Historic, Archive Document

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

62.09

DESCRIPTIVE CATALOGUE

1904

CHICO NURSERY CO.

CHICO, CAL.

LIBRARY,
Department of Agriculture,
Washington, D. C.

SCENE ON RANCHO CHICO
NEAR THE NURSERY

FLOWERING THORNS

BIDWELL MANSION
RANCHO, CHICO.

SCENE ON CHICO CREEK NEAR THE NURSERY

SCENE ON BIDWELL GROUNDS CHICO,
SHOWING TAMARIA AND
CHIMAPHILIS EXCELSA.

VIEWS
AT CHICO.

FRUIT AND
ORNAMENTAL

TREES

Table of Contents.

	PAGE		PAGE
American Pomological Society.....	100	<i>Small Fruits</i>	28-41, 105-8
<i>Fruit Department</i>	1-45, 102-3, 105-8	Asparagus, Rhubarb, Strawberries.....	40-41, 105
Fruit Trees.....	1-28, 41-2, 102-3	Currants, Blackberries, Blackberry=Rasp=	
APPLES.....	1-10	berry Hybrids, Dewberries, Goose=	
Autumn.....	3	berries.....	35-40
Crabs.....	9-10	Logan Berry, McDonald Berry, Phenomenal	
Summer.....	2	Berry, Primus Berry.....	106-107
Winter.....	3 9	Raspberries, Red and Yellow.....	33-34, 108
Apricots.....	27	Blackcaps.....	35
Cherries.....	14-16	<i>Grapes, American</i>	28-31
Figs.....	41-42	Foreign.....	32 33
Mulberries.....	42	Resistant.....	33
Nectarines.....	27	<i>Ornamental Department</i>	46-97, 103-105,
Olives.....	102		[108-111
Peaches.....	24-26	Deciduous Trees.....	48-60 103
Pears.....	11-13	“ “ Weeping.....	60-62
Autumn.....	12-13	“ Shrubs.....	67-75, 108
Summer.....	11-12	Hardy Climbing Vines.....	78-81, 104
Winter... ..	13	Bulbs and Tuberous Plants.....	81-85, 108
Persimmons.....	42	Evergreen Trees.....	62-67, 104-5
Plums.....	16-21	“ Shrubs.....	76-77
Prunes.....	22-24	Hedge Plants.....	75
Quinces.....	27-28	<i>Roses</i>	85 97
<i>Nut Trees</i>	43-45	Hybrid Perpetual.....	86-88
Almonds	43	“ Teas.....	92-94
Chestnuts	44	Hardy Climbing.....	88-91
Filberts.....	44	Moss.....	92
Hickory.....	44	Noisette and Teas.....	94 97
Walnuts.....	44-45, 108	“ “ Climbing.....	97
<i>Introduction</i>	i-xii	Tree Roses.....	97
Location, Soil, Shipping Season, etc.	i-xi	<i>Sprays and Insect Pests</i>	98-100
Distance for Planting and Number		<i>Supplement</i>	101-111
Trees per Acre.....	xii	Semi-Tropical Varieties.....	102-5
		New Varieties	105-111

For General Index and Index to Roses, see page 112 and 3d page of Cover.

ESTABLISHED 1851.

INCORPORATED 1902.

CHICO NURSERY CO.'S

GENERAL CATALOGUE

OF

fruit and Ornamental Trees

GRAPE VINES

OLIVES, FIGS, SMALL FRUITS, SHRUBS, ROSES, Etc.

SECOND EDITION.

CHICO, CALIFORNIA.

COPYRIGHT 1904 BY CHICO NURSERY CO., CHICO, CAL.

Notice to Customers.

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

ORDERS BY MAIL—Buyers ordering by letter should write out their order plainly in a separate list and not in the body of the letter; also write name and post office address on both letter and order. It will prevent mistakes in the hurry of the packing season.

SHIPPING DIRECTIONS—Give plain and explicit shipping directions. When none are given we forward according to our best judgment; but in no case do we assume any responsibility after the delivery of the stock in good condition to the forwarder, excepting where prices are quoted delivered at some special point.

VARIETIES—If the varieties of fruit ordered cannot be supplied, others equally as good, and ripening about the same season, will be substituted, unless ordered to the contrary.

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

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

CASH WITH ORDER—As we guarantee the freight on all shipments leaving our establishment, it will be necessary, in all orders from unknown parties, to **remit the money with their orders**, or give satisfactory references. Orders to be sent by express, C. O. D. must be accompanied by at least one half the amount in cash, otherwise they will receive no attention.

All communications to be addressed to

Successors to **CHICO NURSERY CO.,**
RANCHO CHICO NURSERY COMPANY. **CHICO, CALIFORNIA.**

LIBRARY of CONGRESS

Two Copies Received

MAY 26 1904

Copyright Entry

AM. 27, 1904

CLASS 6 XXc No.

85541

COPY B

LIBRARY OF CONGRESS

DUPLICATE

EXCHANGED

SCENE AT CHICO, NEAR OUR NURSERY.

. . . Introduction . . .

In presenting this second edition of our Catalogue, we do so with still greater confidence that our location, soil and climate are the best there are to be found, not only in California, but in the whole United States. The marvelous growth of our business during the past year has fully demonstrated this.

During the winter of 1901-2, we bought the Rancho Chico Nurseries, so well and favorably known, which were established in 1851 by the late General John Bidwell. No other nursery stock in the State of California has a reputation equal to the Chico grown trees.

Building upon these foundations, the managers of the Chico Nursery Company will propagate only strictly first-class, high grade nursery stock true to name, and we ask the great commercial orchard interests of California and adjoining states to give us a fair trial, knowing we can please you and make it to your interests to patronize us, first, because we have the right location ; second, on account of our fertile soil and suitable climate ; and third, for the reason that the men who are managing this great Nursery have devoted their entire lives to the work of propagating nursery stock, giving their business the closest attention in every detail.

Having no interests except the nursery business, we, therefore, claim to be in better position to serve our customers than the average nurseryman, who is engaged in other enterprises and only works the nursery business as a side issue. Each department of our business is managed by one who has devoted his life to the study of his particular line. Our motto is high-grade nursery stock, true to name.

GENERAL AND MRS. BIDWELL—RESIDENCE GROUNDS.

. . . A SHORT SKETCH OF THE LATE GEN. JOHN BIDWELL . . .

. . . Founder of the Chico Rancho Nursery . . .

Among the earliest pioneers coming to the Pacific Coast was the late General Bidwell. He arrived in California in 1841, then a young man of twenty one. Shortly after his arrival, he acquired the famous Rancho del Arroyo Chico, and so laid the foundation of the most famous ranch in the state of California, and perhaps the greatest fruit ranch in the world.

From the time he purchased this rancho he devoted himself to the improvement of his landed estate. Always a lover of nature, yet wedded to improvement in the broadest sense, General Bidwell, while maintaining very much of the choicest natural beauty of the Rancho Chico, has brought into action the most diversified system of improvement to be found within the limits of any state.

His experimental tests with new and promising fruits were numberless and continuous throughout a long series of years. Probably no other one man did so much to determine and proclaim the horticultural possibilities of California.

In his experimental orchard are to be found more than 400 varieties of fruit trees in bearing. So great was his zeal and confidence in the fruit industry that in the early fifties he rode on horseback from the Rancho Chico to the old Spanish Mission of San Luis Rey, a distance of more than 500 miles, to procure the trees for his first orchard, and since that date, with each recurring year, he has added to his orchard extension, until now 2,000 acres of thrifty and productive fruit trees beautify and enrich this wonderful property. Here are to be found almost every variety of fruits and nuts that will grow in temperate and semi-tropic climates.

SIR JOSEPH HOOKER OAK ON RANCHO CHICO.

The great English botanist, Sir Joseph Hooker, once visited General Bidwell and stated that England and California were peculiarly the home of the oak. He said he had seen all the oaks famous for their size in England, but that one on the Rancho Chico was larger than any in that country. General Bidwell paid him the compliment of naming the oak after him. It is twenty-four feet in circumference six feet above the ground, and its branches have a spread of one hundred and fifty feet. It is now extensively known as the "Sir Joseph Hooker Oak," and yearly receives the visits of many travelers.

LOCATION.

THE CHICO NURSERY COMPANY is located at Chico, Butte County, California, on a two hundred acre tract of land rented from the Morehead Ranch, situated about one-half mile from the Southern Pacific depot.

The town of Chico is on the main line of the California and Oregon division of the Southern Pacific railroad, 186 miles north of San Francisco, and 96 miles north of Sacramento, the capital of the State.

Its transportation is served daily by through express and freights, as well as by local trains; steamers ply the great Sacramento river, making regular trips to Chico Landing and the City of Sacramento.

VISITORS.

We are always pleased to have our customers call on us, and take pleasure in showing them through our grounds and explaining our methods of propagation. Nothing convinces prospective planters so easily as seeing our growing stock and comparing it with others. Our offices being close to the Southern Pacific depot, and the grounds less than half a mile distant, access thereto is very easy.

TELEPHONE AND TELEGRAPH.

Our offices are connected with both **Local** and **Long Distance** telephone, and both the Postal and Western Union Telegraph Companies have offices in our city.

PEAR ORCHARD ON RANCHO CHICO.

SOIL.

In no other part of California is there to be found such a large body of even soil, without alkali or hard pan, so well adapted to nursery work, as there is surrounding the town of Chico, insuring a change of land for each successive crop of trees, the only safe means of growing nursery stock free from insect pests and diseases. The soil is the finest to be found for nursery purposes anywhere, being a deep, rich, alluvial loam, perfectly underdrained by a stratum of gravel at a depth of ten to twenty feet. The soil is of such a nature as to furnish an abundance of fibrous roots, so necessary to successful transplanting of nursery stock.

IRRIGATION.

Our trees are practically non-irrigated, as no water whatever is used the second season, and only have to be irrigated once or twice during the budding of the seedling the first year. With thorough cultivation we are able to grow our trees plenty large enough, and by this system give them abundance of fibrous roots not attainable in nurseries where the soil requires constant irrigation to make sufficient growth. This, we claim, is why Chico trees have given such good satisfaction and are transplanted into the orchards with such small loss.

SPRAYING.

It is now a well-known fact that spraying fruit trees with "Bordeaux Mixture" has a beneficial effect upon the growth of the tree, aside from its efficiency as a fungicide and insecticide. That this fungicide exerts an influence on the functions of certain plants wholly independent of any action resulting from the prevention of fungous or other parasites, has been demonstrated beyond a doubt.

Fully realizing that those who will succeed in the nursery business must grow their trees by the most approved methods. We have begun spraying all our nursery stock with that famous mixture, beginning with the seedlings the first year, and continuing the operation several times throughout each season until the trees are ready for market, and as a consequence the "Spray Pump and Bordeaux Mixture" has become as much the work of our nursery as running the cultivators.

ALMOND ORCHARD ON RANCHO CHICO.

PERFECTLY DORMANT STOCK.

In no other place in the United States does nursery stock have such a long and uniform season of ripening. From the first of April until November the weather is warm and mild, with no sudden variations, giving the trees a rapid but even growth. We invite comparison between trees grown in our nurseries and those grown in any other section of the United States. Having a much larger rainfall, and without the extreme heat of the more southern districts, our trees are adapted to northern planting as well as to planting in the south.

There are never any severe freezes to ripen the trees too rapidly and give them "black heart" as is always the case with trees grown in a cold climate. There was long an erroneous belief, that in order to secure a hardy tree, it was necessary to have it grown in a cold, rigorous climate where the mercury goes below zero.

From November until about January first, our trees are gradually ripened, as the nights during November and December are cool but not severe. During December there is a light frost nearly every night which ripens the trees slowly and evenly without the slightest danger of "black heart."

Many may think that because the trees are grown in California that they are unfit to ship to northern sections, but no greater fallacy could exist. California is a large state with nearly every climate from semi-tropical to the colder north temperate. Being situated about three-fourths of the distance from the southern to the northern boundary, the climate is ideal for growing nursery stock. In no other part of this great country do trees become more thoroughly dormant, and in no other section of the Pacific coast do they remain perfectly dormant so late in the spring without artificial means. We do not have any "cold storage cellars" so often mentioned in nursery catalogues, to keep trees from freezing, or to keep them dormant for spring shipments. **We do not need them.**

We can ship trees at any time from about the middle of December until April, so that the stock will arrive at just the right time for setting out in the orchard. This is a point that should be carefully considered by all planters, especially those in the north who have been in the habit of getting trees in the fall and "heeling in" over winter in order to have them at the proper time for spring planting. Further, we do not force the trees to ripen in the early fall by stripping the leaves or running the digger under them, but leave them until they are thoroughly matured before digging.

YOUNG PRUNE ORCHARD ON RANCHO CHICO.

You have doubtless noticed on many trees purchased from northern nurseries a new growth of small, fibrous roots that had started in the packing houses, "storage cellars" or heeling in grounds before the trees left the nursery. This necessarily checks and retards the growth of the trees when they are planted in the orchard. Compare the growth of such trees with those secured from us which were perfectly dormant when shipped. Our packing houses are merely to protect our men from the rain when filling orders.

PLANT YEARLING TREES.

Plant yearling trees with a large root system and no superfluous top branches to be sustained.

SHIPPING SEASON.

Our shipping season commences in December and continues until May. Not being in a section dependent upon irrigation for growing our stock, we cannot "ripen it at any time desired" by merely shutting off the water; and having no hard freezing weather to ripen them early or produce "black heart," our trees cannot be safely dug and shipped before December.

FALL PLANTING.

We are opposed to fall planting of trees at any point where the thermometer goes below zero, past experience having demonstrated to our entire satisfaction that trees delivered to customers in the fall are more or less injured during the freezing weather of the winter, lowering their vitality and causing many of them to die the first summer after planting; and especially is this true of stock grown in the colder sections and forced to ripen before shipment; and many of the leading northern nurserymen are being forced to adopt our policy. We positively refuse to ship trees in

ANOTHER YOUNG PRUNE ORCHARD, RANCHO CHICO.

the fall of the year in the colder sections of the country, unless the purchaser will take all risk and pay the freight from the nursery. All orders for such shipments must be for **spring shipment**. In the milder sections of the Pacific coast, west of the Sierra Nevada and Cascade mountains, in nearly all parts of California, Arizona, New Mexico, Texas and other Southern States, we are prepared to ship at any time from about the middle of December until the close of the planting season, about the first of April. We know of no other place in the United States where trees in a perfectly dormant condition, (without artificial means), can be shipped for so long a period, so as to arrive at just the right time for planting.

SEASON OF RIPENING.

As our catalogue is intended to cover every part of the United States, as well as Canada and parts of Mexico, it is impossible to give the exact time of ripening of any variety of fruit, for what would be true at Chico would not apply to the Northwest Territory Canada. We give, therefore, as near the season as possible, and customers should remember that, as a rule, fruit keeps much longer in the northern sections, which sometimes changes the season of a winter variety at the north to an autumn one farther south.

GUARANTEE.

We guarantee our trees true to name, and where we agree to deliver at nearest railroad, we guarantee the stock to be in strictly first-class condition on arrival at destination. This is a very important consideration for planters, as we ship in carload lots to some central point and thereby save freight charges, and also get much prompter delivery than by local freight to long distances, which enables us to deliver the trees in better condition. We must be notified immediately after receipt and examination of goods if there is any complaint, for we cannot be responsible for the failure of stock after it has been received and virtually accepted. We exercise the greatest care to keep our varieties **true** to name, and hold ourselves in readiness at all times to replace, on proper proof, all stock that may prove otherwise; but it is mutually agreed between the purchaser and ourselves that we shall not at any time be liable for any amount greater than the original price of the goods. We cannot accept orders on any other terms.

BRANCH FROM PLUM TREE ON RANCHO CHICO, SHOWING
110 PLUMS ON ONE SMALL BRANCH.

PRICES.

Covering so large a field, we do not print prices in our catalogue, but send, when requested, price lists which include freight to nearest railroad station or steamboat dock, as we ship nearly all our retail orders freight prepaid.

HINTS ON TRANSPLANTING, ETC.

Preparation of the Soil.—Prepare a rich, deep bed of mellow soil, and have the land sufficiently drained to relieve the roots from standing water. To insure a fine growth, land should be in as good condition as is required for a crop of corn or potatoes. The land for fruit trees must be dry, either natural or made so by drainage.

Preparing Trees for Planting.—

We use every care in digging and packing, but the loss of some of the small fibrous roots is unavoidable, but if the stock is carefully prepared before planting no permanent injury will result. Prune off all broken and bruised ends of roots with a sharp knife (a smooth cut heals and makes ready to grow much sooner than one broken off). Cut back the tops to about one-half the previous year's growth, so as to preserve the natural balance between the top and the roots, taking care to prune in such a manner as will tend to develop a well formed, symmetrical head, sufficiently open to admit light and air freely. In one year-old trees, where there is but a straight stock, cut back to the desired height for forming the head, being careful to cut all to ex-

actly the same height, as it adds much to the symmetry and beauty of the orchard.

Evergreens and Other Ornamental Trees.—The beauty of which depends on preserving the natural form, should be pruned very little. Hence, great pains should be taken in planting and caring for these. If not ready to plant when the stock arrives, "heel in" by placing the roots in a trench and covering them with mellow earth, well packed, so that they cannot be damaged by frost or heat.

Planting.—Make the holes large enough to admit the roots without any cramping or bending, and deep enough to bring the tree to its natural depth. The fine surface soil should be used in covering the roots, and this should be carefully worked among them. If the ground is dry it is well to pour in some water when the hole is partially filled. See that the ground is firmly and solidly packed over all parts of the roots, so that there will be no opportunity for dry air or frost to enter and destroy roots deprived of the full benefit of their natural protection. Omission to pack the earth solidly is a more frequent cause of failure in planting nursery stock than any other. Fill the holes full enough to be even with the surrounding surface after the fresh earth settles. Never use manure in contact with roots. Large, standard trees should be staked and tied so that the wind will not loosen the roots. Don't plant too deep; after the ground settles they should stand about the same as they did in the nursery row.

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

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

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

DISTANCES FOR PLANTING.

Standard Apples.....	30 feet apart each way.
Standard Pears and strong growing Cherries.....	20 " " " "
Duke and Morello Cherries	18 " " " "
Standard Plums, Peaches, Apricots, Nectarines.....	16 to 18 " " "
Dwarf Pears	10 to 12 " " "
Dwarf Apples	10 to 12 " " "
Quinces	10 to 12 " " "
Grapes	rows 10 to 16 feet apart ; 7 to 16 feet in rows.
Currants and Gooseberries.....	4 feet apart.
Raspberries and Blackberries.....	3 to 4 by 5 to 7 feet.
Strawberries for field culture	1 by 3 to 3½ feet.
Strawberries for garden culture	1 to 2 feet apart.

NUMBER OF TREES OR PLANTS ON AN ACRE.

Distance—1 foot apart each way, number plants.....	Square Method.	Hexagonal or Equilateral Triangle Method.
" 2 " " " "	43,560	50,300
" 3 " " " "	10,890	12,575
" 4 " " " "	4,840	5,890
" 5 " " " "	2,725	3,145
" 6 " " " "	1,745	2,010
" 8 " " " "	1,210	1,600
" 10 " " " "	680	785
" 12 " " " "	435	505
" 15 " " " "	305	350
" 16 " " " "	195	225
" 18 " " " "	170	190
" 20 " " " "	135	155
" 25 " " " "	110	125
" 30 " " " "	70	80
" 35 " " " "	50	55
" 40 " " " "	35	40
" 40 " " " "	27	31

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

RULE—Equilateral Triangle Method.—Divide the number required to the acre "square method," by the decimal .866, or calculate the number by the "square method" and add 15 per cent. The result will be the number of plants required to the acre by this method.

SALESMEN.

Our stock will be placed before the public by means of experienced nursery salesmen, whose business it will be, to, not only, find out the needs of the country in the nursery line and to encourage the production of only the very best varieties of fruits and ornamentals for beautifying homes and public avenues and parks, but by all honorable means to promote the interests of the company, and help make it the largest and best nursery in this country.

We include in this catalogue only such varieties as we have grown on our grounds, and which experience has proven worthy of distribution, and we have endeavored to confine ourselves to growing only such varieties in all departments as, with proper care and attention, will give entire satisfaction to our customers.

Yours very truly,

F. X. BOUILLARD, PRESIDENT.

F. W. POWER, SECRETARY-TREASURER.

CHICO NURSERY COMPANY.

. . . SPECIAL NOTICE. . . .

Those only who can show a certificate of recent date, with our signature and the seal of the company attached, are authorized to solicit orders for us. We wish to call special attention to this notice, as we know it has heretofore been the practice of unprincipled persons to procure the catalogues of prominent nurseries, and take orders in their names, which they will fill with poor stock bought elsewhere. If our patrons will notify us of any person whom they have reason to believe is not a regularly appointed agent, we shall consider it a favor.

fruit Department.

SPOKANE BEAUTY—REDUCED IN SIZE.

APPLES—*Pyrus Malus*.

The first fruit in importance is the apple. It will thrive on nearly any well-drained soil. Its period of ripening, unlike that of other fruits, extends nearly or quite through the year. By making judicious selections of summer, autumn and winter sorts, a constant succession can be easily obtained of this indispensable fruit for family use.

There is no farm crop which, on the average, will produce one-fourth as much income per acre as will a good apple orchard. The average price paid for the fruit is steadily on the increase and the immense demand for home consumption, foreign shipping, canning and evaporating, assures us that they will continue to increase. We especially recommend planting late-keeping winter varieties.

If apples are planted at the rate of fifty trees per acre, 30 ft. apart each way, rows of peach trees can be planted between the apples, which, growing more quickly than the apple trees, soon protect them from winds, and thus prove a great benefit to them. After eight or ten years of productiveness, as the space is needed for the apples, the peach trees may be removed, leaving the orchard better for the protection, and at the same time having yielded the planter a large return for his outlay and labor.

SUMMER VARIETIES.

YEARLING APPLE TREES.

Showing wonderful growth of our trees one year from bud, on three-year-old roots.

American Summer Pearmain—Medium to large; skin red, spotted with yellow in the shade, and streaked with lively red in the sun; flesh yellow, remarkably tender, juicy and rich; a good bearer. August.

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

Bough, Large Sweet—(See Sweet Bough).

Carolina Red June—(Red June)—Medium size, red, flesh white, tender, juicy, sub-acid, and abundant bearer. June.

Early Colton—Entirely hardy in all parts of the country. Has stood the extreme cold of Minnesota, Wisconsin, New Hampshire. Annual and abundant bearer; never in the history of over half a century has it been known to entirely fail of a crop. Very early, beginning to ripen so it is **good to eat ten days before Early Harvest**, and continues to ripen for some time, making it very valuable for family use. Of beautiful appearance, fine quality.

Early Harvest—(Yellow Harvest)—Medium to large; pale yellow; fine flavor. Tree a moderate, erect grower, and a good bearer; a beautiful and excellent variety for both orchard and garden. Middle to end of Aug.

Early Strawberry—Medium, striped with deep red; tender, sub-acid and excellent; a poor grower, but productive. August.

Golden Sweet—Rather large; pale yellow; very sweet and good. Strong grower and good bearer. August.

Keswick Codlin—Large, conical; tender, juicy, acid; excellent for cooking. Tree erect, vigorous, productive, and early in bearing; July to October.

Red Russian—Early, very hardy; medium size, conical; color red, slightly striped with deep red; flesh white, tender, juicy, sub-acid. Abundant bearer; resembles the Red June, but flesh more solid and better shipper, and color not as solid a red as the Red June, but slightly striped. July and August.

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

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

Sweet June—Fruit medium, roundish, regular, light yellow, very sweet, pleasant and rich. August.

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

White Astrachan—Very large, roundish; skin very smooth and nearly white; a favorite market sort. August.

Williams Favorite—A large, handsome, dessert apple. Originated at Roxbury, Mass. Fruit medium size, roundish, oblong conic, long stem, skin smooth, color light red ground but nearly covered with fine dark red. Flesh yellowish white, of very mild agreeable flavor, abundant bearer. July to September.

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

AUTUMN.

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

Autumn Strawberry—Medium, streaked; tender, juicy, sub-acid, fine; vigorous and productive. September and October.

Duchess of Oldenburg—Of Russian origin. Large size; roundish, streaked with red and yellow, flesh whitish, juicy; flavor sprightly sub-acid; tree a vigorous grower, very hardy; very early and abundant bearer. While it is indispensable in the North, it is almost equally so in the South. We confidently recommend it for the orchard as one of the most valuable sorts for market, or in the garden for domestic use. September.

Dutch Mignonne—A popular apple introduced from Holland. Tree moderately vigorous, upright, spreading. Fruit medium, roundish, oblate, slightly conic; skin rather rough, yellow, shaded, striped and splashed with shades of light and dark rich red; moderately sprinkled with light and brown dots. Flesh yellowish and a little coarse; tender, juicy, slightly sub-acid. Core small; one of the best cooking varieties. November to February.

Fall Pippin—Very large, yellow; tender, juicy and rich. Tree vigorous. October to December.

Fall Jenetting — (Summer Jenetting) — Fruit large, oblate; slightly conical, almost ribbed; pale greenish-yellow with a blush; flesh whitish, tender, juicy, brisk, sub-acid; tree vigorous and productive. September to October.

Fameuse—(Snow Apple)—Medium size, roundish, oblate; whitish ground, striped with deep red; flesh very white, juicy and pleasant. Tree very hardy; one of the most valuable Northern sorts. November and December.

Emperor—(See Alexander).

Glori Mundi—Very large; greenish-yellow; valuable for cooking and drying. October.

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

Haas—(Gros. Pommier, Fall Queen)—Medium to large, slightly conical and somewhat ribbed; pale, greenish-yellow, shaded and striped with red; flesh fine white, sometimes stained, tender, juicy, sub-acid, good. Tree vigorous and very hardy; upright grower, with well-formed head; bears early and abundantly. September to November.

Hoover—(Wataugah)—Large, oblate; dark red; juicy, acid, crisp, and of good flavor. Ripens September and October; tree vigorous, short-jointed grower; very distinct.

Jefferis—Medium to large; yellow, striped, mostly red; flesh tender and delicious; one of the finest dessert apples; moderate growth; productive. September to November.

Jersey Sweet—Medium size; striped red and green; tender, juicy and sweet; a *free* grower and good bearer; very popular both for table and cooking. September and October.

King of Tompkins County—Large and handsome; striped red and yellow; tree vigorous and productive; one of the best, November to May.

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

Rambo—Medium; yellowish, streaked with dull red and somewhat dotted; mild, tender and good. Fine grower, productive; more especially valuable at the West. October to December.

Red Beitigheimer—A rare German variety, recently introduced. Fruit large to very large; skin pale green color, mostly covered with purplish-crimson; flesh white, firm, sub-acid, with a brisk, pleasant flavor. Tree a fine grower and abundant bearer. This is one of the largest and handsomest of apples, and promises to be extensively cultivated, September and October.

Snow—(See Fameuse).

St. Lawrence — Large, yellowish, striped and splashed with carmine. Flesh white, slightly stained, crisp, juicy, tender and vinous. Tree hardy and productive. September.

Stump—Medium-sized, conical; yellow, striped and shaded with light red; flesh juicy, tender, with sprightly sub-acid flavor. Fruit very uniform in size and of fine appearance. Very prolific. September and October.

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

Waxen—Medium, pale yellow, oily, sprinkled with a few dots; flesh whitish-yellow, crisp, tender, juicy, sprightly sub-acid, good. Nov.

WINTER APPLES.

Akin—(Akin Red)—Size and color *very much like Jonathan, but keeps three months longer; quality even better* than that most excellent apple. The apple for the fancy trade. ILL. Hort. Soc.: The original Akin tree is 7 feet 3 inches in circumference, about forty feet high, and over sixty years old. A regular bearer. Keeps until April or May. Of great

beauty and excellent quality; fine grained, crisp, spicy and mild. Its fine quality and beauty make it worthy of general trial, for the time will come when such fruit will be in demand. So beautifully colored as to be almost irresistible to the eye, and of equally fine flavor. It is of good quality, medium size, red color; a late keeper; tree productive.

Antonovka—This is one of the true iron clads. The tree is of Russian origin and perfectly hardy, withstanding our coldest winters in fine shape. The fruit is large, slightly oblong and when fully ripe of a light golden color. Good keeper.

Arkansas Beauty—Large size; color beautiful crimson; flavor rich, sub-acid, fine grained. Free and good grower and enormous bearer. November to March.

Arkansas Black—Large; round or slightly conical; regular, smooth, glossy yellow where not covered with deep crimson, almost black; flesh very yellow, firm, fine grained, juicy; flavor sub-acid, pleasant, rich.

Babbitt—A strong, large grower; wood hard and tough; heavy bearer. Fruit one-third larger than Baldwin, brighter red; flesh fine grained, juicy, crisp, rich and of a peculiarly fine acid; use—baking, stewing, pies or jelly, for each and all of which it is simply the best; in cooking it literally melts. Ready to cook as soon as grown, but it is so acid that few like to eat it uncooked until the latter part of the season, when it is a favorite eating apple.

Baldwin—Large, roundish; deep bright red; juicy, crisp, sub-acid, good flavor. Tree vigorous, upright, and very productive of fair, handsome fruit; one of the best and most popular winter apples. Originated on farm of John Ball, Wilmington, Mass., about the middle of the Eighteenth Century. January to April.

Black Twig—(See Mammoth Black Twig).

Belle de Boskoop—Large, bright yellow, washed with light red on the sunny side, and sometimes with a sprinkling of russet; flesh crisp, firm, juicy, sprightly, sub-acid; quality very good; a late keeper. Tree a *vigorous* grower.

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

Ben Davis—(New York Pippin, Kentucky Red Streak, etc.)—A large, handsome, striped apple of good quality; tree very hardy, vigorous and productive; a late keeper; highly esteemed in the West and Southwest.

Benton County Beauty—Originated in Benton County, Arkansas. Tree is a good grower, early and abundant bearer. Fruit large size, fine grained, juicy and crisp; color a bright red all over; one of the finest appearing apples grown.

Bismarck—In respect to its early fruiting habit the most remarkable apple ever introduced; one-year grafts frequently produce fruit and two-year trees seldom fail. Has fruited in many sections of the United States; we hear only words of commendation. A two-year single stem tree about 18 inches high has been known to ripen a fine specimen. Orig-

inated in New Zealand; has been tested in nearly every apple-growing country and promises to succeed wherever apples can be grown, proving healthy, hardy, productive, and without a rival in its early fruiting quality. Tree of short, stocky growth, thick, healthy foliage; makes beautiful specimens grown in pots for decorative purposes. Fruit large, handsome, yellow, sometimes shaded, red cheek; flesh tender, pleasant, sub-acid; good for dessert; superior for cooking; will keep well into winter.

Blenheim Orange—Fruit large, roundish, oblate, conical, yellowish, becoming deep orange, stained on the sunny side with dull and dark red stripes; flesh yellow, breaking, very sweet; pleasant, good. October, December.

Blue Pearmain—Very large; dark purplish red over dull ground, appearing bluish from white bloom; flesh yellowish, mild, aromatic. October to February.

British Columbia—(New)—Named by the Fruit Growers' Association of British Columbia. Originated by H. P. Bales, at Nicomen in the Fraser Valley. The tree is a vigorous grower and very hardy, annual and abundant bearer; fruit large, russet on yellow ground, sometimes striped with red; somewhat irregular; flavor mild sub-acid of the highest quality. Mr. Bales has now 400 trees of this variety bearing. The original tree, when 34 years old, measured 60 inches in circumference, and is still in a perfectly healthy condition. Mr. Bales has picked 36 fifty-pound boxes of apples from it in one season, and always gets from 25 to 50 cents per box more for them than other varieties. We consider this one of the most valuable apples to plant for commercial purposes. January to June.

Canada Reinette—Extra large size; flattened and ribbed; greenish-yellow, with russet dots and patches; flesh firm, rich, juicy and finely flavored; tree grows strongly and is a good bearer. November to March.

Cooper's Market—Medium size conical; shaded and striped with red on yellow ground; flesh white, firm, tender, rather acid. Valuable for marketing. November to March.

Coos River Beauty—From Douglas County, Oregon. First known as Geourney Seedling, later renamed by a Marshfield, Oregon nurseryman, Coos River Beauty. Tree a good grower, an annual and prolific bearer; does not break or split, no matter how heavily loaded. Fruit large, red, turning to dark red on the sunny side; flesh white, firm, breaking crisp and juicy; flavor mild, sub-acid, spicy, something like Gravenstein. Season November to March at Coos Bay.

Cunningham—(New)—Form conical, size medium; smooth deep red; very attractive; flesh yellow, fine grained; pleasant sub-acid; almost sweet; splendid keeper and good shipper; annual and prolific bearer. March to May.

WINTER BANANA

Delaware Red Winter — (Lawver) — Large, roundish flat; mild sub-acid; very heavy and hard; beautiful dark red; handsomest of all the extra late keepers; very valuable as a late market sort; tree a vigorous grower and very hardy; bears well; very promising late market variety. December to May.

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

Gano—Originated in Missouri. Form conical, good size and smooth; deep red, shaded on sunny side to mahogany; very attractive, flesh pale yellow, fine grained, tender; pleasant; mild sub-acid; is a good shipper and keeper; tree healthy, vigorous and hardy. An annual and prolific bearer. February to May.

Gideon—Vigorous, early and prolific bearer. Medium, golden yellow; fine, juicy, sub-acid.

Grimes' Golden—(Grimes' Golden Pippin, Sheep-nose) — An apple of the highest quality;

medium to large size, yellow; tree hardy, vigorous, productive. January to April.

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

Hyde's King—Large to very large; handsome yellowish-green; good quality; a remarkable keeper. Time of keeping all the year round.

Iowa Blush—Medium or less; finest tart flavor; tree extremely vigorous and hardy; most excellent variety. November to February.

Isham Sweet—Large, dark red; juicier than its parent, Bailey Sweet. and a better keeper; tree very scraggy, but hardy.

Jonathan—Fruit medium or small, roundish; skin yellow, nearly covered with dark or lively red; fine grained, very tender and finely flavored; tree slender and spreading, with light colored shoots. Originated about 1828 at Woodsted, N. Y. November to April.

Kentucky Red Streak—(See Ben Davis).

Lady Apple—A beautiful little dessert fruit; quite small, flat, regularly formed; skin pale yellow or lemon color, with a brilliant red cheek; flesh crisp, juicy and excellent; bears abundantly. December to May.

Lawver—See Delaware Red Winter.

Longfield—A Russian variety, imported some years since. Tree a free, upright grower, early and abundant bearer. Medium to large; yellow, with a blush on the sunny side like Maiden's Blush; rich, sprightly, sub-acid; quality as good as Fameuse and something like it. December to March.

McIntosh Red—An exceedingly valuable, hardy, Canada sort; medium size, nearly covered with dark red; flesh white, fine, very tender, juicy and refreshing. A good, annual bearer of fair, handsome fruit. Resembles the Fameuse, but larger and more hardy, and fully equal in quality to this standard sort. November to February.

Marshall, or Red Bellefleur—Very large, deep crimson, shaped like Yellow Bellefleur; of fine quality; tree productive; originated near Napa, by J. L. Marshall, being a cross between Yellow Bellefleur and Red June; one of the most valuable market varieties.

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

Missouri Pippin—Large; rich red, with darker red stripes; very handsome and of fair quality. Good grower; early and immense bearer, late keeper.

Monmouth Pippin—(Red Cheek Pippin)—Large; greenish yellow, with a fine red cheek; juicy, tender and good; tree erect, vigorous and productive. Keeps well till March or April.

Mammoth Black Twig—(Paragon)—A Tennessee seedling. The original tree over 50 years old, is still vigorous and bearing, though broken by storms. Thought to be a cross between Wine Sap and Red Limber Twig; combines the good qualities of both. Excels Winesap in nearly every important point; a better and much stronger grower, hardier, and the fruit much larger—often measures 12 inches in circumference; color even a darker red; flesh firmer, flavor milder but fully equal. Remarkably heavy and a long keeper.

Mann—Fruit medium to large; roundish, oblate, nearly regular; skin deep yellow when fully ripe; flesh yellowish, half fine, half tender, juicy, mild, pleasant, sub-acid. The tree grows straight and symmetrical and makes a large tree in the orchard. It is an early and annual bearer.

Newtown Pippin—One of the very best apples as to quality; tree a light grower while young; very juicy, crisp, and highly delicious flavor; fine keeper. Does not succeed in all sections. Originated in early part of Eighteenth Century. The first American apple to attract attention in Europe. December to May.

New York Pippin—(See Ben Davis).

Northern Spy—Large; roundish, slightly conical, somewhat ribbed; striped, with the sunny side nearly covered with purplish red; flesh white and tender, with a mild, sub-acid, rich and delicious flavor; in perfection in January and keeps till June; the tree is a strong, upright grower, and forms a very compact head; should be kept open by pruning, so as to admit the air and light freely. Originated about 1800, at East Bloomfield, N. Y.

Northwestern Greening—Hardy, yellow, rich; of good size; extra long keeper.

Nonsuch—(See Red Canada).

Okabena—A seedling of the Wealthy, fertilized by the Duchess. Fruit medium sized, slightly flattened. A native of Minnesota, first introduced in 1886. Very highly colored where exposed to the rays of the sun; resembling the Duchess. Flesh fine-grained; as an eating apple it is hard to excel.

Ontario—Fruit large, oblate, slightly conical; skin whitish-yellow, nearly covered with bright, rich red; flesh whitish-yellow, fine, tender, juicy; sub-acid; refreshing, slightly aromatic; core small. January to April.

Opalescent—(New)—Probably the *handsomest apple* ever put on the market. Color light, shading to very dark crimson with many yellow dots; skin smooth, susceptible of a very high polish *reflecting objects like a mirror*, flesh yellowish, tender, juicy and good. The original tree has never failed to produce from a moderate to a full crop. It is not only a beauty but all right for size, quality and productiveness, qualities rarely combined in one variety. Season December to March.

Oregon Red Winter—Fruit large, fine grained, crisp, juicy and rich, with a flavor so near that it could well be named the Winter Gravenstein, as its flavor is so near that variety. Color a bright red, with a dark maroon colored cheek. Tree healthy and a strong grower, holding its fruit well until late in the season. Season from January to May.

Ortley—(See White Bellefleur).

Palouse—Large, bright red, juicy, crisp and fine flavor. A vigorous growing tree; the fruit somewhat resembling the Baldwin, but better keeper. January to May.

Paragon—(See Mammoth Black Twig).

Patten's Greening—A Duchess seedling from northern Iowa. Tree hardy, productive, early bearer. Fruit large and smooth; olive-green, occasionally faintly blushed with dull red. Flavor pleasant, sprightly sub-acid. A superior cooking fruit; good keeper.

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

Peter—Another seedling which originated with Peter Gideon, the pioneer in apple culture in Minnesota. The tree is a stout, erect, symmetrical, healthy, vigorous grower, an immensely productive tree. Fruit large, red, sub acid, and a long keeper. It possesses all the good qualities of the good sorts and none of the defects so common to many of

them. It is hardier *than the hardiest*. The Peter has endured 45 degrees below zero without the least injury, and in 1885 at Excelsior, Minn., bore a crop of fruit when the Duchess and Wealthy killed to the ground. It is four to six weeks later than the Wealthy.

Pewaukee—A seedling from Duchess of Oldenburg. Fruit medium to large, oblate; surface bright yellow, partially covered with dull red, striped and splashed, covered with a gray bloom, and overspread with whitish dots; cavity small, basin shallow and slightly fluted; calyx rather large; stem variable in length, with a fleshy substance on one side from one-half to one inch long; core small; flesh yellowish-white, breaking juicy; flavor sub-acid; rich, aromatic, spicy, something like the Jonathan; quality good to best; tree strong grower and very hardy. January to June. New.

Pryor's Red—Medium, juicy, pleasant, very rich, sub-acid. January to March.

Rawle's Janet—Medium to large; yellow, striped with red; flesh yellow, tender, juicy, with a pleasant vinous flavor; prolific bearer. January to May.

Red Bellefleur—(See Marshall).

Red Canada—(Old Nunsuch of Mass., Steele's Red Winter)—Medium, oblate; red, tender, crisp, rich, sub-acid, refreshing and delicious; tree thrifty but a slender grower; productive. January to May.

Red Cheek Pippin—(See Monmouth Pippin).

Red Romanite—(Gilpin)—Size medium; roundish, smooth, handsome, streaked with deep red and yellow; flesh yellow, firm, rich, becoming tender in spring. An excellent cooking and dessert apple; very prolific; holds on tree late; a fine Winter apple and one of the best keepers. February to June.

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

Rome Beauty—Large; yellow, shaded with bright red; flesh yellowish, tender, juicy, sub-acid; moderate grower. November to February.

Russet, English—This is a most valuable, long keeping variety. It is good the first of January and will keep till July, and no apple, to our taste, has a richer flavor. It is medium size, but smooth, firm, crisp and rich, and never loses its richness to the last.

