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CROUSE BROTHERS,

Descriptive **C**atalogue

Fruits, Ornamental Trees,

SHRUBS, ROSES, ETC.



EAGLE NURSERIES,

MONTROSE, IOWA.

Union and Alv Co's Print, Rochester, N. Y.

CROUSE BROTHERS'

DESCRIPTIVE CATALOGUE

—OF—

FRUITS, ORNAMENTAL TREES,

SHRUBS, ROSES, ETC.



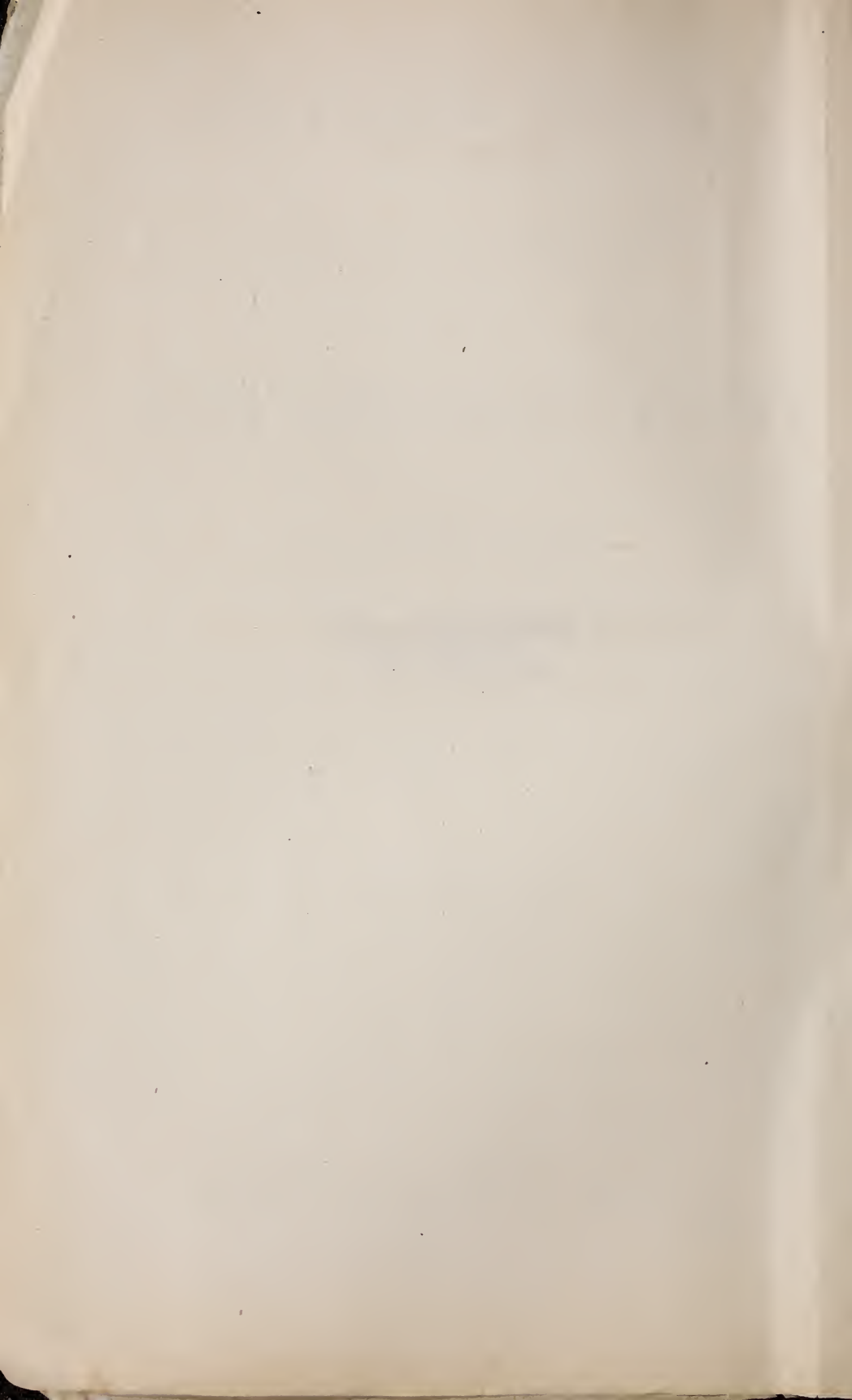
EAGLE NURSERIES,

MONTROSE, IOWA.

ROCHESTER, N. Y.:

DAILY UNION AND ADVERTISER COMPANY'S BOOK AND JOB PRINT.

1879.



REMARKS.

In presenting this edition of our Descriptive Catalogue, we take the opportunity to say to our patrons and friends, that we have aimed to limit our varieties to those best adapted to our climate and soil, discarding such as have proved unproductive or wanting in hardiness, or unworthy in quality. We have added a number of new varieties, promising great excellence, to our list. We ask attention to their description, as it is a fair but brief statement of their qualities.

Our stock is more complete and much more extensive than ever before, embracing all the leading important nursery products. The quality of stock is very fine, all young and thrifty.

The soil of our nurseries is a clay loam, high, well drained, and most excellent for the growth of healthy, hardy trees.

It is a well established fact, among nurserymen, and enterprising fruit growers, that nursery trees, grown upon this kind of soil, transplant better into our prairie soil, and make a better orchard than those grown in the light, alluvial soil of our prairies. The texture of the wood is more compact, and roots more abundant.

In this class of soil, trees mature their growth two or three weeks sooner than they do upon light soil, and go into the winter well ripened. Such trees are better adapted to endure extreme cold, or to removal to any other kind of soil or climate.

NOTICE TO CORRESPONDENTS.

1st. Write your address plainly, giving Post Office address, County and State, also the route by which you want nursery products shipped. Where the route or shipping directions are not given, we will use our best judgment in forwarding.

2d. All orders should be written plainly and separately from the body of the letter, as it will prevent mistakes in the hurry of the shipping season.

3d. Where the names of varieties are specified in the order, we fill with the greatest care, and with strict regard to the wishes of our patrons; but where varieties are called for, that have been exhausted, or are not grown by us, we reserve the right to substitute others of equal value, of the same season and kind. When substitution is forbidden, we fill as far as possible.

4th. Those not well informed as to the character of varieties, will do well to leave the selection to us, stating the seasons, fall, summer or winter, and whether for market or home use. We will then select varieties best adapted to the locality.

5th. We deliver all goods at Railroad or Express Office, free of charge, after which purchaser's must look to the companies for all damages caused by delay, or neglect on the part of the shippers.

6th. Should any mistake occur on our part, immediate notice should be given us, so we can rectify the same, or make an explanation.

7th. All orders from strangers, must be accompanied with cash, or satisfactory reference.

8th. Cost of boxes and material used in packing, will be charged in the bill with the stock purchased.

9th. We give personal attention to the packing and shipping of stock, and our patrons may rely upon its being so packed as to reach them in good condition. Our facilities for shipping are unsurpassed for forwarding goods, North, South, East or West, by railroad, and North and South by water.

DIRECTIONS FOR TRANSPLANTING.

Soil for all kinds of Fruit trees and Ornamental stock, must be well drained, as they will not thrive in wet land, and rich enough for good crops of corn. Plow deeply, and harrow till well pulverized. The holes for trees in such prepared ground, need only be sufficiently large to admit the roots in good shape. When trees are set in a lawn, or old orchard, the soil should be spaded deeply—4 to 6 feet in diameter—and a liberal hole made for the tree, and surface soil placed in the bottom of the hole for the roots of the tree to rest upon.

As soon as trees are received, they should be heeled in mellow soil, being careful to open bundles so that fine soil will get well among the roots. If from any cause the tops should be wilted, and appear too dry, when received, bury tops and all in a trench from 2 to 4 days, adding plenty of water. This will restore them to their natural, fresh, sappy condition; or if they should be received in a frozen state, bury them top and all, without opening the bundles, for a few days, until frost is drawn out. If not convenient to bury them, place them in a dark cellar, in the box or bundle as received, and allow them to thaw out gradually. Trees thus treated will not be injured by the frost.

Before planting, cut off all bruised roots, sloping from the under side; but don't expose the roots to the air and sun for any length of time. Cut back tops of trees two-thirds of last year's growth. Keep roots constantly in a damp condition. When planting, spread out the roots in their natural condition, sift in fine, mellow, surface soil, lift the tree slightly, and shake a little, till the fine dirt comes in contact with all the roots. As soon as the roots are covered, press slightly with the foot, then more dirt, and use the foot-pressure thoroughly till the tree is very solid. If the soil is not sufficiently moist, add water freely; as soon as this soaks away, complete the filling up with soil loosely, but don't press it after adding water. Plant Standard trees 2 to 4 inches deeper than they stood in the nursery. Immediately after planting, mulch with coarse litter from stables or straw stacks 4 to 6 inches deep, and 6 feet in diameter. *This is extremely important, and should never be neglected.* It keeps the ground moist and cool, and aids immensely in the growth of trees. Cultivate each year as for corn. Do not sow small grain or grass among young fruit trees. Potatoes, cabbage, melons, beans, etc., are best; corn is very good, if not planted too close to the trees; allow the stalks to remain upon the ground during the winter, as a protection against winter winds. Cease cultivating after the middle of July, in Iowa, and States as far North.

WIND-BREAKS.

Next in importance is protection from the severe winds of our prairie country. This needed protection can be obtained readily by surrounding fruit grounds with belts of rapid growing timber; White Ash and Silver-leaf Maple are among the most desirable and valuable deciduous trees for this purpose; they are very rapid growing trees; transplant very safely; free from borers and leaf insects; are very finely adapted to prairie and most other kinds of soil. These deciduous trees should be planted in belts of four to six rows, and about four feet apart each way.

Evergreens are most excellent for wind-breaks; they are the most valuable. They are also quite ornamental; among the most valuable varieties for this purpose are Scotch Pine, White Pine and Norway Spruce; these, when properly root-pruned in the nursery, transplant as readily, and are as certain of growth as a Soft Maple, and after they attain the height of four feet, will make an average growth of two to three feet a year. They

are almost impervious to the wind, and makes a much more complete protection during the winter, than trees do that lose their foliage. They are quite inexpensive, and within the reach of most every planter. One or two rows four to six feet apart, will be quite sufficient.

THE PROPER DISTANCE FOR PLANTING.

Standard apple in Northern sections of country, should be set 16 to 24 feet apart, further South, 24 to 40 feet; Pears, Cherry and Plum, 12 to 18 feet; Peaches, Apricots and Nectarines, 15 to 18 feet; Dwarf Apple, Dwarf Pear and Quince, 10 feet; Currants, Raspberries and Gooseberries, 3 to 6 feet; Blackberries, 5 to 6 feet; Grapes, 6 to 8 feet; Strawberries, 1 to 1½ feet in the row; rows 3 to 3½ feet.

NUMBER OF TREES ON AN ACRE, AT A GIVEN DISTANCE APART.

Distance apart each way.	Number of Plants.
1 foot.....	43,500
2 feet	10,890
3 "	2,722
6 "	1,210
8 "	680
10 "	435
12 "	300
14 "	222
16 "	170
20 "	108
25 "	60
30 "	48
35 "	35

HINTS TO PLANTERS.

One of the very best plans to secure fine, healthy, vigorous, orchard trees, is to plant them closely, and, as they attain size, and encroach upon one another, begin to thin out; this can be most profitably done, by selecting the trees that are to be removed, then saw off limbs and shorten in, so as to keep them out of the way of the trees that are intended to be permanent trees, and when necessary, remove the trees altogether.

This thick planting converts the whole orchard into a wind-break; the trees protect one another, and those allowed to remain upon the ground, make much finer trees than when set at the proper distance at the start. This plan of handling orchards is especially valuable in our prairie country. The extra, or surplus trees, pay the first cost of the whole orchard, the expenses of taking care of it, and leave a handsome margin of profit besides, and all the income of the permanent trees will be clear profit. We recommend, where permanent trees are to be 24 feet apart, that the setting of trees should be 12 feet; and, when it becomes necessary to remove the trees, remove them diagonally, that is alternate in each row; this will leave them 15 by 24 feet. When it becomes necessary again to remove trees, cut out every other row; they will then stand 24 feet apart each way. On this plan, full fruitage can be obtained from 300 trees per acre, till the trees are 10 to 12 years of age, before any part of the orchard need be removed.

WINTER PROTECTION OF TREES RECEIVED IN THE FALL.

Choose a dry, rolling piece of ground, dig a trench 12 to 18 inches deep, and 2 feet wide. Dig one end of the trench slanting; upon this slanting end of the trench, lay the trunks of the first layer of trees, with the roots in the bottom of the trench, and the tops upon the soil at the end of the trench; separate the bundles, spreading out the roots, sift in fine soil, and shake the roots until every little space among the roots, is filled with soil; now press the dirt gently upon the roots with the foot; then another layer upon these, keeping roots in bottom of trench and tops upon the trunks of the last lot of trees; treat as before, and so continue until all are in the trench. Now shovel in from the sides, until the tops and trunks of trees and plants are *entirely covered*. As soon as the ground freezes 4 to 6 inches, cover with coarse litter.

PLANT YOUNG TREES.

We call special attention to the importance of procuring young, thrifty trees, in preference to old ones. Many delay planting, year after year, and then, when they conclude to plant, their first thought is how can they obtain fruit almost immediately; their haste for fruit leads them to think that they ought to purchase large-sized trees. This is a mistake; young trees cost less and are more certain of growth, as they are much better supplied with fine, fibrous roots, less labor required to plant them; they grow more symmetrical and make a finer tree, and will, in four or five years, out-grow the larger sized trees. Two and three year old trees are the most desirable for transplanting. Four years will answer very well to replant in old orchards.

HABIT AND GROWTH OF TREES.

We wish to call attention to the great diversity in the growth and appearance of trees. Great dissatisfaction is often felt by purchasers receiving some slender or crooked or gnarly trees; their first impression is that the nurseryman or dealer has taken advantage of them and shoved in some poor trees. These unsightly slender crooked trees, that are sure to give dissatisfaction to purchasers unacquainted with the habits and growth of trees in the nursery, represent some of the finest and most valuable varieties grown in the orchard. But in the nursery they are often the most unprofitable.

The reason these crooked, slender, poor growing nursery trees are sent out is, they are varieties that have grown popular on account of their good qualities in fruit. These defects in nursery trees are soon lost sight of in the orchard; some of them are very handsome in the orchard. Nearly all of these unsightly varieties in the nursery are extremely valuable to the planter. Nurserymen always prefer to grow thrifty, handsome, hardy trees; they are much more profitable to them, as well as more pleasing to purchasers. These fine growing kinds become large enough to sell one year or two sooner than the poor growing kinds, and nearly all of them fine, saleable trees. In the poor growing kinds there is a great loss in culls, fully 20 per cent. too crooked and poor to send out; a straight, handsome growing variety, is pleasing to the eye, but it is no evidence that it will produce fine fruit or be valuable in the orchard. It may be a very excellent variety or a very poor one. We would like to impress our patrons with this fact, that poor growing varieties—crooked, slender, unsightly—always represent valuable fruit and profitable to the planter; if it was not so, nurserymen would not grow them. They are always unprofitable to them.

FRUIT DEPARTMENT.

(Those marked with a Star (*), are leading varieties. We grow heavily of these.)

APPLES.

The value of the apple is too well-known to need comment. When our Western country was new, the pioneers had difficulties to encounter; the most important of these was the selection of varieties suited to our soil and climate. This had to be learned by experience. Many of the eastern apples, that were of high character and standing, proved to be an entire failure west. We have ripened in experience, and are now prepared to offer, in this descriptive list, varieties that have been thoroughly tested in our soil and climate. A few have only a local reputation, and are only valuable in particular localities; the balance have a large range of adaptability. We grow both the dwarf and standard. The dwarf apples are worked upon Paradise or Doucin stock. They make very handsome, desirable trees for gardens; come into bearing young, and are quite prolific. They should be trained with low heads; tree moderately hardy.

RUSSIAN APPLES—Some of these are extremely hardy, and are admirably adapted to our northern climate, where most varieties of apples, except the hybrids, are too tender.

SUMMER APPLES.

American Summer Pearmain—Medium, oblong, covered with streaks and dots of red; excellent quality; poor grower in nursery; productive. September.

***Astrachan, Red**, (RUSSIAN.)—Roundish large, very handsome, crimson, with a thick bloom, sub-acid, rich, excellent, productive, extremely hardy, very popular north, and valuable south. August.

Carolina Red June—Medium, oval, deep red, flesh tender, white, juicy, pleasant; early abundant bearer. August.

Cole's Quince—Large, yellow, ribbed, showy, excellent cooking; hardy, vigorous, productive. September.

