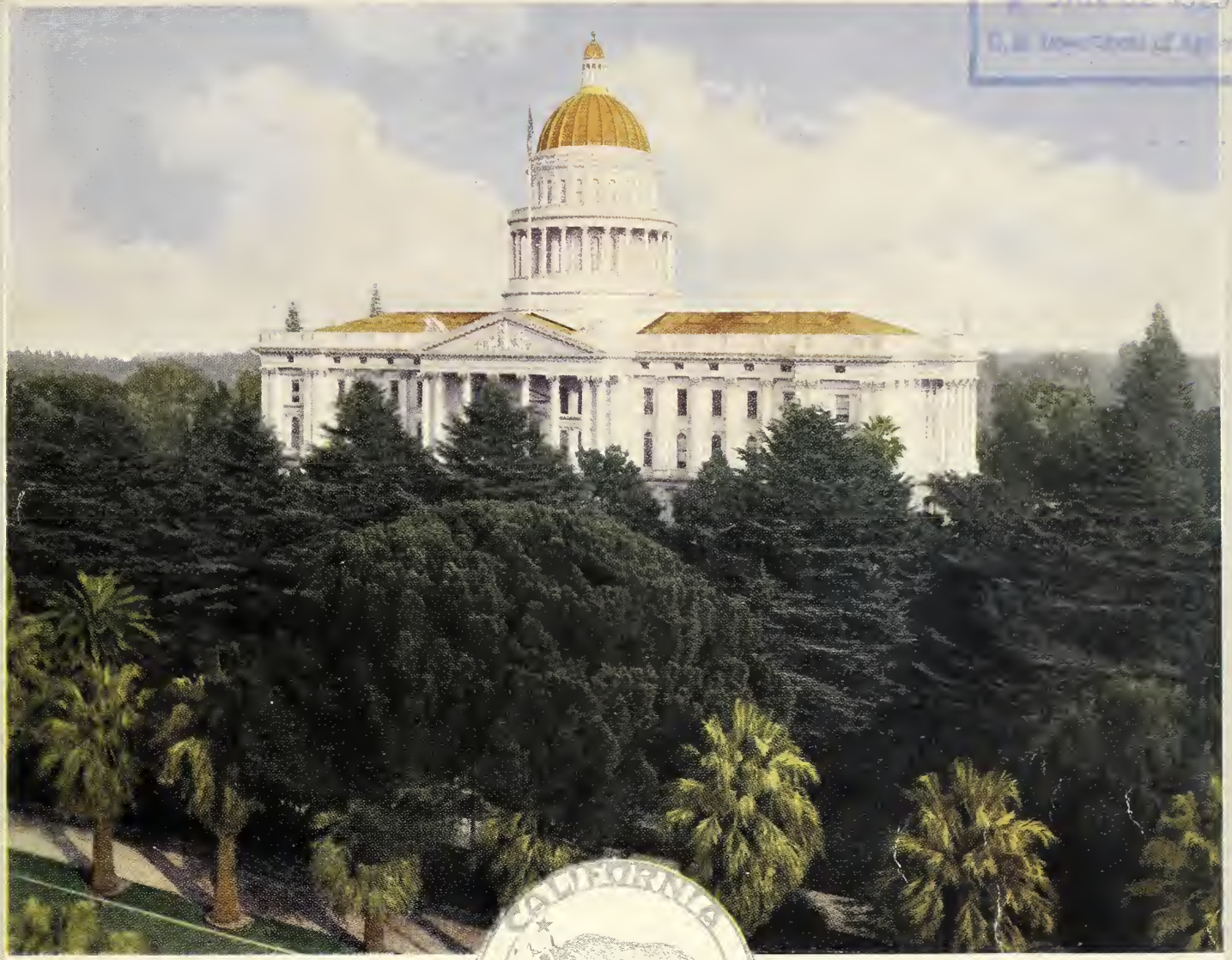


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ILLUSTRATED 1925 DESCRIPTIVE
CATALOG
OUR SIXTIETH ANNIVERSARY



The Capitol
Sacramento, California—in 1865

THE picture (1925) on the front cover page illustrates very clearly that the State has not only congenial climate but fertile soil. The *Cedrus deodara* (Indian Cedar of the Himalaya Mountains); the *Pinus pinea* (Umbrella Pine of Italy); the *Washingtonia filifera* (California Fan Palm) grouped directly in front of the building with the hundreds of other varieties of trees and plants on the forty-acre tract cause these grounds to be regarded as the very finest in the United States. Many of the trees growing there were supplied by the California Nursery Company.

Price of this Catalog: 50 cents

To Those Who Plant

THE progressive business man is impressed in his daily contact with the public with the fact that his success is dependent upon his honesty of purpose in striving to render a real service to those who favor him with their patronage.

To be engaged in a business for the mere purpose of making money, without giving due consideration to those who are being served, is contrary to the principles which we expound.

Those who purchase trees should bear in mind that there is no difficulty in practicing deceptions, for it takes several years before the trees come into bearing.

We are deeply appreciative of the fact that the pivotal point in our business is to supply well-grown, properly trained "*True-to-Name Trees*." We are further mindful of the interests of our patrons, in growing trees on root stocks to meet variable soils and climatic conditions. To supply the very best in tried varieties, grown on stocks which will maintain a thrifty, fruitful tree for a long period of years is ever our aim.

The California Nursery Company has been in existence now for sixty [60] years, having taken its inception in 1865 in Santa Clara County, and moving to its present location in 1884. A reputation for reliability and high business ethics has been maintained during all these years, making the California Nursery Company one of the leading nursery establishments in the world.

This firm through its founder John Rock has been responsible for the introduction and exploitation of a greater variety of fruit and ornamental trees and plants (which in a large measure constitute the foundation of California horticulture) than any other institution in the West.

In our test orchards, vineyards and ornamental grounds, close attention is being given to the adaptability of varieties and their suitability to our varied climatic and soil conditions.

We are confident with our years of experience in the building and developing of orchard and vineyard properties and ornamental grounds that we can render a definite service to those who favor us with their business.

We desire our customers to achieve success in their undertakings, and our recommendations to them will be in the direction of having them adopt the very best cultural methods in order that they may reach their goal.

GEO. C. ROEDING, President

Descriptive **Catalog** Illustrated
1 9 2 5

Fruit & Ornamental Trees

Announcements

Ornamental Growing Grounds—NILES.

The soil and location of this nursery, only a short distance from San Francisco Bay, with an abundant supply of water for irrigation purposes, makes our 300-acre tract of land close to Niles, Alameda County, most favorably situated for the growing of ornamentals. It is for this reason we are centralizing on this tract for raising stocks of Coniferous Trees; Broad-leaved Evergreens; Deciduous Flowering Shrubs; Palms; Roses; Vines, and Trailing Plants.

The character of the soil enables perfect balling of evergreen ornamentals, a very important essential to transplanting and to transportation, without a set-back, even when shipped long distances.

VISITORS INVITED. Descriptions and illustrations assist greatly in making intelligent selections, but seeing the actual plants and talking things over are better yet; so whenever possible we strongly advise a personal visit to the Nursery. Our offices and sales depot are on the state highway less than a mile west of Niles, Calif. If coming by the Southern Pacific train, telephone in advance, or from the station on arrival and a conveyance will be provided.

Peerless Stages leave on an hourly schedule from 1110 Clay Street, Oakland, and pass directly by the Nursery.

TELEPHONE: *Niles 134.*

CALIFORNIA NURSERY COMPANY,
NILES, CALIFORNIA

Fruit Tree Headquarters—MODESTO.

In California fruit growing is recognized as a great commercial business. Fruit growers realizing this very fully are demanding of the nurseryman trees of the very highest quality. Appreciating its responsibilities in the premises, the California Nursery Company has found it expedient to establish nurseries for the production of fruit trees, grape vines, etc., in sections possessing advantages of soil conditions for this class of nursery stock more favorable than they are at Niles. In 1920 the company acquired a tract of 320 acres near Loomis in Placer County, and in 1922 another 175 acre tract in the Tuolumne River bottom, 25 miles east of Modesto.

