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F. C. JOHNSON & CO.'S

NEW ILLUSTRATED DESCRIPTIVE

C A T A L O G U E

OF NURSERY STOCK,

CULTIVATED AND FOR SALE AT THE

SOUTH-WESTERN NURSERIES,

NEW ALBANY, IND.

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Established in 1857.

F. C. JOHNSON & CO.'S

ILLUSTRATED DESCRIPTIVE

CATALOGUE

OF

Fruit and Ornamental Trees,

SHRUBS, VINES, PLANTS, ROSES, &C.,

CULTIVATED AND FOR SALE BY

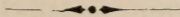
F. C. JOHNSON & CO.,

AT THE

SOUTHWESTERN NURSERIES,

Office and Green-Houses, on Vincennes Street, between Oak and Poplar,

NEW ALBANY, IND.



Our Nurseries are situated just at the foot of the Falls of the Ohio, and immediately opposite Louisville, where we are most conveniently located for Shipping by River or Railroad to all Points South or West.



NEW ALBANY, INDIANA.

1872.

TO THE PUBLIC.

In presenting this Catalogue to the public, we take the opportunity of expressing our grateful acknowledgements for the very liberal patronage we have received from our friends and patrons in past years; and assure them that we shall endeavor, by a careful personal attention to our business, and great care in the filling of orders, to merit a continuance of their favors in the future.

We have now a large amount of land devoted entirely to nursery purposes, and ample facilities for propagating anything in the nursery line.

We have spared no pains in procuring varieties of fruits adapted to the South and South West where a large part of our business has been for some time. We have also been very particular in selecting varieties, to have them correct, and can warrant all trees sold by us to be genuine.

The greater part of our stock consists of varieties which have been thoroughly tested, and proven to be the best; though we cultivate few of the many other varieties for special orders, which are of value only in particular localities.

To Nurserymen and Fruit-Tree Dealers we offer great inducements. Our stock is one of the most extensive in the country, cultivated entirely under our guidance; and we are confident that our prices will be found so moderate as to give entire satisfaction to all.

Our facilities for shipping cannot be excelled. Besides our advantages of shipping by the Louisville and Nashville, the Louisville, Frankfort and Lexington, the Louisville, New Albany and Chicago, and the New Albany, Jeffersonville and Indianapolis Railroads, we can ship at almost any hour on the Ohio River, either to points below or above, giving a chance to all who may be desirous of obtaining choice fruit to get it near home, without running the risk of sending to a northern climate for trees, or patronizing the numberless swarms of tree agents, representing themselves as partners in some responsible firm, or the agent of some large nursery. The majority of agents representing themselves thus, are men who, at the time of selling, do not know where the trees are growing which they represent to so far surpass any thing ever seen or imagined.

All Agents selling trees from our establishment, will be furnished with authority from us with our signature attached.

F. C. JOHNSON & CO.

INTRODUCTORY.

We take pleasure in presenting a new edition of our Descriptive Catalogue. It has been carefully revised and corrected, several sections re-written, and much new matter added. We believe it contains more practical hints on the planting and culture of trees of all kinds than any other catalogue of its size.

The soil upon which a Fruit Tree is grown, and the manner of its culture, are matters of the first importance to every planter. The evidence is abundant, that a strong, heavy, rich soil, well drained and thoroughly cultivated, will produce healthier, longer-lived, more productive trees, better adapted to endure extreme cold, or removal to a different soil or climate, than will a light soil.

The too free use of stimulating manures on nursery ground, is productive of great subsequent injury, by inducing a rapid, succulent, immature growth, liable to become diseased, particularly when the trees are not put in equally rich ground, which is seldom done. While avoiding this very frequent error, we succeed in obtaining a fine growth of well-matured wood. The soil upon which our trees are grown, is a heavy, strong, deep clay loam, thoroughly tile-drained; and as a proof of the hardiness of our trees, which is constantly before us, we may state that we have rarely known a tree to winter-kill in our nursery rows.

We shall always aim to include in our assortment, all such varieties of Fruit Trees as are known to be of value for family use or marketing.

We give our personal attention to the cultivation, taking up and packing of our stock, so that persons at a distance ordering trees can rely upon obtaining a good selection.

All articles will be carefully packed in boxes or bales, with moss and straw, for which a charge will be made sufficient only to cover the cost, marked as the purchaser may direct, and delivered at railroad depot or steamboat landing, and are then at the buyer's risk.

We hope, by a system of fair and liberal dealing, and strict attention to our business, to continue to merit and receive a share of the patronage of the fruit-loving and tree-buying public.

NOTICE TO CORRESPONDENTS.

1. Orders should be sent in as early as possible, that there may be plenty of time for shipping long distances when necessary.

2. 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.

3. Give plain and explicit shipping directions. When none are given, we forward according to our best judgment.

4. All orders from unknown correspondents must be accompanied with the cash or satisfactory references.

5. We recommend that purchasers leave with us, as far as possible, the selection of varieties, merely stating the proportion of summer, fall and winter fruit wanted, as our experience enables us to select such sorts as are adapted to the locality.

6. Immediate notice should be given us of any error in filling an order, so that we may at once rectify the mistake, or give a satisfactory explanation.

7. All agents authorized to act for us are provided with a written certificate for the current year. Purchasers are often imposed upon by unprincipled men, who do not procure their trees of the parties they pretend to represent, frequently furnishing inferior trees, or those not true to name, and causing great disappointment in after years. *Send your orders direct to a reliable nursery firm, or buy of the regularly authorized, responsible agents.*

HINTS ON PLANTING, ETC.

Select thrifty young trees, rather than old or very large ones; the former bear transplanting better, can be more easily trained to any desired shape, and eventually become more valuable.

SOIL

for Fruit Trees must in all cases be dry, either naturally or made so by draining. A rich loam is always most desirable, but by judicious treatment, both very light and very heavy soils are available.

PREPARATION FOR PLANTING.

Pulverize 12 to 18 inches by repeated plowing and subsoiling, but when grass land must be used, remove the turf from a circle 4 or 5 feet in diameter; keep this space mellow and free from weeds. Make the hole larger than is necessary to admit all the roots in their natural position, and throw out the surface and subsoil in separate piles.

When your trees arrive, prune off broken and bruised roots, and cut back the last growth of top to 4 or 5 buds, except in fall planting, when the top pruning may be deferred until the spring following. If not ready to plant at once, "heel in," by opening a trench deep enough to admit all the roots, and setting the trees therein as close together as they can stand, being careful to tramp the dirt close about the roots. Take up again as wanted. If ready to plant, keep the roots shaded or wet. Some planters "puddle" their trees by dipping the roots in a paste of mud and water.

PLANTING.

Round up the bottom of the hole with surface soil so that the tree will stand no deeper than it did in the nursery, except the Dwarf Pear, which must be deep enough to cover the Quince stock on which it is budded, two or three inches. Work the soil around and under the roots with the hand and when well covered tramp down hard (if not too moist). Set the tree as firm as a post, but leave the surface filling (of the poorer soil) light and loose. Trees, thus set will need no staking unless quite tall. Never use manure in contact with the roots.

When planted in the Fall, heap earth around the trunk a foot high or more to remain during the first Winter, only as a protection against frost and mice.

MULCHING,

or covering the ground with coarse manure, straw, marsh hay, or other vegetable refuse, during the first summer, will effectually prevent injury from drouth, *and is a benefit at all times.*

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 dried from long exposure, bury entirely in the ground, or place in water for 12 to 24 hours.

Minute details of the management of Fruit Trees, &c., will be found in Standard Works on Horticulture. Some general hints are given under the various headings of this catalogue.

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.....	8 to 10 " "
Dwarf Apples.....	6 to 8 " "
Grapes.....	rows 10 to 16 feet apart; 8 to 16 ft. in rows.
Currants and Gooseberries.....	3 to 4 feet apart.
Raspberries and Blackberries.....	3 to 4 by 5 to 7 "
Strawberries, for field culture.....	1 to 1½ by 3 to 3½ "
Strawberries, for garden culture.....	1 by 2 "

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 " "	195	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 a acre, (43,500,) will give the number of Plants or Trees to the acre.

NOTE.—No person is willing to engage in extensive planting without being fully satisfied as to the success he will be likely to obtain. In order to present reliable information on this point, we shall, in the different sections of this catalogue, cite some instances of profitable culture that have come to our knowledge.

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

FRUIT DEPARTMENT.

APPLES.



DWARF APPLE.—(KING.)

The first fruit, both in importance and general culture, is the apple. Its period, unlike that of other fruit, extends nearly or quite throughout the year. By planting a judicious selection of Summer, Autumn and Winter sorts, a constant succession can easily be 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 fully worth one dollar before they commenced bearing. He has had experience for nearly half a century, and he says that he considers this a low estimate. At fifty trees per acre, this would make a yearly increase of value of fifty dollars per acre, which no doubt is quite within the mark.

An acre of good orchard is worth, in nearly all parts of the country, from five hundred to one thousand dollars, and is the best kind of investment at those prices, one or two years' crops frequently paying the whole amount. The price paid for the fruit is steadily on the increase, and there is no indication that it will ever be as low in the future as in the past. The wonderful growth of our cities and towns in wealth and population, will always give a market at prices highly satisfactory to the producer.

If apples are planted at the rate of fifty trees per acre, rows of peach trees can be placed between the apples, which, growing more quickly than the apple trees, soon protect them from winds, and thus are 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 their protection, and at the same time having yielded to the planter a large return for his trouble.

DWARF APPLES.

Much attention has been giving to planting Dwarf Apples in late years, with the most gratifying success. All sorts succeed equally well when worked upon the Paradise or Doucin stock; the former producing a very small tree or shrub—the latter a tree of considerable size, reaching sometimes 10 or 12 feet in height. These commence bearing fruit the second year after planting, and being as healthy as standard trees and wonderfully productive, are a great ornament and satisfaction to every planter. They should be planted from six to eight feet apart, and an acre will produce a large amount of fruit without the delay attending standard orchards. Being trained low, they are extremely valuable for the West. Taking up but little room they are especially adapted for village gardens or grounds of small extent, giving the owners a constant and sure supply of choice fruits far superior to any which can be bought in market.

Of this most valuable fruit we cultivate only such varieties as are known to be of value for market or family use. The tree is often injured in exposed situations by removing the lower branches so as to leave a long, naked trunk, exposed to the action of the sun and of cold winds; also rendering the fruit more difficult to gather, and liable to blow off. The Apple may be grown on any fair soil, but succeeds best on a loam with dry subsoil.

SUMMER.

American Summer Pearmain—Medium, oblong; striped and dotted with red; tender, juicy and rich; a slow grower, good bearer. September.

Astrachan Red—Large, roundish, nearly covered with deep crimson, overspread with a thick bloom, juicy, rich, acid, beautiful. The tree is a vigorous grower, with large foliage, and a good bearer. August.

Benoni—Medium size, nearly round; deep red; with a rich flavor; tree vigorous and productive. August.

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.

Carolina Red June—Medium size, oval; deep red; flesh white, tender, sub-acid. Tree erect, good grower, productive. Early bearer, good at the West.—August.

Duchess of Oldenburg—A large, beautiful Russian apple, roundish, streaked red and yellow; tender, juicy and pleasant. A kitchen apple of best quality, and esteemed by many for the dessert. Tree a vigorous fine grower, and a young and abundant bearer. September. Succeeds well in the Northwest, where most varieties fail.

Early Strawberry—Medium, striped with deep red; tender, sub-acid and excellent; erect grower and productive; good for both garden and orchard. 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 vigorous grower and abundant bearer. Ripens August and September. One of the best early Apples grown.

Sweet Bough—Large, pale, greenish yellow; tender and sweet; moderate grower and good bearer. August.

Summer Bellflower—A large, handsome and excellent variety; resembles the Winter Yellow Bellflower; a good grower and bearer. August and September.

Summer Queen—Medium to large, roundish; surface yellow, blotched and streaked with red; flesh yellow and tender, with an acid, aromatic flavor. July and August.

Sops of Wine—Medium size, oblong, red; flesh white, often stained; mild and pleasant; productive. August and September.

Tetofsky—A very handsome Russian apple; medium, striped, roundish; tree very vigorous, productive and hardy. July and August.

AUTUMN.

Autumn Strawberry—Medium, streaked; tender, juicy, fine; vigorous and productive; very desirable. September and October.

Clyde Beauty—Large, conical; pale yellow, striped and marbled with red; sub-acid, good. October to December.

Dyer, (Pomme Royal)—Rather large ; pale yellow, with a brownish blush next the sun ; tender, juicy and of fine flavor. September and October.

Fall Pippin—Very large ; yellow ; tender, juicy, and rich ; tree vigorous, fine in all localities. October to December.

Fameuse, (Snow Apple)—Medium size, roundish oblate ; whitish ground, striped with light and deep red ; flesh very white, juicy and pleasant. November and December.

Fall Orange—Large size, nearly round ; yellow, sometime a little dull red ; rather acid ; excellent for cooking ; tree a very early and abundant bearer.

Gravenstein—Large, striped and beautiful ; tender, juicy and high flavored ; vigorous and productive. September and October.

Jersey Sweet—Medium, striped red and green ; very sweet, rich and pleasant ; good grower and bearer. September and October.

Lowell, (Orange, Tallow or Greasy Pippin)—Large, oblong ; skin oily, pale yellow ; brisk, juicy, rather acid flavor ; good for table cooking.

Maiden's Blush—Medium size, flat, quite smooth and fair ; pale yellow, with beautiful red cheek ; tender, sprightly, pleasant, acid flavor. Tree vigorous grower and good bearer. September and October.

Munson Sweet—Large, pale yellow, with red cheek ; tender, rich and good ; fine grower and bearer. October to January.

Porter—Rather large, yellow ; tender, rich and fine ; moderate grower and productive. September.

Rambo—Medium, yellowish, streaked with dull red and somewhat dotted ; mild, tender and good ; fine grower and productive. October to December.

Twenty Ounce, (Cayuga Red Streak)—Very large, nearly round ; yellow, striped with red ; quality good ; tree vigorous and good bearer ; popular as a market variety. November to December.