***Duchess**—A large, beautiful apple, streaked red and yellow; tender, juicy, a kitchen apple of the best quality; fine for market; a young and abundant bearer; tree vigorous, extremely hardy, large foliage. One of the hardiest, most valuable trees west. Greatly esteemed north. Sept. Russian.

***Early Harvest**, (LARGE YELLOW BOUGH.) Large, pale yellow, fine quality for kitchen and dessert; tree a moderate grower and good bearer; not hardy north. August.

Early Joe—Small sized, deep red, beautiful; delicious, sub-acid; slow, upright grower, good bearer. August.

Early Red—Large handsome, red with bloom; cooking and market. Hardy, upright, vigorous; quite productive after it attains some age. August.

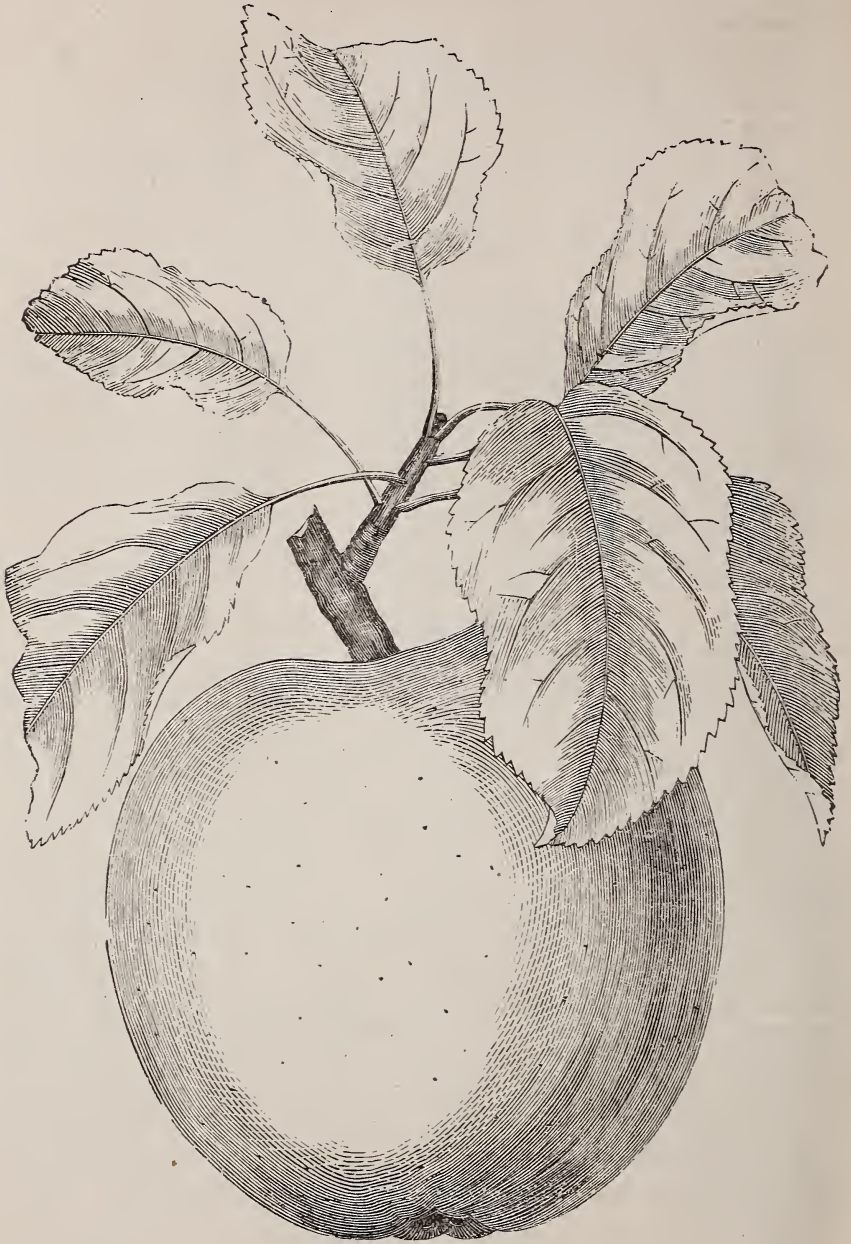
Early Pennock—Large, oblong, striped red and white, showy, sub-acid; immensely productive, bears young; tree a good grower; popular in the West. August and September.

June Eating—Medium size, greenish-yellow, juicy, sub-acid; kitchen or dessert; tree hardy, abundant annual bearer; much esteemed. August.

Keswick Codling—Medium, oblong, obscurely ribbed, pale yellow; flesh greenish yellow, fine grained, excellent for cooking; tree vigorous, hardy; an early, good bearer. Aug. to Sept.

***Sweet June**—Medium, yellow and red; quality excellent; tree upright, vigorous, and hardy, abundant bearer; should be in every orchard. Last of July.

Trenton's Early—Large, very pale yellow or white, sub-acid; dessert and cooking. Tree handsome and productive. August and September.



KESWICK CODLIN.

FALL APPLES.

- Alexandra**, (RUSSIAN.)—Large, handsome, striped; excellent quality for cooking and market; tree very hardy, and fair bearer. September and October.
- Autumn Strawberry**—Medium, streaked with red; juicy, sub-acid, excellent; tree vigorous, hardy; young and abundant bearer. October and November.
- ***Ben Davis**, (N. Y. PIPPIN.)—The most popular winter apple in the west; large striped with red, very handsome, flesh white, tender, sub-acid, good for eating, cooking or cider. The most valuable variety for market. Will yield double as many barrels as most any other winter variety; tree extremely vigorous and hardy, very handsome in nursery and orchard. Comes into bearing young and fruits annually. Thrifty and productive in nearly every kind of soil and locality. A long keeper.
- Baldwin**—Above medium, handsome red, excellent eastern variety. Very tender and unproductive west. Dec. to Feb.
- Bentley Sweet**—Medium to large, surface smooth, splashed with dark red; flesh yellowish-white, fine-grained, sweet, excellent quality; tree vigorous, spreading, young and free bearer; a very long keeper.
- Bailey Sweet**—Large, roundish, smooth, mottled with red; flesh tender, yellow, fine grained, good quality; kitchen and table; tree vigorous, productive. October to December.
- Colvert**—Large, roundish, smooth; greenish-yellow, lightly striped with red; fine grained, juicy, sub-acid; market and kitchen; tree thrifty, spreading, hardy and productive. October and November.
- Dyer, or Pomme Royale**—Medium to large; pale yellow, minutely dotted; flesh yellow, very tender, fine grained, juicy, rich, sub-acid; table and kitchen; tree spreading, moderately productive. September.
- ***Dominie**—Large, finely striped, sub-acid, excellent quality; tree a fine grower, and a free bearer; only moderately hardy. December to April.
- E. G. Russett**—Medium, greenish, deeply russeted, crisp, fine quality, sub-acid; tree thrifty, hardy, strong, upright grower, an early and great bearer; keeps till June.
- ***Fameuse or Snow Apple**—Medium, deep red, flesh snow white, tender, juicy, pleasant, aromatic; tree handsome in orchard, immensely popular, crooked, angular nursery tree; very hardy, remarkably productive; a great favorite north and south. Nov. to Jan.
- ***G. G. Pippin**—An apple of the highest quality, medium to large size, yellow; tree hardy, vigorous and productive. Greatly esteemed. January to April.
- ***Haas, or Gros**, (POMIER.)—Large, striped red, very handsome; an excellent kitchen and market variety; tree upright, vigorous, extremely hardy; an early and great bearer; deservedly one of the iron-clads of the West; very popular. October and November.
- Hubbardson**—Large, striped red and yellow; tender, fine and juicy; tree good grower and moderate bearer. November to January. Succeeds well south; not hardy north.
- Iowa Blush**—Medium yellow and red, sub-acid, good, fine quality for all uses; fruits young and abundantly; tree handsome and extremely hardy. Valuable for north and south.
- ***Jannet**, (RAWLES JENATEN.)—An old variety of great merit; very popular south and south-west; fruit medium to large, striped red, very juicy, pleasant; tree vigorous, immensely productive; long keeper.
- ***Jonathan**—Medium, exquisitely handsome striped bright red and yellow; flesh tender, juicy, sprightly flavor, superb; tree slender, spreading, very productive; popular throughout the west and south west. November to April.
- King of Tompkins Co**—Superb, handsome, red apple, largest size, tree vigorous, only moderately hardy, sparingly productive. December to January.
- Lowell**, (TALLOW, OR GREASY PIPPIN.)—Large, pale yellow; skin oily, fine grained; superb eating; good cooking apple; tree thrifty and productive. September.
- Limber Twig**—Medium, dark red, valuable for great productiveness, hardiness and long keeping. Poor quality.
- Lawver**—Large, handsome red, sub-acid, fair quality; tree hardy, vigorous, productive. New, promising tree. January to April.
- Lansingburgh**—Fruit medium, oblong, yellow, striped with bright red; flesh crisp, mild, sub-acid; an extreme long keeper; dessert and kitchen. Tree upright, vigorous, productive. April to July.
- ***Maiden's Blush**—Medium size; flattish; pale yellow, with beautiful red cheek; flesh fine grained, sub-acid; excellent for cooking and market; tree vigorous, abundant bearer; one of the most valuable of its season. September and October.

FALL APPLES—(Continued.)

- Mother**—Medium to large; dark red, sub-acid, delicious; poor growing nursery tree, but fine in orchard; moderately productive. September.
- Minkler**—Medium to large, greenish yellow, covered with mixed red, and often striped dark red; juicy, fine grained; good for cooking and market; vigorous grower, productive. December to April.
- New York Vandevere Pippin**—Large, striped flesh, crisp, sub-acid; tree vigorous, spreading, productive in some localities, tender north. December to February.
- Northern Spy**—Large, striped, handsome, delicious, excellent for all uses; tree upright, vigorous, hardy, slow coming into bearing. Dec. to Feb.
- Porter**—Rather large; oblong; bright yellow, with a dull blush on the sunny side; flesh fine grained, very juicy, sprightly, agreeable, sub-acid; good to best in quality; tree vigorous, hardy and productive. September.
- Perry Russet**—Light, greenish-yellow, with thin russet, juicy, pleasant, sub-acid; tree vigorous, hardy and productive. December to April.
- Peck's Pleasant**—Large, yellow and brown, fine quality; tree slow growth, slender, productive, moderately hardy. November to February.
- *Rambo**—Medium; mottled and streaked with red; vigorous grower and abundant bearer; very popular; not reliable North. October to December.
- Rhode Island Greening**—Large greenish yellow, tender, juicy, rich. Valuable east; west not hardy and unproductive. December to February.
- Rome Beauty**—Large and handsome, striped, good quality; tree vigorous, immensely productive in some localities. Origin Ohio. Greatly esteemed south. November to February.
- Roman Stem**—Origin New Jersey; medium, yellow, with red cheek, juicy, fine-grained, pleasant acid; quality, excellent; tree vigorous and good bearer. November to February.
- *Smith's Cider**—Medium to large; surface smooth, pale yellow, dashed with red, juicy, aromatic, acid flavor; market and fine cooking; tree moderately hardy, vigorous and very productive. December to January.
- Smokehouse**—Large, striped; superb quality for cooking; tree very thrifty and productive; tender and unreliable North. November to December.
- Small Romanite**—Small, red apple, esteemed for its productiveness, and long keeping; tree slender but very hardy. May to June.
- Stark**—Large, striped, juicy, pleasant, sub-acid flavor; kitchen and dessert; tree vigorous and very productive. December to March.
- Striped Pippin**—Large, handsomely striped, juicy, fine grained; sub-acid flavor; excellent quality; tree immensely vigorous, hardy and productive; greatly esteemed. December to February.
- St. Lawrence**—Large, striped, showy, sub-acid, good quality; an upright, free grower; very hardy; esteemed in the North for its hardihood, productiveness and fine fruit. September and October.
- Tulpehocken, (FALLAWATER)**—very large, greenish, handsome apple of good quality; very stocky, vigorous, nursery tree; bears young; tender for the north. November to March.
- Talman's Sweeting**—Medium, pale yellow, popular, sweet apple; tree vigorous, very hardy, and very productive. December to April.
- *Willow Twig**—Large, striped; sub-acid, good quality; esteemed for market, kitchen and long keeping qualities; a poor nursery tree; in orchard quite hardy and productive. January to May.
- Wagener**—Medium, yellow, covered with bright red; flesh yellowish, white, tender, fine-grained, pleasant, sub-acid; dessert, cooking and market; tree thrifty, productive; not the hardiest north. Nov. to Jan.
- *Westfield, (SEEK-NO-FURTHER)**—Medium to large, striped dull red, juicy, tender, excellent; tree hardy, vigorous, very productive. Nov. to Feb.
- *Winesap**—Medium sized, deep red; an old variety; greatly esteemed in some localities; always a poor looking nursery tree, irregular and moderate grower. January to April.
- Yellow Bellflower**—Large, oblong, light-yellow; superb quality; tree vigorous, hardy, only moderately productive. December to January.

NORTHERN IRON CLADS,

OF RECENT INTRODUCTION.

The following list are recommended especially for Northern localities. All have been tested thoroughly in the most rigorous climate, and we confidently recommend them where very hardy varieties are sought after; they are adapted to great variety of soil and climate, and are being extensively planted over a wide range of country North and South. They are all very vigorous growers. Their roots extend deeply into the ground, enabling them to endure greater drouth than other varieties that root near the surface. They are mostly of Russian origin and of recent introduction. 4 to 6 feet, 50 cents each; \$4 00 per dozen; \$25.00 per 100.

Plum Cider—Medium; striped red, sub-acid, good for all uses; tree very vigorous; extremely hardy; an early, abundant bearer; new—originated in Minnesota; popular Northern variety. November and January.

Pewaukee, (RUSSIAN.)—Wisconsin seedling of Duchesse of Oldenburg. Fruit rather large; surface bright yellow, partially covered with dull red; striped and splashed; covered with bloom and overspread with whitish spots; flesh yellowish white, breaking, juicy, sub-acid, rich, aromatic; resembling Jonathan. Tree, strong grower, very hardy; comes into bearing soon. A productive, valuable variety. Jan'y to March.

Saxton—A very remarkable variety, being exceedingly handsome, both in tree and fruit. Fruit medium, striped and of superb quality for all uses; tree thoroughly hardy, vigorous grower; fruits young, often in the nursery rows when 3 to 4 years' old; productive and an annual bearer; foliage large, resembling its Russian parentage.—September.

Tetofsky, (CALLED RUSSIAN CRAB.)—Its extreme hardiness enduring the most rigorous climate, and its early bearing must have given it this name; it often fruits in the nursery rows at the age of 2 to 3 years. Its growth is very stocky, limbs few and heavy, nearly as thick at their terminus as where they leave the

trunk; foliage very large; growth slow in the nursery, requiring three to four years to get up a 4 foot tree. Handsome, productive orchard tree; requires rich soil; fruit medium; flesh, white, sub-acid, juicy, fragrant and agreeable. Valuable, Russian Summer apple, either for market or home use.

Wealthy—Without doubt this is one of the hardest variety of apples grown. It has been grown successfully as far North as St. Paul. As a Winter variety it has no equal. It is the apple for general dissemination; does well in all sections of the country; growing in favor South, East and West. Tree a vigorous grower in nursery and orchard; a young and abundant bearer. Fruit most excellent quality; very handsome; medium to large; commands a high price in market, uses—cooking, dessert and cider. In the North a long keeper; in the South early winter.

Walbridge—Originated in Wisconsin; perfectly hardy in Minnesota and Wisconsin. Fine tree both in nursery and orchard; a great bearer, and one of the most profitable of the late, keeping sorts; quality very good and keeps its flavor to the last. A valuable Winter variety for most localities; very popular in the North. Should be in every collection of hardy Winter fruit. April to June.

CRAB APPLES.

The introduction of the improved varieties of crabs, (hybrid apples), has conferred a great blessing upon the fruit growing and consuming classes of the west. In no department of fruit culture, has there been greater progress made. From the Siberian, not much larger than a cherry, sour, and puckering, we have, by hybridization with the apple, obtained varieties delicious in quality and fully as large as the medium sized apple. The season of maturing is the same as apples, extending from August through the winter. The quality of the fruit is superior to apple, for butter, cider, jelly, canning and other culinary uses. Some of the varieties are also excellent for eating. The trees have the hardihood of the crab, enduring the severity of our most trying winters, thriving in the extreme north where the apple is an entire failure. Like the Siberian Crab, they come into bearing very young, very often the next year after planting, and each year after, loaded down with fruit. The fruit is very handsome, uniform in size, smooth and quite free from worms; they command a high price, and ready sale in the large cities, where fruits, of all kinds, are abundant.

