; melting, juicy and fine flavored, a vigorous and rapid grower; one of the finest summer varieties. In season during August.

Wilder Early—Medium or rather small, regular in form; greenish yellow, with a brownish red cheek; handsome, melting, sweet, pleasant, very good. Tree a *vigorous* grower and great bearer. First of August.

AUTUMN.

✓ **Anjou**—(Beurre d'Anjou)—A large, handsome pear, buttery and melting, with sprightly vinous flavor; keeps into mid-winter. Tree a *vigorous* grower and good bearer. We have no hesitation in pronouncing it to be *the most valuable pear in the catalogue*. Does equally well as a standard or a dwarf. Keeps until the winter holidays, when it commands very high prices in the market. D. and S.

✓ **Baron de Mellow**—Medium size, enormously productive, hardy, thrifty, quality very best, rich, melting, vinous. Mr. Barry, Pres. Am. Pom. Society says: "It is a royal pear." November to January.

✓ **Belle Lucrative**—Large size, yellowish green, melting and delicious; an upright grower and productive; bears while young; first quality in all respects. In season during September and October. D. and S.

✓ **Beurre Bosc**—A large and beautiful russetty pear; very distinct, with a long neck, high flavored and delicious. A *moderate* grower and rather irregular; bears well. We top graft in order to obtain good standard trees. September and October. Standard.

✓ **Beurre Clairgeau**—We call particular attention to this variety, on account of its importance and popularity. Its size, early bearing, productiveness and beauty, render it a profitable market variety. It should only be grown as a standard. Very large, light yellow, shaded with crimson and russet; an early and abundant bearer. From its handsome appearance and productiveness one of our best market varieties, and is extensively planted for this purpose. S.

✓ **Boussock**—(Doyenne Boussock)—Large; lemon yellow, a little russeted; melting, juicy, with a sprightly, vinous flavor; good grower. October. S.

✓ **Duchesse d'Angouleme**—Very large size, with rough and uneven surface, of a greenish yellow, with patches of russet and a dull red cheek; a vigorous and strong grower and good bearer while quite young. It attains its greatest perfection on the Quince root. In season during October and November. D.

✓ **Eastern Belle**—Originated in Maine; probably a seedling of the Belle Lucrative; fruit medium, yellow, shaded with light red and some russet; juicy, half melting, sweet and rich, with peculiar musky perfume; of excellent quality; very hardy and an abundant and regular bearer. September. S.

✓ **Flemish Beauty**—Large size, greenish yellow and brown, with large spots of russet, rich and juicy, with a melting and musky flavor; an old and highly esteemed variety, a strong grower and great bearer, hardy and desirable. This variety ranks for hardiness among Pears as the Duchesse of Oldenburg among Apples. In season during September and October. S.

- Frederick Clapp, or Clapp's No. 22**—A very fine pear. Tree a vigorous grower. Fruit medium to large, roundish; skin smooth, bright yellow; flesh whitish yellow, fine, very juicy, melting, rich, highly vinous and slightly aromatic. Ripens from middle to last of October. S.
- Goodale**—This hardy pear originated at Saco, Maine. Fruit large, flesh white and of excellent flavor and quality. Tree hardy, vigorous, and upright in growth, and uniformly productive; a valuable acquisition. October. S.
- Hardy**—(Beurre Hardy)—A large pear; cinnamon russet; melting and fine. Tree a strong grower and good bearer. *One of the finest pears*, deserving much more attention than it has hitherto received. October. S. and D.
- Hoosic**—This fine new variety originated in Williamstown, Mass. Fruit large size, skin greenish yellow, flesh fine grained, melting and juicy, with a rich almond flavor. In quality it ranks among the best; it is an erect, fine grower, very hardy, and a great bearer. It has been fruited here for several seasons, and we believe we are safe in recommending it to the public as a desirable sort. Season, October. S.
- Howell**—Large size, light waxen yellow, sweet and melting, of excellent quality; a strong and hardy grower and good bearer. One of the best American varieties and extensively planted all over the country. In season during September and October. S. and D.
- Idaho**—No new fruit that has been brought before the public in years has excited the interest and admiration of all fruit lovers, and proven so decided an acquisition as the Idaho. It possesses many valuable characteristics, strong, vigorous growth, freedom from blight, as hardy or hardier than Flemish Beauty, very productive, large size, long keeper, and carries well to market. Excellent quality. Ripens a month later than Bartlett, and undoubtedly will become as popular as that standard variety. Large and handsome; irregular, globular, somewhat depressed; the cavity of the fruit is very irregular, basin shallow and pointed; calyx small and closed; core very small, many entirely seedless; skin golden yellow, with russetty spots; flesh white, exceedingly fine grained, very tender and buttery, with a rich subdued acid flavor. Even when dead ripe it makes no approach to insipidity.
- Kieffer**—Said to have originated from seed of the Chinese Sand Pear crossed with the Bartlett. Fruit of large size, rich golden yellow, somewhat russeted, with a beautiful red cheek when well grown. Flesh juicy, melting, with a peculiar quince flavor. Requires a long season to come to perfection, and does not succeed well north of Rochester, N. Y. Tree a vigorous grower, and early and great bearer, requiring the fruit to be thinned on the trees to be good. Very free from the attacks of insects and disease. Very desirable for canning, said to be equal to the Bartlett for that purpose. The Kieffer is proving profitable in Western New York for market. It is said that \$1200.00 were received in 1892 for the product of one acre of Kieffer pear trees.
- Louise Bonne de Jersey**—Large size, oblong, pyraform, pale green in the shade, but overspread with brownish red in the sun; very juicy and melting, with a rich and excellent flavor; a profitable market variety, succeeding better on the Quince than the Pear root. In season during September and October. D.
- President**—A very large handsome Pear, greenish yellow with red in the sun. Flesh juicy, with an agreeable vinous flavor. Popular in New England. November. S.
- Seckel**—Small size, yellowish russet, with a red cheek; flesh whitish, buttery; very juicy and melting, with a peculiarly rich spicy flavor and aroma; the richest and finest variety known, and extensively planted all over the country. A most prolific bearer. September and October. S.
- Sheldon**—Large size, roundish, greenish yellow, mostly covered with thin light russet, very juicy; melting, sweet and vinous; a fine grower and good bearer, but does not succeed on the Quince; it should, however, have a place in every collection, no matter how small, on account of its good quality. In season during October and November. S.

IDAHO PEAR.

✓ **Superfin**—(Beurre Superfin)—A large, fine pear, very juicy and melting, with a rich, pleasant and sprightly sub-acid flavor; all things considered, one of the best pears known to cultivators. Its valuable qualities are not sufficiently appreciated. Tree *vigorous*. October. S.

✓ **Swan's Orange**—(Onondaga)—A very large, melting, sprightly, vinous Pear. Tree *vigorous*, hardy and extremely productive. October and November. S.

✓ **Vermont Beauty**—Is a seedling Pear, first brought to notice by the originator, J. T. McOmber, Grand Isle, Lake Champlain. It has been tested quite extensively in the North and South, and has thus far proved hardy, and also free from the attacks of blight. The tree is a free grower and an abundant bearer. The fruit which ripens a little after the well-known Seckel, much excels that variety in size and beauty. The pear is of full medium size, ovate, yellow, and covered on the sunny side with a bright carmine red. The flesh is rich, juicy, and aromatic. It is especially adapted for a dessert pear, and selected lots in the market would bring fancy prices.

WINTER.

✓ **Duchesse de Bordeaux**—Large size, greenish yellow, with lines of russet; flesh buttery, juicy and sweet, with an agreeable flavor: a very productive and valuable Winter variety. In season from November to January. S.

✓ **Easter Beurre**—Large size, yellow, with a brownish red cheek, of excellent quality, rich and melting. A moderate strong grower and productive; one of the best keeping varieties; succeeds best on the Quince root. D.

✓ **Jones' Seedling**—Medium size; yellow, shaded with russet; flesh buttery, sugary, vinous. One of the best. Frequently sells in the Eastern market for \$15 per barrel. A free upright grower. S.

✓ **Josephine de Malines**—Medium to large, roundish; pale straw color; flesh rose-colored, melting and delicately perfumed: first quality. Tree a *moderate*, irregular grower, with small leaves: fruit borne in clusters; succeeds well on the Quince, though not a handsome grower. This variety improves as the tree advances in age. One of the most delicious of our long-keeping table pears, and it deserves extensive culture. D. and S.

✓ **Lawrence**—Above medium size, yellow, tender and melting, of excellent quality, and one of the best Winter Pears. In season during Mid-Winter. D. and S.

✓ **Mount Vernon**—Medium size, light russet; red in the sun; flesh inclining to yellow, juicy and aromatic. Tree a good grower, an early and abundant bearer. In season during Mid-Winter. S.

✓ **President Drouard**—A variety recently introduced from France, highly recommended for its rich flavor and great keeping qualities. Tree a vigorous grower. Fruit large and handsome; melting and juicy, with a delicious perfume. March to May. S.

✓ **Vicar of Winkfield**—Large size, long, fine, rich yellow when fully ripe; very vigorous and productive, and one of the best for general cultivation. D. and S.

✓ **Winter Nelis**—Medium size, greenish yellow, spotted with russet, melting and buttery, with a rich sprightly flavor. Tree of straggling growth; one of the very best early Winter Pears. S.

SELECT CHERRIES.

The Cherry thrives best on a sandy or gravelly soil, and there attains its highest perfection, but will do very well in almost any situation except a wet one. It is one of the most ornamental of all fruit trees, which, with its delicious and refreshing fruit, makes it very desirable for planting near the dwelling, where beauty and shade, as well as fruit, are so much sought for and so desirable.

We divide them into two classes, Hearts and Bigarreaus, and Dukes and Morellos. The first are strong and vigorous growers, making large, open, spreading heads or tops, are best suited for the purposes of shade, and produce large, heart-shaped, sweet fruit. The Dukes and Morellos are all of slower growth, and do not ever attain so large a size, and are more hardy, less liable to get injured by bursting the bark, and generally produce acid fruits, and make the most beautiful Dwarfs. One and two-year-old trees are the most desirable for transplanting, and are usually from four to six feet high.

HEART AND BIGARREAU CHERRIES.

Fruit heart-shaped, with tender, sweet flesh. Tree of rapid growth, with large, soft drooping leaves.

Black Eagle—Large, black: tender, rich, juicy and high flavored. Tree a moderate grower and productive. Ripe beginning of July.

Black Heart—(Black Ox Heart)—A very old variety. Fruit medium size, heart-shaped, rather irregular; skin glossy, deep black; flesh tender, juicy, rich, sweet. Tree a rapid grower, hardy and productive. Early in July.

Black Russian—European origin. Fruit large, deep black, glossy; flesh very solid and firm, yet juicy and delicious. A valuable late sweet Cherry.

Black Tartarian—Very large; purplish black; half tender; flavor mild and pleasant. Tree a remarkably *vigorous*, erect and beautiful grower, and an immense bearer. Ripe last of June and beginning of July. One of the most popular varieties in all parts of the country.

Centennial—The most wonderful Cherry we have ever seen. The great drawback to the culture of the Cherry, especially Hearts and Bigarreaus, is their perishable nature—every light colored variety in general cultivation being subject to quick decay. The Centennial, on the contrary, is so enduring in texture that it can be kept in good condition almost indefinitely. On two occasions ripe specimens sent us by mail from California were not only received in good condition, but remained so for several days after arrival. Ripe specimens have been kept in an ordinary room for a month after gathered and were still in eating condition. In addition to its remarkable keeping properties, the fruit is of immense size, beautiful amber shaded red with very fine yet tender flesh: sweet, rich and luscious. It is a seedling of Napoleon Bigarreau, which it resembles in appearance but is much larger and more oblate in form. Tree an extra good, straight and handsome grower. No other Cherry can compare with it for canning. Its sweetness is very pronounced, being exceedingly sugary. Its crispness and honied sweetness make it a desirable table fruit, but its great value is in its firmness, which makes it probably the best shipping Cherry yet introduced. Ripens in midseason.

Coe's Transparent—Medium size; pale amber, red and mottled next the sun; tender, sweet and fine: *one of the best*. End of June. Tree *vigorous* and erect.

Downer's Late—Rather large, light red; tender and juicy: slightly bitter before fully ripe. Tree a *vigorous*, erect grower, and productive. One of the best late cherries.

- ✓ **Early Purple**—Small to medium size; purple; tender, juicy and sweet. Growth *free*, slender and spreading. First to middle of June.
- ✓ **Elton**—Large, pointed; pale yellow, nearly covered with light red; half tender, juicy, rich and delicious. Tree very *vigorous*, spreading and irregular. End of June.
- ✓ **Gov. Wood**—The finest of Dr. Kirtland's seedlings, of Ohio; clear, light red, tender and delicious. Tree a *vigorous* grower and most productive. End of June. Hangs well on the tree.
- ✓ **Knight's Early**—Large, black; tender, juicy, rich and excellent. Tree a *free* grower and very productive; branches spreading. Ripe a few days before the Black Tartarian.
- ✓ **Napoleon Bigarreau**—Fruit of the largest size; pale yellow, with a bright red cheek; flesh very firm, juicy, and, when fully ripe, of an excellent flavor; tree vigorous and productive. Ripens early in July.
- ✓ **Rockport**—Fruit large, obtuse heart-shaped; skin pale amber, light red in the sun, flesh rather firm, sweet and excellent; tree vigorous, erect, and produces well.
- ✓ **Schmidt's Bigarreau**—A most promising Cherry: fruit of immense size, of a rich, deep black; flesh dark; tender, very juicy, with a fine flavor; bears abundantly, and makes a most noble dish for the table.
- ✓ **Tradescant's Black**—(Elkhorn)—Very large; black; very firm, juicy and good. Tree *vigorous* and upright, with peculiar gray bark. A great bearer, and so late as to be very valuable. Middle and last of July.
- ✓ **Windsor**—New. A seedling originated at Windsor, Canada. Fruit large, liver-colored, resembling the Elkhorn, or Tradescant's Black Heart, nevertheless quite distinct; ripens three or four days after that variety; flesh *remarkably firm* and of fine quality. Tree hardy and very prolific. A *valuable late variety* for market and for family use.
- ✓ **Wragg**—Very hardy, vigorous and productive; medium, dark purple, fine quality. July.
- ✓ **Yellow Spanish**—Large, pale yellow, with a bright red cheek in the sun; flesh firm, juicy and delicious; one of the best, most beautiful and popular of all light-colored cherries. Tree erect, *vigorous* and productive. End of June.

DUKE AND MORELLO CHERRIES.

These two classes of Cherries are very distinct from the preceding. The trees are of smaller size, and grow more slowly; the leaves are thicker and more erect, and of a deeper green. The fruit is generally round, and in color varying from light red to dark brown.

The Dukes have stout, erect branches usually, and some of them, like Reine Hortense, quite sweet fruit; while the Morellos have slender, spreading branches, and acid fruit invariably. These two classes are peculiarly appropriate for dwarfs and pyramids, on the Mahaleb stock, and their hardiness renders them well worthy of attention in localities where the Heart and Bigarreau are too tender.

- ✓ **Belle Magnifique**—A magnificent, large, red late cherry, 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; makes a fine dwarf or pyramid on the Mahaleb. Last of July. Very valuable.
- ✓ **Dyehouse**—Partakes of both the Duke and Morello in wood and fruit; a very early and sure bearer; ripens a week before Early Richmond, of better quality, and quite as productive. June.
- ✓ **Early Richmond**—An early red, acid cherry; very valuable for cooking early in the season. Ripens through June. Tree a *free* grower, hardy, healthy and very productive.
- ✓ **Empress Eugenie**—Large, dark red, flesh juicy, rich; tree *robust* and moderately productive.

WINDSOR CHERRY.

✓ **Late Duke**—Large; light red; late and excellent. Tree *robust*, and makes a nice dwarf or pyramid. End of July. Valuable.

✓ **Leib**—A new Morello, one week later than Early Richmond, and claimed to be very superior. End of June.

✓ **May Duke**—An old, well-known, excellent variety: large, dark red; juicy, sub-acid rich. Tree hardy, *vigorous* and fruitful; ripens over a long period; fine for dwarfs and pyramids. Middle of June.

✓ **Montmorency Large**—No doubt one of the finest acid cherries; tree very hardy and an immense bearer; commences to fruit while young, and is loaded annually thereafter with fine crops; fruit of good size, fine flavor, and of bright, clear, shining red; valuable everywhere, especially for northern latitudes: about a week later than Early Richmond.

✓ **Montmorency Ordinaire**—A beautiful, large, red, acid cherry; larger and finer than Early Richmond, and fully ten days later, ripening with Tradescants. Being extraordinarily prolific and very hardy, it can be recommended as a variety of great value. Tree a *free* grower.

✓ **Morello English**—Large, dark red, nearly black; tender, juicy, acid, rich. Tree dwarf and slender; makes a fine bush on the Mahaleb. If trained on a north wall it may be in use all the month of August. Valuable.

✓ **Olivet**—This variety promises to be of the greatest value. Differing from nearly all other early sorts, it is a very shining deep red, and continues fruiting through most of June and July without losing its quality. Fruit large; flesh red, with rose-colored juice, tender, rich and vinous, with mild, sub-acid flavor; as fertile and productive as the best of the Duke sorts, and probably the largest of this class.

✓ **Ostheim or Russian Cherry**—A hardy cherry, imported from the nurseries of Dr. Regel, of St. Petersburg, Russia. It has been tested in the severest winters of Minnesota, and found to be perfectly hardy. Charles Downing thus describes it: "Fruit large, roundish, obovate; flesh liver color, tender, juicy, almost sweet, sub-acid: very good. Season middle of July." Morello class.

✓ **Reine Hortense**—A French cherry of great excellence; large, bright red; tender, juicy, nearly sweet and delicious. Tree *vigorous* and bears well; makes a beautiful pyramid.

✓ **Royal Duke**—One of the largest and finest of this class; ripens after May Duke.

SELECT PLUMS.

The Plum attains its greatest perfection on a strong, clay soil, where they grow the most thriftily, and suffer the least from the "curculio" and "black knot," and, as is the case with all other fruits, they are greatly benefited by thorough cultivation.

There is no difficulty in protecting the crop of Plums from the attacks of the *curculio*, by giving it a little extra care. This should be done as follows: Immediately after the trees have done blossoming, and when the fruit is in its first stages of growth, make the ground clean and smooth under each tree, and spread a sheet upon it, so that it will extend as far as the outside edge of the outer branches, and then suddenly jar the tree so as to shake down all the stung fruit and insects which should be destroyed. If this operation be carried on daily for a short time, it will insure a full crop of this delicious fruit, and will well repay the little daily attention given it. It is very important that this should be done early in the morning.

Standard trees are generally from four to six feet, and should be encouraged after planting to form branches low down, or near the ground, and by this means low-headed trees will be secured.

✓ **Bavay's Green Gage**—(Reine Claude de Bavay)—One of the best foreign varieties. As large as the Washington, and of fine flavor; roundish oval; greenish, marked with red in the sun. Tree a *free* grower and remarkably productive. Middle to end of September. Hangs long on the tree.