WINTER.

American Golden Russet, (Bullock's Pippin, Sheep Nose)—Medium or small, roundish ovate ; clear golden russet ; very tender, juicy, rich ; more resembling in texture, a buttery pear than any other apple. Tree a thrifty, upright grower ; good bearer. November to January.

Bailey Sweet—Large, deep red ; tender, rich, sweet ; vigorous, upright, 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 ; one of the best and most popular winter apples. January to April.

Ben Davis, (New York Pippin, Kentucky Streak, &c.)—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.

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

Grimes' Golden, (Grimes' Golden Pippin)—An apple of the highest quality, equal to the best Newtown Pippin ; medium to large size, yellow. Tree hardy, vigorous, productive ; grown in Southern Ohio. January to April.

Jonathan—Fruit medium or small, roundish; skin yellow, nearly covered with dark or lively red; fine grained, very tender and finely flavored. Tree slender and spreading, with light-colored shoots. November to April.

Hubbardston Nonsuch—Large, striped yellow and red; tender, juicy, and fine; strong grower and good bearer. November to May.

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.

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.

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.

Peck's Pleasant—Large, pale yellow; very tender and rich with a Newtown Pippin flavor; tree erect and a fine bearer. November to March.

Rawle's Jannet, (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, and an abundant bearer. At the North, December to April.

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

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.

Swaar—Large, pale lemon-yellow, with dark dots; tender, with a mild, rich, agreeable flavor; moderate grower and bearer, one of the best. November to May.

Tallman Sweeting—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.

Winesap—Medium, dark red; sub-acid, excellent. Tree a moderate grower and abundant bearer. A favorite market variety at the West. December to May.

Yellow Bellflower—Large, yellow, with red blush; very tender, juicy, sub-acid; in use all Winter; moderate grower and bearer.

SIBERIAN CRAB.

This is a beautiful and attractive fruit used for ornament and for jellies.

Large Red Siberian Crab—About an inch in diameter, grows in clusters; yellow, lively scarlet cheek. Tree erect, vigorous, bears young and abundantly. September and October.

Yellow Siberian Crab—Nearly as large as the above; fine amber or golden yellow color.

Transcendent Crab—Of the largest size of this class of apples; red, showy, excellent and very handsome; one of the most desirable. September and October.

Hyslop Crab—Similar to the last in size; dark crimson, with bloom, very showy, and most beautiful of all the class.

Soulard—Medium size, greenish yellow with dark green dots; flesh white, good for cider, keeps well.

Hewes' Virginia—Rather small, round, dull red; dotted with white, acid, a fine cider apple.

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.

The melting, juicy texture, the refined flavor, and the delicate aroma of the Pear, give it rank over all other fruits, except the grape.

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

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, or 13 cents each. T. G. Yeomans, of Walworth, N. Y., sold in 1857, nearly his entire crop of one variety, at 12 cents each by the barrel. In 1860, one barrel, filled with one hundred and twenty-five pears, sold for \$35.62, and eleven barrels for \$315. Very large specimens of Angouleme have, in some instances, retailed at a dollar each. Austin Pinney, of Clarkston, N. Y., sold some of his pears at 10 cents each, or \$18 per bushel. J. Stickney, of Boston, obtained for his crop of the Louise Bonne de Jersey, in 1856, \$10 per bushel. John Gordon, of Brighton, near Boston, sold Bartlett pears raised with the highest cultivation, with skillful management in preparing for market, for \$10 per bushel, while good ones, with more common care, brought only \$3 per bushel. Ellwanger & Barry, of Rochester, sold their best well-ripened Glout Morceau pears in winter, at \$13

per bushel, and others have done the same. This sort has often borne at eight or ten years of age, under good culture.



DWARF PEAR TREE (LOUISE BONNE.)

By comparing the above figures with some of the following, of more recent date, it will be seen that prices of pears have largely advanced during the last ten years.

T. R. Austin, near Boston, (says Col. Wilder,) set out 500 Dwarf pears about twelve years since. 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 past six years, which amounted to \$3,498. They occupy about an acre.

Ellwanger & Barry, of Rochester, have a plantation of Dwarf Virgalieus or Doyennes, which gave the fourth year at the rate of \$500 per acre, and about the same the sixth year.

W. P. Townsend, of Lockport, had about an acre of Dwarf pears of different sorts, that bore the fifth year from the bud, forty-one barrels, selling at \$10 per barrel, or \$410 for the acre.

T. G. Yeomans, of Walworth, N. Y., has large plantations of Dwarfs about twelve years old. They are ten feet apart, and are cultivated, and the soil kept perfectly clean by two horses walking abreast, at less cost than a corn crop requires. They have yielded from half a bushel to a bushel per tree, and have sold for \$14 to \$35 per barrel—which is at the rate of \$2,000 and upwards per acre.

F. A. Stow, of Troy, N. Y., sent to New York in the fall of 1868, two barrels of Seckel pears. The purchasers returned him \$40 per barrel, at the same time sending him word that if he had any more such fruit they would give him \$60 per barrel for it.

In all these cases the best cultivation was given to the Dwarfs, in connection with the yearly application of good stable manure. It may be laid down as an unalterable rule that Dwarf pears cannot live, much less flourish, unless a complete system of broadcast cultivation is given. Digging small circles around the foot of each tree is wholly insufficient. The roots of thrifty trees soon spread over the whole surface, and the whole surface must, therefore, be kept clean and mellow.

We have found that we can rely upon a crop of Pears even when Apples fail, and the demand for the fruit constantly increases. It succeeds on most soils, but does best on a rather heavy loam. Budded on its own stock, it makes a Standard tree; and on the French or Angers Quince, a Dwarf. The former being best adapted to large, permanent orchards; the latter (requiring garden culture and severe pruning every year) to smaller orchards, fruit yards and gardens.

Dwarfs 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 for maturing.

The letters "D and S" appended to the descriptions of varieties, indicates their growth either as "Dwarfs" or "Standards" or both. Those designated as "slow growers," are usually small trees.

SUMMER.

Bartlett—Large size with often a beautiful blush next the sun; buttery, very juicy and high flavored. Tree a strong grower, and bears early and abundantly; very popular. Last of August and first of September. D. & S.

Bloodgood—Medium; yellow, touched with russet; melting, rich and delicious; fair grower, first quality. August. D. & S.

Beurre Giffard—An excellent variety ; medium, greenish yellow, red in the sun ; very early. Tree slender but healthy ; hardy, a free grower and very productive. August. D. & S.

Beurre Goubault—Medium, greenish yellow ; half melting, vigorous and productive. September. D.

Brandywine—Above medium ; yellowish green ; melting, sweet ; vigorous and productive. Last of August. D. & S.

Dearborn's Seedling—Rather small ; pale yellow ; melting and delicious. Tree vigorous, rapid grower, bears young and abundantly. August. D. & S.

Doyenne d'Ete—Small ; melting, sweet ; yellowish. Tree vigorous and productive. August. D. & S.

Madeleine—Medium, yellowish green ; very juicy, melting, sweet ; a fair grower and productive. August. D. & S.

Osband's Summer—Medium, yellow, with red cheeks ; half melting, mild and pleasant, fine flavor and excellent ; a fair grower and productive. August. D. & S.

Clapp's Favorite—A large, new, fine Pear, resembling the Bartlett, but without its musky flavor ; pale lemon yellow, with brown dots ; fine texture, melting, buttery, juicy, with a rich, sweet, delicate, vinous flavor. Tree hardy and very productive. A promising fruit of great excellence. August and September. D. & S. Price \$2.

Kingsessing—Large, greenish yellow ; flesh juicy, buttery, with a rich perfumed flavor. September. D. & S.

Rostiezer—Medium, yellowish green, with a brown cheek ; flesh juicy, sweet and excellent ; vigorous. September. D. & S.

Tyson—Rather large, bright yellow with a brown cheek ; melting, sweet and delicious. September. D. & S.

AUTUMN.

Buffum—Medium size, yellow, somewhat covered with reddish brown and russet ; buttery, sweet and excellent ; a stout and upright grower. D. & S.

Beurre Clairgeau—Very large, pyriform, yellow and red ; nearly melting, high flavored. Tree a good grower and an early abundant bearer ; a magnificent market fruit ; one of the finest acquisitions. October to November. D. & S. \$2.

Beurre Bosc—Large, yellow russeted ; half melting, high flavored and excellent. September and October. S.

Beurre Diel—Large, dull yellow, dotted ; sugary, rich and delicious. Tree a strong, rapid grower. October to December. D. & S.

Beurre d'Anjou—A large, fine Pear ; buttery and melting, with sprightly vinous flavor. Tree a fine grower and good bearer. October to January. D. & S.

Beurre Superfin—Medium, pale green ; melting, juicy and good ; very productive. October. D. & S.

Belle Lucrative, (Fondante d'Automne.)—A fine, large Pear, yellowish green, slightly russeted ; melting and delicious ; good grower and productive. One of the best Autumn Pears. September and October.

Des Nonnes—Above medium ; lemon color ; juicy, sweet and delicious. November.

Duchess d'Angouleme—Very large, greenish yellow, sometimes a little russeted ; makes a beautiful tree ; does best on Quince. One of the best. October and November. D.

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

Doyenne, White, (Virgalieu).—Medium, pale yellow, with a faint blush ; fine flavor. October and November. D. & S.

De Tongres—A large russety Pear, of rich but acid flavor ; an abundant bearer, though somewhat inclined to be tender and of irregular growth when young. October. D. & S.

Doyenne du Comice—Large, yellow, with crimson and fawn cheek, and russet dots ; melting, rich, perfumed and luscious. Tree vigorous and productive. A Pear of much promise. October and November. D. & S.

Edmonds—Large, bright yellow, often marbled with red in the sun ; melting, sweet, perfumed, rich and delicious ; fully equal and thought by some superior to the Bartlett, without its musky flavor. Tree a very strong grower and good bearer ; a great acquisition. Middle of September to middle of October. D. & S. \$2.

Flemish Beauty—Large, beautiful ; juicy, melting, rich and fine ; strong grower and good bearer ; hardy everywhere. September and October. D. & S.

Howell—Large, light, waxen yellow, with a fine red cheek ; handsome, rich, sweet, melting, perfumed aromatic flavor. Tree an upright, free grower, an early and profuse bearer. Very hardy and valuable. September and October. D. & S.

Louise Bonne de Jersey—Rather large, greenish yellow ; with a bright red cheek ; juicy, buttery and melting, excellent ; very productive ; a fine grower on both Pear and Quince. September and October. D. & S.

Onondaga, (Swan's Orange)—A very large, melting and high flavored yellow Pear ; vigorous and productive. October and November. D. & S.

Paradise d'Automne—Rather large ; melting, very buttery, rich and excellent flavor ; growth vigorous. Best on Pear. October. S.

Sheldon—Medium to large ; yellow and red ; a very excellent and promising variety from Wayne county, N. Y. Tree a fine grower and productive ; must be double worked to grow on Quince. October.

Seckel—Small ; rich yellowish brown ; one of the best and highest flavored Pears known ; productive. September and October. D. & S.

Urbaniste—Large, pale yellow, faintly russeted ; melting and delicious. Best on Pear. October and November.

WINTER.

Beurre Easter—Large, yellow, sprinkled with brown dots, often dull red cheek ; quality very good. One of the best Winter Pears—keeps all winter. Best on Quince. D.

Beurre Gris d'Hiver Nouveau—Large, yellow russet, red cheek ; melting and buttery, with a rich, vinous flavor. November to January. D. & S.

Dana's Hovey—Medium to small, obtuse pyriform; rich, cinnamon russet; melting, buttery, juicy, with a honied sweetness and a fine aroma. Tree very handsome, hardy, vigorous and productive. Ripens in December, and in eating till end of January. S. \$2.

Duchesse de Bordeaux—Large size, with a very thick, tough skin, which renders it a most excellent keeper for Winter use, flesh melting, juicy and rich. Keeps till March. \$2.

Glout Morceau—Large, sweet, melting and buttery; one of the best early Winter Pears; vigorous and productive. December. D.

Jamiette—Large, green, marked and dotted with brown; flesh white, half tender, buttery, juicy and sweet. December. D. & S.

Josephine de Malines—Medium, yellow, slightly russet; flesh buttery, juicy, and sweet; a fine keeper; productive; poor grower. December to March. D.

Lawrence—Above medium; yellow, thickly dotted; with a very rich, fine flavor; one of the best. Tree a moderate grower and very productive. December to January. D.

Mount Vernon—Medium to large, of a rich russet color, flesh juicy, rich, melting with a spicy flavor. November to January. \$2.

Triumph de Jodoigne—Very large; brownish yellow; melting, vigorous and productive. December. D. & S.

Vicar of Winkfield, (Le Cure)—Large, long; not first quality, but desirable for its productiveness. Best on Quince. November to January. D. & S.

Winter Nelis—Medium size; yellowish green and russet, fine grained, melting, rich and delicious; one of the best Winter Pears. Tree straggling, slender grower, but very productive. December. S.

CHERRIES.

The Cherry tree universally requires a dry soil, and is naturally a hardy tree, succeeding in the lightest soil or dryest situation. Many varieties of rapid growth, with large, glossy leaves, forming fine, pyramidal-shaped heads, and producing large crops of luscious fruit, are well adapted for planting along the streets, or in yards, as shade trees.

By a proper selection of varieties, they may be profitably grown for market. Many trees in the vicinity of Geneva produce from five to six bushels per tree. The fruit brings in market, one year with another, \$3 to \$4 per bushel.

James Wakeman, Cottage Hill, Ill., obtained, in 1866, \$10 per bushel for fruit from trees seven years old, that yielded five bushels per tree. He states his average yield to be two bushels per tree. The present price is \$4 to \$5. Jacob Smith, of Lockport, Ill., states that in 1860 the highest price was \$5, and in 1867 it was \$10, per bushel. A Chicago commission dealer sells about 2,000 bushels per annum, at an average price of \$6.

We now employ the Mahaleb stock extensively, as we find the trees on it more hardy in many cases, and it is adapted to a greater variety of soils.



DWARF CHERRY TREE. (EARLY RICHMOND.)