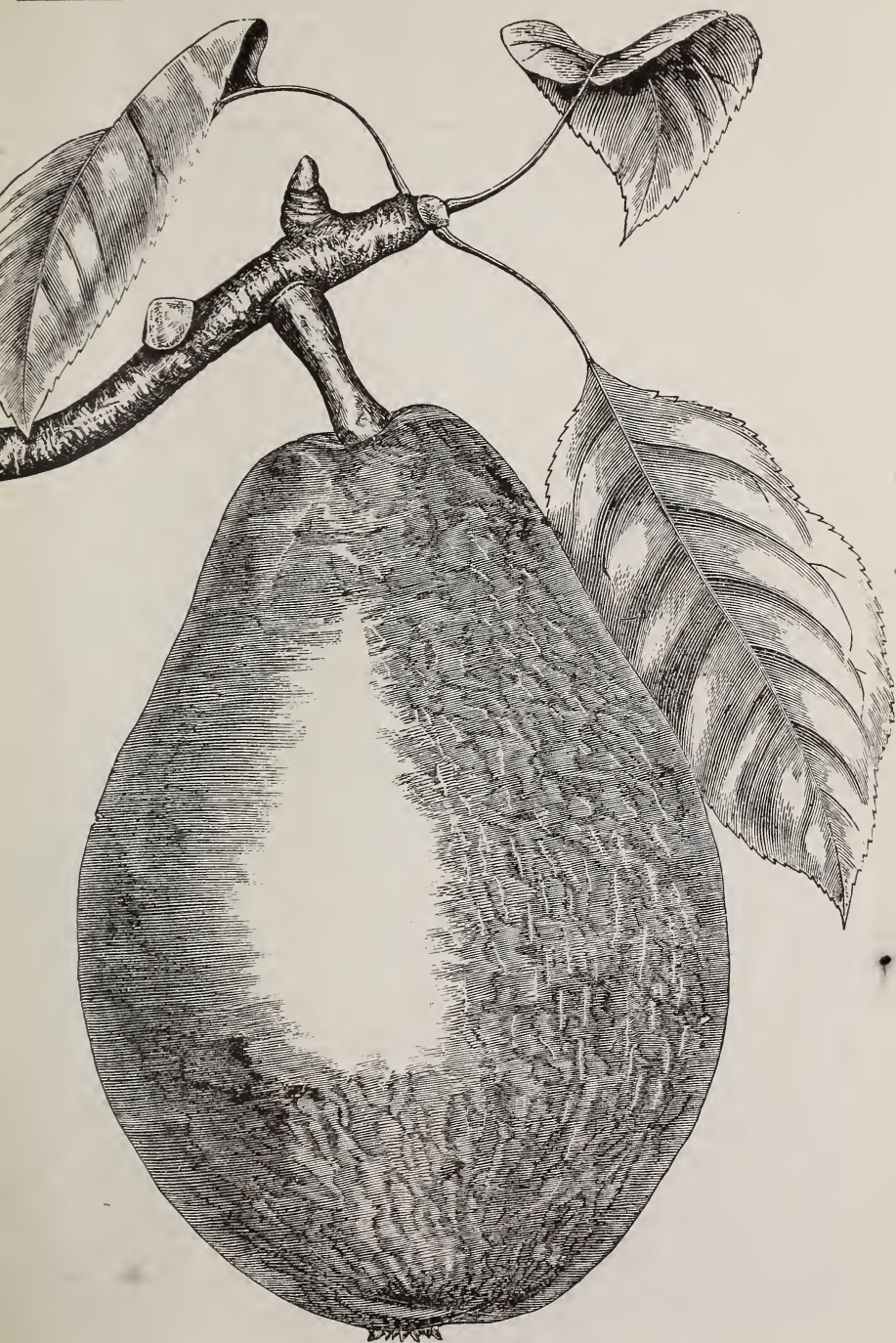
CRAB APPLES—(Continued.)

MR. ELLIS SHARPE, of Lockport, N. Y., who has for many years been endeavoring to find a hardy fruit, that will be profitable to grow for market, and who has spent time and money with a lavished hand, to secure this result, says: "That the most profitable apples that can be grown, are the improved varieties of crabs." He sent a quantity of this fruit to Boston in the fall of 1872, where one variety sold for \$16,60 per barrel, and the others at \$10 per barrel.

MR. LOVANDO SHARPE, of the same place, who has grown them with profit for several years, has planted an orchard of 1500 trees.

MR. L. D. HERRICK, of Randolph, Vt., writes Nov. 19th, 1872: "I gathered last fall from 280 trees, forty-three barrels, twenty-nine of which I sent to Boston, which sold for \$171, besides one barrel of Hyslops, which were to ripe, which sold for \$12, and from the remainder made five barrels of cider."

- Beecher Sweet**—Fruit larger than Transcendent, handsomely striped with red; fine quality for cooking or eating; tree a very vigorous grower, fruiting abundantly alternate years. September to October.
- Brier Sweet**—Fruit larger than Transcendent and exquisitely handsome; one of the very best of the sweet crabs for eating, cooking or cider; tree slender, hardy, productive, bark of the tree peculiar green color. Aug.
- Conical**—Fruit medium size, covered with bright, handsome red; quality good; tree a strong grower, handsome and annually productive. October.
- Early Strawberry**—Fruit medium size striped with red; juicy, tender, mild, aromatic, sub-acid, dessert and cooking, good for cider; one of the best early varieties; tree vigorous, upright, hardy, an early and free bearer. Aug.
- Gen. Grant**—Fruit very large, dark red, nearly black, handsome; quality equal to Duchess of Oldenburgh; tree hardy vigorous grower, comes into bearing young, and bears annually large crops of fruit, in dense clusters; valuable for market or home use. Oct. to Dec.
- Hasper Blush**—Fruit as large as Small Romanite, greenish with a red cheek; quality good, tree vigorous and handsome. Oct. to Dec.
- Hyslop**—Superbly handsome winter crab, beautiful crimson, medium to large; tree very vigorous and productive.
- Maiden's Blush**—Fruit yellowish-white, with a blush of red on the sunny side; flesh tender, with an agreeable flavor, tree slender but hardy. Nov. to Feb.
- Marengo**—Fruit large, yellow, shaded with bright red; juicy, mild, pleasant, sub-acid, flesh white; tree vigorous, hardy, productive. A popular, valuable fruit. Jan. to May.
- Minnesota**—Fruit larger than the Golden Russet, light-straw color, with a delicate red cheek on sunny side; quality very fine; tree a medium grower, hardy and an abundant bearer. The size, beauty and quality of the fruit will give it high rank amongst the winter varieties.
- Orange**—Fruit larger than Transcendent, light, yellow, handsome; crisp, juicy, pleasant, one of the most valuable of its season; tree vigorous, hardy, an early and annually abundant bearer. October to December.
- Quaker Beauty**—Remarkably strong growing, handsome tree, very early and profuse bearer; fruit large, conical, yellowish-white, with a beautiful red cheek; tender, juicy, tree very hardy. December to April.
- Siberian, Large Red**—Highly ornamental; bloom, pinkish white; fruit valuable for jelly. 25 cents each; \$2.25 per dozen.
- Siberian, Large Yellow**—Same size and quality as the red, color yellow. September to October. 25 cents each, \$2.50 per dozen.
- Soulard**—Native crab, medium, greenish-yellow, has a strong aroma; valuable only for cooking late in spring. Tree immensely hardy, productive. April to July.
- Striped Winter**—Fruit size of Transcendent, striped with dull red; crisp, juicy, good quality; tree slender, very hardy, handsome, free and early bearer. December to March.
- Transcendent**—This beautiful hybrid has been widely planted, it is one of the pioneers of this class of apple. Its excellent qualities as a cooking fruit, have given it high rank; tree hardy, vigorous but blights badly in some localities, immensely productive. Oct.
- Whitney, No. 20**—Originated by A. R. Whitney, Franklin Grove, Illinois, fruit as large as Fameuse, very handsome, nearly covered with striped red, juicy, rich, spicy flavor, quality excellent for dessert and cooking; for cider it is among the best, both for quality and quantity. Tree hardy, handsome and vigorous, immensely productive. All things considered, this is one of the very best of the new varieties of the Hybrids. Should be planted liberally in every orchard. Its size, beauty and quality, make it one of the most profitable market varieties. August and September.



CLAPP'S FAVORITE PEAR.

PEARS.

This delicious fruit has been much neglected by the horticulturist and tree planting fraternity of the West. It deserves to be much more extensively planted.

The soil should be moderately rich, rolling or well drained. Plow or spade deeply. Procure hardy kinds; grow with low heads to shade the trunks of the trees from the hot Spring and Summer sun.

A Pear orchard should be surrounded with belts of evergreens, and if only a few are planted, select sheltered localities for them.

Mulch the ground six feet in diameter around the trunks; cultivate well for 4 or 5 years, then seed to grass. If set in a lawn, spade the soil a few feet around the trees and keep well mulched for 4 or 5 years; mulching may be kept up longer as it always favors vigor and health of trees. Litter invites mice, and it is best to remove it close to the trees in the Fall. Careful attention to these few simple rules, will insure a rich reward in fine, luscious fruit. Blight will be the exception and not the rule.

Successful Pear growing in the West is no longer a question of doubt; hundreds of Pear growers in Illinois and Iowa are demonstrating this fact. It is one of the most profitable fruits grown. The market value of Pears is four to ten times greater than that of apples.

Wm. Birkett, of Peoria, Illinois, says: "My tree of Birkett Pears, six feet three inches in circumference, two feet from the ground, thirty feet high, with forty feet spread of branches; my books show that I have sold from this one tree in Peoria, Illinois, market at wholesale, during the last eight years, an average of \$45.00 per year."

One Bartlett Pear tree belonging to Philo Bronson, Geneva, N. Y., yielded from thirty to fifty dollars worth of fruit per annum for a series of years, when fruit was only worth one-half its present value.

A Geneva fruit buyer paid \$90.00 for the fruit of three trees, and picked and marketed the fruit himself. The trees stood on the farm owned by James O. Sheldon.

VALUE OF DWARFS.

Ellwanger & Barry, of Rochester, have a plantation of Dwarf Virgalieus, or White Doyenne, which gave the fourth year \$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, 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.

"Mr. Quinn, the noted Pear grower of Newark, said his oldest dwarf trees were planted deeply, and had rooted from the pear wood, which was an advantage."

"In the Gardener's Monthly for May, 1878, Godfrey Zimmerman, of Buffalo, N. Y., states that he has many dwarf trees over twenty inches in circumference—one twenty-seven inches in circumference, thirty years old. Duchess d' Angouleme produced last year six and one half-bushels of fine fruit, besides making a growth of from six to fifteen inches. His average income from dwarfs was four hundred dollars per acre, except the Vicar, which brought twice that amount. Some B. Clairgeau and B. d'Anjou, brought twelve dollars per barrel in New York."

Dwarf Pears are worked upon the quince; they are admirably adapted to gardens, and very popular in some localities. They commence bearing very young; very prolific, and, where planted six inches below the point of union of the pear and quince, they are quite hardy. The pear, below the surface of the ground, sends out roots, and in a few years converts the dwarf into a permanent standard tree. The advantage to be gained from setting dwarfs is, that they are immediately productive; they usually commence bearing the first or second year after setting, and are annually fruitful thereafter.

Dwarfs should be pruned so as to cause them to branch low, and be compact and pyramidal in form; cut back in the Spring of each year about one-half of the last year's growth; this is very important when the tree makes a vigorous growth. Cut out surplus branches to admit light to all the leaves. While the trees are young the fruit should be thinned. Over-bearing is injurious; the growing tree causes the fruit to be defective.

VALUE OF DWARFS—(Continued.)

Pears should be gathered from the tree before they are ripe, to have them possess a rich, high flavor. Summer and Fall Pears should be gathered ten to fifteen days before they are ripe, and Winter Pears as soon as the tree ceases to grow. Winter Pears should be packed in boxes or barrels, and kept in a cool place. When the weather is cold, move to a dry cellar; examine occasionally.

To ripen, place them in drawers or shallow boxes, in a warm room, and they will ripen up in a few days.

SUMMER PEARS.

***Bartlett**—One of the most popular; large, handsome, skin yellow, very juicy, buttery, fine flavor; tree erect, fine grower and free bearer; tree only moderately hardy in Northern Iowa or Illinois, middle and Southern; hardy, valuable. Middle and last of September. D. and S.

***Clapp's Favorite**—A new Pear; very large and handsome; yellow, marbled with dull red; fine flavor; resembling the Bartlett, cross between the Bartlett and Flemish Beauty; tree hardy and very productive. August and September. D. and S.

Doyenne D'Ete—Small, juicy, sweet, yellowish; very early and productive; fine on quince; tree a good grower and free bearer. August. D. and S.

Osband's Summer—Medium, yellow, with a red cheek; handsome and excellent; good bearer. Tree of fine form, and moderate vigor; hardy. August. D. and S.

Tyson—Medium; bright yellow, with brown cheek; juicy, buttery, melting, excellent; fine on quince. September. D. and S.

FALL PEARS.

Beurre D'Anjou—Large, skin greenish, russeted; flesh melting, perfumed; first quality; good grower and bearer. Standard and Dwarf.

Buffum—Medium, yellow with reddish cheek; buttery, sweet, excellent; vigorous, stout grower. Standard and Dwarf.

Birkett, (FRENCH SUGAR.)—This variety of Pear has been proof against blight or injury from hard winters. Fruit medium size, good quality; excellent for baking, canning and preserving; an early and profuse bearer; 4 to 5 feet. \$1.00 each.

Belle Lucrative—Medium; yellowish green, handsome; melting, juicy, sweet; tree upright, free bearer. September and October. Standard and Dwarf.

***Duchesse d'Angouleme**—Large, greenish, russeted; one of the very best Pears we have on Quince when it attains its highest flavor. October and November.

Doyenne—White, very hardy; productive and esteemed West. Medium, yellow with a faint blush; fine flavor; an excellent variety. October and November. D. and S.

***Flemish Beauty**—One of the very best Pears grown. It is *the* Pear for the North-west in hardihood, productiveness and quality of fruit; tree vigorous, very hardy and immensely productive; fruit large, red cheek, handsome, juicy, melting; very sweet and rich. September and October. D. and S.

Howell—Tree very vigorous, hardy and productive; a fine, large Pear; light yellow, russeted, with a red cheek; flesh sweet, melting, aromatic flavor. September and October. Standard and Dwarf.

***Louise Bonne de Jersey**—Large and beautiful; flesh white, melting, delicious; tree hardy, vigorous, productive; a fine grower on both pear and quince. September and October. D. and S.

Sheldon—An excellent variety; hardy North; medium to large; yellow, with red cheek; sweet, melting, juicy, delicious. October.

***Seckel**—This is one of the finest flavored pears; small, yellowish brown; tree hardy and productive; esteemed West. September and October.

WINTER PEARS.

***Lawrence**—Medium to large, yellowish, minutely dotted; very rich, fine flavor; one of the best Winter pears; tree a fair grower and productive. Standard. Dec. and Jan.

***Vicar of Winkfield**—Large, long, good quality; a very desirable variety; tree hardy, and very productive. D. and S.

Winter Nelis—Medium size, yellow with russet; tree slender, straggling, only moderately hardy; fine grained, melting, delicious. November to January. D. and S.

CHERRIES.

The sweet cherries, Heart and Bigarreau, are universally tender west, and are succeeding only moderately, in a few favored localities.

Dukes—A few varieties of these do remarkably well in some localities.

Morello—This is THE cherry for the west. Nearly all the acid cherries, that have grown in favor, are members of this family. They are all thoroughly hardy, and most of them are immensely productive. They are deservedly very popular. Immense quantities of them are being planted over the entire west. The Mahaleb is the most desirable stock to work upon, it is thrifty, hardy, *entirely free from suckers*, and trees worked upon it, come into bearing early, often the next year after planting. The soil and culture should be the same as recommended for other fruit trees. One of the most profitable and desirable fruits grown, either for market or home use.

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 2000 bushels per annum, at an average price of \$6.

ARTHUR CLOW, of Athens, Greene Co., N. Y., sold in the year 1870, from two cherry trees, the sum of \$73.62, being 417 pounds.

HEART AND BIGGARREAU.

The following varieties are a few of the most hardy and most valuable for the west.

Black Tartarian—Fruit large, purplish black; mild, tender and rich; tree erect. Last of June.

Bigarreau or Yellow Spanish—Large, pale yellow with bright red in the sun. Flesh firm, juicy, excellent; tree spreading and productive. 1st of July.

Coe's Transparent—Medium, pale amber, tender, juicy, rich; strong grower. June.

Downer's Late Red—Medium, light red; tender, sweet, delicious; tree hardy for this class of cherry; productive.

Early Purple Guigne—Dark purple, juicy, sweet, excellent; tree rather hardy for this class. Middle of June.

Gov. Wood—Very large, light red; juicy, rich and delicious; tree hardy, good bearer.

Ox-Heart—Very large, nearly white, with handsome blush in the sun; firm, juicy, excellent for eating; poor for cooking, immensely productive, vigorous grower. Succeeds in a few localities. Tender north. Last of July.