In order to handle the fruit tree department of the business expeditiously, the California Nursery Company has established its office, salesyard, and packing grounds in the city of Modesto for the assembling, packing and shipping of its nursery products. Commercial planters will find it to their decided advantage to communicate with the office at Modesto for this class of stock. We have a keen appreciation of our responsibilities to the fruit growing interests, and we make it a point, not only to have experienced propagators, but to secure buds, scions, and cuttings from trees having good performance records for the production of fruit of the very best quality, and to grow these on the best root stocks. An assortment of ornamentals is also carried in the sales yard.

Solely on a basis of service and in the maintenance of a high standard for our trees do we solicit patronage.

TELEPHONE: *Modesto 1226.*

OFFICE AND SALESYARD: *First and H Streets.*

PACKING SHEDS AND GROUNDS: *East end Fourteenth Street.*

NURSERY: *Twenty-five miles from Modesto.*

NURSERY: *One mile from Loomis, Placer County.*

CALIFORNIA NURSERY COMPANY,
MODESTO, CALIFORNIA



Your Opportunity

Our experience in the Nursery and Fruit Growing business has been exclusively in California and under Californian conditions. Few people realize the extent of this State and its diversity of soils and climatic conditions. Our frequent references to California in the following paragraphs are made for the purpose of calling attention to the best practice followed here in order that a comparison may be drawn as to whether or not similar conditions exist where our customers contemplate planting trees. Above all things we desire that those who favor us with their business, be successful in their ventures. We stand ready at all times to give advice and all such assistance as is possible to give by correspondence with our customers. We desire to call attention at this time to the book entitled "ROEDING'S FRUIT GROWERS' GUIDE" which contains one hundred pages and many illustrations. This book not only contains much of the information given in this catalogue, but it goes more into detail on many matters on which it is not possible to dwell exhaustively in the catalogue. The book in question will be mailed postage prepaid to any address on receipt of the sum of One Dollar and Fifty Cents (\$1.50). Some idea of the extent of the State of California may be gleaned from the following data:

That California is a veritable Empire will be readily understood from the fact that it contains a larger area than either Spain or Italy, although from the standpoint of climate it is very similar. It contains 158,279 square miles, having a shore line of 1300 miles with an average width of 250 miles. It already leads every other state in the United States in horticultural products, and this is largely due to its climate and soil, coupled with abundant water for irrigation during the summer months. We are convinced that the opportunities for the progress of the fruit industry are just as promising in other countries, and it is only necessary to give the business of fruit culture the same careful attention that has made it such a profitable business in California. That conditions have been favorable here is evidenced by the fact that a total failure of crops has never been experienced.

The Right Beginning

In these days the fruit grower should specialize. This does not mean that a man with his family living on a farm should not have a home orchard containing a variety of fruits, as well as a berry patch, vegetable garden, alfalfa meadow, cow, poultry and hogs. These are the things that make life worth while on a farm, and a man who uses his land for one particular product to the absolute exclusion of everything else does not derive the pleasure from his life that it should bring him.

Preparation of the Soil

Those who contemplate planting too frequently fail to start their operations early enough to have their ground in the best of shape when planting time arrives. It has been thoroughly demonstrated that the fertility of the soil is greatly increased if the land is first planted to alfalfa for several years. This is particularly the case where refractory soils are met with. Alfalfa will correct this trouble more quickly than any other crop to which the land can be planted. Due to its deep root penetration, it not only disintegrates the soil, but it is an assimilator of nitrogen, having the same faculty in this respect as other members of the leguminosae or pea family. When it is plowed under it not only adds humus to the soil but the decaying roots furnish a great abundance of plant food for the young orchard or vineyard which may be planted at a later date. Alfalfa, however, can only be grown successfully where water is available for irrigation, or in regions where bounteous rains occur during the growing season. Very few fruit growers in California are willing to wait for several years before planting out their orchard or vineyard, and under average conditions we do not consider it necessary to plant alfalfa before planting out an orchard. As mentioned before it is of the utmost importance that the land to be planted should be put in first class condition to receive the trees. This is accomplished by a thorough plowing, followed by harrowing until the soil is friable. This work should be done in the fall and winter, if possible before the rains set in. Nothing is so beneficial as sub-soiling, though planters are often disposed to avoid this additional expense, but where time and conditions will permit, it will do more to promote a fine deep root system and an unusually heavy growth than any other one thing that can be done in the preparation of the soil.

Where irrigation is practiced grading must be resorted to, so that all spots will be accessible from the laterals running from the main ditch. Grading does not necessarily mean leveling, for the less the surface soil is moved the greater will be the ultimate success of the undertaking. No greater mistake can be made than to cut down the surface of the land for several feet in order to bring it under a ditch. Under such conditions it is far better to pump the water from a ditch to the higher level, and thus preserve the land. The slight additional expense of pumping will be more than counter-balanced by the growth of the trees and their fruitfulness as compared with the poor growth and lack of fruit when the surface soil has been removed to any depth. Drainage should be given consideration, particularly if the land is low and liable to have water stand too closely to the surface during the spring and summer months.

Time to Plant

Our advice in regard to the best time to plant is the result of our observations in California, and the reader may draw comparisons to fit conditions prevailing in his own locality. The best time to set deciduous trees is in the winter months. All evergreen fruit and ornamental trees may be planted from late in the fall and until late in the spring, although in many localities, particularly sections where the summer climate is cool, planting may be continued later than this. A safe rule to follow is to plant deciduous trees when dormant and those which are classed as evergreens as soon as the sap commences to rise in the spring.

Treatment When Received

The trees when received at point of destination should be immediately unpacked, and the roots laid in a trench and well covered with soil, which should then be thoroughly wet down. If delayed in transit, thereby becoming dry and suffering from exposure (the bark showing signs of shriveling), it is a good plan to immerse the trees in a tank overnight, and the following day, bury root and top completely in damp soil for a few days until they become normal, when they may with safety be planted out. Should trees be frozen while in transit, place the package in a cellar or some other place free from frost until thawed out, when they can be unpacked, and heeled in, preparatory to planting. Trees treated in this manner will not be injured through being frozen.

In localities where the seasons are very much later than they are in California, due to higher elevations, or differences in latitude, it is far better to permit us to forward stock while in a dormant condition. The shipment on arrival at destination should be examined, by removing a board from the case, and if the roots appear to be in good condition, the contents should remain undisturbed, and the case should be placed in a cellar or in a cold storage plant where the temperature should be maintained at about 35° Fahrenheit. This method of handling trees is thoroughly practicable, so much so, that we have found it possible to ship trees to the antipodes during our winter season and have the shipment on arrival there placed in cold storage pending the opening of the planting season.

Preparing Trees for Planting

Just immediately before planting be sure to examine the roots carefully, and cut away to a smooth surface all bruised, lacerated, and broken roots or rootlets with a sharp knife or pruning shear. The cut on the larger roots should be sloping, and made on the lower side of the root. The tree can now be said to be ready for its permanent orchard home.

If planting is delayed through circumstances beyond the control of the orchardist, and a warm spell should intervene in February or March, causing the buds of the trees or vines to start, remove them from the trenches, shake out all the dirt from the roots, and expose them for two hours in the early morning on a calm day to the rays of the sun. This will cause the small, white rootlets which have started, to dry up, and if the trees are

heeled in (wetting them down, of course), in a shady place, their dormancy may be prolonged several weeks. In this paragraph and also in the preceding one we have made use of the term "heeled in" and for the information of our patrons we wish to advise that this is a technical term commonly used in the Nursery Business to describe the placing of the roots of the trees in the ground, and firming the earth by tramping and wetting down with water to exclude the air.