HEART AND BIGARREAU CHERRIES.

Black Eagle—Large, black ; very tender, juicy, rich and high-flavored ; vigorous grower and productive. First to fifteenth of July.

Black Tartarian—Very large, bright purplish black ; half tender, juicy, very rich, excellent flavor. Tree a vigorous grower and very productive. Last of June and July.

Downer's Late Red—Large, light red ; tender, juicy and delicious ; vigorous and productive. Middle of June.

Early Purple Guigne, (Early Purple)—The earliest fine variety ; medium size, heart-shaped ; tender, juicy and sweet. Tree rather a slender grower, but very hardy and productive. First to middle of June.

Elton—Large and fine flavor ; pale yellow, light red next the sun ; vigorous grower. Last of June.

Knight's Early Black—Large, black ; tender, juicy, rich and excellent ; good grower and productive. Middle to last of June.

Coe's Transparent—Medium size ; pale amber, red in the sun ; tender, juicy, rich, handsome ; one of the best ; strong grower, productive. Last of June.

Cleveland, (Dr. Kirtland)—Large size ; yellowish, covered with bright red ; quality excellent, strong grower and productive. Last of June.

Yellow Spanish—Large, pale yellow with a red cheek ; firm, juicy and excellent ; one of the best light colored Cherries ; vigorous and productive. Last of June.

Black Hawk—Very large ; brilliant and glossy black ; flesh firm and high flavored ; very prolific. Tree a strong grower. First of July.

Great Bigarreau—One of the largest and finest of Cherries, somewhat like Black Tartarian.

Governor Wood—Very large, rich ; light yellow with a red cheek ; juicy and sweet ; one of the very best. Last of June.

Napoleon Bigarreau—Very large, pale yellow or red ; very firm, juicy and sweet ; vigorous grower and very productive ; one of the best. First of July.

Rockport Bigarreau—Large, pale amber with clear red ; a very excellent and handsome cherry ; good grower and bearer. Last of June.

DUKE AND MORELLO CHERRIES.

These are, for the most part, round-shaped ; fruit generally acid, though some varieties have a very mild pleasant flavor. The trees are naturally of a smaller growth than the preceding classes, and well adapted for Dwarfs or Pyramids.—The Morellos are more slender and spreading in habit than the Dukes, which are of stocky, upright growth. Both are more hardy than the Hearts and Bigarreaus, and in large demand where the latter cannot be grown with advantage.

Belle de Choisy—Medium, amber mottled with red ; tender, juicy, sweet and rich. Last of June.

Belle Magnifique—Fruit large, roundish ; skin bright red ; flesh tender, juicy, sprightly, sub-acid ; one of the finest of this class of cherries. Tree hardy, vigorous, very productive. Ripens last of July.

English Morello—Medium to large ; blackish red ; rich, acid, juicy and good ; very productive. August.

Early Richmond, (Kentish, Virginian May)—Medium size ; dark red ; melting, juicy, sprightly, rich acid flavor. This is one of the most valuable and popular of the acid cherries, and is unsurpassed for cooking purposes. Tree a slender grower, with a roundish spreading head, and is exceedingly productive. The most hardy of all varieties, uninjured by the coldest winters, when every other variety has been killed. Ripens through June.

Late Duke—Large, light red ; late and fine. Last of July.

May Duke—Large, dark red ; juicy and rich ; an old, excellent variety ; vigorous and productive. Middle of June.

Reine Hortense—Very fine ; large, bright red ; juicy and delicious ; vigorous and productive.

PLUMS.



WASHINGTON. (BOLMAR.)

The Plum Tree, like the Pear and other of the finer fruits, attains its greatest perfection on our heavy soil, being entirely free from disease. The curculio, a small, dark brown beetle, often stings the fruit, causing it to drop off, but the following directions, faithfully observed, will never fail to secure a good crop of this splendid fruit everywhere.

As soon as the blossoms are fallen, spread two sheets under the tree, and give the tree a sudden jar, by striking upon the stub of a limb sawed from the tree for the purpose, a smart blow with a hammer; the insects will drop on the sheets and can be killed. Collect all fallen fruit and burn or feed to swine.— Repeat the operation every day for two or three weeks. It should be done before sunrise.

The cost of protecting a large orchard from the attacks of this enemy will not exceed ten cents per tree for the entire season.

The Plum, as all are aware, is wonderfully productive, producing heavy crops for a long series of years, with scarcely an exception. No fruit with which we are acquainted seems more promising than the Plum. The superior excellence of the fruit causes it to be in great demand, and it brings readily in market from \$4 to \$6 per bushel. Single trees often bring over \$10 worth of fruit. An acre of Plums would produce, without doubt, 150 to 200 bushels on the average. We most confidently recommend it for extensive planting.

Bleecker's Gage—Above medium, yellow; juicy and rich; fair grower and productive. Last of August.

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

Coe's Golden Drop—Large and handsome; light yellow; firm, rich, sweet; one of the best of late plums. Last of September.

Denniston's Superb—Medium size, round, dotted with purple; handsome; quality good; tree a good grower and bearer. Last of August.

Duane's Purple—Large size, roundish and oblong; color a reddish purple; flesh juicy and good; very handsome. Tree a good grower and bears well.

Green Gage—Small; considered the standard of excellence; slow grower. Middle of August.

General Hand—Very large, oval; golden yellow; juicy, sweet and good. First of September.

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

Imperial Gage, (Flushing Gage, Prince's Imperial Gage)—Fruit large, oval; skin pale green; flesh juicy, sweet, rich, and excellent. Tree very vigorous and productive. Middle of August.

Jefferson—Large, yellow, reddened in the sun; juicy, rich and delicious; one of the very best. Last of August.

Lombard, (Bleecker's Scarlet)—Medium, round oval; violet red; juicy, pleasant and good; adheres to the stone. Tree vigorous and very productive. Last of August. A valuable market variety, one of the most hardy and popular for the West.

Lawrence's Favorite—Large, yellowish green; remarkably juicy and melting; one of the best; thrifty and productive. Middle of August.

Magnum Bonum, Red, (Egg)—Large, red, firm flesh, sub-acid. First of September.

Magnum Bonum, Yellow, (Egg)—Large, yellow; fine for culinary purposes. Last of August.

McLaughlin—Large, yellow, firm; juicy, luscious; vigorous and productive; nearly or quite equal to the Green Gage. Last of August.

Monroe—Medium, excellent; a very vigorous grower and abundant bearer.

Orleans, Early—Medium; sweet, good and rich; vigorous and very productive. Middle of August.

Orleans, Smith's—Very large, reddish purple; juicy, rich and excellent; vigorous and productive. Last of August.

Peach—Very large and handsome; dull red; good, and very productive. Last of August.

Pond's Seedling—A magnificent English Plum; light red, changing to violet; flesh rather coarse. Tree a good grower and most abundant bearer. One of the most attractive in cultivation. September.

Quackenboss—Large, oblong, oval; deep purple; a little coarse; spicily, juicy, sweet and excellent; adheres slightly to the stone. Tree a rapid, upright grower, and productive. Valuable for market. October.

Reine Claude de Bavay—Large, greenish yellow, spotted with red; firm, juicy, sugary, and of fine quality; very productive. September.

Reagles' Union Purple—Fruit large; quality sweet and excellent. Tree a splendid grower and abundant bearer. Last of August.

Washington, Bolmar's—Large, green, somewhat reddened; juicy, sweet and fine; very productive. Last of August.

PEACHES.

The Peach Tree requires a well drained, moderately rich soil—a warm, sandy loam is probably the best.

In order to preserve the continued healthy growth of the tree, and the fine quality of the fruit, the peach should have the shoots and branches shortened in every year or two, so as to preserve a round vigorous head; and the land should not be seeded to grass, but kept in constant cultivation.

Mr. Reynolds, of Peach Orchard, on Seneca Lake, in the Fall of 1868, realized \$3,000 from ten acres of Peaches.

Mr. Arnold, of Starkey, N. Y., bought in the Spring of '68, a fruit farm of fifty acres, about one-half in Peaches, and the balance in Apples, Cherries, Grapes and Berries. Price paid for the 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 the first six months.

S. B. Marshall, of Cleveland, Ohio, pointed out to us when riding with him, a Peach orchard of about ten acres, purchased for \$7,000, which yielded its owner \$6,000 the first season after the purchase.

The following have been selected after an examination of more than one hundred different sorts in bearing, the best only being chosen. They furnish a succession for about two months, commencing the early part of August.

Crawford's Early Melocoton, (Early Crawford)—This very beautiful and best of yellow peaches is highly esteemed for market purposes, Fruit very large, oblong; skin yellow, with a fine red cheek; flesh yellow, juicy, sweet and excellent. Tree very vigorous, wonderfully productive and hardy. First of September.

Crawford's Late Melocoton, (Crawford's Late)—Fruit of the largest size ; skin yellow, or greenish yellow, with a dull red cheek ; flesh yellow. Tree vigorous, moderately productive ; one of the finest late sorts. Last of September.

Early York, (Serrate Early York, Early Purple)—Medium size ; greenish white, covered in the sun with dull red ; flesh greenish white, very tender.

George IV—Large, white, with red cheek ; melting, juicy and delicious : moderate bearer. Last of August.

Honest John—Medium to large ; yellow ; flesh yellow and of good quality ; tree vigorous and productive. First of September.

Hale's Early—Medium size ; greenish white, with red cheek ; first quality. Tree healthy, good grower and productive. The earliest good peach we have, and promises to be a leading orchard variety.

Hill's Chili—Tree very hardy, slow grower, great bearer, excellent, late.

Jacques' Rareripe—Very large, deep yellow ; has a high reputation. Last of August.

Large Early York—Large, white with a red cheek ; fine grained, very juicy, rich and delicious ; vigorous and productive ; one of the best. Last of August.

Morris White—Medium, straw color, tinged with red ; juicy and delicious ; productive. Middle of September.

Old Mixon, Cling—Large, pale yellow with a red cheek ; juicy, rich and high flavored ; one of the best of the 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.

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

White Imperial—Large, yellowish white ; very juicy, delicate and sweet ; hardy and a good bearer. Last of August.

Yellow Rareripe—Large, deep yellow, dotted with red ; melting and juicy with a rich flavor. Last of August.

DWARF PEACHES.

Italian Dwarf—A remarkably interesting little tree ; productive, and fruit of excellent quality ; the tree being only about two feet in height when fully grown ; is well adapted for pot culture and ornament.

Golden Dwarf, (Van Buren's)—Medium, golden yellow, with a mottled red cheek ; juicy and luscious. This is one of the most interesting trees with which we are acquainted, being highly ornamental as well as useful for its heavy crops of delicious fruit. Trees readily protected in winter. Height of tree at maturity, three feet.

APRICOTS.

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

NECTARINES.

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

Early Violet—Medium size; yellowish green, nearly covered with dark purplish red; juicy, rich and high flavored. Last of August.

Elruge—Medium size; pale green, with a dark red cheek; flesh pale green; very juicy and rich. First of September.

Red Roman—Large size; greenish yellow, with a dark, dull red cheek; flesh yellowish, fine and rich; fine grower and productive. First of September.

QUINCES.

The Quince is of late attracting a great deal of attention as a market fruit. Scarcely any fruit will pay better in the orchard. The tree is hardy and compact in growth, requiring but little space, productive, gives regular crops, and comes early into bearing. The fruit is very much sought for canning for winter use. When put up in the proportion of about one quart of Quinces to four of other fruit, it imparts to them a most delicious flavor.

It flourishes in any good garden soil, which should be kept mellow and well enriched. Prune off all dead and surplus branches, and thin out the fruit if bearing too freely.

The fruit brought in New York market, in the fall of '68, \$8 per bushel. Planted ten feet apart, gives 430 trees per acre. A safe calculation would be one-half to one bushel per tree; say one half bushel. This gives 215 bushels, or over \$1,000 per acre.

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

Rea's Mammoth—A seedling of the Orange Quince; one-third larger, of the same form and color; fair, handsome, and equally as good, and said to be as productive. Tree a healthy, thrifty grower. Price \$2.

GRAPES.

We are giving particular attention to the growing of vines of all the valuable hardy varieties. Those who have been disappointed by the late and imperfect ripening of the Isabella and Catawba, can now obtain grapes that are better in quality and far earlier in ripening, than they.

We will not repeat what has been often said as to the healthfulness of this fruit. Many a person, we have no doubt, has by it been brought from the verge of the grave to life and health, when nothing else would have met the case; and many others with incurable diseases, by it have prolonged and rendered comparatively comfortable, a life which otherwise would have ceased, or have been only one of constant misery. But we are now speaking of the PROFIT of grape culture; and it is pleasant to know that since the introduction of the early and new varieties—Delaware, Diana, Eumelan, Iona, Israella, Martha, Salem (and other hybrids) Martha and Walter, we have a sure basis for uniform crops and large profits. Do not, we repeat, plant any kinds for PROFIT which fail to ripen in your locality before frost. You may purchase Catawba and Isabella vines CHEAP, but the loss of one year's vintage, by their late ripening, will cost you more than the difference.

While vineyards, if allowed, will sometimes produce, four tons to the acre, it is not best for the health of the vines and uniformity of yearly crops, to suffer more than half this amount to grow, or two tons per acre. Basing our estimate upon this safe average, and calling the market value of the new early kinds as low as 15 cents per pound, we have \$600 per acre for the fruit. The yearly expense of caring for a fruiting vineyard, including picking, is estimated in the report to the Lake Shore Growers' Association for 1868-9, at \$85. From 500 to 600 vines can be planted upon an acre, eight and ten feet apart, according as the kinds are comparatively strong and moderate growers. We might multiply instances had we room. DISAPPOINTMENT ONLY FOLLOWS THOSE WHO PERSIST IN PLANTING THE OLD LATE RIPENING VARIETIES. DON'T DO IT.