✓ **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**—A very large and fine early Plum; dark violet red; juicy and good. Tree erect and *vigorous*; very productive; valuable for market.

✓ **Coe's Golden Drop**—Large and handsome, oval; light yellow: flesh firm, rich and sweet: adheres to the stone. Tree a *moderate* grower and very productive. Valuable not only on account of its large size and fine appearance, but its lateness. Last of September.

✓ **Diamond**—(Kingston, Smith's Prune)—A large, late blue plum of fair quality. Tree a strong grower and great bearer. Very promising for market.

✓ **Duane's Purple**—Very large and handsome, oval; reddish purple: flesh juicy and sweet: adheres to the stone. Tree a *moderate* grower and very productive. Beginning of September.

- ✓ **Fellelberg**—(French or Italian Prune)—A fine late Plum, oval; purple; flesh juicy and delicious; parts from the stone; fine for drying. Tree a *free* grower and very productive. September.
- ✓ **General Hand**—Very large; yellow, handsome; parts freely from the stone. Tree *stocky*, vigorous and productive. September.
- ✓ **German Prune**—Medium: oval; purple or blue; juicy, rich, fine. Tree *vigorous* and very productive. September.
- ✓ **Geuii**—Fruit very large, deep bluish purple, covered with thick bloom; flesh yellowish green, coarse, sweet and pleasant; great bearer and very early; tree a hardy and rapid grower. This new variety is regarded as very valuable for market by growers along the Hudson river. First to middle of September.
- ✓ **Grand Duke**—(New)—A valuable addition to late plums: as large as the Bradshaw, of same color, and ripening latter part of September. Entirely free from rot.
- ✓ **Green Gage**—Small, but of the highest excellence. Tree a *moderate* grower. We have to top graft it to get good trees. September.
- ✓ **Imperial Gage**—Rather large; oval; greenish; flesh juicy, rich and delicious; parts from the stone. Tree a *vigorous* grower; very productive and one of the best of plums. Middle of August.
- ✓ **Jefferson**—A fine variety; yellow with a red cheek; flesh orange-colored, juicy and rich; parts from the stone. Tree a slow, *poor* grower, but productive. End of August.
- ✓ **Lombard**—Medium size; oval; violet red; flesh yellow, juicy and pleasant. Tree very *vigorous*, a *great* bearer, and peculiarly well adapted to light soils. September.
- ✓ **Mariana**—An accidental seedling originating in Texas. An unusually strong, rapid grower. Fruit larger than the Wild Goose. Round, and of a peculiar light red color. Its productiveness is marvelous, and it ranks among the best, if not the best of the Chickasaw varieties. August.
- ✓ **Monroe**—Medium size; greenish yellow; flesh firm, rich and sweet; tree very vigorous and healthy; bears abundantly. In season during September.
- ✓ **Moore's Arctic**—Size medium or below; skin purplish black, with a thin blue bloom; flesh greenish yellow, juicy, sweet, and pleasant flavor. Charles Downing speaks of it as follows: "A new, hardy Plum, which originated on the high lands of Aroostook county, Maine, where, unprotected and exposed to cold, it has for many years borne enormous crops, and is claimed to be the hardiest plum grown, and so far free from black knots. Tree healthy, vigorous: an early and abundant bearer."
- ✓ **Niagara**—Of extra large size and first rate flavor. Color dark blue: good bearer, not liable to rot. Ripens about August 1st. E. Moody & Sons, of Lockport, N. Y., say it is one of the most profitable varieties to grow, and rank it very high. We regard it as one of the best new varieties.
- ✓ **Pond's Seedling, or Font Hill**—A magnificent English plum: form of Magnum Bonum; light red changing to violet; flesh rather coarse. Tree a *vigorous* grower and most abundant bearer. One of the most attractive in cultivation. September.
- ✓ **Prince of Wales**—One of the most promising plums of recent introduction. Fruit round, above medium size, of good quality, color a beautiful reddish purple, slightly mottled. Ripens last of August. Its attractive appearance commands for it the highest market price. Tree hardy, vigorous, and intensely productive. First of September.
- ✓ **Quackenboss**—A popular Hudson river variety: large, deep purple; flesh greenish yellow, juicy and sweet, with a sprightly flavor; good. September.
- ✓ **Shropshire Damson**—(or Prune Damson)—An English variety of great merit for preserving. Large, and much more desirable than the common Damson. Tree vigorous grower, very free from attacks of curculio; hardy, and an abundant bearer. October.

- Shipper's Pride**—Originated in the State of New York near Lake Ontario. An unusually thrifty grower, and stands our coldest Winters without injury. Very productive, the original tree having never failed to produce a good crop since it was old enough to bear. Fruit of large size and nearly round; color handsome dark purple; quality fine, juicy and sweet; excellent for canning and an unusually good shipper. Ripens from first to middle of September; a splendid market plum.
- Smith's Orleans**—Very large; reddish purple; flesh yellow, firm and juicy, with a rich, brisk, vinous flavor. Grows well and bears abundantly; very fine. Last of August.
- Stanton**—Fruit medium size; color dark purple, with a beautiful bloom; very productive; ripens from September 15th to October 1st, and has been kept two weeks after ripening with no tendency to decay; as a fine canning fruit it has no superior, and has fine quality as a table fruit.
- Warner's Late**—(Middleburgh)—Fruit large; skin red, with a blue bloom; very fine grained; free, vigorous, and productive, and said never to be troubled with black knot. Ripens in October after all others are out of the market.
- Washington**—(Bolmar's Washington)—All things considered, this is one of the finest and most popular Plums. Fruit very large, roundish oval; skin yellow, with a slight crimson blush in well ripened specimens; flesh very sweet and luscious. Tree vigorous, with broad, handsome foliage; very productive. Last of August.
- Wild Goose**—A good variety of the Chickasaw; medium; roundish; oblong; reddish yellow; valuable and profitable at the South and Southwest, where the European plum will not succeed. Tree a *free* grower.
- Yellow Egg**—(Magnum Bonum Yellow)—Very large and beautiful; yellow: a little coarse but excellent for cooking; vigorous and productive. August.
- Yellow Gage**—(Prince's Yellow Gage)—Fruit large, oval; skin golden yellow; flesh deep yellow, rich, sugary and melting. Tree very vigorous and productive. Middle of August.

JAPAN PLUMS.

These very interesting plums of recent introduction are now attracting a great deal of attention, as some of them promise to be of very great value on account of their vigorous growth, hardiness, early bearing, great productiveness, comparative freedom from disease and the attacks of insects, and the beauty and good quality of the fruit. They should be very generally tried. Prof. L. H. Bailey of Cornell University says of them: "They are the most promising of all fruits of recent introduction." Botan is the name of one class of these plums. The following are some of the best known varieties:

- Abundance**—(Botan)—Lemon Yellow ground, nearly overspread with bright cherry and with a heavy bloom: large to very large: oblong, flesh orange yellow, melting, rich, and highly perfumed. Abundant and yearly bearer. August.
- Burbank**—Large; nearly globular, clear cherry red with a thin lilac bloom; flesh a deep yellow, very sweet, with a peculiar and very agreeable flavor. The tree is a vigorous grower, usually begins to bloom second year after transplanting. Very promising. August.
- Kelsey**—Large, heart-shaped, rich yellow, nearly overspread with light red; flesh firm and melting, with remarkably small pit. Tree not quite as hardy as the peach. Last of August.
- Ogon**—Large, nearly round; light golden yellow, with faint bloom: flesh firm, sweet, rich and dry. Tree vigorous and hardy. First of August.
- Prunus Simoni**—(Apricot Plum)—A distinct species from China. Growth erect, flowers small, white, appearing early in Spring; fruit large, flattened, of the size and appearance of a Nectarine, and of a brick-red color; flesh yellow, with a peculiar aromatic flavor.
- Satsuma**—Large; color purple and red with blue bloom; flesh firm, juicy, dark red or blood color, fine quality; pit very small. Hardy and vigorous grower. August.

SELECT PEACHES.

The ease with which Peach trees may be cultivated, their comparative freedom from disease, the short period before they become productive, with the immense demand for the fruit and the facility with which it may be shipped to distant markets, make peach growing extremely profitable.

To secure healthy, vigorous and fruitful trees, the ground must be kept clean and mellow, and it should receive an occasional dressing of wood ashes. It should be remembered that peaches are all borne on wood of the previous season's growth, and that this makes it absolutely necessary to prune the trees yearly, to remove dead branches and let in light and air, and keep the trees in good shape to produce bearing wood.

✓ **Alexander**—Originated near Mt. Pulaski, Ills. Medium size; skin greenish white, nearly covered with rich red; flesh melting, juicy, sweet; tree vigorous and productive; ripens two weeks earlier than Hale's Early.

✓ **Amsden**—Originated at Carthage, Mo., in 1882. Medium size; skin greenish white, nearly covered with purple in the sun; ripens with the Alexander and closely resembles that variety, but some think it a little higher flavored.

Amelia—A very large and handsome freestone peach, white, nearly covered with crimson. Small stone, white flesh, juicy, with sweet, rich and vinous flavor. One of the best and most desirable for home consumption, but too tender for long transportation. Ripens with Crawford's Early, or just before.

Barnard's Early (Yellow Alberge)—Medium to large: yellow, cheek purplish red, flesh yellow, red at the stone, juicy, sweet and rich. One of the very best yellow fleshed peaches. First to middle of September.

✓ **Champion**—Originated at Nokomis, Ill. Has been carefully tested for a series of years. It first attracted attention by the regularity of its bearing in a region not adapted to peach culture, a quality which alone would place it in the front rank of profitable orchard varieties. The crowning event in its history was the production of a full crop in 1890, when the peach crop was a universal failure. During the winter of 1887-8 the Champion withstood a temperature of 18 degrees below zero, and produced an abundant crop the following season. Many specimens have measured ten inches in circumference. The flavor is delicious, sweet, rich and juicy, surpassing all other early varieties; skin creamy white with red cheek; strikingly handsome. It ripens at Nokomis about August 5th. It is hardy, productive, early, the largest size, highest flavored and best shipper of the early peaches, and the only perfect freestone.

✓ **Crawford's Early**—A magnificent large yellow peach of good quality. Tree vigorous and very productive. Its fine size, beauty and productiveness make it one of the most popular sorts; no other variety has been so extensively planted. First of September.

✓ **Crawford's Late**—Fruit of large size; skin yellow, or greenish yellow, with dull red cheek; flesh yellow; tree vigorous, moderately productive; one of the finest late sorts. Last of September.

✓ **Crosby**—Claimed to be the hardest of all. Has fruited for 10 years in Northern Massachusetts and New Hampshire where standard varieties have in same time borne only two or three crops. Highly recommended by J. H. Hale, the Connecticut peach grower. Worthy of trial in all sections. If it sustains its reputation for hardiness will prove a very important addition to our Peach list. Medium size, color bright yellow with crimson splashes; flesh bright yellow, red at the stone, free, juicy, mild sub-acid, good quality; ripens before Late Crawford.

✓ **Conkling**—A new, large, beautiful golden yellow peach; marbled with crimson; succeeds the Crawford's Early; of fine quality; very handsome.

✓ **Downing**—Of good size; a deep red color; as early, and better than Amsden. Tree a vigorous, compact grower. Very desirable.

ELBERTA PEACHES

- ✓ **Early Canada**—Originated at Jordan, Canada. As early as the earliest. Of good size, of firm quality, and handsome appearance. Its earliness, origin, and the fact that the flesh cleaves from the stone almost as freely as with the later varieties, creates an unusual demand for trees of this variety.
- ✓ **Early Rivers**—Large; color creamy white; with a delicate pink cheek; flesh melting, with a remarkably rich, racy flavor. Larger and ten days later than Alexander. One of the finest of all peaches for home use or near-by market.
- Early York** (Serrated Early York, Early Purple)—Medium size; greenish white, covered in the sun with dull red; flesh greenish white, very tender.
- Elberta**—Supposed to be a seedling of Chinese cling but is entirely free. Very large, yellow with red cheek; flesh yellow, firm, juicy, of high quality; exceedingly prolific, sure bearer and hardy. Thousands of acres have been planted in the South, where it is regarded as the *best* market variety. It is proving to be equally as valuable in the North, is highly recommended by G. H. Hale, the Connecticut peach grower. It is rapidly becoming popular and promises to be the best general peach for all sections. Follows Early Crawford.
- ✓ **Foster**—Originated near Boston, Mass. Large; deep orange red, becoming very dark red on the sunny side; flesh yellow, very rich and juicy, with sub-acid flavor. Ripens with Early Crawford. Very handsome.
- Garfield, or Brigdon**—A new peach; originated in Cayuga Co., N. Y. Flesh yellow, very rich and juicy; color deep orange red. Middle of September.
- Globe**—A rapid, vigorous grower, and an enormous bearer; fruit very large, globular in form; flesh firm, juicy, yellow, shaded with reddish crimson towards the pit or stone; quality good; very rich and luscious. September and October.
- Hance's Golden**—This is without doubt one of the most valuable yellow fleshed peaches. Large, round, rich golden yellow, almost covered with deep crimson; flesh firm, yellow, juicy, rich, and of the highest quality; pit very small. Tree a strong grower, hardy and an annual bearer of immense crops of beautiful fair fruit. One of the best and most profitable for market. Ripens just after Crawford's Early.
- ✓ **Hale's Early**—Medium size; greenish white, with red cheek: first quality. Tree healthy, good grower and productive.
- Hill's Chili**—Tree very hardy, slow grower, great bearer, excellent; late.
- Honest John**—Medium to large; yellow; flesh yellow, of good quality. Tree vigorous and productive. First of September.
- Jacques' Rareripe**—Very large, deep yellow; has a high reputation. Last of August.
- ✓ **Large Early York**—Large, white, with red cheek: fine grained, very juicy, rich and delicious; vigorous and productive; one of the best. Last of August.
- ✓ **Lord Palmerston**—Originated with the celebrated nurseryman, Thomas Rivers, of England. Fruit very large, skin whitish, with a pink cheek; flesh firm, melting, rich and sweet. Last of September.
- May's Choice**—New; a large and beautiful yellow Peach of the highest quality, ripening immediately after the Early Crawford; in size and form closely resembling that variety, but superior to it in richness of color and high vinous flavor; tree a good bearer; very desirable. Last of August.
- Mountain Rose**—Large; red; flesh white, juicy, rich and excellent; one of the best early Peaches, ripening with Troth's Early, and much larger and finer than that variety. Should be in every collection. First of August.
- Morris White**—Medium; straw color, tinged with red; juicy and delicious: productive. Middle of September.
- Old Mixon Cling**—Large; pale yellow, with red cheek; juicy, rich and high flavored; one of the best clingstone peaches. Last of September.
- Old Mixon Free**—Large; pale yellow, with a deep red cheek; tender, rich and good; one of the best. First to middle of September.

- Red Cheek Melocoton**—A famous, old, well-known and popular variety; large, oval; yellow, with a red cheek, flesh yellow, juicy, rich and vinous. Tree very hardy and productive; valuable for the orchard. Succeeds Crawford's Late.
- Salway**—Fruit large, roundish; deep yellow, with a rich, marbled, brownish red cheek; flesh yellow, firm, juicy, rich and sugary. Promises highly as a late showy market sort.
- Smock Freestone**—Large size; light orange yellow, with red cheek; flesh yellow, juicy, rich, and free from the stone. Ripens in October.
- Stevens' Rareripe**—New and said to be producing remarkable crops in the vicinity of the Hudson river, which are sold at very high rates; fruit resembles our enlarged Old Mixon Free, being of a very high color and very beautiful. Very productive and free from disease. Commences to ripen immediately after Late Crawford, and continues three or four weeks. Last of September and first of October.
- Steadley**—Large, round, of a greenish white color, flesh white to the stone, and of a delicious flavor: freestone, very hardy. First of October.
- Stump the World**—Very large, roundish; skin white, with a bright red cheek; flesh white, juicy and good. End of September.
- Troth's Early**—A very early and excellent peach, of medium size; whitish, with a fine red cheek; flesh juicy, sweet and very good; one of the most popular and profitable varieties for early marketing. Middle of July.
- Wager**—Large; yellow, more or less colored in the sun; juicy and of a fair flavor. While the highest quality cannot be claimed for this fruit, the trees have such remarkable vigor and vitality that they not only produce fruit in great quantities, but produce it with a degree of certainty and regularity which is quite unusual. These facts commend it to all planters for market, canning and drying purposes. Last of August.
- Waterloo**—Originated at Waterloo, N. Y. Of Medium to large size; color whitish green, marbled with red, deepening into dark purple crimson in the sun; flesh greenish white, with an abundance of sweet, vinous juice, adheres some to the stone, like Amsden, Hale's Early, etc. Ripens about with Alexander. For so early a peach it is a remarkable keeper, ripe specimens having been kept in perfect condition for nearly a week. This makes it valuable for shipping.
- Wheatland**—Originated with D. S. Rogers, near Rochester, N. Y. Mr. R., who has large orchards, including the leading sorts thinks this the finest of all. Fruit large; color golden yellow, with crimson tint; flesh firm and of fine quality. Ripens between Crawfords Early and Late;
- Wonderful**—Large, color rich golden yellow, largely overspread with vivid carmine. Flesh yellow, rich, high flavored and delicious, exceedingly firm. Bright red at the pit. Its large, fine, strong appearance and delicious flavor, with its ripening so late, make it one of the most valuable peaches of recent introduction. October.
- Yellow Rareripe**—Large: deep yellow, dotted with red; melting, juicy, with a rich flavor. Ripens one week later than Crawford's Early. Closely resembles Jacques' Rareripe.

SELECT APRICOTS.

A delicious fruit of the plum series, valuable for its earliness. It is liable to be attacked by curculio, and requires the same treatment as the plum; it bears immense crops, ripening in July and August.

- Breda**—Small; dull orange, marked with red; juicy, rich and vinous; productive and hardy. First of August.
- Early Golden (Dubois)**—Small; pale orange; juicy and sweet; hardy and productive. First of July.

✓ **Moorpark**—One of the largest; orange, with a red cheek; firm, juicy, with a rich flavor; very productive. August.

✓ **Peach**—Very large; orange, with a dark cheek; juicy and high flavored.

RUSSIAN APRICOTS.

These are quite distinct from other European varieties. Their leading characteristics are extreme hardiness, early bearing, productiveness, and freedom from disease. The following are the best that have been thoroughly tested:

✓ **Alexander**—Very hardy; an immense bearer: fruit large, yellow, flecked with red; very beautiful, sweet and delicious. July.

✓ **Alexis**—Very hardy, an abundant bearer; yellow, with red cheek, large to very large, slightly acid, rich and luscious. July.

Catherine—Very hardy, vigorous and productive; medium sized, yellow, mild, sub-acid, good. July.

Gibb—Tree hardy, grows symmetrical, productive: fruit medium, yellowish, sub-acid, juicy and rich; the best early variety, ripening soon after strawberries. A great acquisition. Last of June.

✓ **J. L. Budd**—Tree a strong grower and profuse bearer: fruit large, white with red cheek; sweet, juicy, with a sweet kernel, as fine flavored as an almond; the best late variety, and a decided acquisition. August.