How to Plant

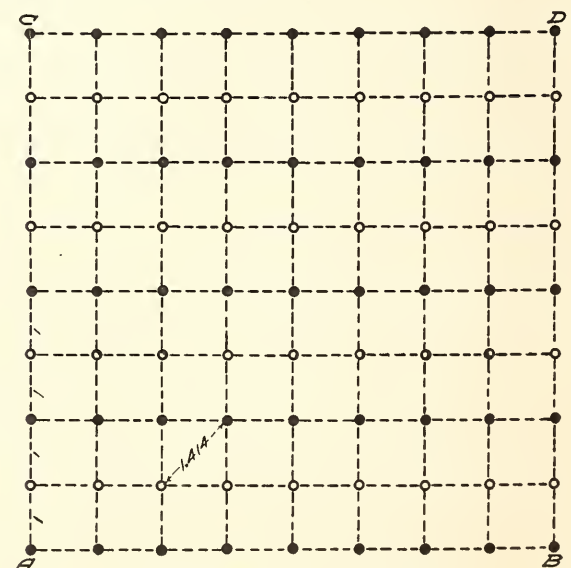
Planting Systems: There are a number of methods of planting an orchard, but vineyards are usually set in the square system. In order to eliminate much of the confusion that seems to exist in the mind of the planter when deviating from the rectangular or square system, we are submitting plans drawn to a scale, and are outlining under each one of them the plan of procedure. It is very important in laying off the ground to have straight lines, not only for the purpose of retaining symmetry in the orchard, but also for the many other advantages in cultivating, irrigating, etc.

Explanation of Diagrams: The planting distances are represented by the figure 1; all other related distances by multiple parts of 1, so that any desired distances on any of the diagrams may be obtained by the simple process of multiplying the desired planting distances by the distance indicated on diagram.

Square System: One of the advantages of this system is that it permits cultivation in both ways, especially when the trees become larger. The trees, however, are not equally distributed over the ground.

The first step to be taken in this and the following plans is to have your base lines at right angles. In planting a large place, these lines should be obtained by a transit. By studying the plan and observing the directions herewith given, the method of procedure is readily understood.

Square Planting



SQUARE PLANTING

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 an acre.

Lay off the base lines A B and A C along two sides of the planting field in such a manner that the Angle A is an exact right angle (90 degrees), and set stakes on said base lines the desired distance apart. Care must be exercised to have all stakes on true lines.

A right angle can be formed in the field by the following method:

Lay off 30 feet from A along base line A B on the diagram, then a point on base line A C will be 40 feet from A and 50 feet from the other end of the 30-foot length.

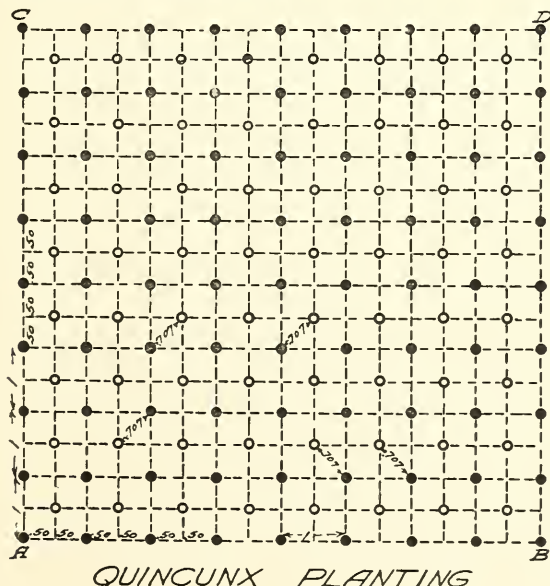
After setting the stakes along the base lines at planting distance apart, the next step should be to set stakes along secondary lines drawn parallel with base lines A B, and such distances therefrom as will be multiples of the planting distance required, and at the same time no farther apart than permitted by the length of the planting chain. This should preferably be of stranded wire No. 19 gauge, and provided with numbered metal tags designed to be inserted at desired distances apart.

Experience has demonstrated that a 250-foot wire chain is the most serviceable. The chain should be stretched for several days before using to prevent too much variation in the field.

The chain should be provided with a ring and about two feet of surplus length of wire on each end for easy manipulation and stretching. Iron stake pins should be used to hold the chain in position. To do this properly it is advisable to lay off a temporary base line, B D from end B of base line A B and at right angles thereto, setting flags on such temporary base lines at distances to correspond with the spacing of the secondary lines.

With the flags as a guide, lay off the planting stakes on the secondary lines, starting always from base line A C. Then all that is required to complete the staking will be to stretch the chain between similar points on the secondary lines and set the stakes at each tag on the chain previously adjusted.

Quincunx System

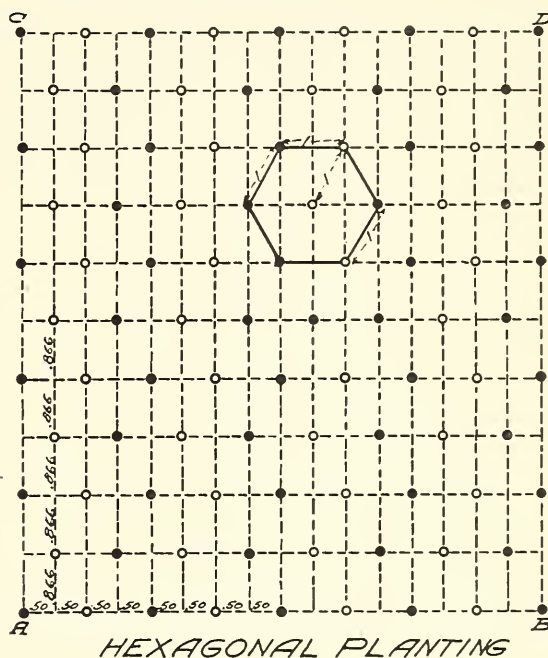


The only advantage in this method of planting is in connection with using a filler temporarily to be dug up as soon as there is any indication of crowding. This permits of double the number of trees to the acre than in the square system.

Proceed to stake the field in squares. Then without the aid of a chain place a stake in the center of each square. This is readily determined by sighting along the two diagonal rows of stakes at right angles to each other.

Rule: Quincunx Method: Multiply the number required to the acre "square method" by two. The result will be the number of plants required to the acre by this method.

Hexagonal System



This is the only system of planting in which the trees are equal distances apart in every direction—every tree being at one point of an equilateral triangle.

The name "septuple" sometimes applied to this system refers to the fact that the number of trees in each group unit is seven. Note hexagon on diagram.

To illustrate the plan to be followed, we will consider that the trees are to be set 24 feet apart. Then on base line A B set stakes 24 feet apart. Then on base line A C set stakes 0.866 times the planting distance apart or every 20.784 feet or (20 feet 9 inches).

The first stake on the intermediate line, shown by the hollow circle on the diagram should be 12 feet from the base line A C and 20 feet 9 inches from base line C D.

In using this method of staking, tags of two different colors should be used, one starting at zero and the other .50 times the planting distance from the zero end of the chain.

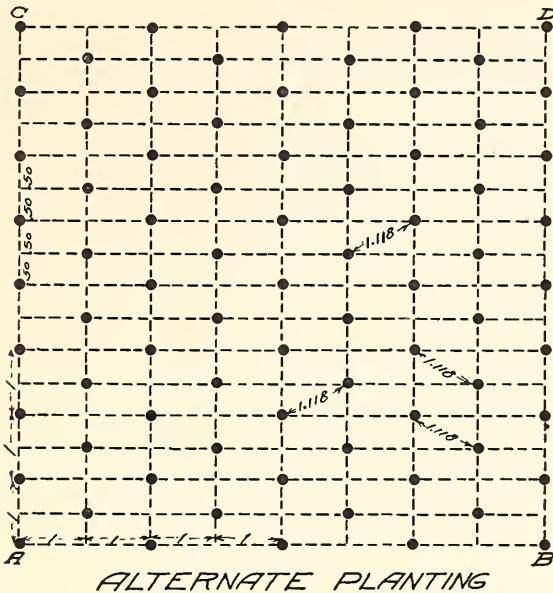
For the convenience of the planter we are giving here—with the distances between rows of trees, parallel with base line A B on the diagram to correspond with various planting distances:

As an illustration, if trees are planted 18 feet apart on base line A B, the following row would be 15 feet 7 inches and correspondingly greater distance where the trees are to be planted farther apart:

Base line A B 18 ft.	Secondary line 15 ft., 7 in. from A B.
Base line A B 20 ft.	Secondary line 17 ft., 4 in. from A B.
Base line A B 22 ft.	Secondary line 19 ft., ½ in. from A B.
Base line A B 24 ft.	Secondary line 20 ft., 9 in. from A B.
Base line A B 28 ft.	Secondary line 24 ft., 3 in. from A B.
Base line A B 30 ft.	Secondary line 26 ft., 0 in. from A B.
Base line A B 36 ft.	Secondary line 31 ft., 2 in. from A B.
Base line A B 40 ft.	Secondary line 34 ft., 8 in. from A B.