The vine loves a warm, dry soil and should be planted in no other. Under-drain if the soil is not perfectly self-draining; work deep, manure lightly, with horse manure, bone dust, or seasoned muck. Plant no deeper than is needed to keep the roots out of reach of the hoe and cultivator, eight to sixteen feet apart each way, according to the kind of vine. Cultivate thoroughly, and manure lightly, at least every other year. Tie the vine to a stake, or (in field culture)

let it lie on the ground the first year. Cut back to two buds late in the Winter; grow two canes the second year, and the same year build a trellis of three wires fastened to stout braced posts at the ends of the rows, with light stakes set midway between the vines. In the Fall shorten the two canes about one-third, lay them down and cover lightly with earth. In the Spring tie them to the lower wire for horizontal arms, and train the new growth upon the Spur, Renewal, Fan, or other systems as desired. Directions may be found in any Standard grape book. The principal to be observed in any system is to obtain each year well ripened, *young wood*.

An old, tangled vine can only be put in shape by cutting it entirely away and training up fresh new shoots. A vine thus treated will bear the second year. A still quicker method is by grafting a choice variety into a vigorous but inferior kind. The operation is a little uncertain, but can be most successfully performed in June. A Eumelan bud was inserted in a Diana vine in June, 1869, and grew two canes each eleven feet long. In June 1870, it had covered a trellis eight feet square, and set eleven bunches of Grapes.

Grapes allowed to grow and ripen over a porch or piazza roof, on the sunny side of a house, and protected from winds, will be twenty per cent, sweeter and better than when grown in the open ground.

Those who live in sections where the choicer Grapes will not ripen, may grow them in full perfection at a small (annual) expense, by building leantos of rough boards with sloping glass roofs, into which the vine (being planted outside) may be conducted and trained. The same building may be used for growing early vegetables, or as runs for chickens in stormy weather.

Grapes may be kept through the Winter and even all the year, in small boxes holding three or five pounds if placed in a cool dry room of even temperature. Sheets of paper laid under and over the bunches are thought to aid in preserving the Grapes.

Adirondac—Bunch large and compact; berries good size; skin thin, black covered with a delicate bloom; flesh tender, sweet and deliciously flavored; productive, and ripens nearly as early as the Hartford Prolific.

Anghwick—"Very hardy; free from disease; strong grower, prolific; ripens with Concord; berries adhere to the bunch until dried; bunch medium, single shouldered, compact; skin thin, flesh tender; makes a Burgundy wine."

Allen's Hybrid—A white Grape of fine quality; vine very vigorous, but requires winter protection. Ripens about same time as Concord.

Clinton—Small, dark purple; medium in bunch and compact; rather acid; hardy, valuable only for wine, which it cannot make without sugar.

Concord—A popular variety where the choicer kinds fail to ripen. Cracks badly in some localities. Bunch large, nearly black, with bloom; flavor fair, sweet, pulp hard; early.

Craveling—Bunches long, rather loose; berries large, round, black, with purple bloom; flesh tender and sweet; vines hardy; vigorous; moderately productive; early.

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. Vines moderately vigorous, very hardy and productive. Ripens two weeks before the Isabella.

Diana—A seedling of the Catawba, resembling its parent in general appearance, but ripening earlier. Bunches medium to large, compact; berries generally large, pale red; skin thick, covered with a thin bloom; flesh tender, with a little pulp, very high flavored, juicy and sweet; one of the longest keepers we have. The Diana is a rampant grower, sometimes producing a great growth of wood at the expense of the fruit, unless root pruned, or planted in very ordinary soil.

Eumelan—Undoubtedly the very best of our native black Grapes, both for wine and the table. Though but recently introduced to the public, it has been grown for over thirty years at Fishkill, N. Y., where it was observed and purchased by Dr. Grant for \$1,600. Ranking among the black Grapes where the Iona does among red, it surpasses the latter in earliness of ripening by two weeks, and is extremely hardy in leaf and wood. Bunches above medium, very handsome, double shouldered, and moderately compact; berries round or slightly oval; in size above medium, in color black. Its flesh is tender to the very centre; its flavor rich, vinous and sprightly. It ripens extremely early, generally before, never after the Hartford. It is a prolific bearer and will be extensively planted in vineyards and gardens.

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

Iona—A seedling of the Diana, originated by Dr. C. W. Grant, of Iona Island several years since, and now acknowledged by all as the standard of excellence. Bunches large, sufficiently compact and double shouldered; berries large, round, and almost transparent; skin thin; flesh tender from the circumference to the centre, with a very rich sprightly flavor. It becomes a dark red when fully ripe, which is two weeks before the Isabella. An excellent keeper and will dry to raisins.

Israella—Another seedling originated by Dr. Grant, and like the Iona a very valuable acquisition. Bunches medium to large, compact, shouldered; berries large, slightly oval; skin thin, black; flesh tender to the centre, without any pulp, sweet and rich, but not sprightly; adheres very firmly to the stem. A fine table Grape and ought to be in every collection.

Ives Seedling—Probably a seedling of the Isabella: hardy and productive but with a tough acid centre, and like the Clinton, valuable only for wine, where sugar is added.

Martha—A new variety comparatively, being a seedling of the Concord, which it resembles in vigor of growth and hardiness. Bunch of good size and berry large; of pale green or light color; buttery, sweet, juicy and sprightly. As a hardy, light colored Grape it stands unrivalled.

Walter—A new variety, originating in Poughkeepsie, N. Y. A cross between Diana and Delaware, and partaking of the characteristics of each; resembling the former in size, and the latter in color and period of ripening. Regarded by some as a very valuable acquisition.



EUMELAN GRAPE.

ROGERS' HYBRIDS.

No. 3, (Massasoit)—Large, red; resembles *Diana* in quality, a little native flavor, tender, sweet and good. Said to be the earliest of the lot, and by some highly esteemed.

No. 4, (Wilder)—Large and black; bunches generally shouldered; berry round and large; flesh buttery, with a somewhat fibrous centre; sweet, rather sprightly; and ten days earlier than *Isabella*.

No. 9, (Lindley)—Resembles No. 3 in appearance, but distinct in flavor.

No. 15, (Agawam)—Red, large, round, early; and of great vigor of growth. Rich, high, peculiar aromatic flavor. Considered by Mr. Rogers as the best of his strictly red Hybrids.

No. 19, (Merrimack)—Very large, and earlier than the *Diana*, very strongly resembles No. 4. Bunches and berries large, compact, a very strong grower.

Salem, (No. 53)—This is regarded as the best of Mr. Rogers' Hybrids. Bunch large and compact; berry large as *Hamburg*, of a light chestnut or *Catawba* color, thin skinned, perfectly free from hard pulp, very sweet and sprightly, with a most exquisite aromatic flavor; as early as *Delaware* or *Hartford* having never failed to ripen in the most favorable season for the past six years.

SMALL FRUITS.

The small fruits, such as Strawberries, Raspberries, Blackberries, Gooseberries, Currants, &c., ripening from first of June till Fall, are everywhere capable of successful cultivation, and yield large returns at comparatively small expense. They should have a place in every garden. Since the introduction of the self-sealing jars and cans, they can be had throughout the year almost as fresh as when gathered.

Daniel McLaury, an extensive small fruit grower near New Brunswick, N. J., gives the following average statement of prices of his crops during four years, being *net* prices per quart after deducting freight and commission:

	1866.	1867.	1868.	1869.
Strawberries,.....	19 1-2c.	7 1-2c.	7 3-10c.	13c.
Raspberries,.....	24 1-5c.	20c.	31c.	17 2-5c.
Blackberries,.....	21 1-2c.	9 1-5c.	32c.	4 3-10c.

“Average expense per acre of growing *Wilson* Strawberries is from \$150 to \$200. A good average crop is 100 bushels.

“By this average, after deducting all expenses, there will remain about \$113 net. If we pick only one crop, two years being required to grow it, the average is about \$56. Seventy-five to one hundred bushels is a good average yield for Raspberries and Blackberries, each costing about \$80 for cultivation.

“The foregoing estimates are *low*, and are often exceeded by special crops. In 1866 several acres of my Blackberries netted about \$400 per acre, but this year

(1869) the net proceeds will not be over one-sixteenth as much (\$25,) partly on account of the large crop of peaches." The reader will notice that these "low figures" much exceed the average returns from farm crops.

STRAWBERRIES.

First of the small fruits, in the month of June, comes the beautiful, wholesome and appetizing Strawberry. The profits which may result from its cultivation, when properly conducted, are enough to satisfy the highest expectations. On a sandy and gravelly loam, the well known author of the "Fruit Garden," Mr. P. Barry, of Rochester, planted Wilson's Albany, and picked at the rate of almost 300 bushels per acre, averaging about \$1,000. This is enormous, but shows what can be done under favorable circumstances. Mr. E. A. Bronson, of Geneva, speaks of an acre of Strawberries, in Yates county, which brought its owner \$400 net, in the Fall of 1869. Messrs. Purdy & Johnston, of Palmyra, write us under July 7, '69, "Our Strawberries, (of which we have shipped about 800 bushels,) sold in New York for eight to twenty-five cents per quart, averaging 14½ cents. Our plantation that we kept free from runners, growing them by the 'hill' system, has yielded us 150 to 200 bushels per acre." Estimate 150 bushels or 4800 quarts, at 14¾ cents; or 200 bushels at the same rate, and you obtain in round figures from \$700 to \$900 per acre. P. & J. ship to New York and Boston, a distance of 300 to 400 miles.

Plant on good ground, deeply worked and well manured. Vegetable manure (muck, rotted turf, woodsoil, ashes, &c.,) are best. Bonedust is excellent. Set in 3 feet rows, 15 inches apart in row, for field culture; and 15 inches each way for garden, leaving a pathway after every third row. Keep in hills with runners cut, unless troubled by white grub. Cultivate clean, mulch late in Fall, uncover crowns early in Spring, remove mulch after fruiting, and spade in light dressing of manure.

Agriculturist—Large, dark red; sweet, prolific and hardy. Better liked in South Jersey than further north.

Brooklyn Scarlet—Large, conical; very sweet and high flavored; early moderate bearer.

Belle Bordelaise—Conical, dark red; borne high on its stalks; peculiar musky flavor. Best of the Hautbois class.

Boyden's No. 30—Very large, conical, necked; scarlet, good flavor.

Downer's Prolific—Medium, round, scarlet; flesh soft and sweet; abundant bearer.

Jucunda—Large, glossy, scarlet, juicy, fair flavor; late.

Lennig's White—Large, round; white with blush; delicious, aromatic flavor; moderate bearer.

Ladies' Pine—Small, round; pale scarlet; moderate bearer. The smallest and highest flavored of all strawberries.

President Wilder—Large, conical; scarlet, sweet, fine flavor; good bearer. A cross between the Hovey and La Constante.

Napoleon III.—Round, scarlet; white fleshed; fine, spirited flavor.

Triomphe de Gand—Large, conical, often coxcombed; polished, sweet and fine flavored. Does best on heavy soils. Most popular foreign variety.

Wilson—Large, conical, dark red, firm, hardy; prolific, rather acid. Succeeds everywhere.

RASPBERRIES.

This fruit comes just after Strawberries, and when properly cultivated is quite profitable. Mr. H. Wight, of Waterloo, says that he "has an acre and a half of Seneca Black Caps, and has sold 3,500 quarts, none less than ten cents, and since the 31st July at twelve cents." Rev. H. H. Doolittle, of Oak's Corners, a veteran in Raspberry culture, says that he averages 2,000 quarts to the acre, and no ordinary farm crops equal his profits, even when the price of Raspberries is



PHILADELPHIA RASPBERRY.

the lowest. Messrs. Purdy & Johnston, who are devoted to small fruit culture, say "Raspberries have also paid us well, the Doolittle, Miami, Seneca, Davison's Thornless, and Golden Cap, yielding at the rate of sixty to seventy-five bushels per acre, while the Mammoth Cluster produces one hundred bushels to the acre. The fruit has averaged us ten cents per quart, delivered at Palmyra. The Clarke and Philadelphia have yielded heavily also." Mr. Purdy showed us one-third of an acre of Philadelphia Raspberries, which yielded 60 bushels or one hundred and eighty bushels to the acre, and told us that he got \$4 per bushel for them.

Plant on strong soil, manure freely, cultivate well or mulch heavily. For field rows 7 feet apart, 4 feet in the row. Pinch off canes when 3 feet high, and prune back laterals the following spring within 12 or 18 inches of cane; in garden culture tie up to single wire. Cut out old wood each year. Cover tender varieties in winter by bending and throwing on earth.

Raspberries are classed under two heads: the Red, and the Black-cap; the former reproduced by suckers, the latter by layering the tips of the canes.

RED RASPBERRIES.

Antwerp, (Hudson River)—Conical, firm, sweet and good: very productive, half hardy. A standard market variety.

Brinckle's Orange—Large, orange yellow; high flavored, tender.

Clarke—Large, bright red; firm, sweet, high flavored, hardy; productive.

Naomi—A new variety resembling Franconia but said to be hardier.

Philadelphia—Medium, round, dull red; mild flavor, hardy and very productive. Succeeds where the Antwerp fails.

BLACK CAPS.

Doolittle, (Am. Improved)—Medium, black, good flavored; hardy and very productive. A favorite market berry.

Davison's Thornless—Resembles the Doolittle, but is a few days earlier, has few or no thorns.

Golden Thornless—Very large, golden color; fair flavor, being a firm, fine bearer.

Miami—Large, tender, brown, late, succeeding Doolittle.

Mammoth Cluster—Very large, fine, productive, hardy. Recently introduced by A. M. Purdy, and growing in favor.

CURRENTS.

This fruit comes partly with the Raspberry, but follows it for several weeks. Indeed, none of the small fruits will remain so long upon the bush without injury as the Currant, and since the introduction of the newer varieties, and the easy method of destroying the Currant worm by the use of powdered white

Hellebore, (*Veratrum Album*,) the Currant is attracting more notice than ever before. If remuneration be the object with fruit growers, we certainly have it here. From recent minutes of the Geneva Horticultural Society, it appears that Rev. Dr. Cannon, of Geneva, from one-sixteenth of an acre, sold fifteen bushels besides what he appropriated to family use. Dr. Merrell, thought that five tons or 250 bushels per acre, would not be too large an estimate of Dr. Cannon's yield. The President of the Society, Mr. J. B. Jones, stated that a friend of his in Ulster county, has realized half a ton from an eighth of an acre, with bushes $3\frac{1}{2}$ to 4 feet apart, a ratio of four tons or 200 bushels per acre. Dr. Cannon received from \$4 to \$5 per bushel, and they have brought much higher prices in New York market. But taking the lowest of the above estimates in quality and price, and we get \$800 per acre, a statement which may appear extravagant to those unacquainted with the newer varieties, Cherry, Versaillaise, &c., which are from three to five times larger than the old sorts, and far more productive. T. B. Wakeman, of Westport, Conn., says that his ten acres of Currants average *over* \$800 per acre.