Russet, Golden—Medium size; dull russet, with a tinge of red on exposed side; flesh generally crisp, juicy and high flavored; tree a vigorous grower and a great bearer; very popular. November to April.

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

Salome—Long keeper, annual bearer, medium and uniform size; good quality.

Scott-Winter—Hardy and vigorous; bright red; crisp; spicy and of a brisk acidity; long keeper.

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

Shackelford—Tree hardy, free grower, an early and profuse bearer. Fruit large, well colored, purplish-red in the sun, with a delicate bloom. Flesh yellow, flavor mild, sub-acid, aromatic. Long keeper.

Sierra Beauty—Originated at a high altitude in the Sierra Nevada mountains, thirty miles east of Chico, Butte Co., Cal. This beautiful crimson red apple is certainly a great acquisition to the standard commercial sorts and will pack better than four tier. The original tree is now—1904—thirty-four years old and is a regular annual bearer. The flesh is white, crisp and tender, with a delicious juicy flavor. The tree is a hardy upright grower, resembling the Northern Spy; a splendid cooking and eating apple. Season January to May.

Smith Cider—A fine market apple. Large, handsome, yellow striped with red; flesh juicy, crisp, sub-acid; quality medium; tree vigorous, abundant bearer. December to March.

Spitzenberg, Esopus—Medium to large; deep red; flesh yellow, crisp, sub-acid, high flavored; tree a light grower in the nursery, but bears and grows well transplanted in rich soil. November to April.

Spokane Beauty—Largest apple known, a prodigy for size, of extraordinary beauty; color greenish-yellow, shaded and striped with deep red; flesh crisp, juicy, rich, with a delicious high flavor; unsurpassed for cooking and drying; a very long keeper, having kept until August 1st; was awarded first prize at the Spokane Fruit Fair in 1895 and 1896.

Springdale—Color dark red; size medium to large; fine flavor and of good quality; a good keeper. Introduced in Kansas. Winner at 15 different apple shows for home and market use. Tree is strong grower.

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

Staymen's Winesap—Similar to Winesap but very much larger and better flavored. Oblate, conical; greenish yellow, mostly covered striped and splashed with two shades of dark red, with numerous gray dots; flesh yellow, firm, tender, juicy, mild sub-acid, aromatic, best quality. A seedling of the Winesap, originated in Kansas. Tree resembles the Winesap but more vigorous in growth. December to April.

Steele's Red Winter—(See Red Canada).

Sutton Beauty—Medium to large, roundish; handsome, waxen yellow, striped crimson; flesh tender, juicy, sub-acid; good quality; keeps well. Tree a free grower and productive. One of the most beautiful and valuable apples.

Swaar—Fruit medium size, yellow, tender, rich and spicy; one of the best and very productive. November to May.

Talman's Sweeting—Medium, pale yellow, slightly tinged with red; firm, rich and very sweet; the most valuable baking apple; vigorous and productive. November to April.

Tulpehocken—(See Fallawater).

Vanderpool Red—Originated in Benton County, Oregon; size medium to large; color bright red; fine flavor and one of the best keepers. Specimens of this variety were shown at the Oregon State Fair, one year after picking from tree.

Vandevere—(Newton Spitzenberg of the West)—Medium size; waxen yellow, striped with red and becoming deep crimson next the sun; flesh, tender, yellow, rich and fine; rich and sub-acid flavor; valuable for cooking variety; free grower and good bearer; succeeds best in light, warm, dry soils. November to March.

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

Walbridge—Medium size, striped with red; handsome and of excellent quality; vigorous grower and productive; very hardy and considered of great value in the North and Northwest. March to June.

Wealthy—A native of Minnesota, where it has proven perfectly hardy, vigorous and productive; fruit of medium size, red, streaked with white; quality good. December to February.

White Bellefleur—(Ortley)—Fruit medium to large, roundish, oblong, conic, greenish-yellow, becoming fine yellow at maturity, sometimes with a sunny cheek. Flesh white, fine-grained, tender, juicy, sub-acid, very pleasant. November to February.

White Winter Pearmain—Large, roundish, oblong, conic; pale yellow; extra high flavor; one of the best. December to February.

Willow Twig—Medium size; light yellow, shaded and marbled with dull red and sprinkled with russet dots; flesh yellowish-green, not very tender, pleasant, sub-acid.

Wine Sap—Medium; dark red, sub-acid, excellent; tree a moderate grower and abundant bearer. A favorite market variety in the West. December to May.

Winter Banana—Fruit large size, perfect in form, golden yellow, and beautifully shaded and marbled with bright crimson red. Flesh lemon yellow, fine grained, sub-acid, rich, aromatic flavor, and of the highest quality. A good keeper. Tree remarkably strong grower, and on account of its great hardiness, will thrive in any climate. Its early bearing is something simply wonderful; generally producing a fine crop of fruit the second year. Foliage large and free from blight and mildew. A valuable market variety. November to May.

WINTERSTEIN.

One of Luther Burbank's new creations; a seedling of Gravenstein with a most delicious flavor. keeps with the Baldwin and R. I. Greening; flesh yellowish; flavor exceedingly tender; spicy, rich, sub-acid; color bright, red in stripes; tree a strong, vigorous grower and remarkable bearer; fruits every year; the best.

"It has often been said that if the Gravenstein lasted through the season no other apple need be raised. Other apples do not sell readily during the Gravenstein season. Its seedling, however, very rarely approach in any manner its combination of good qualities, and the one which I now offer is not in some respects as good, but is much better in others. It is therefore introduced after severe tests, fully believing that it will prove a great acquisition in many places, not all, for no fruit, so far, has ever been known which would."

"One of its most valuable points is that it ripens, with Baldwin and Rhode Island Greening, several weeks after Gravenstein; but in addition to this it is a much more prolific bearer, never failing to produce heavy crops and at the same time makes a growth fully as strong as Gravenstein."

Luther Burbank further says: "This is the first apple of my own origination which has ever been sent out, though apples, plums, berries and various seeds and flowers have sometimes been offered under my name without consulting the party most likely to be interested in the matter."

Luther Burbank, writing to the Rural New Yorker, says: "By this mail I send you a medium sample of my new Gravenstein seedling, six weeks later than its parent, ripening exactly with the Baldwin and Rhode Island Greening. The tree is a grand grower and as productive as an apple can possibly be. I think the quality, tenderness, and texture remarkable."

"We are wondering," writes the editor of the Rural New Yorker, "whether the horticultural and pomological work that Luther Burbank, of Santa Rosa, California, has done, is doing and may do, will ever be adequately appreciated. One thing is certain, viz: that the work he has already done is by no means appreciated. His latest success, and it seems to the writer, one of his most valuable successes, is an apple—a seedling of Gravenstein, a specimen of which he sent to us, and which we received October 27th."

YORK IMPERIAL.

Wismer's Dessert—Size medium to large. Smooth, beautifully colored with yellow, shaded with bright red, in stripes and blotches, marked with russet dots. Exquisitely delicious flavor, juicy, melting, buttery, pear like texture. Tree a strong grower and extremely hardy. Originated in Northern Ontario, Canada. Season November to April.

Condensed Statement of the good qualities of "Wismer's Dessert."

- 1st—The tree is iron clad in hardiness.
- 2nd—It is vigorous in growth and healthy in constitution.
- 3rd—It bears very early, regularly, and excessively.
- 4th—The fruit is Winter in season, and is a first-class shipper.
- 5th It is of the most popular size, medium to large.

6th—It is very handsome in appearance, being smooth and most brilliantly colored.

7th—Its aroma and flavor are much superior to any other apple known.

8th—Its texture is like a pear, being extremely juicy, melting, rich, buttery and free from fibre. This cannot be said of any other apple.

For complete description and testimonials of our leading horticulturists, write for our four-page circular giving full particulars.

Wolf River—Tree very hardy and productive; fruit large and handsome, red color; flesh white and of exceedingly fine quality; sub-acid.

Y. N. Pippin—(See Newton Pippin).

York Imperial—Medium; whitish, shaded with crimson in the sun; firm, crisp, juicy, pleasant, mild sub-acid. Tree moderately vigorous and productive. A popular Pennsylvania variety. November to February.

CRAB APPLES.—*Pyrus Prunifolia*.

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

Alaska—Of Northern origin. Fruit large, almost white; tree hardy; vigorous grower. Highly recommended.

Excelsior—A new, beautiful variety. Tree as hardy as any of the Crabs. Originated at Excelsior, Minn. It is a seedling of the

famous Wealthy apple, which it resembles in quality, and is a strong, handsome growing tree. Ripens in early fall, a little after Duchess of Oldenburg; is one of the best, handsomest and hardiest of our new Crabs. September and October.

WHITNEY CRAB.

account of its large size, beauty and hardiness. Keeps well into the winter.

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

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

Martha Crab—A new fruit raised from seed of the Duchess of Oldenburg. Resembles the Transcendent, but larger. Handsome, showy fruit; bears enormously; said to be equal, if not superior, to all others for sauce.

Minnesota—Hardy; a medium grower. January, February.

Transcendent—All things considered, this is one of the most valuable varieties of Crab apples grown. Tree remarkably vigorous, growing to a good size, and immensely productive. Comes into bearing a little the second year from planting, bearing every year after, and producing good crops by the fourth year. Fruit very large, from one and one-half to two inches in diameter, being large enough to quarter and core for preserving and drying. Excellent for sauce and pies, both green and dried. The best of its class for cider, being juicy and crisp, and is also by many considered a good eating apple. Skin yellow, striped with red. September to October.

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

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

TRANSCENDANT.

Florence—Tree very hardy, a heavy bearer but a poor grower. Fruit medium size, good quality.

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

Hyslop—Almost as large as Early Strawberry Apple; deep crimson; very popular on

PEARS—*Pyrus Communis* or *P. Sinensis*.

DUCHESS D'ANGOULEME.

The cultivation of this noble fruit is rapidly extending as its value is appreciated, and the demand for this fruit, both green and dried, is increasing every year, making it one of the most profitable fruits to plant. The range of varieties is such that, like apples, they can be had in good eating condition from August until early spring.

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

Gathering Pears—One of the most important points in the management of pears, is to gather them at the proper time. Summer pears should be gathered at least ten days before they are ripe, and autumn pears at least a fortnight. Winter varieties, if they will hang so long, may be left until the leaves begin to fall, then place in a cool, dry cellar.

Thin the Fruit—We cannot urge too strongly the following suggestion: When the pear trees are heavily laden, the fruit should be thinned when about **one-third** grown, else the fruit will be poor and the trees injured.

SUMMER

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

Clapp's Favorite—A large, new, fine pear, resembling the Bartlett, but without its musky flavor; pale lemon yellow, with brown dots; fine texture, melting, buttery, juicy, with a rich, sweet, delicate, vinous flavor. Tree hardy and very productive; very desirable in all sections, and especially so where other varieties fail. August and September.

ONE-YEAR-OLD PEAR TREES.

Note the great growth by our method of propagating, one year from bud on three-year roots.

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

Koonce Originated in Southern Illinois; has been largely planted; the most successful early market pear in that section. A strong, upright grower; hardy, magnificent foliage; has produced crops when all other varieties were killed by frost. Fruit medium, yellow, with carmine cheek; juicy, spicy, sweet and delicious quality; ripens with the earliest; an excellent shipper; comes into bearing young. July and August.

Lawson—Tree healthy, a strong grower, early bearer and profitable sort; of splendid quality for a very early pear; it colors beautifully. Red cheek with yellow shading.

Le Conte—Tree very vigorous and productive, partaking of the nature of the Chinese Sand Pear, of which it is a seedling. Fruit large, skin smooth, pale yellow. Quality fair. Ripens about with Bartlett.

Madeline—Medium; yellowish-green; very juicy, melting, sweet; a fair grower and productive. August.

Souvenir du Congress—Recently imported from France, and of great promise. Fruit large and exceedingly handsome; beautiful yellow, with bright red in the sun; melting and juicy, with a musky flavor; rather tender. September.

Wilder—Handsome, melting, sweet, pleasant and of the best quality for an early pear; one of the best keeping early pears.

AUTUMN.

Bessemianka—From Russia. Fruit of fair quality. Tree is extremely hardy; valuable for the North, where other varieties cannot be grown. It has proven as hardy as a Birch. Strong, vigorous grower.

Beurre Clairgeau—Very large, pyriform; yellow and red; nearly melting, high flavored. Tree a very good grower, and early and abundant bearer; a magnificent market fruit. One of the finest acquisitions. October and November.

Beurre d'Anjou—A large, fine pear, buttery and melting, with sprightly, vinous flavor. Tree a fine grower and good bearer. One of the very best. October to January.

Beurre Bosc—A large, fine pear, with long neck, cinnamon-russet, handsome, half melting; juicy, slightly perfumed and delicious; tree fine grower and productive; one of the most valuable of our autumn pears. September.

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

Demsey—Originated in Northern Canada, where it has proven hardy. Fruit medium size and of excellent quality.

Doyenne du Comice—Large; yellow, with a crimson and fawn cheek, and russet dots; melting, rich, perfumed and luscious; tree vigorous and productive. A pear of much promise. October and November.

Doyenne White—(Fall Butter)—Medium; pale yellow, with a faint blush; fine flavor. October to November.

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

Fall Butter—(See Doyenne White).

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

Garber—Originated in Pennsylvania; is large and beautiful, bright yellow with red; juicy and good; *delicious* canned. Ready to pick with Le Conte, or a few days later, and *much better*, not only in fruit, but in *hardiness* and *health* of trees; *so far has never been blighted*.

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

Idaho—Size large, nearly globular, obtusely ribbed; color light, rich yellow surface, covered with many small dots; cavity very deep and narrow, and strongly furrowed; stem small and calyx closed; flesh white, fine grained, buttery, melting and rich. September, October.

Kieffer's Hybrid — Tree a remarkable grower, with so vigorous a constitution that it rarely, if ever, blights. Fruit of fine size, rich color and good quality. Brings high price in competition with other varieties. Best when picked at maturity and house-ripened. October and November.

Louise Bonne de Jersey—Rather large, greenish-yellow, with a bright red cheek; juicy, buttery and melting; excellent; very productive; a fine grower on both pear and quince. September and October.

Rossney—A new and excellent pear, raised from seed at Salt Lake City, Utah. In size, medium to large; very fine grain; flesh melting and juicy; very sweet. Ripens two weeks after Bartlett. Is an excellent keeper and shipper. The tree is much stronger than Kieffer. Luther Burbank says, under date of October 5, 1895: "The samples of Rossney Pear arrived in due season. The large size, handsome form and creamy yellow skin with crimson blush, gives the fruit a tempting appearance, and the tender, creamy flesh of just the right texture, with no hard spots and an unusually small core, with its superior flavor, makes it about the best pear so far seen. If the tree is vigorous, healthy and productive,

would prefer it to any other, even the standards, Bartlett or Seckel." September.

Seckel—Small, rich, yellowish-brown; one of the best and highest flavored pears known; productive. September and October.

Tonkoviethka — Russian origin. Tree a good grower and very hardy. Fruit medium size, fair quality, like Bessimianka. Would advise planting in a northern country where other varieties fail.

Vermont Beauty—Tree hardy and vigorous, early and abundant bearer. Fruit medium yellow with red cheek; rich, juicy, best quality. October.

Worden-Seckel—A seedling of the Seckel which, for many years, has been conceded to be the standard of excellence. Equal in quality to its famous parent, which it much resembles in flavor; is equally as luscious, more juicy, and with an aroma equally as rich and inviting, while in size, color, form and appearance, it is decidedly superior. In color, when well ripened, it closely resembles Clapp's Favorite, with a skin that is usually as smooth and waxy as if it had been varnished. Tree a more upright and rapid grower than Seckel; hardy and enormous bearer; fruit keeps well, retaining its quality to the last.

WINTER.

Beurre Easter — Large; pale yellow, sprinkled with round dots, often dull, red cheek; quality good. One of the best winter pears. Keeps all winter.

Kennedy—Originated by General John Bidwell, on Rancho Chico, Butte County, California. Superior to Bartlett or Winter Nellis. Would be classed as a winter variety in Northern sections; hardy, vigorous growing tree; bears well. Undoubtedly the most valuable new pear originated in California.

Lincoln Coreless—Large; green until thoroughly ripe, when it becomes a beautiful yellowish-green; flesh rich yellow, juicy, melting, and of a very delicate aromatic flavor; no seeds or core. February and March.

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

Pound Pear—A monstrous, very showy fruit, often weighing three pounds; yellow, red cheek. Tree very vigorous and productive.

P. Barry—This pear was originated by the late B. S. Fox, of San Jose, and is acknowledged by our best judges to possess qualities unequaled by any of our long-keeping pears. It is large, deep yellow, nearly covered with a rich golden russet; flesh whitish, firm, juicy, melting, sweet, slightly vinous and rich; an early and prolific bearer. December and January.

Pratt's Seedling—Originated in Salem, Oregon, with Captain Pratt. A pear with all the good qualities of the Bartlett, but will keep until March. In shape and color like the Sheldon, but larger. The tree is a fine grower, with a more spreading top than the Bartlett. Has been shown at our Fruit Convention and is endorsed by all our fruit growers; a fine acquisition to our list of winter varieties.

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

Winter Bartlett—This fine pear originated at Eugene, Oregon. The tree stands in a doorway in that city, bearing fine fruit, and has, with possibly two or three exceptions, borne a good crop for over 20 years. Tree very vigorous, a foot in diameter and 40 feet high. Has had no pruning or care, yet it is as symmetrical and pretty shaped tree as one ever sees. Fruit large, closely resembling the Bartlett in shape and appearance; perfectly smooth, flesh tender, juicy and melting; flavor similar to the Winter Nellis, but season a little later, and as good as can be desired. *In every way a grand pear.*

Winter Nellis—Medium in size, yellowish-green and russet; fine grained, melting, rich and delicious; one of the best winter pears. Tree straggly, slender grower, but very productive. December.

BING CHERRY.

**CHERRIES—Hearts and Bigarreus—*Cerasus avium*—Dukes
and Morellos—*cerasus vulgaris*.**

There are few more desirable trees than the Cherry, and they are being planted in larger numbers every year, as they can be grown for the market with great profit. It may be planted along the street or avenue as an ornamental, especially the Heart and Biggareau varieties, which are strong, vigorous growers, with large, glossy leaves and open, spreading heads, making a fine shade, and at the same time producing an abundance of the most delicious fruit. Cherries thrive in almost any dry or well-drained soil. The fruit is equally delicious whether eaten from the tree or preserved, and it will always find a ready market at profitable prices for shipping, canning, etc.

The Hearts and Bigarreus will successfully resist cold weather so as to be grown in most sections, excepting the extreme North, while the Dukes and Morellos, or acid sorts, are perfectly hardy and are starred (*) in this Catalogue.

ONE-YEAR-OLD SWEET CHERRY TREES
ON THREE-YEAR-OLD ROOTS.

Allen—Has been fruiting for several years. Tree a healthy grower, immensely productive. Fruit of excellent quality; large size, nearly heart-shape, shiny and smooth; color when ripe, nearly black, very meaty and firm; so far free from all rot and disease; ripens late. Good enough for any home use and we believe will prove one of the most profitable market varieties in all sections where the sweet cherries succeed.

***Baldwin Cherry**—This cherry is a seedling of the English Morello, and it was originally planted for an Early Richmond, which had been budded on a seedling of the English Morello. The budded part was accidentally broken off and a sprout came from the root, which was so vigorous that it was allowed to grow. The tree is an upright grower, more inclined to be round than otherwise. A very rank, vigorous grower; leaves rather broad; bloom pure white, which turns to pink color, similar to the Hydrangea; fruit very large, almost perfectly round, very dark, yet almost transparent; flavor slightly sub-acid, yet the sweetest and richest of the Morello type; stems rather large, of medium length, more inclined to grow in pairs than in clusters. It is remarkable for earliness, vigor, hardiness, quality and productiveness. It is a tree to command attention, and is so distinct as to

attract comments from many upon seeing it, without knowing its superior merit.

Bing—This grand new Black Cherry was originated by Seth Luelling, of Milwaukee, Oregon. size very large; blackish-purplish. Flesh very solid, flavor of the highest quality. Tree thrifty, upright grower, very hardy and productive. A fine shipping and market variety.

Black Republican—(Luelling)—A native of Oregon. Fruit very large, shining black; flesh very solid and firm; fine; a good keeper and will bear transportation well. Tree a moderate grower and rather tender; an early and profuse bearer.

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

Centennial—A new cherry; a seedling of Napoleon Bigarreau, raised by Mr. Henry Chapman, in Napa Valley, Cal. It is larger than its parent, more oblate in form, and beautifully marbled and splashed with crimson on a pale yellow ground. Its sweetness is very marked. Its keeping qualities, after being taken from the tree, will undoubtedly render it the best cherry for shipment, specimens having been carried to the Eastern States and Europe without apparent injury.

Chapman—This grand new cherry originated in Napa Valley, California, where it ripens about April 10th, is the earliest of all shipping varieties, bears early and immense crops of fine luscious fruit which grows somewhat more in clusters than Black Tartarian; size, very large; form, roundish; stem, long and slender; surface, smooth; color, purplish black; flesh, half tender; stone, small; flavor of the highest quality. On account of its great beauty, quality and earliness it is a very profitable market variety. Said to be a seedling of the Black Tartarian.

***Dyehouse**—Partakes of both the Duke and Morello in wood and fruit, a very early and sure bearer; ripens a week before Early Richmond, of better quality and quite as productive.

Deacon—This new cherry is supposed to have originated at Sacramento, Cal. Color black; flesh firmer than Luelling (Black Republican), and much larger. Ripens with Black Tartarian; flavor of the highest quality. It has been shipped from Sacramento to New York, arriving in prime condition.

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

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

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

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

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

Hoskin—Originated by C. E. Hoskin, Newberg, Oregon. Very large; color black, flavor similar to Black Tartarian. A very promising variety.

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

Kentish—(See Early Richmond).

Lambert—In size the largest known; smooth, glossy skin; color dark purplish-red, with numerous minute, indented, russet dots; flesh dark purplish-red, with whitish veins, firm meaty texture, small oval stone, semi-cling; flavor sweet, or very mild sub-acid, rich, and of highest quality; form roundish, heart shaped, long slender stem. The finest shipping variety. Originated near Portland, Oregon, about 1887, and named after the originator. Tree thrifty, hardy and vigorous grower, and forms a beautiful head. Donated by Mr. Lambert to Oregon State Horticultural Society and the sole right to propagate it purchased from them by the Oregon Nursery Company, from whom we have secured a right to grow and distribute. All trees will have the *Lambert Cherry Label*, bearing the name of the Society on one side and name of the cherry on the other, attached as a guarantee of genuineness.

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

Luelling—(See Black Republican).

Lutovka—A Russian sort of the Morello type. Fruit firm, good quality, sprightly, acid, as large as English Morello; similar to that variety in color; clings tenaciously to the long stem. August.

Major Francis—(See Ox-Heart).

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

***Montmorency Large**—A large, red cherry; larger than Early Richmond, and fully ten days later.

***Montmorency Ordinaire**—A beautiful, large, red, acid cherry; larger and finer than Early Richmond, and fully ten days later, ripening with Tradescant's. Being extraordinary prolific and very hardy, it can be recommended as a variety of great value. Valuable for canning and preserving. Tree a *free* grower.

Napoleon Bigarreau—(Royal Ann)—A magnificent cherry of the largest size; pale yellow with bright red cheek; flesh very firm, juicy and sweet; one of the best for market and canning. Late.

***Olivet**—A new Duke of French origin. Unlike most others of this class, it is said to be very early and to ripen over a long period. Fruit very large, globular and of a deep shining red; tender, rich and vinous, with a sweet, sub-acidulous flavor.

***Ostheim**—A hardy cherry from Russia. It has been tested in the severest winters of Minnesota and has been found perfectly hardy. Fruit large, roundish, ovate; skin red, dark at maturity; stalk long; flesh liver colored, tender, juicy, almost sweet.

Ox-Heart—(Major Francis)—Fruit, large, obtuse, heart-shaped. Skin dark red; half tender, with a pleasant juice, of second quality in point of flavor. Last of June.

Royal Ann—(See Napoleon Bigarreau).

***Vladimir**—A Russian variety, very hardy; strong grower, wonderfully prolific. Fruit about size of Early Richmond; mild, sub-acid, juicy; excellent quality. July.

Windsor—New Seedling, originated at Windsor, Canada. Fruit large, liver-colored, resembling the Elkhorn or Tradescant's Black Heart; nevertheless quite distinct; ripens three or four days after that variety; flesh *remarkably firm* and of fine quality. Tree hardy and very prolific. A *valuable late variety* for market and for family use.

***Wragg**—Much like English Morello; more productive and excels in size, in *yield* and *quality*.

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

PLUMS—Prunus.

The plum has not, in recent years, been planted as extensively as it deserves, and the lack of planting has doubtless been partly due to difficulty in marketing, but with the demand for good fruit in the Eastern markets almost unlimited, and the excellent shipping qualities of the **Maynard** and others; the establishment of canneries in most important fruit sections; they are again being planted in large quantities as it is known that a little care and attention at the proper time will insure a crop.

The plum tree, like the pear and other finer fruits, attains its greatest perfection in our heavy soil, being entirely free from disease. Plums are hardy and grow vigorously in nearly all sections, succeeding best on heavy soils in which there is a mixture of clay.

ONE-YEAR-OLD PRUNE TREES.

These show the remarkable growth of one-year buds on three-year-old roots.

Most of the cultivated varieties of plums are European, or descendants of European varieties. But in recent years certain extraordinarily good varieties of native plums have been widely disseminated, and recently we have received some extremely valuable varieties from Japan. Crosses from all these will from time to time bring out new and much improved varieties, especially securing the best quality of the European plums, united with the hardiness, desirable season, or good shipping qualities of the others.

The finer kinds of plums are beautiful dessert fruits, of rich and luscious flavor. For cooking and canning they are unsurpassed. For best flavor they should be allowed to remain on the tree until fully ripe; but for shipping to market, they must be gathered a very few days earlier, when they may be shipped long distances, arriving in good condition. Overbearing should not be allowed.

Some varieties, especially of the native plums, are extremely hardy and will stand the climate of the extreme Northwest.

JAPANESE, or ORIENTAL PLUMS.

These plums have awakened more interest during the past few years than any other recent type of fruit. This race is as distinct from our native varieties as the Yellow Newtown is from the Baldwin apple. Many of these varieties are succeeding well in the Northern and Western states, in many places where the European varieties cannot be depended upon; some are hardy as far north as where the Wild Goose succeeds, and for the Southern States they open a new field in plum growing. They unite size, beauty and productiveness, and come into bearing at the age of two to four years. Flesh firm and meaty, will keep for a long time in excellent condition. Their early blossoming habit renders them unsafe in some sections and they will never entirely take the place of our older varieties, but possess many valuable characteristics. Should be well tested in all sections. Like most Japanese types of trees the names of the imported varieties are much confused, but we follow the names adopted by the leading nurserymen of this country.

These plums, together with the hybrids and crosses produced by Luther Burbank (which are starred (*) in this catalogue) are among the most valuable additions in the way of new fruits that have been introduced in the past ten or fifteen years. We would call your special attention to the *Maynard*, the greatest Plum that has ever been introduced.

"Altogether the Japanese Plums constitute the most important type of fruit introduced into North America during the last quarter of a century, and they should receive careful tests in all parts of the country." Prof. Bailey, Cornell University, Ithaca, N. Y.

We group plums under the following divisions :

A.—American type—very hardy—Chickasaw types.

D.—Domestica—European types.

J.—Japanese type.

J* (starred) Japanese Hybrids, and crosses of the Japan plums introduced by Luther Burbank.

Abundance, (J)—(Botan)—One of the best Japan plums. The tree is a very rapid grower, healthy in limb and foliage, comes into bearing remarkably young, and yields abundantly. The fruit is full medium size, color a rich, bright-cherry-red, with a distinct bloom, and highly perfumed; flesh light yellow, very juicy and tender, and of excellent quality. Vigorous. Hardy.—Mr. Geo. W. Thissell, of Winters, Cal., says of this fruit: "I have fruited it three years; have found it very prolific, fruit large to very large; exceedingly sweet; pit very small; ripens at Winters June 10th. I consider this one of my best shipping plums."

America, (J*)—Originated by Luther Burbank. Fruit large to very large; skin glossy coral red; flesh yellow, moderately firm and delicious; said to be one of the most highly flavored plums.

Apple, (J*)—Another of Burbank's novelties; named from its close resemblance, form, color and rare keeping qualities; flesh firm, pale red with marblings and streaks of pink. A valuable acquisition to the list of Japanese plums; ripens after Burbank.

Apricot Plum—(See *Prunus Simoni*).

Bartlett, (J*)—One of the best of Burbank's recent introductions. Said to be wonderfully productive; a very ornamental tree with glossy green leaves, resembling very closely the famous Bartlett in habit of growth, flavor and fragrance. Fruit oval, yellow, turning to deep crimson when fully ripe; flesh light salmon colored, firm and juicy; ripens before Burbank.

Blood Plum—(See Satsuma).

Bradshaw, (D)—Fruit very large, dark, violet-red; flesh yellowish-green, juicy and pleasant. Tree vigorous, erect and productive. Middle of Aug.

Burbank, (J)—Tree a very vigorous grower, early and very heavy bearer; fruit very large; yellowish-ground, with red cheek in the sun; flesh yellow, firm and very sweet when fully ripe; extremely small pit, which clings. Middle of June.

Chalco, (J*)—A cross between Simoni and Burbank; resembles the former variety very closely, but said by the originator, Luther Burbank, to be by far superior to it. A tremendous grower and very prolific. A superior shipping plum, as it ripens and keeps well when picked green. Must eventually supplant the Simoni, thriving and bearing where that variety is a failure.

Charles Downing, (A)—Vigorous healthy tree; fruit large, round, red, handsome and excellent. One of the best of the Wild Goose type.

Climax, (J*)—This is well named the "King of Plums," its extreme earliness, immense size, high color, delicious flavor and fragrance places it in the lead among early shipping plums. Fruit heart shaped, color deep, dark red; flesh yellow. Tree vigorous and remarkably productive.

Clyman, (D)—A beautiful plum originated in the Napa Valley, Cal.; it is a good bearer; fruit medium to large; mottled reddish purple with beautiful blue; freestone; quality of flesh superior; valuable on account of its earliness and its excellent shipping qualities.

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

Columbia, (D)—Fruit of the largest size; six or seven inches in circumference, nearly globular. Skin brownish purple; dotted with numerous fawn-colored specks. Flesh orange, not very juicy, but when at full maturity very rich, sugary and excellent. Last of August.

Combination, (J*)—New Plum, early, regular and abundant bearer of large, nearly globular fruit of uniform size. Flesh straw color, extremely sweet, with a very pronounced pine apple flavor. Stone small and nearly free when fully ripe. Luther Burbank, the originator, says: "An extremely handsome, large, early, light crimson plum of the very best quality, ripening at Santa Rosa July 12th, before most of the earliest plums and about as early as the Climax. The trees, both old and young, are about the best and most symmetrical growers among the plums, making an early, rapid growth, ripening the wood perfectly hard to the tips early in the season, indicating unusual hardiness. The bark, leaves and fruit are all unique. Bark, dark russet bronze. The unusually large, broad, glossy coriaceous leaves are bronze crimson in the spring and

fall. "Combination" trees resemble no other trees in cultivation and are certain to please everyone.

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

De Soto, (A)—Medium size; resembles Miner in form and color, but is two weeks earlier; fine for eating or canning; a moderate grower; bears young and profusely; hardy and very desirable.

First, (J*)—New Plum, fruit of good medium size, pale amber, faint blush on sunny side, half transparent. Flesh, same color, moderately firm, sweet, juicy and good, especially so when just at the right stage of ripeness. Tree of medium growth never fails to produce all it can hold. Luther Burbank, the originator, says, "In introducing this new plum, I confidently make the statement that it is the *earliest of all plums*; ripening at Santa Rosa June 15th, fully three weeks earlier than the Red June; and also that it is the largest, handsomest and most productive of all very early plums. It should prove very hardy, and for home use and near markets will be the most useful of all very early plums. It is too soft and ripens too suddenly for shipping to distant markets, but its extreme earliness, large size and good quality make a combination of very unusual value."

Forest Rose, (A)—A native of Pike County, Mo., fruit round, larger than Wild Goose; skin rather thick and of a beautiful dark red color, covered with a delicate bloom; stone small; excellent quality.

Green Gage, (D)—Small; considered the standard of excellence; slow grower. Middle of Aug.

Gueii, (D)—Extensively grown for market. Tree a hardy, very strong, vigorous, upright, grower, an early and very abundant bearer. Fruit large, roundish oval; skin dark purple covered with a thick, blue bloom; flesh pale yellow, a little coarse, rather firm, juicy, sweet, sprightly sub-acid; freestone. Season last of August and first of September.

Hale, (J*)—Fruit medium to large, yellow mottled and speckled red; flesh soft and juicy, yellow, cling, of good quality. Tree a moderately spreading vigorous grower. Follows Burbank in ripening. Last of August.

Hart, (A)—Tree originated in Sioux county, Iowa, and was widely distributed by the horticultural department of the Iowa Agricultural College. It belongs to the DeSoto type, but will stand drought much better. From its close resemblance to the DeSoto, it is sometimes called Hart's DeSoto.

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

Kelsey, (J)—Japanese; very large; rich, reddish-purple on yellow ground; tree a prolific and early bearer; very largely planted for shipping East; the largest of all plums.

Lombard, (D)—(Blecker's Scarlet)—Medium, round, oval; violet-red; juicy, pleasant and good; adheres to the stone. Tree vigorous and productive. A valuable market variety; one of the most hardy and popular; last of Aug.

❧ ❧ The Grand Plum—Maynard, (J.★)

We introduce the **Maynard** with every confidence that it will prove the peer of any plum that has heretofore been propagated, and do so with every assurance that it will prove a great acquisition to the home garden and orchard and will be a most profitable plum for the commercial orchardist, combining, as it does, large size, excellent flavor and color, with shipping qualities not found in any other plum. When we consider that samples of the **Maynard** were shipped through the mails during the warmest months of summer from Santa Rosa, California, across the mountains and plains to Vermont, and were returned to Mr. Burbank at Santa Rosa in perfect condition, it becomes evident that the **Maynard** combines the great carrying qualities necessary for long distance shipments, which is the essential consideration in a shipping plum, and one which is often lacking in varieties possessing flavor and other good qualities.

The horticultural public have been for many years looking for a plum that would give them not only the fine quality that would remind their city customers of the fruit eaten in youthful days, but would also admit of being carried to distant markets in perfect condition. Mr. Burbank himself, the greatest originator of plums in the world, has striven for many years to accomplish this end, and in the many splendid plums he has previously introduced, has often almost reached this point of perfection.

In the **Maynard** he has given to the horticultural world his latest and greatest effort in the plum line and we believe he has reached the point of perfection. The **Maynard** begins to ripen about July 1st, at Santa Rosa, California, following closely after that other magnificent introduction of Burbank—**Climax**, and just at a season of the year when plums are in best demand in the great markets; but instead of coming and going swiftly as in the regrettable habit of plums, the season of ripening for the **Maynard** extends all through July and far into August.

In size it is very large, often measuring seven and one-half inches or more in circumferences form nearly round, slightly flattened at the ends; of richest crimson-purple, deepening to roya; damask as full ripeness is reached. A more beautiful fruit were hard to imagine. The flesh is firm even when dead ripe, but melting and juicy, with a deliciousness indescribable. Beside this combination of beauties to delight the eye and palate, the ripe fruits have a charming fragrance unusual to plums. Few fruits could please so many of the senses as the new beauty, now added to Mr. Burbank's list of triumphs.

In vigor of tree and habit of growth it far surpasses any other plum. In its evolution Mr. Burbank has preserved to a remarkable degree every desirable trait, carefully suppressing the thorny, slender, sprangling tree-habit of plums, and we have it sturdy, strong, and a very rapid grower, spreading just as large as it ought to and no more. It fruits heavily every year, not overbearing, but yielding a full, vigorous, satisfactory crop. Add to these admirable points, the fact of its heavy, luxuriant foliage and its habit of bearing its burden of fruit on the inside of the tree, where is the greatest strength, and we have little else to ask for in a plum.

When we consider the many thousands of fruits that Mr. Burbank originates and the few that he introduces, we have a better appreciation of the great care he exercises in sending out a new variety. He has made it a rule never to offer to the public any of his specialties until he has thoroughly tested them himself, from every standpoint, and feels satisfied that they are an improvement over varieties previously introduced and although Mr. Burbank received such flattering comments on the **Maynard** in July, 1900, as these words from Prof. Maynard, the eminent horticulturist, in whose honor the plum was named, "**I consider this the best plum, all things considered, that I have seen on your place to-day.**" Mr. Burbank went on and fruited it for two more years before offering it for sale, making five years in all that Mr. Burbank has fruited the **Maynard** in his famous experimental and testing grounds, always watching for some weak point that might develop in this new fruit; It was not until he had thoroughly satisfied himself that the **Maynard** possessed unusual points of beauty, flavor, and shipping qualities of the fruit, together with a vigorous, hardy and healthy growth of tree, that he consented to introduce it.

In the **Maynard Plum** we have a tree that is perfection itself—a strong, vigorous constitution, dense, compact head, with large, apricot-like leaves, thickly distributed over the entire tree, forming a protection for the young fruit from winds and rains in the early spring, and a shelter from the intense heat of the sun later in the season. The branches are strong and sturdy, well able to bear up the heavy load of fruit which the **Maynard** always brings forth.

Those desiring a fuller description write for **Special Maynard Plum 20 Page Catalogue.**

Each tree protected by "Trade-Mark." None genuine without "**Maynard Plum Label**" attached.

Two-year-old Trees of MAYNARD PLUM—A basket of ripe Fruit and
Luther Burbank. the originator, in the background.

- Milton, (A)**—Rather large, dark red, skin thin, flesh firm, good quality. Ripens earlier than Wild Goose. Its large size, good quality and extreme earliness makes it very valuable. A strong grower, productive.
- Miner, (A)**—An improved variety of the Chickasaw; originated at Lancaster, Pa. Medium size, oblong, pointed apex; skin dark purplish red, slightly mottled, with fine bloom; flesh soft, juicy, vinous; adheres to the stone. Excellent for canning and cooking, and esteemed for market in the West. Tree hardy, vigorous and productive. Early in October.
- Moore's Arctic, (D)**—Size medium, purplish-black, with a thin blue bloom; flesh greenish-yellow, juicy, sweet, and of pleasant flavor. Charles Downing speaks of it as follows: "A new hardy plum, which originated in the highlands of Aristook County, Maine, where, unprotected and exposed to cold, it has for many years borne enormous crops, and is claimed to be the hardest plum grown, and so far free from black-knot." Tree healthy, vigorous; an early and abundant bearer.
- October Purple, (J*)**—Propagated by Luther Burbank, of California. Fruit large and uniform in size; color a dark, rich maroon; stone small, flavor fine. Tree a fine grower. This variety is pronounced by Mr. Burbank one of the best varieties he has produced. Ripens middle of September. Should be in every collection.
- Peach, (D)**—Very large and handsome; dull red; good, very productive. Last of August.
- Pond's Seedling**—(See Hungarian Prune).
- Pottawattamie, (A)**—A cross of Chickasaw and Sweedish Sloe. Quality excellent; an immense annual bearer; *curculio proof*; tree perfectly hardy, a strong, vigorous grower; one of the most profitable trees for the fruit grower. Four-year-old trees have borne a crop of two bushels to the tree.
- Prunus Simoni, (J)**—(Apricot Plum)—A distinct species from China. Growth erect; flowers small, white, appearing early in the spring; fruit large, flattened, of the size and appearance of a Nectarine, and of a brick-red color; flesh yellow, with a peculiar aromatic flavor.
- Red June, (J)**—The best Japan, ripening before Abundance. Medium to large, deep vermilion red, with handsome bloom; flesh light lemon yellow, firm; moderately juicy; pleasant quality; tree upright, spreading, vigorous and hardy; productive; ripens between Willard and Abundance. Highly recommended by Prof. Bailey of Cornell University. Last July or early August.
- Reine Claude de Bavay, (D)**—(Bavay's Green Gage) Large; greenish-yellow, spotted with red; firm, juicy, sugary, and of fine quality; very productive. September.
- Satsuma, (J*)**—(Blood Plum)—Native of Japan. The tree looks much like the Wild Goose, and is likely to prove more hardy than Kelsey. The fruit has a pleasant flavor, and unlike all others, has red flesh, with a remarkably small stone.
- Shipper's Pride, (D)**—Large; nearly round; dark purple; quite juicy, sweet; splendid shipper and marketer; growth moderate; productive. Originated in Northwestern New York.
- Shiro, (J*)**—Originated by Luther Burbank. Fruit egg-shaped; medium size, smooth, bright yellow, thin bloom; flesh clings to the pit. Said to be more productive than the Burbank.
- Sultan, (J*)**—Said by the originator, Luther Burbank, to be one of the most attractive plums; its huge size, deep purplish-crimson color, render it a valuable market variety. The flesh is very firm, fragrant, sweet, dark crimson, clouded and shaded with pink, salmon and light yellow; tree is a very rapid grower, with wood and leaves very much like a Royal Ann Cherry.
- Tatge, (D)**—Another new plum of the Domestica type that bids fair to rival all others in this class. It is of the Lombard family. Originated in Iowa. A good grower. Comes early into bearing, and is immensely productive.
- Washington, (D)**—Large, green, somewhat reddened; juicy, sweet and fine; very productive. Last of August.
- Wickson, (J*)**—Originated by Mr. Burbank, who says: "Among the many thousand Japan plums I have fruited, so far, this one stands pre-eminent. A sturdy, upright grower, productive almost to a fault. Fruit remarkably handsome, deep maroon red, covered with white bloom; stone small; flesh fine texture, firm, sugary and delicious. Excellent keeper and shipper."
- Weaver, (A)**—This remarkable plum was found near Cedar Rapids, Iowa, growing in the old Indian camping ground. Flesh firm, with flavor resembling the Apricot. As a substitute for the peach it has no rival. *Curculio proof*.
- Willard, (J)**—Medium in size, spherical in general outline, but prominently cornered or angled, and never pointed; the sinus very light, but stem cavity deep; color dark, clear red, with many minute yellow dots; flesh rather firm, yellow, sweet, and of fair quality; freestone. A strong, vinous and hardy tree, productive and one of the earliest market Japan plums yet tested in the North.
- Wild Goose, (A)**—An improved variety of the Chickasaw, evident in the great vigor of the tree and increased size of the fruit, which is nearly as large as the Green Gage. Skin purple, with a bloom; flesh juicy, sweet and adheres to the stone. Last of July.
- Yellow Egg, (D)**—(Magnum Bonum, Yellow)—A very large and beautiful egg-shaped yellow plum; a little coarse, but excellent for cooking. Tree a *free* grower and very productive. End of August.