Rule: Hexagonal Method: First, figure the number trees required per acre by the "square method," using the same planting distance; then divide by the decimal .866. The result will be the number of plants required to the acre by the method.

Alternate System



We will assume that the planting distance is to be 24 feet apart, and then all stakes on base line A B will be 24 feet apart. The alternate stakes on this line will be for temporary use only. In setting stakes on lines parallel with base A C, the tags of one color should be spaced 24 feet apart, commencing at the zero end. Tags of another color (for use on alternate lines) should be spaced 24 feet apart, commencing at a distance of 12 feet from the zero end of the chain.

Rule: Alternate Method: The number of plants required by this method is the same as that required by the "square method" with similar planting distances.

Planting Distances

Distance Apart Each Way

Standard Apples	25 to 30 feet
Standard Pears	20 to 30 feet
Dwarf Pears	12 to 15 feet
Strong Growing Cherries	24 to 30 feet
Duke and Morello Cherries	18 to 24 feet
Standard Plums and Prunes	24 to 30 feet
Peaches and Nectarines	24 to 30 feet
Apricots	24 to 30 feet
Figs	25 to 35 feet
Olives	30 to 35 feet
Pecans	40 to 60 feet
Citrus Fruits	22 to 30 feet
Walnuts	40 to 50 feet
Almonds	24 to 30 feet
Grapes	6x6, 6x12 and 8x10 feet

Number of Trees to the Acre

Distance	Square	Quincunx	Hexagonal	Alternate
8 ft.	680	1360	785	680
10 ft.	435	870	500	435
12 ft.	302	604	349	302
14 ft.	222	444	255	222
16 ft.	170	340	196	170
18 ft.	132	268	154	134
20 ft.	109	218	124	109
22 ft.	90	180	104	90
24 ft.	75	150	87	75
25 ft.	70	140	80	70
26 ft.	64	128	74	64
28 ft.	56	112	64	56
30 ft.	48	96	55	48
32 ft.	43	86	49	43
36 ft.	34	68	39	34
40 ft.	27	54	31	27
45 ft.	22	44	25	22

Blasting the Holes

Much interest has been manifested of late years in dynamiting the holes prior to the planting of the trees. It is absolutely necessary to do this in hardpan in order to plant trees at all.

It has been the practice not to blast where the hardpan came within 3 feet of the surface, but actual experience has demonstrated that not only striking, but remarkable development in the growth of trees had been secured by blasting where hardpan was found, but in any heavy soil of a compact nature. It does not take much of a stretch of the imagination to comprehend the fact that a thorough disintegration of the soil, permitting the roots to ramify in every direction, will promote a rapid root and top growth. The drilling of the hardpan is carried on very expeditiously now-a-days by the use of a power drill mounted on a wagon, or by tractors pulling sub-soilers to a depth of from 24 to 36 inches.

Important Details

As has been suggested previously, above all things have your ground in the best condition of tilth. The importance of this one point cannot be dwelt upon too forcibly, for it not only insures more rapid work on the part of the men setting your trees, but in addition to this, not having any clods to contend with, the fine loose soil packs around the roots, when tamped in, and if for any reason there should be no opportunity of settling the trees with water after planting, there is very little danger of their drying out.

A stake about one-half inch square and one foot long, split out of redwood, will be found a very convenient size as a marker for the setting of trees. Dip about six inches of one end in whitewash, as they can then be readily seen. Should any of the stakes be out of line it will be noticed at once. Before digging the holes it is necessary to have a tree setting board. This is easily made out of a piece of lumber 1 inch thick by 4½ feet long with an inch hole at each end, and a notch in the center. Place the notched center against the stake where the tree is to be planted and push a stake into the ground through the holes at each end of the planter and remove the center stake. The hole may now be

dug and this should not be less than 18 inches in diameter, and 18 inches deep. After the hole is dug, replace the board over the end staked in its former position, then plant the tree with the trunk resting against the center notch in the board and it will be in identically the same place as the stake which was removed to dig the hole.

In setting out, one person should hold the tree in an upright position against the notch in the tree setter, while another shovels or fills in the loose soil around it, first spreading out the roots and rootlets in as natural a position as possible. The surface or friable soil should be put in first among the roots, care being taken to fill in every interstice, thus bringing all the roots in direct contact with the soil. When the hole is two-thirds full, firm the earth thoroughly about the roots, but before doing this draw the tree up to its permanent position. The top three or four inches of soil should not be tamped. A basin should be scooped out around the tree which will hold at least 15 gallons of water, and unless heavy rains should intervene to fill it up, water should be applied either by bucket or by irrigation. The following day draw in loose soil to fill up this basin, reducing it to a fine condition of tilth and do not tramp in.

Guard against setting too deeply, but allow for the settling of the soil so that when once established the tree will stand about as it did at the time of removal from the nursery rows, or at the outside not more than three inches below the surface of the soil. In the hot interior valleys of California we have found it very important to protect the trunks with tree-protectors until they can supply their own shade.

Bringing an Orchard or Vineyard Into Bearing

Just in the proportion that the orchard receives intensive and intelligent care, will it give corresponding returns for the investment of capital, time and labor. Above all things, do not plant too many varieties if you desire to be a factor in the business. As an illustration, it is a mistake to have a different variety on each acre, for when this orchard comes into bearing there is such a limited quantity of each variety, the commercial packer of dried or canned fruits does not feel inclined to pay what the fruit is worth because there is not enough of any kind to make it an object for him to handle.

The handling and marketing of fruit has assumed such vast proportions that there are always commercial institutions eager enough to enter a new field and exploit it as soon as the production is large enough to encourage the building of packing houses for the handling of any particular product. Another serious mistake on the part of many growers is to attempt to harvest big crops when their trees are but two years old. The result of this unwise policy is in many cases to sacrifice the tree to such an extent that just when it should be bringing profitable returns, it was burdened too heavily when young, and in consequence either dies when it should be in its prime or it takes years of extraordinary care to restore it to its proper vigor. The care bestowed for the first two or three years in cultivating, pruning and irrigating, where the rainfall is insufficient to carry the trees through the long dry summer months,

is the foundation for the upbuilding of an orchard which will redound to the credit of the owner and give him ample returns for its intelligent care and years of hard work.

Next to thorough cultivation there is nothing which is more vital to the life of the tree than proper irrigation. It is difficult to lay down specific rules on this point, but there are basic ones which can generally be observed in the handling of most deciduous trees, with some exceptions, and instructions pertaining to such cases will be dwelt on under proper heads.

Must Be Cut Back

After a tree is set never fail to cut it back. This is now the general practice among the most successful orchardists throughout California, and is the result of years of experience. The following winter from three to four branches, properly distributed around the body of the tree, should be allowed to remain to form the head, and each one of these branches should have at least one-half of their growth removed, cutting away all laterals from them also. These leaders will eventually form the frame work of the tree. The result of the first year's pruning will cause the trees to make an immense growth, and will also induce them to grow stocky. The second winter, heavy thinning will have to be followed and the pruning should be done with a view of causing the framework branches to spread out. There may be some variation from these instructions, therefore, it is advisable to read carefully the information given under each head. The many advantages of this method of pruning are: (1) It makes a low-crowned and a more stocky tree, affording an umbrageous head, and thus protecting it from the hot rays of the scorching summer sun; (2) it enhances the carrying capacity of the tree, thus avoiding artificial props when maturing a crop of fruit; (3) it expedites the harvesting of the crop, by rendering it more accessible to the pickers, thus economizing time and expense; (4) it prolongs the life of the tree by reason of conserving its vital forces, and rendering it less liable to damage in the breaking of limbs and taxing its strength by carrying its fruits "close in."