DUKES AND MORELLOS.

These cherries grow more slowly than the preceding varieties. The leaves are smaller and thicker. The Morellos are more slender and spreading, wood more compact.

Belle Magnifique—Large, late, red; excellent for table or cooking; tree a slow grower, rather hardy.

Belle de Choisy—Medium, amber shaded with red; melting, sweet and rich; moderate bearer. Last of July.

Eng. Morello—Medium to large, obscurely heart-shaped, dark red; flesh purplish crimson, rich, acid flavor; excellent for canning and cooking; tree of slow growth, very hardy and early; productive. July.

***Early Richmond**—This cherry has been more widely planted in the west, than all other cherries combined; medium size, light red; juicy, acid; an excellent cooking variety; tree thrifty, spreading, very hardy, and an abundant bearer. Last of June.

Lieb—A new Morello. This variety, first brought into notice by D. W. Scott, of Galena, Ill., is thus described by him: "Tree hardy, an early and profuse bearer; fruit very large, nearly sweet, of a dark, crimson color; flavor unsurpassed by any other cherry; a few days later than the Early Richmond. 75 cents each; \$6 per dozen.

***Late Richmond, (OR LATE KENTISH)**—Tree and fruit like Early Richmond; fruit matures two weeks later; tree very hardy, bears young and abundantly; very desirable for the West, and should be in every fruit garden.

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

CHERRIES—(Continued.)

Montmorency, (ORDINARIE)—A variety of recent introduction, of great promise, for the West. Tree of the same class as Early Richmond, full as hardy, and promises to be more prolific; fruit matures ten days later, and fully one-third larger in size; a beautiful red, acid cherry, juicy, rich, excellent flavor; very valuable for home use or market. Should be in every collection of Cherries. 75 cents each; \$6 per dozen.

***May Duke**—Large, dark red; juicy and rich; an old and excellent variety; tree vigorous, hardy and very productive in some localities.

***Reine Hortense**—Large bright red, nearly sweet, delicious; tree vigorous, and does remarkably well in Central Iowa and the South; one of the hardiest and very best of the foreign varieties. 75 cents each; \$6 per dozen.

***STEED**—This variety was first brought into notice about twelve years ago, by Wm. Steed, a fruit grower of Waterloo. Fruit large, dark, nearly black when fully ripe, very juicy, acid flavor; excellent for all cooking purposes. Tree hardy, immensely productive, fruits young and annually. Season, three weeks later than Early Richmond; it also blooms two weeks later, escaping late frosts. 75 cents each; \$6 per dozen.

G. A. Knowles, in Iowa Horticultural Report for 1876, p. 266, thus describes this Cherry: "We have a Cherry, with a great local reputation, which we call the "Steed." The tree is dwarf in habit, with small shoots; the fruit is heart-shaped, not as dark as the "English Morello," but larger. It is sure in bearing, never missing, when all others fail. We do not find it easy of propagation."

P L U M S .

The Plum is a native of the West, and thrives remarkably well in our light, rich, prairie soil. The foreign varieties are less hardy with us than the native, and they are also much injured by the curculio, a small, dark-brown beetle, which stings the fruit, depositing an egg that hatches a worm and causes the fruit to drop. If the following rules are faithfully observed, a good crop of this fine fruit will be secured, even from these foreign varieties:

Attach to a square piece of cotton cloth, of sufficient size to extend beyond the branches of the tree, two stretchers, at opposite sides, for convenience of handling; then slit the cloth from one end to the center, parallel with the stretchers, to admit the trunk of the tree; stretch this cloth under the tree. As soon as the blossoms have fallen, the tree should be jarred thoroughly, either by striking with a heavy mallet, a stump of a limb sawed off for that purpose, or by suddenly shaking all the large branches. The little insects will fall upon the cloth, and remain dormant for some minutes; with the thumb and finger quickly dispatch them. This operation, repeated every morning for two or four weeks, will save the crop. Destroy all stung fruit that drops. The cost of protection is very small per tree, and a sure remedy. We have seen large crops of these fine plums grown in poultry yards. The yards should be well stocked with the feathered tribe, for the purpose of destroying the curculio.

We invite particular attention to the improved native varieties. They are thoroughly hardy, naturally adapted to our soil and climate, and are very productive. They are almost curculio proof. The quality of these improved varieties of the native plum, for canning and cooking, is superior to the foreign varieties, and some of them are excellent for eating. They are also very valuable for market. Nearly all the plums sold and planted in the West belong to this latter class. They are becoming very popular with our Western fruit-growers.

The varieties we give in this Catalogue have been on trial for a number of years, and we believe them to be the best that have been offered.

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 yield 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.

PLUMS—(Continued.)

- Black Hawk**—This variety of Plum was discovered on the Black Hawk River, has been under cultivation in this county over 15 years ; fruit oblong, slightly flattened, of deep crimson color, about the size of the "Lombard ;" flesh yellow, rich, and quality very fine ; free-stone ; tree thoroughly hardy, and an abundant annual bearer ; good for all uses ; curculio proof.
- Damson**—Small, round, purple, covered with bloom ; flesh melting, juicy, acid, slightly astringent ; tree hardy, vigorous and productive. Late autumn.
- De Caradenc**—Most likely a hybrid between "Chickasaw" and European varieties ; medium, yellow with a red cheek ; juicy and sweet, with a fine flavor ; nearly curculio proof ; promising new variety ; should be in every collection. Middle of July.
- Green Gage**—Small, but of the highest and finest flavor of all Plums ; flesh pale green ; tree a poor grower. Middle of August. 60 cents each ; \$6 per dozen.
- German Prune**—Medium size, long, oval ; juicy, rich and sweet ; free-stone ; quite productive and valuable. September. 60 cents each, \$6 per dozen.
- Imperial Gage**—Fruit large ; flesh greenish, juicy sweet, rich and excellent ; tree vigorous, productive. Middle of August. 60 cents each ; \$5 per dozen.
- Jefferson**—Large, oval, skin yellow with a red cheek ; flesh orange, delicious ; tree a slow grower, but good bearer. 60 cents each ; \$6 per dozen.
- Lombard**—One of the most valuable of the foreign varieties ; medium to large, oval, violet red ; flesh deep yellow, juicy and of fine quality ; rather hardy, and quite popular where grown in the West. 60 cents each ; \$6 per dozen.
- Miner**—The tree is remarkably vigorous, extremely hardy and very productive from about the fourth year after planting. Fruit medium size, nearly round, deep crimson color, mottled, covered with bloom, very handsome ; rich, juicy, sprightly peach flavor ; excellent for butter, canning, preserves and other culinary uses, especially for pies, tarts, etc. ; very valuable for market.
- Newman**—Medium, roundish oval, light scarlet color ; flesh vinous, juicy and pleasant ; a recently introduced variety belonging to the Chickasaw family ; productive and promising. Early in August.
- Richland**—Small, purplish-green ; sweet and agreeable ; excellent for all cooking purposes, and, when fully ripe, fine for dessert ; it is almost impervious to the attacks of the curculio ; tree thrifty and very productive ; seedling of Blue Damson. First of September. 60 cents each ; \$6 per dozen.
- Utah Hybrid**—These newly introduced varieties of fruit are on trial throughout the West. Trees very dwarf growers, and loaded each year with fruit. The fruit is small size, handsome, thin-skinned, small seed, quality much like the Blue Damson. Use, dessert and cooking.
- Washington**—Large, dull yellow with faint marblings of green, red on the sunny side ; flesh juicy, sweet and firm ; a valuable, productive foreign variety. August. 60 cents each ; \$6 per dozen.
- Wild Goose**—An improved variety of the Chickasaw ; large, deep red, with purplish bloom ; flesh melting and of fine quality ; a free grower and abundant bearer. Last of July.
- Weaver**—Enness & Patten describe it thus : "We believe it will be the great Plum for the North and West. It is an accidental seedling of our common wild Plum, discovered many years ago on the Cedar River, Iowa. The tree is absolutely hardy, under all circumstances, as far North as the wild Canada Plum will grow, and is wonderfully prolific. The fruit large, oblong, of a beautiful crimson color, and exquisite quality ; unless when over-ripe, the flesh is firm. It is a free-stone and nearly curculio proof. We have patiently waited and watched this fruit for many years, and now claim for it the first place in any collection." 75 cents each ; \$7 per dozen.
- Yellow Egg**—Fruit of the largest size, yellow with numerous white dots ; flesh yellow, sub-acid ; tree vigorous and productive ; foreign. Last of August. 60 cents each ; \$6 per dozen.

PEACHES.

The Peach, like the Cherry, prefers a warm, dry soil. It grows rapidly, and comes into bearing the second or third season after planting. They are immensely productive and very soon reward the planter for his expense and trouble. The ground should be kept clear of grass and weeds. Every Spring shorten in the previous year's growth of the longest branches one-third to one-half their length. Grow with low heads to protect the trunks. Examine the trees in June and September for worms about the roots.

Mr. Arnold, of Starkey, N. Y., bought, in the Spring of 1858, a fruit farm of fifty acres, about one-half in peaches, and the balance in apples, cherries, grapes and berries. Price paid for farm, \$11,000. In the Fall of the same year he sold peaches to the amount of \$5,000, the buyer doing his own packing and marketing. He also received over \$1,000 from the other fruits, thus realizing more than half the purchase money of the farm during the first six months.

S. B. Marshall, of Cleveland, Ohio, points out a peach orchard of about ten acres, purchased for \$7,000, which has yielded its owner \$6,000 the first season after the purchase.

Amsden—Very early, two or three weeks before Hale's Early; fruit large, roundish, a little flattened; color red, beautifully shaded and mottled with a very dark red; flesh white, with delicious flavor; tree hardy, vigorous and productive; fine market variety.

Crawford's Early—Very beautiful, and most popular of all the yellow-fleshed peaches; esteemed highly for market; large, juicy, rich, sweet; tree vigorous and prolific. Season, first of Sept.

Crawford's Late—Fruit of large size, very valuable, late variety; flesh yellowish with red at the stone; tree vigorous, productive; one of the finest late sorts. Last of September.

Early Beatrice—A new variety, quite promising, handsome appearance; colors white, beautifully marked with red; fine quality, earlier than Hale's Early; remarkably free from rot; tree hardy and quite productive.

Early Alexander—This is a new Peach from Illinois; ten days or two weeks earlier than Hale's Early; handsome, deep maroon shade, covered with richest tint of crimson; juicy, rich, with a vinous flavor; freestone.

Early Rivers—Another new variety, large straw-color, with delicate pink cheek, quite handsome; rich, juicy, melting, fine flavor; one to two weeks earlier than Hale's.

Foster—Is a new Peach from Massachusetts; large, deep orange-red, becoming very dark red on the sunny side; flesh yellow, juicy and rich flavor; earlier than Early Crawford.

Golden Dwarf, (VAN BUREN'S)—Tree quite dwarfish; fruit golden yellow, with a mottled red cheek; clingstone.

Hale's Early—Fruit medium size, skin clear, delicately marbled with red on the sunny side; flesh melting, juicy, excellent; tree vigorous, hardy and very productive; a week or ten days earlier than any of the old varieties.

Jacque's Rareripe—A very valuable, fine market variety, ripening the middle of September; tree a slow grower, but hardy and a great bearer.

Large Early York—A beautiful, large Peach, with red cheek; very juicy and fine-grained, rich and excellent; vigorous, hardy, productive. Last of August.

Morris' Red Rareripe—Greenish-white, with a red cheek; flesh white, red at the stone, excellent. Last of August.

Old Mixon Cling—Large, pale yellow, red cheek; juicy and rich, the best of the clingstones. Last of September.

Old Mixon Free—Large, pale, yellowish-white and green, with a red cheek; juicy and rich; tree hardy and productive, valuable. Middle of Sept.

Richmond—Large, globular, skin orange-yellow, with a deep red cheek; flesh yellow, reddish at the stone, resembling the Early Crawford in quality, but superior; strong grower, productive. Middle of September.

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

Yellow Rareripe—Large, orange-yellow, shaded with red; flesh melting, juicy, rich flavor; yellowish, with red at the stone. Last of August.

APRICOTS.

The general appearance, habit and growth of the tree, is so much like peach that it cannot be distinguished from it; requires the same soil and culture and adapted to the same climate as the peach; fruit smaller and of exquisite quality for dessert, smooth, without down, and subject to attacks of the curculio; requires the same treatment as the plum.

Breda—Small, skin pale red, reddish purple in the sun, rich and productive. Last of July.

Early Golden—Surface pale orange; flesh orange, juicy, sweet. Early in July.

Moorpark—Large, orange, red cheek; flesh orange, juicy and sweet. Aug.

Peach—Very large, yellowish, with dark cheek; sweet, high-flavored. Aug.

NECTARINES.

Smooth skinned, delicious fruit. When the peach does well the Nectarine is subject to the curculio, requires the same treatment as the plum.

Boston—The most beautiful and largest of the Nectarines; skin bright yellow, with red cheek; flesh yellow sweet. First of September.

Pitmaster—Large, orange-yellow, brownish red cheek; flesh deep yellow, excellent flavor. September.

Red Roman—Large, greenish yellow, brownish red cheek; rich, high, vinous flavor.

QUINCES.

The quince is an attractive, valuable, market fruit, tender west, succeeds moderately well in the peach regions of the south.

Apple or Orange—Large bright golden-yellow; very excellent flavor, valuable for preserves or flavoring; the most popular variety. Oct.

Angers—Later than Orange, fruit smaller and more acid, but cooks well.

MISCELLANEOUS FRUITS.

Almond—Soft and hard shelled; like the peach in tree, and thrives where the peach does well. 50 cents each.

Chestnut, American Sweet—An extremely valuable tree, both in fruit and wood, and should be extensively planted in localities where it is hardy, should be protected by wind-belts on our prairies; hardy in central and southern Iowa. 4 to 6 feet; 50 cents each, \$5 per doz.

Chestnut, Spanish—Large, splendid nut, worthy of a trial, not as hardy as the American Sweet. 3 to 4 feet; 50 cents each.

Mulberry, Downing's Everbearing—Tree vigorous, productive, continues

in bearing a long time, fruit $1\frac{1}{4}$ inches long, $\frac{3}{8}$ of an inch in diameter; juicy, rich, sugary. 4 to 5 feet \$1 each.

Mulberry, Black American—Large, black delicious in flavor, large leaves, rapid growth, hardy. 4 to 5 feet 50 cents each.

Mulberry, White—An old sort, vigorous, moderately hardy. 4 to 5 feet 50 cents each.

Walnut, Black—Well-known, valuable fruit and timber tree. 4 to 6 feet, 25 cents each.

White Butternut—Valuable for fruit and timber, hardy, productive. 4 to 6 feet, 25 cents each.



HOUGHTON'S SEEDLING GOOSEBERRY.

GOOSEBERRIES.

The Gooseberry requires a deep soil, well manured; on well drained, dry soil, they should be mulched to retain the moisture. They require pruning and thinning, to obtain large, fine fruit. The varieties given are all American seedlings, and are not subject to mildew. The fruit in its green state is fine for sauces, pies, tarts, etc.; ready for use early in the season. When fully ripe, some of the varieties are very agreeable as a dessert fruit.

Houghton's Seedling—A vigorous grower and great bearer; fruit medium to small, red, fine cooking variety. 25 cents each; \$2 per dozen.

Downing's Seedling—Fruit larger than Houghton, greenish-white, skin smooth plant vigorous, very productive; flesh juicy, rich and good. 30 cents each, \$3 per dozen.

Mountain Seedling—Large, oval, brownish-red; vigorous, hardy, prolific bearer; flesh sweet. 25 cents each; \$2 per doz.

Smith's Improved—An excellent, new variety; seedling of Houghton; fruit large size, pale yellow color, and of unsurpassed quality for eating or cooking; plant very hardy, moderately vigorous and extremely productive. 30 cents each, \$3 per doz.



BRIGHTON GRAPE.

GRAPES.

No fruit has attained greater popularity throughout our entire country than the Grape. It stands among the first in importance as a market fruit, and for home consumption it has no superior. Many of the varieties are adapted to almost any kind of soil and climate. We have fine facilities for its production, and give it the attention its importance deserves. Our soil is admirably adapted to its growth, and we offer to our patrons healthy, vigorous plants.

While vineyards, if allowed, will sometimes produce four tons to the acre, it is not best for the health of the vine and uniformity of yearly crops, to suffer more than half this amount to grow, or two tons per acre. Basing our estimates 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 for caring for a fruiting vineyard, including picking, is estimated in the report of the Lake Shore Growers Association for '68-9, at \$85. From 500 to 600 vines can be planted on an acre, eight to ten feet apart, according as the kinds are comparatively strong or 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.**

WINTER PROTECTION.