PRUNES—Prunus.

The plum of history is the *Prunus domestica*. It also gives us the prunes which are characterized by sweet, firm flesh, and capable of making a commercial dried product. They may be of any color, although blue purple ones are best known. Any plum which can be successfully cured, without removing the pit, into a firm, long keeping product, may be used for making prunes, the chief requisite being a large proportion of solids, more especially sugar.

We follow the distinction made between plums and prunes, as is common in the horticultural literature of the Pacific Coast. By the term "prune," is signified a plum, which dries successfully without the removal of the pit and produces a sweet, dried fruit, though in the confusion of our nomenclature, not even this broad classification is faithfully followed. For example. We have the "Hungarian Prune" as a local traditional name for "Pond's Seedling Plum," which has no value as a prune, and we have also "Coe's Golden Drop Plum," which does answer the requirements for a dried prune, and is sometimes given fancy names by packers.

We do not, however, in this Catalogue, attempt to correct the classification, but follow the popular arrangement. To such proportions has the prune industry grown in the past dozen years, that it may now be classed as one of the most important productions of the Pacific Coast. The exportations annually to the Eastern markets reaching hundreds of millions of pounds of the finest prunes in the world.

Dosch, (D)—Introduced by Hon. H. E. Dosch, after whom it is named. Originated near Portland, Oregon, about ten years ago. Color purple, very large. Flesh juicy, delicious; sweeter than the Italian, but not so sweet as the Petites. Flavor excellent and for canning has no equal. Dries very heavy. Tree hardy, thrifty grower, ten days to two weeks earlier than the Italian. Received a gold medal at Omaha Exposition in 1898, both in green and dried states.

Fellenberg—(See Italian Prune).

French—(See Petite).

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

Giant Prune, (D)—(California)—One of the largest prunes known, the fruit averaging 1½ to 2 ounces each. Its unequaled size, handsome appearance, rare keeping qualities and great productiveness make it desirable for home use or market. September.

Golden, (D)—A seedling of Italian prune; originated in Oregon; light golden color, good flavor, and heavy drier, strong grower and abundant bearer; very freestone. September.

Hungarian Prune, (D)—(Grosse Prune or Pond's Seedling Plum)—Very large; dark red; juicy and sweet. Its large size, bright color, productiveness and shipping qualities render it a profitable variety for home or distant markets. September.

Imperial, (D)—(Epineuse)—Large size, light or reddish purple color. Thin skin, sweet and high flavor. Tree stout, stocky, rapid grower.

Italian, (D)—(Fellenberg)—A fine late prune; oval, purple; flesh juicy and delicious; parts from the stone; fine for drying. Tree very productive. September.

Petite d'Agen, (D)—(French Prune)—The well-known variety so extensively planted for drying; medium size; reddish purple; juicy, sugary, rich and sweet; bears immense crops. September.

Pacific, (D)—Originated at Mt. Tabor, Oregon. Tree hardy; borne abundantly since three years old. Fruit freestone, very large and handsome. Flavor the finest; rich, sugary and luscious. A good shipper. The best of drying prunes.

Robe de Sargent, (D)—A variety lately introduced from France. It is this which in a dried state forms the celebrated "*Pruneau d'Agen*"; fruit medium size, oval; skin deep purple, approaching to black, and covered with a thick blue bloom; flesh greenish-yellow, sweet, and well flavored, sugary, rich and delicious, slightly adhering to the stone; a valuable drying and preserving variety. September.

Silver, (D)—Originated in Oregon and said to be a seedling from Coe's Golden Drop, which it very much resembles; is much more productive and tree more vigorous. The fruit, on account of its large size, is ranked among the most valuable prunes and drying plums. October.

Splendor, (D)—Large; very long in shape, clear even purple; turns quite black in curing. Cooked, has a slight acid flavor.

A New Prune—Sugar.

Originated by Luther Burbank. Ripens twenty-eight days earlier than French (Petite d'Agen). Almost one-fourth sugar; analysis shows it to be 23.92 per cent. sugar! Three times larger than French of which variety it is a seedling. On account of its earliness, large size and high per cent of sugar it is sure to revolutionize the prune industry of the world. Tree vigorous, hardy and very productive; bears young. Color purple. Good shipper. Ripens in August.

ITALIAN OR FELLENBERG PRUNE.

Luther Burbank says:

It is with intense satisfaction that we can at last introduce a new prune which bids fair to add millions to the wealth of the State and Nation, and which will be hailed with delight by growers, dealers and consumers throughout the world.

For many years we have labored to produce a large, early, productive, handsome, easily cured, richly flavored prune, with a high percentage of sugar; the prize appeared several years ago, and we have now tested it in every way sufficient to warrant its introduction and we are upheld in our estimate of its great value by all fruit growers who have seen it.

The tree is very far superior to the French prune tree in every respect, better grower, better bearer, better foliage, better form, requires less careful pruning, will carry and mature a much larger crop of fruit. The fruit is unusually even in size and very large, averaging thirteen to fifteen to the pound fresh; at least three or four times as large as the French prune grown here.

Following is an accurate description taken from the report of B. M. Lelong, Secretary of the California State Board of Horticulture:

Sugar Prune—An extremely early prune, ripens August first; cures superbly rich, with a yellow flesh, tender and rich in sugar juice. Skin very tender, at first of a light purple, tinted with green, changing at maturity to dark purple, covered with a thick white bloom.

Form ovoid; slightly flattened, measuring five by six and a half inches in circumference. Average size fifteen to the pound, which is two or three times larger than the French prune.

Fruit stalk short, severs very easily from the stem as the fruit reaches maturity. Pit medium size, flattened, slightly wrinkled and most often separated from the flesh. The skin is so thin or porous that the fruit begins to shrink on the tree fully as soon as ripe.

Tree an unusually vigorous grower and very productive. One pound green fruit makes $7\frac{1}{2}$ ounces when dry. By the usual mode of curing one pound green would probably make one-half pound when cured.

Analysis of the fresh fruit at the [State University disclosed the fact that it is nearly one-fourth sugar, the exact amount being 23.92 per cent.; the average of sugar of the French prune being 18.53 per cent. and of all prunes 15.33. A seedling of Petite and bids fair to revolutionize the prune industry of the world. Originated by Luther Burbank, of Santa Rosa.

The above description of the Sugar Prune was taken from Mr. Burbank's 1889 Catalogue, and the following is taken from his 1900 Catalogue:

Sugar Prune has proved more than all that has ever been claimed for it. It ripens twenty-eight days before the French prune and though nearly four times as large, it dries in half the time. The trees have never failed to produce a full crop; even when side by side the French prune has year after year been a partial or complete failure.

Spring frosts do not affect it. The trees are better growers and require less careful pruning; the branches are longer and stronger, the foliage is heavier and owing to more vigorous growth, thrives on much poorer soil and the trees commence bearing two years earlier than the common prune. The prunes, when cured, are unequalled in their combination of size, beauty and quality.

Tennant, (D)—Originated in Whatcom County, Washington, where it has been tested for twenty years, and has never failed to produce a good crop of fruit. Large, dark, purple, with a blue bloom. Flavor of the highest quality; rich, sugary and delicious. Tree hardy and very productive. Bears transportation well. August.

Tragedy, (D)—This most valuable of all prunes for early eastern shipments appear to be a cross between the German prune and the Purple Duane; medium size, nearly as large as Duane, skin dark purple; flesh yellowish-green, very rich and sweet, freestone. Ripens in July.

PEACHES—*Prunus Persica Vulgaris*.

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

Freestone—(f.) Semi-cling—(s. c.) Clings—(c.)

Admiral Dewey—Skin deep orange-yellow, with crimson cheek. Flesh clear yellow, of uniform color and texture to the stone; juicy, melting, vinous; quality very good. Ripens with Triumph; has better form and brighter color on surface; equally hardy and productive; tree a strong and symmetrical grower. One of the best early freestone. (f.)

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

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

Australian Saucer—Medium flat, hollowed like a saucer on one side; hence the name. Skin white, shaded crimson in the sun; flesh white, sweet, delicious flavor; pit very small, almost round; an oddity for home consumption only. July. (f.)

Banner—(New)—Originated at Woodslee, Ontario. The original trees have borne 16 crops, several years bearing well when all other varieties in Ontario failed. Tree very hardy both in wood and bud, bears young and very productive, equaling the Prolific. Fruit large, deep yellow, with crimson cheek; flesh yellow to the pit; firm, rich and excellent quality; pit small, free; equal to any as a shipper or keeper. Prof. W. W. Hilborn, Director of the Experimental Station at Leamington, Ontario, has known it for many years, fruited it for several seasons in experimental orchard, and recommends it as the very best late market variety. Last of September and October. (f.)

Blood Leaf Peach—(See Deciduous Ornamentals.)

Bokhara—A Russian variety, which is claimed to be the hardiest peach grown; in fact, it has withstood a temperature of 28° below zero without injury. It is a beautiful yellow peach,

with bright red cheek; perfect freestone; delicious flavor; its exceedingly tough skin makes it a splendid shipper. (f.)

Brigg's Red May—Originated with J. B. Brigg's, of Marysville; fruit medium to large, skin greenish-white, with rich red cheek; flesh greenish-white, melting and juicy; a standard early variety and one of the most extensively planted in California. Middle of June. (f.)

California Cling—Very large, round, regular; orange, nearly covered with dark rich red; flesh deep yellow; flavor delicate, rich, vinous. Middle of August. (c.)

Carman—Large, resembling the Elberta in shape; creamy white or pale yellow, with deep blush; skin very tough; flesh tender and of fine flavor, juicy. Prolific bearer; profitable market variety. Ripe June 20th. (f.)

Champion—A particularly hardy seedling of Old Mixon, from the West, which is noted for the hardness of its blossoms, thus insuring a good yield in spite of heavy spring frosts. It is a very large, handsome peach, with a creamy white skin and beautiful red cheek. In flavor it is exquisite, and is a true freestone. Ripens the middle of July. (f.)

Chinese Cling—Large, globular; skin white, shaded with light red; flesh white, red at the stone; very juicy, melting and rich. July. (c.)

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

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

Crosby—An Iron-Clad Peach—The tree is of low, spreading, willowy habit of growth, similar to Hill's Chili, Wager, and others of that class of hardy peaches, however, it is even more dwarf than these, and often the entire product of a tree, two bushels, or even more, can be

Crosby—Continued.

picked by a man standing on the ground. The fruit is of medium size, roundish in form, slightly flattened, with a distinct seam on the blossom end; bright, orange yellow, splashed with streaks of carmine on the sunny side; of beautiful appearance, and not so acid as most yellow peaches of the Crawford class. It ripens between Early and Late Crawford or about with old Mixon; a good family peach at all times, and on account of its beautiful color, will command a ready sale alongside of the best standard sorts, in a season of abundance; however, when it is considered that **its fruit buds are so hardy as to withstand the frosts of winter and spring, that often kill all other good varieties**, its special value is apparent; **a fine yellow peach to supply the market when there is no others.** (f.)

Dewey—(See Admiral Dewey).

Early Charlotte—An improved seedling from Early Crawford, originated at Salem, Oregon, in 1878, by O. Dickenson, where it has attracted much attention among fruit growers. This remarkable peach succeeds in Oregon, where many other varieties fail. Flesh yellow, melting and juicy, with a rich and excellent flavor. Freestone. Ripens ten days after Crawford's Early. (f.)

Early Imperial—Originated by W. W. Smith, Vacaville. Fruit large, deep yellow, with dark red cheek; flesh rich, juicy and very firm. A very highly colored peach and remarkable for its firmness. Resembles Yellow St. John in form but earlier, larger and more highly colored. Ripens with Hale's Early, and its rich color and earliness combined, will make it one of the most profitable varieties for early shipment. (f.)

Elberta—Introduced from Georgia. A cross between Crawford's Early and Chinese Cling; very large; bright yellow, with a beautifully mottled red cheek; flesh yellow, juicy, sweet; tree a uniform and regular bearer and strong grower. Fruit very showy and a perfect freestone. One of the best market varieties, often selling at double the quotations of other peaches. Ripens last of July. (f.)

Everbearing—A remarkable peach, having the peculiarity of ripening its fruit successfully over a period of eight weeks. Creamy white, mottled and striped; flesh white, with red veins; juicy, rich and fine. (f.)

Fitzgerald—An improved Early Crawford, being fully equal to it in size, quality and color. The tree commences bearing young, is productive and one of the hardiest. Fruit large, brilliant color, bright yellow, suffused with red; flesh deep yellow, best quality. Early Sept. (f.)

Foster—Originated in Medford, Mass. Large, deep orange-red, becoming very dark red on the sunny side; flesh yellow, very rich and juicy, with sub-acid flavor, ripening earlier than the Early Crawford and superior in many points; flesh is firmer, without so much red at the stone, which is smaller; one of the very best for drying, market or canning. (f.)

Globe—Large; flesh firm, juicy, yellow; quality good, pleasant, rich, vinous and luscious. October (f.)

Golden Chance—An extra large peach. Yellow with full red cheek. Strong grower and great bearer. One of the best new peaches. Good for canning or drying. (f.)

Greensboro—Origin, North Carolina. Ripens with Alexander, but much larger. Round; flesh white, very juicy, of good quality; bright red over yellow, highly colored in the sun. A promising market variety. (s. c.)

Hale's Early—Medium size; greenish white, with red cheek; first quality. Tree healthy, good grower and productive. One of the earliest good peaches we have; and promises to be a leading orchard variety. (s. c.)

Heath Cling—A most delicious cling. Very large; skin downy, creamy white, with faint blush of red; flesh white, slightly red at the pit; very tender, juicy and sweet; valuable for canning; season early September. (c.)

Henrietta Cling—(See Levy Late).

Imperial—(See Early Imperial).

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

Jones' Seedling—Very large; yellow, dark red cheek in sun. Ripens late just before Smock's Late. Tree very healthy and a strong grower. (f.)

Lemon Cling—A very large and beautiful lemon-shaped variety; skin light yellow, reddened in the sun; flesh firm, yellow, rich, with a vinous, sub-acid flavor. Ripens first week in August. (c.)

Lemon Free—Originated in Ohio; very large; pale yellow; shaped a good deal like a lemon; of extra fine quality; tree very productive; ripens before Salway. (f.)

Levy's Late, or Henrietta Cling—A magnificent cling of large size; skin a deep yellow, a shade of rich brownish red in the sun; flesh deep yellow, firm, juicy, sweet, half melting, slightly vinous. Latest of all clings and highly esteemed for canning and market. Middle of September. (c.)

Lovell—A California seedling; large, almost perfectly round; flesh yellow to the pit, firm and of excellent quality; a superb canning, shipping and drying peach; tree a good grower and bearer. Worthy of extensive cultivation; ripens a few days after Muir. (f.)

McDevitt's Cling—Originated with Neal McDevitt, of Placer County, Cal. Very large, rich, golden-yellow, becoming quite red when ripe; flesh yellow, firm, and of superior flavor; excellent shipper. Last of August. (c.)

McKevitt's Cling—A California seedling, introduced by A. McKevitt, Vaca Valley. White; flesh firm, rich, sugary and highly flavored; white to the pit; excellent for shipping and canning. Tree a remarkably strong grower and not subject to curl. Early in Sept. (c.)

- Mountain Rose**—Large, handsome, red cheek; flesh white, juicy; one of the best. Aug. (f.)
- Muir**—Large, pale yellow; very firm flesh; very sweet. Best for drying. (f.)
- Newhall**—Originated with Sylvester Newhall, of San Jose. A superb peach, of very large size; skin yellow, with a dark red cheek; flesh deep yellow, juicy and rich, vinous flavor; ripens about one week before Crawford's Late; tree very hardy, healthy, vigorous, and not affected by curl, like Crawford's Late. (f.)
- Orange Cling**—(See Runyon's Orange Cling).
- Perfection**—This new and valuable peach originated about three miles above Weston, Umatilla County, Oregon, near the timber line of the Blue Mountain Range, at a high altitude, which proves its hardiness. The fruit is of the largest size, yellow with a beautiful blush cheek. The flesh is thick and very fine grained, yellow, with red around the pit; which is nearly as small as a prune seed. Its tough skin, firm flesh, and good keeping qualities place it in the lead for a good shipping and market variety. We cannot recommend this new peach too highly to our friends and patrons. Ripens from 10th to 15th of Sept. (f.)
- Phillip's Cling**—Fine, large, yellow; flesh firm, clear; yellow to the pit, which is very small. Preferred by canners to any other variety of cling, its firmness, fine texture of flesh and lateness, not ripening until September, when other clings are practically harvested, makes a demand for this variety far beyond the supply. (c.)
- Prolific**—(New)—Large, attractive, firm; color yellow, crimson cheek; flesh yellow to pit; very firm; pit small; very productive, and one of the hardiest peaches known. Sept. (f.)
- Reeve's Favorite**—Fruit very large, round; skin yellow with a fine red cheek; flesh deep yellow, juicy, melting and excellent; tree hardy and productive. Middle of Sept. (f.)
- Runyon's Orange Cling**—Originated with Mr. Sol Runyon, on the Sacramento River. Fruit very large, yellow, with a dark crimson cheek; flesh golden-yellow, rich and sugary, with a vinous flavor; tree an immense bearer, and not subject to mildew like the common sort; a splendid fruit for shipping, canning or drying; early in August. (c.)
- Salway**—Fruit large; roundish; deep yellow, with a rich, marbled, brownish-red cheek; flesh yellow, firm, juicy, rich and sugary. A new English variety; promises highly as a late showy market sort. (f.)
- Sellers'**—A variety of Orange Cling, of the largest size, raised by Mrs. Sellers, of Antioch; skin fine yellow; with a dark red cheek; flesh yellow, firm, very juicy and rich; a very desirable sort for canning; ripening a few days after Runyon's. (c.)
- Sneed**—It is claimed for this peach that it is fully ten days earlier than the Alexander, of same size and appearance, but more yellow; flesh tender, juicy, melting and delicious; clings slightly to the pit; said to be the first peach to ripen. (s. c.)
- Strawberry**—Medium size; white, marbled with dark red; flesh white, red near the pit; juicy, with a rich, delicious flavor. July. (f.)
- Susquehanna**—A large, handsome variety, nearly globular; skin rich yellow, with beautiful red cheek; flesh yellow, sweet, juicy, with a rich, vinous flavor. (f.)
- Triumph**—Above medium; skin downy, dark orange-yellow; nearly covered with dark carmine; flesh yellow half way to the stone, where it changes to greenish-white, and adheres to the stone like Alexander; juicy, melting and slightly sub-acid; quality good. Maturity June 15. The great value of this peach for shipping purposes is its yellow color and attractive appearance, it being the earliest peach so far known, and has brought very high prices. (s. c.)
- Tuskana Cling**—(Tuscan, Yellow Tuscan)—A very large yellow cling, the earliest fine cling; flesh juicy and of fine flavor and clear yellow to the stone. A good shipping and canning peach and very desirable on account of its earliness, ripening with the Early Crawford. (c.)
- Twenty Ounce Cling**—A fine, very large cling peach, very desirable for canning. Aug. (c.)
- Van Buren Dwarf**—Tree very dwarf and ornamental, and on this account valuable for very small gardens; fruit medium size; skin yellow, shaded red; flesh yellow and of fine quality. Ripens middle of August.
- Wager**—Large, yellow; more or less color in the sun; juicy and of a fair flavor. While high quality and great beauty cannot be claimed for this fruit, the trees have such remarkable vigor and vitality that they not only produce fruit in great quantities, but produce it with a degree of certainty and regularity which is quite unusual. These facts commend it to all planters for market purposes. Last of August. (f.)
- Waterloo**—Originated at Waterloo, N. Y. Of medium to large size; color whitish-green, marbled with red, deepening into dark purple crimson in the sun; flesh greenish-white, with an abundance of sweet, vinous juice, adheres some to the stone, like Amsden, Hale's Early, etc. Ripened at Waterloo, July 14, 1878. In 1879, three or four days ahead of Alexander. For so early a peach it is a remarkable keeper, ripe specimens having been kept in perfect condition for nearly a week. This makes it valuable for shipping. (s. c.)
- Wheatland**—Large, roundish, skin golden-yellow, shaded with crimson on the sunny side; flesh yellow, rather firm, juicy, sweet and fine quality; tree vigorous. Aug. (f.)
- Wonderful**—A freestone; color rich golden-yellow, overspread with carmine. It ripens after nearly all other varieties have disappeared, and is a remarkable keeper. Tree *wonderfully* prolific. (f.)
- Yellow St. John**—Fully one week earlier than Early Crawford; a trifle smaller than latter, especially old trees; yellow, with deep red cheek; juicy, sweet and highly flavored; quite free. (f.)

APRICOTS.—*Prunus Armeniaca*, or *Armeniaca vulgaris*.

Beautiful and delicious fruit. In quality and appearance is between the plum and the peach, combining quality of both. Ripening early, together with its delightful flavor makes it one of the most valuable fruits. Tree is as hardy as the peach; requires about the same cultivation as the peach or plum. It ships well and commands a good price in the eastern market. For drying and canning it has no superior. The Russian varieties are quite distinct from the other European sorts, much hardier, earlier bearers and productive.

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

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

Blenheim—Large, oval; flesh full to the pit; yellow, rich and juicy; ripens evenly and soon after the Royal; regular and prolific bearer; profitable for canning, drying and marketing.

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

Hemskirk—Large, roundish, but considerably compressed or flattened on its sides; orange, with red cheek; flesh bright orange, tender; rather more juicy and sprightly than the Moorpark, with a rich and luscious plum like flavor. July.

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

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

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

Peach—(Marysville Peach)—Very large, handsome, and of delicious flavor; skin deep orange, mottled with dark brown; flesh of a fine saffron yellow color; juicy, rich and high flavored; one of the best. August.

Royal—Large, oval, slightly compressed; yellow, with orange cheek, faintly tinged with red; flesh pale orange, firm and juicy, with a rich vinous flavor; exceedingly productive. July.

Tilton, New—We have pleasure in introducing this apricot to the public. Its large size, rich apricot color, high flavor, uniform ripening, sure and unusual productiveness, with frost resisting qualities, and vigorous growth, easily place it far in advance of all other varieties. For drying or canning it is much superior to any of these older varieties. **For complete description and testimonials of leading horticulturists, write for our 12 page circular, giving full particulars.**

NECTARINES.—*Prunus Persica*, or *P. Laevis*.

A most delicious, smooth-skinned fruit, which thrives wherever peaches will grow; much superior to the peach as a dried fruit; and excellent for preserves. Commands a high price in the eastern market as it is considered as somewhat of a novelty.

Boston—Very large and handsome; deep yellow, with a bright blush and mottles of red; flesh yellow to the stone; sweet, with a pleasant and peculiar flavor; free stone.

Early Violet—(Violet Hative)—Medium size; yellowish green, with a purple cheek; flesh pale green, melting, rich and highly flavored; free stone. August.

Lord Napier—Large; cream color; dark red cheek; flesh white, tender, juicy and sugary; freestone; July.

New White—Large, white, nearly round; flesh white, tender, very juicy, with a rich, vinous flavor; stone small, and separates freely. August.

Olmstead—Large; red cheek; yellow flesh; juicy, very rich and sweet; one of the best.

Stanwick—Very large, often as large as a peach, skin pale, greenish-white, shaded into deep rich violet in the sun; flesh white, tender, juicy, rich, sugary and delicious. For drying and shipping not excelled by any other variety. August.

QUINCES.—*Cydonia Vulgaris*.

The quince is, of late, attracting a good deal of attention as a market fruit. Scarcely any fruit will pay better in the orchard. The tree is hardy and compact in growth, requiring but little space; productive, gives regular crops and comes early into bearing. The fruit is much sought after for canning for winter use. When put up in the proportion of about one quart of quinces to four quarts of other fruit, it imparts a delicious flavor. Especially desirable for jellies and preserves.

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

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

Angers—Somewhat later than the preceding; fruit rather more acid, but looks well. Tree a thrifty grower and abundant bearer.

Bourgeat—A french variety: Very productive, healthy and thrifty: It grows in tree form, like Pears or Plums. It has almost perfect foliage, leaves green and fresh until the end of the season. The fruit is very large, smooth, golden yellow, of the best quality, tender; ripens just after the Orange, and will keep past midwinter in perfect condition.

Champion—Fruit very large, fair and handsome. Tree very handsome, surpassing other varieties in this respect; bears abundantly while young; flesh cooks as tender as an Apple, and without hard spots and cores; flavor delicate, imparting an exquisite quince taste and odor to any fruit with which it is cooked. One of the most valuable.

Orange—(See Apple, above).

Pineapple—Originated by Luther Burbank. The name comes from the flavor which is suggestive of the pineapple. The fruit in form and size resembles the Orange Quince, but is smoother and more globular. Makes a superior jelly; can be eaten raw and is said to cook as tender in five minutes as the best cooking apple, possessing a most exquisite and delicious flavor not equalled by any other quince.

Luther Burbank says, "Quinces can probably be grown with less expense than any other fruit, and if the quality could be improved, would be extensively grown and more generally used; a more promising fruit for improvement cannot be named.

"For about fifteen years we have been working in this direction, and have succeeded in obtaining the "**Pineapple**," a quince which will

CHAMPION QUINCE.

cook as tender in five minutes as the best of cooking apples, and with a flavor never before equaled.

"Jelly made from it is superior to that made from any known fruit—absolutely unapproachable—something which could never have been thought of until it was brought into existence.

"The fruit, in form and size, very much resembles the Orange quince, but is smoother and more globular; in color much lighter yellow; average weight about three-quarters of a pound each.

"The tree is a strong grower, and as productive as the orange.

"Some one may produce a better quince, we never expect to."

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

GRAPES.—Vitis.

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

Grape culture is of the greatest commercial importance on the Southern Pacific Coast. We grow vines in the north for our northern trade, and in California for our southern trade, thereby securing vines best adapted for each locality, many of the foreign varieties being grown almost exclusively for the southern trade; and for the north, or localities in which foreign varieties are not adapted, we grow American varieties, which are suited to the locality.

Distance—In setting out vines the character and strength of the soil is a very important point to be considered, 8x8 and 8x10 being popular distances; 10x10 and 10x12 for the more robust growers.

GRAPES—Continued.

Soils.—Good grapes may be grown on any soils, sandy, clayey, loamy, etc., that are not too shallow or too heavily pregated with alkali. The soil must be well drained, and there should be a free exposure to the sun and air. **Hillsides unsuitable for other crops, are good places for grapes.**

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

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

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

Black Varieties—(B.) Red or Amber—(R.) White—(W.)

AMERICAN VARIETIES.

Alice—A new red grape of very vigorous growth and hardiness, in quality fully equal to Delaware by actual test. Ripening with or before Concord, and keeping in perfect condition, without cold storage, throughout the winter. It does not shell and under suitable conditions will raisin instead of rot. Vine very productive. Awarded a "First-class Certificate of Merit" by the Mass. Horticultural Society, Boston, Mass., October, 1895. (R.)

Brighton—A cross between Concord and Diana Hamburg. Resembles Catawba in color, size and form of bunch and berry. Flesh rich, sweet and of the best quality. Ripens earlier than Delaware. Vine vigorous and very hardy. This variety has now been thoroughly tested, and it may now be truly said to be *without an equal* among early grapes. (R.)

Campbell's Early—Its strong, hardy vigorous growth, thick, heavy, perfectly healthy foliage, very early ripening and abundant bearing of large and handsome clusters of excellent quality, combined with the most remarkable keeping and shipping qualities, form a combination unequalled by any other grape. Its period of full maturity is from the middle to the last of August, according to the season, ripening with Moore's Early, but unlike that variety, it has kept sound and perfect, both on and off the vine, for weeks after Moore's Early was decayed and gone. In dessert quality it is unrivaled by any of our present list of first early market grapes. It is, both as to cluster and berry, of large size, of a glossy black color, with a beautiful blue bloom; pulp sweet and juicy; free from foxiness; seeds small, few in number and part readily from the pulp. (B.)

For complete description and testimonials of our leading horticulturists, write for our 4-page circular, giving full particulars.

Catawba—Well known as the great wine grape of Ohio, Kentucky, etc. Bunches large and loose; berries large, of a coppery-red color, becoming purplish when well ripened; requires the most favorable soils and situations, good culture and warm seasons to mature perfectly. Last of September. (R.)

Concord—A large, handsome grape, ripening a week or two earlier than Isabella; very hardy and productive. Succeeds over a great extent of country, and although not of the highest quality, it is one of the most popular market grapes. (B.)

Delaware—Still holds its own as one of the finest grapes. Bunches small, compact, shouldered; berries rather small, round; skin thin, light red; flesh very juicy; without any hard pulp, with an exceedingly sweet, spicy and delicious flavor. Vine moderately vigorous, hardy and productive. Ripens two weeks before the Isabella. (R.)

Early Ohio—Very early, hardy and productive, strong, thrifty grower. Good sized bunch, berry smaller than Concord; adheres firmly to the stem. A profitable early market sort. (B.)

Eaton—Seedling of the Concord. Bunch and berries of largest size, showy and attractive. Leaf large, thick and leathery; berries round, covered with heavy, blue bloom; pulp tender, separating freely from the seeds. (B.)

Green Mountain—(Winchell.)—This, the earliest white grape, has been thoroughly tested over a wide area, and has proved most satisfactory. It combines hardiness, fruitfulness, vigor, good size and excellent quality. Bunch medium to large, shouldered; berries medium, greenish-white; skin thin, tough, pulp tender, sweet, with few seeds; of excellent quality, free from foxiness, and the flavor is excellent, ranking in this respect as a grape of the first class. It is the first white grape to ripen, ma-

MC PIKE.

During even in the worst of seasons, a consideration which will be appreciated by all planters. Its habit of growth is vigorous and the foliage clean and healthy, while its bearing quality is all that can be desired. It is a most valuable white grape, either for the amateur or professional grower. (W.)

Hartford Prolific—Bunches rather large; berries large, globular; color almost black, covered with a beautiful bloom; of fair quality; ripens three weeks before the Isabella; valuable for its abundant bearing and early maturity. (B.)

Isabella—An old standard sort, highly prized where it will thoroughly mature. Bunches long large, loose; berries large, oval, sweet and musky; a good keeper. (B.)

McKinley Early—(New)—It is with intense satisfaction that we introduce a New Early White Grape, of the Niagara type, which bids fair to add millions to the wealth of the Nation, and which will be hailed with delight by fruit growers, dealers and consumers throughout the world. Produced by Mr. Young near where the Niagara originated. It is fully ten

GRAPES—McKINLEY EARLY—Continued.

days earlier than the Niagara and as strong a grower, and very rich flavor. A strong vigorous grower, thick, healthy foliage and perfect self-fertilizing blossom. Bunches large and compact, usually shouldered; berries large, nearly round, very sweet with no acid around the seeds, and no puckery taste in the skin; skin thin, green at first, then turning to yellow when fully ripe, very tenacious, bearing handling and shipping. It has remarkable keeping qualities for an early grape and will hang on the vine sound and perfect for six weeks or more after ripening with no tendency to shell off or fall from the stems. As good a shipper as any of the American grapes. **For complete description and testimonials of our leading horticulturists, write for our 2-page circular, giving full particulars.** (W.)

McPike—This grand new variety was originated in South Illinois. Was awarded Wilder Silver Medal by the American Pomological Society, has taken first premium at Ohio, Illinois, Indiana and Missouri State Fairs. The McPike is a seedling of the Worden and partakes of all the good qualities of the Concord and Worden to a marked degree. Perfectly hardy, as easily grown as Concord or Worden, with a leaf unprecedented; it is earlier than the Concord; bunches large, even and compact, berries even in size, covered with a beautiful bloom, blue-black in color, ripens uniformly and has generally the appearance of the Worden. The berries are of mammoth size, rivaling Black Hamburg, being often three inches in circumference and of superb quality—one of the best grapes grown. One berry measured $3\frac{5}{8}$ inches. The grape is almost perfection. Mr. McPike has sent the grapes to all parts of the country, and the comments are most favorable upon its wonderful size, flavor, hardiness and beauty. (B.)

MOORE'S EARLY.

Moore's Early—A comparatively new grape raised from seed by John B. Moore, Concord, Mass., in 1872. It is described as follows: Bunch large; berry round (as large as the Wilder or Rogers' No. 4); color black, with a heavy blue bloom; quality better than the Concord; vine exceedingly hardy; has never been covered in the Winter, and has been exposed to a temperature of more than twenty degrees below zero without injury to it; has been entirely exempt from mildew or disease. Its earliness makes it desirable for an early crop, and more particularly adapts it to New England and the northern portion of the United States, maturing as it does, ten days before the Hartford and 20 days before the Concord. (B.)

Moore's Diamond—A vigorous grower, with dark, healthy foliage, entirely free from mildew. A prolific bearer; bunches large, handsome and compact, slightly shouldered; color delicate, greenish-white, with rich, yellow tinge when fully ripe. Skin smooth and free from specks; pulp tender, juicy and nearly transparent, with very few seeds. Berry about the size of Concord. Quality best; rich, sprightly and sweet, resembling the foreign Chasselas. Ripens about two weeks before Concord. (W.)

Niagara—Occupies the same position among the white varieties as Concord among the black; the leading profitable market sort. Bunch and berries large, greenish-white, changing to pale yellow when fully ripe. Skin thin, but tough; quality much like Concord. (W.)

Pierce—A remarkable, giant-leaved and very prolific variety, or rather sport of the Isabella, produced by Mr. J. P. Pierce, of Santa Clara. The berries, like the leaves, are of extraordinary size, and when ripe the fruit is exceedingly sweet and strongly aromatic; berries bluish-black when fully matured; commands a ready sale in the market, the demand exceeding the supply; for size and quality it cannot be surpassed by any of the American varieties of grapes. (B.)

Pocklington—Originated at Sandy Hill, N. Y. Vine very vigorous, hardy and productive; bunch and berry of good size; color a light lemon-yellow; flesh moderately tender, sweet, with a peculiar aromatic flavor. The great vigor and hardiness of the vine, with the beauty and size of the clusters, place this in the front rank of white grapes; ripens with Concord. (W)

Salem—(Roger's No. 22.) A strong, vigorous vine; berries large, Catawba color; thin skin; free from hard pulp, very sweet and sprightly; ripens first of September. (R.)

Wilder—(Rogers' No. 4.)—Large and black; bunches generally shouldered; berry round and large; flesh buttery, with a somewhat fibrous center; sweet: rather sprightly. (B.)

Worden—This new variety is a seedling of the Concord, which it greatly resembles in appearance and flavor, but the berries are larger. The fruit is said to be better flavored and to ripen several days earlier. (B.)

Wyoming—Vines very hardy, healthy and robust, with thick leathery foliage; color of berry similar to Delaware, but brighter, being one of the most beautiful of the amber or red grapes, and in size nearly double that of the Delaware; flesh tender, juicy, sweet with a strong native aroma. Ripens before Delaware. The best early red market variety. (R.)

FOREIGN VARIETIES.—FOR TABLE, RAISINS, SHIPPING AND WINE.

Black Corinth—(See Zante Currant.)

Black Hamburg—A fine, tender grape, producing large, magnificent, compact bunches; berries black, very large and oblong. A great favorite everywhere, especially for table. (B.)

Black Malvoise—Vine a strong grower; berries large, oblong, reddish-black, with faint bloom; flesh juicy, flavor neutral. An immense bearer, an excellent table as well as a wine grape. (B.)

Black Morocco—Bunches medium to large, closely set; berries very large, oval, skin thick, dark red, becoming black when fully ripe; flesh firm, juicy, sweet and crackling. Ripens late, keeps well; an excellent grape for shipping. (B.)

Black Prince—Bunches very long, tapering; berries medium, ovate with thick bloom; juicy and sweet. (B.)

Burger—A German variety; produces a light, white wine; an immense bearer. (W.)

Carignan—Berries oblong, black; an excellent wine grape. (B.)

Chasselas de Fontainebleau—(See White Sweet-water.)

Chasselas Golden—Bunches medium, compact; berries of an amber color, sweet and watery. Ripe latter part of July. (R.)

Cornichon Black—Bunches long and loose; berries oval, tapering at both ends; skin thick and dark, covered with bloom; flesh firm, with pleasant flavor; a desirable variety for shipping and marketing; ripens late. (B.)

Cornichon White—Resembles the above, only the skin is white and not so thick. (W.)

Emperor—Vine a strong grower and heavy bearer; bunches very large, long and loose-shouldered; berry large, oblong, deep rose colored, resembles the Tokay, covered with light bloom, firm, skin thick; one of the most profitable late varieties to plant for market; its firmness, good keeping qualities and rich color cause it to be in great demand in eastern markets every year. Withstands rain better than any other variety. Does well on granite soil of the foot hills. Should be staked to get best results. (R.)

Feher Zagos—Vine a vigorous grower and immense bearer; very hardy and exceedingly productive in sandy and heavy soils; bunches large and compact; berries oval, yellowish-green; good for wine or raisins. (W.)

Flame Tokay—Bunches very large and moderately compact; berries large, skin thick, pale red, covered with bloom; flesh firm, sweet; an old standard variety, always commands a good price in the eastern markets, and as a table grape more extensively planted than any other variety. (R.)

Gordo Blanco—(See Muscat.)

Malaga—Vine a strong grower and immensely productive, thriving in almost any soil; bunches very large, often weighing ten pounds; compact, shouldered; berry very large, oval, yellowish-green, skin thick, fleshy. One of the best shipping grapes, commanding a good price in the eastern markets every season; makes a second quality raisin. (W.)

Mataro—One of the finest grapes for claret; good bearer and heavy grower. All the great French authorities agree in placing the Mataro as the finest red wine grape of the Southern regions. (B.)

Mission or California—A well-known variety. A strong, sturdy grower, bearing large bunches of black, medium-sized berries. Valuable for wine. (B.)

Muscat of Alexandria—(*Gordo Blanco*)—Bunches long and loose, shouldered; berry oval, sometimes round; yellowish-green; skin thick, flesh with a decided Muscat flavor. This is the variety so extensively planted for raisins. The distinctive feature between the Alexandria and Gordo Blanco is supposed to be in the shape of the berries, the former being oblong and the latter round. On this coast in most localities the two varieties have been found to be so nearly identical, round and oblong berries being found on the same vine, that they are classed as Muscats, and no distinction is made by even the most experienced raisin vineyardists. (W.)

Purple Damascus—Bunches large, loose; fruit very large, oval; deep purple when fully ripe; skin thick; flesh meaty and juicy; a splendid grape for the interior valleys; a good shipper. (B.)

Rose of Peru—Vine a strong grower; bunch very large, shouldered, loose; fruit round, large with firm and crackling flesh; a very handsome grape of fair quality, and highly esteemed as a market variety. (B.)

Royal Muscadine—Bunches small and compact; fruit round, small, greenish-white, turning to amber; flesh firm, juicy, sweet and exceedingly pleasant. (W.)