Set four feet apart, in rich ground; cultivate well or mulch *heavily*; prune out old wood so that each remaining shoot may have room to grow; if the currant worm appears, dust with white hellebore every three weeks. Manure freely.

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.

La Versaillaise—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.

La Fertile d'Angers—Large, red, handsome and showy; early and productive.

Prince Albert—Large; bright red, resembling the Victoria; valuable for its lateness; vigorous and productive.

Red Dutch—An old variety, excellent and well known.

Victoria—Large, bright red; very productive and excellent. Hangs long on the bush.

White Dutch—An excellent and well known sort.

White Grape—Very large, yellowish white, sweet or a 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.

White Gondoin—A large, light colored sort; sweet, vigorous and productive.

GOOSEBERRIES.

This fruit requires the same cultivation as the Currant. The surest method to prevent mildew is to plant thickly in the rows, and mulch deeply, six inches or more, with straw, tanbark, coal ashes, &c. There are plantations near Phila-

delphia, thus treated, which have borne large crops for twenty years. The price is highly remunerative, and the demand is yearly increasing. The American varieties are not subject to mildew. Mr. R. J. Swan, of Geneva, has for a series of years, mulched his Gooseberries and Currants with coal ashes, and suffered nothing from the worm or mildew.



HOUGHTON'S SEEDLING GOOSEBERRY.

Mortimer Whitehead, a very successful grower of these fruits, near Middle bush, N. J., mulches his plantation with salt hay, planing mill shavings, &c. The mulch retains moisture in the driest weather; the few weeds that push up are easily pulled; and the fruit is larger and more evenly ripened. He says: "In mulching, be sure the ground is well *underdrained*, or it is worse than useless. Good cultivation is far better than *half* mulching. Put it on thick. In a dry season the extra amount of fruit will double pay for the material used, not to speak of the saving of labor and the cleanliness of the fruit. I used this

Spring four stacks of hay for mulching, and am sure that it is worth \$20 a ton to me on the berries."

Best proved sorts, are HOUGHTON'S SEEDLING, famed for its delicacy, perfect freedom from mildew, and enormous productiveness; the MOUNTAIN SEEDLING, DOWNING'S SEEDLING, and CROWN BOB and WHITE SMITH of English varieties.

BLACKBERRIES.

Mr. Wm. Parry, an extensive grower of Blackberries, at Cinnaminson, N. J., says, in an essay delivered before the New York Fruit Growers' Club, July 30, 1868, that "at the average price at which Blackberries have sold in market for



WILSON'S EARLY BLACKBERRY.

ten years, a field with ordinary treatment will yield from \$300 to \$600 per acre net." Mr. Parry has ten acres of Kittatinny, and thirty acres of Wilson's Early, besides several acres of New Rochelle planted thirteen years ago, which still produce, he says, fine crops, from sixty-five to eighty bushels per acre. He says the berries of Wilson's Early sold in New York and Philadelphia, in 1867 and 1868, at fifty cents per quart, at wholesale. Other kinds of Blackberries have sold readily, he adds, for several years past at from \$3.50 to \$5 per bushel, and last year for double that price. The supply cannot, he thinks, equal the demand, and the Blackberry fills the gap in time of fruiting just after Raspberries and Currants, and before Peaches and Grapes. Purdy & Johnston write (1869): "Blackberries have averaged one hundred bushels per acre, and sold from twenty to twenty-two cents per quart."

Plant on good land, moderately manured. Rows 7 feet apart, 3 feet in the row, for field; prune as with Raspberries. Form a hedge or tie to wire. Cultivate *shallow*.

Dorchester—An old, excellent variety; large, very sweet; productive.

Lawton—The well known market variety.

Kittatinny—Large, black, sweet; soft when black; very hardy; ripens up gradually like the Lawton.

Wilson's Early—Large, sweet, fair flavored; very productive; ripens up the fruit together, and is earlier than any other variety. (See cut.)

ESCULENT ROOTS.

ASPARAGUS.

This earliest and finest of spring vegetables should be more cultivated. To prepare a bed, dig the ground deep, incorporating large quantities of well decomposed manure—plant the roots about three inches deep, in rows eighteen inches apart and one foot apart in the rows.

Giant—The well known popular variety.

Conover's Colossal—A new sort, very large size, and of excellent quality.

RHUBARB OR PIE PLANT.

This deserves to be ranked among the best early fruits of the garden. It affords the earliest material for pies and tarts, continues long in use, and is valuable for canning. Make the border very rich and deep.

Early Scarlet—Rather small, but early and good.

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

Miscellaneous Fruits.

Chestnuts—Common American sweet.

“ Spanish or Marron. Large and fine.

Mulberries—Black English. Large, handsome, rich and good.

“ Downing's Everbearing. Very large, handsome, sweet, rich and excellent.

“ White. The common variety.

Almonds—Hard Shell.

“ Soft Shell.

Walnuts—American Black.

“ English, or Madeira nut.

SCIONS AND STOCKS.

We are prepared to furnish Nurserymen and those about starting Nurseries, with Scions and Stocks, of the very best quality, and at low rates.

We also furnish Bass Bark, for budding and tying.



WEIGELA ROSEA AND ROSE BUDS.

ORNAMENTAL DEPARTMENT.

HOW TO PLANT.

Flower gardens and graveled walks are beautiful, but expensive, and require constant labor to keep them in order. Grass and trees are always charming, and need but little care. In the laying out and planting of grounds, have regard to economy of labor. Let there be as few walks as possible; cut your flower beds (not many) in the turf; and *don't* make the lawn a checker-board of trees and shrubs. Mass them on the boundary lines or in groups, leaving a broad expanse of green for the eye to rest on, and the mower to sweep freely over. If an unpleasant object is in sight, conceal it by planting free-growing trees; if there is a pretty view, leave an opening. While it is not well to have large trees near the house, there should be at least one by the sunny corner, for summer shade. Plant flowering shrubs and the smaller evergreens in circles and ovals, and twice as thick as they should stand when fully grown. This will make a show at once, and in two years or more you can take out one-half, leaving the rest to fill up the space, and obtaining a supply of finely rooted plants to set somewhere else. After planting, cut them back nearly to the ground, to induce the sending up of strong shoots. Keep the shrubs and trees cultivated, or mulched, the first two seasons, and then let the turf grow about them. Mow the grass frequently, except in mid-summer, and top-dress with fine manure every fall or winter.

Straggling growers, like the Forsythia and *Pyrus Japonica*, should be repeatedly pinched back or clipped during the growing season, to produce a close compact form. Weigelas and *Deutzias* should be pruned like Currants, leaving the strong young wood to flower. Altheas, and some of the *Spireas* which bloom on the new shoots, may be pruned back each year to the old wood. A very beautiful hedge can be made by intermingling different flowering shrubs and clipping according to the directions given below, or allowing them to grow naturally.

All flowering shrubs are improved by taking them up every three or four years, and dividing the roots.

For more extended directions see Downing's "Landscape Gardening," and Mitchell's "Farm of Edgewood," and "Rural Studies."

WHAT TO PLANT.

A detailed description of desirable trees and shrubs would be little more than a recapitulation of our catalogue list, to which the readers are referred. A grouping together according to the time of flowering, or size of growth, will, however, be found useful.

Flowering Shrubs—*Daphne Mezereon*, pink; *Pyrus Japonica*, white and scarlet; *Forsythia Viridissima*, yellow; Dwarf Almond, white and rose; these bloom in March and April. *Deutzias*, white and rose, *Weigelas*, rose, *Spireas*, white and pink; *Globeflower*, yellow; bloom in May and June. *Hydrangeas*, white and rose; Dwarf Horse Chestnut, long spikes of white flowers; *Rose Acacia*, pink; and the *Hypericum*, yellow; bloom in July and August.

Flowering Trees, or Large Shrubs—*Dogwood*, white; *Magnolias*, white and purple; *Lilac*, white and purple; *Cornelian Cherry*, yellow; *Judas Tree*, pink; *Wild Plum*, white; *Flowering Peach and Plum*, pink and red; *Silver Bell Tree*, white; all these blossom in early Spring. The *White and Purple Fringe Tree*; *Tartarian Honeysuckles*, red and white; *Laburnum*, yellow; *Philadelphus*, white; bloom in early Summer. *Rose of Sharon*, white and pink; August and September. *Sweet Scented Shrub*, purple, at intervals during the Summer.

Several others, like the *Snowberry*, *Burning Bush* and *Berberry*, are valued for their colored berries in Autumn.

Deciduous Trees—The *White Elm*, *Rock and Scarlet Maples* and *Lindens* are well known favorites; *Chestnuts* and *Walnuts* make noble specimen trees, but are difficult to transplant on account of their tap roots, unless first grown and transplanted in the nursery. The *Ash*, very regular in its foliage; the *Gum Tree* (*Liquid-amber*) south of New York, grows finely and makes a noble shade tree; its shining arrow-shaped leaves and prickly balls are very curious. *Honey Locust*, fragrant blossoms and beautiful foliage, but inclined to sucker; *Purple Leaved Beech*, very striking; *Maiden Hair Tree*, curious fan-shaped leaves; *Red Stem Dogwood*, white berries in Autumn, *Cut-leaved Weeping Birch*, a beautiful tree; the *Larch*, and *Swamp Cypress*, the latter a charming shade of green; and the *Willow*, *American* and *Kilmarnock*, both very fine.

Evergreens—Among the shrubs are *Mahonia Aquifolia*, yellow blossoms; *Kalmias* and *Rhododendrons*, rose color; *Tree Box*, often used for shearing into fantastic shapes; *Dwarf Arbor Vitæ*; *Juniper Procumbens*, low and spreading; *Juniper Squamata*, running on the ground; *Stone Pine* and *Siberian Pine*, both hardy and fine colored.

The *Norway Spruce* and *American Arbor Vitæ* are the best known of Evergreens. Either as single trees or in hedges they are indispensable. The *Hemlock Spruce* is perhaps the finest of the large Evergreens, and nursery grown transplants as well as those just mentioned; the *Black and White Spruce* vary in shade of color, as their names indicate. The *White Pine*, light and graceful in its foliage; the *Scotch angular*, spreading, irregular, but fine colored; and the *Austrian erect*, regular in growth and bearing upright cones; are well known and desirable. The *Balsam Fir* is handsome, but loses its lower foliage, a fatal defect in an Evergreen. The *Siberian*, *Borealis*, *Reed's*, and *Hovey's Arbor Vitæ* are improvements on the common American; the first two for their strong,

thick-leaved foliage, and the others for their fine color and regular form. The Golden Arbor Vitæ may also be added. The Irish and Swedish Junipers are compact cones of foliage (the latter lighter in color) and contrast finely with the round-topped trees.

HEDGES.

are growing in favor every year, since the English hedge plants have been superseded by more reliable kinds. The California Privet, with its glossy green leaves, the strong growing Osage Orange, and the Pyrus Japonica, with its dark green leaves and pink and white flowers, make excellent Deciduous hedges. The Arbor Vitæ, the Norway Spruce, and the Hemlock Spruce, are best for Evergreen hedges.

The first class must be cut back near the ground for two years, and then sheared each season. The second must only be sheared, giving a roundish or pointed shape to the top. It is said that by shearing the lower half in Winter and the upper half in Summer, the desired shape may be more readily attained.

DECIDUOUS TREES.

Abele, (Populus.)

SILVER LEAVED, OR WHITE POPLAR, (*Alba*) A rapid growing and useful tree for exposed situations.

Acacia, (Robinia.)

HONEY LOCUST or THREE THORNED, (*Triacanthos*.) A rapid growing tree, with delicate foliage and strong thorns. Valuable for hedges.

Alder, (Alnus.)

EUROPEAN, (*Glutinosa*.) A tree of rapid growth, suitable for damp soils, but thriving well anywhere.

IMPERIAL CUT LEAVED, (*Lasciniata Imperialis*.) A very striking and beautiful tree, with delicately and deeply cut leaves; hardy, and of vigorous growth; one of the finest cut leaved trees in cultivation.
New.

Apple, (Malus.)

CHINESE DOUBLE FLOWERING, (*Spectabilis*.) Very showy and ornamental, beautiful double rose-colored flowers.

Ash, (Fraxinus.)

EUROPEAN, (*Excelsior*.) A lofty tree with pinnate foliage and spreading head.

Ash, (Fraxinus.)

GOLD BARKED, (*Aurea*.) Growth irregular; very ornamental in winter. New. \$2.

FLOWERING, (*Ornus Europæus*.) A very ornamental dwarf tree; flowers fringe-like, greenish white, produced early in June, in large clusters on the end of the branches. New. \$2.

WILLOW LEAVED, (*Salicifolia*.) A rapid stout growing tree, with narrow, wavy leaves; very ornamental. \$1.00

AUCUBA LEAVED, (*Aucubæfolia*.) A fine tree, with gold blotched leaves. \$1.00

Beech, (Fagus.)

PURPLE LEAVED, (*Purpurea*.) A remarkable species with deep purple foliage, changing to greenish purple in Autumn. A very striking contrast with other ornamental trees.



EUROPEAN LARCH.

Birch. (*Betula.*)

AMERICAN CHERRY or MAHOGANY, (*Lenta.*) A remarkable variety, with large foliage and brilliant golden yellow bark.

Cherry, (*Cerasus.*)

LARGE DOUBLE FLOWERING, (*Mag. Flora Plena.*) A variety of the heart cherry, with pretty double white flowers.