Many of the fine varieties require winter protection to insure regular crops of fine fruit, as far South as the Northern boundary of Missouri. Leading Grape growers say it pays to protect even the most hardy varieties, such as Concord; a light covering with straw, leaves, hay or corn fodder, will answer this purpose; it keeps the vines from advancing too early in the Spring, and in that way escaping late frosts, and greatly increasing the chances for good Grapes. It also protects the vines from being injured during our coldest Winters.

Pruning when vines are to be covered for the Winter, prune as soon as the frost has killed the leaves, then lay the vines upon the ground and fasten down with pegs close to the ground; this should be done before the ground freezes. As soon as cold weather indicates Winter, give the needed protection. It will cost but little and will always yield a large dividend for the extra cost and trouble. When vines are not to be protected by a covering, prune in February or March.

"The Horizontal Wire Trellis" is the most extensively used of any other for the training of vines. Take 8 or 8½ foot posts, set them in the ground three feet and twenty feet distances apart in the row; rows ten feet apart. Between each post, when required, light stakes can be driven in as intermediates, and the wire fastened to them; the end posts strongly braced to prevent drawing together. The wires can be tightened as in our wire fences. The lower wire should be eighteen inches from the ground, the other three dividing the balance of the space above.

The first and second year after Grapes are set for fruiting, cut back to two eyes; the third year's growth, if strong, cut back to four or five feet, leaving only two canes, tie these along the lower wire horizontally in opposite directions. All bearing canes should be kept as near as possible on the same level to secure uniformity in the crop. If there are upright bearing canes, they will rob the horizontal ones of their share of sap.

As soon as the growth commences in the Spring, select the strongest growing shoots—about one to every foot—on the canes, pinch off all the rest; train these shoots as they grow to the second, third and fourth wires, and allow them to extend without interruption till September, when their tips may be pinched to assist in ripening up their wood.

These upright canes are now cut back to one or two good buds of the horizontal canes, except such as may be required to extend the bearing or horizontal canes.

Each year the new growth is to be treated in the same manner, and cut back in the Fall or Spring to the lower wire, allowing the vine to extend only in the horizontal direction on a level with the lower wire. The grapes are all to be grown below the second wire. These bearing canes can be renewed from the stump by new shoots when required.

Grapes should be allowed to remain upon the vines till perfectly matured, but not much longer. They color before they are ripe, but when thoroughly ripe, the stems turn brown and shrivel some.

KEEPING GRAPES.

Some varieties of Grapes may be kept, in their fresh state for months, if properly handled. Gather in fair weather, after the dew has passed off, let them stand in a cool room in baskets or boxes for a few days, then pack them away in shallow boxes, packing the bunches close together, with thick pieces of paper on each layer; then another layer of grapes, then paper, and so on till the box is filled. Put in a cool place. Use bass wood boxes, not paper or resinous boxes. When grapes are fully matured, they will bear a few degrees of freezing without injury. Examine occasionally and pick out any that may be undergoing decay.

The prices are for 2 year roots, except when otherwise specified, 50 cents each; \$5.00 per dozen, except when noted.

- Agawam**, (Rogers' No. 15.)—A handsome, red maroon grape; large, compact bunches; shouldered; berries very large, roundish; pulp tender, sweet, sprightly, aromatic flavor; Hamburg cross; vines strong, vigorous, hardy and very productive. One of the best fruit; can readily be kept till mid-winter.
- Allen's Hybrid**—Medium berry, small, compact bunch; greenish-amber; delicious; quite early; productive.
- Brighton Grape**—New seedling, originated by H. E. Hooker; between Concord and "Diana Hamburg;" large, and as beautiful as Catawba, which it resembles in color, bunch and size of berry; the vine has the hardy and prolific qualities of Concord; the fruit is equal to Delaware in flavor and richness, with very little pulp; very sweet and delicate; a most excellent table fruit; should be in every collection. \$1.00 each.
- Concord**—The most extensively planted of all grapes; popular everywhere; thoroughly hardy, vigorous, immensely productive; large, purplish black, excellent and valuable for all uses. 1 year, \$1.00 per dozen, \$8.00 per 100; 2 years, \$1.50 per dozen, \$10 per 100.
- Catawba**—A valuable wine and table grape, when it escapes mildew; does remarkably well in a few localities; dark amber color, sweet, rich, musky, excellent flavor. 30 cents each; \$3.00 per dozen.
- Clinton**—Small, compact bunch; berry small, round, nearly black; juicy, medium quality, sweet and good after they have been well frosted; great bearer, hardy and very valuable for wine. 25 cents each; \$2.50 per dozen; \$15 per 100.
- Cottage**—Seedling of "Concord," and, like its parent, very hardy, strong, vigorous grower, and an abundant bearer; same size as "Concord," but of darker shade; ripens before it, but of better quality. The foliage is remarkably large and leathery.
- Creveling**—Fine, black, early grape; medium berry, bunch loose and large; flesh sweet, tender, juicy, fine quality; vine hardy, productive.
- Cinthiana**—Resembles "Norton's Virginia" in vine, bunch medium; berry round, black, size of "Delaware;" sweet, spicy, and pleasant; superior for red wine; vigorous, hardy and productive.
- Diana**—Bunch, medium size, compact; pale red; sweet, juicy and rich; vigorous vine.
- Delaware**—Bunch small, very compact, shouldered; berry medium size, beautiful, purplish red; sweet, very juicy and delicious; one of the finest table grapes; requires the best of care and culture till the vines attain some size, when they become hardy and very productive.
- Elvira**—A very promising new white grape; bunch medium, shouldered, very compact; berry medium, round, pale green with bloom; skin very thin, transparent; sweet, very tender and juicy, fine flavor; most vigorous, stocky grower, eminently productive; exceedingly healthy and hardy, having stood the hard winter of 1872-73 without protection. Same season as "Concord." 75 cents each; \$6.00 per doz.
- Eumelan**—A native, black grape, medium size; flesh tender, rich, vinous flavor; hardy, productive; earlier than "Hartford." 75 cents each; \$6.00 per doz.
- Gœthe**, (Rogers' No. 1.)—Bunch and berry large, greenish white, tinged with pale red in the sun; skin thin; flesh tender, melting, sweet and juicy. Ripens rather late.
- Hartford Prolific**—Bunch and berry large, nearly black, covered with bloom; sweet and juicy, ripens two weeks earlier than "Isabella;" vines hardy and prolific. 30 cents each; \$3.00 per dozen.
- Isabella**—An old variety; bunch and berry large; tender and sweet when fully ripe. Last of September.

GRAPES—(Continued.)

- Iona**—Bunch large, not very compact; berry large, amber color; rich, sugary, quality the very best; vine hardy, but succeeds only in a few localities.
- Ives**—Highly recommended for wine, bunch large, compact; berry medium, dark purple; flesh sweet; vine healthy and productive in some localities.
- Janesville**—Vine and berry much like the Concord; ripens two weeks earlier; quite popular in the North. A new variety.
- Lady**—A new white grape, seedling of the "Concord;" very hardy, healthy, vigorous and productive; bunch about the size of "Concord;" color light greenish yellow, covered with light bloom; skin thin; pulp tender; flavor sweet and rich, sprightly, vinous; vine and foliage much like "Concord. \$1 each.
- Martha**—A white seedling of the Concord. The most popular and valuable among the new varieties. Bunch medium and moderately compact; shouldered; berry medium, round, light pale green, sometimes with an amber tinge, covered with bloom; skin thin; flesh buttery and very sweet; an excellent table and market grape; also valuable for wine. The vine, like its parent, is extremely healthy, hardy and very productive. Ripens a few days before Concord, which gives it preference in the North.
- Merrimac**, (Rogers' No. 19)—Black, bunch and berry large; valuable variety; ripens the middle of September.
- Perkins**—A valuable, showy, very early market grape; bunch and berry medium; berry oblong, often flattened by their compactness in bunch; pale lilac color, white bloom; flesh juicy and sweet; ripens a few days after "Hartford Prolific;" vigorous grower, healthy and productive.
- Rebecca**—Bunch large, berry medium, light green; flesh rich and sweet; vines only moderately vigorous; not very hardy. Middle of September.
- Salem**, (Rogers' No. 53).—Bunch large and compact; berry large amber color; flesh tender, sweet, with a rich, aromatic flavor; excellent quality for table or wine; ripens with the "Concord," and keeps well; vines very vigorous, healthy and profuse bearers; foliage large and abundant. The remarkably fine qualities of the fruit and vine, should give it a prominent place in every fruit garden.
- Walter**—A free grower and good bearer; new variety, of promise; flesh tender, rich; ripens very early; strong grower.
- Wilder**, (Rogers' No. 4).—This is one of the finest black grapes in cultivation. In appearance it resembles the Black Hamburg. Bunches large, often shouldered, compact; berry large, globular; flesh rather tender, with slight pulp; rich, sweet and very pleasant; ripens with Concord; a good keeper; vines very vigorous and a free bearer. Valuable table or market grape.

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CURRANTS.

This old and valuable fruit has been more extensively planted than any other. The soil should be rich, deep and thoroughly cultivated, and bushes thoroughly pruned, to attain the largest sized fruit of the best flavor.

2 years, 25 cents each; \$2.00 per dozen; \$12 per hundred.

1 year, 20 " " 1.50 " " 8 "

- Black Naples**—Large, black; vines are very strong growers, hardy and productive; fine for wine or jelly.
- Cherry**—Plants very vigorous and productive, if well cultivated and grown upon rich soil; berry the largest of the red currants, often more than half an inch in diameter.
- La Versaillaise**—Large, red; long bunch; hardy, vigorous and productive; should be in every collection.
- Red Dutch**—An old, very valuable variety.
- Victoria**—Large, bright red, with very long bunches; a late and excellent variety.
- White Dutch**—An old, excellent, well known sort.
- White Grape**—Very distinct from White Dutch; fruit much larger, of excellent quality for dessert or cooking; the finest of the white sorts; bush hardy and immensely productive.
- White Gondoin**—Very large, light colored; sweet and excellent; hardy, vigorous and productive.

RASPBERRIES.

The soil for the Raspberry should be very rich. Set the plants 3 feet apart, and rows 4 to 6 feet apart. Cultivate thoroughly. The first year the canes should be kept cut back to about 18 inches; after years, when the canes attain a height of 3½ to 4 feet, their tips should be clipped; this will cause the plants to become stocky; they will also throw out strong side branches; these should also be clipped sufficiently to be kept up off the ground, during the season the canes are making their growth. Treated in this way, the canes will need no stakes or support, and will produce larger and finer berries than unpruned canes. The varieties we recommend as hardy will endure our trying winters without protection.

This beautiful, luscious, healthful fruit is wonderfully productive in our Western soil. Should be grown liberally for family use; also very profitable for market.

This fruit comes just after Strawberries, and when properly cultivated is quite profitable. Mr. H. Wight, of Waterloo, N. Y., says that he has an acre and a half of Seneca Black Caps, and has sold 3,500 quarts, none less than 10 cents, and since the 31st of July at 12 cents. Rev. H. H. Doolittle, of Oaks Corners, N. Y., a veteran in Raspberry culture says that he averages 2,000 quarts to the acre, and no ordinary farm crop equals his profits, even when the price of Raspberries is the lowest. Messrs. Purdy & Johnson, who are devoted to small fruit culture, say: "Raspberries have also paid us well; the Doolittle, Miami, Seneca, Davidson'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 10 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 sixty bushels, or 180 bushels per acre, and told us that he got \$4 per bushel for them.

\$1 per dozen. \$5 per 100, except when noted.

Davidson's Thornless—Resembles Doolittle in berry, canes nearly thornless; esteemed in some localities, in others worthless. 60 cents per dozen; \$3 per 100.

Doolittle's Improved Black Cap—An old variety, valuable for home use and market; fruit medium size, purplish black. 50 cents per dozen; \$2 per 100.

Ganargua—Fine, red Raspberry, belonging to the Black Cap family, equally as hardy; as strong and vigorous grower as the Mammoth Cluster, and very productive; earlier than Doolittle, and has a long season of fruiting.

The Gregg Raspberry—A new variety of Black Cap of great promise; berry much larger than the Mammoth Cluster, a stronger and more vigorous grower, equally hardy, and wonderfully productive. The Centennial Committee considered it "the finest Black Cap berry they had ever seen."

The meeting of the Montgomery County (O.) Horticultural Society, at the residence of the President, N. Ohmer, July, 1878, was one of the best of all the meetings ever held by the Society, many notable horticulturists being present. Before noon enough members had arrived to form quite a party, which Mr. Ohmer headed and led to his splendid Raspberry patches.

The wonderful display of fruit fully warranted the exultant claim the grower made, that such a berry patch had never been seen in this region before.

The principal variety was the Gregg berry. In his statement to the Society concerning it, Mr. Ohmer said that it had been found on the hills of the Upper Ohio River ten years ago, by a lawyer named Gregg, who, not knowing how to cultivate and develop it, had brought it into little notice. Four years ago he saw it first, and was so taken with its great promise, that he at once arranged to grow it extensively, and now he has ten acres planted.

Golden Thornless—A good, whitish-yellow variety, productive and moderately vigorous; has but few spines; Black Cap variety.

Herstine—A new variety, cross between Allen and Philadelphia; a beautiful, large berry, of bright crimson color; delicious flavor, vigorous and very productive; suckers moderately.

Kirtland—An excellent, red variety, hardy and prolific; valuable for market.

Mammoth Cluster—Foliage a rich, dark green; canes strong; fruit large, and holds out large to the very last picking; black, with rich purple bloom; very juicy, high-flavored and delicious; perfectly hardy; fruits in clusters, on the tips of the canes.

RASPBERRIES—(Continued.)

His experience so far abundantly justifies his expectations, and there can be little doubt that it will, as he asserts, soon supersede all other black Raspberries. They come in about the same time that the Mammoth Clusters do, but are every way their superior. On all sides of us the vines were bending with the weight of large, dark fruit, and the contrast in taste and appearance with the other varieties near them, was strikingly in their favor.

Your Committee beg leave to report that the Gregg Raspberry, shown with others, is a new Raspberry, fully one-half larger than the Mammoth Cluster, of excellent quality, wonderfully productive, and as hardy as any other black Raspberry.

The sight of the berries on the bushes was really marvelous; such a sight was never before seen by any one of this Committee. We think we can conscientiously say, "Good-by, Mammoth." Mr. Ohmer has ten acres of them, about three acres in bearing, showing he has faith in them. It will pay any one interested in the Raspberry to visit Mr. Ohmer's grounds before the close of the Raspberry season.

Dr. Warder said "he agreed that the Gregg was the leading berry, everything considered, and must take the place of all others in the estimation of professional growers."

\$1.50 per dozen; \$3 per 100.

Lum's Everbearing Raspberry—Plant resembles the common black or Doolittle, but is more stocky and not so tall. It never sprouts from the roots, and is increased naturally, only from the tips. Fruit large, black and sweet, resembling the Doolittle in size and quality at the summer fruiting, but the berries are much larger in September and October, if the weather is favorable frequently measuring three-fourths of an inch in diameter. Berries commence ripening on the old wood about the first of July, and the crop, according to the plant, will be fully equal to the Doolittle. Before the berries are all gone, new shoots will have pushed out from the base of the plant, which will also be loaded with fruit, and thus a succession will be kept up until late in the autumn. Plants will bear fruit the same season they are set out, but not so profusely as after. If the plants are all cut down close to the ground in the spring, they will produce a larger fall crop, commencing to ripen the last of August. 20 cents each; \$2 per dozen.

Philadelphia—Dark red, medium size; flesh not very firm; very hardy and enormously productive, valuable for near market and home use.

Seneca Black Cap—A new variety, larger-sized berry than Doolittle, a week later in ripening, rank grower; sweet and very rich; very hardy and productive.

Turner, (THORNLESS)—A new red variety, extremely hardy and very productive; one of the most valuable of this class; berry large, handsome, good quality; excellent for table, market or canning. Should be in every collection.

BLACKBERRIES.

This well known, valuable fruit is a native of our country, growing abundantly in its wild condition; is thoroughly hardy and productive in all sections of the country. When cultivated, most of the improved varieties have proved tender in the North, but grown very successfully in regions where the peach flourishes. Some varieties are much harder than others, and are being grown with considerable success in Northern sections of country. The plants should be set 4 to 6 or 8 feet apart, in a good soil moderately rich. Cultivate well for two years, then seed to grass. This will mature the canes early. They will be more compact in texture, and the hardy varieties thus treated will endure our trying Winters in the North without injury.

\$1.00 per dozen; \$5.00 per 100.

Kittatinny—Very hardy and vigorous; very large, luscious fruit, black when ripe; very productive; more largely planted than all others.

Hoosac Thornless—A new variety, almost thornless; said to be productive.

Lawton—An old variety, of great popularity; fruit very large, many of the berries over an inch in diameter; excellent quality; immensely productive; valuable South; tender North.