Seedless Sultana—Small white grape, turning to amber; clusters large. It makes a fine raisin for culinary purposes, at the same time it is a fine wine grape. It is the only grape we know of that is good for both, raisins and wine. (W.)

Thompson's Seedless—This is a new variety, of great merit. It is perfectly seedless, and will doubtless become the most popular sort for seedless raisins. It is very attractive, larger than the Seedless Sultana, more oblong, and in color greenish-yellow, resembles the Muscat. It is of good quality, claimed to be superior to the Seedless Sultana. It dries rapidly and evenly, and being so sweet, heavily. A strong grower and unusually productive. (W.)

Tokay—(See Flame Tokay.)

Verdel—Bunch short; berry oblong, yellowish-green, covered with fine bloom; ripens late, very productive. (W.)

White Sweetwater—(Chasselas de Fontainebleau) Bunches large and compact; berries medium size, round; skin thin, transparent, greenish-yellow; pulp tender, juicy, sweet and richly flavored. One of the best early grapes. (W.)

Zante Currant—(*Black Corinth*.)—Bunches medium, berries small, seedless, skin thin, black, blue bloom; flesh sweet, juicy and highly flavored. This is the variety producing the currant of commerce, and imported from Greece under the name, "Zante Currant." (B.)

Zinfandel—Bunches large, compact; berries round dark purple; the most extensively planted grape in California for making claret. (B.)

RESISTANT STOCKS.

The decimation of vineyards in California brought about by the mysterious *Phylloxera* will make it necessary in the future to plant all new vineyards and replant the old vineyards on the Southern Pacific Coast with vines on resistant stocks. We would refer those wishing to pursue this subject further than we can do in our limited space to the writings of Richter, Ravay, Mayete Vialla and others who made a special study of this. We have for some time realized the importance of this work, and have given this subject careful study, and recommend specially the varieties named below as a result of our own experiments and those of experimental stations and vineyardists, viz.: The *Riparia*, *Rupestris* and *Lenoir*, as shown below.

The Rupestris—A native of the Pan Handle District, is a deep-rooting variety, succeeding in dry, sandy soils and easily grafted; should not be planted where the underlying hardpan or excessive moisture near the surface interferes with this tendency. As a stock it takes well to most varieties, especially the following two varieties.

Rupestris St. George—This famous variety will no doubt prove to be one of our most valuable resistants. It is the most vigorous strong grower of all the resistants, and with its deep descending roots, it will, no doubt, adapt itself to a greater variety of soils and climates than any other variety, standing in the relation in the *Rupestris* family that the *Glorie de Montpelier* does in the *Riparia*, and has been more extensively planted, not only in California; but also in France and throughout Europe than any other resistant. It should not be planted in very shallow soils, and is preferred to *St. Martin's* except under the two conditions mentioned below.

Rupestris St. Martin—Said to be even more vigorous than the *St. George*. Makes a very strong root system, with a tendency to spread rather than to go down as in the *St. George*.

Grafts make a better growth and ripen up better than in the *St. George*. Will thrive where there is an excess of lime and do better than *St. George* in excessively dry locations.

The Riparia thrives in a rich damp soil and will succeed where hardpan is near the surface if there is plenty of moisture. A rampant grower will support strong growing varieties. The *Glorie de Montpelier* given below we consider the best variety under this class.

Riparia Glorie de Montpelier—Introduced from France. A vigorous, strong grower, with large foliage; the best of the *Riparia* and has lately nearly superseded all others of that family; said to succeed in shallow soils if they have sufficient fertility but not adapted to any compact soils.

Lenoir—This variety has been very extensively planted in California, but is now being replaced with varieties more resistant to the attacks of the *Phylloxera*. It is well adapted to heavy clay soils. Has been found to be very satisfactory as a resistant in Napa and Sonoma Counties, California, on such soils. The grapes are rich in coloring matter, and are used very largely for coloring clarets.

RASPBERRIES—*Rubus*.

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

Raspberries may be made very profitable with good cultivation.

RED AND YELLOW VARIETIES.

Brandywine—(*Susqueco*)—Large, bright red, very firm. Valuable for market on account of its fine shipping qualities.

Columbian—An improvement on *Shaffer's*, which it resembles, but the berry is firmer, dark red, adheres to the bunch much longer and retains

its shape better, both on the market and for canning. Bush a stronger grower, attaining a very large size. One of the hardiest, and wonderfully prolific. Unexcelled for productiveness and stands at the head for canning, making jam, jelly, etc.

Cuthbert—(The Queen of the market)—Large, conical, deep, rich crimson; firm, of excellent quality. A vigorous grower, entirely hardy and immensely productive. "I regard it as the best raspberry for general culture."—Charles Downing. "Now regarded by careful and experienced horticulturists as the best raspberry in existence for general cultivation. I have it in a specimen bed with twenty-five other kinds, and it surpasses all other."—E. P. Roe.

Golden Queen—This variety is a seedling of the Cuthbert, but the color of the fruit is a *rich, golden yellow*. The flavor is of the highest quality, pronounced by some superior to the old Brinkle's Orange, the finest flavored of all the raspberries. In size equal to Cuthbert;

Loudon—The best red mid-season berry. Its points of superiority are vigor of growth, large fruit, beautiful, rich dark crimson color, good quality and marvelous productiveness and hardiness, enduring winters without protection and without injury to the very tips. It stands shipping the best of any variety, and will remain on bushes the longest without injury.

Marlboro — The largest early red raspberry, ripening only a few days after Hansell; beautiful bright scarlet, of good but not high quality; hardy and productive.

Miller's—Bright red color which it holds after picking. Stout, healthy, vigorous grower;

CUMBERLAND RASPBERRY.

immensely productive; a very strong grower and hardy enough even for extreme northern latitudes, having stood uninjured even when the Cuthbert suffered. The desire for a yellow raspberry of high quality, combined with vigorous growth and perfect hardiness, is believed to be fully met in this variety.

Japanese Raspberry—(Wineberry)—Ornamental both in fruit and plant. Canes covered with purplish-red hairs; leaves dark-green, silvery gray beneath. Fruit in large clusters and each berry at first tightly enveloped by the large calyx, forming a sort of burr, which is covered with purplish red hairs. These gradually open and turn back, exposing beautiful wine-colored fruit of medium size; brisk sub-acid, retaining flavor when cooked; highly esteemed for canning, preserves, jellies, etc.

canes not as tall as Cuthbert; well adapted to carrying their immense loads of berries. Berries large; hold their size to end of season; round, bright red, cores small; do not crumble; firmest and best shipper; rich fruity flavor. Commences to ripen with the earliest. We can highly recommend this for either home or market.

Queen of the Market—See Cuthbert.

Susqueco—See Brandywine.

Turner—(*Southern Thornless*)—Very desirable as an early sort for the home garden. Berries good size, bright crimson, sweet.

BLACK CAPS.

Cumberland—In size, the fruit is simply enormous, far surpassing any other sort. The berries run seven-eighths and fifteen-sixteenths of an inch in diameter, and are of such handsome appearance that their fruit has often sold for 10 cents per quart, when other varieties were selling for 5c to 7c per quart. The quality is very similar and fully equal to Gregg. In spite of its unusual large size, the fruit is possessed of great firmness and is thus well adapted for standing long shipments. Mid-season. The bush is exceedingly healthy and vigorous, throwing up stout stocky canes, well adapted for supporting their loads of large fruit.

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

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

Mammoth Cluster—Large, in size next to Gregg. Canes of strong growth and very prolific. Berries large and of fine quality.

Munger—The fruit of Munger is black, and resembles Gregg very much. It is a better flavored berry than Gregg, tougher in texture and therefore a better shipper. In size it excels Gregg by almost 25 per cent, being extra fine for canning and evaporating. In seasons when most others are dry and seedy, Munger ripens up sweet and juicy, and readily brings an advance of 50 cents per bushel over other kinds. The canes, too, resemble Gregg, are free from disease, upright in growth.

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

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

Schaeffer's Colossal—(Puthill)—A strong growing variety, producing berries of great size, excellent to dry, and unsurpassed for canning; flavor peculiar and fine.

CURRANTS.—Ribes.

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

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

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

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

Fay's Prolific—Originated in Chautauqua County, N. Y. A cross between Cherry and Victoria; of large size, fine flavor and claimed to be five times as prolific as the Cherry. A great acquisition.

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

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

North Star—The strongest grower among the red varieties; should be given plenty of room and ground kept well enriched; bunches average four inches in length and are freely produced. Combines extreme hardiness,

vigorous growth, extra quality and great productiveness.

Pomona—While not the largest, is of good size. It is a beautiful, clear bright, almost transparent red; has but few and small seeds, easily picked, hangs a long time after ripe, and is one of the best to hold up in shipping or on the market. A vigorous grower, healthy and hardy, the most productive, one of the sweetest and best in quality, continues longest in profitable bearing, retains its foliage, hangs on bush in good condition the longest, comes into bearing early, is easily and cheaply picked. Hold an unparalleled record for actual acreage yield in ordinary field culture.

Victoria—A splendid variety; ripening two or three weeks later than the others, and continuing in a fine condition for a long period. Bunches extremely long; berries of medium size, brilliant red and of the highest quality.

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

BLACKBERRIES—*Rubus* or *Rubus Villosus*.

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

ERIE.

Early Harvest—A variety of great promise, being exceedingly early in time of ripening and always reliable. The canes are strong and upright in growth, branching stout and vigorously. Hardier than Kittatinny or Lawton; an enormous bearer. Berries sweet and of the highest quality, though not as large as some varieties.

Erie—Said to be the only large, productive, absolutely hardy blackberry yet introduced. Originated in Northern Ohio. Free from rust and all other diseases, and wonderfully productive, (exceeding even the prolific Lawton), bending the robust canes to the ground with the weight of fruit. Fruit very large, excellent quality, handsome and firm, and ripens exceedingly early; fruit uniform both in size and shape.

Eldorado—A new seedling from Preble County, Ohio. The vines are very vigorous and hardy, enduring the winters of the far Northwest without injury, and their yield is enormous. The berries are large, jet black, borne in large clusters, and ripen well together, they are very sweet, melting and pleasing to the taste, have no hard core, and keep eight or ten days after picking with quality unimpaired, combining nearly all the good qualities found in a blackberry.

Evergreen—Introduced from Oregon; origin unknown; beautiful, cut-leaved foliage, which it retains during the winter; berries large, black, sweet, rich, and delicious; it continues

to ripen from July to November, which makes it one of the best berries for family use; an excellent trellis and arbor plant.

Himalaya Giant—(New)—Vigorous grower, canes sometimes reaching 30 to 40 feet, must be trained on a trellis. Fruit large, black; very abundant bearer and excellent shipper; shape, more round than Kittatinny or Lawton, more juicy and smaller seed. Mr. Brodie, Superintendent Experimental Station, Puyallup, states that it has yielded at the rate of 400 crates (9,600 quarts) per acre, and thinks it might be made to field 600 crates per acre on proper soil.

Iceberg—This wonderful berry is the origination of the far-famed Luther Burbank, whose remarkable success in the production of valuable new plants has given him the title of the "Wizard of Horticulture." The fruit is white transparent; the seeds, which are unusually small, can be seen in the ripe berries. The clusters are larger than those of Lawton; individual berries as large but earlier sweeter and more melting than Lawton. Like all blackberries the Iceberg is slightly bitter when not thoroughly ripe.

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

Lawton—(New Rochelle)—The well known market variety.

Mammoth — (New) — Supposed to be a cross between the Wild Blackberry of California and the Crandall's Early. Grows entirely unlike any other blackberry plant known. It is a rampant grower, trailing on the ground and under favorable conditions will grow twenty feet in a season; the canes are large, of deep red color when exposed to the sun; the foliage is large, thick, of a deep green color. Enormously productive and exceedingly early, ripening three weeks before other cultivated kinds. Fruit enormous, specimens measuring $2\frac{1}{2}$ inches long; seeds small, soft, and abundant; core small, soft. In size and flavor said to surpass all other varieties of blackberries. We offer it to the public only after a most thorough test, covering a period of several years. (See cut).

Rathbun—Origin Western New York. A strong erect grower with strong stem, branching freely; will root from tip of branches like a Raspberry. Hardy, having endured 20 degrees below zero and produced a good crop. Forms a neat compact bush 4 to 5 feet high, producing its immense fruit abundantly. Fruit is sweet and luscious without hard core, of extra high flavor, jet black, small seeds; firm enough to ship and handle well. Very large size, resembling the Wilson and fully equal to that grand variety, with the addition of hardness.

Snyder—Extremely hardy, enormously productive; medium size; no hard, sour core; sweet and juicy. The leading variety where hardness is the consideration. Ripens early.

LOGAN BERRY.

BLACKBERRY-RASPBERRY.—HYBRIDS.

Logan Berry. Raspberry-Blackberry — Judge J. H. Logan of Santa Cruz is the discoverer of this wonderful fruit. It is thought to be raised from a cross of the Aughinbaugh Blackberry and Red Antwerp Raspberry. The vine grows entirely unlike the blackberry or raspberry; it trails upon the ground like a dewberry. The canes are very large, without the thorns of the blackberry, but have very fine spines like those found on the raspberry; leaves resemble those of the raspberry more than of the blackberry; are of a deep green color, coarse and thick. An exceedingly strong grower, and an enormous bearer. The fruit is as large as the largest sized blackberry, of the same form and shape, a dark, bright red color when fully ripe, and combines the flavor of both the raspberry and the blackberry, having a mild and very pleasant vinous flavor, not found in any other fruit. Raw, it is excellent for the table, as also stewed, and for

jelly or jam it is without an equal. Fruit ripens early, the bulk being gone before the blackberries or raspberries become plentiful. It is firm and a fine shipper.

The Phenomenal Berry—One of the most valuable of all Luther Burbank's novelties. It is the result of a cross between the Improved California Dewberry and the Cuthbert Raspberry. Mr. Burbank describes it as larger than the largest berry ever before known; bright crimson asparagus color; productive as could be desired, and the most delicious of all berries for canning and drying. The berries grow in clusters, each having five to ten, or more, and individual berries often measure three inches around one way by four the other, and weigh one quarter ounce each. Even larger ones were weighed and measured last summer, and when exhibited provoked the question: "Will they be sold by the dozen?"

MAMMOTH BLACKBERRY.—See Description page 37

Blackberry-Raspberry Hybrids.—Continued.

Primus Berry—This is one of Mr. Burbank's greatest productions, and he says of it: "This was my first success with Blackberry-Raspberry Hybrids, and it has been fully tested for several seasons. It is one of the most productive berries known, and is larger and more regular in shape than any other berry. Its flavor is unique; nothing like it has before appeared. All pronounce it superior when cooked, and eaten raw it is claimed to be the best berry ever tasted. This berry is really enormous in size of fruit and vigor of growth. Its flavor is like that of a raspberry and black-

berry combined; fruit long and handsome, of a mulberry black color. Its season of fruiting is earlier than either the raspberry or blackberry, following close upon the strawberry, often before Standard Blackberries commence to bloom. Bushes inclined to a trailing habit, and are best trained upon wires like grapevines. It is somewhat of a perpetual bearer, showing more or less fruit all summer. In a greenhouse it is a great thing, for it will fruit splendidly all winter and prove exceedingly profitable. It is as hardy as an oak in any climate and a sure cropper every year." Too soft to bear long shipments.

DEWBERRIES—*Rubus Canadensis*.

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

Premo—A new extra early dewberry; very large, jet black, firm and good; ripens its crop very fast. The special points in this dewberry are: Ripens 7 to 10 days earlier than Lucretia, ripening the crop so fast that it is nearly all gone at second picking of the Lucretia; better and firmer quality; foliage darker green and more healthy than Lucretia; not inclined to burn when hot sun comes, as the other sometimes does.

GOOSEBERRIES—*Ribes*.

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

It requires the same cultivation and treatment for worms as the Currant. The worms attack the Gooseberry before the Currant bushes, and if a few of the former are set near a Currant plantation, and the worms exterminated on these, there will be little if any trouble from them on the Currant bushes.

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

Crown Bob—Very large, thin skin, hairy, bright red; flavor very good.

Downing—Originated at Newburgh, N. Y. Fruit much larger than Houghton; roundish, light green, with distinct veins; skin smooth; flesh soft, juicy and very fine flavored. Vigorous and productive. One of the most valuable American sorts.

Houghton's Seedling—Vigorous grower, abundant bearer; fruit of medium size, pale red, sweet and juicy. Free from mildew.

Industry—This is said to be the best English gooseberry yet introduced. It is of vigorous, upright growth, a great cropper. The berries are of the largest size, dark red, hairy, rich and agreeable. Mildews in Willamette Valley.

Josselyn—(Red Jacket)—An American seedling of large size; smooth, prolific and hardy; of best quality. Has been well tested over a wide extent of territory by the side of all the leading varieties, and so far the freest from mildew, both in leaf and fruit of them all. A wonderful cropper, with bright, clean, healthy foliage.

Originated by Prof. Wm. Saunders, of Central Experimental Farm, Ottawa, Canada, and named Red Jacket in memory of an old Indian

chief, the introducer not being aware, at the time, of the existence of another gooseberry (English) named "Red Jacket." The Committee on Nomenclature of the Western New York Horticultural Society, at Rochester, January 25, 1899, to hereafter prevent confusion in varieties, renamed the American Red Jacket **Josselyn**, in honor of the introducer. **For complete description and testimonials of our leading horticulturists, write for our 4-page circular, giving full particulars.**

Oregon Champion—A new variety introduced from Oregon, where it originated; fruit large, round; an immense bearer, and entirely free from mildew. One of the best yet introduced.

Pearl—This very delicious American is a cross between Houghton and one of the large English varieties. It is very hardy, entirely free from mildew; superior in size and quality, more productive than Downing, and is likely to supersede this standard sort. The many flattering testimonials of this new berry from most of the leading horticulturists, lead us to recommend it for small or extensive planting as one of the best berries of recent introduction.

Victoria — (New) — The best Gooseberry in England, and the champion berry for the London market. It is the strongest grower, making shoots 3 feet 9 inches in a season. Berries larger than Crown Bob or Lancashire Lad, pale red color and excellent flavor, similar to the Ashton Reds or Warrenton; a late bloomer and a sure cropper; it is of a hardy constitution, growing and bearing well in Northumberland, England. A Victoria 3-year-old bush, bearing 28½ lbs. of fine, large fruit, was shown at the Drill Hall, London, in 1900, and received great praise from a large number of leading nurserymen, who spoke very highly of it. It is much in advance of all other English gooseberries. The *Horticultural Trade Journal*, August 14, 1901.

said: "The Windham (Industry) seems likely to be eclipsed in productiveness by the introduction of **Victoria**, by Messrs. Charlton & Sons (the introducers in England); an illustration on one of our pages shows the prolific nature of this variety, and what is shown in the illustration on the two shoots that are reproduced from photographs, we saw on hundreds of branches on the young trees, every shoot was alike, no blanks, each one bearing down with an enormous weight of large fruit, truly a most prolific cropper; the large fruit, of a pale red color, was thickly set on every branch, characteristic of the variety from the first. Flavor, too, is excellent, and, all around, it seems well suited for market purposes."

ASPARAGUS—Asparagus.

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

Cultivation.—See that the ground is well drained, naturally or otherwise; work it up fine and deep and make it very rich with well rooted barnyard manure. Locate the plants eight inches apart in rows three feet apart. Spread out the roots in a trench made deep enough to permit their crowns to be covered with three or four inches of mellow earth. Give the bed liberal dressings of manure at intervals, and, except near the sea shore, three pounds of salt per square yard early every spring. Do not cut for use until the plants have grown two seasons.

Conover's Colossal—This variety is much superior in size and quality to any of the old common varieties, being remarkably tender and fine flavored.

Columbian Mammoth White—It produces shoots which are white and remain so as long as fit for use. In addition to the marvelous advantage of its white color, the Columbian

Mammoth White Asparagus is even more robust and vigorous in habit, and grows larger shoots and fully as many of them, as the Conover's Colossal. Market gardeners, growers for canners, and amateurs, should give this great acquisition a thorough trial.

Palmetto—A very early variety. Even, regular size; of excellent quality.

RHUBARB, or PIE PLANT.

The great value of Rhubarb has always been its earliness.

It deserves to be ranked among the best early products of the garden. It affords the earliest material for fine pies and fresh table sauce, continues long in use, and is valuable for canning. Make the ground rich and deep and thus secure a large and tender growth.

Australian, Crimson Winter—Introduced by Luther Burbank: "Fully six months earlier than any other Rhubarb. The stalk of medium size, well grown ones averaging 12 to 18 inches in length and about ¾ to 1 inch in diameter. They are a pale, greenish-crimson color, turning when cooked to a light clear crimson, and of very best quality. The plants somewhat more inclined to blossom than the other kinds, which is easily remedied by topping. **Crimson Winter** starts to grow vigorously by October and continues to produce stalks continuously until after the common varieties make their first appearance some six

months later. If kept moist will produce stalks abundantly at any season; it is, in fact, absolutely perpetual."

Dodge Prolific—A valuable new variety; seedling from the Myatt's Linnæus; ripens between the Victoria and Linnæus; very large, stalks often three to four feet high; very tender; the best variety that has been introduced, unless it is the Australian Crimson Winter, which stands in a class by itself.

Linnæus—Large, early, tender and fine. The very best of the old varieties.

Victoria—Very large and valuable for market. Early.

STRAWBERRIES—Fragaria.

Strawberries may be successfully grown on any soil adapted for garden purposes, or where good crops of grain or potatoes can be raised. The ground should be well prepared, thoroughly enriched, and be kept mellow and free from weeds.

Admiral Dewey—(New)—Originated near Salem, Oregon. Larger than the Wilson, very firm, good shipper and unexcelled for canning. Color, beautiful dark red, and unlike other berries, the flesh is red to the center, no white core; shape conical, much like Clark's Seedling; very early and abundant bearer, and continues bearing through the season, coming nearest to an everbearing berry of any in this vicinity; flavor resembles that of the wild strawberry.

Clark's Seedling—(Hood River)—This new berry originated at Hood River, Oregon, where it is planted to the exclusion of all others, for long distance shipments. It is larger than the Wilson, very firm. Color a beautiful dark red, and in quality unsurpassed.

Crescent Seedling—Large, averaging larger than Wilson's Albany; conical; color a handsome, bright scarlet; quality very good. In productiveness unequalled, having produced over 400 bushels per acre. Plants very strong and vigorous; a most valuable market sort.

Greenville—Originated on the fruit farm of E. M. Buechly, of Darke Co., Ohio, in 1883. It has been thoroughly tried at the experimental stations and reports are unanimous in its favor. It leads for productiveness, market, home use, and general purpose; combines earliness, firmness, large size, good quality, very even and fine color, with wonderful vigor and health of plant; free from rust, and

attains its greatest productiveness when planted near Bederwood.

Hood River—(See Clark's Seedling).

Jessie—On rich soil, and with good culture, this is a valuable sort. It is fairly productive, and the berries average large, of great beauty and high quality.

Magoon—Has proved to be a leader in hardiness, in addition to all of its other good qualities, the Magoon alone has come through the trying weather of hard winters without injury. The Magoon Strawberry always brings top prices in the Portland market, and is a remarkable yielder.

Oregon Everbearing—It is a vigorous grower and adapted to all soils and locations. On the Pacific Coast it is a constant and abundant bearer of large, handsome berries of good quality, from early May until killed by frost.

Pearl—Said to possess more points of excellence than any other. Plants immensely strong, vigorous and productive; berries large, symmetrical and well colored.

Sharpless—A grand variety in every respect; berries uniformly *very large*; deep, clear red; moderately firm, sweet and excellent, a strong grower and very productive.

Wilson's Albany—Medium to large, dark red; very hardy, vigorous and productive. The most widely known and universally successful strawberry.

FIGS—Ficus.

Black Ischia—Medium size, dark purple, almost black when ripe; flesh deep red, sweet and luscious; tree hardy; an excellent bearer.

Brown Turkey—This is a very large fig; color violet-brown; the earliest large fig in the San Francisco market.

California Black—(Mission)—The well-known local variety; fruit large, dark purple, almost black when fully ripe; makes a good dried fig; tree grows to a very large size, and bears immense crops.

Smyrna—(Lob Ingir) — Described by Gustave Eisen in Bulletin No. 9, pages 250 and 278 as follows: — "Bulletin Smyrna, Commercial Smyrna, or California, Erbeghli, Erbelli, Erbeili; fruit large to very large, about 2¾ inches wide by 2½ long, decidedly flattened like an onion; being compressed in diameter from stem to eye, neck thin, distinct but short; generally straight. No stalk or one very short. Ribs heavy, uneven knotted and branching. Eye large, with numerous scales of amber tint, open and about 3-16 inches wide, so that the pulp can be seen through the opening. Skin the color of bees wax,

smooth and waxy, shaded greenish. Pulp pale to dark amber; when unripe shaded red. No distinct iris. Seeds large, flattened. Tree a strong, spreading but rather a straggling grower, with heavy branches. **This is the best type of Smyrna fig**, and the majority of figs imported from Smyrna to this country belong to this variety. It is a distinct fig, and this, and **no other fig, should be known as Smyrna**, if this name should be used at all. The promiscuous use of the name Smyrna figs cannot be too much condemned. First imported by the Bulletin Co."

White Adriatic—This variety takes the lead of all figs planted in California, and has of late years proved the most profitable fig grown. The best dried figs have been produced from this variety. Tree a strong and healthy grower; fruit about medium size, skin white and thin; pulp red, exceedingly aromatic, and changes to amber color when dried. Introduced from Sicily. Aug.-Oct.

White Ischia—Small, pale greenish yellow; flesh purple, highly flavored and luscious; will ripen its fruit along the coast, where the finer varieties do not mature.

CAPRI, or WILD FIGS.

To successfully fruit and grow the Smyrna Fig, it is necessary to have the Capri, or Wild Fig. In the Capri Fig there is said to exist in the Mediterranean regions *three* crops of fruit. The spring, or "profichi," the second, or "mammoni," and the third, or "mamme," the latter remaining upon the trees during the winter. The fig wasp (*Blastophaga grossorum*) winter in the mamme, oviposit in the profichi, and develop a generation within it.

For a fuller account, see "Smyrna Fig Culture in the United States," by L. O. Howard, Ph. D., Bulletin No. 7, United States Department of Agriculture.

Wild Figs—Continued.

Capri No. 1—A very rapid, vigorous grower of spreading habits and very large leaves. Particularly valuable on account of producing an abundance of all crops—profichi, mammoni, and mamme and mature the first profichi, so

as to carry through all the generation of the Blastophaga.

Capri, No. 2—A very upright grower, branches slender; leaves small. Its principle value is in maturing somewhat later than No. 1, as it lengthens the season of caprification of the Smyrna.

PERSIMMONS.—Diospyros.

The Japanese Persimmons (*D. Kaki*) are growing more into favor every year and they are especially valuable for Winter fruit. For the Southern States these Persimmons will be a most welcome addition to the fruit list. The Italian and American varieties have delicious fruit, but it is small. The persimmons always command a high price in the market. Like all other Japanese fruits, there is much confusion in the names.

American (*D. Virginiana*)—Makes fine ornamental specimens. Leaves 4 to 6 inches long, glossy green above, glaucous beneath. Makes a round or conical rather open head, with crooked, twisted branches.

Dai-Dai-Maru—Fruit very large roundish, oblate, somewhat flattened; color dull orange flesh firm, light yellow, juicy, good; with few or no seeds.

Goshi-Gaki—Fruit medium, oblate, rather flat; color bright red; flesh light orange color, with few seeds.

Hachiya Very large, pointed; a little flattened at the stem; skin colored dull orange, covered with minute dark specks; flesh brownish-yellow, flecked with red.

Hya-Kume—Very large, roundish, oblate; skin vermilion-red; flesh rusty brown, juicy; very delicious.

Kuro-Kume—Medium, oblate; skin yellowish-red; flesh orange color; juicy and sweet.

Tana-Nashi—An excellent variety medium to large, conical; skin smooth and translucent, reddish-orange. flesh tender, melting; almost entirely seedless.

MULBERRIES.—Morus.

The Mulberry is valuable as an ornamental shade tree and the fruit is much liked in many sections. Plant in deep, rich, sandy loam. The tree requires little or no pruning, and is of easy culture.

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

New American—Equal to Downing's in all respects and a much hardier tree, Vigorous grower; very productive; the best variety for fruit; ripe from middle June to middle Sept

Noir of Spain—A new everbearing Mulberry of large size, larger than the Lawton blackberry, which it greatly resembles; color black; flavor tart, like a blackberry and not the insipid sweet of most of the *Morus* family, and preferred by many to a blackberry. The tree is a sure bearer, strong grower, very hardy and has a tendency to weep and could almost be classed as a weeping tree, making the fruit easily gathered. A very desirable ornamental tree, as well as one of the hardiest and most abundant bearers. By far the most desirable of the Mulberries.

Russian—(*Morus Tartarica Alba*)—A very hardy, rapid growing timber tree of great value, especially at the West. Introduced by the Mennonites; foliage abundant, and said to be very desirable in the culture of silk worms.

Fruit of good size and produced in great abundance.

White Mulberry—(*M. Alba*)—This has both white and black fruited trees. It is also known

DOWNING MULBERRY

under the names Moretti, Italica, etc. It forms a large, spreading tree, and in addition to its fruit its foliage makes good food for silk worms

NUT TREES.

The past few years have witnessed a remarkable development in the planting of Nut-bearing trees. Probably no branch of tree cultivation pays larger profits or is as well assured of a profitable market for all products. The immense importation of foreign nuts every year gives some idea of the market to be supplied. Few farms but contain land that, if planted to nut-bearing trees, would pay better than anything else to which it could be devoted; the nuts in many cases paying better than farm crops or fruits, while most kinds are making a growth of valuable timber, that will of itself pay a large per cent on the investment.

Our native Nut-bearing trees are admirably adapted for planting in streets, farm lanes, pastures, etc., for shade, ornament, and profitable returns.

ALMONDS. *Prunus. Amygdalus.*

The Almond requires a light, warm soil.

Drake's Seedling—Originated with Mr. Drake, of Suisun, California; of the Languedoc class, bears abundantly and regularly where the Languedoc is a total failure.

Hardshell—A fine hardy variety, with large, plump kernel and very ornamental when in bloom.

Harriott's Seedling, or Commercial—One of the largest of all almonds; originated in Visalia, California, where the original tree bears regularly and abundantly; shell softer than the Languedoc; not long, quite large, kernel sweet; this tree, unlike other almonds, is one of the finest ornamental trees, having a fine dense head; makes a very handsome avenue tree. 1)

I. X. L.—Large, generally single kernels; hulls easily; soft shell; tree a strong, upright grower.

Jordan—Introduced from Spain about 1893.

Origin of name "Jordan" unknown. Nut very long, narrow, but very plump, with hard, smooth shell, truncated base and somewhat bent at apex, edges sharp and knife-like. Fruit thin fleshed and covered with a heavy pubescence. Kernel nearly filling the entire cavity and covered with a most delicate papery skin, much thinner than on any other almond, which is one of its most valuable qualities. In flavor and texture the flesh far surpasses in delicacy any other variety. The most valuable addition to the nut list that has been made for many years.

Nonpareil—Large, full kernel, thin shell; tree of a weeping habit and a strong grower.

Ne Plus Ultra Similar to above, but of different habit of growth.

Peerless—Originated near Davisville, Calif., a sure and heavy bearer; shell harder than I. X. L., single large kernel.

AMERICAN SWEET CHESTNUT.

CHESTNUTS.—Castanea.

American Sweet—(*Castanea Americana*)—The fruit of this variety is smaller than the European kinds, but it is very sweet and well flavored; highly esteemed in the Eastern States.

Italian or Spanish—(*Castanea Vesca*)—A highly ornamental tree of free growth, esteemed

alike for its beautiful foliage and valuable timber. The nut is sweet and generally large, but the trees being raised from seed, the fruit often varies in size and quality.

Japan Mammoth—A monstrous fruit, larger than the European, and flavored like the American Sweet. Tree bears when quite young.

FILBERTS—Corylus.

Filbert, English—This is of the easiest culture, growing 6 to 10 feet high, entirely hardy, and one of the most profitable and satisfactory nuts to grow, succeeding well on almost all soils, bearing early and abundantly. Nut nearly round, rich, and of excellent flavor; admired by all for dessert. The following two are the leading varieties.

Red Hazel—Medium size, shell rather thick, kernel crimson skin, with a peculiar excellent flavor.

Kentish Cob—Not very large, oblong, and somewhat compressed; shell pretty thick, of a brown color, kernel full and rich, and great bearer. The best of all the nuts.

See also Purple-Leaf, Ornamental Dept.

HICKORY—Carya, or Hicoria Pecan.

Hickory Shellback—(*C. Alba*)—To many, no other nut that grows, either foreign or native, is superior to this; in quality it possesses a peculiar rich nutty flavor, excelled by none. The tree is of a sturdy, lofty growth. The wood, on account of its great strength and elasticity, is highly prized for making agricultural implements, and is unsurpassed for fuel.

Pecan—A native nut belonging to the (*Carya Olivæformis* or *Hicoria Pecan*) hickory nut family. The tree is of tall growth, and bears abundantly, not entirely hardy here, but is further south. Should be planted wherever it will succeed. The shell is very thin, the kernel sweet and delicious.

HICKORY NUT.

PECAN.

WALNUTS—Juglans.

JAPAN WALNUT.

Black American—(*J. Nigra*)—This species of Walnut is a common and stately forest tree in the Middle and Western states; makes a fine shade and ornamental tree; produces large crops of rich and oily nuts.

Butternut, White Walnut—(*J. Cinerea*)—A native of the Eastern states. The cultivation of this sort, so highly prized in the Eastern States, has been neglected here. It is a beautiful growing tree and yields large nuts of rough, hard shell, within which, however, are full white oily kernels, sweet, rich, of marked, though most delicate flavor. This variety does well in the coast counties and in well-watered regions of the foothills, not suited to the dry, hot valleys.

California Black Walnut—(*J. Californica*)—This species of Walnut is indigenous to California. The fruit is spherical, the nut hard, but smooth, and not furrowed like the Eastern Black Walnut; the kernel is rich and oily. This walnut is of a rapid growth, spreading out more than the Eastern kind, but going to bearing sooner.

PERSIAN VARIETIES.—(*J. Regia*.)

Also known as English, Madeira and French Walnut.

We would call special attention of the public to the following most valuable varieties of walnuts. The varieties we recommend to plant for market, are well tested varieties, that cannot be surpassed for beauty, size of nut, quality of meat or hardness of tree.

Commercial Walnut culture is concerned with *J. Regia*, commonly known as "English Walnut," but in reality the Persian, and sometimes known as the Madeira Walnut, as it was imported into England from those islands. It is, however, a native of Persia or Southern Asia.

PERSIAN VARIETIES—Continued.

Santa Barbara Soft Shell—A variety originating with Joseph Sexton of Santa Barbara, Calif. Tree a vigorous grower, early and abundant bearer. The nut is large; kernel white, sweet and readily extracted; shell thin, easily broken. One of the favorites in Southern California.

Santa Rosa Soft Shell—Claimed to be the hardest

of all Persian Walnuts. The nut is elongated; large, and of finest quality and flavor. Originated by Luther Burbank of Santa Rosa, Calif., who claims that it is the finest nut grown, and that it will succeed where other Persian varieties fail. It blooms late in spring and thereby escapes the frosts. Comes into bearing very young. An abundant bearer.

FRENCH VARIETIES of the PERSIAN WALNUT.

These we grow from nuts secured in France, from grafted first generation trees, thus making ours the second generation tree, these should not be confused, or prices compared with the common tender varieties grown by most nurserymen as "English Walnuts," which are not hardy enough for Oregon or the Northern States, and are very often barren caused by the staminate (or male blossom or catkin) being out while the pistulate, (or female blossom) is yet in a dormant state, so that, when the latter are out, there are no male catkins to fertilize the nuts, which drop off after attaining about the size of a pea. Thousands of good healthy trees can be seen both in California and Oregon of this class which are worthless, except for shade.

Chaberte Walnut—An old and most valuable variety; late in budding out. The nut is well shaped, roundish, oval, and of fair size, though it is not what is called a large nut; the kernel is of extra fine quality; good bearer. The Chaberte was originated over a century ago by a man named Chaberte, hence its name.

Franquette Walnut—Originated about the same time as the Mayette in the southeast of France, by a man named Franquet. It is quite large, of an elongated oval, and very attractive; kernel full fleshed and sweet. It buds out late in the spring.

Mayette Walnut—This is one of the finest dessert nuts grown; it is quite large, uniformly so, well shaped with a light colored shell; the kernel is full fleshed, sweet and nutty. But what renders this remarkable kind so much more valuable is to be very late in budding out, which enables it to escape the disastrous effect of late frosts in the spring; it is also an

abundant bearer. This is the nut imported in the United States under the name of Grenoble, but on account of the duty of three cents per pound, as the nut is a high-priced nut in France, a common and cheaper grade is mixed with it, to the disgust of nut importers in New York and Chicago. The Mayette was originated by a man of the name of Mayet, about 125 years ago, the nut having ever since been a great favorite.

Parisienne Walnut—This beautiful nut, also one of the finest for dessert and market, was originated in the southeast of France, and not in the neighborhood of Paris, as its name would imply; its beauty made it called "Parisienne," in honor of the Capitol of France. The nut is large, broader at the small end than the Mayette and the Franquette, and has a very pretty shape. It is as late and hardy as Mayette.

Præparturien—Perfect soft shell of first quality. Is one of the most productive kinds.

JAPANESE VARIETIES.—Walnuts.

As the name indicates they were introduced from Japan, and are sure to prove of great importance in nut growing districts. Easily transplanted, hardy, abundant and early bearers, with little, if any, tap-root compared with other varieties, but abundantly supplied with laterals.

Cordiformis—(J. Cordiformis)—This, as the name indicates, is a heart-shaped nut. It differs from the Sieboldi in form of the nuts, which are broad, pointed, flattened, somewhat resembling the shell-bark Hickory; meat large, of best quality and easily removed, as the shell is thin and parts easily at the sutures enabling one to get the kernel out whole. The flavor something between that of an English Walnut and a Butternut. As a dessert nut it has few superiors; the meat, being very sweet, is used extensively for candied nuts. We recommend it as one of the very best Jap. varieties.

Sieboldi—(J. Sieboldiana)—If it produced no

nuts would be well worth cultivating for an ornamental tree. Grows with great vigor, surpassing all other nut trees, assume very handsome form, needs no pruning; leaves immense size, charming shade of green. Nuts are borne in clusters of 12 or 15 each at tips of previous season's branches. Have a smooth shell; thicker than the English, but not as thick as the Black Walnuts, much resembling Pecans. Meat is sweet, of good quality, flavor like butternut, but less oily; commences bearing young; trees 3 to 4 years from nut in nursery rows, frequently producing nuts. Perfectly hardy, standing 21 degrees below zero without injuring a bud.

Ornamental Department.

IT IS STRANGE that so few people realize, that by expending a little time and study, they could have well **kept and attractive grounds**, adding to the beauty and comfort of the home, and increasing the value of the property, in place of having a few trees, shrubs, roses and vines scattered over the grounds at random, with little or no attention given to arrangement, pruning or cultivation, probably allowing them to grow in a thick turf, and then saying they could not get as good results as they expected for the money expended.

INCREASES VALUE OF PROPERTY.

Although still greatly neglected in many places, people in all sections, especially in cities and towns, are beginning to realize that property whether in city or country is of greater value when attractively planted with a judicious selection of choice ornamental trees, shrubs, vines, etc. No better investment can be made than one in trees, roses, vines, etc., used in beautifying the home, nor can better interest be made than is possible to be done in this way, besides adding to the beauty and comfort of the home.

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

BUY NONE BUT THE BEST. We have made a specialty of offering none but the best, both in variety offered, and quality of the stock shipped. A little thought will convince all that it is not the **number** but the **quality** that counts, especially in ornamentals. Few people realize the importance of getting started right, and spend years of regretting which a little forethought in selection and planting would have prevented. **Buy none but the best stock** carefully selected as to form and size, with a good root system properly grown by a reliable nurseryman. This will prove much cheaper in the end than forest grown trees, or cheap inferior nursery stock.

HOW TO PLANT.

A fine, well cut lawn is one of the handsomest features of a place. Do not make the mistake of planting at random all over the grounds. Trees and the larger shrubs may be planted along a lane or avenue leading to the house, or dotted about the lawn on lines radiating from it. This will secure light, air and a good view from the house. **In laying out the grounds** take into consideration economy in labor, so make as few walks as possible. Upright shrubs, roses and flowers should be planted in beds, each kind by itself, and avoid making the lawn look like a checker board. These beds should be well cultivated and the plants pruned annually. Mass the trees and beds on the boundaries so as to leave a broad space for the lawn, and where there is a pretty view leave an opening. Where there is an unsightly object conceal it by planting trees, or climbing vines. Do not plant large trees near the house, except enough on the sunny side for shade.