CHINESE or DWARF DOUBLE FLOWERING. (*Sinensis Fl. Pl.*) A variety of the Morello, with double white flowers. Both this and the preceding are very ornamental.

Elm, (*Ulmus.*)

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

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

AMERICAN WHITE, (*Americana Alba.*) The noble spreading, drooping tree of our own woods; one of the grandest of park or street trees.

Horse Chestnut, (*Æsculus.*)

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

RED FLOWERING. (*Rubicunda.*) Not so rapid a grower as the White; foliage of a deeper green, and blooms later; a very showy tree.

Horse Chestnut, Smooth Fruited, (*Pavia.*)

RED FLOWERING, (*Rubra.*) A small sized tree, with dark red flowers. A very crooked and irregular grower.

YELLOW FLOWERED, (*Flava.*) Has pale green leaves and showy yellow flowers. A fine small tree. A very crooked and irregular grower.

Judas Tree, (*Cercis.*)

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

JAPAN, (*Japonica.*) A superb variety, from Japan.

Laburnum, (*Cytisus.*)

ENGLISH, (*Laburnum.*) Bears long pendant racemes of yellow flowers in June, showy and beautiful.

Larch. (*Larix.*)

EUROPEAN, (*Europea.*) An elegant, rapid growing, pyramidal tree: also valuable for timber. Small branches drooping. See cut page 40.

Linden, (*Tilia.*)

EUROPEAN, (*Europæa.*) A very fine pyramidal tree, with large leaves and fragrant flowers.

WHITE, or SILVER LEAVED, (*Argentæa.*) 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.

\$1.00.

Linden, (Tilia.)

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

Magnolia.

CUCUMBER TREE, (*Acuminata.*) A noble, beautiful tree, with very large leaves and yellow flowers, tinted with bluish purple.

UMBRELLA TREE, (*Tripetala.*) A small sized tree, with immense leaves and large white flowers, four to six inches in diameter.

CHANDELIER or YULAN, (*Conspicua.*) A beautiful Chinese variety with large, white flowers, that appear before the leaves. Tree of small size. \$3.

SOULANGE'S, (*Soulangeana.*) Resembles the foregoing, except that the flowers are tinted with purple, and blooms rather later. A most desirable tree for all planters. \$3.00.

Maple, (Acer.)

SCARLET. (*Rubrum.*) A rapid growing tree, with red flowers; very early in spring.

SILVER LEAVED, (*Dasycarpum.*) Of exceedingly rapid growth, and desirable for immediate effect.

SUGAR OR ROCK, (*Saccharinum.*) A very popular American tree, and for its stately form and fine foliage, justly ranked among the very best, both for the lawn and the avenue.

PURPLE LEAVED, (*Purpurea.*) One of the most beautiful and distinctly marked of all; leaves purplish red, particularly on the under side. A rapid, strong grower; hardy, and should be in every collection.

NORWAY, (*Platanoides.*) One of the most valuable ornamental trees for the lawn; broad, rich, dark green foliage, and of a compact, globular form.

Mountain Ash, (Pyrus Sorbus.)

EUROPEAN, (*Aucuparia.*) A fine hardy tree; head dense and regular, covered from July till winter with large clusters of bright scarlet berries.

AMERICAN, (*Americana.*) A tree of coarser growth and foliage and larger and lighter colored berries.

OAK LEAVED, (*Quercifolia.*) A variety with large, hoary lobed leaves, distinct and fine. \$1.00

DWARF PROFUSE FLOWERING, (*Nana Florabunda.*) A remarkable dwarf variety, with oak-shaped leaves. Makes a handsome small tree when worked 4 to 6 feet high.

Peach, (Amygdalus.)

DOUBLE WHITE, (*Alba Plena.*) Very ornamental; flowers pure white and double; hardy.

VARIOUS COLORED, (*Versi-color, Fl. Pl.*) The most singular of all the flowering trees; flowers variously white and red or variegated on the tree at the same time; flowers early and perfectly hardy. \$2.

Plum. (*Prunus.*)

THREE LOBED, (*Trilobata.*) A small tree with rose-colored blossoms, nearly double; perfectly hardy. \$2.

Salisburia,

MAIDEN HAIR TREE, (*Adiantifolia.*) A rare, beautiful tree, with remarkable fan-like foliage. \$3.

Thorn, (*Cratægus.*)

DOUBLE WHITE, (*Orycantha Plena.*) Has small double white flowers.

DOUBLE SCARLET, (*Coccinea Fl. Pl.*) A new variety; flowers deep crimson, with scarlet shade; very double and considerably larger than the double red; fine rich foliage. The greatest acquisition of this kind that has been obtained in a long time. \$2.

Willow, (*Salix.*)

ROSEMARY LEAVED, (*Rosemarinifolia.*) Very distinct and ornamental, with long, glossy, silvery foliage. Makes a striking and pretty small tree when worked standard high.

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 BARKED WEEPING, (*Aurea Pendula.*) A singular variety, bark in winter yellow as gold.

LENTISCUS LEAVED WEEPING, (*Lentiscifolia Pendula.*) Fine glossy foliage; small leaves; dark colored bark, with slender drooping branches, makes an elegant tree.

Birch, (*Betula.*)

CUT LEAVED WEEPING, (*Lasciniata Pendula.*) An elegant, erect tree, with slender, drooping branches, and fine cut leaves. A magnificent variety and worthy of a place on every lawn. See cut page 45.

EUROPEAN WEEPING, (*Pendula.*) A charming, drooping tree, when four or five years old. Erect when young.

Cherry, (*Cerasus.*)

EVER FLOWERING WEEPING, (*Semperflorens.*) A very fine, drooping variety, that bears flowers and fruit all summer. \$2.

Elm, (*Ulmus.*)

SCOTCH WEEPING, (*Montana Pendula.*) A vigorous growing tree, with graceful, drooping branches, very distinct.

Linden, or Lime Tree, (*Tilia.*)

WHITE LEAVED WEEPING, (*Alba Pendula.*) A fine tree, with large leaves, and drooping branches. \$2.00.

Mountain Ash, (Sorbus.)

WEeping. (*Aucuparia Pendula.*) A beautiful tree, with straggling weeping branches, makes a fine tree for the lawn, suitable for covering arbors. \$2.



WEeping MOUNTAIN ASH.

Willow, (Salix.)

WEeping. (*Babylonica.*) Our common and well-known weeping willow.

AMERICAN WEeping. (*Americana 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*. \$2.

KILMARNOCK WEeping. (*Caprea Pendula.*) An exceedingly graceful tree, with large glossy leaves: one of the finest of this class of trees; very hardy. \$2.



CUT LEAVED WEEPING BIRCH.



KILMARNOCK WEEPING WILLOW.

II. EVERGREEN TREES.

Arbor Vitæ, (Thuja.)

AMERICAN, (*Occidentalis*.) This plant is, all things considered, the finest Evergreen for screens. It is very hardy and easily transplanted—few or no plants ever failing if properly treated specimens are obtained. It grows rapidly, and with little care, or rather by easy management, it soon forms a most beautiful hedge, very dense, and perfectly impervious to the sight. Of course it is never adapted to turn stock, but forms a most desirable and ornamental screen to divide the lawn from other parts of the grounds, or for any similar purposes.

HEATH LEAVED AMERICAN, (*Occidentalis Ericoides*.) A remarkable and beautiful little evergreen shrub, with heath-like leaves, very dwarf and compact. A great acquisition, and very desirable,

Arbor Vitæ. (*Thuja.*)

COMPACTA. A variety of the Chinese, but more dwarf and compact, with a conical head of a bright green color; perfectly hardy; a native of Japan.

SIBERIAN, (*Siberica.*) The best of the genus of this country; exceedingly hardy, keeping color well in winter; growth compact and pyramidal, makes an elegant lawn tree; of great value for ornamental screens and hedges.

Fir, (*Picea.*)

BALSAM or AMERICAN SILVER, (*Balsamea.*) A very regular, symmetrical tree, assuming the conical form even when young; leaves dark green above, silvery beneath, retaining their color through the severest Winter; grows rapidly and is very hardy.

Juniper, (*Juniperus.*)

VIRGINIAN, (*Virginica.*) THE RED CEDAR. A well-known American tree, with deep green foliage; makes a fine ornamental hedge plant.

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 hardihood is a general favorite.

SWEDISH, (*Suecica.*) Similar to the Irish, though not so erect, with bluish green foliage, forming a beautiful pyramidal small tree. \$2.

SCALY LEAVED, (*Squamata.*) A very striking, hardy variety, spreading widely upon the ground and forming a very handsome evergreen bed.

EXCELSA. The tall Crimean Juniper. A fine upright grower.

AMERICAN UPRIGHT, (*J communis pendula.*) A remarkably pretty little tree, with dense, upright growth, and handsome, fastigate form. The ends of the young shoots have a recurved habit, which renders the foliage quite graceful.

Pines, (*Pinus.*)

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

DWARF or MOUNTAIN, (*Pumilio.*) A low, spreading, curious species, attaining only the size of a bush; foliage similar to that of the Scotch.

SCOTCH PINE, (*Sylvestris.*) A fine, robust, rapid growing tree, with stout, erect shoots, and silvery green foliage.

WHITE PINE, (*Strobus.*) The most ornamental of all our native Pines; foliage light, delicate or silvery green; flourishes in the poorest soils.

Spruce, (*Abies.*)

NORWAY, (*Excelsa.*) A lofty, elegant tree, of perfect pyramidal habit, remarkably elegant and rich, and as it gets age, has fine, graceful, pendulous branches; it is exceedingly picturesque and beautiful.

Very popular, and deservedly so, and should be largely planted. One of the best evergreens for hedges. See cut.

BLACK, (*Nigra.*) A pyramidal compact tree, with smooth blackish bark and bluish leaves.

WHITE AMERICAN, (*Alba.*) A tall tree, with loose, spreading branches and light green foliage.

HEMLOCK or WEEPING, (*Canadensis.*) An elegant pyramidal tree with drooping branches, and delicate dark foliage, like that of the Yew, distinct from all other trees. It is a beautiful lawn tree, and makes a highly ornamental hedge.

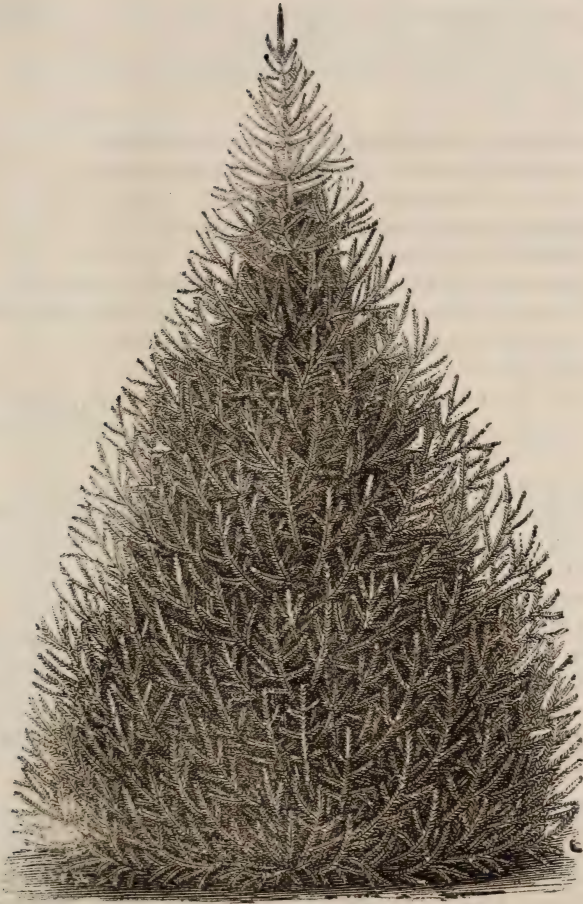
PYGMÆA. A dwarf variety of the Norway: grows from three to four feet high, very compact.

Yew, (*Taxus.*)

ERECT ENGLISH, (*Baccata Erecta.*) A very fine pyramidal variety of the English Yew, with dark green foliage: hardy and desirable.



AUSTRIAN PINE.



NORWAY SPRUCE.

III. SHRUBS.

DECIDUOUS.

Alhea Frutex. (Hibiscus Syriacus.)

- ROSE OF SHARON. The Altheas are fine, free growing, flowering shrubs, of the easiest cultivation. Very desirable on account of blooming in the autumn months, when scarcely any other tree or shrub is in blossom. Assorted varieties. August and September.

Almond, (Amygdalus.)

DWARF DOUBLE FLOWERING, (*Pumila Rosea.*) A beautiful shrub with small, double, rosy blossoms.

DWARF DOUBLE WHITE FLOWERING, (*Pumila Alba.*)

Berberry, (Berberis.)

COMMON EUROPEAN, (*Vulgaris.*) Red fruited.

PURPLE LEAVED, (*Purpurea.*) An interesting and beautiful variety with violet purple leaves and fruit.

Calycanthus, (Sweet-Scented Shrub, or Allspice.)

CAROLINA, (*Floridus.*)

SMOOTH-LEAVED, (*Lævigatus.*) A favorite shrub with fragrant wood and flowers, of a rich chocolate color, rich foliage, blossoming in June, and at intervals throughout the season.

Corchorus, (Kerria.)

JAPAN GLOBE FLOWER, (*Japonica.*) A slender, green branched shrub, covered with a profusion of globular yellow flowers from July to October.

Cornus or Dogwood.

RED BRANCHED, (*Sanguinea.*) Very conspicuous and ornamental in Winter, on account of its blood red bark.

Currant, (Ribes.)

CRIMSON FLOWERING, (*Sanguineum.*)

YELLOW FLOWERING, (*Aureum.*)

Daphne.

MEZEREON PINK, (*Mezereum Rubrum.*) Flowers appear very early, before the leaves, and are very beautiful.

TRAILING, (*Cneorum.*) A low, evergreen shrub, blooming at intervals from May to November; flowers rose colored.

Deutzia.

ROUGH LEAVED, (*Scabra.*) One of the most beautiful, profuse white flowering shrubs.

SLENDER BRANCHED, (*Gracilis.*) A charming species, introduced from Japan by Dr. Siebold; flowers pure white. Fine for pot culture, as it flowers freely at a low temperature in the winter.