Snyder—This is the coming Blackberry for the North. It is hardy, having stood the test of our coldest Winters with but slight injury; berry medium size, black when fully ripe; quality delicious; it has less thorns than the Kittatinny, and is annually productive. Should be planted by all lovers of this fine fruit. \$1.25 per dozen; \$7.00 per 100.

STRAWBERRIES.

The value and desirable quality of this fruit are so thoroughly appreciated, by all lovers of fruits, that they need no comment. The soil should be made rich with well-decomposed manure, deeply worked. The plants should be set 12 to 18 inches apart, in rows 2 to 2½ feet apart, well cultivated. To obtain the finest, largest fruit, the runners should be clipped and the plants kept in hills. During the winter they should be protected by light covering, straw, leaves or boughs of Evergreens. The plants may be set in the spring or fall; when set in the fall, they should be planted sufficiently early to become well established before winter.

50 cents per dozen; \$2 per 100, except when noted.

Charles Downing—Fruit medium to large, deep scarlet, fine flavor, very productive in most localities; plants very vigorous and hardy.

Capt. Jack—Berries medium, handsome and firm; luxuriant grower and very productive.

Crescent Seedling—New variety. A. Hance & Son, leading nurserymen of Red Bank, N. J., say of it: "This is beyond question the most wonderful Strawberry that has ever been produced. Its productiveness is simply astonishing, and we have never seen a Strawberry that would come anywhere near it. When we read the extravagant statements made in reference to this Strawberry, among which, that *fifteen thousand quarts* had been gathered from an acre at one picking, we made considerable allowance for error. From plantations we have seen in fruit this season we really think it will produce this enormous crop. In size, too, it is above medium, a great portion of the berries being large, very bright and handsome, and of excellent flavor. The plant is as wonderful in growth as productiveness, taking entire possession of the ground to the exclusion of weeds and grass, which it is said it will maintain in perfect vigor for many years; and although the leaf of almost every other variety everywhere was affected more or less by a sort of scald in the spring, we have not yet seen a single plant of Crescent that was not of a brilliant green and entirely vigorous and healthy in every way. It has thus far even *more* than sustained the immense claims made for it. It ripens a few berries very early and holds out until late; and seems to succeed alike on all soils, even where very light and sandy." It must become a general pet with large and small planters who do not want to spend much time nursing their strawberries. \$1.50 per dozen; \$5 per 100.

Col. Cheney—A valuable, new variety, of very large size, and fine quality; plants healthy, vigorous and very productive.

Downer's Prolific—A valuable, old sort, medium, round, scarlet; flesh soft and sweet; hardy, abundant bearer.

Forest Rose—A new berry, of great promise, originated near Cincinnati, where it has become very popular. It was exhibited in Chicago, by Dr. Warder, before the "Nurserymen's Association," in 1877, and was the admiration of all present. The berry is a light crimson, smooth and handsome, and very large, fully as large and handsome as the *Jucunda*; vines strong, vigorous and very productive. \$1 per dozen; \$4 per 100.

Great American—One of the largest varieties in cultivation, berries of colossal size, often measuring 9 inches in circumference and weighing two ounces and over; deep crimson color; fine flavor, very juicy, sufficiently solid to bear transportation; fruit stems strong, a prodigious grower and immense bearer; berries continue large until the last picking; ripens after most varieties have passed their season. All considered, this is one of the most wonderful Strawberries in existence. E. P. Roe, an extensive fruit grower, says of it: "I saw a Great American berry this year that was 14 inches in circumference. Its fruit was sold in New York at from 40 to 75 cents per quart." It requires very rich soil and high culture. \$1 per dozen, \$5 per 100.

Green Prolific—Fruit medium to large, fine scarlet color, good quality for home use and near market; remarkably vigorous, large green foliage, productive; plant, extremely hardy; should always be mixed with Red Jacket, Great American, or some good fertilizer; it is then immensely productive. It is one of the most valuable varieties grown.

STRAWBERRIES—(Continued.)

Kentucky—Large, conical, bright scarlet, sweet and aromatic; plants vigorous, hardy and moderately productive; succeeds best on light soil; its season late to very latest.

Monarch of the West—Very large, globular, irregular and of superb flavor; the most delicious of any of the very large berries. "Carries well, and brought \$1 per quart in New York market when Wilson only sold for 25 cents." The plant is a strong, vigorous grower, with strong foot stocks, holding the fruit well up from the ground; leaves large and thrifty, protecting fruit and plants from the hot sun. A most valuable variety for market or home use.

Prouty Seedling—Berry medium; vine vigorous and quite productive.

Red Jacket—A new berry, of very large size, originating with C. P. Hunt, of Waterloo, Iowa, about ten years ago. It is one of the most prolific and valuable berries that has been introduced in this part of the State. The plant is a very vigorous, strong grower; berries deep crimson and very handsome; nearly as solid as Wilson; flesh a rich crimson, of excellent quality, valuable for market and home use. 75 cents per dozen; \$4 per 100.

Sharpless Seedling—Ellwanger & Barry, the leading nurserymen of America, say of it: "Size, large to very large, an average specimen measuring one and a half inches in diameter either way. Form, generally oblong, narrowing to the apex, irregular, often flattened. Color, clear light red, with a smooth, shining surface. Flesh firm, sweet, with a delicate aroma; first in quality. Plant vigorous and luxuriant, hardy and prolific. This variety having fruited with us several seasons, we have no hesitation in recommending it as the largest and best Strawberry now in cultivation. The plant is vigorous, hardy and luxuriant, surpassing in this respect even the Monarch of the West. It was the *largest* and *finest* Strawberry that fruited on our grounds the past season. Plants set in last April bore a heavy crop of berries, some of which measured five inches around, with only ordinary culture. Fruit stalks are heavy; leaf very large, deep green color; blossoms perfect. Plant a strong, vigorous grower, and has awakened amazement wherever grown or seen. \$2 per dozen, \$10 per 100.

Wilson Albany Seedling—Large, dark red, very firm. An excellent market berry, bears transportation a long distance. Succeeds in a great variety of soils. Plants hardy and very prolific. An old, reliable variety. \$1.50 per 100.



RHUBARB, or PIE PLANT.

\$2.50 per dozen; \$15 per 100.

Early Scarlet—Rather small, but early and of excellent quality.

Linnaeus—Large, very productive, of first quality, the most popular of any of the varieties.

ASPARAGUS.

A delicious, early vegetable, of extremely simple, easy culture; should be in every garden. No vegetable more thoroughly neglected, and of easier culture. A bed, properly prepared, and set to asparagus, after the second or third year, will give an abundant yield for half a generation. The plants are very cheap, and the whole cost of making this preparation, for a large family, will not exceed \$5, and the after care is quite inexpensive.

To prepare a bed, spade the ground to a depth of 18 or 20 inches, incorporate large quantities of well-decomposed manure; set the plants 4 inches deep and 1 foot apart in rows, dress the bed each fall, liberally, with well-decomposed manure; in the spring rake off, leaving upon the ground one or two inches. A liberal supply of salt each spring will improve the growth of the plants. Prepare for the table in the same manner as peas.

Price, 50 cents per dozen; \$2 per 100.

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

Giant—An old, popular, valuable variety.

ORNAMENTAL DEPARTMENT.

DECIDUOUS ORNAMENTAL TREES.

Price 50 Cents each except when noted ; 5 to 6 feet. Extra sized selected trees, charged in proportion to size.

Ash—(*Fraxinus*.)

EUROPEAN, (*F. excelsior*)—A lofty tree, with pinnate foliage; handsome growth.

AMERICAN WHITE, (*F. Americana*)—A very rapid-growing native tree, of beautiful form. A good tree for streets and parks. It is now being very extensively planted for timber; for this purpose it is one of the most valuable trees grown in the West. It is entirely free from insect depredations; of almost as rapid growth as soft maple; thoroughly hardy; transplants more safely than almost any other tree. The timber, when grown, is excellent for manufacturing purposes, for fuel, fencing, etc. No farmer can afford to be without a few acres of these trees.

Ailanthus, TREE OF HEAVEN.

An ornamental tree of rapid growth, from China; sumach foliage. Price 75 Cents each.

Beech—(*Fagus*.)

PURPLE-LEAVED, (*F. purpurea*)—A very rare and exceedingly beautiful tree, with dark purple leaves, 3-4 feet. \$1.50.

Birch—(*Betula*.)

PURPLE-LEAVED, (*B. alba purpurea*)—Leaves as purple as those of the purple-leaved beech; a variety of the white birch; fine acquisition, 3-4 feet. \$1.50;

Catalpa, INDIAN BEAN—(*C. bignonioides*.)

Large, cordate, downy leaves, with compound panicles of white flowers tinged with violet, and dotted with purple and yellow. Forms a medium-sized very ornamental tree.

Chestnut—(*Castanea*.)

AMERICAN, (*C. Americana*)—One of the most valuable of our nut-bearing trees; it is also quite ornamental and very valuable for timber; grows rapidly, and is rather hardy.

EUROPEAN OR SPANISH, (*C. vesca*)—Bears a larger nut than the "American," but not as sweet. A handsome tree with large, green foliage, rather tender in the west.

Elm—(*Ulmus*.)

WHITE, OR AMERICAN, (*U. Americana*)—A well-known tree, exceedingly popular and valuable for streets and parks, 7-8 feet. Price \$1.00 each.

SCOTCH, OR WYCH ELM, (*U. montana*)—A rapid-growing, spreading tree, with large, rough dark green leaves. Price \$1.00 each.

Horse Chestnut, COMMON WHITE-FLOWERING—(*Aesculus hippocastanum*.)

A very handsome tree, with large, beautiful, rich foliage, beautiful pyramidal in form; flowers cream-white, tinged with rose; blooms early; rather hardy, and desirable for streets, lawns and parks.

OHIO BUCKEYE, (*A. glabra*)—An extremely hardy, vigorous, handsome native tree, of our Western states; pyramidal in form; foliage large, of a handsome green; flowers small, pale yellow color, 3-4 feet high. 50 Cents each.

Judas Tree, RED BUD—(*Cercis*.)

AMERICAN, (*C. Canadensis*)—A very hardy, handsome, early, ornamental, small, native tree, of our Western states. In early Spring, before leaves appear, it is covered with delicate pink flowers.

Kentucky Coffee Tree, GYMNOCLADUS—(*G. Canadensis*.)

A beautiful tree, unique in appearance when in full foliage.

Larch, EUROPEAN—(*Larix Europea*.)

An exceedingly graceful tree, with soft foliage of a light green hue, branches drooping and slender, leaves needle-shaped, extremely hardy, of rapid growth, a very valuable timber tree, a handsome lawn tree; also extensively planted for timber, wood very durable.

DECIDUOUS ORNAMENTAL TREES—(Continued.)



MAGNOLIA ACUMINATA.

Linden, EUROPEAN—(*Tilia Europaea*.)

This variety is more compact, regular and conical than the American. When in situations where it has room to develop, it becomes one of the most beautiful of lawn trees. \$1.00 each.

Honey Locust, THREE-HORNED—(*Gleditsia triacanthos*.)

An extremely hardy, rapid growing lawn and timber tree.

Magnolia Acuminata, CUCUMBER TREE.

The most valuable and majestic of this family of trees at the North. It attains a very large size; leaves 5-10 in. long, quite handsome; flowers medium size, greenish yellow, bell-shaped, hardy and of vigorous growth. \$1.00 each.

DECIDUOUS ORNAMENTAL TREES—(Continued.)

Maple—(*Acer*.)

BOX ELDER, ASH-LEAVED MAPLE—(*A. negundo aceroides*.) Hardy, vigorous, spreading tree; handsome foliage, light green; transplants easily; very valuable for timber, lawns and street trees; should be extensively planted.

HARD MAPLE, SUGAR MAPLE—(*A. saccharinum*.) A handsome, desirable, slow-growing tree.

NORWAY, (*A. platanoides*.)—One of the most desirable trees grown, extremely handsome, foliage large size, deep green, perfect in outline; very compact in form, resembles the hard maple, but much more rapid of growth and more perfect in foliage. It is free from insects and diseases; transplants readily. Used extensively for streets and lawns. Imported from Norway.

SYCAMORE, (*A. pseudo-platanus*.)—Leaves rather smaller than the last; of more rapid growth; hardy handsome tree; used for lawns and parks.

SILVER-LEAVED, (*A. dasycarpum*.)—A well known ornamental tree, of exceedingly rapid growth, planted more largely in streets, parks, and for timber than any other tree.

Mountain Ash, EUROPEAN—(*Sorbus aucuparia*.)

A highly ornamental tree, of medium size, smooth bark, round head, covered in the Spring with large white flowers, and in the Fall and Winter with bright scarlet berries. Universally popular, and should have a conspicuous place on every lawn.

OAK-LEAVED, (*S. quercifolia*)—Leaves small, downy-white color, deeply serrated. A beautiful tree, of medium size. \$1.00 each.

Oak, BRITISH—(*Quercus robur*.)

Leaves glossy green, smooth, obtuse, remaining on the trees till late in the Fall. \$1.00 each.

Poplar, LOMBARDY—(*Populus dilatata*.)

A well-known, upright tree, handsome while young.

Tulip Tree, WHITEWOOD—(*Liriodendron tulipifera*.)

Superb tree; large, rich, glossy foliage, very peculiar; flowers tulip-shaped, very showy. One of the largest native trees.

 WEEPING DECIDUOUS TREES.

Ash, EUROPEAN—(*Fraxinus excelsior pendula*.)

This variety is worthy of a place in every good collection. It is of rapid growth, with striking, pendulous branches, one of the finest lawn and arbor trees. \$1.50 to \$2.00.

Beech, WEEPING—(*Fagus pendula*.)

A rare and beautiful weeping tree; branches drooping gracefully; light green foliage. 3-4 ft. \$3.00 each.

Birch, CUT-LEAVED—(*Betula Lacinata pendula*.)

An elegant tree, with remarkable foliage, and slender, drooping branches. Magnificent for parks and lawns. Extremely hardy; succeeds well in nearly all localities. \$1.00 each.

EUROPEAN WHITE WEEPING, (*Betula pendula*)—A well-known tree; silvery white bark; handsome green foliage; assumes a drooping habit after the tree attains some age; very hardy, popular, desirable tree. 50 cents each.

Elm, CAMPERDOWN WEEPING—(*Ulmus*.)

A very vigorous, rapid grower; a picturesque and beautiful drooping tree; leaves glossy and of a dark green; very hardy. \$1.00 each.

Linden, OR LIME TREE—(*Tilia*.)

WHITE-LEAVED WEEPING, (*T. alba pendula*)—A very handsome tree, with large leaves and drooping branches. A hardy, desirable lawn tree. \$1.00 each.

Mountain Ash, WEEPING—(*Pyrus sorbus aucuparia pendula*.)

An old variety of great popularity, more largely planted in the West than all others; extremely hardy and of very vigorous growth; foliage and fruit resemble the European Mountain Ash; twisting and drooping branches. Picturesque, very handsome lawn tree. Grafted 6-8 ft. high. \$1.00 each.

WEeping DECIDUOUS TREES—(Continued.)



KILMARNOCK WEEPING WILLOW.

Poplar—(Populus.)

GRANDIDENTATA PENDULA—Long, slender branches gracefully drooping to the ground; large, glossy, serrated leaves. Very ornamental. \$1.50 each.

Willow—(Salix.)

KILMARNOCK WEEPING, (*S. Caprea pendula*)—A remarkably handsome, weeping tree, with exceedingly compact, drooping branches, and large elegant foliage; very hardy. \$1.50 each.

Willow—(Salix.)

NEW AMERICAN, (*S. Americana pendula*)—Small, slender, pendulous branches, with delicate, beautiful foliage. Desirable. \$1.50 each.

WISCONSIN WEEPING—Extremely hardy for the West; very vigorous grower, similar to the common weeping; irregular and straggling while young, becoming compact and handsome as it attains age. Desirable for lawns and cemeteries. 50 Cents each.



AUSTRIAN PINE.

EVERGREENS.

No longer can it be said that Evergreens will not grow in the West. Experience has demonstrated, beyond a doubt, that our prairies are as eminently adapted to the growth of Evergreens as it is to the growth of corn. We root-prune and transplant our Evergreens as often as every other year; this gives them an immense number of small roots, and makes their transplanting as certain of growth as that of an apple or soft maple. Our two feet plants are root-pruned or transplanted at least four times; four feet, six to eight times. Each transplanting or root-pruning doubles the value of an Evergreen for resetting.