✓ **Nicholas**—Tree hardy and prolific; fruit medium to large, white, sweet and melting. A handsome and valuable variety. July.

NECTARINES.

This is a delicious, smooth-skin, red fruit, much resembling the peach, of which it is only a distinct variety. It is subject to the attacks of the *Curculio*, and the same treatment is recommended as is necessary to secure the plum in perfection. They are budded on the peach stock, and sold at the age of one year, being then from three to four feet in height.

✓ **Boston**—Large size; bright yellow, with red cheek; flesh sweet and pleasant; a freestone variety. August.

✓ **Downton**—Large; greenish white, with a dark red cheek; flesh greenish white, rich and high flavored: one of the best. Freestone.

✓ **Early Violet** (*Violet Hative*)—Medium size; yellowish green, with a purple cheek flesh pale green; melting, rich and highly flavored: freestone. Last of August.

✓ **Victoria**—Very large; the finest of all the English varieties.

QUINCES.

The Quince is generally well known and highly esteemed for cooking and preserving. It thrives best in a deep, rich soil, and is benefited by a clean, high cultivation. It is said to be improved by the application of salt in small quantities. The Quince is usually sold at the age of two or three years, and is from three to four feet in height.

VALUE FOR MARKET.

The fruit is very profitable, as it requires but little space, and is very productive. Planted at ten feet apart each way, we have 430 trees per acre. A low estimate of the yield of an acre of Quinces would be 200 to 250 bushels, which at a very low price would bring more than \$500.

- ✓ **Apple or Orange**—Large; bright golden yellow. One of the best and most desirable quinces in cultivation.
- ✓ **Champion**—Fruit very large, fair and handsome. Tree very productive, surpassing any other variety in this respect; bears abundantly while young; flesh cooks as tender as the apple, and without hard spots or cores.
- ✓ **Meech's Prolific**—A valuable new quince, remarkable for its early and regular bearing and great productiveness. The fruit is of good size and form, and beautiful color; it is shaped like a handsome pear, with smooth, fine skin, of a bright orange yellow; flesh very fragrant, delicious and tender. Unsurpassed for cooking.
- ✓ **Rea's** (Rea's Mammoth)—We consider this the *best of all the quinces*. The largest and in every respect the finest variety of the quince. A strong grower and very productive.

SELECT GRAPES.

The Grape is the most healthful of all fruits, and the most highly esteemed for its many uses. It can be grown by everyone who has a garden, a yard or a wall. It can be confined to a stake, bound to a trellis, trained over an arbor, or extended until it covers a large tree or building, and still it yields its graceful bunches, and luscious, blooming clusters. Capable of most extraordinary results under wise management, it is prone also to give the greatest disappointment under bad culture or neglect. Other fruits may be had from plants that know no care; but grapes are to be had only through attention and forethought. We will endeavor to point out a few essential points in its successful culture, and refer the cultivator to other and more extended works for more details.

Soils.—Good grapes are grown on various soils, sandy, clayey, loamy, etc. The soil must be well drained, and there should be a free exposure to the sun and air. Hillsides unsuitable for other crops are good places for grapes.

Crops.—Crop grapes moderately, if you would have fine, well ripened fruit. A vine is capable of bringing only a certain amount of fruit to perfection, proportioned to its size and strength; but it usually sets more fruit than it can mature; reduce the crop *early in the season* to a moderate number of good clusters and cut off all the small, inferior bunches; the remainder will be worth much more than the whole would have been. A *very heavy crop* is usually a disastrous one.

Pruning.—Annual and careful pruning is essential to the production of good grapes. If the roots are called upon to support too much wood, they cannot bring to maturity a fine crop of fruit. The pruning should be done in November, December, February or March, while the vines are entirely dormant.

Training Vines.—There are many methods of training grape vines, but as trellises are more generally employed, we will confine our suggestions to a description of the trellis method. To construct a trellis, take posts of oak, cedar or chestnut, 8 to 10 feet long; set them 3 feet in the ground and about 12 feet apart. Stretch No. 9 galvanized wire tightly along the posts, and fasten them to each. Let the first wire be 18 inches from the ground, and the distance between the wires about 12 inches. Wooden slats about 1 by 2 inches may be substituted for wires. Trellises should be at least 10 feet apart: a greater distance is preferable. Set the vines about 20 feet apart. Prune the vines to two canes each

for two years after they are planted. In February or March these canes should be cut back to 5 or 6 feet each, and tied along the lower wire or slat of the trellis, horizontally.

FRUITED GRAPE VINE.

When the growth commences in spring, the young shoots must be reduced by disbudding, so that they may stand about a foot apart on the cane, selecting, of course, strong, healthy shoots: as they grow they are tied up to the second, third and fourth wire or slats, and all superfluous ones removed, as well as the young *laterals* which will appear on various vines: but the fruit-bearing shoots are allowed to extend themselves at will until September, when they may be pinched off at the end to assist the ripening of the wood. The vine in the autumn, with the fruit on, will present the appearance of the above cut, and before pruning in the autumn, after the leaves are off, the following appearance. The next pruning, which may be done in November or December, if it is desirable to lay the vines down and cover them over for the winter, or in February or March, if not laid down, consists in cutting back all the young wood of the previous year's growth (except such shoots as may be required to extend the horizontal arms) to within one or two good buds of the bearing canes on the lower wire, giving the vine the appearance of the following cut:

BEARING VINE BEFORE PRUNING.

PRUNED VINE.

Each season thereafter the vines are to be treated in the same manner, cutting back every year to the *lower* wire or slat, extending the vine only in a horizontal direction, thinning vines in the row by digging up every other plant if necessary: but never growing any grapes above the second wire, and renewing the bearing canes by new shoots from the stump when required.

Gathering and Keeping.—Grapes for keeping to be used in their fresh state should be allowed to remain upon the vines until perfectly matured, but not much longer. Pick them when perfectly dry. Let them stand in open baskets or boxes for about ten days, in a cool, dry room: and after sorting out all decayed or imperfect berries, pack them in shallow boxes and cover closely. Use no paper, but basswood or elm boxes, if convenient. Pine and other resinous woods should not be used, as they flavor the fruits disagreeably. After packing, keep the boxes where it is both cool and dry. Under careful management some varieties may be kept until spring.

CLASS I.—BLACK GRAPES.

- ✓ **Barry** (Rogers' No. 43)—Bunch large but rather short; berries large, roundish, much like Black Hamburg; delicate, sweet and tender. Ripens with Concord. Vine vigorous and productive. One of the largest and finest of Rogers' Hybrids.
- ✓ **Champion**—A large grape of medium quality; a strong grower and very hardy; the earliest of all; succeeds in all sections, and this makes it a valuable market grape.
- ✓ **Clinton**—Bunches small and very compact; berries small with sprightly flavor; when thoroughly ripe it is a good table grape, and keeps well.
- ✓ **Colerain**—A seedling of Concord. It has been carefully tested in various parts of the country, and so far the verdict is "there is none better." Color green, with delicate white bloom; flesh very juicy and remarkably sweet, fairly vinous; one small seed to the berry as a rule. Ripens with or a little before Moore's Early, and hangs on the vine until frost without dropping berries from the bunch. Wherever tested it has proven free from rot and mildew; a vigorous grower, abundant bearer and perfectly hardy.
- ✓ **Concord**—A large, handsome grape, ripening a week or two earlier than Isabella; very hardy and productive. Succeeds over a large extent of country, and although not of the highest quality, is one of the most popular market grapes.
- ✓ **Downing**—Vine very vigorous, very productive, short jointed; leaves medium sized, lobed, coarsely serrated, thick, and overlap; bunch very large (ten to twelve inches long), compact shouldered; berry large to very large, oval or roundish oval, black, with grayish bloom; flesh firm; meaty, tender, sweet, rather rich; very good. A promising market grape. Ripe September 10th to 20th.
- ✓ **Eaton**—Leaf large, thick, leathery, covered on the underside with a thick, brownish-yellow down. Bunch very large, weighing 12 to 25 ounces; compact, often double shouldered; berries very large, many one inch in diameter, round, black, covered with a heavy blue bloom; adheres firmly to stem. Seeds large, from one to four; skin thin, but tough, with no bad taste when eaten close; pulp quite large, tender, dissolving easily in the mouth. Very juicy, as good or better quality than the Concord, with much less of the native odor. Ripens with Concord or a little earlier.
- ✓ **Early Ohio**—A new early black grape, and one of the most promising varieties of recent production. The berry is black, slightly smaller than the Concord, firm in texture, of spicy, pleasant flavor, hanging very firmly to the stem. The vine is a thrifty, strong and rapid grower; very productive; ten days earlier than the Moore's Early and two weeks earlier than the Concord. Valuable for its *extreme earliness, hardiness and productiveness*.
- ✓ **Early Victor**—This new extra early grape of Kansas origin, is gaining a good reputation throughout the entire country. In bunch and berry it is rather below the average, but ripens very early, and what is of special importance, it is very pure in flavor with very little pulp, and without a trace of foxiness or other unpleasant taste, while it is exceptionally sweet, sprightly and vinous, never cracks, and adheres firmly to the bunch. Vine as hardy as the Concord and one of the few that resists mildew perfectly. Color black with a fine bloom. Last of August.
- ✓ **Eumelan**—A native black grape. Bunches above medium, very handsome, double shouldered and moderately compact; berries round or slightly oval; in size medium, in color black. Its flesh is tender to the very center; its flavor rich, vinous and sprightly. Ripens early.
- ✓ **Hartford Prolific**—Bunches rather large; berries large, globular; color almost black, covered with a beautiful bloom; of fair quality; ripens three weeks before the Isabella; valuable for its abundant bearing and early maturity.
- ✓ **Herbert** (Rogers' No. 44)—Bunch rather long but compact; berry large; tender, sweet and rich; early and productive. A handsome variety, and one of the best of the Rogers' in quality.

EATON GRAPE.

- ✓ **Ive's Seedling**—Hardy, productive, with a tough acid center. Valuable at the south.
- ✓ **Isabella**—An old, standard sort, highly prized where it will thoroughly mature. Bunches long, large, loose; berries large, oval, sweet and musky; a good keeper.
- ✓ **Merrimac** (Rogers' 19)—Bunch medium to large; berry large, sweet and rich; vigorous and productive; one of the earliest and best of the Rogers' sorts.
- ✓ **Mills**—This variety was raised by Mr. William H. Mills, of Hamilton, Ont., by crossing Muscat Hamburg with Creveling. Bunch very large, compact, shouldered, some clusters weighing over twelve ounces. Berry large, round, jet black, covered with a thick bloom; flesh firm, meaty, juicy, breaking with a rich, sprightly flavor. Skin thick; berries adhere firmly to the peduncle. Vine vigorous and productive; foliage large and healthy. Ripens about with the Concord, or a little later, and is a long keeper.
- ✓ **Moore's Early**—Raised from seed by John B. Moore, Concord, Mass., in 1872. Bunch large; berry round (as large as the Wilder or Rogers' No. 4); color black, with a heavy blue bloom; quality better than the Concord; vine exceedingly hardy; has never been covered in winter, and has been exposed to a temperature of more than twenty degrees below zero, without injury, and it has been entirely exempt from mildew or disease. Its earliness makes it desirable for an early crop, and more particularly adapts it to New England and the northern portion of the United States, maturing as it does ten days before the Hartford, and twenty before the Concord.
- ✓ **Wilder** (Rogers' No. 4)—Bunch very large, compact, shouldered; berry large, round, black; flesh tender, slight pulp at center, juicy, sweet. Ripens about with Concord. Vine vigorous, hardy and a good bearer. Regarded as one of the best of the black varieties, and on account of its size and beauty is very valuable for market.
- ✓ **Worden**—Said to be a seedling of the Concord. Bunch, large, compact, handsome; berries large—larger than those of the Concord. It ripens a few days earlier, and is superior to it in flavor. Destined to become very popular for the vineyard and garden.

CLASS II.—RED OR PURPLISH GRAPES.

- ✓ **Agawam** (Rogers' No. 15)—Bunches large, generally loose; berries large, round; color dark red or maroon; flesh quite tender, juicy, vinous, with a peculiar flavor, much admired by some; vine vigorous and productive. Like the others of Mr Rogers' Hybrids, this variety is liable to mildew in cold, damp locations, and is not suited to the extreme north.
- ✓ **Amber Queen**—A new and promising variety, which originated in Massachusetts. Bunch and berry of medium size; color light amber; flesh tender to the center; juicy, sprightly and delicious. Larger than and as early as Delaware.
- ✓ **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 hardness of vine, large compact bunches, rich wine shade of the ripened berry, delicate skin, tender, almost seedless pulp, sugary juice and rich flavor, are combined 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 hardness, and is enabled to endure the winter in extreme localities. We commend this sort especially as a standard variety for the vineyard or garden. *See next page.*
- ✓ **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; requires the most favorable soils and situations, good culture and warm seasons, to mature in Western New York.

BRIGHTON GRAPES.

- ✓ **Delaware**—Still 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. Vine moderately vigorous, hardy and productive. Ripens two weeks before the Isabella.
- ✓ **Diana**—About the same size and color as the Catawba, of which it is supposed to be a seedling; a beautiful and delicious grape; ripens about the same time as the Isabella. Vine remarkably vigorous; rather a shy bearer while young.
- ✓ **Gaertner** (Rogers' No. 14)—Bunch large; berry very large, round; skin thick, color a beautiful light red, with bloom; fruit almost transparent; pulp tender, sweet, pleasant, rich. The most showy grape in our collection. Vine vigorous and productive. Desirable either for the garden or vineyard.
- ✓ **Iona**—Bunch medium to large, shouldered; flesh soft, tender, juicy, brisk subacid, highly flavored, sprightly and refreshing; keeps till mid-winter with its freshness unimpaired. In this locality one of the finest table grapes. A little earlier than Catawba. Should be in every garden where the climate admits of its being ripened. It must not be allowed to overbear.
- ✓ **Jefferson**—Produced by a cross of the Concord and Iona, by J. H. Ricketts, Newburgh, N. Y. Bunch large, shouldered, often double shouldered, compact; berry medium to large, roundish, oval; skin rather thick, light red, with a thin lilac bloom; fleshy meaty, yet tender, juicy, sweet, slightly vinous, aromatic and rich. A handsome, excellent grape where the season is long enough for it to mature.
- ✓ **Lindley** (Rogers' No. 9)—Bunch medium, somewhat loose; berry medium to large; round; color a rich shade of red, rendering it a very handsome and attractive grape; flesh tender, sweet, with a rich aromatic flavor; ripens soon after the Delaware; vine vigorous and productive. It sometimes fails to set a full crop. We regard it as one of the best red grapes in our collection.
- ✓ **Massasoit** (Rogers' No. 3)—Bunch medium, rather loose, as the fruit does not always set well; berry medium; brownish red; flesh tender and sweet; very good; one of the best flavored of the Rogers'. Early as Hartford. A desirable garden variety.
- ✓ **Moyer**—Originated in Canada, and seems to be a cross between the Delaware and some purely native variety. In habit of growth, hardiness, quality and size of cluster it resembles the Delaware very much, but it ripens with the very earliest, has larger berries, and so far has been free from rot and mildew. It has stood, unprotected, 35 degrees below zero without injury. Very sweet as soon as colored; skin tough, but thin; pulp tender, juicy, of delicious flavor and entirely free from foxiness. Imagine a Delaware free from rot and mildew, and early as Champion, and you will have a fair idea of this most valuable new variety.
- ✓ **Norfolk**—A new variety of great vigor and hardiness, originating in Massachusetts. It resembles the Catawba so closely in color and flavor that a committee of the Massachusetts Horticultural Society visited the grounds of the originator; only to find that while the Norfolk was thoroughly ripe, the Catawba was hard and green. The sprightly flavor of the Catawba in a hardy early grape would indeed be an acquisition. Subject to mildew.
- ✓ **Poughkeepsie Red**—A seedling grape, raised by A. J. Caywood; claimed to be a cross of Iona and Delaware with Walter; somewhat larger than Delaware, but resembling it in general appearance. It is fully equal to the Delaware in quality, ripens early and keeps well. So far as tested, much like the Delaware vine in habit of growth.
- ✓ **Salem** (No. 52)—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 the Delaware, having never failed to ripen in the most unfavorable season for the past six years; keeps well.

GREEN MOUNTAIN GRAPE.

Ulster Prolific—A native seedling, grown by A. J. Caywood. A red Grape of good quality, healthy growth and great productiveness. Will probably be found valuable for general use as it seems to have the characteristics of our hardy and healthy native varieties. September.

Vergennes—This is a chance seedling found in the garden of Mr. William E. Green, Vergennes, Vt. Foliage downy and free from mildew; very productive; clusters large, berries large, holding firmly to the stems; color light amber, flavor rich and delicious, flesh meaty and tender. Ripens as early as Hartford Prolific, and is an excellent late keeper.

Wyoming Red—An extra early red grape, resembling the Delaware in appearance, but double its size and ten days earlier. Bunch small, compact and handsome; berry medium, bright red; skin thin and firm, flesh sweet, a little foxy, but not enough to be objectionable. Much in demand as an early profitable grape.

CLASS III.—WHITE GRAPES.

Diamond—A white grape recently introduced, and undoubtedly very valuable. A cross between Concord and Iona. A vigorous grower, with leaf resembling Concord, very free from mildew. Bunch large, well filled, moderately compact, berry about the size of Concord; flesh melting and juicy, sweet to the center, and free from foxiness; skin thin, but sufficiently tough to bear packing and handling well. Ripens about with Delaware. Very productive.

Eldorado (Ricketts)—A white grape of most exquisite quality and exceedingly high flavor, resembling pine apple: has little or no pulp, and is sweet, rich and good. The vine is a strong grower, healthy and hardy, and ripens its fruit very early.

Empire State—The Empire State is a seedling of the Hartford Prolific, fertilized with the Clinton. A good grower and fruiter in every respect. Bunches large, from six to ten inches long, shouldered; berry medium size, roundish oval; color white with very light tinge of yellow, covered with a thick white bloom; leaf thick, smooth underside; flesh tender, juicy, rich, sweet and sprightly, continuing a long time in use; vine hardy.

Green Mountain—New. Found growing in a garden on the side of the Green Mountains in Vermont, at an altitude of 1,400 feet, where it ripened 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.

Jessica—A new white grape. The originator claims that it is hardy, early and productive, and of excellent quality. It is a native of Canada, and is meeting with great favor in that section. The color is at first a greenish yellow, but mellowing to a light amber; too small to be of value for market.

Lady—Said to be a seedling of the Concord. Bunch medium; berry medium to large; skin thin; color light greenish yellow, with white bloom; pulp tender, sweet and pleasant. Vine hardy and vigorous. A valuable early white grape. Ripens with Hartford Prolific.

Lady Washington—One of Mr. Rickett's seedlings. Bunch very large, compact, generally double shouldered; berry medium to large, round; color yellow, with a tinge of red on the sunny side, and covered with bloom; flesh soft, tender, juicy, sweet and good, not rich. Vine remarkably vigorous and productive, and the fruit is beautiful when in perfection. It ripens here after the Concord.