Irrigation

To go specifically into the subject of irrigation is not within the province of this catalog. Soil conditions bear a very important part in the particular plan, which should be followed to secure the best results. Where water is pumped from wells, experience has demonstrated that cement pipes are more serviceable for carrying water to the point where it is to be distributed than anything else.

During the first season for deciduous trees, in districts where irrigation is practiced, water should be applied not less than four times during the year. For the first two years it is not necessary to irrigate all of the ground between the rows. A space six feet wide will answer the necessary requirements in nearly all cases.

The planter should never lose sight of one important fact, and that is, if the orchard or vineyard can be maintained in a thrifty, vigorous condition, thorough cultivation is preferable to repeated irrigation.

Information for Intending Purchasers



The Order Blank accompanying this catalogue is for the convenience of customers and we will appreciate their using it, as it will facilitate the filling of their orders.

Orders. It is important to write your name plainly; your postoffice, county and state. Following these instructions will insure prompt delivery of mail matter addressed to you.

Export Orders. Too much stress cannot be laid on the importance of writing your address in full on an envelope or on a separate sheet of paper. Give us routing instructions and state if shipment is to be made by freight, express or by mail. In making remittances add at least twenty per cent to the amount of the order to cover custom house duties, transportation, and other charges which must be invariably prepaid on all export orders.

Remittances. All of our stock is sold for cash unless other arrangements are made. Remittances may be made to us either by postoffice or express money order, registered letter, bank draft or check. On export orders cash must accompany the order, or confirmed bankers' credit, or satisfactory banking references.

Method of Packing. We pride ourselves in thoroughly understanding how to handle shipments going to any part of the United States, or for export. Even if they are several months on the road, stock will reach destination in good order with our thorough method of packing if given ordinary good care en route. We pack stock as lightly as possible, consistent of course, with the distance it must travel. We assume no responsibility for the safe arrival of goods after they have been accepted by the carriers, and found to be in good order. However, we wish to assure our customers, should a loss occur, through the carelessness of the transportation companies, we will make every effort to recover damages for any loss which they may sustain.

Packing Charges. We charge for same only to cover cost of material used.

Errors. If any mistakes are made in filling orders, we will cheerfully rectify same, but must respectfully request our customers to notify us at once after receipt of the goods.

Measurements of Height. The grades in sizes of deciduous fruit and ornamental trees are determined by caliper and height. In such varieties of trees which have a tendency to grow stocky, rather than make height, the caliper method of measurement is given the preference. The accompanying table will give the necessary information as to grades:

1 to 2 inch caliper.....	8 to 10 foot trees
$\frac{3}{4}$ to 1 inch caliper.....	6 to 8 foot trees
$\frac{1}{2}$ to $\frac{5}{8}$ inch caliper.....	4 to 6 foot trees
$\frac{3}{8}$ to $\frac{1}{2}$ inch caliper.....	3 to 4 foot trees
$\frac{1}{4}$ to $\frac{3}{8}$ inch caliper.....	2 to 3 foot trees

Selecting Varieties. We have endeavored to list in the fruit section of the catalogue only such varieties of fruits as are recognized commercially, fully appreciating that in doing this, we are eliminating much of the confusion in listing innumerable varieties, and are giving rank to those varieties which have become standard and are always in demand because of their outstanding characteristics. Should the stock of any variety ordered be exhausted, we shall, to save delay, send in its place the most suitable substitute, unless instructed to the contrary.

Quantity Orders. Articles mentioned in this catalogue will be furnished as follows: 5 of a variety at the 10 rate; 50 at the 100 rate; 300 at the 1000 rate. To illustrate, if an order called for five varieties of apples, the 10 rate would apply, and if in addition to this 1 peach, 1 pear, 1 apricot, 1 nectarine and 1 plum were ordered, the each rate would apply on the assorted trees and the 10 rate on the apples. Customers will please bear in mind that the quantity rate will only apply when multiples of the same variety of tree is ordered and not on assortments.

Inspection. Every shipment we send out will carry a certificate of inspection. We endeavor to keep ourselves fully informed on the quarantine laws affecting shipments of nursery stock to any point in the United States, to prevent any delay in the forwarding of orders. The same policy is observed on all of our foreign shipments.

GUARANTEE. The California Nursery Company will exercise care to have all stock true to name, nevertheless it is understood and agreed that should any stock prove untrue to name, the California Nursery Company shall be liable only for the sum paid for the stock which may prove untrue, and shall not be liable for any greater amount.

CALIFORNIA NURSERY COMPANY,

Geo. C. Roeding, President,

NILES, CALIFORNIA.

Telephone, Telegraph, Postoffice and Express Address as above.
Cable address, "CALNURCO."



A block of one year old Bartlett Pear Trees growing in our fruit tree nursery in Stanislaus County.

Fruit Department

TO COMMERCIAL PLANTERS

We urgently advise our customers who contemplate planting commercial orchards to write our **MODESTO BRANCH** for information and prices.

THE APPLE

In the temperate zone no variety of fruit is so widely distributed, or has been more extensively planted than the apple. The list of varieties is amazing. "Downing's Fruits" alone lists about 3500 sorts. Following out the rule, we have scaled down our list of varieties, cataloging only such kinds as have distinct characteristics, and which are of value, either for home use or from a commercial standpoint. New varieties are never added to our list unless we are convinced that they possess points which make them worthy of cultivation.

Varieties are variable as to localities, and in planting in sections where apple culture is pursued commercially, the advice of an experienced grower should be sought as to the best varieties to plant. Broadly speaking, districts where a hot, arid climate prevails, are not suitable for commercial apple culture on a large scale, as the very rapid and early maturing of the fruit does not seem to be conducive to long keeping, as found in tried localities where conditions are favorable for perfecting fruit having long keeping qualities. Nevertheless it is a fact that where moisture is readily maintained in a soil, either by irrigation or sub-irrigation, many varieties are of such exceptionally large size, present so fine an appearance, and are of such excellent flavor (although not possessing long keeping qualities) that more attention should be given to their culture.

SOIL AND SITUATION

The best soil for this fruit is a deep, rich loam, which will allow the free extension of the roots and is free from stagnant water. An extremely light, sandy soil should be avoided. Apples do exceedingly well in sec-

tions aligning the coast where they get the benefit of cooling winds and fog. Experience in California has demonstrated very fully that the finest flavored and most highly colored apples are grown in the mountain regions at an elevation of from 3500 to 5000 feet.

DISTANCES APART

It is the consensus of opinion among commercial growers that apple trees should be planted from 25 to 30 feet apart in orchard form. Crab Apples may be planted closer. Trees should be cut back to 20 inches from the top of the ground after being set, except in the higher altitudes, where the snow in settling would cause the branches to break off, thus making it advisable to head the trees at not less than 2 feet from the ground. Apples are very much subject to sun scald and to the attack of the flat headed borer, the first few years after trees are set out. When headed low, protected with tree protectors, permitting a free circulation of air, and by giving the stem a coating of whitewash to which has been added soap and crude carbolic acid, little danger need be apprehended from either of these evils. The wash is made in the following manner: Dissolve one-half gallon of soft soap in one-half gallon of hot water, adding one-fourth pint of crude carbolic acid. When mixing add five gallons of hot water and enough lime to make a mixture the consistency of paint.

SHAPING THE TREE

In forming the head of the tree no branches closer than one foot from the surface of the ground should be allowed to grow. The following winter they should be

cut back at least one-half and thinned out so as not to leave more than four branches to form the frame-work, and these should be distributed in such a manner as not to crowd one another as the tree develops. Each one of these branches should be regarded as a subdivision to maintain to wood supply to eventually form a perfectly vase formed tree. The second winter not more than two laterals should be allowed to remain, and if there is a tendency to crowd, not more than one on the framework branches, and their growth should again be shortened severely. The tendency as far as possible should be to prune to an outside bud for the first two winters' pruning. With the head practically formed, the orchardist must shape the tree in accordance with its development, leaving and shortening in the inside laterals if they show a tendency to spread out, or if the inclination is to assume too upright a form, cause them to spread by leaving the outside laterals. The cutting back of the trees and judicious thinning prevents the long bare branches so noticeable in trees which have not been pruned the first four years of their growth. The effect of this method of pruning is to cause the structural branches to be sturdier, the load of fruit is carried closer to the trunk, and even with a heavy crop of fruit, the necessity of propping is eliminated very largely. Props are an expensive item, and they also interfere very materially with the harvesting of the crop, so that a method of pruning which will dispense with them is very worthy of careful consideration.