In our remarks on wind-breaks we speak of the great value of Evergreens for that purpose, and for ornamental hedge. As an ornament they are unsurpassed; for a protection against severe, driving winter winds, they have no equal. These root-pruned Evergreens—Scotch, Austrian, White Pine, Norway Spruce and some others—will make an average growth of two to three feet per year after being set for permanent trees. Evergreens can be pruned as readily as any other tree. They can be cut back, or into most any kind of shape. In lawns where it is desirable to keep Evergreens small for want of room, they can be cut back each year and not be allowed to make more than an

EVERGREENS—(Continued.)

inch or two of extension. The Pines should be cut back as soon as they make their extension, before the wood hardens. Buds will be established as freely about the stump or cut surface as they would on the terminal if they had not been cut back. Pines form buds on the end of the limbs only, and must be cut back before the wood hardens, in time for buds to be formed. It increases their beauty greatly to treat in this way when they make long extensions or it is desirable to keep them small.

Spruce, Arbor Vitæ and other varieties of Evergreens can be pruned any season of the year. When the Spruces and Firs have room to make a lofty growth, they need no pruning; are much more handsome without.

For ornamental hedges we recommend American Arbor Vitæ and Norway Spruce principally. Both are very handsome and valuable for this purpose. They are cheap and very easy to transplant. Hemlock, Spruce and Siberian Arbor Vitæ are also greatly admired for hedges; they are beautiful and hardy, and transplant safely.

PRICE OF EVERGREENS, EXCEPT WHERE NOTED.

1 to 1½ feet,.....	each,	20 cents ;	\$12 00	per 100.
1½ to 2 "	"	20 "	15 00	"
2 to 3 "	"	25 "	20 00	"
3 to 4 "	"	50 "	30 00	"
4 to 5 "	"	75 "	40 00	"
5 to 6 "	"	\$1 00	50 00	"

Arbor Vitæ, AMERICAN—(*Thuja occidentalis*.)

All things considered, this is one of the finest Evergreens for screens and hedges. It is very hardy, and easily transplanted. It grows rapidly, and is very easily trained. Its dense, green, compact foliage gives it a very handsome appearance.

BOOTH'S DWARF, (*T. pumila*)—A dwarf of dense habit, rounded in form; dark green foliage; very handsome. One of the best. 50 cents per foot.

CHINESE, (*Thuja Biota orientalis*)—A small tree, with light-green, compact foliage. 50 cents per foot.

HEATH-LEAVED, (*T. ericoides*)—A unique and beautiful little Evergreen, with linear, sharp-pointed leaves; tree conical in form and very dense. A great acquisition. 50 cents per foot.

HOVEY'S GOLDEN, (*T. Hoveyi*)—The foliage is of a dark, yellowish-green hue; very compact in form and globular; a charming plant; hardy and very desirable. 50 cents per foot.

Juniper, AMERICAN, OR TRAILING.

A beautiful, low spreading or trailing variety, common at the East, and one of the finest hardy Evergreen shrubs. 75 c nts each.

IRISH, (*Juniperus Hibernica*)—An extremely handsome, upright Evergreen, very compact, deep green; a great favorite; succeeds in protected localities in the West. 35 cents per foot.

Juniper—

SAVIN, OR JUNIPER SABINA—A low, spreading, dark, evergreen shrub, with distinct and handsome foliage, hardy, and thrives everywhere. 25 cents per foot.

SWEDISH, (*J. suecica*)—Not so erect as the Irish; handsome, bluish-green foliage; moderately compact; elegant pyramidal form; succeeds in protected localities. 50 cts. per foot.

VIRGINIAN, RED CEDAR, (*Juniperus Virginiana*)—A well-known, thoroughly hardy tree, of slow growth; suitable for lawns and hedges; very handsome when kept well sheared.

Pine—(*Pinus*.)

AUSTRIAN, OR BLACK, (*P. Austriaca*)—Very hardy, robust, spreading tree; foliage long, very stiff, and dark green; a remarkably firm lawn tree; retains its deep green during all seasons of the year; transplants safely.

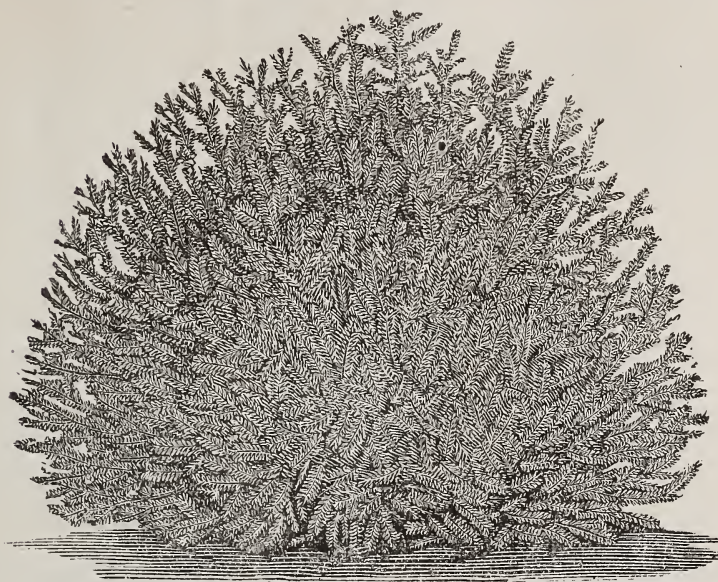
DWARF, OR MOUNTAIN, (*P. pumilis*)—A dwarf, spreading tree; foliage similar to the Scotch. 25 cents per foot.

WHITE, WEYMOUTH, (*P. strobus*)—Most ornamental of our native Evergreens, with light, delicate, silvery-green foliage; an erect, vigorous grower; thoroughly hardy; valuable for timber, wind-breaks and lawns.

HOOPES' DWARF, (*T. nana*)—Quite dwarfish, very compact, bright green color, handsome appearance, 50 cents per foot.

PARSONS', (*T. compacta*)—A very handsome dwarf; deep green shaded with pale yellow, quite compact; of rather slow growth. 50 cts. per foot.

EVERGREENS—(Continued.)



ARBOR VITÆ.

Pine—(*Pinus*.)

SIBERIAN, (*T. Siberica*)—An exceedingly hardy, well-known, popular variety; more compact than the American, and of darker green color, which it retains through the winter; desirable for lawns and hedges. 50 cents per foot.

TOM THUMB—Remarkable for its compact form and slow growth; resembles *T. ericoides* in its foliage; desirable for dwarf hedges, cemeteries and lawns. 50 cents per foot.

Balsam Fir—(*Picea balsamea*.)

An erect, rapid growing, symmetrical tree, foliage dark green above, silvery beneath; retains its handsome green throughout the severest winters; very hardy. 25 cents per foot.

SCOTCH, (*P. Sylvestris*)—An exceedingly vigorous, rapid-growing, hardy tree; foliage long and stiff, and of lighter green than the Austrian. For wind-breaks it has no superior. It attains large size, and should have plenty of room when planted upon lawns, or cut back as directed in remarks on pruning.

Spruce Fir, NORWAY—(*Abies excelsa*.)

This is decidedly the most valuable and popular Evergreen grown. It is remarkably erect and symmetrical. As it attains age the branches become quite drooping, and covered with cones, giving it a very graceful and unique appearance. It is extremely handsome from youth to old age. It attains large size, is of deep green color. For the decoration of lawns it is unsurpassed; excellent for hedges; it is also being extensively planted for protective screens and wind-breaks. It is thoroughly hardy, and transplants as safely as the soft maple.

BLACK, (*A. nigra*)—A vigorous, lofty tree, compact growth, bluish-green foliage, blackish bark; hardy and desirable.

HEMLOCK, OR WEEPING, (*A. canadensis*) An elegant, lofty, erect tree. When small, one of the most beautiful of our native Evergreens; limbs slender and gracefully drooping; soft dark green foliage; delightful lawn tree desirable for hedges and cemeteries.

DECIDUOUS ORNAMENTAL SHRUBS.

Price 50 Cents each except when noted. \$4.50 per dozen.

Acacia, Rose, OR MOSS LOCUST.

Mossy, irregular, spreading, covered with clusters of rose-colored flowers, extremely handsome; perfectly hardy even in the North. Flowers in June.

Azalea.

A dwarf shrub, quite hardy, covered with a great profusion of rosy, red flowers early in the Spring, very richly perfumed; succeeds well in the West, and very desirable.

Althea Frutex, ROSE OF SHARON—(*Hibiscus Syriacus*.)

A large-sized shrub from Syria, generally hardy in the West; a fine, free grower, and very desirable on account of its free blooming in Autumn months, and the great variety of its shades of color. The flowers are large and brilliant. We have a number of choice varieties named, each one differing in color, double and single, including white, bi-color white and purple, double blue, double purple, double red, variegated, etc. In the north they should be protected during the Winter, by being covered with a box and a little straw, or tied up with corn-fodder or other similar material. Cut back each Spring $\frac{3}{4}$ of last year's growth. 75 Cents each.

Almond, DWARF DOUBLE-FLOWERING—(*Amygdalus pumila*.)

A perfectly hardy shrub with rose-colored double flowers, so profuse that the shrub is literally covered with them, early in the Spring. Very popular.

DOUBLE WHITE-FLOWERING, (*A. pumila alba*)—Like the red except in color, equally hardy and desirable.

Berberry, COMMON EUROPEAN—(*Berberis vulgaris*.)

An upright, spiny shrub, yellow flowers and red berries.

PURPLE-LEAVED, (*B. purpurea*)—A fine variety, with purple leaves. Very distinct; beautiful and desirable.

The Berberry is a very desirable and interesting class of shrubs. They vary in size from 2 to 6 ft., showy orange-colored flowers in May or June, followed by bright, various-colored berries; ornamental in Autumn and Winter.

Calycanthus, SWEET-SCENTED SHRUB; ALLSPICE—(*Calycanthus Florida*.)

A small shrub, moderately hardy. The wood is very fragrant, foliage rich, flowers of a rare chocolate color, with a peculiar, agreeable odor. It blooms at intervals during the Summer.

Currant, FLOWERING—(*Ribes*.)

DOUBLE CRIMSON-FLOWERING—(*R. sanguineum*.)

GOLDEN-FLOWERING—(*R. aureum*.)

Deutzia, CRENATE-LEAVED—(*Crenata*.)

A fine, strong-growing shrub, producing myriads of drooping white bells.

DOUBLE-FLOWERING, (*D. crenata flore pleno*)—One of the most beautiful shrubs in cultivation. Flowers double, pure white; the edge on the under side of each petal is slightly and delicately tinged with pink. Very beautiful and hardy.

ROUGH-LEAVED, (*Deutzia scabra*)—A showy, upright, rapid-growing shrub, bearing a profusion of white, flowers in June.

SLENDER-BRANCHED, (*D. Gracilis*)—Small-sized, exceedingly pretty and graceful light green foliage, crowned with delicate, white flowers; fine for house-culture, as it flowers freely at a low temperature in Winter.

The Deutzias are very ornamental, desirable shrubs, and moderately hardy, of Japanese origin, and should be in every fine collection of flowering shrubs.

Euonymus, BURNING BUSH—SPINDLE OR STRAWBERRY TREE.

Very showy, ornamental bush, with brilliant, rose-colored berries, hanging in clusters till mid-winter.

Filbert, PURPLE-LEAVED (*Corylus*.)

Quite ornamental and fruit excellent.

Forsythia—(*Forsythia viridissima*.)

Leaves dark green, flowers very early, bright yellow. Fine hardy shrub.

Fringe Tree, PURPLE; VENETIAN SUMACH; SMOKE TREE, ETC.—(*Rhus cotinus*.)

A conspicuous shrub or small tree, quite hardy and very ornamental, covered with curious, hair-like flowers, which, being of a pinkish-brown color, give it the names: "Purple Fringe" and "Smoke Tree." The blossoms are in July, sometimes literally covering the tree, and remaining all Summer.



DEUTZIA CRENATA.

DECIDUOUS ORNAMENTAL SHRUBS—(Continued.)

- WHITE, (*Chionanthus Virginica*)—An entirely different plant from the preceding; has handsome, large foliage, and racemes of delicate, white flowers that hang like fine shreds or fringes of white paper.
- Honeysuckle, UPRIGHT**—(*Lonicera*.)
RED TARTARIAN, (*Rubra Tartarica*)—Beautiful, hardy shrub, blooming in May, flowers bright pink. 30 Cents each.
WHITE TARTARIAN, (*Alba Tartarica*)—Like the red, but with white flowers. 30 Cents each.
- Hydrangea, LARGE-CLUSTERED**—(*Panicula grandiflora*.)
A large shrub, of recent introduction, with panicles of white flowers in great profusion. Very showy, and quite hardy; becoming popular. \$1.00 each.
- Lilac, COMMON LILAC**—(*Syringa vulgaris*.)
A large, well-known shrub, purplish flowers. 25 Cents each.
PERSIAN, (*S. Persica*)—A medium-sized shrub, with purple, fragrant flowers. 25 Cents each.
WHITE-FLOWERING PERSIAN, (*S. Persica alba*)—Similar to the above, but color of flowers almost white. 25 Cents each.
- Quince, JAPAN SCARLET**—(*Cydonia*, or *Pyrus Japonica*.)
A fine, hardy shrub, bearing a great profusion of bright scarlet flowers in early Spring; very showy and desirable.
- Snowball**—(*Viburnum opulus*.)
An old popular shrub. 25 to 50 Cents each.
- Snow Berry or Snow Drop, ST. PETER'S WART**—(*Symphoricarpos racemosus*.)
Flowers small and numerous, berries white, wax-like, protuse all summer. 25 Cents each.
- Spirea**—
A very hardy, popular family of low shrubs, all easy of cultivation. Their blooming extends over a period of three months, and all extremely hardy.
BILLARD'S, (*S. Billardi*)—Produces spiked panicles of flowers, bright rose color; blossoms nearly all Summer.
- FORTUNE'S, (*S. Callosa*)—One of the most desirable; has distinct, bronzy foliage; light pink flowers, produced in large panicles, and blossoms nearly all Summer.
- FORTUNE'S WHITE, (*S. callosa alba*)—A new dwarf variety, white flowers; very fine.
- GOLDEN, (*S. Aurea*)—A new variety, with broad, gooseberry-shaped leaves, which are peculiarly streaked with yellow. Contrasts very finely with the purple-leaved shrubs.
- PLUM-LEAVED, (*S. prunifolia*)—A very distinct, beautiful variety, with numerous, double, white flowers, blooming in May.
- REEVES', (*S. Reevesii fl. pl.*)—A charming shrub, one of the most ornamental of this class; flowers pure white, in umbels, very numerous.
- Syringa, EUROPEAN FRAGRANT, OR "MOCK ORANGE"**—(*Philadelphus coronarius*.)
A well-known, very hardy shrub, with showy white flowers, which are very fragrant.
- GORDON'S, (*Gordianus*)—A very vigorous grower with a profusion of white, waxy flowers, slightly fragrant; very hardy and desirable.
- Tamarix, AFRICAN**—(*T. Africana*.)
A tall, graceful shrub, with peculiar, small, delicate leaves, much like the Juniper, with spikes of rosy-purple flowers.
- Weigelia, AMABILIS**—(*Dielytra*.)
A very showy variety. It blossoms freely late in the season, has large foliage, is of very vigorous growth, hardy.
- GROENEVEGENI—A very vigorous, hardy, free-blooming variety; very striking in a group.
- HORTENSIS NIVEA—One of the most desirable of the white-flowering; flowers very abundant and pure white.
- MULTIFLORA FLORIBUNDA—A distinct species, with small, deep crimson flowers, blossoming throughout the season.
- ROSEA—A very fine, old variety, bearing rose-colored flowers. One of the most popular of its season. Should be in every collection.

CLIMBING AND TRAILING SHRUBS AND PLANTS.

All kinds of climbers delight in a rich soil, and this is particularly true of the perpetual bloomers. The soil should be well cultivated, or freely mulched, to secure abundance of fine flowers, with vigorous growth of plant.

50 Cents each ; \$4.00 per dozen.

Ampelopsis, VIRGINIA CREEPER ; AMERICAN IVY—(*Hederacea*.)

A native plant, of vigorous growth, with digitate leaves, handsome, brilliant green in Summer, turning rich crimson in the Autumn. Like the Bignonia and Ivy, it throws out roots at the joints, by which it fastens itself to anything it touches.

VEITCH'S, (*Veitchii*)—A recent introduction from Japan, entirely hardy, of vigorous growth, small foliage, turning brilliant red in Autumn. It clings tightly to walls, and is also unsurpassed as a basket or vase plant.

Bignonia, TRUMPET FLOWER—(*Bignonia radicans*.)

A rapid-climbing vine, with large, showy, scarlet, trumpet-shaped flowers in August.

Clematis, OR VIRGIN'S BOWER.

These are slender, rapid-growing plants, are very elegant, and well-suited to trellises, pillars, arbors, or any situation where climbing plants are desired. Many of them are extremely hardy, very vigorous growers, their foliage is peculiarly green and handsome; flowers of various colors, and quite attractive.