Plant Shrubs and small Trees twice as thick as they should be when fully grown. This will make a good showing at once, and when the growth of the plants has made them too thick, some should be taken out. It will not do to plant so little that years must elapse before a fine effect can be produced, but by planting a surplus at first, they can gradually be taken out.

VINES

Should be planted near to and allowed to climb upon and about the house, or trained on posts, trellises, arbors or stakes placed in suitable locations on the lawn.

Groups of trees and shrubs possessing bright colored bark or foliage, and groups of flowering trees and shrubs are highly effective when in blossom and should be more generally planted.

Weeping trees are especially desirable on small lawns.

NEW VARIETIES.

We are constantly adding to our list of ornamentals as well as in other departments. Before placing new varieties on the market we give them a thorough trial in the nursery, and thus weed out undesirable varieties, offering only the best in each class.

VARIETIES NOT LISTED.

In every large, well conducted nursery there are many varieties of extra size, but in too small quantities to list in the catalogue; also new varieties which have not been thoroughly tested. If you wish any variety in a special size or variety not listed, write to us for special quotations, and if we have it in stock will be pleased to supply.

NOMENCLATURE AND DESCRIPTION.

Our catalogue being made especially for the planter, we have given as far as possible the **common name first**, and the **botanical name follows in parenthesis**, although the common name is never absolutely reliable, as different localities sometimes have different names for the same plant.

There is much confusion even in the botanical names of trees, shrubs and plants at the present time. We have endeavored to follow the later botanists, and to make these as accurate as possible, and hope to correct any errors that may occur in future editions, and will appreciate it if customers will call attention to any misprints.

MOUNTAIN ASH.

UPRIGHT DECIDUOUS TREES.

ACACIA. (See Locust.)

AILANTHUS.

Tree of Heaven—(*A. Glandulosa*;)—A distinct ornamental tree from Japan; rapid grower, with long, elegant, feathery foliage; exempt from diseases and insects. One of the most distinct of ornamental trees with pinnate foliage. Useful to produce tropical effects. Is sometimes cut off every spring, when the young shoots form a foliage mass of tropical richness.

ALDER. (*Alnus*.)

European—(*A. Glutinosa*;)—A tree of rapid growth, attaining a height of 40 to 60 feet; foliage wavy, roundish, wedge-shaped, suitable for damp soils, but thriving well everywhere.

Imperial Cut-leaved—(*A. Laciniata Imperialis*.)

A very striking and beautiful tree of graceful habit, with delicate and beautiful cut leaves; hardy and of vigorous growth, one of the finest cut-leaved trees in cultivation, Fine for lawn planting.

ARALIA.—(*Angelica Tree or Hercules Club*).

All small trees with large, finely divided foliage and showy heads of white flowers; very useful for lawn planting and for sub-tropical effects. We recommend the two following varieties.

Japonica—(*Angelica Tree*)—A handsome, distinct, small tree from Japan; of spreading habit of growth, with immense finely-divided foliage and spiny stems. Flowers white, in large spikes, in July.

American Elm.

BRANCH OF BECHTEL'S DOUBLE-FLOWERING CRAB.

Aralia Spinosa—Continued.

Spinosa —(Hercules Club.)—A very showy sort. Broad, handsomely cut foliage, and immense clusters of small white flowers in

July or August. A singular looking small sized tree, with very prickly stems, pinnate leaves. It suckers occasionally from the roots, but not after well established.

CATALPA BUNGEI.

ASH—(*Fraxinus*).

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

See also Weeping.

ASIMINA (See Pawpaw).

BALM OF GILEAD (See Poplar).

BILSTED (See Sweet Gum).

BEECH (*Fagus*.)

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

Purple-Leaved—(*F. Purpurea*)—Discovered in a German forest. An elegant, vigorous

tree, growing 45 to 50 feet high. Foliage deep purple, changing to crimson. Like all varieties of the beech, this is difficult to transplant, hence small trees three feet high are preferable.

Riversi—Smooth leaved purple. (F. *Purpurea* Riversi). This variety differs from the ordinary purple leaved by its compact, symmetrical growth, and crimson foliage early in the spring, changing to dark purple in the summer. One of the finest of all purple leaved trees.

See also Weeping Trees

BIRCH (*Betula*).

European White—(*B. Alba*)—A fine tree of moderate size, with silvery bark and slender branches.

See also Weeping Trees.

BOX ELDER—(See Maple Ash Leaf.)

BUCKEYE—(See Horse-Chestnut.)

BUTTONWOOD—(See Sycamore.)

CATALPA—(*Catalpa*).

Bungei—(*Umbrella Catalpa*)—Grafted on stems six to eight feet high, it makes an umbrella-shaped top without pruning. Perfectly hardy and flourishes in almost all soils and climates. Leaves large, glossy, heart-shaped, deep green; lay like shingles on a roof; always make a symmetrical head. One of the most unique trees; a valuable acquisition, desirable for lawn, park and cemetery planting. (See cut).

Speciosa—One of the most rapid growers. Valuable for timber, fence posts, railroad ties, etc., possessing wonderful durability. Large, heart-shaped, downy leaves, and compound panicles of white flowers, tinged with violet and dotted with purple and yellow. Very ornamental and useful.

Syringæfolia—A native of the South. A rapid growing, beautiful tree, with very large, heart-shaped leaves and pyramidal clusters of white and purple flowers. Late in July.

Tea's Japan Hybrid—Large luxuriant foliage, handsome white flowers with purple dots and a touch of yellow around the throat, with a pleasant, delicate fragrance; a tree in bloom not only produces a magnificent spectacle to the eye, but also fills the air quite a distance with its agreeable odor. In rapidity of growth it rivals the most luxuriant trees of temperate climate.

CHERRY (*Cerasus*).

Double Flowering—(*C. Flore alba pleno*)—A tree of medium growth, producing clusters of double white flowers in May. Blooms so profusely as to completely hide the branches from view. Fifteen to twenty feet high when fully grown.

Rhexi fl. pl.—Extra fine, double white flowered variety. Its pure white flowers resembling small roses, are freely produced at blossoming season.

Dwarf Rocky Mountain—(See Shrubs.)

Japan Weeping—(See Weeping Trees.)

CHESTNUT—(See Nut Trees.)

CLADRASTIS—(See Yellow Wood.)

CRAB (*Pyrus*, or *Pyrus Malus*).

Bechtel's Double Flowering—(*P. Floribunda*)—Makes a medium sized ornamental tree of great beauty; perfectly hardy; succeeds well in all soils not extremely wet. When in bloom in early spring this tree presents the appearance of being covered with perfectly double, small, pink roses of delicious fragrance. The only sweet scented Double Crab; blooms quite young. Unlike many other trees, it does not bloom until the leaves are fully developed, which adds

greatly to its beauty. Sure to become quite popular as soon as it is well known. (See cut).

DOGWOOD.

DOGWOOD (*Cornus*).

American White—(*C. Florida*)—A native tree of fine form and beautiful foliage, growing from 20 to 25 feet high, producing white flowers three inches in diameter, early in the spring, before the leaves appear. A very desirable tree. Foliage grayish-green, turning deep red in autumn, making the tree one of the most beautiful at that season. One of the most desirable of ornamental trees. (See cut).

See also Weeping Trees and Shrubs.

ELM (*Ulmus*).

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

Corkbark—(*U. Racemosa*)—The bark is corky; the tree an upright, fast grower.

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

Purple Leaved—(*U. Purpurea*)—Erect in growth, with slender branches, densely clothed with dark purplish-green foliage.

Camperdown—(See Weeping Trees.)

EMPRESS TREE—(See Paulownia.)

FRINGE (*Chionanthus*).

Purple—(*C. Rhus Cotinus*)—A much admired small tree or shrub, for its curious fringe or hairlike flowers that cover the whole surface of the plants in mid-summer.

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

GINKGO—See *Salisburea*.

GOLDEN CHAIN—See *Laburnum*.

GUM—See Sweet and Sour.

HERCULES CLUB—See *Aralia*.

HICKORY—See Nut Trees.

HORSE CHESTNUT.

HONEY LOCUST—(*Gleditschia*).

Honey Locust, thick horned—(*G. Triacanthos*).

A rapid growing native tree, with powerful spines and delicate foliage, used especially for hedges.

HORSE CHESTNUT (*Æsculus*).

Red Flowering (*Æ. Rubicunda*)—Not so rapid or as fine a grower as the white; foliage of a deep green and blooms later, with showy red flowers.

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

slightly marked with red specks or panicles, (See cut).

HORSE-CHESTNUT, SMOOTH-FRUITED (*Æ. Pavia*).

Ohio Buckeye—(*Æ. Flava*)—Has pale green leaves and showy yellow flowers. A fine small tree. A very crooked and irregular grower.

JUDAS OR RED BUD (*Cercis*).

American—(*C. Canadensis*)—A medium sized, native ornamental tree, covered with delicious pink flowers, before the leaves appear. Heart shaped, pure green leaves, with glossy surface, flowering about same time as Chinese Magnolias, and planted with them, produce fine effect.

KENTUCKY COFFEE TREE (*Gymnocladus Canadensis*.)

A native tree of large size, with rough bark and coarse branches; feathery foliage of a bluish green color. Flowers white in racemes followed by long pods.

LABURNUM (*Cytisus*).

† **Golden Chain**—(*C. Vulgare*)—Bears long, pendant racemes of yellow flowers in June;

showy and beautiful. Should be in every lawn.

LARCH (*Larix*).

A tree that should be in every collection because of its beautiful green foliage appearing early in the spring. As it is one of the first trees to come into leaf in the spring, it should be planted early. The American Larch is known as Tamarack and Hackmatack. We list only the following:

LINDEN.

European—(*L. Europaea*)—An excellent, upright, rapid growing pyramidal shaped tree with drooping, slender branches; foliage light green, soft and graceful in the spring, turning to golden yellow in the autumn before falling. Unlike most conifers, it is deciduous after the first year; perfectly hardy and thrives in nearly all situations. Makes a very handsome specimen for ornamental planting and is very valuable for timber

LINDEN (*Tilia*).

Close, dense headed, rapid growing trees, excellent for shade, do well in nearly all situations; excellently adapted to street, park and large lawns; should be planted much more freely than they are.

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

European—(T. Europaea)—A very fine pyramidal tree, with large leaves and fragrant flowers. A valuable tree for street and lawn planting, developing into beautiful specimens.

White or Silver Leaved—(T. Argentea)—A handsome, vigorous growing tree; pyramidal form; large leaves, whitish on the under side, and having a beautiful appearance when ruffled by the wind; its white color making it conspicuous among other trees. Blossoms very fragrant.

LIQUID AMBER—(See Sweet Gum).

MAGNOLIA.

LOCUST OR ACACIA—(Robina).

Black—(R. Pseudacacia)—50-80 ft. Medium-sized tree with feathery foliage and drooping racemes of very fragrant pea-shaped flowers. Cut back when transplanting. This is the tree producing the "posts" and "pins" of commerce.

Rose or Moss—(R. Hispida)—A native species of spreading, irregular growth, very long elegant clusters of pea-shaped, rose colored flowers in June, and at intervals through the season. Compound foliage of a pleasing shade of light green.

LOCUST HONEY—(Gleditschia). See page 53.

MACLURA—(See Osage Orange).

MAGNOLIA—(Native Sorts).

It would be difficult to overpraise magnolias, —they make beautiful trees for ornamental planting, and the *acuminata* and *tripetala* are also valuable as street and avenue trees.

The leaves are large, dark-green, the flowers white or yellowish-white, and most of them sweet-scented. Nearly all bear large and conspicuous fruit pods,—the *tripetala* being especially handsome in this respect. They should be transplanted in the spring and closely pruned.

Figures in parenthesis indicate size of grown tree.

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

Glaucia—Sweet Bay—(15 to 20 feet). The Sweet White Magnolia is greatly prized for its beautiful, white, sweet-scented flowers. These flowers come later than those of most all other kinds, not expanding until the first week in June. In sheltered places it is almost or quite an evergreen. Though it grows in swamps and low ground in its wild state, it does equally well in higher situations.

Tripetala—(Umbrella Tree)—A hardy, medium-sized tree, with immense leaves and large white flowers four to six inches in diameter, appearing in June.

Magnolia—Chinese and Japanese Sorts—The Chinese and Japanese are not as large-growing as the native ones, their maximum height being about twenty to thirty feet. They can either be trimmed up to a single stem—tree form—or allowed to grow bushy as shrubs, in which form it could be kept to any desired height.

Conspicua—(Chinese White)—A beautiful Chinese variety, with large white flowers that appear before the leaves. Tree of small size.

Lennei—(20 to 25 ft.)—The large, cup-shaped, rosy pink flowers are beautiful, and are unlike those of any other sort.

Purpurea (obovata)—(6 to 10 ft.)—Bushy growth; flowers purple, after many others are over.

Soulangeana—(15 to 20 ft.)—Perhaps the most popular of all magnolias, being of vigorous growth, and blooming profusely, even when quite small. The flowers are large, pink on the outside of petals and white inside. In average seasons the flowers open in the third week in April. It can be grown as a small tree or large shrub.

Speciosa—(Showy flowered)—Resembles the Soulangeana; flowers not as large or as deep in color; exceedingly free bloomer and flowers remain on tree longer than any other Chinese variety. One of the hardiest and best.

Stellata (Halleana)—(5 to 6 ft.)—A dwarf, bush-growing, most valuable species. The flowers are white, tinted with pink in the bud, semi-double, fragrant, and appear as early as the 15th of April. The earliest of all to flower. It is one of the best for massing, as well as for a specimen shrub.

MAIDENS HAIR—See Salisburea.

MAPLE—(Acer.)

Argenta Variegated—(A. Argenta)—This we consider one of the most attractive ornamental trees grown; so much of the leaf is variegated that at a short distance it has the appearance of the whole leaf being a silver white. The tree is as hardy as the ash-leaved and a specimen should be in every lawn.

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

Golden Variegated — Foliage golden yellow, Tree very hardy and attractive.

NORWAY MAPLE.

Norway — (A. Plantanoides.) — A native of Europe. Its large, compact habit, broad, deep green shining foliage, and its stout, vigorous growth, renders it one of the most desirable species for streets, parks and rather a rough, crooked grower, while lawns; young, but soon develops into straight, magnificent specimens.

Oregon—(A. Macrophyllum)—A most graceful tree, with wide spreading branches and large foliage. Very rapid growth.

Purple-Leaved Sycamore — (A. Pseudo-platanus Purpurea)—Leaves deep green on upper surface, purplish red beneath, producing a beautiful color effect when leaves are in motion. Tree of robust habit; fine for lawns for grouping with other foliage trees.

Red or Scarlet — (A. Rubrum) — A native species of medium size and rounded head; produces deep red blossoms which appear before the leaves. In autumn the foliage changes to a brilliant scarlet.

Schwedler's — (A. Schwedlerii) — A beautiful variety, with young shoots and leaves of a bright, purplish and crimson color, which changes to purplish green in the older leaves. A distinct and handsome sort.

Silver-leaved, or Soft—(A. Dasycarpum)—A well known native tree of rapid growth, large size, and irregular rounded form; foliage bright green above and silvery white beneath, tree very hardy and easily transplanted. One of the most useful trees.

Sugar or Rock—(A. Saccharinum)—A popular American tree of excellent pyramidal form. Its upright habit of growth, dense shade and adaptability to different soils, has rendered it one of the most extensively used. Valuable for sugar and timber, as well as ornament and shade.

Sycamore—(A. Pseudo Platanus)—A noble variety, with spacious head, and large, deep-green foliage; a rapid, upright, free grower; very desirable for shade.

DARK PURPLE-LEAF MAPLE.

Wier's Cut-leaved Silver—(A. Wierii Laciniatum)—This is one of the most remarkable and beautiful trees with cut or dissected foliage yet offered. Its growth is rapid, shoots slender and drooping, giving it a habit almost as graceful as the Cut-leaved Birch. The foliage is abundant, silvery underneath, and on the young woods especially, deeply and delicately cut.

MAPLES, JAPANESE.

The Japanese Maples are becoming more popular as they become better known. They are all of dwarf habits and are varied in their foliage. They are all so shrub-like in growth, and many of them of such rich, bright hues and deep cut leaves that we class them by themselves. On account of these characters they are much used for forming permanent beds, but are very effective whether planted singly or in groups. In groups they can be planted four to six feet apart. Though succeeding in sun they prefer light shade at midday. The bright-hued leaves make a fine display and the blood-leaved (*Atropurpureum*), aureum and purple cut-leaf are especially in demand. We include only those we can especially recommend.

Blood-Red Japan Maple—(*A. Polymorphum sanguineum*)—The brightest and most constant in color of the red-leaved sorts and one of the most popular.

Cut-Leaved Purple—(*A. polymorphum dissectum atropurpureum*)—One of the most striking and handsome varieties of the Japan Maples. From dwarf and weeping; the leaves are of a beautiful rose color when young, and change to a deep and constant purple as they become older. They are also deeply and delicately cut, giving them an elegant fern-like appearance. (5 to 7 ft. when grown.)

Dark Purple-Leaved—(*A. polymorphum atropurpureum*)—Forms a bushy shrub; foliage dark purple and deeply cut; very ornamental. The hardiest and altogether the best

SILVER-LEAF MAPLE.

of the Japan Maples. One of the choicest small trees or shrubs. (12 to 15 ft.)

Golden Japan—(*A. palmatum aureum*)—The leaves retain their light yellow color with little variation throughout the summer. One of the best and most effective in a group. (8 to 10 ft. when grown.)

Japanese—(*A. polymorphum*)—The most vigorous of the type; forms a small, shrubby tree with various shades of color on the young growth; foliage small, deeply lobed, coppery-green, changing to the most brilliant and gorgeous tints in autumn. It is the parent form of many of the "Japanese maples." For planting singly on a lawn it is most handsome, its feathery green leaves making its appearance distinct from that of any other shrub-like tree. (12 to 15 ft.)

MOUNTAIN ASH—(*Pyrus Sorbus*).

Very ornamental, especially when covered with their bright scarlet berries.

American—(*P. Americana*)—A favorite, erect growing tree, of medium size, producing white flowers early in spring, followed by clusters of bright scarlet berries, which remain on the tree through the winter months.

European—(*P. Aucuparia*)—Similar in appearance to the above, with finer foliage, and smaller, deeper colored berries; much more desirable than the American, and everywhere very popular; erect stem, smooth bark; head dense and regular. When fully grown, (20 to 35 feet).

Oak-Leaved—(*P. Quercifolia*)—A very distinct and desirable tree, with compact, pyramidal head and dark-lobed leaves, downy underneath; producing the same flowers and berries as the preceding. Very hardy and desirable for planting on lawns or in door-yards. When fully grown, (20 to 25 feet).

See also Weeping Trees.

MULBERRY—(See page 42, also Weeping Trees.)

OAK—(*Quercus*).

Pin—(*Q. Palustris*)—The Pin Oak is undoubtedly the most valuable variety for all practical purposes. The foliage is dense, finely divided, of a beautiful shining green that colors to sparkling red and yellow in fall. The tree is easily transplanted and grows well on wet or dry ground; is, in fact, the quickest growing of all the Oaks. As an avenue and street tree it is unequaled, and it is one of the best for park planting.

PIN OAK.

Red Oak—(*Q. Rubra*)—A very well-known, rapid-growing, native species. The leaves are large and bright-green, and take on a purplish-scarlet hue in the fall. It becomes of large size, with a round and spreading head. One of the best sorts, not only as a street and avenue tree, but also for ornamental purposes.

OSAGE ORANGE (*Maclura*).

Osage Orange—(*M. Aurantiaca*)—A native tree of medium size and spreading habit. Leaves bright, shining green, broad and sharp pointed. Fruit resembles an orange. One of the very best defensive hedges. It is of vigorous habit and rapid, dense growth, and when kept properly trimmed, makes a very efficient hedge and is also ornamental.

PAULOWNIA (*Paulownia*).

Empress Tree—(*P. Imperialis*)—A magnificent tropical looking tree from Japan. Of extremely rapid growth, and surpassing all others in size of leaves, which are 12 to 14 inches in diameter. Blossoms trumpet-shaped, formed in large, upright panicles in May. Quite hardy here, but the flowerbuds are apt to be killed during severe winters.

Carolina Poplar.

PAW PAW (*Asimina*).

Custard Apple—(*A. Triloba*)—Produces an oblong, yellow, pulpy fruit. Leaves large, pointed, flowers dark purple, foliage colors handsomely in the fall.

PECAN—(See pg. 44).**PERSIMMONS**—(See pg. 42).**PLANE TREE**—(See Sycamore).**PLATANUS**—(See Sycamore).**POPLAR** (*Populus*).

Balm of Gilead—(*P. candicans ontariensis*)—A native species of remarkably rapid, luxuriant growth, with large glossy foliage.

Bolles'—(*P. Bolleana*)—New Pyramidal form; leaves dark green on upper side, brilliant silver beneath; very beautiful. A valuable tree for grouping on the lawn.

Carolina—(*P. Monolifera Carolinensis*)—One of, if not the most rapid growing trees, with large, handsome, glossy, serrated, deep green leaves. Succeeds everywhere; especially adapted to large cities, where it makes unusual fast growth, and resists smoke and gas. Pyramidal form, making a spreading head and dense shade when properly trimmed. New growth should be well cut back in spring for the first few seasons. It is unexcelled for quick growth and effect; makes a splendid windbreak or screen; is used in larger numbers than any other one tree for street planting. For new places and streets where the slower growing ornamentals are desired, plant the Poplars between, securing an almost immediate effect, removing them as the other trees attain size.

Golden—(*P. Aurea Van Geertii*)—Has fine golden yellow foliage, retaining its brilliancy throughout the season, fine for contrast with green or purple-leaved trees. One of the most effective for street and lawn planting.

Lombardy—(*P. Fastigiata*)—A well-known, tall, erect-growing tree of rapid growth and spire-like outline; very essential in landscape gardening to give variety of form and destroy the appearance of sameness produced by other trees.

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

See also Weeping Trees.

PRUNUS PISSARDI—(*Purple Leaf Plum*)—A new shrub of Persian origin. The tree is a decided contrast in itself. The leaves, as they first appear on the tips, are a beautiful orange color, and they mature to a rich purple, clear and distinct, growing darker as the season advances. The leaves remain until late in the fall—a decided contrast to other shrubs. Its beautiful, shining bark and its pink flowers and bright red fruit, altogether making it the most rich and beautiful ornamental tree possible. It is remarkably hardy; a very rapid grower, compact, symmetrical in proportion, and attains about the size of the peach.

PLUM—(*Prunus*).

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

RED BUD—(See Judas tree, page 53.)**SALISBUREA**.

Maiden Hair or Ginkgo—(*S. Adiantifolia*)—A Japanese tree of large size and columnar growth. When full-grown it is more spreading. The leaves resemble those of the Maiden Hair Fern. A valuable, ornamental tree, and useful for street and avenue planting. If pruned several times when young it will make a round, compact-headed tree. It seems to thrive well along sidewalks in the city, and to be generally free from insects and diseases.

SALISBUREA OR MAIDEN HAIR TREE.

SOUR GUM or TUPELO—(*Nyssa*).

Multiflora—Besides its bright-green leaves and shapely growth, its lovely autumn foliage recommends it.

SWEET GUM, or BILSTED—(*Liquidamber Styraciflua*.)

One of the finest American trees. Of medium size and moderate growth; form round-headed or tapering; leaves resemble somewhat those of the maple, but are star-shaped and of a beautiful glossy green color in summer, turning to a deep purplish-crimson in autumn; and in this respect is equal to the Sour Gum; bark corky. Beautiful in all stages of growth, it is particularly handsome and striking in autumn. It thrives in low, damp places, though growing equally as well in higher ground. A beautiful tree for street or avenue planting. Prune closely when transplanted.

SYCAMORE (*Platanus*).

American Plane, Sycamore, or Buttonwood—(*P. Occidentalis*)—A well known, tall, rapid growing native tree; leaves large, heart-shaped at the base; the lobes sharp-pointed.

European—(*P. Orientalis*)—Oriental plane. A lofty, wide-spreading tree; heart-shaped leaves; more deeply cut than above species; valuable for its handsome foliage and free growth; not as subject to disease as our

SWEET GUM TREE.

native species. Entirely free from worms or insects. One of the oldest cultivated trees known.

THORN—(*Crataegus*).

Double Scarlet—(*C. Coccinea* fl. pl.)—Flowers deep crimson, with scarlet shade; very double, and considered larger than the double red; fine rich foliage.

Double White—(*C. Alba Flore Pleno*)—Has small, double white flowers.

Paul's Double Scarlet—(*C. Coccinea* fl. pl. Paulii) — Flowers large, deep carmine scarlet. Superior to any other variety.

TREE OF HEAVEN (See *Ailanthus*)**TULIP TREE, or WHITE WOOD** (*Liriodendron*.)

Liriodendron tulipifera—A magnificent native tree, of very rapid growth; broad glossy and fiddle-shaped leaves. It is valued for its clean, smooth bark and handsome green foliage. The flowers appear in the first week in June. They are large, greenish-yellow, blotched-orange, and have the shape of a tulip. It makes a very desirable tree for street planting, thriving in low as well as high ground. Plant only in spring and prune very closely. Allied to the *Magnolias*, and like them, difficult to transplant, unless of small size.

TUPELO—(See Sour Gum).

VIRGILIA—(See Yellow Wood).

WALNUT—(See page 44).

WHITE WOOD—(See Tulip Tree).

WILLOW—(*Salix*.)

Golden Willow—(*S. Vitellina*)—This is valued very much for its bright, golden-barked twigs in the winter season, for the effect of which it is much planted. It is especially showy when planted in large groups. To produce the best results it should be severely trimmed every winter to induce a quantity of strong young growths.

Rosemary-Leaved—(*S. Rosmarinifolia*)—Budded 5 to 7 feet from the ground, it makes a very handsome round-headed small tree; branches feathery, foliage silvery.

See also Weeping Trees.

YELLOW WOOD (*Cladrastis Tinctoria*, syn. *Virgilia Lutea*.)

One of the finest American trees, of singular beauty when in flower. Of moderate growth, broadly rounded head, foliage compound, of a light green color, turning to a warm yellow in autumn; flowers pea-shaped, white, sweet scented, appearing in great profusion in June, in long drooping racemes covering the tree, and giving it a most distinct and pleasing effect.

WEEPING, DROOPING, OR PENDULOUS TREES.

Much attention is now given to this class of trees, and we place them separately for the convenience of our patrons. The superior grace and beauty of the weeping varieties render them especially adapted to yard, lawn or cemetery. No collection is complete without them; among ornamentals they have no superior.

For the benefit of those unacquainted with their habits, or manner of growth, we would divide them into two classes:

(A)—Those which are grafted where the top or head commences to form, which assume that conspicuous, umbrella-like form so well known, as in the Camperdown Elm, and are especially adapted to planting in small lawns or cemeteries, as well as producing beautiful effects in parks among the larger trees.

(B)—Those having long, slender branches, which drop naturally, like the Cut-leaved Birch and Babylonica Willow, having tall growing trunks, with long slender branches. They are best adapted to parks, streets or the larger lawns. Where they can be given sufficient room, the elegance, grace and beauty of their branches, at rest or in motion, are so graceful that they have few, if any, superiors among ornamental trees.

In our list will be found all the choicest varieties, which we deem particularly attractive. Customers, however, will be saved from disappointment if they will realize, that it is impossible to deliver them from the nursery with the graceful form to which they will attain with age. This could no more be done than to deliver fruit trees loaded with fruit.

CAMPERDOWN ELM.

ASH (*Fraxinus*).

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

BEECH (*Fagus*).

F. *Sylvatica pendula*—A remarkably vigorous, picturesque tree of large size. Its mode of growth is extremely curious. The trunk or stem is generally straight, with the branches tortuous and spreading; quite ungainly in appearance divested of their leaves, but when covered with rich luxuriant foliage, of wonderful grace and beauty.

BIRCH (*Betula*).

Cut-Leaved—(*B. Laciniata Pendula*)—Probably the most popular and desirable lawn tree in existence, and produces a beautiful effect on streets and avenues. Makes a vigorous growth and is perfectly hardy. Trunk straight, slender, white as snow. The slim side branches droop in a most picturesque manner; foliage delicate and deeply cut, coloring finely in the fall. The drooping branches and silvery bark form a most effective combination during the winter months. Mr. Scott, in his "Suburban Home grounds," says of it: "No engraving can do it justice; like the palm tree of the tropics, it must be seen in motion, swaying in the lightest breeze, its leaves trembling in the heated summer air, its white bark glistening through the bright foliage and sparkling in the sun, to enable us to form a true impression of its character."

Elegant Weeping—(*B. Elegans Pendula*)—First exhibited at the Paris Exposition in 1876, where it attracted great attention. It has

beautiful foliage and an elegant weeping habit. It is very desirable in grounds that admit of variety.

Young's Weeping—(*B. Pendula Youngii*)—Originated near Milford, Eng., where it was found trailing upon the ground. Grafted into stems of some height, it forms pendulous heads, drooping to the ground in fine, thread-like shoots; very beautiful.

CHERRY (*Cerasus*).

Japan Weeping Rose-Flowered—(*C. Japonica Pendula Rosea*)—Brought from Japan by Van Siebold, and is certainly one of the finest weeping trees for lawns or small grounds. The branches are slender and when grafted on tall stems, fall gracefully to the ground. The flowers are rose-colored, appearing before the leaves. Undoubtedly the finest weeping cherry, and one of finest weeping trees in cultivation.

Japan Weeping, White—(*C. Japonica Pendula Alba*)—Feathery and graceful; flowers single, white; fruit red. One of the finest of the small headed pendent cherries. Resembles the *pumila pendula* somewhat, but much more feathery and graceful.

DOGWOOD (*Cornus*).

Weeping—(*C. Pendula*)—A weeping form of the White Flowering, distinct from all other weeping trees. Possesses the abundant bloom, handsome foliage and fruit of the White Flowering, and makes a magnificent specimen, either summer or winter.

ELM (*Ulmus*).

Camperdown Weeping—(*U. Pendula*)—A vigorous grower and forms one of the most picturesque drooping trees. Leaves large, dark green and glossy, and cover the tree with a luxurious mass of verdure; very desirable.

MAPLE—(Wier's Cut-Leaf. See pg. 56).

MOUNTAIN ASH (*Pyrus Sorbus*).

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

MULBERRY (*Morus*).

Tea's Weeping Russian Mulberry—(*M. Tatarica Pendula*)—A weeping variety of the now well-known Russian Mulberry. One of the most graceful and hardy weeping trees in existence. Wholly unlike anything heretofore introduced. Forms a perfect umbrella-shaped head, with long, slender, willowy branches drooping to the ground.

Tea's Weeping Mulberry.

All who have seen it agree that in light, airy gracefulness, delicacy of form and motion it is without a rival. It has beautiful foliage, is wonderfully vigorous and healthy; is one of the hardiest, enduring the cold of the north and the heat of the south; safe and easy to transplant. Admirably adapted for ornamenting small or large grounds, or for cemetery planting.

POPLAR (*Populus*).

Large-Leaved Weeping—(*P. Grandidentata Pendula*)—A variety having, when grafted standard high, long, slender branches, like cord-, which droop very gracefully, foliage large, dark, shining green, and deeply serrated.

WILLOW (*Salix*).

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

Babylonica or Common Weeping—(*S. Babylonica*)—The well known common Weeping Willow. A large tree covered with drooping branchlets.

Golden Weeping—(*S. Aurea Pendula*)—The bark of this is of a bright-golden color. The branches are somewhat drooping. Makes a medium-sized ornamental tree.

Kilmarnock—(*S. Caprea Pendula*)—A distinct variety, having reddish shoots and large, glossy foliage; grafted at a proper height, about five feet from the ground, it makes a very desirable small lawn tree, having a perfect umbrella-shaped head, with the branches drooping gracefully to the ground. It is well suited for planting in cemetery lots or other small enclosures. Extensively planted, and should be in every collection of ornamental shrubbery. Hardy and of vigorous growth.

CUT-LEAVED BIRCH.

EVERGREENS.—Coniferae.

Evergreens are very desirable, as they retain their foliage throughout the winter, and are now everywhere appreciated as indispensable for variety, and giving color and effect to lawn or landscape, and adding to the tone, warmth and verdure especially in winter. The constant green of the coniferae is the quality most valuable in them; the prevailing color which they give to their surroundings is deep-toned, but if the bright-leaved sorts, now plentiful, are planted among the somber ones, they greatly enliven the effect. They are also very desirable for hedges, shelters or windbreaks, or for screening undesirable objects.

They should be judiciously planted in small lawns as well as large, and should be given sufficient room to fully develope.

The sap of most evergreens, being of a resinous nature, is not as active in early spring as that of deciduous trees, and, as a rule, all evergreens and coniferous trees succeed better planted later in spring and earlier in autumn than deciduous trees. The latter part of April or during May, and the latter part of summer, say in August, are the best times in ordinary seasons for transplanting in this latitude. August planting is not recommended, however, unless the season be favorable.

KILMARNOCK WEEPING WILLOW.

ARAUCARIA.

Araucaria Imbricata—(Chili Pine or Monkey Puzzle)—A fine tree of regular pyramidal form; leaves bright green, broad, thick, pointed and overlapping each other.

ARBOR VITÆ (Thuya or Thuja).

American—(*T. Occidentalis*)—This is one of

the very finest evergreens for hedges. It is very hardy, and if set at the proper time with care and without undue exposure, it may be relied upon to live; but small plants 12 to 18 inches high, which have been transplanted several times, are preferable. It bears shearing better than any other variety,

GLOBE ARBORVITÆ.

Arbor Vitæ—Continued.

and may be made a very beautiful and dense hedge or screen to divide grounds, or for any purpose where it is not required to resist cattle or other animals.

Chinese—(T. Biota Orientalis)—Of upright growth, slender, and bright green foliage. Growth is flat on twigs; arranged mostly vertically.

Compacta—(T. Compacta) — (Parson's)—Foliage bright, light green. Habit, dwarf and compact.

Elegant or Rollison's Golden—(T. Biota Orientalis Elegantissima)—New; pyramidal; of a beautiful golden tint, when young, changing to golden bronze in autumn. The finest of this habit.

Globe Arbor Vitæ—(T. Globosa)—Forms a natural evergreen globe or ball without any trimming; very pretty and hardy.

Golden—(T. Aurea)—Free grower with fine golden yellow foliage; hardy; the most desirable Golden Arbor Vitæ for the northern states.

Hovey's Golden—(T. Hovei)—A seedling from the American. A perfectly hardy, distinct, compact variety; leaves a bright green; a beautiful object either singly or in hedge.

Pyramidalis—(T. Pyramidalis)—This exceedingly beautiful Arbor Vitæ is the most compact and erect of all the entire species, being in form almost a counterpart of the Irish Juniper. Foliage a deep green, retaining its color remarkably well through the entire season and perfectly hardy.

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

Tom Thumb—(T. Tom Thumb)—Remarkable for its low, compact habit; valuable for planting in cemeteries and small places where large trees are not admissible.

CALIFORNIA BIG TREE (*Sequoia Gigantea*).

The famous Big Tree of California; it makes a handsome pyramid when young; very desirable for lawn decoration. A very attractive evergreen; thrives well in this climate.

CEDRUS DEODARA.

The Great Cedar of the Himalayan Mountains.

Himalayan or Indian Cedar—(C. Deodara)—Exceedingly handsome, with drooping branches and silvery-green foliage, branches feathery and spreading, forming a dense net work; the finest, most rapid growing of all Cedars, and worthy of a place in every garden.

CRYPTOMERIA (Japan Cedar).

Cryptomeria Japonica.—One of the finest evergreens of Japan. Fairly hardy.

CYPRESS (Cupressus).

Lawson's—(Chamaecyparis Lawsoniana or False Cypress, also as Cupressus Lawson-

iana)—A fine evergreen, native of the Pacific Coast. One of the most graceful and beautiful of evergreens; of fine, compact habits; delicate feathery foliage; varies from vivid green to a silvery or bluish tint, according to sub-varieties.

FIR (Abies).

Concolor, Colorado Silver Fir—(Abies Concolor)

—A stately and beautiful variety; One of the finest of Rocky Mountain Evergreens. Graceful habits; broad, handsome foliage, bluish above, silvery beneath. A fairly rapid grower and a very desirable variety for the lawn. Extremely hardy and a fit companion for the Colorado Blue Spruce. Withstands heat and drought the best of all firs.

Silver, or Grand Fir—(Abies Grandis)—A large stately tree of pyramidal growth, leaves thin flexible, deeply grooved, very dark green above and silvery white beneath; a native of the Pacific coast.

See also Spruce.

PYRAMIDAL ARBOR VITÆ.

HEMLOCK (Tsuga).

Tsuga Canadensis—It can be a stately lawn tree, a wide-spreading shrub or a hedge plant, and in each place it hardly has an equal.

JUNIPER (Juniperus).

Golden Variegated—(J. Aurea Variegata)—Pyramidal in form, somewhat like the Red Cedar, but the growth is much finer. Golden Variegation throughout the year.

COLORADO BLUE SPRUCE.

Juniper—Continued.

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

Swedish—(*J. Suecica*)—Similar to the Irish, though not so erect, with yellowish-green foliage, of somewhat lighter color than the preceding, forming a beautiful pyramidal small tree.

Red Cedar — (*J. Virginica*) — A well-known American tree, with deep-green foliage; makes a fine ornamental hedge.

PINE (*Pinus*).

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

Mugho, Dwarf Mountain Pine—(*P. Mugho* or *Montana*)—Of compact, spreading growth; it keeps below four feet in height for many years. Does not grow tall, but spreads over the ground, generally assuming a globular form; very dense.

Scotch—(*P. Sylvestris*)—A fine, robust, rapidly-growing tree, with stout, erect shoots and silver-green foliage.

White—(*P. Strobus*)—The most ornamental of all our native pines; foliage light, delicate, or silvery-green; flourishes in the poorest soils.

PODOCARPUS—See Yew.

RED CEDAR—See Juniper.

RETINOSPORA (Japanese Cypress or Japanese Cedar). (*Retinospora* or *Chamaecyparis*).

A genus very similar to cupressus. It comprises many varieties of wonderful beauty. Botanists class all varieties under two species—*obtusa* and *pisifera*, but originating in Japan it is almost impossible to say for certain to which a variety belongs, and following most other nurserymen we list under the names we received them. *R. Plumosa*, *R. Ericoides*, *R. Filifera*, *R. Squarrosa*, generally considered as forms of *R. Pisifera*, also spelled *Retinispora*. They are very desirable for planting in groups, as they are of medium size. In the far north they must be protected in winter.

R. Ericoides—A dense, broadly pyramidal or round-headed bush with upright branches and dull green foliage, changing to brownish green in winter. Leaves—linear, soft, grayish-green beneath. Very ornamental.

R. Filifera—Upright leader, main branches nearly horizontal, smaller branches of a graceful and weeping habit. One of the showiest.

R. Filifera Aurea—A golden form of the preceding.

R. Obtusa—A free-growing evergreen, of bright-green foliage.

R. Pisifera—An evergreen of tree-like character when matured. The underside of foliage is silvery.

R. Plumosa—An exceedingly handsome, small evergreen from Japan, with feathery, light-green foliage.

R. Plumosa Aurea—Like the preceding, a plant of great beauty; foliage soft, plume-like, of a golden color; close and compact habit; should be in every amateur collection.

R. Squarrosa—This valued sort has steel colored foliage and makes a tufty, compact growth. It grows to a large size, but by pruning can be kept down to almost any size, as, in fact, can all *Retinosporas*.

Sequoia—See California Big Tree.

SPRUCE (*Picea*)

The names *Abies* for Fir and *Picea* for Spruce are used just oppositely by different authors, Linnaeus employing *Abies* for Spruce and *Picea* for Fir. We have followed Gray, Bailey and most of the later botanists, who use the name the same as the ancients.

Colorado Blue—(*P. Pungens*)—A rare, elegant tree with foliage of rich blue. One of the most distinct and striking of all the spruce family. This variety of Spruce was found in the Rocky Mountains, and has always given the best of satisfaction wherever planted. Considered as one of the most beautiful of all evergreens. A free grower and perfectly hardy.

Douglas—(*P. Douglasii* or *Pseudotsuga Douglasii*)—Indigenous to Colorado. Of quite rapid growth and conical form; foliage delicate green, glaucous underneath; hardy and easily grown.

See also *Abies*.

Norway—(*P. Excelsa*)—A lofty, elegant tree, of perfect, pyramidal habit, remarkably elegant and rich, and as it gets age, has fine, graceful, pendulous branches; it is exceedingly picturesque and beautiful. Very popular and deservedly so, and should be largely planted. One of the best evergreens for hedges.