STOCKS FOR THE APPLE

We bud and graft apples on the common apple root (*Malus communis*). Should the demand justify our doing so we are prepared to also grow apples on the Paradise root (*Malus paradisiaca*) and on Northern Spy roots, the latter being resistant to the attacks of Woolly Aphis.

PRICES OF APPLE TREES

	Each	Ten
6 to 8 ft.....	\$.60	\$5.00
4 to 6 ft.....	.50	4.50

VARIETIES OF APPLES

The letter S, F or W following each name indicates that it is a Summer, Fall or Winter variety.

Arkansas Black (W). Large; round; regular; smooth and glossy; yellow where not covered with deep crimson, almost black; flesh very yellow, firm, fine-grained, juicy; flavor sub-acid, pleasant, rich. A long keeper.

Ben Davis (W). Large, handsome, striped and of average good quality; productive and late keeper.

Delicious (W). Large; ribbed and irregular; dark red where apples color well. A long keeper and of remarkably high quality in favorable locations.

Early Harvest (S). Medium size; pale yellow; tender, mild, fine flavor; erect grower and good bearer.

Esopus Spitzenburg (W). Large; tapering; light red, delicately coated with light bloom; flesh butter yellow, crisp, rich, sprightly, vinous flavor; one of the best.

Gravenstein (F). Large; striped red and orange. Most popular early variety on Coast.

Jonathan (F). Medium to large; conical; striped, mostly red; tender, juicy, rich vinous flavor; very productive; good keeper; one of the best varieties for table or market.

King David (W) (New). Fruit large, wine-red, blotched yellow. Its high color and delicious flavor are causing it to be a winner.

Red Astrachan (S). Large; roundish; deep crimson; very handsome, juicy, good, rather acid; an early and abundant bearer.

Red June (S). Medium; irregular; deep red; good; very productive and early bearer.

Rome Beauty (W). Large; yellow striped with bright red; very handsome; flesh tender, juicy, sprightly. A long keeper.

Stayman's Winesap (W). Large; a seedling of Winesap and considered quite an improvement; yellow, well covered with dark red; flesh yellow, sub-acid and of best quality.

White Astrachan (S). Very large; roundish; very smooth and nearly white; a great favorite and one of the best summer apples.

White Winter Pearmain (W). Large; roundish; conical; pale yellow; flesh yellowish, tender and juicy with extra high flavor; one of the best.

Winter Banana (W). Medium to large; golden yellow, usually shaded crimson; flesh fine grained with a very rich, sub-acid flavor. Tree healthy and vigorous. Commences bearing very young. Not a good keeper.

Yellow Bellflower (W). Very large; oblong; skin smooth, pale lemon yellow, often with blush next to the sun; flesh tender, juicy, crisp, with a sprightly sub-acid flavor; one of the very best.

Yellow Newtown Pippin (W). Large; yellow with brownish red cheek; firm, crisp, juicy, with a very rich, high flavor. Generally considered the best winter apple in California. A great export apple and in great demand in England.

VARIETIES OF CRAB APPLES

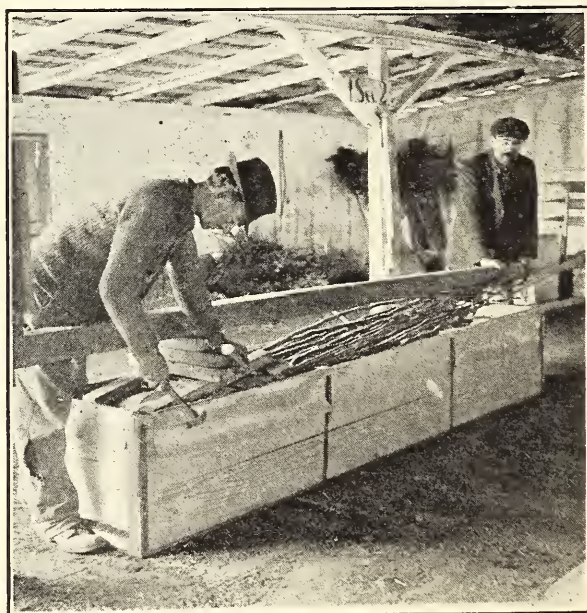
Hyslop. Almost as large as the Early Strawberry apple; deep crimson; very popular on account of its large size, beauty and hardness; late; tree remarkably vigorous.

Red Siberian. Fruit small, about an inch in diameter; yellow, with scarlet cheek, beautiful; tree an erect, free grower; bears when two or three years old.

Transcendent. A beautiful variety of the Siberian Crab; large; red and yellow; tree a remarkably strong grower.

Whitney. Large; skin smooth, glossy green, striped, splashed with carmine; flesh firm; juicy and flavor very pleasant. August.

Yellow Siberian. Large; beautiful golden yellow.



Trees and Plants for long distance shipments are carefully packed in cases.



These pear trees on quince root are still bearing excellent crops of fruit. Trees are sixty years old and are planted fifteen feet apart.

THE PEAR

The pear is a fruit cultivated throughout California and the Pacific States generally, extending into Mexico. It does well in all soils, but succeeds best on a heavy loam. Of the whole range of commercial fruits it seems to thrive in alkali soils and is being largely planted in vineyards and orchards where the vines and trees have been killed. Pears are planted from 20 to 30 feet apart; on quince root 12 to 15 feet apart. Pruning is usually in the vase form of tree. The fruit should be thinned out on heavily laden trees, or it is liable to run to small and unmerchantable sizes. The fruit of summer and autumn sorts should be gathered at the first indication of ripeness, the first sign being the tendency of the stem to part from the spur when the pear is gently raised. Late pears should hang as long as possible; a slight frost will not injure them as much as premature gathering. They should then be placed in a dark cool place, where they will ripen, acquiring a delicious aroma, fine flavor, and a melting characteristic, pleasing to the palate when eaten. The demand for this fruit both in the green and dried state is constantly increasing, and there seems to be no ground to fear over-production.

STOCKS FOR THE PEAR

We grow pears on the European Pear root, *Pyrus communis*, and also on Japanese Pear root, *Pyrus serotina*, and on the Quince root, *Cydonia vulgaris*.

The quince is used as a stock because it causes the pear to become dwarf in habit and permits the planting of trees closer together. It is no uncommon sight to see trees three feet high, loaded with an abundance of

pears. The Bartlett, in particular, and many other varieties of pears will not make a good union when budded direct on quince. It has, therefore, been found necessary in nursery practice to bud the Beurre Hardy Pear, which has a remarkable affinity for the quince, and then bud or graft the other varieties of pears on this variety. This is what is known as double working.

PRUNING AND SHAPING

The very marked tendency of the pear to form its branches straight up requires a method of pruning which will not only hold the tree in control, but will promote its fruit spurs from the framework branches to the very top of the tree. It goes without saying that this is the desideratum which every pear grower would like to achieve. It is not at all uncommon for our one-year pear trees in nursery rows to attain a height of 10 feet. To many growers it seems a crying shame to cut such trees off after they are set, to 24 inches from the ground. Our trees have plump and well-defined buds all the way up the stem, every one of which will start if permitted to do so. This should eliminate any doubt in the grower's mind, that the tree will not start if cut back as severely as this.

In midsummer, just before the wood begins to harden, from four to five branches well distributed around the stem of the tree should be selected, and then pieces of wood from three to six inches long and slightly notched to hold them in place should be arranged to push the branchlets away from the body of the tree.