Martha—Bunches and berries of medium size, greenish white, with a thin bloom; flesh tender with very little pulp, juicy, sweet and rich. Vine vigorous, hardy and productive. Ripens about with the Concord.

Niagara—"This new white grape originated in Lockport, N. Y., in 1868, and is a cross between the Concord and Cassady: first fruiting in 1872. It has since regularly borne large crops of fine fruit. The vine is a remarkably

strong grower and very hardy: the leaves are thick and leathery, and dark, glossy green: bunches very large and uniform and very compact; berries large or larger than Concord, and skin thin but tough, which insures their shipping qualities: quality good, very little pulp, melting and sweet to the center; ripens before Concord."

Pocklington—Bunch medium to large; berry large, round, of a rich yellow color; flesh pulpy, juicy, and of good quality; ripens at the time of the Concord; vines vigorous, healthy, very hardy and productive. Though not of the highest quality, it is considered a very valuable and reliable variety, and is constantly growing in favor.

SELECT CURRANTS.

Ripe just before raspberries are gone, and continuing in prime order for several weeks, there is no more useful fruit than the currant, and it is among the easiest to cultivate.

Plant in rows four feet apart each way, if practicable. Light and air will do as much to enhance the value of currant bushes as with other plants. Keep the ground mellow, free from weeds, and in a good state of fertility, and prune freely every spring. Should the currant worm appear, dust a little white hellebore powder, from a small coarse bag, over the bushes when the leaves are damp. In some instances it may be necessary to repeat this process, but the trouble and expense of exterminating the worms is trifling, if the *powder is applied as soon as the worms appear*.

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

Black Naples—Very large; black, rich, tender, and excellent for jellies and wine; very productive.

Cherry—Very large; deep red; rather acid; bunches short. Plants erect, stout, vigorous and productive.

Fay's Prolific—Originated in Chautauqua Co., N. Y. A cross between Cherry and Victoria. Of large size, fine flavor, and claimed to be twice as prolific as the Cherry. Universally commended by those who have seen or had experience with it. A great acquisition. *See cut.*

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

Lee's Prolific Black—A new English variety. The fruit is large and of superior quality; the bush is a vigorous grower, and enormously productive, rendering it very profitable.

Moore's Ruby—Originated near Rochester, by Jacob Moore. Berries about the size of Victoria; bunches are long; bushes very productive; less acid than the Cherry.

Victoria—Large; bright red; bunches extremely long; berries medium size; good erect grower; very productive. Ripens late, making it one of the most valuable sorts.

White Grape—Very large; yellowish white; sweet or very mild acid; excellent quality and valuable for the table. The finest of the white sorts. Very distinct from White Dutch, having a low, spreading habit, and dark green foliage. Very productive.

FAY'S PROLIFIC CURRANT.

GOOSEBERRIES.

This fruit is so useful for cooking, when green or ripe, and it may be canned with such facility, that it is beginning to be cultivated very extensively for both home use and market.

It requires the same cultivation and treatment for worms as the currant.

The American varieties, though not so large as the English, are of fine quality and unlike the latter, are not subject to mildew.

Downing—Large size, oval, greenish-white; plant very vigorous and hardy, with stiff, strong shoots; foliage heavy, covering the fruit from the sun, and resisting mildew; bears most abundantly and is profitable for market and home use. The best of all the American varieties.

Houghton's Seedling—A vigorous American sort; very productive, free from mildew. Fruit medium, roundish, smooth, of a pale red color; tender, sweet, and of delicious flavor.

Smith's Improved (Smith's Seedling)—One of the largest American varieties of value; oval form; light green when ripe; sweet and excellent. Plant vigorous, healthy and hardy. Raised from seed by Dr. Smith, of Vermont.

AMERICAN SEEDLINGS OF THE ENGLISH TYPE.

Columbus—We take pleasure in now offering for the first time a new American seedling gooseberry of the English type. It is of large size, oval in form; skin greenish yellow, smooth; of fine quality. Plant a strong, robust grower, with large spikes or thorns. Foliage large and glossy. Has never shown a trace of mildew. We confidently recommend it as one of the best of its class.

Golden Prolific—An American seedling of the English type. Perfectly hardy, a good grower and exceptionally free from mildew. Its foliage is a dark glaucous green; wood in the young state extremely spiny, being very distinct in this respect. Fruit large, deep, golden yellow, making it decidedly handsome and attractive; quality excellent; a heavy fruiter.

Triumph—An American seedling of the English type. Large golden yellow; hardy and an immense bearer. Very promising.

ENGLISH VARIETIES.

There are very few of these that succeed here on account of their liability to mildew. The following varieties are believed to be exempt from this drawback, and we therefore offer them, believing that they will meet every requirement.

Crown Bob—Large, roundish oval, red, hairy; of first quality.

Industry—Large; oval; dark red, hairy; rich and agreeable. Although this is a foreign variety it has succeeded admirably on our grounds, where it has fruited extensively for several years. We can confidently recommend it, both for the garden of the amateur and the market plantation. The plant is remarkably vigorous and productive, and the fruit large, beautiful and of excellent quality. Where shoots are left long, they fruit to the very tips. We regard it as, on the whole, the best foreign gooseberry ever introduced.

Whitesmith—Large, roundish oval, yellowish white, slightly downy; of first quality.

SELECT RASPBERRIES.

Coming immediately after strawberries, when there is a dearth of other fresh fruits, Raspberries are equally desirable for planting in the garden for home use, and in the field for market. They are easily cultivated. Beds seldom require renewing. Their season of ripening is long. The fruit bears transportation well, and aside from the demand for it for immediate consumption, it brings highly remunerative prices for drying and canning.

Plant in good soil, and manure from time to time freely. The hills should be not less than four feet apart each way; with two or three plants in a hill. Cut out the old and weak shoots each year, preserving not over six for fruiting. If the location is so much exposed that the plants are inclined to kill down seriously, they may be bent over in the fall, on mounds of earth formed at one side of the hills and covered sufficiently to keep them down until spring. Surplus suckers take strength from the bearing plants. They should be cut away or hoed up frequently.

CLASS I—Red and Yellow Varieties.

- ✓ **Brandywine** (Susqueco)—Large: bright red: very firm. Valuable for market on account of its fine shipping qualities.
- ✓ **Caroline**—A seedling from Brinckle's Orange, combining the peculiarly melting and luscious flavor of that variety, with canes of great vigor, entire hardiness, and extreme productiveness. Color, pale salmon; berries large and of fine quality.
- ✓ **Clarke**—Large; light red: moderately firm: high flavored. A strong grower, productive and very hardy. One of the very best for home use.
- ✓ **Cuthbert** (Queen of the Market)—Large, conical; deep, rich crimson: firm, of excellent quality. A vigorous grower, entirely hardy, and immensely productive. "I regard it as the best raspberry for general culture."—Chas. Downing. "Now regarded by careful and experienced horticulturists as the best raspberry in existence for general cultivation. I have it in a specimen bed with twenty-five other kinds, and it surpasses all others."—E. P. Roe.
- ✓ **Golden Queen**—This variety is a seedling of the Cuthbert, but the color of the fruit is a *rich golden yellow*. The flavor is of the highest quality, pronounced by some superior to the old Brinckle's Orange. The finest flavored of all the raspberries. In size equal to Cuthbert; immensely productive; a very strong grower and hardy enough even for extreme northern latitudes, having stood uninjured when even the Cuthbert suffered. The desire for a yellow raspberry of high quality, combined with vigorous growth and perfect hardiness, is believed to be fully met in this variety.
- ✓ **Hansell**—Medium to large, bright crimson, firm; flavor fine; canes vigorous, hardy and productive; earliest of all.
- ✓ **Herstine**—Fruit large, oblong, crimson, moderately firm, juicy; flavor sub-acid and very good; an abundant bearer; season early to medium; *one of the best*.
- ✓ **Marlboro**—Large size, light crimson color; good quality and firm. Plant vigorous and productive. The first berries ripen quite early, but the entire crop covers a period of four or five weeks in ripening.
- ✓ **Reliance**—Large, roundish, dark red; firm, with a pleasant, sprightly acid flavor; hardy, vigorous and very productive; may be described as an improved Philadelphia. A valuable sort.
- ✓ **Shaffer's Colossal**—Fruit large, purple, soft, with a sprightly sub-acid flavor; plant very vigorous, hardy and productive. Much esteemed in some localities. Season medium to late.

Superlative (new)—Large, conical, handsome; dull red; six good specimens will weigh an ounce; flavor very fine; *par excellence* a dessert kind. Canes stout, supporting themselves; a very heavy cropper. We take great pleasure in recommending this splendid novelty, believing it to be a great advance on all existing sorts in this class. Hardy here.

CLASS II.--Black Caps.

Davison's Thornless—Similar in appearance and quality to the common black cap, but much earlier and nearly thornless, which is alone sufficient to make it very desirable.

Doolittle (Doolittle's Black Cap)—This is an improved variety of the common *Black Cap*, of medium size, dark purplish black, with pleasant sub-acid flavor; much esteemed for cooking; entirely hardy.

Gregg—Of great size; fine quality; very productive and hardy. It takes the same position among black caps as Cuthbert among the red sorts. No one can afford to be without it.

Johnston's Sweet—A variety of great merit. It is said it will eventually take the place of many varieties now used for evaporating. Rather smaller than the Gregg, of same color. A good strong grower, healthy and hardy; ripening with Tyler; stands up well in picking and handling. Its greatest merit is in its high quality and delicious sweetness of berry. Mr. Johnston made an offer of 25 cents per pound for all first-class evaporated fruit of this variety for season of 1888, showing his confidence in its merits.

Mammoth Cluster—Large size, black or dark purplish black; very juicy, high flavored and delicious; perfectly hardy and sufficiently firm to bear transportation to the most distant market. Of all the raspberries of this class this has proved the most valuable and worthy of general cultivation.

Ohio—A very strong growing hardy sort; fruit nearly as large as Mammoth Cluster; more productive than any other variety, and one of the most, if not the most valuable for market; also much esteemed for drying.

Souhegan—A new variety commended very highly as a market sort by those who have grown it. Said to be enormously productive, perfectly hardy and free from disease of any kind.

BLACKBERRIES.

This excellent and profitable fruit should be planted for garden use in rows six feet apart with plants four feet apart in the rows; for market in rows eight feet apart, with plants three feet apart in the rows. Give the plants the same cultivation as raspberries.

Agawam—Ripens earlier than other kinds, and has a flavor similar and equal to the wild berry. Perfectly hardy.

Ancient Britain—This old variety is now attracting considerable attention for its many good qualities. It is a strong grower, about as hardy as the Snyder; exceedingly productive; fruit larger than the Snyder; sweet, no sour core, fine flavor; does not turn red like the Snyder after picking. One of the best for all purposes.

Early Harvest—A new variety, exceedingly early in time of ripening. The canes are strong and upright in growth, branching stout and vigorously. An enormous bearer. Berries sweet and of the highest quality, though not as large as some varieties. Tender here.

Erie—A new variety from Northern Ohio; plant a vigorous grower; berry large, round, and of a high quality.

Kittatinny—Large, black, sweet; soft, when black; ripens up gradually like the Lawton. One of the best, except in northern sections.

- ✓ **Snyder**—Extremely hardy; enormously productive; medium size; no hard, sour core; half as many thorns as Lawton or Kittatinny, and they are nearly straight and short.
- ✓ **Taylor's Prolific**—A new variety of the greatest value. It is so extremely hardy as to have stood 30 degrees below zero unharmed. Berries large (nearly as large as Kittatinny), and of the highest quality. Canes of strong, spreading growth, and in productiveness it is simply remarkable, fully equalling in this respect the Snyder. It ripens with Kittatinny. The editor of the *Indiana Farmer*, in speaking of this variety, says: "Never have we seen such masses of fruit growing on vines before. The strong stalks were literally bent down to the ground with the weight that was upon them."
- ✓ **Wachusett Thornless**—Of fair size and excellent quality; canes hardy, of strong, healthy growth. It is almost free from thorns, and is fairly productive.
- ✓ **Wilson's Early**—Very large size, oblong oval, black, quite firm, rich, sweet and good. Ripens early and matures all its fruit rapidly, and retains its color well after picking. Bnt
- ✓ **Wilson Junior**—This is a noble variety and it continues to yield enormous crops of large fruit. It combines many good qualities: size, earliness and productiveness. Its capacity for yielding is extraordinary. The fruit in all respects, both as regards appearance and marketing properties, fully equals its parent. A little tender in this section.

MULBERRIES.

- ✓ **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 regard it as an indispensable addition to every fruit garden; and I speak what I think when I say that I would rather have one tree of Downing's Everbearing Mulberry than a bed of strawberries."—*Henry Ward Beecher*.
- ✓ **New American**—A new variety, forming a beautiful tree; very hardy and productive. Undoubtedly the best of all the mulberries. Tree a strong grower, with beautiful large leaves and spreading branches; perfectly hardy; bearing annually large crops of delicious berries $1\frac{1}{2}$ inches long and $\frac{3}{4}$ inch in diameter, jet black in color, and of a rich, sugary, sprightly vinous flavor, continuing to ripen on the tree for a space of six to eight weeks during July and August.
- ✓ **Russian**—A very hardy, rapid growing timber tree of great value, introduced from Russia by the Mennonites; foliage abundant, and said to be very desirable in the culture of silk worms.

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.

CULTIVATION.

See that the ground is well drained, naturally or otherwise; work it up fine and deep and make it very rich with well rotted barn-yard manure. Locate the plants eight inches apart in rows three feet apart. Spread out the roots in a trench made deep enough to permit their crowns to be covered with three or four 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 plants have grown two seasons.

Conover's Colossal—This variety is much superior in size and quality to any other, being remarkably tender and fine flavored.

Palmetto—A new variety of southern origin, now being largely planted. As compared with Conover's Colossal, it is earlier, a better yielder, more even and regular in its growth, and of fine quality.

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.

Myatt's Linnæus—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, sub-acid flavor.

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 upon the market. Lots thus planted readily secure purchasers at good prices, when bare grounds go begging for buyers.

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 practicable, 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

be taken out. Vines should be planted near to and allowed to climb up 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 Chestnuts, Double Flowering Cherry; **June**—White Fringe, Laburnum, Mountain Ash, Thorns in variety, Catalpa Syringæfolia, Lindens in variety, Virgilea Lutea; **July**—American Sweet Chestnut.

Trees valued for their Form and Foliage—White Fringe, Magnolias, Cut-leaved Weeping Birch, Purple-leaved Birch, Kilmarnock Willow, Weeping Mountain Ash, Oak-leaved Mountain Ash, European Weeping Ash, Camperdown Weeping Elm, European Linden, White-leaved Weeping Linden, Salisburea, Norway Maple, Purple-leaved Maple, Wier's Cut-leaved Maple, Imperial Cut-leaved Alder, Purple-leaved Beech, Fern-leaved Beech.

Evergreen Trees—Norway Spruce, Austrian Pine, Siberian Arbor Vitæ, Irish Juniper, American Arbor Vitæ, etc.

Upright Flowering Shrubs: **April**—Daphne Mezereon; **May**—Forsythia, Japan Quince, Rhodotyus Kerroides, Spirea Prunifolia, Lilacs in variety, Tartarian Honeysuckle, Cornus Mascula Variegata; **June**—Deutzia Gracilis, Deutzia Crenata flore pleno, Viburnum Plicatum, Snowball, Weigela in variety, White Fringe, Syringa, golden-leaved and plain, Calycanthus (at intervals through summer), Exochorda Grandiflora, Spirea Lanceolata, Spirea Golden-leaved, Halesia; Japan Globe Flower; **July**—Spirea Collosa Alba, Spirea Collosa; **August and September**—Altheas in variety, Hydrangea Paniculata Grandiflora, Anemone.

Climbing and Trailing Shrubs—Clematis in variety (flower from June to November), Ampelopsis Veitchii, American Ivy, Climbing Honeysuckle in variety (flower all summer), Aristolochia Sypho (flowers in May and June), Akebia Quinata, Bignonia, or Trumpet Vine, Wistaria.

Evergreen Shrubs—Rhododendron in variety, Mahonia, Dwarf Box.

Roses—Climbing and Moss, blooming in June; Hybrid Perpetual and Perpetual Moss, blooming at intervals all summer, and Tender Roses, blooming constantly.

UPRIGHT DECIDUOUS TREES.

Alder (Alnus).

IMPERIAL CUT-LEAF (Laciniata Imperialis)—A charming tree of stately, graceful growth, having large and deeply cut foliage. Vigorous and hardy; one of the best lawn trees.

Ash (Fraxinus).

AUCUBA-LEAVED (Aucubæfolia)—A fine tree with variegated gold blotched leaves, valued for planting near purple trees.

EUROPEAN (Excelsior)—A lofty tree of rapid growth, with spreading head; pinnate leaves and black buds.

PURPLE-LEAVED BEECH.

Ash (continued.)

EUROPEAN FLOWERING (*Ornus*)—Grows from 20 to 30 feet high; flowers greenish white, fringe-like; produced early in June in large clusters at the ends of the twigs.

GOLD BARKED (*Aurea*)—A conspicuous tree at all times especially in the winter, on account of the yellow bark and twisted branches.

WILLOW-LEAVED (*Salicifolia*)—A beautiful variety of fine form, rapid growth, having narrow wavy leaves.

Beech (*Fagus*)

EUROPEAN (*Sylvatica*)—A beautiful tree, growing to the height of sixty or eighty feet.

FERN-LEAVED (*Heterophylla*)—An elegant tree of symmetrical habits, having beautifully cut foliage.

Beech (continued.)

PURPLE-LEAVED (*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 three feet high are preferable.

Birch (*Betula*).

EUROPEAN WHITE (*Alba*)—A fine tree of moderate size, with silvery bark and slender branches.

PURPLE-LEAVED (*Foliis Purpureis*)—A variety possessing the vigorous habit of the species, and having rich purple foliage.

Catalpa.

SPECIOSA—A variety originating at the west; more upright and symmetrical in its growth than the common *Catalpa* (*Syringæfolia*), and blossoms two or three weeks earlier. Very valuable for timber, fence posts, railroad ties, etc., possessing wonderful durability. A very ornamental and valuable tree.

SYRINGÆFOLIA—A native of the south. A rapid growing, beautiful tree, with very large heart-shaped leaves, and pyramidal clusters of white and purple flowers a foot long. Late in July.

TEAS' JAPANESE HYBRID—This is a cross between *Catalpa Speciosa* and the Japanese *Kæmpferi*, and in vigorous, upright growth, it surpasses either. It has large, luxuriant foliage, and large, handsome white flowers, with purple dots, and a touch of yellow around the throat, which have a pleasant, delicate fragrance, and a tree in bloom not only presents a magnificent spectacle to the eye, but also fills the air for quite a distance with its agreeable odors. In rapidity of growth, it rivals the most luxuriant trees of temperate climates, while its hardiness has been demonstrated by its standing uninjured twenty-five degrees or more below zero.

Cherry (*Cerasus*).

DWARF WHITE FLOWERING (*Humilis*, fl. pl.)—A variety of the Morello, with double white flowers. Both this and the succeeding are very ornamental.