Pygmæa—(*P. Excelsa Pygmæa*)—A dwarf variety of the Norway; grows from three to four feet high; very compact.

YEW (*Taxus*).

English Yew—(*T. Baccata*)—A large bush or tree, 30 to 40 feet when fully grown. It is densely branched and can be trimmed into any shape.

Erect English—(*T. Erecta*)—A very fine pyramidal variety of the English Yew, with dark green foliage. Hardy and desirable.

T. Elegantissima—One of the most valuable golden-leaved evergreens which we have. In June and July the leaves of the new growth are of a bright straw color, rendering the plant highly effective, either by itself or in connection with other conifers. One of the hardiest of the Yews.

Irish—(*T. Hibernica*)—Of tall, slim growth and beautiful dark-green foliage; it is of great use to planters. As with all Yews, it winters better when shaded from the sun during the cold months of winter.

PODOCARPUS.

Japan Yews—(*P. Japonica*)—A peculiar, charming, erect tree from Japan, hardier and denser than the Irish Yew, eminently fitting it for cemetery purposes.

UPRIGHT DECIDUOUS SHRUBS.

No yard is complete without one or more beautiful flowering shrubs and we would urge a more extensive planting of this class of ornamentals covering such a wide range in flower and foliage, habit of growth and season of blossoming. Requiring but small space they can be used on lawns to fill vacancies where large trees could not be harmoniously grown, breaking the monotony of the landscape by grouping or distributing singly according to size of grounds and scenic effect.

ALTHÆA.

ALTHÆA (*Hibiscus Syriacus*).

Rose of Sharon—One of the most showy and beautiful shrubs. Flowers large, double, of many brilliant colors. Blooms freely in August and September when few other trees or shrubs are in blossom.

Double Red—(*H. Rubra flore pleno*).

Double Purple—(*H. Purpurea flore pleno*).

Double White—(*H. Alba flore pleno*).

Variegated Leaf—(*H. variegatis flore pleno*)

ALMOND (*Prunus*).

Double-Rose Flowering—(*P. Japonica Rubra, fl. pl.*)—A beautiful small shrub, bearing in May, before the leaves appear; small, double, rose-like flowers, closely set upon the twigs.

Double-White Flowering—(*P. Japonica Alba fl. pl.*)—Produces beautiful white flowers in May.

AZALEA (*Azalea* or *Rhododendron Sinense*).

A. Mollis—Showy, hardy plants, used extensively in parks and public grounds. The brilliancy of their flowers is not approached by anything in the line of hardy shrubs. Excellent for the front of borders or clumps of taller growing shrubs.

BARBERRY (*Berberis*).

Used as hedge plants quite extensively. Their showy orange and yellow flowers in May and June are followed by bright and various colored fruits, making them especially showy in autumn and winter.

Purple-Leaved—(*B. Purpurea*)—Foliage and fruit of a violet purple color, very striking; fine for single specimens; also a desirable ornamental hedge plant, planted by itself or intermingled with the common.

B. Thunbergii—A very pretty variety from Japan; of dwarf graceful habit; foliage small, changing to beautiful bright red early in fall; very showy.

BLUE SPIRÆA (See *Verbena Shrub*).

CALYCANTHUS (Sweet Scented Shrub or Carolina Allspice).

Calycanthus Floridus—(Sweet-Scented Shrub)—The wood is fragrant, foliage rich; flowers are of chocolate color, having a peculiarly agreeable color. Flowers in June and at intervals afterward.

CHERRY (*Cerasus*).

Dwarf Rocky Mountain—From the mountains of Colorado. Hardy as a Wyoming sage-bush. With its deep green willow-like leaves, mass of pure white flowers in spring and a load of fruit in summer, it is well worth cultivation for an ornamental shrub. Makes a bush four or five feet high, usually fruiting in two years, producing large quantities of jet black fruit about the size of English Morello, and ripening after all other cherries are gone. See also page 52 and 61.

CORAL BERRY (See *Snowberry*).

CORCORUS (*Kerria Japonica*).

A graceful, slender shrub, growing 4 to 5 feet high, flowering with double yellow flowers from early summer till fall. As pretty as a rose in shape of flower and very ornamental as a plant for lawn.

CORNUS (See *Dogwood*, p. 52, 61); See also below.

GRAPE MYRTLE (*Lagerstroemia Indica*).

A very beautiful class of shrub. It is to the south what the Lilac and Snowball are to the north, being found in nearly every yard. It is a strong grower, reaching a height of 10 to 25 feet; deciduous-leaved; a continuous bloomer during the entire summer; flowers are very pretty, having curiously crimped petals. The normal color pink, but varieties with blush, white and purple are not uncommon. It is a native of Southern Asia, probably from China. Not hardy in the extreme North.

CURRENT (*Ribes*).

Crimson-Flowering—(*R. Sanguineum*)—Produces an abundance of crimson flowers in early spring.

Yellow-Flowering—(*R. Aureum*)—A native species with yellow flowers.

CYDONIA—See *Quince*, Japan.

DEUTZIA—(*Deutzia*).

This valuable species of plants comes to us from Japan. Their hardiness, luxuriant foliage and profusion of attractive flowers, ren-

ders them deservedly among the most popular of flowering shrubs. The flowers are produced in June, in racemes four to six inches long.

Abel Carriere—(*D. Hortensis* Abel Carriere)—Bright rose carmine; a choice sort; one of the best.

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

D. Gracilis—(Slender branched)—A very desirable dwarf growing variety. Flowers pure white. A valuable plant for winter blooming.

Lemoine's—(*D. Lemoinei*)—Single white, a hardy hybrid, partaking to a great extent of the character of *gracilis*, but of stronger growth. Good for forcing.

D. Pride of Rochester—A new variety said to excel all others in size of the double white flower,

bark covered with peculiar brown spots which remain all winter. Flowers not large, but the bush is covered in July with large bright red berries, which are edible and of a sprightly and agreeable flavor. Foliage remains good until late in autumn. A very desirable acquisition.

ELDER (*Sambucus*).

Golden—(*S. Aurea*)—From Holland. New and rare. When the leaves first appear they are bright green, but if planted where they will have plenty of sun they soon change to a golden green. The blossom, which resembles the common Elder blossom appears in July. The best effect is produced when they are planted with other shrubs, thus rendering the foliage more conspicuous by the contrast.

EXOCHORDA.

Pearl Bush—(*E. Grandiflora*)—A vigorous-

DEUTZIA LEMOINE.

length of panicle, profuseness of bloom and vigorous habit. A charming acquisition. Produced from the *Crenata*.

D. Waterii—A grand new variety with very large double white flowers borne in large loose racemes; robust grower and very hardy.

DOGWOOD (*Cornus*).

Red-Branched—(*C. Sanguinea*)—A native species, very conspicuous and ornamental in the Winter, when the bark is a blood red.

C. Sanguinea—(Var. *Elegantissima* Variegata)—One of the finest variegated shrubs; of rapid growth; the leaves are broadly margined with white bark, bright red in winter.

See also pg. 52 and 61.

ELÆAGNUS.

Japanese Silver Thorn or Oleaster—(*E. Longipes*)—A remarkable new shrub from Japan. Foliage glossy, silvery tinge underneath;

growing shrub from China, forming a compact bush 10 to 12 feet high; can be trimmed to any desired shape. The flowers are borne in slender racemes of eight to ten florets each, on light and wiry branches that bend beneath their load of bloom just enough to be graceful. It is perfectly hardy; flowers pure white. Very useful for cut-flowers.

FILBERT (*Corylus*).

Purple Leaf—(*C. Avellana*, var. *Atropurpurea*, or *C. Purpurea*)—A very conspicuous shrub, with large, dark purple leaves. Soon after the leaves expand they are almost black, but later on fade to a light purple. Valuable for planting in groups of large shrubs, to secure color effect. Distinct and fine.

See also pg. 44.

Tree Hydrangea.

FORSYTHIA.

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

F. Fortunii—Similar to the above but of more upright growth.

F. Suspensa—(Weeping Forsythia)—Of drooping habit, resembling Fortunii in its flowers.

HEDYSARUM MULTIJUGUM.

Hardy, perennial, of recent introduction, of angular, straggling growth, 2 to 5 feet high; very showy and worthy of general culture; flowers all summer, pea shaped, violet or purplish majenta, with yellow blotches in racemes, 8 to 18 inches long; leaves oval, grayish-green; fine for rockwork.

HONEYSUCKLE, UPRIGHT (Lonicera).

Red Tartarian—(L. Tartarica Rubra)—A beautiful flowering shrub, blooms early in spring, flowers bright pink.

White Tartarian—(L. Tartarica Alba)—Similar to the preceding, with white flowers. See climbing Honeysuckle, pg. 80.

HYDRANGEAS.

Beautiful free flowering shrubs, bearing immense panicles or trusses of flowers. Paniculata is perfectly hardy and requires no protection; the other varieties require protection in winter and should be grown in pots or boxes and wintered in the cellar, except in the warmer sections.

H. Paniculata Grandiflora—This is one of the most valuable hardy shrubs. It attains a height of three to four feet, and is perfectly hardy in all parts of the country. The flowers are white, borne in immense panicles nearly a foot in length. It commences flowering in July and continues until November. The plant should be cut back every spring at least one-half of last season's growth as the flowers are borne on new wood and are much finer when the plant is treated in this way. An excellent shrub for cemetery planting.

H. Otaksa—A splendid variety from Japan. Flowers large, bright pink tinted with blue; produced very freely.

H. Thomas Hogg—Immense trusses of flowers, at first slightly tinged with green, becoming of the purest white, and remaining so a long time.

HYPERICUM—See St. John Wort.

JAPAN SILVER THORN—See Elæagnus.

INDIAN CURRANT—See Snowberry.

JUNE BERRY—(Amelanchier Anifolia Nana).

Improved Dwarf—The fruit is borne in clusters, reddish purple in color, changing to bluish-black. In flavor it is mild, rich, sub-acid, excellent as a dessert fruit or canned. It is extremely hardy. In habit it is similar to the currant, the bushes attaining the same size. The blossoms are quite large and composed of fine white petals, which, with its bright, glossy dark green foliage, renders it one of the handsomest of ornamental shrubs.

KERRIA—See Corcorus, pg. 68.

LILAC (Syringa).

Well known shrubs, succeed everywhere. Few are aware of the wonderful improvement in the past few years. We offer a choice selection of the best new double varieties, remarkable for their large trusses and beautiful flowers. Should be in every collection.

Common Purple—(S. Vulgaris)—The well-known sort.

S. Belle de Nancy—(Double)—Very large, brilliant satiny rose; white towards center; very fine.

Common White—(S. Vulgaris Alba).

LILAC.—PRESIDENT GREVY.

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

S. Japonica—(Tree Lilac)—A new species from Japan that makes a tree 20 to 25 feet high. The foliage is large, very dark green, glossy and leathery. Flowers, white, in immense clusters, that stand up erect above the foliage on stout stems. It flowers about a month later than the common sorts.

Josikæa or Chionanthus Leaved—(S. Josikæa)—From Transylvania. A fine distinct species of tree-like growth, with dark, shining leaves and purple flowers in June, after the other Lilacs have done.

S. Madame Ludwig Spæth—Panicle long; individual flowers large, single dark purplish red; distinct; superb. The finest of its color.

S. Madame Abel Chatenay—(Double)—Large panicle; double white, very fine.

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

S. Senateur Volland—(Double)—Flowers rosy red.

Persian—(S. Persica)—Medium size, with small leaves and bright purple flowers.

White Persian—(S. Persica Alba)—A fine sort, with flowers delicately tinged with rose color.

Meadow Sweet—See *Spiræa*.

Mock Orange—See *Syringa Philadelphus*.

Oleaster—See *Elæagnus*.

Pearl Bush—See *Exochorda*.

PLUM (*Prunus*). See under Deciduous Trees.

SYRINGA, OR MOCK ORANGE.

PRIVET (*Ligustrum*).

The *Privet* in all its varieties deserves attention as an ornamental plant. It is almost an evergreen, and grows freely in all soils; is compact and regular in its form, and bears shearing to any extent. The flowers appear in June and July. Makes fine ornamental single specimens and one of the most desirable hedge plants; compact, free grower.

Common—(*L. Vulgare*)—An English shrub with smooth dark green leaves; showy white flowers; fruit purple, hardy.

California—(*L. Ovalifolium*)—A vigorous growing variety, of fine habit, thick, glossy, nearly evergreen leaves. Of all ornamental hedge plants, this is the most highly prized. If cut to the ground one or two years after planting it makes a very thick hedge right from the bottom, sending up many strong shoots. The leaves are a rich green, and will remain on the plants up to Christmas, and if they are little sheltered they will keep green almost all winter. This is especially the case if the

hedge has attained some age and has frequently been trimmed. Though it is a strong grower it can be kept to a low size by frequent trimming.

QUINCE, JAPAN (*Cydonia* or *Pyrus Japonica*).

There are several flowering varieties, differing only in their color. Although of straggling growth, they can be pruned to desirable shapes without injury. Their large brilliant blossoms appear early in the spring in great profusion. Foliage bright green and glossy all through the summer. It is sufficiently thorny and strong to make a valuable hedge, and its beautiful flowers make it very handsome for that purpose.

Scarlet—(*C. Japonica*)—One of the best known; and a very handsome, hardy ornamental shrub. Has bright scarlet-crimson flowers, in great profusion, early in spring; one of the hardy shrubs; makes a beautiful ornamental hedge.

Blush—A beautiful variety with white and blush flowers.

ROCKY MOUNTAIN CHERRY—See Cherry.

ROSE OF SHARON—See *Althæa*.

SCOTCH BROOM (*Genista*).

Genista Scoparia—(Scotch Broom)—The branches, almost rush-like in appearance, bear lovely yellow flowers.

SILVER BELL or SNOW DROP TREE (*Halesia*).

d. Tetrapetra—A fine large shrub, with beautiful large white, bell-shaped flowers in May. Rare and desirable.

SNOWBALL (*Viburnum*).

Common—(*V. Sterilis*)—A well-known favorite shrub of large size, with globular clusters of pure white flowers in the latter part of May.

V. Opulus—(High Bush Cranberry)—Handsome and dense foliage; flowers white in drooping flat cymes, followed by brilliant scarlet fruit in showy pendulous bunches that remain on the plant all winter.

V. Plicatum—(Japan Snowball)—This Japanese variety of the old-fashioned Snowball is one of the most valuable of our hardy shrubs. It forms an erect, compact shrub, six to eight feet high; blooms in June and for a long time is a solid mass of white, the plants being completely covered from the ground to the top of the branches with large balls of flowers white as snow. The foliage in early summer is an olive green, turning to very dark green later in the season.

SNOWBERRY (*Symphoricarpos*).

S. Vulgaris—(Indian Currant, Coral Berry, St. Peter's Wort or Waxberry)—Graceful small shrub; small flowers followed by persistent deep-red berries along the under side of branches.

S. Racemosus—A well-known shrub with pink flowers and large white berries that remain on the plant through part of the winter.

SPIRÆA (*Spiræa*) Meadow Sweet.

S. Anthony Waterer—A most beautiful variety of *Bumalda*. In habit of growth it is the same as its parent. The flowers are crimson in the bud and when first open, fading afterwards to a deep pink. It blooms about

the close of June, and if the flowers are cut off as fast as they commence to decay, there will be a continuance of them throughout the season, to some extent.

S. Aurea—(Gold-leaved)—Flowers fine, white;

S. Prunifolia Flore Pleno — (Double Flowering Plum Leaved)—Very beautiful; its flowers are like white daisies. From Japan. Blossoms in May.

S. Thunbergii—Profusion of small white flowers in early spring. Forms a rounded,

COMMON SNOWBALL.

foliage of a beautiful golden color, which gives variety to the lawn and renders it very desirable.

S. Callosa Alba—A white flowering variety of dwarf habit; very fine; remains in flower all summer.

graceful, dwarf bush; branches slender and somewhat drooping.

S. Van Houttei—The habit of the plant is pendulous, yet upright, giving a most graceful appearance even when out of bloom. The flowers are pure white and in dense clusters along the whole length of the branches,

Spiræa—Continued.

often weighing them to the ground. One of the finest ornamental shrubs that we offer. Excellent as a single lawn plant, or for grouping with other shrubs, also a fine hedge plant.

ST. JOHN'S WORT (*Hypericum*).

H. Moserianum—A grand variety, with large bright golden yellow flowers two inches in diameter. A continuous bloomer.

SWEET-SCENTED SHRUB—See *Calycanthus*.**SYRINGA, or MOCK ORANGE** (*Philadelphus*).

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

Garland Syringa—(*P. Coronarius*)—A well-known shrub, with pure white sweet-scented flowers.

SPIRÆA VAN HOUTEII.

ST. PETER'S WORT—See Snowberry.**SUMACH or SMOKE TREE** (*Rhus*).

Shining Sumach (*R. Copallina*)—Noted for its lustrous green leaves, which are crimson in autumn, and its scarlet heads of seeds.

Mist Shrub. Smoke Tree—(*R. Cotinus*)—The large panicles of purplish, misty-looking flowers this bears in early June has gained for it the name of Mist Shrub, Smoke Bush, etc. In fall the leaves change to brown, red, and yellow colors.

Golden-Leaved—(*P. Aurea*)—A very pretty plant of medium size with golden-yellow foliage. It retains its color the entire season, and is valuable for creating pleasing and striking contrasts with both green and purple-leaved shrubs.

Lemoine's Erect Syringa (*P. Lemoinei Erectus*)—A charming variety of upright growth, flowers small yellowish-white, with fragrant, more clustered than the older sorts, completely covering the bush.

Van Houtte's—(*D. Van Houtteii*)—Red; one of the best red varieties.

TAMARIX (*Tamarix*).

African—(*T. Africana*)—A very beautiful shrub, with very fine, feathery foliage, something like the Juniper; this sort has light pink flowers in small racemes, which appear towards close of May or first of June; a valuable shrub for near sea shore or in sandy soils where others do not do well.

VERBENA SHRUB, or BLUE SPIRÆA.

(*Caryopteris Mastacanthus*)—A new shrub, which is planted because of its blossoming late in the fall, when but few shrubs are in flower. In the axil of each leaf-stalk is a bunch of bright-blue flowers. It continues in flower from the middle of September to the middle of October. An entire bed of this plant produces a striking effect; 2 to 3 feet high when grown. A valuable plant for bedding.

WAXBERRY—See Snowberry.

WEIGELA (*Diervilla*).

Candida—(*D. Candida*)—This is the very best of all the white flowering Weigelas; a strong, upright, erect grower; flowers pure white and produced in great profusion in June and continue to bloom during the entire summer.

Rose Colored—(*D. Rosea*)—An elegant shrub, with fine, rose-colored leaves. Introduced from China by Mr. Fortune, and considered one of the finest plants he has discovered. Quite hardy. Blossoms in May.

Variegated-leaved—(*D. Nana Foliis Variegata*)—Leaves bordered with yellowish-white, finely marked. Flowers bright pink.

HONEY LOCUST HEDGE.

HEDGES.

Nothing could be more beautiful than a neatly trimmed hedge of evergreens, and they are useful for boundry fences, screens, etc. We give below some of the best varieties for ornamental hedges, screens, windbreaks or boundaries.

American Arbor Vitæ,	pg. 63, Evergreen,
Siberian Arbor Vitæ,	" 65, "
Red Cedar,	" 67, "
Norway Spruce,	" 67, "
Honey Locust,	" 53, Deciduous,
Japan Quince,	" 72, "
Ashberry,	" 76, Evergreen,

Barberry,	pg. 68, Deciduous,
Box,	" 76, Evergreen,
Euonymus	" 76, "
Laurustinus,	" 77, "
Privet,	" 72, Deciduous,
Spiræa,	" 72, "

All described in appropriate places in this catalogue make beautiful ornamental hedges.

DEFENSIVE HEDGES—Honey Locust, pg. 53; Osage Orange, pg. 57,—both Deciduous.

EVERGREEN SHRUBS.

This class of shrubs should not be neglected when planting a lawn or park. They fill the same relative position to the flowering shrubs that Evergreens (conifers) do to deciduous trees. Nothing could be more ornamental than a fine bed of Rhododendrons.

YUCCA OR ADAMS NEEDLE.

ADAMS NEEDLE—See Yucca.

ASHBERRY—(Mahonia).

Holly Leaved—(M. Aquifolia)—A beautiful shrub, with smooth shining leaves, covered with bright yellow flowers in spring, and a profusion of blue berries in autumn.

AUCUBA JAPONICA (Spotted Laurel).

Gold Dust Tree—A small, beautiful shrub, with curious gold blotched leaves; needs protection in winter. We list two varieties.

A. Macula Masculata—Leaves long and narrow, irregularly toothed; color deep green.

A. Lanceolata—A desirable variety with deep green, lance-shaped leaves.

BOX—(Buxus).

Dwarf—(B. Nana)—Used principally for borders and edging, for which purpose it is the best plant in cultivation.

Tree Box—(B. Sempervirens, Arborescens)—

A very desirable small tree in the yard or garden, well adapted to small places, prefers a shady situation; it can be made to assume any form.

B. Variegata—A variety of tree box, forming a beautiful small bush, blotched with white.

Burning Bush—See Euonymus.

Calico Bush—See Mt. Laurel.

EUONYMUS—(Euonymus)—Spindel Tree, Strawberry Tree or Burning Bush.

E. Japonica Radicans Variegated—A neat trailing variety, with small, glossy green leaves broadly margined with white. Valuable for rock work or borders of beds; also for vases or baskets. This variety is hardy in the north.

Gold Dust Tree—See Aucuba.

HOLLY (*Ilex*).

American Holly — (*I. Opaca*) — Deep green, glossy leaves with scattered spiney teeth, bright red berries.

English Holly — (*I. Aquifolia*) — A small tree, with shining, dark green thorny leaves, somewhat resembling the oak in form. In winter the tree is covered with bright red berries.

I. Golden Variegated — Leaves having a large blotch of creamy-yellow surrounded by a green border.

KALMIA — See Mt. Laurel.

LAURUSTINUS — (*Viburnum Tinus*) — A well-known winter flowering shrub of great beauty, producing an abundance of white flowers; well adapted for hedges.

V. Rotundifolia — Far superior to the common variety; leaves rounded, deep glossy green. Flowers much larger than the above. Better adapted to this valley; never sun-scalds.

V. Variegata — Leaves blotched with silvery white. Very fine.

LIGUSTRUM — See Privet,

MAHONIA — See Ashberry,

Mountain or American Laurel, or Calico Bush — (*Kalmia Latifolia*) — Broad, glossy-green, shining foliage, flowers in large and showy clusters of elegant shape, and most beautifully colored, mostly pink or white. Few broad-leaved Evergreens are as beautiful in foliage, and none can excel the beauty and delicate form of its flowers. Requires about same treatment as the Rhododendron.

PRIVET — See Deciduous Shrubs.

RHODODENDRON, or ROSEBAY — (*Rhododendron*)

This, wherever known, is universally acknowledged to be the most showy, magnificent, hardy evergreen shrub that grows. It will thrive in any good soil without any special preparation, and in the full blaze of the sun. But it is more luxuriant in good, well prepared soil of leaf mould, or leaf mould and muck and peat mixed, and in partial shade, and does specially well near seacoast. It is abundantly supplied with numerous fibrous roots that retain a quantity of earth in lifting, so that it can safely be removed at any season of the year, except the short period of their rapid growth, covering a portion of June and July. The broad thick evergreen foliage, with its glossy richness would alone entitle it to a place foremost in the rank of evergreen shrubs, but when in June this mass of luxuriant foliage is almost hidden by the magnificent array of beautiful flowers in clusters and each cluster large enough for a lady's bouquet, it gives it a pre-eminence that our pen would

RHODODENDRON.

fail to portray. Planted singly, in the flower garden or upon the lawn, they are objects of interest, but their greatest beauty, as in many other plants, can only be fully developed by artistically massing them in beds upon the lawn, when the different varieties, of white, blue, purple, cherry, lilac, mauve and crimson, can be made to blend or contrast at will, producing an effect unrivalled by any other hardy plant in existence. We have a considerable list of the **hardy grafted varieties** that are of higher price and much more desirable than the seedlings of the Catawbiense, as they compass in the different sorts the entire range of colors, and each in itself distinct and definite, while the seedlings, as a rule, vary but little from the original type. When soils are too strongly impregnated with lime, the original soil should be removed to a good depth and width where the Rhododendrons are to be planted and the space filled in with leaf mould and peat or muck mixed, or some other soil tolerably free from lime. They will repay all care that may be bestowed in preparing a bed suitable to their wants.

SPINDLE, or Strawberry Tree — See *Euonymus*.

YUCCA — (*Spanish Bayonet* or *Adam's Needle*) Has a fine appearance; the stem is two feet above the ground, covered with large, bell-shaped flowers on laterals, forming a perfect pyramid; valuable for rockwork. We list two varieties.

Y. Aloefolia — Slender simple trunk; dagger shaped leaves one to two inches wide; very stiff; flowers white, often tinged with green or purple; panicle compact, close to leaves.

Y. Filamentosa — The well-known garden variety, thread leaved, creamy white; two to four feet. The best known and most largely planted of the yuccas. July.

HARDY CLIMBING VINES.

"It seems unnecessary to speak at length of the value of the climbing plants in our gardens and pleasure grounds. They are equally ornamental on the walls and terraces of the stable, mansion, and on the humblest cottage, over whose low roof a mantle of rose or clematis sheds such a transforming cloud of beauty. They grace the garden walls and take from stiff and hard lines their ugliness by fresh foliage, pretty flowers, and often pleasing fruit." Invaluable for covering trellises, walls, cottages, etc.

AMPELOPSIS VEITCHII.

ACTINIDIA—See Silvery Sweet Vine.

AKEBIA.

A. Quinata—A very beautiful, perfectly hardy, fast growing Japan vine, with magnificent foliage; producing flowers in large clusters of chocolate purple color, possessing a most delicious perfume; unsurpassed for covering trellises and verandas, the foliage never being attacked by insects.

AMPELOPSIS (Ampelopsis).

A. Veitchii—(Japan Ivy or Boston Ivy) — A beautiful, hardy climbing plant, of Japanese origin. Leaves a little smaller and more ivy like than the American. This is one of the finest climbers we have for covering walls, as it clings firmly to the smoothest

surface, covering it smoothly with overlapping leaves, which form a perfect mass of foliage. The color is a fresh deep green in summer, changing to the brightest shade of crimson and yellow in autumn. It is quite hardy and becomes more popular every year. For covering walls, stumps, etc., no plant is more beautiful.

Virginia Creeper or American Ivy—(A Quinquifolia)—A native vine of rapid growth, with large luxuriant foliage, which, in the autumn, assumes the most gorgeous and magnificent coloring. The blossoms, which are inconspicuous, are succeeded by handsome dark blue berries. Like the Bignonia and Ivy it throws out tendrils at the joints, by which it fastens itself to anything it touches.

ARISTOLOCHIA—See Dutchman's Pipe.

BIGNONIA, or TRUMPET FLOWER—(Tecoma).

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

T. Grandiflora—New. Leaves thick and shining, and immense blossoms of gorgeous crimson and yellow,

CINNAMON VINE—(Dioscorea Divaricata).

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

HARDY PERPETUAL CLEMATIS, or VIRGIN'S BOWER.

Clematis plants of the improved sorts are exceedingly hardy, slender branched climbing shrubs of marvelously rapid growth and handsome foliage, which produce beautiful large flowers of various colors in great abundance, and during a long period. In the several species and varieties of it, the Clematis surpasses all other hardy climbers in its adaptation to many uses and locations. They do best in a rich soil, in a sunny situation.

CLEMATIS (Clematis).

C. Coccinea—(The Scarlet Clematis)—The vines attain a height of from 10 to 12 feet, beginning to flower in June and continuing until frost; single vines have from 20 to 30 flowers on each, and frequently as many as ten vines will start from one crown each season. The flowers are bell-shaped; in color a rich, deep coral scarlet, shining as if polished, and lasting a long time when cut.

C. Duchess of Edinburgh—This is without doubt the best of the pure double whites. Deliciously scented.

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

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

C. Jackmani Alba—A strong, vigorous grower, perfectly hardy, and a most prolific bloomer; fine, large, pure white flowers.

C. Mad. Ed. Andre—This is the nearest approach to a bright red Clematis and has been called the Crimson Jackmani. The plant is a strong, vigorous grower and very free in bloom. Color a distinct crimson red; a very pleasing shade and entirely distinct from all other varieties.

C. Paniculata, Sweet-Scented Japan Clematis—A Japanese plant possessing unusually attrac-

tive merits. A vine of very rapid growth, quickly covering trellises and arbors with handsome, clean, glossy green foliage. The flowers are of medium size, pure white, borne in immense sheets, and of a most delicious and penetrating fragrance. The flowers appear in September, at a season when very few other vines are in blossom.

CLEMATIS JACKMANI.

- C. Ramona**—A strong, rampant grower, and a true perpetual bloomer; flowers appearing on the last year's growth and on the new shoots, giving an abundance of blossoms all through the season. Color, deep rich lavender.
- C. Viticella Kermisina**—Flowers of medium size, of bright wine red color, without a touch of purple. A strong, free grower, producing shade in a comparatively short time; a perfect sheet of fine red color.

CLEMATIS PANICULATA.

DUTCHMAN'S PIPE (*Aristolochia Sipho*).

A magnificent hardy native vine of rapid growth, with very large heart-shaped leaves and brownish flowers, resembling in shape a miniature pipe; splendid for archways or verandas.

EULALIA (*Eulalia*).

Eulalia Zebrina—(*E. Japonica Zebrina*)—One of the most striking and distinct plants. Unlike most plants of variegated foliage, the striping or marking is across the leaves instead of longitudinally; the leaves being striped every two or three inches by a band of yellow about one-half inch wide.

HONEYSUCKLE (*Lonicera*).

EULALIA.

Chinese Twining—(*L. Japonica* or *L. Sinensis*) A well-known vine, holding its foliage nearly all winter. Blooms in July and September and is very sweet.

Hall's Japan—(*L. Halliana*)—A strong, vigorous evergreen variety, with pure white flowers, changing to yellow. Very fragrant, covered with flowers from June to November.

Japan Gold-Leaved—(*L. Aurea Reticulata*)—A handsome variety, having foliage beautifully netted or variegated with yellow. Flowers yellow and fragrant.

Monthly Fragrant—(*L. Belgica*)—Blossoms all summer. Flowers red and yellow. Very sweet. Rapid grower.

Scarlet Trumpet—(*L. Sempervirens*)—A strong grower and produces bright scarlet, inodorous flowers all summer.

See Upright Honeysuckle, pg. 71.

IVY (*Hedera*).

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

American Ivy—See Ampelopsis.

English—(*H. Helix*)—A well-known old and popular sort.

Variegated-Leaved—(*H. Fol. Variegata*)—With smaller leaves than the preceding, variegated with white.

Irish Ivy—(*H. Canariensis*, or *Hibernica*)—The well-known old sort.

JASMINE (*Jasminum*).

Hardy Yellow Jasmine—(*J. Nudiflorum*)—Bright yellow, fragrant blossoms.

Hardy White Jasmine—(*J. Officinalis*)—Very sweet scented and highly desirable.

MATRIMONY VINE.

CHINESE MATRIMONY VINE—(*Lycium Chinense* or *Vulgare*).

A neat, half-climbing plant, bearing small, light-pink flowers in summer, followed by berries which turn to a beautiful scarlet in the fall, when it is very ornamental.

SILVERLY SWEET VINE.

SILVERLY-SWEET VINE (*Actinidia Polygama*).

A new, hardy climber, from Japan, of remarkable beauty. The foliage on the ends of the flowering shoots is of a glistening silvery-white color, giving the whole vine, from a little distance, the appearance of being covered with large white flowers blossoming among its bright green leaves. The effect is very marked and beautiful. The flowers, which appear in this latitude about the middle of June, lasting from two to three weeks, are creamy white with purple center in color with numerous stamens, with bright yellow anthers, and remarkably sweet, resembling the Lily of the Valley in fragrance.

TRUMPET VINE—See *Bignonia*.

WISTARIA. (*Wistaria*).

Chinese Purple—(*W. Sinensis*)—A most beautiful climber of rapid growth, and producing long, pendulous clusters of pale blue flowers. When well established, makes an enormous

growth; it is very hardy and one of the most superb vines ever introduced.

Chinese White — (*W. Sinensis Alba*) — Introduced by Mr. Fortune, from China, and regarded as one of the greatest acquisitions. Rather tender.

PAMPAS GRASS (*Gynerium Digertium*).

Half hardy perennial; a native of South America. Very beautiful. Roots require winter protection in cold climates.

Elegans—(*G. Elegans*)—Plumes silvery white, upon very long stems; blooms early. A graceful new variety that is bound to become popular. The large plumes when dried make a splendid addition to a bouquet of dried grasses.

Burbank's New Dwarf Pampas Grass — (*G. Jubatum*).—Which produces a great abundance of large, feathery, light violet purple plumes, which appear months before those of the old kinds and stand well above the broad recurving foliage; very attractive.

BULBOUS AND TUBEROUS ROOTED PLANTS.**PÆONIAS** (*Pæonia*).

Herbaceous—This splendid class contains the largest, most showy and attractive flowers in cultivation, almost rivaling the rose in color and blossom, and it is to be regretted that they have been so much neglected. They are of stately growth, very hardy, and delightful when in blossom. At the present time the public is beginning to appreciate the many fine varieties of recent introduction, ranging from pure white through the different shades of pink, rose, variegated, purple, white, etc. They increase in beauty with age, and may be planted in almost any situation. We recommend fall planting. They succeed best in *rich* soil and will be benefited by a mulch of rotten manure during the winter which may be lightly spaded into the soil in spring. Many of them are very double and have a delicate and refreshing fragrance. They are easily cultivated and require but little protection.

Blossoms from four to eight inches in diameter. Foliage rich, glossy, deep green color.

PÆONIA MOUTAN (Tree *Pæonia*).

Handsome flowering shrubs, attaining a height of four to six feet with proper care. The flowers are remarkably striking, of gorgeous colors and enormous in size, often six to eight inches across. Very effective amongst shrubs or in borders.

P. Banksii—Rosy blush, very large, fragrant flowers. One of the best.

AMARYLLIS.

A beautiful class of plants with large, drooping, bell-shaped, lily-like flowers, varying in color from the richest crimson to pure white striped with crimson or scarlet.

WISTARIA. See page 81.

CALADIUM ESCULENTUM.

C. Elephant's Ear—For obtaining tropical effects in lawn and garden planting, this beautiful plant takes a prominent place. Grows well in any garden soil, but should have plenty of water and good, rich soil to obtain best results. When at its best, stands 6 to 7 feet high with bright green leaves 3 to 4 feet long and 2½ feet wide.

C. Fancy Leaved—A class of beautiful variegated foliage plants excellent for house culture or open ground. They delight in a shady and moist place. The bulbs should be started into growth about the first of April and dried off in October and kept in a warm and dry place until spring again. These are excellent for window boxes, vases or single pot plants, and succeed equally well in a somewhat shady situation out of doors.

CANNA (Cannas).

Indian Shot Plant—Stately and highly ornamental plants, for both flowers and foliage. They attain a height of 2 to 5 feet, and may be grown singly or in masses. Leaves green or brownish red; flowers scarlet, crimson, yellow, cream, etc., variously marked.

New Large Flowering French and American—Not so tall as the old fashioned sorts, but with flowers of great beauty; everywhere popular. These seedlings vary in color, ranging through all shades of yellow and orange to richest crimson, scarlet and vermillion. Some are plain and some spotted.

CROCUS.

A universal favorite and one of the earliest

garden ornaments; should be planted about 2 inches deep. Colors, blue, white, yellow and striped.

DAHLIAS,

There is nothing that, with the same amount of money invested, will give more show of flowers than Dahlias. We offer dry bulbs or tubers. Especially fine for borders. Large assortment of colors.

GLADIOLUS.

The Gladiolus is the most attractive of all the summer flowering, bulbs, and deserves a place in every garden, as it is sure to flower and do well with very little care. Set the bulbs from 6 to 9 inches apart and about 4 inches deep. Plant from middle of March to first of June. It is a good way to plant two or three different times, ten days or two weeks apart. This will give a succession of blossoms from July to November.

HYACINTHS.

The most beautiful and fragrant of early spring flowering bulbs, much used for winter forcing. Too well known to need description. Large assortment of colors and varieties.

IRIS—Germanica—(German Iris).

The true "Fleur de Lis," the national flower of France. They are perfectly hardy, thrive anywhere, grow and blossom luxuriantly, particularly if plentifully supplied with water or if planted in moist situations, as on banks of ponds, etc. Plants well established produce from 50 to 100 spikes of bloom, deliciously fragrant and fine for cutting. In beauty the flowers rival the finest Orchids, colors ranging through richest yellows,

Iris—Continued.

CANNA.

intense purples, delicate blues, soft mauves, beautiful claret reds, white, primroses and bronzes of very imaginable shade.

I. Kämpferii—(Japan Iris).

Finest of all the Iris family. The flowers are of immense size, from 6 to 8 inches in diameter, and of the most beautiful and delicate shades. They are perfectly hardy, and flower in great profusion during June and July. A well established plant gives a dozen or more flower stalks 2 to 3 feet high, each stalk producing 2 to 4 enormous blooms. The Iris thrives best if planted in a moist soil; if this cannot be had, should be plentifully supplied with water while growing and flowering.

JONQUILS—(Narcissus Jonquils).

Pretty varieties of the Narcissus, having a very agreeable fragrance; adapted to either pots or outdoor culture. The bulbs being small, six or eight may be put in a 6-inch pot.

LILY-OF-THE-VALLEY—(Convallaria Majalis).

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

moss, or potted. For the garden we can ship either in the spring or autumn.

IRIS KÄMPFERII.

LILIES.—*Lilium*.

No class of plants capable of being cultivated out of doors possesses so many charms; rich and varied in color, stately and handsome in habit, profuse in variety, and of delicious fragrance, they stand prominently out from all other hardy plants. They thrive best in a dry, rich soil well drained, where water will not stand in winter. After planting they require very little care, and should not be disturbed for several years, established plants blossom more freely than if taken up annually.

LILY AURATUM.

Auratum — (Gold Banded Lily of Japan) — Flowers very large, of a delicate ivory white color, thickly dotted with rich chocolate crimson spots, with a bright golden band through the center of each petal. **The finest of all Lilies.**

Candidum — The old fashioned pure white garden lily. One of the hardiest.

Harrisii — (The Bermuda Easter Lily) — Flowers large, trumpet shaped, pure waxy white, gracefully formed and delightfully fragrant. The ease with which it can be forced into flower in winter has made it wonderfully popular as a winter flower. Tens of thousands of it are grown every year for church decorations at Easter.

LONGIFLORUM LILY.

Longiflorum — A well known beautiful variety, with snow-white trumpet-shaped flowers that are very fragrant. It is quite hardy and blossoms freely in the open ground in June and July. Is also used largely for forcing for the Easter holidays; the flowers have more substance and last longer than the Bermuda Lily.

Pardalinum — Scarlet, shading to rich yellow, spotted brownish purple.

Tigrinum fl. pl. — (Double Tiger Lily.) — Bright orange scarlet with dark spots; a strong growing showy variety, and entirely hardy. Succeeds well everywhere.

Speciosum Rubrum — White, beautifully spotted red; flowers in August. This is one of the most useful of the Lily family, perfectly hardy, and flowering well under all circumstances.

Speciosum Album — Very fragrant large flowers, pure white with a green band running through the center of each petal. One of the best.

LILY SPECIOSUM.

Wallacei — A magnificent Japanese variety, with beautiful clear buff flowers, spotted with black; very distinct.

NARCISSUS — (Narcissus) — We have a choice collection of these fragrant winter-blooming plants.

TIGRIDIA — One of the most showy of all summer bulbs, and blooms from midsummer until frost, growing 3 feet high, with large wide-open triangular blooms, 4 to 6 inches across. The colors and markings are very brilliant and peculiarly odd and attractive, and clumps of them in the border have a most gorgeous effect. It is difficult to name a flower of such unique and exquisite beauty as a Tigridia, the superb spotting being so self-like and handsome. They are easily grown and always more than satisfactory.

TUBEROSE—(*Polianthes tuberosa*)—These deliciously fragrant white wax like plants should be in every garden. This valley is particularly adapted to their successful culture.

TULIPS—(*Tulip*)—Owing to the late spring frosts in the colder sections, bedding plants cannot safely be planted in such localities before the early spring-flowering bulbs are through

blossoming. Without these bulbs, for one or two months of beautiful spring weather, our gardens would present a bare appearance. We know of nothing that for the money invested will give a more gorgeous show during early spring and there is nothing more easily grown than the Tulip. They thrive well in almost any soil. Should be planted October or November.

ROSES.