AMERICAN WHITE, (*Virginica*)—A fine, hardy, vigorous grower; small white flowers, quite showy.

FLAMMULA—An old, fragrant species, producing large clusters of small, pure white flowers; very hardy.

GLOIRE DE ST. JULIEN—One of the best new, white perpetuals; flowers exceedingly large, often 8 in. in diameter; very handsome, and a profuse bloomer. \$1.00 each.

HYBRID SPLENDID, (*Hybridii*)—A free bloomer, flowers clear blue, large size and handsome.

JACKMANNI—A new, free, perpetual-blooming climber of great popularity: large, splendid flowers, of a rich, velvety, violet-purple; a hardy, vigorous grower, blooming freely from July until severe frosts come. \$1.00 each.

Clematis—

JEANNE D'ARC—A free-growing, vigorous variety; the flowers are very large, 7 in. across, with a grayish or French-white color, and three bluish veins in each sepal; delicate and beautiful. July till October. \$1.00 each.

Honeysuckle—(*Lonicera*.)

These are all desirable plants, and greatly esteemed for their fragrance and profusion of handsome flowers of various hues. They are hardy, transplanted readily, and are of vigorous growth.

CHINESE TWINING, (*Japonica*)—Holds its foliage till late in Winter, very fragrant; blooms twice each season.

MONTHLY FRAGRANT, OR DUTCH, (*Belgica*)—Blooms all Summer, and very fragrant.

HALLIEANA—White, changing to yellow, very fragrant, vigorous, perpetual bloomer.

SCARLET TRUMPET MONTHLY, (*Semper-virens*)—A strong, vigorous grower; blooms very early, and profusely all the season; extremely hardy, and very showy.

YELLOW TRUMPET, (*Aurea*)—A vigorous grower, hardy, producing freely, yellow flowers all the season.

Wisteria, CHINESE: GLYCINE—(*Wisteria sinensis*.)

A rapid-growing, elegant climbing plant, extremely hardy, with pinnate foliage, very showy, light-purple flowers which are borne in large, loose-hanging clusters, like those of the locust. It grows to a large size, and is one of the most desirable of all climbing plants. This plant if grown to a stake for two years, then remove the stake, will support itself and be converted into a handsome weeper, of exquisite beauty, and admirably adapted to the decoration of lawns.

ROSES.



TYPE OF MOSS ROSE.

CLIMBING ROSES.

No class of Roses is more ornamental, and more universally admired, than the climbers. They are extremely hardy, vigorous growers, and very free bloomers; will grow in almost any situation, if the soil is made rich, and well spaded before they are planted; handsomely adapted to covering trellises, walls or unsightly buildings. They require the same winter protection as recommended for hybrid and perpetual Roses.

40 cents each; \$4 per dozen.

CLIMBING ROSES—(Continued.)

- Anna Maria**—Vigorous; flowers double, pink, clusters large.
- Baltimore Belle**—Pale blush, becoming white; very full and double. One of the most desirable of this class of Roses. Should be in every collection. Contrasts handsomely with *Prairie Queen* in color.
- Eva Corinna**—Delicate blush; blooms freely, in large clusters.
- Gem of the Prairie**—Bright rose color, in clusters.
- Michigan**—Pink, half double; rapid grower; very hardy; a free and very early bloomer.
- Queen of the Prairie**—One of the oldest and most valuable of the climbing Roses; extremely popular; should be in every collection; bright rose color; large, compact, profuse bloomer.
- Seven Sisters**—Flowers vary from blush to crimson; large clusters.

SUMMER ROSES.

35 cents each; \$4 per dozen.

- Arcti**—Dark, velvety purple.
- Harrison's Yellow**—Double; bright yellow.
- Madame Plantier**—Pure white, blooms in abundant clusters; one of the very best.
- Persian Yellow**—Deep, golden yellow; very double and fine.
- Russell's Cottage**—Brilliant red; in clusters.

HYBRID PERPETUAL. (General Collection.)

Hybrid and Perpetual Roses being hardy, strong, vigorous growers, free and constant bloomers, embracing every variety of color, from the purest white to very dark, are deservedly very popular. To obtain the best results, the soil should be rich, deeply spaded and well drained, and the plants set in beds, to obtain perpetual bloom. They should be freely cultivated each year, or kept well mulched with some kind of coarse litter, and top-dressed once a year with well decomposed manure. Nearly all of the fine Roses require light winter protection with straw or evergreen boughs, or should be tied up with corn fodder. If in beds, stake down before covering. Prune severely in early spring, and to secure heavy fall blooming, pick off largely of the early buds.

50 cents each; \$5 per dozen.

- Augusta Mie**—Large, clear, bright pink, waxy; finely cupped; fragrant; free bloomer.
- Baronne Provost**—Beautiful, pure bright rose, with crimson shading; large and vigorous; delicious perfume; one of the finest bloomers.
- Caroline de Sansel**—Delicate flesh color, becoming blush; large and full, beautiful.
- Dr. Arnal**—Fine, clear rose color; large and double; good grower and free bloomer.
- General Grant**—Scarlet, deeply shaded with bright carmine.
- Giant of Battles**—Deep, brilliant crimson; dwarfish habit; free bloomer. One of the very best.
- Gen. Jacqueminot**—Rich velvety crimson scarlet, brilliant, and retains its color. Magnificent bud; free bloomer.
- Gen. Washington**—Bright vermilion rose; fragrant, free bloomer.
- John Hopper**—Rose, with crimson center, very fragrant and beautiful.
- Jules Margottin**—Brilliant cherry red, very large, fine and full.
- Lady Emily Peel**—A charming Rose, white, tinted with carmine; full and very fragrant; blooms freely in the fall.
- La France**—Delicate silvery rose; very large, full and round. Very fragrant, and unsurpassed for delicacy of coloring.
- Lord Raglan**—Deep crimson shading to scarlet; large, full and sweet; a vigorous grower and free bloomer.
- La Reine**—Deep, clear, violet rose, large and full; sweet and double.
- Mt. Carmel**—Light crimson.
- Madame Laffay**—Clear flesh color, changing to transparent rose; large, full and fragrant.
- Madam Chas. Wood**—One of the finest varieties grown; very large, brilliant crimson; free bloomer.
- Pius IXth**—Deep crimson, changing to violet; very large; a desirable rose.
- Pæonia**—Clear cherry red; showy and a fine bloomer.
- Queen Victoria**—White, shaded with peach; full and very large.

MOSS ROSES.

This is a very beautiful class of Roses, both in flower and bud ; very hardy, and blooms freely in June.

50 cents each ; \$5 per dozen.

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| <p>Alice LeRoy—Pale lilac ; very large ; hardy and vigorous.</p> <p>Crested—Most superb buds, beautifully crested ; very double ; free grower and bloomer.</p> | <p>Captain John Ingraham—Purplish crimson ; very fine.</p> <p>White Bath—Pure white, very mossy ; large, beautiful rose ; free bloomer. 75 cents each.</p> |
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PERPETUAL MOSS.

60 cents each ; \$6 per dozen.

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| <p>Alfred de Dalmas—Blush white, pink center ; blooms in clusters ; one of the best.</p> <p>General Drouot—Purplish red ; medium size ; dwarf habit ; profuse bloomer.</p> <p>Madame Edward Ory—Bright carmine ; very desirable.</p> | <p>Perpetual White—Pure white ; blooms in clusters, mossy and full ; a healthy grower.</p> <p>Salet—Clear rose color ; buds and flowers handsome ; vigorous grower, very hardy, a prodigious, constant bloomer. Should be in every collection of perpetual blooming roses.</p> |
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EVER - BLOOMING ROSES.

The Monthly Roses are not as hardy as the Hybrids and Perpetuals, but bloom constantly during the whole summer. They should be set in beds, prepared as advised for the Hybrid Perpetuals, with the same after care. They begin to bloom almost as soon as planted, and continue to bloom freely until stopped by freezing. The flowers are very fragrant and beautiful, embracing lovely shades of color. They are more desirable for pot and house culture than any other class of Roses. For winter protection, in the North, cut back tops, pack the roots in mellow soil in boxes, and set near a window in a light cellar ; water sparingly when required ; dormant plants need but little water. When the winter is less severe, give the same protection as recommended for hybrid and perpetual Roses.

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| <p>Adam—Beautiful rose, of bright carmine ; large, very double ; fine bloomer ; quite fragrant.</p> <p>America—Large, handsome flower, cream yellow, becoming coppery ; vigorous grower, suitable for trellis or pillar.</p> <p>Belle Lyonnaise—Deep canary yellow ; very full and sweet.</p> <p>Bella—Tea-scented ; medium size ; pure white ; splendid, large, pointed buds.</p> <p>Beauty of Greenmount—Dark, rosy red, becoming deep crimson ; a free grower, and excellent and profuse bloomer.</p> <p>Empress Eugenie—Pale rose, with purple margin ; quite double ; large and full, very fragrant.</p> | <p>Glorie de Dijon—Large, yellow shaded with salmon ; one of the very finest in every respect ; a splendid climber in the South</p> <p>James Sprunt—Deep, cherry red ; very distinct and handsome ; profuse bloomer ; a fine climber or pillar rose.</p> <p>Mad'lle Rachel—Pure white ; very double ; an excellent bedding and house rose ; profuse bloomer.</p> <p>Marechal Niel—One of the largest and finest yellow tea-roses ; double, and deliciously perfumed.</p> <p>Washington—Pure white ; very double ; very free bloomer and strong grower.</p> |
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PAEONIES.

A very handsome class of flowers, of all shades from dark red to pure white; flower very large, 4 to 6 in. in diameter; very double and some have a delicate, very refreshing fragrance. They are very easy of cultivation; should have rich soil.

TREE PAEONIES.

\$1.50 each.

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| <p>Banksii—Very double; deep blush, purplish centre; strong, fragrant, and a profuse bloomer.</p> | <p>Papaveracea, (<i>Poppy-flower</i>).—Single flowers; blush white with deep crimson centre; quite handsome.</p> |
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HERBACEOUS PAEONIES.

50 cents each; \$4.00 per dozen.

Too well known to need description; should have a conspicuous place in every garden. When properly selected, they will give a continuous bloom for two or three months. Our collection consists of the most choice varieties, and includes a large range of colors.

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| <p>Alba Grandiflora Plena—Fall, somewhat early, very large, bears clusters of pale flesh-colored flowers, changing to white sulphur-centre; fragrant</p> <p>Alba Rosea Delicatissima—Medium height and season; bears clusters of large, globular, violet-rose flowers, and sweet scented; distinct and fine.</p> <p>Amabilis Grandiflora—Medium height, bearing profuse clusters of double flesh-colored flowers, with sulphur-centre; somewhat fragrant.</p> <p>Double Crimson—Well known, rather early, full, double, fine rich color.</p> <p>Nemours—Outside petals violet, centre blue, large and very charming flowers.</p> <p>Fragrant or Rose-Scented—Fall, late, large, double, with projecting centre, deep rose color, exquisitely fragrant.</p> | <p>Harrisoni—Grows tall and very large; double; outer row of petals deep rose, short scented petals of salmon rose, fragrant; a fine variety.</p> <p>Hercules—Tall, immense flowers, in small clusters; double; bright-rose color; fragrant.</p> <p>Humilis, (SPANISH DWARF)—The earliest, low, single pink Paeony.</p> <p>Perfection—Large, in clusters, rosy outside, with light tips, globular inside, petals long, deep salmon, rose center, slightly fragrant.</p> <p>Reevesi—Double, deep blood-color inside petals rose color and projecting.</p> <p>Tricolor—Tall, large, full and double; mixed sulphur, purple and salmon color.</p> <p>Victoria Modesai—Late, profuse; outside rows flesh-color, next rows light sulphur, centre salmon.</p> |
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DAHLIAS.

Dry roots 25 Cents each; \$2.50 per dozen.

This magnificent flower requires a deep, moist, rich soil.

We can furnish dry roots Spring and Fall, with our tree deliveries, of varieties of almost any shade or color. Plants grown in pots about May 15th. For winter protection, pack roots in dry sand, or in a box without sand; keep dry and do not allow them to freeze.

HARDY HERBACEOUS PLANTS.

Bleeding Heart—(*Dielytra spectabilis*.)

An extremely handsome, graceful, hardy plant, deep rose-colored flowers. This is one of the finest, hardy plants for garden culture. It handsomely decorates a lawn, and is equally fine for pot culture. 25 cents each; \$2.50 per dozen.

Day Lily, WHITE—(*Funkia alba*.)

Blossoms Trumpet lily-shaped, pure white, very fragrant, commences blooming late in Summer, and is in continuous bloom till freezing weather. Should receive light protection during Winter. 50 cents each.

Lily of the Valley—(*Convallaria Majalis*.)

Hardy everywhere, and blooms early in the Spring. Very pretty plant, with drooping racemes of pendant, tiny, white flowers, which are very fragrant. 30 cents each; \$3.00 per dozen.

Yucca—(*Filamentosa*.)

An extremely handsome, hardy, vigorous-growing plant, with lance-shaped leaves. In the spring it sends up a flower stem 3 to 4 ft. high, bearing a great number of exquisitely handsome, lily-shaped, pendent, white flowers. Should be in every collection. 50 cents each.

HARDY BULBS.

When convenient, most varieties of bulbs are best planted in October or November, and protected during the winter with a little coarse litter, of leaves or evergreen boughs.

TULIPS.

20 cents each; \$2.00 per dozen.

Tulips are very widely known, and greatly admired by all lovers of flowers. Their colors are exquisite, varied and rich. They are very hardy, easily grown, and bloom very early in the spring.

HYACINTHS.

20 cents each; \$2.00 per dozen.

Hyacinths are charming flowers, of delightful fragrance. They succeed well in our gardens, and are the very best bulbs for winter flowering in pots and glasses. They are double and single, and of an endless variety of colors. The Crocus is a great favorite and an extremely early and beautiful flower formed in many colors. Admirably adapted to out-door culture.

LILIES.

Lilies can be transplanted either in the spring or fall. Most varieties are hardy and of easy culture.

Lilium Auratum, (GOLD-BRANDED LILY)

A magnificent flower, very large white, dotted with crimson, each petal branded with golden color. From Japan. 75 cents each.

COMMON WHITE—(*Candidum*)—Pure white, very fragrant. 50 cents each.

WHITE JAPAN—(*Lancifolium Album*)—Pure white, fragrant. 50 cents each.

DOUBLE TIGER LILY—(*Tigrinum, fl. pl.*)—Bright orange and scarlet, with dark spots. 50 cents each.

NEW—(*Tigrinum Splendens*)—Lively red color; 6 to 8 feet high. 50 cents each.

HONEY LOCUST HEDGE.

\$6.00 PER THOUSAND.

We wish to call particular attention to the value of Honey Locust for fencing purposes. It will transplant as readily as Osage and is very superior to it in every way. It never winter-kills; thoroughly hardy, even as far north as Minnesota; it never suckers or sends up young plants from roots. The plants should be set 16 inches apart; the second spring cut back to twelve inches, then each spring after, cut back just sufficient to cause the plant to throw out side limbs, to fill up the space between. It will require only four or five years to make an excellent fence. The cost of pruning a Honey Locust fence when fully established, will be less than one-third that is required for Osage.

RETAIL PRICE LIST.

	Each	Per d.	Per 100	Per 1000
Apple, Standard, 6 to 7 feet.....	25c.	\$2.50	\$20.00	
" " 5 to 6 "	20c.	2.00	16.00	
" " 4 to 5 "	15c.	1.50	12.50	
" Dwarf, 2 to 3 years.....	50c.	5.00		
Crabs or Hybrids.....	50c.	5.00	30.00	
Pears, Standard, 4 to 6 feet.....	60c.	6.00	40.00	
" Dwarf, 3 to 4 feet..	50c.	5.00	40.00	
Plums, 4 to 6 feet.....	50c.	5.00	40.00	
Cherries, 4 to 6 feet.....	50c.	5.00	40.00	
Peaches, 3 to 5 feet.....	25c.	2.50	20.00	
" 2 to 3 "	20c.	2.00	15.00	
Apricots and Nectarines, 3 to 5 feet.....	50c.	5.00		
Quince, Orange, 2 to 3 feet.....	50c.	5.00		
" Anger's, 3 to 4 feet.....	50c.	5.00		
Black Walnut, 1 year.			4.00	30.00
White Ash, 1 year, 12 to 15 inches.....			1.50	10.00
" 2 years, 15 to 24 inches.....			2.00	15.00
Box Elder, 2 years, 15 to 24 inches.....			2.00	15.00
" 1 year, 12 to 15 inches.....			1.50	10.00
Silver-leaved Maple, 1 year, 12 to 18 inches.....			.50	4.00
" " 2 years, 18 to 30 inches.....			.75	5.00
European Larch, 2 years, 9 to 15 inches.....			2.00	20.00
Osage Hedge.....				2.25

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WHITE CLEMATIS.