LARGE DOUBLE FLOWERING (*Flore Alba Pleno*)—A variety of the Heart Cherry, with pretty double flowers.

Chestnut.

AMERICAN (*Castanea Americana*)—A well-known forest and nut-bearing tree; of great value for ornamental purposes. This tree is now receiving great attention, and being widely and extensively planted for profit as well as ornament.

SPANISH (*Vesca*)—A valuable species for both ornament and fruit. It forms a handsome lawn tree, and produces fruit three or four times as large as the American variety.

Crab (*Pyrus Malus*).

PARKMAN'S DOUBLE FLOWERING—Habit dwarf, a compact grower. Foliage dark green, remaining late on the tree. Flowers very double, dark rose, and retain their color until they drop from the tree. A fine variety.

Dogwood (*Cornus*).

AMERICAN WHITE (*Florida*)—A native tree of fine form and beautiful foliage, growing from 20 to 25 feet high, producing white flowers three inches in diameter, early in the spring before the leaves appear. A very desirable tree.

Elm (*Ulmus*).

AMERICAN WHITE (*Americana*)—The noble, spreading, drooping tree of our own woods. One of the grandest and hardiest of park or street trees.

ENGLISH (*Campestris*)—An erect, lofty tree with rather small leaves.

HUNTINGTON—Of very erect habit, and rapid, vigorous growth. Bark clean and smooth. One of the finest Elms for any purpose.

PURPLE (*Stricta purpurea*)—A beautiful variety; leaves of rich purple color when young.

SCOTCH OR WYCH (*Montana*)—A fine spreading tree of rapid growth; foliage large.

WHITE-FLOWERING DOGWOOD.

Fringe (*Chionanthus*).

WHITE (*Virginica*)—A small native tree or shrub, with dark glossy leaves, and drooping racemes of pure white flowers, having narrow fringe like petals. Its foliage as well as its flowers make it one of the most desirable lawn trees.

Horse-Chestnut (*Æsculus*).

WHITE FLOWERING (*Hippocastanum*)—A very beautiful, well-known tree, with round, dense head, dark green foliage, and an abundance of showy flowers in early spring.

DOUBLE WHITE-FLOWERING—A superb variety, with double flowers, in larger panicles than the common sort, and of fine pyramidal habit. The absence of fruit by which much litter is avoided, is an important argument in favor of its employment. It is one of the best ornamental trees.

Judas Tree or Red Bud (*Cercis*).

AMERICAN (*Canadensis*)—A small growing tree, covered with delicate pink flowers before the leaves appear.

Laburnum (*Cytisus*).

GOLDEN CHAIN—Bears long, pendant racemes of yellow flowers in June; showy and beautiful. Should be in every lawn.

Larch (*Larix*).

EUROPEAN (*Europæa*)—An excellent, rapid growing, pyramidal tree: also valuable for timber. Small branches drooping, with needle-shaped foliage like the Spruce or Hemlock.

Linden (*Tilia*).

AMERICAN (*Americana*)—A rapid growing, beautiful native tree, with very large leaves and fragrant flowers.

EUROPEAN (*Europæa*)—A very fine pyramidal tree, with large leaves and fragrant flowers. Only desirable on large grounds.

WHITE OR SILVER-LEAVED (*Argentea*)—A handsome, vigorous growing tree; large leaves, whitish on the under side, and have a beautiful appearance when ruffled by the wind. One of the best.

Magnolia—One of the most beautiful species of flowering trees. Being difficult to transplant, small trees three to four feet high are preferable.

ACUMINATA (Cucumber Tree)—A beautiful, pyramidal growing, native species; growing to the height of sixty or seventy feet, with large glossy leaves; flowers yellow, tinted with bluish purple.

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

LENNEI (Lenne's Magnolia)—Recently introduced; foliage large, flowers purplish crimson or magenta, and although not a handsome grower, a superb variety.

NORBERTIANA (Norbert's Magnolia)—Tree a fine, regular grower, foliage fine, flowers very large, white and purple. One of the best.

SOULANGEANA (Soulange's Magnolia)—A French hybrid, a rather irregular grower, foliage large, glossy and massive, flowers very large, three to five inches in diameter, white and purple. Very effective.

SPECIOSA (Showy Flowering Magnolia)—A good grower, tree generally round-headed and of fine form; flowers a little smaller and of lighter color than those of Soulangeana, but being produced in wonderful profusion, this is one of the best varieties.

Maple (Acer).

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

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

PURPLE-LEAVED SYCAMORE (*Purpurea*)—A strong, rapid grower; foliage deep green on the upper surface and purplish red underneath. Produces a fine effect with other trees.

SCARLET (*Rubrum*)—A native variety of medium size, producing deep red blossoms before the leaves appear. In the autumn the leaves change to a brilliant scarlet, rendering the tree very effective.

SCHWEDLER'S NORWAY (*Schwedlerii*)—A beautiful variety, with the young shoots and 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.

SUGAR OR ROCK (*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 renders it justly popular as a shade tree.

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 six feet long in a season; valuable as a street tree.

WEIR'S CUT-LEAVED (*Weirii laciniatum*)—A silver maple with remarkable and beautiful dissected foliage. Of rapid growth; shoots slender and drooping, giving it a very graceful appearance. Should be in every collection. 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 (*Aucuparia*)—A fine, hardy tree; head dense and regular, covered from July until winter with large clusters of bright scarlet berries.

OAK-LEAVED (*Quercifolia*)—A hardy tree of fine habit; height and breadth from twenty to thirty feet, foliage simple and deeply lobed. A very fine lawn tree.

Mulberry (Morus).

For description of several fine varieties, see page 48.

WIER'S CUT-LEAVED MAPLE.

Oak (*Quercus*).

AMERICAN WHITE OAK—One of the finest American trees, of large size and spreading branches; leaves lobed; pale green above and glaucous beneath.

SCARLET—A native tree of rapid growth, pyramidal, outline, and especially remarkable in autumn, when the foliage changes to a bright scarlet.

MOSSY CUP OR BURR—A native tree of spreading form. Foliage deeply lobed, and the largest and most beautiful among oak leaves. Cup-bearing, acorn-fringed and burr-like; bark corky. One of the noblest of the family.

Peach (*Persica*).

DOUBLE ROSE-FLOWERING (*Flore Rosea Pleno*)—Flowers pale rose color, double, produced in great abundance and very handsome.

DOUBLE WHITE-FLOWERING (*Flora Alba Pleno*)—Very ornamental flowers, pure white. Hardy.

Poplar (*Populus*).

CAROLINA—Pyramidal in form, and robust in growth. Leaves large, serrated and pale to deep green in color.

LOMBARDY (*Fastigiata*)—Well known for its erect, rapid growth and commanding form; very desirable in large grounds or along roads to break the average height and forms of other trees.

SILVER-LEAVED (*Alba*)—A tree of wonderfully rapid growth and spreading habit; leaves large, dark, rich green above and white as snow beneath.

CUT-LEAVED SILVER (*Bolleana*)—A beautiful, symmetrical growing variety, with finely cut silvery-white foliage.

Salisburea.

MAIDEN HAIR OR GINKGO TREE (*Adiantifolia*)—One of the most beautiful of lawn trees. A native of Japan. Of medium size, rapid growth and rich, glossy, fern-like foliage. Rare and elegant.

Thorn (*Cratægus*).

DOUBLE SCARLET (*Coccinea fl. pl.*)—Flowers deep crimson, with scarlet shade; very double, and considerably larger than the double red; fine, rich foliage.

DOUBLE WHITE (*Alba Flore Pleno*)—Has small, double white flowers.

PAUL'S DOUBLE SCARLET (*Coccinea fl. pl. Paulii*)—Flowers large, deep carmine scarlet. Superior to any other variety.

Tulip Tree (*Liriodendron*).

TULIPIFERA—A magnificent native tree, with broad, glossy, fiddle-shaped leaves and beautiful tulip-like flowers. Allied to the Magnolias, and like them, difficult to transplant, unless of small size.

Walnut (*Juglani*).

BLACK WALNUT (*J. Nigra*)—A native species of large size and majestic form, foliage beautiful, being composed of from thirteen to seventeen leaflets.

ENGLISH, OR MADEIRA NUT (*J. Regia*)—A handsome tree which produces fine fruit. Should be more extensively planted, as it is quite hardy.

Willow (*Salix*).

ROSEMARY-LEAVED (*Rosmarinifolia*)—Budded five to seven feet from the ground, it makes a very handsome round headed, small tree; branches feathery, foliage silvery.

WEeping DECIDUOUS TREES.

Ash (*Fraxinus*).

EUROPEAN WEeping (*Excelsior Pendula*)—The common, well-known sort, one of the finest lawn and arbor trees, covering a great space, and growing rapidly.

GOLD BARK WEeping (*Aurea Pendula*)—An elegant variety; bark in winter as yellow as gold.

CUT-LEAVED WEEPING BIRCH.

Beech (Fagus).

WEeping (Pendula)—A native of Belgium; a fine, vigorous and beautiful tree, attaining a large size; though ungainly in appearance when divested of its leaves, it is extremely graceful and effective when covered with its rich, luxuriant foliage.

YOUNG'S WEeping BIRCH.

Birch (Betula).

CUT-LEAVED WEeping (Pendula Laciniata)—Extremely vigorous and hardy. Mr. Scott, in his "Suburban Home Grounds," says of it: "No engraving can do it justice,; like the palm trees of the tropics, it must be seen in motion, swaying in the lightest breeze, its leaves trembling in the heated summer 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."

ELEGANT WEeping (Elegans Pendula)—First exhibited at the Paris Exhibition in 1876, where it attracted great attention. It has beautiful foliage and an elegant weeping habit. It is very desirable in grounds that admit of variety.

YOUNG'S WEeping (Pendula Youngii)—Originated near Milford, England, where it was found trailing upon the ground. Grafted into stems of some height, it forms pendulous heads drooping to the ground in fine, thread-like shoot—very beautiful.

Cherry (Cerasus).

EVERFLOWERING WEeping (Semperflorens)—A very fine drooping variety, with beautiful globular head, that bears flowers and fruit all summer.

CAMPERDOWN WEEPING ELM.

Elm (Ulmus).

CAMPERDOWN WEEPING—A vigorous grower, and forms one of the most picturesque drooping trees. Leaves large, dark green and glossy, and cover the tree with a luxurious mass of verdure; very desirable.

WEeping SLIPPERY—A variety of luxuriant growth and elegant drooping habit. Its branches shoot upward at first, then bend in graceful curves toward the ground. It also retains its foliage much longer than other Elms.

Linden or Lime Tree (Tilia).

WHITE-LEAVED WEEPING (Alba Pendula)—A fine tree, with large leaves and drooping branches.

Mountain Ash (Sorbus).

WEeping (Aucuparia Pendula)—A beautiful tree, with straggling, weeping branches; makes a fine tree for the lawn; suitable for covering arbors.

Mulberry.

TEA'S WEEPING RUSSIAN—The most graceful and beautiful of hardy weeping trees and wholly unlike anything heretofore introduced, forming a perfect umbrella-shaped head, with long, slender, willowy branches, drooping to the ground, parallel with the stem. These hang like the most delicate vines from a hanging basket, and are swayed by the slightest breath of wind. All who see it agree that in light, airy gracefulness, and delicacy of form and motion, it is without a rival. It has handsome foliage of a beautiful glossy green. Being a true Russian it possesses the wonderful vigor and health for which that species is noted. It is perfectly hardy, enduring unharmed not only the severe cold of the North, but the far more destructive heat and drouth of the South. It is one of the safest and most successful trees to transplant, enduring exposure and hard treatment that would kill almost any other tree. Admirably adapted to cemetery planting.

Poplar (*Populus*).

LARGE-LEAVED WEEPING (*Grandidentata Pendula*)—A variety having, when grafted, standard high, long; slender branches, like cords, which droop very gracefully; foliage large, dark-shining green, and deeply serrated. One of the finest weeping trees in cultivation.

Willow (*Salix*).

AMERICAN WEEPING (*Purpurea Pendula*)—An American Dwarf, slender branched species; grafted five or six feet high, it makes one of the most ornamental of small weeping trees; more hardy than the *Babylonica*.

KILMARNOCK WEEPING (*Caprea Pendula*)—An exceedingly graceful tree, with large glossy leaves; very hardy.

WEEPING (*Babylonica*)—The well-known common weeping willow.

EVERGREEN TREES.

Evergreens are very desirable, but they are difficult to transplant, and both the *time* and *manner* of transplanting should be looked to. They should never be set in the fall, after the growth of other trees have ceased. They may be set in August, or after they have started in May; but they should be subjected to as little exposure as possible, and be set with great care.

Arbor Vitæ (*Thuja*).

AMERICAN (*Occidentalis*)—This is one of the very finest evergreens for hedge. It is very hardy, and if set at the proper time with care and without undue exposure, it may be relied upon to live; but small plants 12 to 18 inches high, which have been transplanted several times, are preferable. It bears shearing better than any other variety, and may be made a very beautiful and dense hedge or screen to divide grounds, or for any purpose where it is not required to resist cattle or other animals.

SIBERIAN (*Siberica*)—One of the best of the genus of this country; exceedingly hardy, keeping color well in winter; growth compact and pyramidal: makes an elegant lawn tree.

TOM THUMB—Similar to the Heath-leaved, but more desirable; remarkable for slow, compact growth; valuable for planting in cemeteries and small places, where large trees are not admissible.

Juniper (*Juniperus*).

IRISH (*Hibernica*)—Very erect and tapering in its growth, forming a column of deep green foliage; a pretty little tree or shrub, and for its beauty and hardiness is a general favorite.

SAVIN (*Sabina*)—A low, spreading tree, with handsome, dark green foliage; very hardy, and suitable for lawns and cemeteries; can be pruned to any desired shape, and made very ornamental.

Pine (*Pinus*).

AUSTRIAN OR BLACK (*Austriaca*)—A remarkably robust, hardy spreading tree; leaves long, stiff and dark green; growth rapid; valuable for this country.

SCOTCH (*P. Sylvestris*)—Also very rapid in its growth. "A dark, tall evergreen," with bluish foliage and rugged shoots; hardy and grows well, even on the poorest soils.

Both the above are very ornamental, and well adapted to thrive in this country.

Silver Fir.

BALSAM OR AMERICAN (*P. balsamea*)—A very regular, symmetrical tree, assuming the conical form, even when young; leaves dark green above, silvery beneath, retaining their color during the severest winter; grows rapidly, and is very hardy.

Spruce Fir.

NORWAY SPRUCE (*Abies Excelsa*)—One of the handsomest and most popular of evergreens; when young, the tree is remarkably rich and luxuriant; as it grows older, its branches droop with a fine graceful curl or sweep, some specimens, however, more than others; and when covered with its large pendant cones, it is an object exceedingly picturesque and beautiful. Plants of all sizes can be furnished. Makes fine hedges.

BLUE SPRUCE (*A. pungens*)—This species has been tested at various points on the prairies of the Northwest with perfect success, enduring a temperature of thirty degrees below zero, in exposed situations, without injury; and also very extensively near Boston, where it has stood out entirely uninjured during the past sixteen years. This is not only one of the hardiest, but the most beautiful of all the Spruces. Miss Bird, in her "*Lady's Life in the Rocky Mountains*," mentions it as the most attractive tree she has ever seen, beautiful alike in shape and color. "It looks," she writes, "as if a soft blue powder had fallen upon its deep green needles; or, as if a hoar-frost, which must melt at noon, were resting upon it." Beautiful in color and outline, and hardy, it is a valuable acquisition. Very rare. Price, one foot high, \$1.50.

HEMLOCK SPRUCE, COMMON HEMLOCK (*A. Canadensis*)—When finely grown, almost the handsomest of all evergreens, with delicate, dark glossy foliage, and drooping branches; when old, it loses its conical shape, and assumes irregular and picturesque forms. Should be transplanted young.

UPRIGHT DECIDUOUS SHRUBS.

ALTHEA, OR ROSE OF SHARON.

Althea, or Rose of Sharon (*Hibiscus*).

The Altheas are fine, free-growing, flowering shrubs, of easy cultivation. Desirable on account of flowering in August and September, when nearly every other shrub or tree is out of bloom.

DOUBLE RED (*Rubra flore pleno*).

DOUBLE PURPLE (*Purpurea flore pleno*).

DOUBLE WHITE (*Alba flore pleno*).

SINGLE RED (*Rubrum*).

SINGLE PURPLE (*Purpurea*).

SINGLE WHITE (*Alba*).

VARIEGATED-LEAVED DOUBLE FLOWERING (*flore pleno fol. variegata*)—A conspicuous variety, with foliage finely marked with yellow. Flowers double purple. One of the finest variegated leaved shrubs.

Almond.

DWARF DOUBLE-FLOWERING (*Prunus Japonica*)—A well-known, beautiful, small shrub, with handsome, double, pink flowers early in the Spring.

DOUBLE WHITE-FLOWERING (*P. Japonica alba*)—A pretty sort, with double white flowers.

Aralia (Angelica Tree).

The following forms a small tree, and is very useful to give a tropical appearance to gardens. It requires slight protection with straw or evergreen boughs in winter.

A. JAPONICA—A handsome and distinct shrub, from Japan, with large tripinnate leaves and spiny stems; flowers white, in large spikes in September.

DEUTZIA.

Azalea.

MOLLIS—A splendid hardy species from Japan, and one of the most valuable flowering shrubs. Flowers large and showy, like those of the *Rhododendron*, in fine trusses and of various colors.

NUDIFLORA (Pink Flowering American Honeysuckle or Swamp Pink)—A native species, with pink flowers.

PONTICA (Pontic Azalea; Ghent Varieties)—Native of Asia Minor. A species growing three to four feet high, with small hairy leaves, and yellow, orange and red flowers. The Ghent hybrid varieties which we offer combine nearly all colors, and possess a delightful perfume. They rank next to the *Rhododendron* for the decoration of lawns and pleasure grounds. The blooming season continues through the months of May and June. In this latitude plants are improved by slight protection, but farther south they are perfectly hardy.

Berberry (*Berberis*).

PURPLE-LEAVED (*Purpurea*)—A very handsome shrub, growing from three to five feet high, with violet purple leaves and fruit. Makes fine ornamental hedges.

EUROPEAN (*Vulgaris*)—A fine shrub with yellow flowers in drooping racemes, produced in May or June, followed by orange scarlet fruit.

Calycanthus or Sweet Scented Shrub (*Calycanthe*).

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

Currant (*Ribes*).

CRIMSON FLOWERING—Produces an abundance of crimson flowers in early spring.

YELLOW FLOWERING—A native species, with yellow flowers.

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 four to six inches long.

DOUBLE FLOWERING (*Crenata flore pleno*)—Flowers double white, tinged with rose. One of the most desirable flowering shrubs in cultivation.

SLENDER BRANCHED (*Gracilis*)—A charming variety, introduced by Dr. Siebold. Flowers pure white, and so delicate that they are very desirable for decorative purposes.

ROUGH-LEAVED (*Scabra*)—An exceedingly profuse white flowering shrub.

PRIDE OF ROCHESTER—A new variety said to excel all others in size of flower, length of panicle, profuseness of bloom, and vigorous habit. A charming acquisition.