Roses are the most beautiful of flowers and are among the easiest to raise in perfection. We have given great care and attention to its culture and are constantly adding new varieties and dropping old ones that for any reason do not give satisfaction. We try to keep up to date and always test them before placing them before the public, as many varieties are not worthy of general distribution. They require *plenty of manure and good cultivation*. Old and decayed branches, and at least half the previous season's growth should be cut away early each spring, and a little cutting back after the first blooming will insure more late flowers. Tea and Noisette roses should be protected by covering them with evergreen boughs during the winter months, in cold sections.

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

HYBRID PERPETUAL or HYBRID REMONSTANT.

Of easy culture, adapted for garden, or beds where hardy varieties are wanted. Although called perpetual, they are not so much so as the Teas, but bloom only at special times during summer and fall.

HYBRID PERPETUAL ROSES.

Alfred Colomb—Brilliant carmine-crimson; very large, full, and of fine globular form. Extremely fragrant, and in all respects a fine sort.

American Beauty—Flowers very large, of beautiful form and very double; color a deep rich rose. The fragrance is delightful, resembling La France or the old-fashioned Damask Rose; it is truly an everbloomer, each shoot producing a bud.

Anne de Diesbach—(Glory of Paris)—An offspring of the famous old favorite, La Reine, and also the seed parent of that glorious variety Paul Neyron, which facts should be effective evidence of its good qualities. The color is the most lovely brilliant carmine; long, pointed buds and large, finely formed, compact flowers, very full and double and delightfully sweet. A vigorous grower and fine bloomer, one of the really good Roses.

Baroness Rothschild—Light pink, cupped form, very symmetrical, without fragrance; very beautiful. A moderate grower only.

Black Prince—Crimson, shaded with purple, medium size; imbricated; form splendid.

Burbank—(A Perfectly Hardy, New Ever-Blooming Bourbon Rose).—This lovely Rose was raised by Mr. Luther Burbank, of California, known the world over as the "Wizard of Horticulture." The color is described as 'cherry crimson—it is, in other words, the very deepest and brightest pink Rose in cultivation. It is peculiarly adapted for both outdoor planting or for blooming in pots in the house during the winter. It is a strong, vigorous grower, making well rounded bushy plants. The Burbank Rose is perfectly hardy, and will stand our most severe weather. The Burbank is, without doubt, the freest-flowering Hybrid Perpetual Rose in cultivation. It commences to bloom when only a few inches high, and blooms throughout the season until stopped by freezing weather. The flowers are double, three inches across. The whole flower is most pleasing in its rich beauty, and is delightfully fragrant.

Captain Christy—Delicate flesh color, shaded rose in the center; a large, finely formed flower.

Clio—The finest flesh-colored Hybrid Perpetual. The flowers are simply perfection in form, with fine, broad petals, and are beautiful at all stages of development, from the small bud to the full open flower; color delicate satin blush, with a light shading of rosy pink at the center. Very free blooming and strong, healthy grower.

Coquette des Alps—White, tinged with carmine; very fine, a very free bloomer.

CLIO.

Coquette des Blanches—Pure white, very beautiful. We think this the best of the older pure white hybrid perpetual.

Duke of Edinburgh—Brilliant scarlet crimson, shaded maroon; very fine.

Earl of Dufferin—A strong, healthy growing sort and a splendid autumn bloomer. Flowers large, very full and finely formed. Color deep velvety crimson, shaded with maroon.

Fisher Holmes—Shaded crimson scarlet; large globular, with pointed center; vigorous and free flowering.

General Jacqueminot—Brilliant velvety crimson; large, showy and a fine grower; a magnificent variety.

General Washington—Scarlet crimson; very large and fine; not quite as vigorous as General Jacqueminot.

Giant of Battles—This is still esteemed as the very best, rich, red Rose. Very large, double, full and sweet.

Glorie de Margottin—A most valuable hardy rose; of splendid, symmetrical, upright growth, liberal dark green foliage; one of the best bloomers in the Hybrid family; color, extremely brilliant scarlet—live and lasting; flowers large, reasonably full, globular, of good shape; pretty in bud, extremely beautiful, distinct and attractive when open; borne on very long stems.

Glorie de Lyonaise—This is the nearest approach to a yellow in this class. A pale shade of salmon yellow with deeper center, changing to creamy white.

Harrison's Yellow—Golden yellow; medium size, semi-double. A freer bloomer than Persian.

Her Majesty—This new Hybrid Rose is of immense size, perfect symmetry, and exquisite color, the color being a delicate pink, and as large as *Paul Neyron*.

John Hopper—Rose; crimson center; large and full.

Jubilee—In this Rose we have a grand addition to the list of dark colored Hybrid Perpetuals. It has been thoroughly tested and found to possess most excellent qualities. Of vigorous growth, yet short jointed and compact, it takes a place in the front rank of hardy

Mabel Morrison—Pure white petals, thick and waxy; a hybrid of *Baroness Rothschild*; habit good.

Madame Plantier—The iron-clad white cemetery Rose. This is the old standby, and is unequaled where a hardy white Rose is needed. It bears thousands of beautiful, snowy white, fragrant Roses. It is as hardy as an oak.

Magna Charta—A general favorite, prized on account of its strong, upright growth and bright healthy foliage, as well as for its magnificent bloom. The color is beautiful bright pink, suffused with carmine.

JUBILEE.

garden Roses; color pure red, shading to crimson and maroon at the base of petal, forming a coloring equaled by that of no other Rose. The buds are long, held up by long, stout flower stems, making it valuable for cut flowers.

Jules Margottin Bright cherry red; large and a truly beautiful Rose.

La Reine—A beautiful, clear, bright rose, fine, full form, very fragrant. It is well named "The Queen."

Louis Van Houtte—Bright rose carmine; full; very large; fine globular form; deliciously perfumed.

Marchioness of Londonderry—A new White Hybrid Perpetual, and one of the best Flowers of great size, measuring seven inches across, perfectly formed and carried on stout stems. Color ivory white, petals of great substance, shell-shaped and reflexed; free-flowering; highly perfumed; growth vigorous, and foliage very handsome. One of the finest roses. Awarded the gold medal of the National Rose Society of England. We have had this variety in flower for several seasons, and regard it as a decided acquisition to the list of hardy white roses. Requires some protection in winter, in cold climates.

MARSHALL P. WILDER.

Margaret Dickson—Of magnificent form; white, with pale flesh center; petal very large, shell-shaped and of great substance; fragrant; a very promising variety; foliage very large; dark green;

Marshall P. Wilder—Color bright cherry carmine; fragrant; of good growth with fine foliage. One of the freest of the Hybrid Perpetuals to bloom; we can recommend this Rose without hesitation.

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

Paul Neyron—Deep rose color; splendid foliage and habit, with large flower.

Persian Yellow—Bright yellow, small, nearly full. It is desirable to grow more than one plant, and by pruning one this year in the usual way, and the other plant the next year, annual crops of flowers may be had.

Prince Camille de Rohan—One of the darkest colored Roses; very dark velvety crimson, changing to intense maroon. There is no Rose in all this collection that attracts more favorable comment than this one. A very prolific bloomer and the blooms are of excellent form and size.

Soleil D'Or—New hardy yellow rose. The goal for which many of the world's greatest Rose hybridizers have been striving has at last been reached and we have a double flowered Yellow Rose, hardy enough to withstand the winters of our northern states. Has blossomed all summer on the coast. Soleil D'Or is the result of a cross between Persian Yellow and Antoine Dutcher, retaining many of the characteristics of Persian Yellow, the bark being much the same and foliage resembling that of its parent but produced more plentifully, while in growth it is more branching and more vigorous. The flower is perfection in form with conical buds, expanding into a large and full globular flower, with incurved

inner petals. The buds are a marvelous shade of rich chrome yellow with just a tinting of coppery rose in the center. The fully expanded flower is beautiful in its blendings of orange yellow, reddish gold and nasturtium red, forming a coloring impossible to satisfactorily describe. This grand seedling has been shown at all the large Rose exhibitions in Europe and has received the highest awards possible to grant at every display.

Ulrich Brunner—Splendid upright grower, with bright, healthy foliage. The flowers are good sized, and of fine form, with shell-shaped petals. One of the most abundant bloomers; color, cherry red.

Vick's Caprice—By far the best striped hardy Rose. The flowers are large, and bud and flowers are perfect in form; color soft satiny pink, distinctly striped carmine. Excellent for cutting.

HARDY CLIMBING ROSES.

Baltimore Belle—Pale blush, nearly white; double the best white climbing Rose.

Cherokee, Single—A distinct and beautiful climbing rose of rare merit. A most vigorous and clean grower, entirely free from disease. Flowers large, clear white and single, full of bright yellow stamens in the center, making a very attractive appearance; foliage distinct and one of the valuable features of the plant; its color is a very rich, dark, glossy green; surface smooth, always bright and shining and free from dust. Will cover a porch quickly; very valuable for screens, fences, arbors, etc.

MARCHIONESS OF LONDONDERRY.

CRIMSON RAMBLER.

DOROTHY PERKINS.

Crimson Rambler—Introduced from Japan, the land of wonders. Another season's trial fully justifies all the praise that has been given it in the past. During nearly the entire summer it has a mass of rich, glowing crimson, and every one who has it, is delighted with it. Perfectly hardy; wonderfully free flowering; intensely bright and vivid in color. The plant is a strong, rampant grower, making shoots 10 to 12 feet long in a season, when well established. The flowers are produced in long trusses and panicles, often measuring 8 or 9 inches long and 6 or 8 inches across, pyramidal in shape, often 35 to 40 in a cluster, fairly covering the plant from the ground to the top with a mass of bright glowing crimson. The color is simply superb, and is retained unfaded, or without showing any of the purplish tinge so often seen in dark roses, for an unusual length of time. For walls, pillars and porches, or any other place where a hardy climbing Rose is wanted, nothing can be more desirable or beautiful. If grown in beds and pegged down, it makes a brilliant display with its profusion of bloom, large clusters shooting out from each joint. As many as 300 blooms have been counted on a single branch.

Dorothy Perkins—(New)—This is a splendid new, shell-pink climbing rose. It attracted much attention at the Pan-American Exposition, where a bed of fourteen-months-old plants produced a show of bloom unequalled by any other variety, unless it was the famous Crim-

son Rambler. This new rose is of the same strong habit of growth as Crimson Rambler, and the flowers are borne in clusters of 30 or 40 and sometimes even 50 to 60. The flowers are large for a rose of this class, very double, sweetly scented and of a beautiful shell pink, a color that is almost impossible to accurately represent by lithography. Raised from seed of *Rosa Wichuriana*, crossed with that grand old rose *Mme. Gabriel Luizet*. Absolutely hardy. Mr. Wm. Scott, the Ass't Supt. of Horticulture at the Pan American, says, regarding the Dorothy Perkins: "This has exactly the habit of the well-known Crimson Rambler. It has flowered splendidly and been very brilliant. This seems to me to be a great acquisition and I believe it to be a good forcing rose. The individual flower is larger than the Crimson Rambler, but it is a beautiful shell-pink in color."

Empress of China—A very hardy, free flowering climbing Rose, of good size, blooming in clusters; bright pink flowers; very attractive. It is practically ever blooming, for on good-sized plants, when well established in the ground, flowers may be expected the whole season.

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

Leuchtstern—(New)—Flowers single, in large clusters, bright rose with a distinct white eye, like a cineraria; foliage and habits resembling Crimson Rambler. A very distinct and valuable variety.

Pink Rambler—(Euphrosine)—What is said of White Rambler applies equally to this, except the color of the flowers is pure shiny rose—the partially open buds being bright, light carmine, thus producing a strong and pleasing contrast. The flowers often change to creamy white when fully matured. "The numerous yellow stamens lend an additional charm to the flower. In hardiness, freedom of bloom, form and color of flowers and vigorous climbing habit, this variety is fully the equal of Crimson Rambler."

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

Russell's Cottage—Dark crimson, very double and full. Strong grower.

Rubin—(New)—Another acquisition resembling the Crimson Rambler, but having larger flowers of a deep red or ruby color. Very attractive.

White Rambler—(Thalia)—A worthy companion for the Crimson Rambler. In habit of growth, foliage, manner of blooming and shape of flower this is identical with Crimson Rambler, differing only in color, which in Thalia is pure, clear white. Flowers quite fragrant and last for a long time after cutting.

Yellow Rambler—(Aglaia)—The only yellow, hardy climbing rose. It has been thoroughly tested and found to successfully withstand, without protection, a continued temperature of zero and below. It is similar to Crimson Rambler in manner of blooming, the flowers being in immense clusters and having the same lasting qualities, remaining in bloom three to four weeks. The plant is even freer in growth than Crimson Rambler, and soon makes a fine, showy specimen.

AMERICAN BEAUTY.

MOSS ROSES.

Strong vigorous growers, much admired for moss-covered buds. Hardy; most varieties bloom but once in a season, but remain for a long time and very handsome.

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

Crested—Deep pink buds, surrounded with mossy fringe. Very beautiful and free from mildew.

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

Salet—A vigorous grower and free bloomer. Light rose, large, full. The best of the class.

Perpetual White—Pure white; produces very few flowers.

White Bath—White, sometimes tinged with flesh, attractive in bud and open flower. The best White Moss. Budded plants.

CRESTED MOSS.

HYBRID TEAS.

A most beautiful class of half hardy roses combining to some extent the hardiness of Hybrid Perpetual with the free blooming qualities and bright colors of the Teas and Noisette.

Hybrid Noisettes should be in every collection as they are among the best ever blooming varieties.

Baronne de Maynard—Pure white; medium size; very good form; double and free.

Duchess of Albany—This variety is a sport from La France, deeper in color, more expanded in form, larger in size. The flowers are deep even pink, very large and full, highly perfumed and of first quality in every respect. The growth of the plant is vigorous, habit

good, and the flowers produced in extraordinary profusion, the plants being continually covered with handsome blooms.

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

Liberty—This Rose marks the limit of glorious deep, yet bright coloration in a family by no means deficit in warm, rich hues of crimson red. Most nearly approached by Meteor in color, this new comer surpasses that standard variety in purity, being without the tendency to blacken that Meteor exhibits and also the blue casts sometimes seen on the fully expanded petals of Meteor has not been detected

Liberty—Continued.

in any degree whatever upon a single one of many critically examined blossoms of Liberty. This novelty does not exact a temperature in excess of that generally accorded to other Roses when grown under glass. Liberty is destined to become the one dark flowered Rose for both commercial and private use.

Madame Caroline Testout—It is clear pink in color—there is nothing in the Rose line that can approach it in color—and the flower is as large as Baroness Rothschild and as free as La France, and if our judgment is not mistaken, it will make a sensation in the cut flower market when brought in, in good shape.

in foliage, spines and stems, and in shape of flowers shows a complete blending of both parents. The flowers are very large on strong stems, clothed with clean, heavy foliage and strong spines. The buds are long and pointed in shape, and open up beautifully into a full, rounded flower. In shape of bud and a half-open flower it very much resembles Souvenir de President Carnot, but is very much larger, color a glowing shell pink, very deep in the center; the fragrance is delicate and pleasing. A correspondent of the American Florist, in commenting on this Rose last March, says: "The exhibit of Mr. Cook was a departure from the rest, as it was a vase of Roses. But

LA FRANCE.

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

Mrs. Robt. Garrett—A beautiful, large Rose of exquisite shape, finish and blending of colors. It was raised by Mr. John Cook of Baltimore, Md., the result of a cross between Sombreuil and Madame Caroline Testout. It partakes largely of the latter variety in habit of growth,

such roses! They towered above the carnations on strong stems clothed with heavy foliage, and were as large as American Beauties, but of a beautiful clear pink, almost light enough to be called a shell pink."

Souv. de Pres. Carnot—An excellent Rose of recent introduction that has already become a great favorite. The flower is of large size, of exquisite shape, with heavy, thick, shell-like petals; buds long and pointed, similar to Niphetos, but very much larger and borne on stiff erect stems; color, delicate, rosy flesh, shaded a trifle deeper at the center. An extra good garden Rose.

White La France—(Augustine Guinnoiseau)—

This beautiful variety, with flowers of pure white, shading to a center of light rose, is a great favorite on account of its great freedom of bloom, fragrance and large flowers. A vigorous grower, producing a great number of buds and flowers; a most valuable addition to the white varieties; excellent for planting in cemeteries. Small plants.

GENERAL COLLECTION OF TEA, NOISETTES AND EVERBLOOMING ROSES.

Tea roses are one of the most important on account of free blooming, fragrance and delicate colors and fine form. The most popular sort where they can be grown. Not very hardy and require more care and attention.

Noisette, mostly vigorous climbers, bright green foliage; delicate tinted flowers which have a tendency to grow in clusters.

which it is a sport. **Mermet**, on account of its exquisite shape, large, solid, firm buds, with long, stiff stems, has long been considered one of the best cut flower varieties; its only defect has been that in dark, cloudy weather it becomes a washy dull color. **Bridesmaid**, at all seasons, is a clear, delicate pink, in all respects a counterpart of **Mermet**, with large handsome, pointed buds on long, stiff stems.

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

Cornelia Cook—Extra fine, pure, waxy white flowers; extra large and perfect buds; fine winter bloomer.

Duchess de Brabant—Soft rosy flesh, changing to deep rose, edged with silver, beautiful in bud and highly fragrant.

Etoile de Lyon—This is considered one of the

FRANCISCA KRUGER.

KAISERIN AUGUSTA VICTORIA.

Agrippina—(China)—An excellent Rose for bedding or pot culture; continuous bloomer; color, fine velvety crimson.

Beaute Inconstant—(The Rose of Many Colors)—A single plant will bear flowers ranging in color from coppery yellow, bluish pink, carmine and apricot, to light crimson. The bud is especially fine, being a coppery-orange scarlet, all the variations of coloring appearing in the open flower. A strong, healthy grower and a prolific bloomer.

Bon Silene—Rose-carmine, shaded with salmon; fragrant and very free flowering. Valuable for the buds.

Bride—An ever-blooming pure white Tea Rose, of large size and most perfect form. The buds are pointed and the ends of the petals are slightly curved back. It is a very free blooming variety, and has the most delicious tea fragrance.

Bridesmaid—In this exquisite new Tea Rose we have an improved **Catherine Mermet**, from

finest yellow bedding Roses for outside planting. It is, moreover, one of the hardiest in the Tea section. It blooms freely, and every flower is a gem. It equals **Marechal Neil** in size, on strong bushes. Very sweet scented; color, rich golden yellow.

Francisca Kruger—This Rose has taken a foremost position as a Rose for general culture, and its striking color and free growth give it popularity wherever grown. It is a beautiful coppery yellow with large flowers. Unlike any other Rose in our list.

Franz Deegen—(New Forcing Rose)—A Seedling from **Kaiserin**. This beautiful yellow Hybrid Tea is a fine grower, having dark leathery foliage and the good habit of throwing up numerous heavy canes, each one crowned by a glorious flower of large size. Composed of large petals; the outer petals are of about the color of **Perle de Jardins**; the inner petals a good orange shade, very deep and rich. It is a constant bloomer, opening

HELEN GOULD.

Franz Deegen—Continued.

its buds freely. A strong healthy grower, not subject to mildew. A very promising variety for forcing.

Golden Gate—This is another grand new Rose of surpassing beauty. The buds and flowers are of beautiful form, extra large size, resembling very much in shape and size that grand old variety, Niphetos. Ground color creamy-white, beautifully tinged with golden-yellow, and bordered with clear rose.

Gruss An Teplitz—As a bedding Rose this is one of the finest and most useful varieties ever sent out. It will take rank with *Hermosa* or *Souper*. The color is brightest scarlet, shading to deep, rich, velvety crimson. It is very fragrant, the freest grower and most profuse bloomer of any ever-bloomer. The mass of color produced is wonderful, and the foliage is extremely beautiful, all the younger growth being a bronzy plum color. A queen among scarlet bedders. It is a perfect sheet of richest crimson scarlet all summer. It will undoubtedly supersede *Agrippina*, *Queen's Scarlet* and others of this class.

Helen Gould, or Balduin—Claimed by the introducers of Helen Gould to be a different Rose from Balduin. While the identity of this Rose is in dispute, it has proved so satisfactory with us that we have planted it largely. This is probably the most beautiful and satisfactory Rose for general planting ever introduced in America. It has proved itself to be the strongest-growing, freest-blooming, largest-flowering and hardiest Rose in existence. It is a better Rose for general planting than *American Beauty*—the dream and hope of every Rose grower for years past. The flowers are full and perfectly double, the buds beautifully made, long and pointed. The color is a warm, rosy crimson, like the color of a ripe red watermelon. It is as hardy as *La France*, and one of the best, if not the very best. Roses for winter blooming.

Hermosa — (Bengal) — Always in bloom and always beautiful. The flower is cupped, finely formed and full; color the most pleasing shade of pink, very fragrant. A favorite with every one.

Homer—Soft, clear rose, with a salmon shade.

Kaiserin Augusta Victoria—A beautiful rose, with elegant, large pointed buds and very large, full double flowers; color delicate creamy-white, deliciously fragrant. The plant is a strong healthy grower and constant bloomer. The flowers are on strong, stiff stems, with rich, glossy foliage, making it one of the finest roses for corsage wear or any other use to which cut flowers can be put.

Mad. Welche—An extra fine variety; very large, double and of beautiful rounded form. Color apricot yellow, very heavily shaded throughout the center of the flowers with dark orange red, variable at times, frequently coming light canary, with deep shadings. The flowers are large, of good size and substance, and endure well after opening, giving the bush a handsome appearance.

Madam Falcot—Deep Apricot, shaded buff.

Mad. Hoste—Ivory white, changing during the heat of mid-summer to canary-yellow, with amber center; a strong healthy grower and very free bloomer. Flowers and buds of large size and can always be cut with long stems. Highly prized for cut flowers on account of its superb buds and long stems. One of the finest for budding out or for forcing for winter flowers.

Mad. De Watteville—A strong, vigorous grower, with handsome foliage. Color white, shaded with salmon; outer petals feathered with bright rose; very fragrant; flowers large and beautiful shape.

Maman Cochet—In bud it resembles the *Mermet* family, being long and shapely, borne on long, stiff stems. It is of the largest size, and the flower is built up or rounded, and very double. The color is a deep rose pink, the inner sides of the petals being a silver rose, shaded and touched with golden yellow. We pronounce this the finest Rose by far that has been introduced from France in the past five years. We can with full confidence recommend this Rose.

Maman Cochet, White, or Priscilla — The charming new white tea rose. Another new American rose. It belongs to the Tea class, being a child of that grandest of bedding or outdoor roses, *Maman Cochet*. Its habit is exceedingly strong and upright, like its parent, and it possesses the same large beautiful, healthy foliage, and is a most profuse and constant bloomer. The flowers are of enormous size, remarkably round and full, pure, clear, snowy white throughout, and are delightfully Tea scented. It is by far the finest and most reliable white bedding Rose yet produced. Anyone can have the very finest Roses for cutting all summer and autumn by planting a few bushes of it. It is without doubt the largest white Rose, both in bud and flower.

Marie Van Houtte—White, slightly tinged with yellow; one of the handsomest Tea Roses. Free grower and fine bloomer.

MAMAN COCHET.

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

Papa Gontier—A grand red Tea, of fine, crimson shade and silken texture (as distinct from velvety texture). The bud is of fine size and graceful form, on good length stem, desirable for cut flowers.

Perle des Jardins—Fine straw-yellow, sometimes deep canary-yellow; very large and full, and the most perfect form; one of the finest roses grown; steps at once into fame as the finest dwarf yellow Rose we have; distinct from all other Tea Roses; probably better known than any other yellow Rose.

President—A lovely Rose, fresh, carmine-pink; extra large size; very double and full; free bloomer; delicious tea scent.

Rainbow—A elegant new striped Tea Rose, of strong, healthy growth and exceedingly free flowering habit. The buds are large, on strong, stiff stems. Color a beautiful shade of deep pink, distinctly striped and mottled with bright crimson, elegantly shaded and toned with rich amber. It makes beautiful buds and flowers of large size, with thick,

heavy petals, very fragrant. A useful variety for cut flowers.

Safrano—Bright apricot yellow, changing to orange and fawn, sometimes tinted with rose; valued highly for its beautiful buds; fragrant.

Souvenir des Malmaison—This is undoubtedly one of the finest and most perfect Rose of this class; hardy and blooming; of beautiful, clear, flesh color; edges blush. Superb.

Sunrise—The most gorgeous Rose of its class yet introduced. This has made a sensation in England, and taken first honors wherever shown. In close bud form it shows the high, brilliant colors seen only in the Austrian Copper Rose, scarlet and yellow. As it opens the colors deepens, the scarlet turning darker red, the yellow to orange and copper, the inside of the petal golden yellow. The open Rose is large, perfectly double and of grand form. The foliage is glossy and thick, the new growth being the darkest and most beautiful found among Roses. The form and color of bud, its freedom of growth and bloom will give Sunrise a high place among forcing Roses. A novelty is earnestly wished for by cut flower growers, and here is a novelty of the highest quality.

Sunset—The flowers are of large size, fine, full form; very double and deliciously perfumed. Color is a remarkable shade of rich golden-amber, elegantly tinged and shaded with deep ruddy copper.

Viscountess Folkstone—The flower is delicately tinted flesh, almost white, and lustrous as satin. When in full bloom it is like a fine white Pæony, but without a suggestion of stiffness.

White Perle des Jardins—We think that every lover of White Tea Roses will be delighted with White Perle. It will be found totally distinct from Bride or any other white Rose. A great Rose.

White Maman Cochet—See Maman Cochet.

CLIMBING TEA AND NOISETTE ROSES.

Beauty of Glazenwood—(Fortune's Double Yellow)—Hardy. Bronzed yellow or copper and fawn color.

Caroline Goodrich, or Running General Jacqueminot—This Rose has finely formed, very double flowers. Fragrance most delicious. A hardy climbing Tea, and should not be classed with the Hardy Climbers that bloom but once a year. Color the same as that of General Jacqueminot.

Chromatella—(Cloth of Gold)—Clear, bright yellow, very full and double; beautifully formed buds and flowers; very fragrant.

Glorie de Dijon—A combination of salmon, orange and buff; flowers large and of good globular form. Hardy.

Gold of Ophir—(Ophire)—Salmon yellow, shaded with coppery red. One of the most beautiful of the climbing roses.

Kaiserin Climbing—See Mrs. Robert Peary.

La Marque—Pure white buds, open flower, tinged light canary yellow; large and full.

Mad. Alfred Carriere—Flesh white, with salmon-yellow at the base of petals; full and well formed. Vigorous grower.

Marechal Neil—Beautiful deep yellow; large, full and of globular form. Very sweet.

Meteor—(Climbing)—This Rose has gained a world-wide reputation as the finest crimson ever-blooming climbing rose in cultivation. It is a rich, velvety crimson, much like the forcing rose, Meteor, of which it is a sport. An extremely strong growing variety, making shoots 12 to 15 feet long, in a single season under favorable circumstances. South of the Ohio river it would be perfectly hardy, while in the extreme North it could be laid on the ground and covered with leaves or straw.

Mrs. Robt. Peary—(Climbing Kaiserin Augusta Victoria)—A sport from that grand hardy ever-blooming rose. Kaiserin Augusta Victoria. It has the same beautiful creamy-white flowers, and splendidly shaped buds, and in addition has a remarkably strong climbing habit of growth, sending up shoots 10 to 12 feet high.

Perle des Jardins—(Climbing)—Identical with Perle des Jardins, except that it is a vigorous climber. A grand addition to our Roses. It will rank with the very best.

Reine Olga de Wurtemberg—The people in the south would do well to employ this beautiful sort for covering verandas and trellises. Color a rosy-carmine, suffused with yellow.

Reine Marie Henriette—A strong-growing red climbing rose. It is a grand pillar Rose in the south. Flowers full and well formed.

Reve d'Or—One of the grandest climbing roses; a splendid robust climber with the very best of foliage; a good plant will soon go to the top of a two-story house and cover space proportionately large the other way; such a plant in full bloom, with its graceful flowers of delicate coloring is a charming sight. Color, apricot-yellow with orange and fawn tints; petals of superb and delicate texture; flowers moderately full; always pretty and graceful, whether in bud or full open; a very profuse bloomer.

Solfaterre—Fine, clear, sulphur yellow, large, full and double. Very sweet.

White Banksia—White and yellow; thornless.

White Marechal Neil—This Rose is an exact counterpart of Marechal Neil in every respect except the color of the flowers. Identical in growth, foliage, climbing habit, etc. The flowers are white.

Wm. Allen Richardson—Orange yellow, center copper-yellow. Very rich.

Wooton Climbing—A fine large double flower; bright cherry crimson. A beautiful, free flowering Rose that is completely covered with bloom the entire season. Will make shoots 10 to 15 feet long in one year.

TREE ROSES.

The Tree Roses are grafted on hardy rose stalks four to five feet high, are tree-shaped and when in full bloom are objects of beauty, making handsome plants for the lawn or rose border. In this shape we offer only the Hybrid Perpetual or hardy class. We have them in white, the different shades of pink, red and crimson.

INSECT PEST REMEDIES.

APPLE TREE APHIS.

Quassia Chips Solution.

8 pounds Quassia Chips.

7 pounds of Whale-oil Soap.

The Quassia Chips are boiled in about one gallon of water to each pound of chips for 5 hours. The soap is added while hot and allowed to dissolve. This solution is then diluted with 100 gallons of water. Use with sprayer, when warm.

WOOLY APHIS.

4 lbs. Resin.

3 lbs. Sal Soda.

The following remedy is taken from the Secretary's report, California State Board of Horticulture :

"Four pounds of Resin, three pounds of sal soda, water to make four and one-half gallons; dissolve the sal soda in a few pints of water; when thoroughly dissolved add the resin; heat until dissolved and add water finally. Use one and one-half pints of this solution to the gallon of water. Use at a temperature of 100 degrees Fahrenheit."

TENT CATERPILLAR.

3 lbs. Whale-oil soap.

3 lbs. Sulphur.

1 Can Lye.

1 Gal. Kerosene.

The egg clusters must be sought for during winter months, when the trees being leafless, the eye will readily detect them, after being hatched out their nests are so conspicuous that there can be no excuse for neglecting to destroy them, and where any of these pests appeared last season thorough search must be made for these rings of eggs (which are generally found on the small branches) collecting and destroying by pouring boiling water on them or by burning them.

The following solution, if properly applied, will destroy the young larvæ :

Three pounds soap (whale-oil or good home made soap), three lbs. sulphur, one can lye; boil one hour in four gallons water; add one gallon kerosene oil, boil slow twenty minutes, then add twenty-five gallons water; use with spray pump. Do not use copper kettle in preparing solution No. 1 and No. 2, but use kettle made of iron or some other metal.

WINTER SPRAY FOR SAN JOSES CALE AND CURL LEAF.

Lime 50 lbs.

Sulphur 50 lbs.

Stock Salt 50 lbs.

This will make 150 gallons of wash. Use in fall as soon as leaves have dropped and again in early spring before the buds begin to swell.

Slack 50 lbs. of lime, then add the 50 lbs. of sulphur, boil it over a brisk fire for one hour, then place all the salt with it in the boiler and boil for 15 minutes more, then add the necessary amount of water to make 150 gallons. This solution should be used at a temperature of at least 100 degrees. Before using, strain it. The utility of this wash depends a great deal upon the strength of the sulphur. It is, therefore, recommended that those who use this wash have a Beaumes scale for acid. When it shows 8 degrees when cold it is of proper strength. These scales can be obtained through any druggist.

FOR WOOLY APHIS AND SAN JOSE SCALE.

Lime 100 lbs.

Sulphur 100 lbs.

Blue Vitriol 15 lbs.

Take 100 pounds of sulphur and put into a 40-gallon kettle. Add about four gallons of water and stir until thoroughly mixed, then add about 20 gallons of water and start your fire under the kettle. Take 100 pounds of good fresh lime and slack it in a box, keeping the lime covered with water while it is slacking. Add this slowly to the sulphur. While boiling, stir all the while to prevent burning. Boil four hours and finish about night. Dissolve 15 pounds blue vitriol in hot

water, which pour into the compound slowly. Keep boiling until it is smooth, then let it settle for about 15 minutes, after which pour into a barrel and see that you have 30 gallons and no more. Cover your barrel up tight until morning, then open it and as it begins to cool, keep stirring to prevent a crust from forming. When cool no crust will form and it will keep any length of time.

For use.—Take 1 gallon of the compound to 19 gallons of water. Use about 8 gallons of boiling water to the 1 gallon of the compound, making up the difference in cold water. Never spray unless the bark on tree is dry.

SUMMER SPRAY FOR SAN JOSE SCALE OR GREEDY SCALE.

Water 2 gallons.
One-half gallon Fish oil.

Sulphur 1 pound.

Concentrated Lye 1 pound.
One-half gallon Kerosene.

For summer spraying: Take two gallons water, put into this one pound of sulphur, one pound concentrated lye; boil for two hours, then add one-half gallon fish-oil; boil until it makes a hard soap; add one-half gallon kerosene oil, stir well and boil a few minutes. Add to this twenty-five gallons cold water. For winter spraying double all the ingredients for the amount of water used. About 1 pound of whale-oil soap can be substituted for the fish-oil.

D. M. Jessee, Washington State Pest Inspector, says he has tried this solution to his entire satisfaction, and is assured that it will destroy these insects more effectually than any other remedy he has used. Notice what is stated as to strength of summer and winter spraying.

PEAR AND CHERRY TREE SLUG.

London Purple or Paris Green 1 oz.

Water 6 gallons.

The Oregon Bulletin recommends the following remedy: London Purple or Paris Green mixed with water in the proportion of one ounce to six gallons, and apply to the foliage with a syringe or spray pump, as promptly destroying this slug.

THE OYSTER SHELL BARK LOUSE.

Use the same solution as for San Jose Scale heretofore described, at intervals of 10 to 15 days from the 10th of May to June 10th, the same solution for winter.

CURRENT AND GOOSEBERRY SLUG OR WORM.

Hellebore is the best of known remedies, and a perfectly effectual one. Properly applied no harm can possibly result from it. It should, according to Prof. Lintner, be used in the following manner: Early in the spring, as soon as the leaves of the currant have fully put forth, watch for the first indications of the hatching and commencement of the young larvæ. You have only to look for these on the lowest leaves of the bushes near the ground. The indications will be numerous small holes eaten into the leaves. Sprinkle powdered hellebore over these leaves, renewing it if washed away by rain, and the desired end is accomplished. If the hellebore remains upon the leaves during the time that larvæ are hatching, all will be killed and none will remain for subsequent spreading over the leaves and for the need of future attention. If the first brood of worms is thus destroyed, there will be few, if any, to form a second brood in June.

FOR POWDERY MILDEW OR OTHER FUNGICIDES.

Bordeaux Mixture.

Copper Sulphate 6 lbs.

Fresh Lime 6 lbs.

Water 45 gallons.

Dissolve the copper sulphate in a wooden or earthen vessel, using four or five gallons of which, water, if hot, will act quicker. In a separate vessel slack the lime and rub until all lumps are broken. Then stir and strain into the copper solution. Dilute and use as soon as possible. The mixture should not stand over twenty hours, as it tends to spoil. Where a good quality of lime is used, four pounds will satisfy six pounds of blue stone, but it is best to use plenty of lime as any free sulphate will burn the foliage. Four ounces of Paris green may be added to each 45 gallons of this liquid for all except the peach and other stoned fruits. For these use only two ounces. This makes the best and safest combined insecticide and fungicide for general use.

FOR CODLIN MOTH, CATERPILLAR AND SLUGS.

First application: Lime 2 lbs.
Water 40 gallons.

Later applications: Paris Green 4 ounces.
Lime 1 pound.
Water 50 gallons.

Slack the lime; make a paste of the Paris green, mix thoroughly, and then add water to make the required amount; stir thoroughly while using, and should be thrown on the leaves and fruit in a fine spray.

Or, use arsinite of soda spray when fruit has attained size of a hazelnut.

WOOLY APHIS.**Kerosene Emulsion (Government Formula.)**

Kerosene 2 gallons.

Water 1 gallon.

Hard Soap $\frac{1}{2}$ pound.

Make a suds of the soap and water and pour boiling hot into the kerosene; churn with a force pump or a syringe, pumping put into a bucket or barrel through a nozzle until completely emulsified. If the mixture is sufficiently hot it will thicken in 5 to 10 minutes, and will be, when cold, of the consistency of butter or soft soap. Dilute with 7 to 12 parts of water to one of emulsion, as occasion requires, and this will kill almost anything in the form of plant lice. **Be careful in using not to burn the foliage.**

ARSENITE OF SODA SPRAY.

Commercial White Arsenic 2 lbs.

Carbonate of Soda 4 lbs.

Water 2 gallons.

Use one and one-half pints to 50 gallons of Bordeaux Mixture.

Dissolve 2 lbs. of commercial white arsenic and 4 lbs. carbonate of soda (Washing Soda) in two gallons of water, and use one and one-half pints to 50 gallons Bordeaux mixture. The easiest way to make the solution is to put both the arsenic and soda in a gallon of boiling water and keep boiling about 15 minutes, or until a clear liquid is formed, then dilute to two gallons. If used without Bordeaux Mixture or lime, it is liable to burn the foliage.

American Pomological Society.

Biennial Membership, \$2.00.

Life Membership \$20.00.

We wish to call the attention of all fruit growers to the work of the above named society and the value of its reports.

It is recognized as the natural authoritative body on matters relating to American Pomology. It works hand in hand with the Division of Pomology at Washington, D. C., for a correct nomenclature of American fruits, and is the leading exponent of systematic pomology in the United States.

It has a fund for the express purpose of recognizing new and worthy creations in pomological fruits, and adequate machinery for recording the introductions.

The catalogue of fruits published by the society and available to members, is an exceedingly valuable descriptive list of American fruits adapted to the different parts of the United States and Dominion of Canada.

The Society meets bi-ennially. Life members receive a large file of back numbers of the reports, which in book stores have definite market value. Help to increase the membership roll.

Send fees to John Craig, Sec'y, Ithaca, N. Y., or to L. R. Taft, Treasurer, Agricultural College, Michigan.

Supplement

... OF ...

Fruits and Ornamental Trees and Vines

Specially Adapted to the Warmer Sections.

Also Latest Additions of New Varieties.

STATE NORMAL SCHOOL, CHICO.

Showing avenue of California Fan Palms, in center, Maples in front along sidewalk, and various Evergreens, Flowering Shrubs and Ornamentals in background.

For the convenience of our many northern customers, and as an assistance to our salesmen in northern sections, we have arranged our catalogue in an entirely new manner, grouping all the semi-tropical or less hardy varieties in a supplement by themselves, instead of arranging them alphabetically throughout the main catalogue. This will enable our northern customers to place orders best adapted to their locality without the trouble of looking up the nature of each variety ordered.

When these varieties are ordered for northern localities they should have protection in Winter, and we cannot be responsible for, or replace any that fail to grow in such sections. While many of them might grow in such sections, and are often planted for ornament and experiment, we think in justice to our patrons that a word of explanation is nothing more than fair, as we never misrepresent in our dealings with customers.

For the milder sections of the Pacific coast, such as the Willamette Valley, Oregon, and Puget Sound, Washington, many of these would grow with protection in Winter, but in the far northern sections of the Northwest Territories, Canada, or Montana and Dakota, they would have to be grown under glass in Winter.

SEMI-TROPICAL FRUITS.

Loquats—(*Photinia Eriobotrya* or *P. Japonica*)—A beautiful evergreen shrub from Japan, with large leaves nearly one foot long, with large, downy yellowish flowers in late Autumn or Winter, followed in the Spring by a beautiful orange or salmon-colored, pear-shaped, edible, acidulous fruit.

Tree a strong grower and of good habits, and of easy culture; will do well in nearly any soil. It is good for jelly, and often erroneously called "Japan Plum." Seeds large, as it is said to have been cultivated in Japan largely for the seeds; but in this country has been grown for the fruit, and the propagators have endeavored to increase the pulp and decrease the seed. A very choice greenhouse shrub for the far north. Perfectly hardy south.

Olives.—*Olea Europæa*.

This will soon be recognized as one of the most important fruits for California, Arizona, and New Mexico; the climate of California being especially adapted for its propagation. As it will not usually withstand a temperature lower than 14 degrees above zero, it can never be grown successfully in the north. No variety of fruit requires such an even temperature as the olive; the mean temperature should be about 57 degrees. It thrives best in a warm, dry atmosphere where the soil is rich and well drained, but will grow and bear crops in a greater variety of soils than nearly any other kind of fruit. While it will grow and bear on rocky hillsides, planting in unfavorable localities has probably been the cause of much complaint about the olive not bearing profitable crops. The cyclopedia of American Hort. says: "The olive grows to perfection in good soils throughout the length and breadth of the San Joaquin and Sacramento Valleys, in many of the small coast range valleys, and up to an elevation of 1,000 feet or more in this range, and in the warm belt of the foothills of the Sierra Nevada Mountains. As fine trees for their age, and as fine fruit, either for oil or pickling, may be seen at Oroville and Palermo, in Butte County, and all through the northern Sacramento Valley, as in the counties in the extreme south."