In order that the reader may not become confused in

his ideas as to the method of pruning to be followed, we will consider, for the sake of argument, that the orchard to be pruned was planted in the spring of 1924. In January 1925, four branches, regularly distributed around the tree, three to four inches apart, should be selected, counting from the terminal one at the tip end to constitute the framework branches. All of these branches must be cut back so that they do not exceed twelve inches in length. If any of them show a tendency to hug too closely to the body of the tree, the wooden braces should not be overlooked. In other words the branchlets should be forced outward without interfering with their upward course. In 1926 the new growth should be pruned back at least one-half. In 1927 the new growth should again be cut back leaving the leaders longer. Laterals from the main branches, if properly distributed, should be allowed to remain, cutting off at least one-half of their growth.

In 1928 the same method of shortening in and building up the frame of the tree is followed, except that it must be less severe.

As a result of this pruning fruit spurs are developed from the point where the framework branches diverge from the body of the tree to the very top.

PRICES OF PEAR TREES

	Each	Ten
6 to 8 ft.....	\$.70	\$6.00
4 to 6 ft.....	.60	5.00

VARIETIES OF PEARS

The letter S, F, or W following each name indicates whether it is a Summer, Fall or Winter variety.

Bartlett (S). Large; smooth; clear yellow; flesh white, juicy, buttery and highly perfumed. The most popular sort in this State; the best early variety and has no competitor for market or canning.

Beurre Bosc (F). A large and beautiful russety sort, very distinct, long neck; melting, high flavored and delicious. A favorite among commercial packers.

Beurre Clairgeau (F). Very large; pyriform; yellow, shaded red; nearly melting, high flavored; one of the earliest and most prolific bearers.

Beurre d'Anjou (F). Large; russety yellow, often with a fine red cheek; flesh perfumed, buttery and melting.

Beurre Hardy (F). Large, cinnamon russet; with sometimes a red cheek; juicy, melting, very pleasant flavor.

Dana's Hovey. (Winter Seckel.) (F). Small; greenish yellow with russet dots; juicy, sweet and aromatic. One of our most valuable table pears.

Doyenne du Comice (F). Large, pyriform; fine yellow, lightly shaded with russet and crimson; melting, buttery, rich, sweet, slightly aromatic. A standard market variety.

Easter Beurre (W). Very large; yellowish green; fine grain; very buttery, melting and juicy, with a sweet and rich flavor. One of the best keepers.

Forelle (Trout) (W). Oblong, pyriform; lemon yellow, covered with red dots, hence the name Trout Pear; washed with deep red on the sunny side; flesh white, fine grained, buttery, melting, slightly vinous.

Glou Morceau (W). Large; clear yellow; fine grained, sugary, rich.

Howell (F). Large; light waxen yellow with small brown dots; juicy, melting, brisk, vinous; a valuable variety.

Lawson (Comet) (S). Medium to large; crimson on bright yellow ground; flesh fine grained, juicy, rich and sweet.

Madeleine (S). Medium size; yellowish green; very juicy; melting and sweet; the earliest sort we have.

P. Barry (W). Large to very large; elongated pyriform; deep yellow, nearly covered with rich golden russet; flesh whitish, fine, juicy, buttery, melting, rich and slightly vinous; tree healthy and regular bearer. A fine market variety because of its long keeping qualities without any deterioration.

Seckel. (F). (Summer Seckel.) Rather small; regularly formed; yellow with russet red cheek; flesh cream color; flavor rich, spicy, unique and characteristic. Excels all other sorts in quality.

Winter Nelis (W). Medium size; dull russet; melting, juicy, buttery and of the highest flavor.

THE CHERRY

Strictly speaking the sections in which cherries can be grown to advantage are limited to localities where it does not get too hot during the summer months. In California the finest flavored, and largest cherries are grown in the counties not too far distant from the San Francisco Bay region, and in the coastal sections generally, where the aridity of the climate is tempered by the sea air. The enormous profits realized from cherry orchards; the very excellent keeping qualities of many of the varieties, even when picked quite ripe, present a series of reasons for extending the field for the planting of cherries over a greater territory.

Being the initial stone fruit of the season probably accounts in a way for its popularity. All varieties ripen and are harvested during the early summer months.

Exceptionally fine cherries are grown in the states of Oregon and Washington, but California has the advantage inasmuch as the crop ripens earlier. The California season is from May 1st to June 15th, while in the two states above mentioned the cherry season opens on the latter date, and closes about July 15th.

Cherry trees should be planted 20 feet apart at the very least and on exceptionally rich soils—30 feet would be better.

STOCKS FOR THE CHERRY

Practically all of our Cherry trees are budded on Mazzard root (*Cerasus avium*). In other sections of the



Tree to left a two-year-old cherry tree, illustrating method of thinning and topping.

Tree to right four years old.



It is a pleasure to harvest Cherries in this magnificent orchard.

United States the Mahaleb root (*Cerasus odorata*) is used quite extensively. The demand for this root stock in California has been rather limited thus far.

PRUNING

The trees should be headed back to 24 inches. Three to four branches should be allowed to form the head of the tree, and these should be distributed in such a manner as to prevent forks, as the tree has a tendency to split as it grows older. The first winter these branches should be cut back one-half, and the following season, not more than one to two branches should be allowed to grow from those left the first year. The third season the new growth should be again shortened in. In after years the cutting should be less severe, but pruning, unless the trees should show too much of a tendency to spread out, should continue every year. This promotes fruit spurs on the large as well as on the smaller branches, and in harvesting a crop the even distribution of the cherries from the bottom to the top of the tree cannot but help bring about a feeling of pride in the mind of the grower over the results obtained.

PRICES OF CHERRY TREES

	Each	Ten
6 to 8 ft.....	\$.80	\$7.00
4 to 6 ft.....	.70	6.00

VARIETIES OF CHERRY TREES

HEARTS and BIGARREAUS
(Sweet Cherries)

Bing. Large; dark brown or black; very firm, late; vigorous grower with heavy foliage; a good shipping variety. July.

Black Tartarian. Largest size; bright purplish black; flesh purplish, thick, juicy, very rich and delicious; tree a remarkably vigorous, erect and beautiful grower and an immense bearer; the best of the black cherries. June.

Burbank. A highly flavored cherry somewhat larger than Black Tartarian and ten days earlier. Not a very heavy bearer.

Centennial. A seedling of Napoleon Bigarreau. Larger than its parent; beautifully marbled and splashed with crimson on a pale yellow ground; its keeping qualities render it the best shipping variety. June.

Chapman. Seedling of Black Tartarian; is earlier; ripens immediately after Early Purple Guigne; light bearer. June.

Early Purple Guigne. Small to medium; purple; tender, juicy and sweet. May.

Governor Wood. Large; light yellow, shaded with bright red; flesh nearly tender, juicy. Bears heavily and a regular cropper. June.

Lambert. Large size and good quality; deep, rich, red; flesh firm, and flavor unsurpassed; excellent shipping variety; inclined to be a shy bearer. Ripens two weeks later than Napoleon Bigarreau. July.

Lewelling. (Black Republican, Black Oregon.) Large size; cross between Napoleon Bigarreau and Black Tartarian, having the solid flesh of the former and the color of the latter. Very late and good and desirable for pollinating other varieties. July.

Napoleon Bigarreau. (Royal Ann.) A magnificent cherry of the largest size; pale yellow, becoming amber in the shade, with a bright red cheek; flesh very firm, juicy and sweet. Free grower and enormous bearer. July.

DUKES AND MARELLOS
(Sour or Pie Cherries)

Early Richmond. Red; acid; valuable for cooking; very productive. July.

English Morello. Large; dark red, nearly black; tender, juicy, rich, acid; productive and late. July.

May Duke. An old, well known, excellent variety; large; dark red; juicy, sub-acid, rich. June.

Reine Hortense. Very large; glossy red or deep pink, finely mottled; tender, juicy; nearly sweet; delicious.

THE PLUM

The plum in its geographical distribution on the West coast of the United States, and particularly in California, covers a wide range of soils and climates, being thrifty both along the Coast regions and in the interior valleys, and well up into the foothills.

This adaptability is undoubtedly due largely to the various stocks on which the different sorts are budded or grafted and also to the fact that plums are either shipped green or canned—very rarely dried. There has been a tendency on the part of many growers to plant plum trees too close together. The Japanese types are of a less spreading habit than the European, but even the former should not be planted closer than 24 feet apart. Where the conditions are favorable for a strong, vigorous growth, it is a mistake to plant even this close.