Dogwood (*Cornus*).

RED BRANCHED (*Sanguinea*)—A native species, very conspicuous and ornamental in the winter, when the bark is blood red.

VARIEGATED (*Cornus mascula variegata*)—Variegated Cornelian Cherry. A small tree or shrub, producing clusters of bright yellow flowers, early in spring before the leaves appear. Has beautiful foliage, variegated with white. One of the prettiest variegated shrubs in cultivation.

ELEGANTISSIMA VARIEGATA—An improvement on the preceding, and 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.

GOLDEN (*S. Aurea*)—A beautiful variety, with light yellow leaves, which hold their color well, and render the plant very conspicuous and effective.

Elæagnus Edulis.

This is a remarkably beautiful new shrub from Japan. In July the plant is covered with bright red berries of large size and edible, the flavor being pungent and agreeable. Laden with fruit the bush is highly ornamental, and the fact that its leaves remain fresh till late in the autumn gives it additional value for garden decoration. We regard it as the coming shrub, destined to wide-spread popularity as soon as known.

Euonymus (*Burning Bush, Strawberry Tree*).

A very ornamental and showy bush, whose chief beauty consists in its brilliant berries, which hang in clusters from the bunches until midwinter: berries rose colored; planted with a background of Evergreens, the effect of contrast is very fine.

Exochorda.

GLANDIFLORA—A most beautiful shrub, producing large white flowers in May. A native of North China, difficult to propagate, and hence it will always be rare.

Filbert.

PURPLE-LEAVED (*Corylus avallana atropurpurea*)—A vigorous shrub with large, deep purple leaves; very ornamental; produces good fruit.

Forsythia or Golden Bell (*Forsythia viridissima*).

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.

PURPLE FRINGE.

Fringe Tree.

PURPLE OR VENETIAN SUMACH, OR SMOKE TREE (*Rus cotinus*)—A very elegant and ornamental large shrub, with curious hair-like flowers, which, being of a pinkish brown color, give it the names "Purple Tree" and "Smoke Tree." The blossoms are in July, sometimes literally covering the tree, and remaining all summer.

Fringe.

WHITE (*Chionanthus Virginica*)—An entirely different plant from the preceding; has handsome, large foliage, and racemes of delicate white flowers, that hang like finely cut shreds or fringes of white paper.

Globe Flower (*Kerria Japonica*).

A slender green branched shrub, five or six feet high, with globular yellow flowers from July to October.

ARGENTEA VARIEGATA (*Silver Variegated-leaved Corchorus*)—A dwarf variety from Japan, with small, green foliage, edged with white; very slender grower. One of the prettiest and most valuable of dwarf shrubs.

DOUBLE-FLOWERING (*Japan Corchorus*)—A slender, green-branched shrub, of medium size; double yellow flowers, from July to October.

Halesia (*Snow Drop Tree*).

SILVER BELL—A beautiful large shrub, with handsome white, bell-shaped flowers in May. Very desirable.

Honeysuckle (Lonicera).

RED TARTARIAN—A beautiful shrub: vigorous and producing large, bright red flowers, striped with white, in June.

WHITE TARTARIAN—A large shrub, having white flowers in May and June.

Hop Tree or Shubby Trefoil (Ptelia).

A large shrub or small tree, of rapid growth and robust habit. Fruit winged and in clusters. Flowers in June.

HYDRANGEA PANICULATA GRANDIFLORA.

Hydrangea.

OTAKSA—Foliage a beautiful deep green; produces immense clusters of rose colored flowers in profusion in July. Should be placed in tubs and protected in winter.

PANICULATA GRANDIFLORA—A fine, hardy shrub, growing to the height of eight and ten feet: flowers white, in great pyramidal panicles a foot long, produced in August or September, when most other shrubs are out of bloom. Very elegant and showy.

RED BRANCHED—A very free bloomer, producing large and elegantly-formed trusses of deep rose-colored flowers from every shoot. The best variety for forcing and pot culture.

THOMAS HOGG—This belongs to the Hortensia section of the family, but it is a far more free and abundant bloomer than any other; for the florist, and for all decorative purposes it is invaluable; the flowers are of the purest white, of very firm texture, and are produced from July to September. It is as hardy as the old Hortensia; requires some protection in winter.

Lilac (*Syringa*).

DOUBLE PURPLE LILAC—Has a double row of petals; valuable for cut flowers; very neat and pretty.

FRAU DAMMANN—This is the best white lilac in our collection; the panicle or truss is immense, flowers of medium size and pure white.

GIANT LILAC—A vigorous, erect grower, with large leaves and spikes. Flowers blue.

JOSIKA'S OR CHIONANTHUS-LEAVED LILAC—From Transylvania. A fine, distinct species, of tree-like growth, with dark, shining leaves and purple flowers in June, after the other lilacs have done flowering. Esteemed particularly for its fine habit and foliage.

PRESIDENT GREVY—A beautiful blue; individual flowers very double and very large, measuring three-quarters of an inch in diameter; the panicle is magnificent and measures eleven inches in length and five inches across. One of the finest Lilacs.

LARGE FLOWERING WHITE (*Alba grandiflora*)—Very large, pure white tufts of flowers.

PURPLE, COMMON (*Vulgaris*)—The well-known sort.

Plum (*Prunus*).

P. PISSARDI—The finest purple-leaved small tree or shrub of recent introduction. The young branches are a very dark purple; the leaves, when young, are lustrous crimson, changing to a dark purple, and retain this beautiful tint till they drop late in Autumn. Flowers small, white, single.

DOUBLE FLOWERING (*P. Triloba*)—A very desirable shrub, introduced from Japan. Flowers semi-double, of a delicate pink, upwards of an inch in diameter, thickly set. Hardy; flowers in May.

Privet (*Ligustrum*).

The Privet in all its varieties, deserves attention as an ornamental plant. It is almost an evergreen, and grows freely in all soils; is compact and regular in its form, and bears shearing to any extent. The whole collection which we offer makes a very interesting group on the lawn; the flowers appear in June or July.

BOXED-LEAVED PRIVET—A variety of erect habit, with short, thick dark green leaves, which remain upon the plant till very late in the autumn. One of the best.

CALIFORNIA PRIVET—A vigorous, hardy variety, of fine habit and foliage; valuable for hedges.

Quince, Japan (*Cydonia*).

SCARLET—Has bright scarlet, crimson flowers, in great profusion, early in spring; one of the best hardy shrubs; makes a beautiful ornamental hedge; for defence against boys and cattle it has no superior, and for ornament has no equal.

Snowball (*Viburnum*).

OPULUS STERILIS (*Guelder Rose, Snowball Tree*)—A well-known, favorite shrub, of large size, with globular clusters of pure white, sterile flowers the latter part of May.

V. PLICATUM (*Plicate Viburnum*)—From North China. Of moderate growth; handsome, plicated leaves, globular heads of pure white neutral flowers early in June. It surpasses the common variety in several respects. Its habit is better, foliage much handsomer, flowers whiter and more delicate. One of the most valuable flowering shrubs.

Spirea.

CALLOSA ALBA—A white flowering variety, of dwarf habit; very fine, remains in flower all summer.

GOLDEN LEAVED (*Folius Aureis*)—A beautiful dwarf plant with golden yellow foliage. It keeps its color the entire season and creates a very pleasing effect among other shrubs.

VIBURNUM PLICATUM.

Spirea (continued).

PRUNIFOLIA FLORE PLENO—A beautiful shrub from Japan, with double white flowers in May.

REEVESII OR LANCE-LEAVED—A charming shrub, with narrow-pointed leaves, and large, round clusters of white flowers that cover the whole plant.

DOUBLE LANCE-LEAVED—A beautiful double flowering variety. One of the best, if not the best.

VAN HOUTT'S (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. Foliage curiously lobed and rounded, of a lively green color. Flowers pure white, in great clusters and whorls, forming cylindrical plumes two to three feet long. Few plants present a more charming appearance when in blossom, or are more tasteful at other times. This is one of the hardiest of all the Spireas.

St. Peter's Wort or Waxberry.

SNOWBERRY—A well-known shrub, with small pink flowers, and large white berries that hang on the plant through part of the winter.

RED-FRUITED OR INDIAN CURRANT—A shrub of very pretty habit; foliage, flowers and fruit small; fruit purple: hangs all winter.

Strawberry Tree (See Euonymus).**Syringa.**

EUROPEAN FRAGRANT OR "MOCK ORANGE" (*Philadelphus coronarius*)—A well-known, very hardy shrub, with showy white flowers, which are very fragrant.

LARGE FLOWERING (P. grandiflorus)—Large showy flowers: a valuable variety.

GOLDEN LEAVED (P. foliis aureis)—A beautiful new variety, with bright yellow foliage, which affords pretty contrasts with other shrubs, especially with the purple-leaved varieties.

SYRINGA.

Tamarix (Tamarisk).

These are very beautiful shrubs, with small leaves, somewhat like those of the Juniper, and delicate small flowers in spikes. They are invaluable for planting by the seaside, where scarcely anything else will grow.

AFRICANA—Handsome foliage, upright habit; flowers in May.

CHINENSIS—A vigorous, upright grower, with delicate foliage of a lively green color; flowers rose colored.

WEIGELA.

Weigela (Diervilla.)

AMABILIS OR SPLENDENS—Of robust habit; large foliage and pink flowers; blossoms freely in autumn; a great acquisition.

Weigela (continued).

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 continuing in bloom through the summer.

DESBOISII—A beautiful variety, with deep, rose-colored flowers, resembling *Rosea*, but much darker. One of the darkest and best.

FLORIBUNDA (Crimson Weigela)—We take pleasure of calling the attention of our customers to this beautiful Weigela. The flowers are dark crimson, with the white stamens projecting from them, reminding one somewhat of Fuchsia flowers. It blooms in spring with other Weigelas; but, if plants are topped off after young growth has been made, they bloom profusely in the fall. There is a ready sale found for it on account of its beautiful color, and it is conceded to be one of the best of the numerous varieties of Weigelas.

HORTENSIS NIVEA—Flowers pure white, retaining their purity during the whole time of flowering; foliage large.

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 (Fol. Variegata)—Leaves bordered with yellowish white, finely marked; flowers bright pink.

EVERGREEN SHRUBS.

Box.

The species and varieties of the *Tree Box* are beautiful lawn shrubs or small trees, well adapted to small places. They flourish best when partially shaded. In this climate they require protection.

COMMON TREE BOX—From England. A handsome shrub, with deep green foliage.

DWARF BOX—The well-known sort used for edging. 50 cents per yard.

Kalmia (Latifolia).

MOUNTAIN LAURAL OR CALICO BUSH—A beautiful native evergreen shrub, with shining foliage and dense clusters of pink or nearly white flowers in spring. Requires same treatment as the Rhododendron.

Mahonia (Ashberry).

HOLLY-LEAVED MAHONIA—A native species of medium size, with purplish, shining prickly leaves, and showy, bright yellow flowers in May, succeeded by bluish berries. Its handsome, deep green, glossy foliage and neat habit, render it very popular for decorative planting.

RHODODENDRON (Rosebay).

The Rhododendrons are magnificent flowering evergreen shrubs. All prefer a peaty soil and a somewhat shaded situation. The Catawbiense varieties are the most hardy, and succeed in our climate better than any other. In this latitude they require to be protected in winter.

RE. CATAWBIENSE (Catawba Rosebay)—A bushy shrub, with broadly oval leaves, and compact, round clusters of lilac and violet flowers in June. We have a large collection, embracing the best varieties of this hardy species. Plants with flowering buds, about 18 to 24 inches.

NAMED VARIETIES, BUDDED PLANTS—Fine assortment of colors; plants with flowering buds, about 18 to 24 inches.

MAXIMUM—An exceedingly handsome species, of large growth and luxuriant foliage, with large compact clusters of flowers one inch broad, of a pale rose color, sometimes whitish, with green and yellow dots inside, which contrast beautifully with the evergreen leaves. "A production of great beauty," and "absolutely hardy from Vermont to Georgia."

HARDY CLIMBING PLANTS.

Ampelopsis.

AMERICAN IVY, OR VIRGINIA CREEPER (*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 (*Veitch's Ampelopsis*)—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, and changes to a scarlet crimson in autumn. For covering walls, stumps of trees, rocks, etc., no plant is more useful or beautiful.

ROYALI—New.—A larger and stronger growing variety than the preceding, otherwise quite similar.

Aristolochia, or Dutchman's Pipe.

SYPHO—A rapid growing vine with magnificent foliage ten to twelve inches in diameter, and curious pipe-shaped yellowish-brown flowers.

Honeysuckle (*Lonicera*).

CHINESE TWINING (*Japonica*)—A well known vine, holding its foliage nearly all winter. Blooms in July and September and is very sweet.

COMMON WOODBINE (*Periclymenum*)—A strong, rapid grower, with very showy flowers, red outside, buff within. June and July.

HALL'S JAPAN (*Halleana*)—A strong, vigorous, evergreen variety, with pure white flowers, changing to yellow. Very fragrant, covered with flowers from June to November.

JAPAN GOLD-LEAVED (*Aurea reticulata*)—A handsome variety, having foliage beautifully netted or variegated with yellow.

MONTHLY FRAGRANT (*Belgica*)—Blooms all summer. Flowers red and yellow. Very sweet.

SCARLET TRUMPET (*Sempervirens*)—A strong grower, and produces scarlet inodorous flowers all summer.

Ivy, American (See *Ampelopsis*)

Ivy.

COMMON ENGLISH (*Hedera 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.

Trumpet Vine (*Bignonia Radicans*).

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

Wistaria.

CHINESE PURPLE (*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 (*Sinensis Alba*)—Introduced by Mr. Fortune, from China, and regarded as one of his greatest acquisitions. Rather tender.

CLEMATIS (*Virgin's Bower*).

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 Virgin's Bower (*C. Flammula*), are quite fragrant, and are particularly attractive on this account. The large-flowered varieties, like the well-known *C. Jackmanni*, are extremely showy, and produce great numbers of their beautiful flowers. These plants are trained on trellises, and over porches and pillars; they are also planted in beds and the stems allowed to run upon the ground, being pegged down to keep them in place, thus producing great masses of bloom which make a grand appearance, especially when contrasting colors are in proximity. All are hardy, of easy growth, and will adapt themselves to nearly or quite all soils. They will make themselves at home in any good garden.

AMERICAN (*C. Virginiana*)—One of the most rapid-growing kinds, covered in August with the greatest profusion of pale white flowers, which are succeeded by brown hairy-like plumes: very beautiful and unique.

COCCINEA—Distinct from other varieties; bright coral scarlet flowers. July to October.

CRISPA—A handsome native variety, with nodding, bell-shaped, lavender-purple, fragrant flowers, which are an inch or a little more in length and breadth, with revolute sepals; very distinct.

FLAMMULA (European Sweet)—The flowers of this variety are very fragrant; requires a slight protection in Winter: very desirable.

PANICULATA—A rare and beautiful variety of Japanese origin: flowers small, pure white, sweet scented, produced in masses and borne in long panicles in August. A rapid climber and quite hardy. Destined to become very popular.

VITICELLA—An old European sort, with small blue flowers on long stems—very hardy and vigorous.

Clematis. Large Flowering.

ALEXANDRA—This is one of the continuous blooming sorts of real merit; has a vigorous habit of growth and in flower is remarkably showy and ornamental. The flowers are large and of a pale reddish violet color. New and desirable. July to October.

BEAUTY OF WORCESTER—New; a large and handsome eight-petalled flower, of a lovely bluish violet shade, with prominent pure white stamens. It possesses the singular habit of producing both single and double flowers on the same plant for its earlier bloom, and as the season advances single flowers only are borne on the laterals.

BELLE OF WOKING—A fine new double variety of the Florida type: the color is a delicate tint of bluish-mauve or silver-gray. A decided acquisition.

Clematis, Large Flowering—(continued).

COUNTRESS OF LOVELACE—A decided advance on John Gould Veitch, both in habit, color and form. A bluish lilac, rosette shaped, forming a double flower.

DUCHESS OF EDINBURGH—This is without doubt the best of the double white varieties. The flowers are pure white, four inches across, very deep, consisting of from ten to eleven rows or series of sepals, which are short and close set, so as to form a compact and completely filled out flower. They are also remarkably sweet scented.

DUKE OF EDINBURGH—Flowers medium sized, six sepaled. Bluish violet; anthers dark purplish chocolate.

FAIR ROSAMOND—Free-growing and handsome. The flower is fully six inches across, and consists of eight sepals. The color is white with a bluish cast, having a light wine red bar up the center of each sepal. Flowers very fragrant, and are abundant through June and first of July.

FORTUNEI—This was introduced from Japan by Mr. Fortune. The flowers are large, double, white and somewhat fragrant.

GEM—A new and valuable perpetual blooming variety. The flowers are of a deep lavender blue. The parent plant, though much weakened by propagation, had upwards of one hundred flower buds as late as the middle of October, 1871. June to October.

GLOIRE DE ST. JULIEN—One of the best new perpetual white varieties. The flowers are very large and abundant. June to October.

HENRYI—This is the finest of all white Clematis, and should find a place in every collection. It is not only a vigorous grower—it is a remarkably free and continuous bloomer, beginning with the earliest and holding on with the latest. Flowers large, of a beautiful creamy white; consisting generally of from six to eight spreading sepals. Unfortunately 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.

JACKMANNI—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 successional bloomer, producing flowers until frozen up. The flowers are large, of an intense violet purple, remarkable for its velvety richness. Though raised in 1862—since which time many new varieties have been raised and introduced—the Jackmanni has no superior and very few, if any equals. July to October.

JACKMANNI ALBA—A light colored variety of vigorous growing habit; the flowers are four to six sepaled, of a grayish white. It is the nearest approach yet made to that great desideratum, a white flowered *Clematis Jackmanni*.

JOHN GOULD VEITCH—Sent from Japan in 1862. The flowers are very handsome, distinct, large, double, and of a light blue or lavender color. It is like Fortunei, except in the color of the flowers. June and July.

LADY BOVILLE—This very fine variety has peculiar and well formed cupped flowers, of a clear, soft, grayish blue. It is a vigorous grower and free and continuous bloomer. July to October.

LADY CAROLINE NEVILLE—A remarkably fine variety of the Lanuginosa type, producing flowers successionally through the summer and autumn months. Color pale mauve, with lavender bar; anthers pale reddish brown.

LANUGINOSA CANDIDA—A variety of the above, having large, delicately tinted, grayish white flowers, which become white after the flowers are fully expanded. One of the best. July to October.

LAWSONIANA—One of the finest of all; a vigorous grower and continuous bloomer. The flowers are very large, often nine inches in diameter. Opening a rich, glistening, rosy purple, they gradually change to a mauve purple. June to October.

Clematis, Large Flowering.—(continued).