Also makes a very handsome evergreen shade or ornamental tree for street planting.

Manzanillo—(Spanish)—Fruit large, and of irregular orange shape, vinous red cast changing to deep black, with minute white specks when fully ripe. It is a free stone, consequently prized for pickling, either ripe or green; makes oil of very high grade. Tree a rapid, weeping grower and prolific bearer. Among the olives of Southern Spain, especially around Seville, the Manzanillo is highly prized both for pickling and oil. One of the best.

Mission—"Although innumerable varieties of olives have been introduced from almost every locality in the world where the olive grows, no variety has as yet given such universal satisfaction as the "Mission," and it stands to-day pre-eminent as the most profitable variety grown," says the California Board of Horticulture, page 50, "Investigations of the California Olive Industry," and it is still planted more extensively than any other variety. This variety is said to have been introduced from Spain by the old Spanish padres, and until recently was the only sort cultivated in California, and is found in nearly every county in the state, succeeding well under all circumstances where reasonable care is given. Fruit medium to large, jet black, makes an excellent pickle, either ripe or green, and yielding a superior oil; tree a handsome, upright grower; ripens late.

Obliza—(Dalmatian)—This is an exceedingly large olive; oval, but broad and rounded at both ends; borne in clusters on the stems. The tree is a good grower; the branches are somewhat inclined to droop; the foliage is large, thick and of a deep, dark green color; very hardy and productive, and worthy of extensive cultivation. Excellent for pickles, and will find a ready sale in this shape, the fruit presenting a very fine appearance.

Sevillano—(True "Spanish Queen")—The tree is a strong grower, with spreading branches; leaves large and long, green above and greenish-white on the under side. The largest olive known, the variety picked green, pickled and exported from Spain under the name of "Queen Olive." When ripe, of a bluish-black color; flesh adheres to the pit; shape and form somewhat like an English walnut. A regular bearer. A great olive for pickling; its large size, fine flavor, and the fact that it pickles easily is sure to cause it to be in demand; ripens early.

Pomegranate.—*Punica Granatum*.

A small tree from Southern Asia, grown for both fruit and ornament, on account of its showy red flowers and peculiar fruit. It has not received as much attention from the planter as it deserves, as it always brings fancy prices in the eastern markets. Will do well on alkali land. Will not withstand more than 8 to 15 degrees above zero.

Pomegranates—Continued.

Paper Shell—(New)—A new introduction of very fine quality. The skin is very thin, hence the name, the inside covering of the pulp being also very thin. Highly prized for home consumption; a heavy bearer. Tree of more dwarf habits than other varieties listed.

Spanish Ruby—A grand new variety. Fruit very large, as large as the largest apple; eye very small; skin thick, pale yellow with crimson cheek; meat of the most magnificent crimson color, highly aromatic and very sweet. This pomegranate is simply magnificent, and people who have never before liked the pomegranate have praised this fruit as unequalled. The Spanish Ruby is a fine grower, good bearer, and ships well.

Sweet-Fruited—Fruit large, with sweet, juicy pulp; ripens in September.

Deciduous Trees.

Albizzia Julibrissin—(“Silk Flower,” or “Acacia of Constantinople”)—A handsome shade and avenue tree growing to a height of 30 to 40 feet, with fine, feathery foliage, unsurpassed for grace and beauty. One of the best ornamentals for California.

Blood Leaf Peach—Leaves blood red; one of the finest colored leaf ornamentals. In the Spring it is covered with blossoms. It also bears good white fruit. Will do well any place where peaches will grow.

Privet, Japan—(*Ligustrum Japonicum*)—A very large shrub with glossy, dark green leaves; flowers white, borne in clusters; followed by purplish-blue berries. One of the most desirable hedge plants, and stands trimming well. Evergreen in warmer sections and hardy as the California Privet.

THE TEXAS UMBRELLA TREE.

Texas Umbrella—(*Melia Azedarach Umbra-culiformis*)—Of striking beauty, taking the shape of an umbrella; one of the handsomest of shade trees; shade very dense; foliage bright, dark green. Produces lilac-colored flowers, followed by a fruit with an external pulp and a hard seed within. We consider this one of the finest of deciduous shade trees for warm sections, thriving in almost any soil.

Varnish Tree—(*Koelreuteria Paniculata*)—An exceedingly ornamental small tree, 20 to 25 feet in height, a native of China. It forms a flat, spreading head, has large, glossy, pinnate leaves, and early in July produces immense panicles of showy orange-yellow flowers; a very desirable tree for the lawn. Will grow everywhere that the climate is not too severe in Winter.

Evergreens.

ACACIA—(Acacia)—One of the finest ornamental trees with beautiful, feathery foliage and yellow racemes of flowers.

A. Dealbata—("Silver Wattle")—A fine, rapid-growing tree, with feathery foliage, and covered in the Spring with racemes of golden-yellow flowers.

A. Mollissima—("Black Wattle")—A fine, erect, upright-growing tree, with glaucous, green, feathery foliage; flowers yellow and borne in racemes; a rapid-growing tree and well adapted to Central and Southern California.

"Acacia of Constantinople"—(See *Albizia Julibrissin* under "Deciduous Trees").

CYPRESS—(*Cupressus*).

Italian—(*C. Sempervirens Fastigiata*)—A tall, erect, tapering, conical tree, with strict branches running close to and nearly parallel with the stem; very desirable for cemeteries and arches.

Monterey—(*C. Macrocarpa*)—A well-known variety and very extensively planted in California, with horizontal branches and spreading head.

EUCALYPTUS—(*Eucalyptus*).

E. Corynocalyx—("Sugar Gum")—From South Australia and Victoria. Very ornamental; rapid grower, reaching a height of 120 feet. Dark green leaves; timber very durable and used for railroad ties; one of the best.

E. Globulus—("Blue Gum")—From Victoria and Tasmania. One of the most useful of all and a very rapid grower; planted largely in all warm countries on account of its malaria-destroying qualities; remarkably good for fuel, being easily sawed and split.

E. Rostrata—("Red Gum")—From South Australia. Well-known and highly esteemed in this section; the timber is unsurpassed for durability. Grows to height of 200 feet.

E. Rudis—A native of Western Australia and said to be a great resister of drought. The leaves on the young trees are almost round, later becoming long and of lanceolate shape. The flowers are creamy-white, worthy of extensive cultivation; it is a rapid and symmetrical grower; the bark does not peel off; its branches being very tenacious, are not easily broken, even by the severest wind storms; it is very hardy, and an avenue tree, it is surpassed by no other variety of *Eucalyptus*, but could not stand severe weather of far north.

GREVILLEA ROBUSTA—("Silk Oak of Australia")—A very graceful, ferny-leaved tree, covered in the summer months with yellow and crimson flowers; a grand avenue tree, growing to a height of 125 feet.

MAGNOLIA GRANDIFLORA—("Great Flowered Magnolia")—The most noble of American Evergreen trees; foliage is thick, brilliant green on the upper surface and rusty underneath; the flowers are pure white, of immense size and very fragrant; 75 to 80 feet. Not hardy in the north.

MYRTLE, COMMON—(*Myrtus Communis*)—The classic Myrtle. A handsome dwarf shrub, 8 to 10 feet in height, with shining green leaves, closely set along the branches. Nearly ever-blooming in California. Grown out of doors in California and the South.

Climbing Vines.

Madlera Vine, or "Mignonette Vine"—(*Boussingaultia Baselloides*)—A tuberous-rooted, perennial, climbing vine reaching 10 to 20 feet in a season, and in late summer or fall bearing profusely of fragrant white flowers (which become nearly black with age). A vine much prized for porches and arbors. Will not endure much frost. Grown in the North, in the conservatory or as a window garden.

Passion Flower—(*Passiflora Caerulea*)—A slender, but strong growing vine from Brazil, with purplish flowers 2 to 4 inches across. Fruit egg-shaped, and yellow when ripe. Can be grown in open from about Red Bluff south.

Palms.

Palms are among the most striking of semi-tropical or tropical plants, and are one of the finest of ornamentals. We grow most of the leading and choicer sorts. The hardiness of palms is largely a question of size, the larger ones standing much more severe weather than small ones.

Chamærops Excelsa—(“Japanese Fan,” or “Windmill Palm”)—A very hardy and erect palm 20 to 30 feet high. Leaves fan-shaped, dark green, deeply cut into narrow segments. Not as rapid a grower as some, but worthy of more extensive cultivation as it is a very ornamental, symmetrical grower. Will endure more frost than any other variety of Fan Palms.

Phœnix Canariensis—(“Canary Island Palm”)—We consider this the most graceful and handsome of the Date Palm family, as well as one of the hardiest palms grown. A rapid grower with pinnate leaves of a deep green color, six to twelve feet long; division linear, lance-shaped, very pointed. One of the most effective palms for lawn, differing so widely from the Fan Palm in habit of growth, color and style of foliage.

PHŒNIX CANARIENSIS.

Washingtonia Filifera—(“California Fan Palm”)—It is of graceful habit and quick growth; the leaves are palmate with numerous divisions and whitish filaments. The most desirable of all palms; should be planted everywhere, as it does well in almost any soil.

Washingtonia Robusta—One of the hardiest and most beautiful of palms; in habit of growth resembling our well-known California Fan Palm, but more symmetrical and spreading, and by far a superior palm. Leaves fan-shaped, medium size; no filaments; retaining its dark green color during the winter months. Stems short, thorny, of upright, compact growth. Should have precedence over the California Fan Palm, and no doubt will have when its value as one of the grandest of our decorative plants is fully appreciated.

PEPPER—(*Schinus Molle*)—A popular shade tree from Peru, commonly known as the “California Pepper Tree,” with fine, feathery foliage, and covered with clusters of reddish berries in Autumn. A very popular street and ornamental tree in Central and Southern California. Not hardy in the North.

NEW VARIETIES.

Choice Fruits Just Introduced or Added to Our Stock at a Recent Date.

Asparagus.

Quality (New)—Another of Burbank’s wonderful creations, producing an unusual number of shoots of a light yellowish-green color. Other plants often produce larger shoots, but none of them nearly as many in number or as much in weight. When cooked it has a rich flavor, unlike and very much superior to any other Asparagus.

Blackberries.—*Rubus*.

Ancient Britton—One of the best of hardy varieties ; in Wisconsin and other northern states, is superseding all other kinds ; without booming has worked its way, on its own merits, to the highest place as a profitable and valuable market sort. Very vigorous, healthy and hardy, producing large fruit stems, loaded with good sized berries of fine quality that carry well and bring highest price in market. For general planting for home or market in all sections subject to severe winters, the Ancient Britton is recommended as a first-class variety.

Mersereau—(New)—This early, mammoth, iron clad blackberry, is by far the most valuable variety that has ever appeared since the advent of the Wilson over thirty years ago. It originated in Northwestern New York, where the mercury falls from 15 to 25 degrees below zero, and where it has stood in open field culture for many years without the slightest protection, never being injured in the least. It has never had a leaf affected with orange rust, blight or other disease, or produced a double or "rose" blossom.

In hardiness it is doubtless without an equal among Blackberries, having endured a temperature of 20 degrees below zero without being injured in the least, even at the tips, although Snyder and Taylor's prolific were much damaged. Just how low a temperature it will withstand uninjured is not known. The berries are brilliant, sparkling, black throughout and what adds great value to it as a market berry, it remains black under all conditions and circumstances, never turning red when gathered in hot, muggy weather, after the manner of Snyder, Lawton, Erie and many other varieties. In quality it is exceptionally sweet, rich, melting and luscious, being without core : the seedy character of Snyder and most other sorts is noticeably absent. As a shipper and keeper it is unsurpassed, remaining firm without bleeding in handling.

The canes are of exceedingly strong, upright habit, attaining upon fairly good soil a height of eight feet if permitted to grow unchecked, and are so stout as to always remain erect ; foliage large, deep green, abundant, and entirely free from rust or blight. The yield is simply enormous, producing double the quantity of fruit per acre of the Snyder, Kittatinny, or Taylor's Prolific, and affording heavy pickings from the first until the crop is all matured. Its season is early to mid-season, ripening with the Snyder—in advance of Kittatinny, Lawton, Taylor's Prolific or Erie, but not so early as Early Harvest or the Wilson.

Ward—(New)—It was found growing in the fence row adjoining a plantation of "Wilsons" on the Michael Ward farm, in Monmouth County, New Jersey. Its fine fruit, healthy canes and very prolific bearing qualities attracted the attention of the owners. A few plants were removed to a position where it could be cultivated, and planting extended from year to year, as fast as the sucker plants allowed, where it now (1903) has been fruiting for several years, canes never winter-killing, bearing a crop every year, and the fruit coming in competition in the market with all other varieties, and always commanding the highest price, and producing twice as many bushels per acre as the "Wilson" alongside (and as many bushels per acre as the "Wilson" when in its prime).

Description.

The Ward Blackberry is undoubtedly a seedling of the "Kittatinny," which it closely resembles, having all the good qualities of its parent with none of its defects. The Ward is a very strong grower, perfectly hardy (in New Jersey) the fruit black throughout and very prolific. **For complete description send for 4-page circular.**

Wilson Early—Good market variety ; berry very large, sweet, good. It is a prolific bearer. Early.

Currants—*Ribes*.

Perfection—(New)—This grand fruit was originated by Charles G. Hooker, of Rochester, by crossing the Fay's Prolific with the White Grape currant, with the view of combining the large size and color of the Fay with the good quality and productiveness of the White Grape.

From quite a number of plants of this cross, the "Perfection" was selected as the best, and after a thorough trial by the originator, proved so satisfactory and superior in many respects, combining as it does the good qualities of both parents, that it was decided to enter it for the \$50 "Barry Gold Medal" of the Western New York Horticultural Society. The "Perfection" currant was the fruit first to receive the Barry Medal. It also received the highest reward given to any fruit at the Pan-American Exposition. Plants were also sent to the New York State Agricultural Experiment Station, at Geneva, N. Y., for testing there, in competition with about sixty varieties in their trial block, including all the best varieties in cultivation. The result of the trial for four years at the station has been exceedingly satisfactory. "Perfection" coming out at the head of all introduced varieties on its general merits.

Perfection—Continued.

Description.

The Color is a beautiful bright red, size as large or larger than the Fay, the clusters averaging longer. The size of the berry is well maintained to the end of the bunch. The "Perfection" has a long stem, from point of attachment to the bush to the first berry, making it easy to pick without crushing the fruit.

Productiveness—The "Perfection" is a great bearer, resembling its parent, the White Grape in this respect, superior to the Fay, or any other large sort with which we are acquainted. On account of this great productiveness the plants should be kept well cultivated and fertilized, as should all heavy bearers. Under these conditions they will regularly produce heavy crops of large fruit of the very best quality.

The Season of Ripening is about the same as that of the Cherry or Fay.

Quality—Rich, mild, sub-acid, plenty of pulp with few seeds. Less acid and of better quality than any other large currant in cultivation. The White Grape has always been considered one of the best varieties for table use, and the effect of this strain is plainly seen in the very fine quality of "Perfection."

Vigor and Healthfulness—In habit of growth it is intermediate between its parents Fay and White Grape, with remarkably large healthy foliage.

For complete description see our eight page colored circular. Each bush will bear a "Perfection Label" as guarantee of genuineness.

Dewberries.—*Rubus Canadensis*.

Austin Improved—(New)—From Texas; has been tested several years. We note the following good points: Surpasses in productiveness anything ever seen in Blackberry or Dewberry. It is of a glossy, shining black color; its very appearance has a tempting effect on those who see it. Its flavor is most excellent. When fully ripe it will melt in your mouth most pleasantly. Has the hardy character common to the Dewberry family.

Gray's Gardena—(New)—Fruit very large, as large or larger than the Logan berry. One grower says: "I had some last year (1903) that measured four inches around." Color jet black, has only about one third as many seeds as the Crandall Blackberry. Ripens early (in May in most parts of California.) Finest quality, much more juicy and luscious than the Lucretia; a little tart until fully ripe, then quite sweet, the crop covers a period of about four weeks; firm, good shippers. The bushes are very vigorous growers, resisting frost better than any of the Blackberry family. One of the best, if not the best varieties ever introduced.

Mr. Gray, the introducer says: "It excels in productiveness and early ripening, producing a sure crop of very large jet black berries, having only about one-third as many seeds as the Crandall Blackberry and resisting frost better than any of the blackberry family. The crop produced on my half acre of two year old vines this season was 517 crates of thirty boxes each, average price for the season was \$1.55 per crate, a total of \$801.35."

"Any soil adapted to the blackberry will produce the Gardena Dewberry, as its root growth is very strong, permeating the soil for several feet in depth."

"The vines give the best results when trained on wires that are eighteen or twenty inches above the ground, or two wires may be used to better advantage, one, say fifteen inches, and the other twenty inches above the ground."

McDonald Berry—(Hybrid Blackberry—Dewberry)—(New)—It is hard to decide whether this is a Dewberry or a Blackberry. It bears in clusters like a blackberry but tips like a dewberry. On ground on which fruit trees and some blackberries turn yellow, this berry is perfectly green. It was introduced by Mr. Kirkpatrick, of Texas. Large, juicy, of best quality. Earliest, hardiest, most vigorous and most productive of all berries in Texas. This is a new berry, a cross between the blackberry and the dewberry. It stands up like a blackberry and "tips" like a dewberry. It is incomparably more productive than any berry fruited there, one plant producing more fruit than half a dozen plants of any of the older sorts. Twenty quarts of fruit have been gathered from a single plant. Its bright green foliage has been held through the hottest summers, and is nearly, or quite, evergreen. Among its admirable qualities is its earliness; the fruit is ripe one week earlier than the Austin or any other good dewberry. Planters who have thoroughly tried this berry would not exchange it for any other. It was discovered near Wiley, Texas. We introduce it with confidence that it will prove a valuable acquisition.

Raspberries.—*Rubus*.

Haymaker—(New)—A purple cap, not so dark as Columbian or Shaffer, and much larger and firmer than either of those varieties, never crumbles and stands up well in shipping. Sample crates have been shipped to distant points with entire satisfaction. It is a berry to grow for either home use or market. The originator has found it the most profitable berry ever raised for market and has never yet been able to supply the local demand. So much of a favorite has the Haymaker become that local growers have said that it has ruined the sale of other varieties. Very popular as a canning berry. Many orders for berries for this purpose are placed a year in advance. One writer located near a canning factory has thus written: "If any one about here had several acres of it in bearing, he could dispose of the entire crop to good advantage to the canning factory."

Cardinal Raspberry—(New)—This wonderful berry is a surprise in the fulness of its merits—its great growth, extreme hardiness, and the exceeding productiveness of its choice red, rich, pure flavored berries. It will pay. It is not a novelty, but a variety of great merit. The new Cardinal is claimed to grow ten feet high, and bears in proportion. Leading horticulturists who have seen this berry say that it is one of the wonders of the century, so far exceeding all others as to put it entirely beyond comparison. Judge Wellhouse, president of the Kansas State Horticultural Society, said at a meeting of the Society, that the introduction of the Cardinal Raspberry would add millions to the wealth of the farmers of the country because of its inherent great vigor and exceeding productiveness.

This most promising Raspberry is another natural product of Kansas. It is not a hybrid, but a result where nature combined its best in one little seed that produced the first Cardinal Raspberry plant; it also germinated that seed in its own way, not as under the pet care of an expert gardener who would control the temperature, moisture, sunshine and weeds, but came up in a neglected clump of Gregg Raspberry bushes, and there showed its make-up by growing far above them and producing its great crop of red berries in contrast to the few Greggs beneath them. When first seen by the owner, the Greggs were dug and the Cardinals had the room.

Deciduous Shrubs.

Leatherwood—(*Dirca Palustris*)—A hardy, deciduous shrub, 2 to 8 feet. Not one of the showiest of hardy shrubs but its small, yellowish flowers are abundant enough to make it attractive, and it deserves cultivation, especially for its earliness of blossom in the spring. It is of slow growth. It thrives on almost any moist loam.

Stuartia Pentagyna—Hardy as far north as Mass. Ornamental deciduous shrub, with short, petioled, serrate leaves and large, showy, white, cup-shaped flowers, which in size are hardly surpassed by any of our hardier shrubs; flowers solitary, on short stalks in the axils of the leaves. They are very desirable ornamental shrubs, with handsome bright green foliage which turns deep, vinous red, or orange and scarlet in the Fall. They thrive best in deep, rich, moderately moist and porous soil, and in the more northern regions, in a warm, sunny position.

Walnuts.—*Juglans regia*.

"English," or the commercial varieties of walnuts, grafted on California Black, or American Black Walnuts, are being recognized as more desirable for planting, not only on account of being sure of getting them true to name, but also on account of the black walnut being a much stronger, more vigorous grower and hardier tree, adapting itself to a wider range of location. We have given much attention to this work during the past, and are certain that better results can be obtained, and that the small additional cost per tree will be much more than repaid by the growth and hardiness of the tree.

Bijou—(New)—Large fruited. Nuts enormous, the largest of all walnuts; thin shell, kernel very sweet; worthy of extensive cultivation. Of the Persian or "English" type.

Bulbs and Herbaceous Plants.

Cactus Dahlia—(New)—Originated by Luther Burbank, and much superior to all the old and cheaper varieties.

ALASKA,—AN IMPROVED SHASTA DAISY.

Shasta Daisies.

"Shasta" Daisy—(*Chrysanthemum Lecanthemum Hybridum*)—Originated by Luther Burbank, from whom we secured our supply. Too well advertised by this time to need any long description. A marvelous combination of size, grace, abundance and general effectiveness of flowers, which are borne on long, clean, strong stems; flowers snowy-white or cream-colored; four or five inches across.

Alaska—(New)—The whole plant, roots, stems, leaves, buds and flowers are gigantic, but compact and graceful in every respect.

The marvelous combination of size, grace, glistening whiteness, abundance and general effectiveness of the flowers, which are borne on long, clean, strong stems, will place it at once far ahead of all others of its class.

Under the ordinary field cultivation given *Chrysanthemums*, the flowers average four and a half to five inches across on stems two or three feet long, with thirty-eight to forty-two wide petals and a very small disc, and with proper disbudding are produced perpetually, though more abundantly at the usual blooming season. (See cut).

CALIFORNIA —AN IMPROVED SHASTA DAISY.

California (New)—Another giant in growth, and in most respects similar to "Alaska," but the buds and half opened flowers are of a most pleasing clear, pale, lemon-yellow, with two rows of petals. When a day or two old these gradually change to pure white. The combination is exceedingly pleasing. The flowers average four to five inches across, and with ordinary care, are produced perpetually. The common varieties of *Chrysanthemum Maxima* are as weeds when compared with these.

Westralia—(New) —This is distinguished by its branching habit, which is a strong character in one of the parents of the whole **Shasta Daisy Family**—the Japanese Field Daisy (*Chrys. leuc. nipponicum*).

Well grown plants are three to four feet high and nearly as much through ; buds and newly opened flowers are of a pleasing cream color, semi-double, three to four inches across and are produced on fairly long stems in bewildering profusion. (See cut, page 111).

See also our 4-page "Shasta" Daisy Circular.

“WESTRALIA” DAISY. AN IMPROVED SILAISTA DAISY. (See description page 110.)

MAY 28 1904

INDEX OF ROSES.

HP—Hybrid Perpetual, or Hybrid Remontant.

T—Tea.

N—Noisette

HT—Hybrid Tea and Hybrid China.

CL—Climbing.

	Class	Page.		Class	Page.
Aglaia (Yellow Rambler).....	cl	90	La France, pink.....	HT	92
Agrippina, red.....	Bengal	94	La Reine, pink.....	HP	87
Alfred Colomb, carmine crimson....	HP	86	La Marque, white, cl.....	N	97
American Beauty, red.....	HP	86	Leuchtstern, pink, cl.....		90
Anne de Diesbach, carmine.....	HP	86	Liberty, red.....	HT	92
Augustine Guinoiseau, white.....	HT	94	Louis Van Houtte, rose carmine.....	HP	87
Balduin (Helen Gould), red.....	HT	95	Mabel Morrison, white.....	HP	87
Baltimore Bell, white, cl.....	Prairie	88	Mad. Alfred Carriere, white, cl.....	HN	97
Banksia, white, cl.....	Banksia	97	Mad. Caroline Testout, pink.....	HT	93
Baroness Rothschild, pink.....	HP	86	Mad. de Watteville, white.....	T	95
Baronne de Maynard.....	HT	92	Mad. Falcot, apricot.....	T	95
Beaute Inconstant, variegated.....	T	94	Mad. Hoste, white,.....	T	95
Beauty of Glazenwood, cl. bronze red	Banksia	97	Mad. Plantier, white.....	HT	87
Black Prince, dark crimson.....	HP	86	Mad. Welche, apricot-yellow.....	T	95
Bon Silene, salmon-rose.....	T	94	Magna Charta, pink.....	HT	87
Bride, white.....	T	94	Maman Cochet, pink.....	T	95
Bridesmaid, pink.....	T	94	" " (Priscilla) white....	T	95
Burbank, pink.....	Bourbon	86	Marchioness of Londonderry, white	HP	87
Captain Christy, flesh pink.....	HP	86	Marechal Neil, yellow, cl.....	N	97
Caroline Goodrich, red, cl.....	HT	97	Margaret Dickson.....	HP	88
Catherine Mermet, pink.....	T	94	Marie Van Houtte, white.....	T	95
Cherokee, white, cl.....	HT	88	Marshall P. Wilder, red.....	HP	88
Chromatella (Cloth of Gold), yellow	N	97	Meteor, dark red.....	HT	93
Cl. K. A. Victoria, white.....	HT	97	" cl. dark red.....	HT	97
" Meteor, red.....	HT	97	Mrs. John Laing, pink.....	HP	88
" Perle des Jardins, yellow.....	T	97	Mrs. Robert Garrett, pink.....	HT	93
" Wooten, red.....	HT	97	Mrs. Robt. Peary (Cl. K. A. Vic.) wht.	HT	97
Clio, flesh pink.....	HP	86	Niphetos, yellowish-white.....	T	96
Cloth of Gold (Chromatella), yellow	N	97	Ophire Gold of Ophir, salm'n-yell'w	N	97
Comtesse de Murinais, white.....	Moss	92	Papa Gontier, red.....	T	96
Coquette des Alps, white.....	HN	86	Paul Neyron, red.....	HP	88
Coquette des Blanches, white.....	HN	86	Perle des Jardins, yellow.....	T	96
Cornelia Cook, white.....	T	94	" " " Cl. ".....	T	97
Crested Moss, pink.....	Moss	92	Perpetual White Moss.....	Moss	92
Crimson Rambler, cl.....		89	Persian Yellow.....	(Austrian)	88
Dorothy Perkins, pink, cl.....		90	Pink Rambler.....		90
Duchess of Albany, pink.....	HT	92	President, pink.....	T	96
Duchess de Brabant, pink.....	T	94	Prince Camille de Rohan, dark red	HP	88
Duke of Edinburg, crimson.....	HP	86	Priscilla (white, Maman Cochet).....	T	95
Earl of Dufferin, crimson.....	HP	86	Queen of the Prairie, cl., rosy-red...	Prairie	90
Empress of China, pink, cl.....	HP	90	Rainbow, striped.....	T	96
Etoile de Lyon, yellow.....	T	94	Reine Marie Henriette, red, cl.....	T	97
Euphrosine (Pink Rambler) cl.....		90	Reine Olga de Wurtenburg, red, cl.	HT	97
Fisher Holmes, red.....	HP	86	Reve d'Or, apricot-yellow, cl.....	N	97
Fortune's Yel (Bty. of Glazenwood)			Rubin, red, cl.....		90
bronze red.....	Banksia	97	Russell's Cottage, dark crimson, cl.		90
Francisca Kruger, coppery yellow...	T	94	Safrano, apricot-yellow.....	T	96
Franz Deegen, yellow.....	HT	94	Salet, pink.....	Moss	92
Gen. Jacqueminot, red.....	HP	86	Seven Sisters, pink, cl.....	(Multiflora)	90
Gen. Washington, red.....	HP	86	Solfaterre, yellow, cl.....	N	97
Giant of Battles.....	HP	86	Soliel d'Or, yellow.....	HP	88
Gloire de Dijon, salmon orange, cl...	HT	97	Souvenir des Malmaison, pink,.....	Bourbon	96
Gloire de Lyonnaise, yellow.....	HP	86	" de President Carnot, flesh	HT	93
Gloire de Margottin, red.....	HP	86	Sunrise.....	T	96
Glory of France (A de Diesbach)			Sunset, yellow.....	T	97
carmine.....	HP	86	Thalia (White Rambler).....		90
Glory of Mosses, pink.....	Moss	92	Tree Roses.....		97
Golden Gate, white.....	T	95	Ulrich Brunner, red.....	HP	88
Gold of Ophir, salmon yellow, cl....	N	97	Vick's Caprice, striped.....	HP	88
Greville (Seven Sisters), pink, cl....	Multifl.	90	Viscountess Folkestone, blush.....	T	97
Gruss an Teplitz, red.....	HT	95	White Banksia, cl.....	Banksia	97
Harrison, yellow.....	Austrian	86	White Bath.....	Moss	92
Helen Gould, (Balduin) red.....	HT	95	White La France (Aug. Guinoiseau)	HT	94
Her Majesty, pink.....	HP	87	" Maman Cochet.....	T	97
Hermosa, pink.....	Bourbon	95	" Marechal Neil.....	T	97
Homer, salmon rose.....	T	95	" Perle des Jardins.....	T	97
John Hopper, rose-crimson.....	HP	87	" Rambler, cl.....		90
Jubilee, red.....	HP	87	Wm. Allen Richardson, Coppery-		
Jules de Margotten, red.....	HP	87	yellow, cl.....	N	97
Kaiserin Augusta Victoria, white....	HT	95	Wooten, climbing, red.....	HT	97
Kaiserin Augusta Victoria, cl. white	HT	97	Yellow Rambler, cl.....		90

✿ General Index. ✿

For Table of Contents, see page 2 of Cover.

For Index to Roses, see page 112.

PAGE	PAGE	PAGE	PAGE
Abies.....65	Cinnamon Vine.....79	Hedera.....80	Narcissus.....84
Acacia.....48, 55, 104	Cladrastis.....52	Hedge Plants.....75	Nectarines.....27
" of Cons'nople.104	Clematis.....79-80	Defensive.....75	New Varieties.....105-111
Acer.....56-57	Climbing Vines.....78-81	Hedysarum.....71	Nomenclature.....47
Actinidia.....78	Coniferae.....62-67	Hemlock.....65	No. Trees per Acre.....xii
Adam's Needle.....76	Convallaria.....83	Herbaceous Plants.108	Nut Trees.....43-45
Æsculus.....53	Coral Berry.....68	[111]	Nyssa.....59
Ailanthus.....48	Corcorus.....68	Hercules Club.....52	Oak.....57
Akebia.....78	Cornus.....52, 68, 69	Hibiscus.....68	Olea.....102
Albizzia.....103	Weeping.....61	Hickory.....44, 52	Oleaster.....69, 72
Almond.....43	Corylus.....44, 69	High Bush Cranb'ry.72	Olives.....102
Flowering.....68	Crab Apple.....9-10	Holly.....77	Ornamental Depart-
Alder.....48	Flowering.....52	Honey Locust.....53, 75	ment.....46-97
Alnus.....48	Cranberry High Bush72	Honeysuckle.....80	Osage Orange.....57
Althæa.....68	Crape Myrtle.....68	Upright71	Pæonia.....81
amaryllis.....81	Cratærus.....60	Horse Chestnut.....53	Palms.....105
Amelanchier.....71	Crocus.....82	Hyacinths.....82	Pampas Grass.....81
Amelopsis.....78	Cryptomeria.....65	Hydrangea.....71	Passiflora.....104
Angelica Tree.....48	Cupressus.....65, 104	Hypericum.....71, 74	Passion Flower.....104
Apples.....1-10	Currants.....35, 106	Ilex.....77	Paulownia.....57
Apricots.....27	Flowering 68	Inclan Currant.....71	Pavia.....53
Araucaria.....63	Cydonia.....27, 68, 72	Shot Plant.....82	Paw Paw.....59
Arbor Vitæ.....63-65, 75	Cypress.....65, 104	Iris.....82-83	Peaches.....24-26
Aristolochia.....79	Japan.....67	Insects, Pests and	Peach, Blood-Leaf.....103
Aralia.....48-50	Cytisus.....54	Sprays.....98-100	Pearl Bush.....69, 72
Ash.....51	Dahlia.....82, 108	Ivy.....78-80	Pears.....11-13
Weeping.....61	Daisy, Shasta.....109	Ivy, Japan.....78	Pecan.....44, 59
Ashberry.....75-76	Deciduous Trees.48-60	Japan, Cedar.....65, 67	Pendulous Trees.60-62
Ashuina.....51, 59	[103]	Japan Quince.....72, 75	Pepper.....105
Asparagus.....40, 105	Deciduous Shrubs 68-75	Japan Silver Thorn.69	Persimmons.....42, 59
Aucuba.....76	Dewberry.....39, 107	[71]	Phenomenal Berry.....37
Azalea.....68	Deutzia.....68-69	Jasmine.....80	Philadelphus.....74
Balm of Gilead.....51, 59	Dioscorea.....79	Jasminum.....80	Photinia.....102
Barberry.....68, 75	Diospyros.....42	Jonquils.....83	Picea.....67
Basswood.....54	Dirca.....108	Judas Tree.....53	Pie Plant.....40
Beech.....51	Distances for Plant-	Juglans.....44-45, 60, 108	Pine.....67
Weeping.....61	ing.....xii	June Berry.....71	Pinus.....67
Berberis.....68	Directions for Plant-	Juniper.....65-66	Platanus.....59, 60
Betula.....52, 61	ing.....xi	Juniperus.....65-66	Plane Tree.....59
Bignonia.....79	Dogwood.....52, 69	Kalmia.....77	Plums.....16-21, 59
Big Trees.....65	Weeping. 61	Kent'ky Coffee Tree 54	Flowering.....72
Bilsted.....51, 59	Drooping Trees.....60-62	Kerria.....68, 71	Podocarpus.....67
Biota.....65	Dutchman's Pipe.....80	Koeleruteria.....103	Polianthes.....85
Birch.....52	Elder.....69	Laburnum.....54	Pomegranate.....102-103
Weeping.....61	Elæagnus.....69	Lagerstroemia.....68	Poplar.....59
Blackberries.36-37, 106	Elephant's Ear.....82	Larch.....54	Weeping.....59
Blackberry-Rasp-	Elm.....52	Larix.....54	Populus.....59, 62
berry Hybrids.37-39	Weeping.....61	Laurustinus.....75, 77	Primus Berry.....39
Black Wattle.....104	Empress Tree.....52, 57	Leatherwood.....108	Privet.....72, 75, 77
Blood-Leaf Peach.103	Eucalyptus.....104	Ligustrum.....72, 77, 103	Japan.....103
Blue Gum.....104	Eulalia.....80	Lilac.....71-72	Prunes.....22-24
Blue Spiræa.....68, 75	Euonymus.....75, 76	Lilies.....84	Prunus 16-27, 49, 59, 68, 72
Boussinaultia.....104	Evergreens.....62-67	Lily of the Valley.84	Pissardi.....59
Box.....75, 76	Shrubs 76-77, 104	Linden.....54-55	Triloba.....59
Box Elder.....52	Exochorda.....69	Liquid Amber.....55, 59	Punica.....102-103
Buckeye.....52	Fagus.....51, 61	Liriodendron.....60	Pyrus 1-13, 52, 57, 62, 72
Bulbs.....81-85, 108-111	Ficus.....41	Locust.....55	Quince.....27-28
Burning Bush.....76	Figs.....41-42	Honey.53, 55, 75	Flowering.....72
Buttonwood.....52, 60	Fliberts.....44, 69	Logan Berry.....37	Japan.....72, 75
Butternut.....44	Fir.....65	Lonicera.....71, 80	Quercus.....57
Buxus.....76	Fleur de Lis.....82-83	Loquats.....102	Raspberries.....33-35, 108
Caladium.....82	Forsythia.....71	Maclura.....55	Red Bud.....59
Calico Bush.....76	Fragaria.....40	Maderia Vine.....104	Red Cedar.....67, 75
California Big Tree.65	Fraxinus.....51, 61	Magnolia.....55, 104	Red Gum.....104
Calycanthus.....68, 74	Fringe.....52	Magnolia Gr'diflora 104	Resistant Stocks.....33
Canna.....82	Fruit Department.1-45	Mahonia.....76, 77	Retinospora.....67
Caryopteris.....75	Genista.....72	Maiden Hair.....55	Rheum.....40
Catalpa.....52	Ginkgo.....52	Mapl-s.....56-57, 62	Rhododendron.....77
Cedar, Red.....67, 75	Gladiolus.....82	Matrimony Vine.....80	Sinese 68
Himalayan.....65	Gleditschia.....53	McDonald Berry.....107	Rhubarb.....40
Japan.....65, 67	Golden Chain.....52	Meadow Sweet.....72	Rhus.....52, 74
Cedrus.....65	Bell.....71	Melia.....103	Ribes.....35, 39, 68, 106
Cerasus.14-16, 52, 61, 68	Gold Dust Tree.....76	Mignonne Vine.....104	Rocky Mt. Cherry.....72
Cercis.....53	Gooseberries.....39-40	Mist Shrub.....74	Rosebay.....77
Chamæ yparis.....67	Gum Trees.....52, 104	Mock Orange.....72, 74	Roses.....83-97
Cherries.....14-16	Grapes.....28-33	Morus.....42, 62	Climbing.....88-90
Flowering 52, 68	Grasses, Ornam'tal.80	Moss Locust.....55	" Il'b'd Perpt'l 86-88
Weeping.....61	Grevillea.....104	Mountain Ash.....57	Tea and Ever-
Cherries, Dwarf Rocky	Gynurium.....81	blooming.....94-97	Roses, Moss.....92
Mountain.....52, 68, 72	Gymnocladus.....54	Mountain Laurel.....77	Roses, Hybrid T.....92-94
Chestnut.....44, 52	Halesia.....72	Mulberries.....42, 57, 62	Tree.....97
Chinese Mat'y Vin.....80	Hardy Climbing	Myrtle.....104	Rose of Sharon.....72
Chionanthus.....52	Shrubs.....78-81	Myrtus.....104	

PAGE
Rubus 33, 36, 39, 106, 107
[108]
Salisburya.....59
Salix.....60, 62
Sambucus.....66
Schinus.....105
Scotch Broom.....72
Semi-Tropical Fruits
102-103
Semi-Tropical Orna-
mentals.....103-105
Sequoia.....65
Shasta Daisy.....109
Shrubs.....63-75
Silk Flower.....143
Oak.....104
Silver Bell.....72
Silver Thorn.....69
Silvery Sweet Vine.81
Silver Wattle.....104
Smoke Tree.....74
Snowball.....72
Snowberry.....72
Snowdrop.....72
Sorbus.....57, 62
Sour Gum.....59
Spindle Tree.....77
Spiræa.....72-74, 75
Spiræa, Blue.....68, 75
Spray'g Formula 98-100
Spruce.....67, 75
St. John's Wort.....74
St. Peter's Wort.....74
Strawberries.....40-41
Strawberry Tree.....77
Sugar Gum.....104
Sumach.....74
Supplement.....101-112
Sweet Gum.....59
Scented Shrub 74
Sycamore.....60
Maple.....56
Symphoricarpos.....72
Syringa Philad'phus 74
Tamarack.....54
Tamarix.....75
Taxus.....67
Tecoma.....79
Texas Umbrella.....103
Thorn.....60
Thuja.....63
Tigridia.....84
Tilia.....54-55
Tree Box.....76
Tree of Heaven.....60
Trumpet Flower.....79
Trumpet Vine.....81
Tsuga.....65
Tuberoze.....85
Tulip.....85
Tulip Tree.....60
Tupelo.....59, 60
Ulmus.....52, 61
Varnish Tree.....103
Verbena Shrub.....68, 75
Viburnum.....72
Tinus.....77
Vines.....78-81
Virgilia.....60
Virgin's Bower.....79-80
Virginia Creeper.....78
Vitis.....28-33
Walnut.....44-45, 60, 108
Waxberry.....75
Weeping Trees.....60-62
Whitewood.....60
Weigelia.....75
Willow.....60
Weeping.....62
Wistaria.....81
Yellow Wood.....60
Yew.....67
Yew, Japan.....67
Yucca.....77

SIR JOSEPH HOOKER OAK.

ON RANCHO CHICO; NAMED AFTER SIR JOSEPH HOOKER,
THE GREAT ENGLISH BOTANIST,
AND SAID BY HIM TO BE THE LARGEST IN THIS COUNTRY
OR ENGLAND. IT IS 24 FEET IN CIRCUMFERENCE
SIX FEET FROM THE GROUND.