CRENATA FL. PL. Similar in growth and habit to the above; flowers double, white tinged with rose. The finest flowering shrub in cultivation.

Euonymus—Burning Bush—Spindle Tree.

STRAWBERRY TREE, (*Euonymus Europæus.*) A very ornamental and showy shrub, whose chief beauty consists in its brilliant berries, which hang in clusters from the branches, until mid-winter. Berries rose colored. Planted with a background of evergreen, the effect of contrast is very fine.

Filbert, (Corylus.)

PURPLE LEAVED, (*Purpurea.*) A very conspicuous shrub, with large, dark purple leaves; distinct and fine. \$1.00.

Forsythia.

VIRIDISSIMA. Leaves deep green ; flowers bright yellow, very early in Spring. A fine, hardy shrub, introduced by Mr. Fortune, from China.

Halesia, or Silver Bell.

FOUR WINGED, (*Tetraptera.*) A fine, large, and very ornamental shrub, with beautiful white, bell-shaped flowers, in great abundance in May. \$1.00.

Honeysuckles, Upright, (Lonicera.)

RED TARTARIAN, (*Tartarica Rubra.*) A well known shrub : flowers bright pink, which appear in May.

WHITE TARTARIAN, (*Tartarica Alba.*) Like the preceding, but has dull, white flowers.

FRAGRANTISSIMA. A fall flowering variety ; flowers small, yellowish white, very fragrant.

Lilac, (Syringa.)

CHARLES THE TENTH. A strong, rapid grower, with large shining leaves, and reddish purple flowers.

CHIONANTHUS LEAVED, (*Josikea.*) Has dark, shining leaves like the White Fringe tree, and purple flowers ; fine and distinct.

COMMON WHITE, (*Vulgaris Alba.*) Well known, a good strong grower, white flowers.

COMMON PURPLE, (*Vulgaris Purpurea.*)

Purple Fringe, (Rhus.)

SMOKE TREE, (*Cotinus,*) A very much admired and conspicuous shrub, or small tree, with spreading habit so as to require considerable space. Covered in mid-summer with a profusion of dusky, fringe-like flowers. Desirable, from its striking peculiarity of flowering.

Quince, Japan, (Pyrus.)

SCARLET, (*Japonica.*) An old and esteemed variety, having a profusion of bright scarlet flowers in early spring, and one of the best hardy shrubs we have. Makes a beautiful and useful hedge.

BLUSH JAPAN, (*Japonica Alba.*) A beautiful variety of the preceding, with delicate white and blush flowers.

Spiræa.

DOUBLE FLOWERING, PLUM LEAVED, (*Prunifolia, Fl. Pl.,*)

Very beautiful ; its flowers are like white daisies ; from Japan ; blossoms in May.

CALLOSA ALBA. A new white flowering variety, of dwarf habit ; very fine.

LANCE-LEAVED, (*Lanceolata or Reevesii.*) Narrow, pointed leaves and large, round clusters of white flowers, that cover the whole plant ; a charming shrub ; blooms in May.

REEVESII ROBUSTA. A new, superior variety of the preceding ; of more vigorous growth, and flowers much larger ; blooms in June and September.

Spiræa.

BILLARDI. Rose colored ; blooms nearly all summer.

ELM LEAVED, (*Ulmifolia.*) Leaves somewhat resembling an Elm, and large, round clusters of white flowers.

The Spiræas are all elegant, low shrubs, of the easiest culture, and their blooming extends over a period of three months.

Syringa. (*Philadelphus.*)

All the species and varieties of the *Syringa* have white flowers, many of them quite fragrant. Assorted varieties.

Tamarix.

AFRICAN, (*Africana.*) This is a very beautiful shrub, with small leaves somewhat like the Juniper, and delicate small flowers in spikes.

Viburnum.

SNOW BALL, (*Opulus.*) A well known favorite shrub, of large size, with globular clusters of white flowers in June.

Weigela.

ROSE COLORED, (*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 ; blossoms in May.

AMABILIS or SPLENDENS. Of much more robust habit, larger foliage and flowers, and blooms freely in the Autumn ; a great acquisition.

ALBA. Flowers white, changing to a light, delicate blush ; foliage light green ; very distinct.

VARIEGATED LEAVED, (*Fol. Variegata.*) Leaves bordered with yellowish-white, finely marked ; flowers bright pink.

White Fringe, (*Chionanthus.*)

VIRGINIAN, (*Virginica.*) One of the best large shrubs or small trees, with superb foliage, and delicate fringe-like, greenish white flowers.

EVERGREEN SHRUBS.**Ashberry,** (*Mahonia.*)

HOLLY LEAVED, (*Aquifolia.*) A most beautiful shrub, with glossy, holly-like leaves, which change to brownish green in winter, with clusters of bright yellow flowers in May. Very hardy, and makes a good hedge.

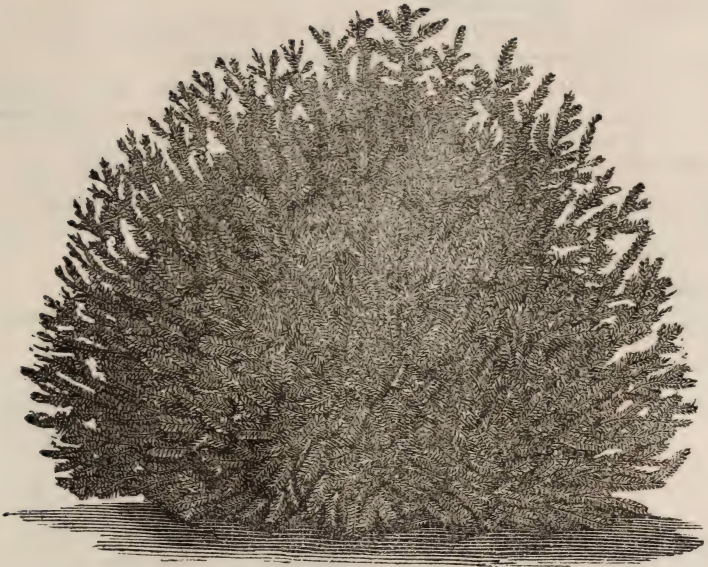
Box, (*Buxus.*)

DWARF, (*Suffruticosa.*) The well known variety used for edging.
TREE BOX. Several sorts.

Juniper, (*Juniperus.*)

SAVIN, (*Sabina.*) A low spreading shrub.

ERICOIDES. A pretty little evergreen with heath-like leaves.



HEATH LEAVED JUNIPER.

Rhododendron. In varieties. A good collection of very fine plants. \$2.00 to \$3.00.

These are the most magnificent of all evergreen shrubs, with rich green foliage and superb clusters of flowers. They flourish best in a peaty soil and somewhat shaded situation, and will well repay all the care that may be bestowed in preparing a bed suited to their wants.

Thorn Evergreen. The evergreen thorn is a low, bushy shrub, of compact, dwarf habit, retaining its foliage well. Bears orange, scarlet berries, makes a pretty hedge.

IV. CLIMBING PLANTS.

Akebia.

QUINATA. A fine, rapidly growing climber, with small, dark green leaves, and purple blossoms in early summer.

Bignonia, or Trumpet Flower.

SCARLET, (*Radicans.*) A splendid climber, vigorous and hardy, with clusters of large, trumpet-shaped scarlet flowers in August.

LARGE FLOWERED, (*Grandiflora.*) A magnificent vine with large flowers, but not so hardy.

Clematis, or Virgin's Bower.

EUROPEAN SWEET, (*Flammula.*) Flowers white and very fragrant.

Clematis, or Virgin's Bower.

SWEET SCENTED, (*Odorata.*) One of the finest of this class; flowers light purple and fragrant. June to October.

AMERICAN WHITE, (*Virginica.*) A remarkably rapid climbing plant, growing to the height of twenty-feet, producing an immense profusion of flowers in August.

The Clemates are elegant slender-branch shrubs, of rapid growth, pretty flowers of various colors, white, blue, purple, and two-colored, and some of them are quite fragrant, especially the Flammula and its varieties.

Honeysuckles, (Lonicera.)

MONTHLY FRAGRANT or DUTCH, (*Belgica.*) Blooms all summer; very sweet.

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

CHINESE TWINING, (*Japonica.*) Holds its foliage nearly all Winter; blooms in July and September, and is very sweet.

YELLOW TRUMPET, (*Aurea.*) A well known variety with yellow trumpet flowers.

Ivy, (Hedera.)

IRISH, (*Hibernica.*) The well known old and popular sort.

VARIEGATED LEAVED, (*Fol. Argentea.*) With smaller leaves than the preceding.

The Ivies being evergreen, often suffer in winter if exposed to the sun, and should, therefore, be planted on the North side of a wall or building.

Virginia Creeper.

AMERICAN IVY, (*Ampelopsis hederacea.*) A native vine of rapid growth, with large, luxuriant foliage, which in the Autumn assumes the most gorgeous and magnificent coloring. The blossoms, which are inconspicuous, are succeeded by handsome dark blue berries. This vine is the best calculated to take the place, in this country, of the celebrated English Ivy, and is really in Summer not inferior to it.

Wistaria, (Glycine.)

CHINESE, (*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.

AMERICAN, (*Frutescens.*) A native variety, of less vigorous habit, and small clusters of light blue, fragrant flowers.

22
V. ROSES.



MOSS ROSE.

HYBRID PERPETUAL ROSES.

Perpetual or remontant roses of this class are perfectly hardy, free and constant bloomers, of all shades of colors, from very dark to perfectly white, and are in every way worthy of general cultivation.

To obtain the most satisfactory results, they should be planted in a rich, deep, well drained soil, and be severely pruned in early spring, before the buds start. There are two methods in common use of growing Roses—by budding on the Manetti stock, and from cuttings. By the former we get a stronger growth and more profuse bloom, but care must be taken to remove all suckers and branches below the bud. By the latter method, although we do not get so strong a plant, this objection is obviated.

Auguste Mie—Clear rosy pink ; very large and finely cupped ; vigorous ; fine.

Alexandrine Bachmeteff—Bright rose, very large and full ; vigorous and a free bloomer.

Baronne Prevost—Deep rose ; very large and full ; a vigorous grower and abundant bloomer ; one of the oldest and finest of this class.

Baronne Hallez—Light crimson, perfect form, free grower and bloomer ; first rate.

Caroline de Sansal—Clear, delicate, flesh color, becoming blush, a magnificent variety ; the best rose of its color in the catalogue, surpassing even the Victoria, which is very similar in color ; growth vigorous and foliage luxuriant.

Duchess de Nemours—Pale, delicate rose, very full and double ; a vigorous grower.

Duchess d'Orleans—Lavender blush ; large, double and fine ; vigorous grower.

Duchess de Sutherland—Bright glossy pink, changing to pale rose ; good habit ; a beautiful rose and of vigorous growth.

Doctor Arnal—Bright crimson, fine form, large and double ; good grower, free bloomer.

Edward Jesse—Lilac rose, large and beautiful ; very vigorous.

Eugene Appert—Rich velvety crimson, double and compact ; one of the best.

General Washington—Brilliant rosy crimson ; large and double ; fine.

General Jacqueminot—Brilliant crimson scarlet, very showy and effective.

Giant of Battles—Very deep brilliant crimson ; dwarfish habit, free bloomer and one of the very best.

Dr. Henon—Creamy white ; flowers full, moderate size ; free grower, distinct and beautiful.

Joasine Hanet—Purplish red, very full ; blooms in clusters.

John Hopper—Rose with rosy crimson centre : splendid form.

Jules Margottin—Light, brilliant crimson ; large, full and beautiful.

La Reine—Bright rosy pink ; very large, double and sweet : one of the best.

Lady Alice Peel—Rosy carmine ; large and fine.

Lady Emily Peel—White, occasionally edged with carmine ; cupped and double ; blooms very freely in the fall.

Lion des Combats—Reddish scarlet ; brilliant and showy.

Lord Raglan—Fiery crimson, shaded with purple ; large and finely formed. A superb rose and a vigorous grower.

Mad. Boll—Bright rose, fine form, very sweet ; vigorous.

- Mad. Trotter**—Bright red; very full.
- Mad. Victor Verdier**—Bright cherry rose; large, compact and finely cupped; blooms in clusters; a free bloomer.
- Marshall Vaillant**—Deep red with purple shade; blooms in clusters; very fine.
- Maurice Bernardin**—Beautiful clear vermilion, imbricated, large.
- Pius the Ninth**—Bright purplish red, changing to violet; very large and full; robust and profuse bloomer; one of the best.
- Prince Albert**—Deep rose, changing to violet; large and full.
- Pæonia**—Clear cherry red; brilliant; good grower and free bloomer.
- Portland Blanche**—Pure white, flowers like Blanche Vibert, said to bloom more freely in the fall.
- Robert de Brie**—Salmon pink, medium size, well shaped and double.
- Souvenir de la Reine des Belges**—Brilliant rose, resembles Prince Albert in foliage; flowers more brilliant, a free bloomer, very fine.
- Sydonie**—Blush, large and fine, distinct; a vigorous grower.
- Triomphe de L'Exposition**—Fine rosy crimson; large, fine form, and a vigorous grower; very showy.
- Victor Verdier**—Clear rose, globular, fine form and free bloomer; superb.
- Victoria**—Pale blush, nearly white; very large, full and double; strong grower and abundant bloomer; introduced by Paul as a WHITE LA REINE.
- William Griffith**—Rosy lilac, large and beautifully formed; vigorous and profuse bloomer; one of the best.

BOURBON ROSES.

These are not quite so hardy as the preceding class, requiring slight protection in the North. They are continual bloomers, of vigorous rapid growth, with rich, luxuriant foliage.

- Blanche Lafitte**—Pale flesh-color, full and beautiful.
- Hermosa**—Light blush or flesh color; large, full and double; grows freely and blooms profusely; fine.
- Louis Margottin**—Delicate satin rose, fine form, a free bloomer, and a superb new rose.
- Omar Pacha**—Scarlet crimson, fine and vigorous; one of the very best.
- Paul Joseph**—Violet purple; changeable.
- Queen of the Bourbons**—Fawn-colored rose; beautiful and profuse bloomer.
- Sir J. Paxton**—Deep rose, shaded with crimson; very strong grower, fine, rich foliage, and free bloomer.
- Souvenir de la Malmaison**—Pale flesh, with a fawn shade; very large, full and beautiful.