- LUCIE LEMOINE**—New. Flowers white, double, large and well formed; composed of 75 to 90 petals. Very showy. June.
- MADAM GRANGE**—A remarkable and vigorous-habited variety; flowers five inches across; of a rich, deep velvety, maroon-crimson, becoming purplish with age; having a red bar down the center of each sepal.
- MISS BATEMAN**—One of the most charming of the spring-flowering hybrids, having large white flowers, with chocolate red anthers, and somewhat fragrant. May and June.
- PRINCE OF WALES**—This is one of the very profuse flowering varieties of vigorous habit; showy and free. The flowers are of deep purple with a red bar in the center of each flower leaf. First-rate for bedding as well as training up. July to October.
- PRINCESS OF WALES**—A deep bluish mauve, with a satiny surface. An exceedingly fine Clematis.
- PURPUREA ELEGANS**—Deep violet purple, light-colored filaments, and pinkish brown anthers. First-class certificate Royal Horticultural Society.
- RAMONA**—Said to be an American seedling of the Jackmanni type: one of the strongest growers; flowers lavender blue, similar to the Gem.
- RUBELLA**—One of the finest of the Jackmanni class, having the same habit of abundant and continuous blooming until frozen up. The flowers are large and of a deep velvety claret color; showy and effective. July to October.
- RUBRA VIOLACEA**—This is another of the Jackmanni class, producing flowers in great profusion, which are of a maroon-purple, flushed with reddish violet. One of the best. July to October.
- STAR OF INDIA**—A very showy, very free flowering sort with large flowers, first of a reddish plum color, changing to a violet purple, with turkey-red bar in the center of each flower leaf. A distinct variety of great merit. July to October.
- VELUTINA PURPUREA**—This variety has great merit in being the darkest colored Clematis of the class. It has the vigorous, free-blooming character of the Jackmanni. The flowers are large and of a very rich blackish mulberry-purple color. New and choice. July to October.
- VITICELLA RUBRA GRANDIFLORA**—This is the nearest approach to a crimson Clematis yet obtained. The flowers, which are very abundant, are of a dull crimson color, and have green stamens. July to October.
- VITICELLA VENOSA**—A beautiful Clematis, of free growth. The flowers are above medium size; the color is a pleasing tint of reddish-purple, elegantly veined with crimson. July to October.
- WILLIAM KENNETT**—A choice new variety, having large flowers of a deep lavender. July to October.

HEDGE PLANTS.

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

Hedges for Defence.

- HONEY LOCUST**—For turning cattle and as a farm hedge, is much the best in the Northern States. It is of vigorous growth, perfectly hardy; thrives with ordinary care, and is sufficiently thorny to be impenetrable. It bears the shears well.
- OSAGE ORANGE**—In the South and Southwest is in great favor, and wherever it can be grown without Winter killing, it makes a very efficient hedge.

Hedges for Wind Brakes.

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

AMERICAN ARBOR VITÆ comes next. Belts of PINES are also useful as a protection.

Ornamental Hedges or Screens.

AMERICAN and SIBERIAN ARBOR VITÆ, NORWAY SPRUCE, HEMLOCK, and especially JAPAN QUINCE and PURPLE BURBERRY, all described in their appropriate places in this catalogue, make beautiful screens or hedges.

PRIVET—A pretty shrub with smooth, shining leaves and spikes of white flowers, also makes a beautiful hedge.

PÆONIES.

A splendid class of Shrubs, flowering in all shades, from red and lilac to white, with blooms from four to eight inches in diameter. Many of them are very double, and have a delicate and refreshing fragrance; they are easily cultivated and require but little protection.

Class I.--PÆONIA MOUTAIN (Tree Pæonis).

- P. MOUTAN—The parent species is a native of China. The varieties are handsome flowering shrubs, attaining from 6 to 8 feet in height in about 10 years, with proper care. The flowers are remarkably striking, of gorgeous colors, very numerous and enormous in size, often measuring 6 to 9 inches across, and appearing in May.
- P. BANKSII (Chinese Double Blush Pæony)—Very large, fragrant flowers; rosy blush, with purple center. One of the finest.
- P. ALBA PLENA—Double white, shaded with purple at the center.

Class II.--CHINESE HERBACEOUS PÆONIES.

These are beautiful, showy and easily cultivated plants, blooming from the beginning of May till the end of July. They should have a place in every garden. A selection will give a continuous bloom for three months. We offer the best sorts, varying from pure white, straw color, salmon, flesh color and blush, to lilac and deep rose.

HARDY HERBACEOUS FLOWERING PLANTS.

The following collection embraces the most desirable species and varieties. They are all showy and beautiful plants, of easy cultivation, and of various seasons of flowering, from May to November. By a judicious selection, a continuous display of flowers may be obtained from early spring to the end of autumn.

Anemone Japonica (Windflower).

RED FLOWERING—A distinct and beautiful species; flowers 2½ inches in diameter; bright purplish rose, with golden yellow centers, borne in great profusion from September to November. Height, 2½ feet; habit neat and compact; very desirable and effective as a pot plant and in lines or masses in beds or mixed borders.

WHITE FLOWERING—A distinct and beautiful variety of the preceding; flowers 2½ 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 or mixed borders.

Astilbe (Japan Spiræa).

JAPONICA—Known generally as *Spiræa Japonica* or *Hoteia Japonica*. A handsome plant, with small, pure white flowers, in large, branching panicles. Blooms in May, in the open air, but is cultivated chiefly for forcing in winter.

Campanula (Bellflower, Harebell).

An elegant genus of plants, rich in color, profuse in bloom, and of easy culture.

BARBATA (Bearded Harebell)—An Alpine sort, with a beard at the mouth of its pretty, pale, sky-blue flowers, nearly $1\frac{1}{4}$ inches long.

GRANDIS—Forms a bush 2 to 3 feet high, composed of a number of spikes thickly set with large blue salver-shaped flowers. June and July.

Clematis.

DAVIDIANA—Large axillary clusters of fragrant blue flowers: 3 feet.

Coreopsis (Tickseed)—Showy and valuable free-flowering perennials.**Delphinium** (Larkspur).

A remarkably showy class of plants, producing magnificent spikes of flowers in midsummer. We know of no plants which will afford greater satisfaction than these.

Dianthus (Pink).

CARYOPHYLLUS—In variety. The well-known border carnation.

WHITE-FRINGED—A fine variety. May and June.

Dicentra or Dielytra (Bleeding-Heart).

EXIMEA—Rose color; foliage fern-like; flowers all summer; valuable; 12 inches.

SPECTABILIS—A handsome, most curiously formed, rosy-crimson flower, with white and blue tinged protruding stamen; one of the finest border plants; is quite hardy; well adapted for blooming in the winter; one to two feet. May and June.

Dictamnus (Fraxinella or Gas Plant).

A choice perennial, forming a bush about two feet high, and bearing spikes of curious red and white flowers, which are fragrant.

ALBA—White; twelve to eighteen inches. June.

RUBRA—Red; twelve to eighteen inches. June.

Erianthus.

RAVENNÆ (Ravenna Grass)—Resembles the Pampas Grass, but blooms more abundantly. Attains a height of from nine to twelve feet. Being perfectly hardy, is a valuable grass for the decoration of lawns.

Eulalia.

These beautiful hardy grasses are deserving of the highest commendation. For the garden they are invaluable, being very showy and ornamental and of easy cultivation. They should be in every collection.

JAPONICA—The type, a vigorous grower with large plumes: 3 feet.

VAR. ZEBRINA (Zebra-Striped Eulalia)—One of the most beautiful of ornamental grasses; foliage marked crosswise with bands of white and green.

Funkia (Plantain Lily).

A very interesting and beautiful genus, with luxuriant foliage and handsome lily-like flowers.

Helianthus (Perennial Sunflowers).

These form a very important group of bold, showy autumn-flowering plants, indispensable for large borders, woodland walks, etc., and especially where cut flowers are wanted in quantity. They are all remarkably free-flowering, perennial, and very free-growing, and you can scarcely find a situation or soil in which they will not succeed.

DECAPETALUS—Five feet; September to frost. Fine free-flowering form, with clear yellow flowers, immense panicles. One of the best late blooming border plants.

MULTIFLORUS FL. PL. (Double Sunflower)—A blaze of gold in late summer and early autumn, and altogether one of the showiest of hardy perennials.

Helleborus (Christmas Rose).

The following are all evergreens, and bloom in March or April.

ATrorubens—Flowers purplish red, in clusters. April.

NIGER—Beautiful white flowers.

OLYMPICUS—A handsome species, 12 to 15 inches high; flowers purple. April.

Hemerocallis (Day Lily).

Fine tall-growing plants, with large lily-shaped, sweet-scented flowers.

DUMORTIERII—Bright orange-colored flowers in summer, 2 feet.

FLAVA (Yellow Day Lily)—One of the finest hardy plants; flowers large in clusters, golden yellow, and very fragrant; plant vigorous: 3 feet. July.

Hollyhock.

The revival of this plant in popular favor is a good indication of the change in taste which is setting in, in favor of hardy plants. These are well adapted for growth at the rear of garden beds, and for creating effects where tall, showy, and withal graceful plants are needed. We offer both double and single sorts in the widest range of color, from white to almost black.

Iris Germanica.

This group includes all the broad-leaved Iris, which generally pass under the above name, but are, in fact, varieties; all resembling each other in foliage and habit, but totally distinct in flower; when taken as a whole, they form a group unparalleled in beauty, nothing in creation can vie with them, unless it is the Orchids from the Tropics. Every shade of color may be found among them, and as they will thrive in almost any soil or situation without any care whatever, they must be considered necessary in every garden.

KÆMPFERI—(Japan Iris)—Flowers differ from the ordinary kinds, in being broad and flat. They exhibit a wonderful variety of colors and shades and appear later than the others. They rank among the most desirable of hardy plants; succeed best in a moist soil; 3 to 4 feet.

Lilium—(The Lily.)

No class of plants capable of being cultivated out of doors possesses so many charms; they stand prominently among all other hardy plants, and no herbaceous border, however select, should be without a few of its best sorts. With a well-selected collection, liliums may be had in bloom from June to October. They should be planted in the fall, from October 1st as long as the soil can be worked; and in spring, as soon as the frost is out of the ground until the first of May. Plant about five inches deep. The bulbs should not be disturbed oftener than once in three years.

AURATUM—(Gold Banded Japan Lily).—This superb Lily has flowers 10 to 12 inches in diameter, composed of six white petals, thickly studded with rich chocolate crimson spots, and a bright golden band through the center of each petal; exquisite vanilla-like perfume. As the bulbs acquire age and strength, the flowers obtain their maximum size and number. Upwards of 12 flowers have been produced on a single stem. It is perfectly hardy in dry soil, also admirably adapted for pot culture.

CANDIDUM—(Annunciation, or St. Joseph Lily)—The well-known Garden Lily; snow white fragrant blossoms. 3 to 4 feet.

HARRISII—(Bermuda Easter Lily)—Flowers large, trumpet-shaped; in general appearance resembling Longiflorum, and possessing a delightful fragrance. It is a remarkably free bloomer, and is valuable either for forcing or for outdoor planting.

TIGRINUM—(Tiger Lily)—August. 3 feet. One of the showiest, easiest cultivated, and adapted to a variety of soils.

Lily of the Valley (*Convallaria*).

MAJALIS (Lily of the Valley)—Large, luxuriant foliage; flowers small, bell-shaped, in pretty racemes, and very fragrant.

Pansies.

These lovely flowers, favorites with every one, are too well known to need any description. Nothing can be more effective, whether grown in beds, ribbons, groups or interspersed among other plants in the border. They are also admirably adapted for pot culture, for the decoration of the conservatory during the winter and spring months. The plants offered are from the very finest strain of seed, and will, we are sure, give entire satisfaction.

Phlox (Hardy).

This, when properly grown, is unquestionably one of the finest autumn flowers—like the *Pæony*, a flower for the million. It is of vigorous habit, easy culture, and produces in great profusion during a long season, flowers of fine form and substance, and of bright and varied colors. Just as the *Roses* are fading, the *Phlox* puts forth her first flowers, producing a fine succession of bloom, and prolonging an interesting season at least six weeks. As regards their culture, it may be briefly stated that they succeed in any good garden soil, but they are greatly improved by being liberally manured, and an occasional supply of liquid manure during the growing season will greatly increase the size of their trusses. When in flower they should be freely watered every evening. The *Phlox* usually flowers in July and August, and in order to render it autumnal flowering, it is necessary to pinch the shoots about the first of June, and again in July. The plants will then flower in September. For early flowers some of the plants may be left unpinched. When two years old the first trusses are produced. The third year the plants flower tolerably well, but they will not keep thrifty and healthy after that. The old plants should then be lifted in the fall, divided and transplanted. But the better plan is to keep up a succession of young plants by securing a fresh collection every year.

Tritoma Uvaria—(Flame Flower).

A splendid half hardy summer and autumn flowering plant, producing magnificent spikes of rich orange red flowers. They may be left in the ground during winter with good protection, or can be taken up in the fall and potted and kept from frost.

Yucca Filamentosa.

A handsomely formed plant, with lance-shaped leaves. In the spring it throws up a flower-stem some three feet in height bearing a great number of beautifully lily-shaped, pendant white flowers. Highly ornamental.

DAHLIAS.

The *Dahlia* is one of the showiest of our autumn flowers. Commencing to flower in August, they are in a perfect blaze of bloom until stopped by frost in late autumn. The *Cactus*, *Single* and *Pompon* varieties are especially fine for cut flowers. We know of nothing more showy for table decoration than a loosely-arranged bunch of long-stemmed *Cactus* or *Single Dahlias*. They delight in a deep, rich soil, should be planted three and one-half to four feet apart, and be tied to heavy stakes to prevent strong winds from breaking them down.

We offer a choice collection, embracing *Large-flowering*, *Bouquet*, and *single-flowering*.

BULBS FOR FALL PLANTING.

Hyacinths.

The *Single Flowered* varieties are generally more effective than the *Double* ones, and usually the former succeed better than the latter in glasses.

Narcissus (Daffodil).

The Narcissus are among the most popular of Spring Flowering Bulbs. They thrive in almost any soil, and may be left alone for several years after once being planted. They succeed best in a deep, stiff soil.

Jonquils.

Pretty varieties of the Narcissus, having a very agreeable fragrance; adapted to either pot or out-door culture. The bulbs being small, six or eight may be put in a six-inch pot.

Crown Imperial.

Very showy plants; are quite hardy, and when the bulbs are once planted they need no further culture. Plant five inches deep, one foot apart.

Chinese Sacred Lily (Joss-Flower or Flower-of-the-gods.)

A variety of the Polyanthus or Bunch-flowered Narcissus. Grown chiefly in water, with pebbles for support. The flowers are very fragrant and pretty; pure white, with a yellow center. Flowers in six weeks after planting.

TULIPS.

Our selection embraces the best varieties grown, either for forcing or bedding. The mixed Tulips will be found superior to ordinary mixtures.

SUMMER AND AUTUMN FLOWERING BULBS.

To be planted in spring, taken up in autumn, and kept from freezing in a dry cellar.

Amaryllis.

FORMOSISSIMA (Jacobæa Lily)—Flowers large and deep red.

Gladioli.

The Gladiolus is the most showy of all the Summer Flowering bulbs; in fact, no flower equals it for brilliant display, and none are more easily grown. Bulbs should be planted in the open ground from last of April to first of July, and they will bloom from July to October. Plant three inches deep and four inches apart. In October the bulbs should be lifted, dried and stored in the cellar over winter.

Our Mixed Gladiolus are very fine indeed, being choice varieties only. All old and common ones have been discarded, and customers can depend upon having a large and magnificent variety of colors.

TUBEROSES.

The Tuberose is one of the choicest of flowers. They produce long spikes of pure white, wax-like double flowers of great fragrance and beauty. By many their fragrance is considered to be the finest of all flowers, and surely no flower has a purer, more wax-like appearance. The bulbs we offer are very large and fine, and will bloom profusely the coming season. Bulbs can be planted from April to June in pots or the open ground. Plant three inches deep in good, rich soil, and do not allow them to be overrun with weeds or other plants, if you desire them to bloom early.

CHRYSANTHEMUMS.

These are very interesting plants, and among the handsomest autumn flowers. There is nothing that will make such a cheerful display during October and until the ground freezes, and they are of an almost endless variety of forms and colors. There are three classes: the Chinese, bearing a large, loose, graceful flower; the Pomponé or Dwarf, with small and perfect very-double flowers in great profusion; and the Japanese, with ragged fringe-like flowers.

ROSES.

We have continued our extensive propagations of Roses on their own roots, so that our largely increased facilities for growing and storing over winter have been taxed to their full capacity. We are constantly adding the most promising new kinds to our list, and claim to have one of the largest, as well as best grown and best selected stocks of Roses in the country.

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 to, 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 gluing 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.

Class A--HARDY HYBRID PERPETUAL OR REMONTANT ROSES.

In this class are included the so-called "HYBRID NOISSETTES," 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 the season, but very hardy and beautiful. As for the rest of this class it comprises many of the most beautiful Roses in cultivation, and as they are hardy and easy of culture, with 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 ensure 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.

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.

American Beauty—Large, globular; deep pink shaded with carmine; delicious odor; has proved to be a most desirable variety for forcing, and may be found valuable for cultivation out of doors.

Antoine Mouton—Deep rose, tinged with lilac; hardy and fragrant.

Antoine Quihon—Very deep velvety crimson, darker than Prince Camille. A good grower, of bushy habit. Very desirable.

Augusta Mie—Delicate pink; finely cupped. A vigorous grower.

Baron de Bonstetten—Rich velvety maroon; large, full. A splendid sort.

Caroline de Sansal—Clear, delicate flesh color; fine form; a strong grower, and one of the best of its color.

Climbing Jules Margottin—Carmine-rose, fine in open flower and in bud; the best of all the climbing sports. It may be grown either as a Pillar Rose, or by pruning, kept in bush form; it should be in every collection.

Climbing Victor Verdier—Resembles Victor Verdier, of which it is a seedling, but having a decided climbing habit. Bright rose with carmine center, a very fresh shade of color; free bloomer; wood nearly smooth. This variety is particularly desirable on account of its vigorous constitution and free-flowering habit.

Comtesse Cecile de Chabillant—Deep pink, of medium size; full, fragrant, of perfect globular form. A lovely rose, very hardy.

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

Coquette des Blancs—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 appears.

Countess of Oxford—A seedling from Victor Verdier. Bright carmine, fading in the sun; very large and full; not fragrant. Wood almost thornless; foliage very handsome, large and distinct. Fine in bud; valuable for forcing.

Dinsmore—A new seedling from New Jersey. A splendid bedding sort; perfectly hardy, of vigorous growth, and produces an abundance of bloom all summer. The flowers are large, perfectly double, and of a brilliant crimson color.

Duke of Edinburgh—Bright crimson, large double flowers, slightly fragrant. Foliage large and attractive. A free bloomer early in the season.

Earl of Dufferin—One of the finest roses of recent years. Rich brilliant velvety crimson, shaded with dark maroon; large, full, finely formed; delightful fragrance. A vigorous grower. One of the finest dark roses. It should be in every collection.

Fontinelle—Bright, shining scarlet, beautifully shaded with rich crimson; petals edged with violet; very large, handsome flowers; full and double, and exceedingly sweet. A vigorous grower and very hardy.

GENERAL JACQUEMINOT ROSE.

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

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 full 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.

Gloire de Margottin—New. This is the brightest colored rose yet introduced, and is in every way a most desirable variety, being a good, strong, vigorous grower and free bloomer: good for either forcing or out-door culture.

Jean Liabaud—Fiery crimson: large and double: fragrant: one of the best dark roses: vigorous.

John Bright—Glowing crimson. Said to be the brightest rose yet raised.

John Hopper—A seedling from Jules Margottin, fertilized by Mme. Vidot. Bright rose with earmine 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.

La France—Delicate silvery rose; very large and full; an almost constant bloomer; equal in delicacy to a tea rose: the most pleasing fragrance of all roses: only a moderate grower, but most desirable.

La Reine—Brilliant glossy rose, very large; cupped and beautiful: a very hardy, useful rose.

La Rosiere—Velvety crimson. A fine rose, excelling Prince Camille; petals with good substance.

Leopold Premier—Bright dark red: fine form; large and a strong grower.

Louise Odier—Bright rose color, medium size, full; well formed and hardy.

Louis Van Houtte—Crimson maroon; medium size; sometimes large, full. A tender sort, but very free blooming, and, altogether, the best crimson Rose we have. A moderate grower.

LA FRANCE ROSE.

- Mad. Gabriel Luizet**—For loveliness in color, fragrance, size and freedom of blooming qualities, this rose has no equal to-day; equally good as a bedding rose out doors. Pink, distinct, very large, cupped shaped; somewhat fragrant. As an exhibition rose, will rank with its rival, Baroness Rothschild.
- Madame Plantier**—Pure white; medium size, full; flowers produced in great abundance early in the season.
- Marie Rady**—Vermilion, shaded with crimson; large, very full, of fine globular form. A fragrant, superb sort, but a shy bloomer in autumn. A free grower.
- Magna Charta**—Bright pink, suffused with carmine; very large, full and fragrant, with magnificent foliage. A free bloomer. For the earliest deep color is the best.
- Marguerite de St. Amande**—Bright rose, very beautiful in the bud state; this variety will give more fine blooms in the autumn than almost any other in the class. One of the most valuable roses.
- Marshall P. Wilder**—Raised from the seed of the Gen. Jacqueminot. It is of vigorous growth, with healthy foliage; flowers large, semi-globular, full, well formed; color, cherry carmine. In wood, foliage and form of flower, it resembles Alfred Colomb.
- Maurice Bernardin**—Bright crimson, large, moderately full: a good free-flowering sort, often coming in clusters.
- 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.

Meteor—As a dark crimson perpetual blooming rose this ranks as one of the best yet introduced of any class. It is especially valuable for summer and fall blooming, either in the greenhouse or in open ground, and where there is a demand for fine roses in summer, this variety will become a great favorite.

Pæonia—Red; large or very large, fragrant, and a free bloomer. A good garden variety.

Paul Neyron—This magnificent Rose should be in every collection. By far the largest variety in cultivation; the flowers are of immense size, many of them being five to six inches in diameter, 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. As showy as the Pæony, it has the delicate coloring and exquisite scent of the Rose. The wood is nearly smooth and foliage tough and enduring. 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.

Pius IX—Deep rose, tinged with carmine; large and full; a robust grower and profuse bloomer.

Prince Camille de Rohan—Deep velvety crimson, large, moderately full. One of the darkest in cultivation, and a splendid rose.

Queen of Queens—Pink, with blush edges; undoubtedly the finest rose of its color; extra free flowering.

Sadonie—Light rose, large and distinct; buds especially fine; a strong grower, producing magnificent foliage and an abundance of flowers.

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 lightened with scarlet; fragrant.

Vick's Caprice—A sport from *Archduchess d'Autriche*. Large, pink, striped and dashed with white and carmine; vigorous and free blooming.

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.

Gem of the Prairie—Carmine crimson, occasionally blotched with white; a cross hybrid between Madame Laffay and Queen of the Prairie.

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

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

MOSS ROSES.

Countess de Murinais—Pure white, large, very desirable; the finest white moss.

Crested—Deep pink buds, surrounded with mossy fringe and crest. Very beautiful and fragrant; growth slender.

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

Luxemburg—Deep crimson; fine grower.

Madam Alboni—Pink, very large; a beautiful and desirable sort.

Madame de la Rochelambert—Light red, a free bloomer and a fine grower.

Princess Adelaide—A vigorous grower; pale rose of medium size and good form good in bud and flower. One of the best.

Perpetual White—Pure white: produces very fine flowers.

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.

PERPETUAL TENDER ROSES.

Under this head we include all classes of Tender Roses—Bourbon, China, Noisette and Tea, and indicate the class to which each variety belongs with the letter B., C., N. or T. respectively.

Agrippina (C)—Red velvety crimson; moderately double; fine in buds: valuable for planting out. One of the best.

Bon Silene (T)—Rosy earmine, shaded with salmon; fragrant and very free flowering. Valuable for the buds.

Catharine Mermet (T)—Bright flesh color, with the same peculiar lustre possessed by *La France*. Large, full and beautiful. One of the finest Teas.

Clothilde Soupert (Polyantha)—Medium size: very double and beautifully imbricated like an Aster; produced in clusters: pearly white, with rosy lake centers, liable to vary, producing often red and white flowers on same plant. Valuable for florists for designs, or as a market pot plant, being a remarkably free and constant bloomer, and of easy culture. One of the most valuable roses of recent introduction.

Cornelia Cook (T)—Pale yellowish white, tinged with flesh. A superb rose when well grown.

Douglas (C)—Crimson; medium size; semi-double: fine buds.

Duchess of Albany—A sport from the well known and popular *La France*. While it resembles its parent in several respects, it is quite distinct in color, being of a rich, deep, even pink tint, and the shape is more finished; it is equally vigorous, free blooming and fragrant. One of the most important of recent acquisitions for growing in the open air or for forcing.

General Tartas (T)—Deep crimson, often mottled; of special value for its buds.

Gloire de Dijon (T)—(Climber)—A combination of salmon, orange and buff: flower large and of good globular form; hardy.

Hermosa (B)—Bright rose: *a most constant bloomer*; hardy: one of the best.

Madame Welch (T)—Pale yellow, orange center. Large, full, of good form.

Marechal Niel (N)—Deep yellow; very large; very full, globular: highly scented. Requires careful treatment. It should be severely pruned. The finest yellow rose.

Mrs. Degraw (B)—Resembles Apolline somewhat in leaf and flower, but is more compact in growth. In color it is a rich, glossy pink, very fragrant, and is a remarkably prolific and continuous bloomer. It is said to be perfectly hardy south of New York.

Niphetos (T)—Pale yellowish white, often snowy white. Long, large buds. Very beautiful.

Papa Gontier (T)—Rose shaded yellow, reverse of petals crimson; large, semi-double, fragrant, free growing, profuse flowering; very popular for winter forcing.

Perle des Jardins (T)—A beautiful straw color, sometimes deep canary: very large, full, and of fine form: stiff shoots or stems, and very free flowering. Now established as the most popular yellow rose for forcing.

Puritan (H T)—A hybrid from Mabel Morrison and Devoniensis. In size and shape resembles the former: flowers large, often badly formed, pure white, sweet: fine foliage. This variety has greatly disappointed us. It has little merit apparently.

Safrano (T)—Saffron and Aprieot. A very free bloomer. One of the oldest and best varieties, especially when used in the bud state.

Souvenir de la Malmaison (B)—Pale flesh, with a fawn shade: very large, showy, beautiful. An old favorite.

Sunset (T)—A sport from *Perle des Jardins*. Identical in every respect with that variety except that its color, instead of being a canary yellow, is of a rich, tawny shade of saffron and orange, similar to but deeper than *Safrano*. In size, vigor and productiveness, it is in all respects the same as the variety from which it sprung.

The Bride (T)—A lovely pure white Tea Rose of large size. Admirable for forcing as well as for summer flowering. The buds have more substance than *Niphotos*, are full and double, and possess the good characteristics of *Catharine Mermet*.

RUGOSA ROSES AND THEIR HYBRIDS.

This is a very interesting group, of Japanese origin. The flowers are mostly single. The plant is highly ornamental, on account of its good habit and beautiful glossy foliage.

Madame G. Bruant—The first of a new race of hybrids. In the bud state the flowers are long and pointed, when open, semi-double: pure white and fragrant, and produced freely in clusters at intervals throughout the summer; exceptionally hardy and vigorous: forms a handsome bush. Budded and on own roots.

Rugosa alba—A species from Japan. Single, pure white flowers of five petals; highly scented; a splendid shrub. Budded plants.

Rugosa rosea—Also from Japan. Flowers rose-colored, tinged with violet; same size and form, but of more vigorous habit than the preceding; a valuable shrub. On own roots.

Rugosa rubra—Another Japan variety. Flowers single, of a most beautiful, bright, rosy crimson, succeeded by large berries of a rich, rosy-red color, and are a great addition to the ornamental character of the plant.

INSECT ENEMIES AND HOW TO DESTROY THEM.

We embody in the following pages brief but plain descriptions of the various insects which attack different classes of trees and plants, and in each case the best known remedy. Our directions can be relied upon implicitly, and we need only ask our friends and customers to follow the directions in each case to the letter.

DIRECTIONS FOR PREPARING THE REMEDIES:

Paris Green.—In solution, one pound is mixed with from 100 to 300 gallons of water, the strength depending on the plant sprayed and the insect to be destroyed. The poison should first be mixed with enough water to form a paste, after which the full quantity may be added. It is always best to add one or two pounds of lime for each pound of the green, as the danger to foliage will be much lessened thereby. Keep the solution well stirred while using.

London Purple—What is said under Paris Green is applicable here, as both poisons are used in the same way. We prefer Paris Green as the safest to use.

Kerosene Emulsion.—Take common bar soap, one-half pound, water one gallon, and kerosene two gallons. Shave the soap into the water, then heat the whole until all the soap is dissolved: add the soap liquid, boiling hot, to the kerosene, and churn for ten minutes by pumping it back into itself; when cool the emulsion should have the consistency of thick cream or soft butter, this depending somewhat on the kind of soap used.

Lime, Whale Oil Soap, Soft Soap, Carbolic Acid, Pyrethrum and Hellebore.—The manner of preparing and applying these will be given under insects for which they are used.

INSECTS AFFECTING THE GRAPE.

The Flea Beetle.—This small steel-blue insect appears in early spring, and at once begins eating the tender foliage. After eating about a moment the female deposits small, yellow eggs on the foliage. These soon hatch into small larva, which continue the work of destruction.

REMEDIES.—Spray with Paris Green, one pound, and one-and-one-half pounds lime to 200 gallons of water, as soon as the beetles are noticed. Two applications of this solution at intervals of a week or ten days will usually destroy all the insects.

The Rose Bug.—It makes its appearance early in the summer, devouring flowers, young fruit and leaves. The beetle is about half an inch long, and of a brown color.

REMEDIES.—The best results have followed the use of Pyrethrum, which should be applied in solution at the rate of one ounce to two gallons of water.

INSECTS AFFECTING THE APPLE.

The Codling Moth.—The little white caterpillar, whose effects are so familiar to everyone, is the larva of a small, nocturnal, gray moth. The moth deposits her eggs on the blossom end of the fruit. As soon as the eggs hatch the larva eats its way into the young fruit: the rest of the story is well known to everyone.

REMEDIES.—Spray the trees with Paris Green or London Purple at the rate of one pound to 200 gallons of water, and add one-and-one-half pounds of lime, first when the flowers are falling, and again when the fruit is the size of peas.

The Canker Worm.—This measuring worm eats the green portion of the leaf, giving the tree a brownish color as though scorched by fire. The worms appear in early spring, and when full grown are an inch long.

REMEDIES.—Spray the trees when the leaves are one-third grown with Paris Green solution, one pound to 200 gallons of water, and add one-and-one-half pounds lime. Usually one spraying will be sufficient, but if the worms appear to be on the increase, a second application will be advisable.

Apple Tree Tent-Caterpillar.—The large silken nests made by this insect are familiar to everyone. The caterpillars appear in May or June, and in five or six weeks have reached their full size.

REMEDIES.—Cut out and burn the nests as soon as they are seen, taking the precaution to do this in the morning when the caterpillars are in. This, together with one or two sprayings of Paris Green solution, having a strength of one pound to 200 gallons of water, and add one-and-one-half pounds of lime, will effectually rid the trees of the pest.

The Apple Aphis.—Apple trees are often attacked early in the season by this insect. The lice are quite small and green in color. By sucking the juices from the young growth they greatly interfere with the functions of the latter, and as a result, the tree has a sickly yellow appearance.

REMEDIES.—Spray with Kerosene Emulsion at the rate of one gallon to twenty of water, as soon as the lice appear. Repeat the treatment in eight or ten days if necessary. A decoction made by soaking over night four or five pounds of tobacco stems, or refuse tobacco of any kind, in five gallons of water, will also be found an excellent remedy against the lice.

The Oyster Shell Bark Louse.—There is frequently seen on the trunks, branches and twigs of the apple tree small whitish shells, resembling in shape those of an oyster. Under these shells are numerous small lice, busily engaged sucking the sap from the tree.

REMEDIES.—Scrape the trees thoroughly in spring before the leaves appear, and then paint the trunk and large limbs with a thick solution, made by dissolving one quart of soft soap in a half a gallon of hot water. Two ounces of crude Carbolic Acid added to this will also increase its efficacy. Make no further treatment until the middle of May, when Kerosene Emulsion, one gallon to twenty-five gallons of water, should be applied. It is always best to apply the emulsion soon after the lice hatch, the time being determined by closely examining the scales.

INSECTS AFFECTING THE PEACH.

The Black Aphis.—Numbers of these small, shiny, black insects may be seen in the spring on the leaves and twigs of the peach. The lice often do a great deal of damage above ground as well as below on the roots.

REMEDIES.—For the form above ground, spraying with Kerosene Emulsion, one gallon to thirty-five gallons of water, is the most effective remedy. The first spraying should be made as soon as the lice appear; if necessary this should be followed by others at intervals of a few days until the trees are rid of the pest. Under the ground the lice are best destroyed by digging in tobacco stems or dust among the trees. The tobacco is scattered on the ground to a depth of half an inch or more, then dug in with a spade or fork.

Peach Yellows.—This is one of the few diseases as to which very little is positively known, except its effects. It usually makes its appearance about mid-summer, causing the foliage of the tree to turn yellow, and soon thereafter the body and the larger limbs will throw out a considerable number of weak, yellow-leaved suckers. If the tree is loaded with fruit it will be undersize, little or no flavor, and ripen prematurely.

REMEDIES.—The moment that you feel sure that a tree is affected with yellows, dig it up root and branch and burn it, and plant any tree that you like, other than a peach, in its place.

The Peach Yellows has played such havoc with the peach orchards in Maryland, Delaware, New Jersey and parts of Virginia, as well as with the blocks of young growing trees in the nurseries in those States, that in many parts of the country where, unwittingly, planters purchased Southern-grown peach trees, the yellows has appeared from time to time and caused a degree of consternation among farmers that they never would have felt if they had confined their purchases of peach trees to Northern-grown stock. It is quite seldom that we see, in Western New York, even a single tree affected with the yellows, and in an active experience of over thirty years we have never seen, in any New York nursery, a single tree that was so affected.

INSECTS AFFECTING THE PEAR.

The Pear Tree Slug.—This insect attacks the leaves, eating away the green portion, so that nothing remains but the parchment-like tissue and the veins. It appears usually the latter part of June and again in August.

REMEDIES.—Spraying with a simple solution of milk of lime, made by mixing two pounds of lime in twenty gallons of water, will often rid the plants of this pest. The first application should be made as soon as the slugs are noticed; if necessary, others should follow in a week or ten days. By adding a little Paris Green (say one ounce) to the lime milk, the latter will be made more effectual.

The Scurvy Bark Louse.—This insect resembles the Oyster Shell Bark Louse, already described as attacking the apple.

REMEDIES.—The method of dealing with the Oyster Shell Bark Louse should be followed in this case.

Pear Blight.—A good many theories have been devised to account for this disease, and scores of remedies, which, by their originators, were believed to be efficacious. But it is understood by the best authorities, both practical and scientific, that the cause of the disease is unknown, and that there is but one certain remedy, namely, to cut out the blighted parts promptly on appearance of the disease and burn them. Fortunately, Pear Blight seldom visits us oftener than once in twenty or thirty years, and in orchards, where the knife and saw has been used promptly on appearance, but trifling damage has resulted. On our own grounds we had a visit of this disease about fifteen years ago. We promptly removed every limb that was affected, perhaps a dozen in all, and from that day to this, we have not so much as seen a blighted pear tree, either on our own grounds or on the grounds of our neighbors.

INSECTS AFFECTING THE PLUM.

The Curculio.—This little grub originates from eggs deposited by a small, dirty, gray beetle when the flowers are still small.

REMEDIES.—The most reliable way now known of dealing with the Curculio is to spray with Paris Green. The first application should be made when the flowers are falling, using a solution made by mixing one pound of Paris Green in 200 gallons of water and adding one-and-one-half pounds of lime. In a week or ten days make a second application.

The Plum Tree Aphis.—This insect resembles the one occurring on the peach, and, like it, may be destroyed by spraying with Kerosene Emulsion, made by mixing one gallon of the concentrated emulsion in twenty gallons of water.

Black Knot.—The most scientific, as well as practical, fruit growers in the country are by no means agreed as to the cause of the Black Knot on plum and cherry trees, but they are entirely agreed as to the only known remedy, namely, just as soon as the Black Knot appears, cut it out, removing the branch at least two inches below where the knot appears. Burn the affected parts, and follow this method promptly and thoroughly, and in ninety-nine cases out of a hundred, you will have exterminated the disease before it has done serious damage.

INSECTS AFFECTING THE CHERRY.

The Cherry is injured by plant Lice resembling those occurring on peach or plum. The Pear Tree Slug also attacks the leaves, while the fruit is infested by the Plum Curculio.

REMEDIES.—The remedies given under plum, peach and pear insects should be adopted in this case.

Black Knot.—Cherry trees are affected with Black Knot the same as plum trees, and the same remedy should be used.

INSECTS AFFECTING THE CURRANT AND GOOSEBERRY.

The Currant Worm.—The perfect form of the worm is a small fly, which lays its eggs on the leaves in early spring. As soon as the eggs hatch, the worms eat circular holes in the foliage. As the worms increase in size they become more voracious, often ridding the leaves.

REMEDIES.—As soon as the worms are seen, spray the plants with a solution made by mixing one ounce of Hellebore in two gallons of water.

The Currant Aphis.—The insect attacks the leaves, causing them to curl and turn brown. The lice are usually abundant in early summer, but as hot weather advances they disappear.

REMEDIES.—Spray with Kerosene Emulsion, one gallon to twenty gallons of water, as soon as the lice are noticed.

INSECTS AFFECTING THE ROSE.

The Rose Bug.—The same as sometimes attacks the grape.

REMEDIES.—The same.

The Green Aphis.—The same insect that attacks the apple.

REMEDIES.—The same.

The Black Aphis.—The same as attacks the peach and other trees.

REMEDIES.—The same.

CLEMATIS HENRYI— Photographed from Nature.

TEAS' WEEPING MULBERRY.

The Best Hardy Weeping Tree.

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