NOISETTE ROSES.

These are the finest of Autumnal bloomers, and are distinguished by flowering in clusters. They are not quite hardy, requiring a little protection during severe winters.

Augusta—Sulphur yellow; large and full, very fragrant, a strong grower; similar to, if not identical with *Solfaterre*.

Cloth of Gold, (*Chromatella*)—Rich, deep yellow; large, double, fragrant, and a vigorous grower.

Narcisse—Pale yellow; a beautiful tea scented rose.

Yellow—Sulphur yellow; rather feeble grower.

TEA ROSES.

The perfume of these roses is most delicate and agreeable; indeed they may be called the sweetest of all roses. The flowers are also large and very delicate in their colors—such as white, straw and flesh color, and various tints of rose combined with these. They are more tender than any other roses in the catalogue, requiring a house or pit in winter. They are most desirable for pot culture.

Glory of Dijon—Yellow, shaded with salmon and rose: large, full and distinct.

Gen. Tartas—Deep rose, shaded with salmon; very large and fine.

Maréchal Neil—Very bright, rich, golden yellow; very large, full and perfect form; the petals are extra large, and of good substance, of vigorous growth and a free bloomer. This is unquestionably the finest of all yellow Tea roses. Truly magnificent.

Madame Bravay—White, with rose centre, large and fine.

Safrano—Fawn shaded with rose.

Triumphe de Luxembourg—Salmon buff, shaded with deep rose; distinct and fine.

Yellow Tea—An old and popular rose, very fragrant, straw color, very fine bud.

CHINA, OR BENGAL ROSES.

These are very appropriate for beds, on account of their dwarf habit of growth. They bloom all through the season in the open ground, and may be protected through the winter in a pit or house.

Agrippina, or Cramoise Superior—Rich velvety crimson.

Arch Duke Charles—Rosy crimson, distinct and fine.

Douglass—Rich violet color; a fine, free bloomer.

Daily, or Common—Light pink; a constant bloomer.

Eugene Beauharnais—Bright amaranth; distinct and fine.

Gerard Desbois—Bright red, large and full.

Sanguinea—Deep crimson; a most profuse and constant bloomer and free grower.

MOSS ROSES.

Alfred de Dalmas—Clear blush; a vigorous grower; blooms in clusters; perpetual.

General Drouot—Deep crimson; very mossy and a free bloomer; dwarf habit; perpetual.

Madame Bouton—Deep rose color; large and full; perpetual.

Pomponne—Dark crimson; blooms freely in the Autumn; perpetual.

Perpetual White—Pure white; blooms in large clusters.

Salet—Clear rose color, very double; of vigorous growth and abundant bloom; perpetual.

Crested—Rose, beautiful, and curious mossy fringed calyx.

Glory of Mosses—Pale rose, very large, full and beautiful.

Laneii—Rosy crimson, shaded with purple, grows well; superb rose.

Luxemburgh—Large cupped; fine purplish crimson; a luxuriant grower, and free bloomer.

Marie de Blois—Clear satiny lilac; large and fine.

Partout, or Moss Moss—Pale rose; plants and buds very mossy.

Princess Adelaide—Blush, becoming quite pale; very double and well formed; the most vigorous grower of all the Mosses.

Wm. Lobb—Light crimson purple; large and double.

Unique—Pure white; large and full.

CLIMBING ROSES.

These are admirably adapted for covering walls, trellises, old trees, unsightly buildings, &c. Among them the PRAIRIE ROSES take the first rank; their rapid growth, perfect hardiness, luxuriant foliage, immense clusters of beautiful flowers, and their late blooming, commend them at once to every one who wants a splendid Climbing Rose.

Baltimore Belle—Fine white, with blush centre; very full and double.

Pride of Washington—Dark rose, very double, distinct.

Gem of the Prairies—A hybrid between the Queen of the Prairies and Madame Laffay. It is a strong and vigorous grower, similar in habit to the Queen, but the flowers are considerably darker in color, besides being quite fragrant. New, and a great acquisition.

Queen of the Prairie—Bright rose color; large, compact and globular; a very profuse bloomer; one of the best.

SUMMER ROSES.

Aureti—Fine dark velvety purple; globular and double.

Madame Plantier—One of the finest pure white roses, blooming in clusters.

Unique, or White Provence—Pure white; beautiful form.

Harrison's Yellow—Double, bright yellow; very showy and fine.

Persian Yellow—Deep golden yellow; double and very fine.

Russell's Cottage—Brilliant red; blooming in large clusters.

Banksia White—Pure white; double and pretty.

VI. HEDGE PLANTS.

Evergreen.

Arbor Vitæ, assorted size.
 Hemlock, “
 Norway Spruce, “
 Red Cedar, “
 Mahonia Aquifolia. “

Deciduous.

Berberry.
 Privet.
 Pyrus Japonica.
 Honey Locust.
 Osage Orange.
 Dwarf Box, for edging.

VII. MISCELLANEOUS.

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.

I. TREE PÆONIES.

Banksii—Rosy blush, with purplish centre.

Papaveracea, (Poppy Flowered)—Blush white, with deep crimson centre; showy, single.

The sort just named can be recommended as in every way desirable, and the best in cultivation. We name a few other desirable varieties.

Atroviolacea.

Alba Plena.

Caroline His.

Edwardii.

Giovanii.

Humei.

Imperatrice Josephine.

Kochlerii.

Lactea.

Schultzii.

II. HERBACEOUS PÆONIES.

These are beautiful, showy, and easily cultivated plants, blooming from the beginning of May to the end of July. They should have a place in every garden. A selection will give a continuous bloom for three months.

Alba Plena—Double white.

Amabilis Lilacina—Pale lilac.

Duchesse de Nemours—Violet and lilac.

Elegantissima—Outside petals blush, inside, salmon color; anemone flowered.

Humei—Dark rose color, very double and perfect; one of the latest to bloom.

Pomponia—Flesh color.

Whittleji—White, deepening to straw color in the centre; fragrant and fine.

CAMELLIA JAPONICA.

We offer a fine assortment of these popular favorites.

PHLOXES.

The Phlox is one of the most interesting of all our herbaceous perennial plants, and commends itself to every one by—1st, its variety and beauty; 2d, its hardiness and easiness of culture, and 3d, its cheapness—placing it within the reach of the humblest lover of flowers. Assorted varieties embracing all of the colors.

CHRYSANTHEMUMS.

These are among the most handsome of Autumnal flowers, and of easy cultivation; they are almost hardy, but succeed best cultivated in pots. The period of flowering is from October to Christmas. They are now divided into two classes—1st, the tall-growing, large flowered varieties. 2d, the Pomponé or Daisy sorts, attaining a height of from 18 to 24 inches. All the leading varieties.

CARNATIONS, PINKS AND PICOTEES.

Next to the Rose, the Carnation stands preeminently at the head of flowers. It is universally admired, and for brilliancy and beauty of color, and delicacy of fragrance, is unsurpassed by any other plant. A new class called Perpetual or Tree Carnation, has recently been introduced. These are particularly suitable for house culture, or forcing in winter, as they exhibit a constant succession of bloom. They will also flower freely during the summer months when turned out in the border. They flourish in any ordinary garden soil, made rich and deep by a generous application of well rotted manure. All the leading varieties.

Assorted varieties of Herbaceous Flowering Plants, Bulbs and Bulbous Roots and Dahlias.

STANDARD WORKS OF HORTICULTURE, &c.,

Any of the following will be mailed free to any address on receipt of the price annexed.

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HOW TO WINTER TREES PROCURED IN THE FALL.

The practice of procuring supplies of trees in the fall is becoming more and more general as each season demonstrates its wisdom. It is a more favorable time than the spring because of the colder weather, and the lighter pressure of business with the nurserymen, the freighting companies and the planter. Even where fall planting is not desirable by reason of the severity of the climate, the stock may be procured in the fall and thus be on hand ready for the opportune moment in the spring. To insure success you have only to get the trees before freezing weather and bury them in the following manner. Choose a dry spot where no water will stand during the winter, and with no grass near it to invite mice. Dig a trench, throwing out enough dirt to admit one layer of roots below the surface and place the trees in it, inclining them at an angle of forty-five degrees or more. Widen the trench, throwing the soil among the roots in position; place another layer in the trench reclining the tops on the others and so continue until all are in the trench when finish by throwing up more soil until the tops of the trees are nearly or quite covered. It is also well to bank up the earth around the sides to insure more thorough protection. Care should be taken to fill solid all the interstices among the roots. In the spring the roots will be found to have formed the granulations necessary to the production of new spongioles, and when well planted at the proper time will start into immediate growth.

If the trees are frozen when received, they should be buried immediately in the earth, tops and all, and allowed to thaw in this condition.

PRUNING THE DWARF PEAR.



FIG. 1.

Without as good CULTIVATION as the farmer gives to his corn and potatoes, the dwarf pear cannot succeed; and it will after a while fail, if not properly pruned. With these requisites fine and continued crops may be expected, if the soil is good.

The accompanying figures illustrate pruning. Figure 1 is the two year dwarf at the time of setting out. The dotted lines show where the branches should be cut off at the time of planting. *This should be done without fail.*



FIG. 2.

Figure 2 represents the tree after the shoots have grown again, or after it has made its third summer's growth.

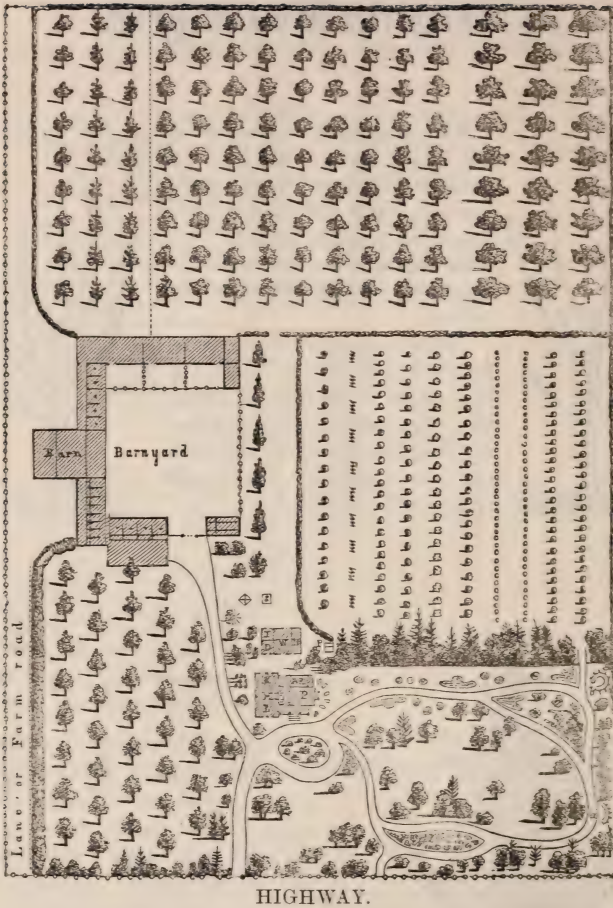
The dotted lines show where it should be cut back the next spring, or one year after it was set out. The same general course must be pursued for every pruning afterwards—namely: thinning out and cutting back any secondary or other branches that shall seem necessary to admit light and air, or give vigor or symmetry to the tree, retaining the pyramidal form.

T. G. Yeomans, a very successful raiser of dwarfs, remarks: "no one prunes too much."

Figure 3 is an accurate portrait of a Louise Bonne de Jersey dwarf pear tree, eight years old, which has been well pruned, and bearing two bushels pears.



FIG. 3.



The above plan represents the grounds of a Country Residence as planted with Trees. The ornamental portion is on the right below,—back of which is the garden for dwarf trees, currants, raspberries, gooseberries, &c., arranged so as to be cultivated with a horse, and admit garden vegetables between the rows. On the left of the dwelling is the standard pear orchard; and in the rear of the whole is the orchard for standard apples, peaches, cherries and plums—the latter capable of being separated from the rest by a moveable fence, shown by the dotted line, in order to enclose pigs and poultry for destroying the curculio.

PRICE LIST.

APPLE TREES, Standard, 5 to 7 feet.....	each	\$0 25
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ASPARAGUS,....per hundred, Conover's Colossal, \$5 00; Giant, \$2 00		
RHUBARB.....per dozen, 2 00	"	25
CHESTNUTS, fine trees.....	"	50
ALMONDS AND WALNUTS.....	"	50
MULBERRIES, White and Black.....	"	50
do Downing's Everbearing.....	"	1 00
DECIDUOUS TREES, good size, except otherwise noted.....	"	50
do Beech, Purple Leaved.....	"	3 00
do Horse Chestnut, Red Flowering.....	"	1 50
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do Pyrus Japonica.....		12 00
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Address,

F. C. JOHNSON & CO., New Albany, Ind.

PLANT YOUNG TREES.

We cannot too strongly recommend to our customers the procuring of young trees, especially for orchard planting, instead of selecting the largest that can be had, to secure a more immediate effect. Young trees cost less at the nursery, also in freight, handling and planting; they can be taken up with more perfect roots, 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 as the surest in the end to give thorough satisfaction.

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

F. C. JOHNSON & CO.,
NURSERYMEN, New Albany, Ind.

CAUTION.

Owing to the reputation and character which our Nurseries have throughout the United States, many unprincipled persons in various parts of the country have obtained copies of our Catalogues, and used them in soliciting orders, as agents or otherwise of our establishment, without our knowledge or consent. Therefore, we hereby give notice that each one of our authorized agents, and persons who have made arrangements with us to procure trees, &c., to supply their orders, have, *in all cases*, a certificate of *late date*, bearing our signature, stating such fact.

Should any doubt exist in the mind of any one, as to the authority of parties soliciting orders as our agent, or otherwise, we will consider it a favor if they will communicate with us by mail, giving the person's name who may be soliciting such orders.

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