STOCKS

The Peach and Myrobolan root are the standard stocks for the plum, and these two roots seem to meet practically all the conditions where the plums are raised. The peach root being given the preference on the sandy, loamy soils, and the Myrobolan on the heavier and damper soils. On very gravelly soils the almond root could be used to advantage, nearly all varieties doing well on this root. It has not been used to any extent, however.

PRUNING

To deliberately say that a plum tree should be pruned regularly every year would be just as nonsensical as a recommendation never to prune the plum. No absolute fixed rule can be adopted when it comes to pruning, and this applies to all other kinds of fruit trees as well as plums, for in the final analysis, the grower must study his conditions and decide for himself the policy to pursue.

There can not possibly be any argument, however, in shaping the trees when they are young and to neglect to train the branches which will eventually be the main supports of the tree, would be just as sensible as being indifferent as to the permanency of the foundation of a substantial dwelling. We have no patience with the man who will not cut his trees back to at least 20 inches after they are planted, and who will not endeavor to have the framework branches properly distributed around the body of the tree, and who will not shorten them in for a few years, to develop a well-balanced sturdy tree. If, in after years, larger crops are produced by allowing the trees to grow at their own sweet will, except to cut out interfering branches, this is a matter of judgment.

The planting and bringing of an orchard into bearing is no small undertaking. It not only taxes the average man's purse strings to the limit, but in addition it means the employment of every resource at his command in labor and brains to reach the goal for which he is aiming. Therefore, he must have returns for the combination of forces which have caused him to build vigorous, substantial trees.

To promote fruit spurs, according to our idea, the only practicable and sensible plan is to prune the plum tree. As we see it a tree with fruit from the very crotches to the top ends, and evenly distributed throughout is by far better than to have a total absence of these lateral fruit spurs. Where the trees are not cut back this is just what happens. After a number of years, depending on the vigor of the trees, practically no new wood is being made, the tree is apparently lacking in vitality, the blossoms are weak, and there is a general debility in the tree. There is only one recourse then. Cut the tree back and build a new top, and be out of a crop for at least three years until the tree is back again where it belongs.

PRICES OF PLUM TREES

	Each	Ten
6 to 8 ft. grade.....	\$.60	\$5.00
4 to 6 ft. grade.....	.50	4.50

VARIETIES OF PLUM TREES

Bavay's Green Gage. (Reine Claude de Bavay.) Large, roundish; greenish yellow; fine flavor; highly recommended for canning. September.

Beauty. A late introduction, having been accorded a leading place by the growers of shipping plums. Tree a most remarkably vigorous, upright grower, with large, healthy foliage. Fruit beautiful, oval, crimson with amber-crimson flesh. The largest of the early plums and ripening ten days earlier than Santa Rosa. June.

Climax. Very large; heart shaped; skin thick, firm, deep vermilion red; flesh yellow. A superbly rich variety. Commands the highest price in Eastern markets. Vigorous grower and very productive. July.

Clyman. Large; mottled reddish purple, with beautiful blue bloom; freestone; flesh firm, dry and sweet. Valuable for shipping on account of its extreme early ripening. July.

Diamond. Very large; oval; dark purple; flesh deep yellow, juicy, with a brisk, agreeable acid flavor. An immense bearer and one of the best shipping plums. August.

Giant. Fruit of large size, as its name implies; dark crimson on yellow ground; produced in great profusion; flesh firm, rich, sweet, delicious, and excellent shipper; freestone. Tree strong, handsome grower and an early regular, heavy bearer. August.

Grand Duke. A valuable late plum; very large; dark purple, covered with blue bloom; sweet and rich when ripe. August.

Jefferson. Large, oval; yellow with a reddish cheek; flesh very rich, juicy, luscious, high flavor; a very fine canning variety. August.

Kelsey's Japan. Very large; greenish yellow, covered with red on the sunny side; flesh very solid and firm when ripe; juicy, and with a rich vinous flavor; pit very small. A fine market variety. August.

President. An English plum of very recent introduction. Fruit uniform, large and shaped like Yellow Egg. Skin purple; flesh yellow and of fine texture. In the Vacaville district it is recognized as the most promising of market plums. September.

Santa Rosa. Regarded as one of the best Japanese type of plums. Very large; deep purplish crimson color, with pale blue bloom. Flesh yellow, streaked and shaded with crimson. As a shipping plum it has few equals. June.

Satsuma. Fruit large, nearly round; dark red; flesh dark red; solid color from skin to pit; firm, rather juicy, fair flavor; pit very small. Extremely productive. August.

Shropshire Damson. The tree of this variety is a strong grower and exceedingly productive. The fruit is small, oval in shape, with a purple skin covered with a thick blue bloom. The flesh is tart and separates readily from the pit. One of these should be included in every home orchard. September.

Tragedy. Classified as a prune but in reality a plum. The tree is an upright strong grower, and is found in the central coast and interior valleys and foothill sections to be a heavy bearer, consequently it is recommended for planting in these sections. A good market variety; carries well. Dark purple in color; flesh a yellowish green; very juicy and rich. Early July.

Washington. Very large; roundish; greenish yellow, sometimes with a pale crimson blush; flesh yellow, firm, very sweet and luscious. August.

Wickson. Very large; yellow, overlaid with glowing carmine with a white, heavy bloom; flesh firm, sugary, delicious; pit small. Remarkable for long keeping. Tree vigorous and upright. August.

Yellow Egg. Very large; egg-shaped; yellow skin and flesh; rather acid until very ripe, when it becomes sweet. September.

THE PRUNE

Prunes and plums are so closely allied that remarks pertaining to one fruit are equally applicable to the other. Practically speaking the prune is characterized by its sweet, firm, flesh, and has the property of drying and curing without the seed being removed.

STOCKS

It is very difficult for nurserymen outside of California to grasp the situation concerning the demand which exists for trees on a variety of roots. The answer is that in California the growing of fruit is just as much a great commercial business and is just as much a staple as the growing of cotton and sugar in the Southern States.

The stability of the tree, and its fruitfulness must be guarded by the selection of a root best adapted to the particular soil in which the grower contemplates planting, therefore the extreme care in securing the right root. The Myrobolan root is preferred by most growers, although there are many soils on which this root is used where the Peach root could be used to advantage. In behalf of the peach root it may be said that the trees are stronger growers than on Myrobolan, although not quite so long lived.

On deep well drained gravelly soils the almond root is preferable to any other.

PRUNING

Instructions about pruning given for the plum will serve equally well for the prune.

THE INDUSTRY

Practically sixty per cent of our output of prunes is exported to Europe, and the demand is increasing. The very fact that the prune is not the despised article it used to be in the United States is a sufficient indication that the future of the prune is assured.

PRICES OF PRUNE TREES

	Each	Ten
6 to 8 ft.....	\$.60	\$5.50
4 to 6 ft.....	.50	4.50

VARIETIES OF PRUNES

Double XX Saratoga French Prune. This is a genuine bud sport of the French Prune. Of all the new types of French Prunes originated in recent years, this one gives promise of becoming a standard. It is only after careful observation of several orchards, ranging from five to seven years, that we concluded to offer it for sale. The trees are remarkably strong growers, exceeding any other variety of prune. The bearing quality of the trees have been fully demonstrated. In size it stands in line with the Imperial Epineuse.

Hungarian. (Grosse Prune, Pond's Seedling.) 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 market. Sept.

Imperial Epineuse. (Claric Mammoth.) Probably the largest (with the exception of the Saratoga XX prune) of the several French varieties. Trees are very heavy bearers, and if difficulty had not been experienced in processing the fruit, its popularity would have been pronounced. It was introduced from France some thirty years ago. The dried fruit averages twenty to thirty to the pound, and is jet black when dried. When eaten fresh it has a most delicious and exquisite flavor. August.

Improved French Prune. (Petite D'Agen.) Identical with the French prune in every respect. Its superiority consists in the fruit running to larger sizes, and the trees being of a more willowy habit than the general run of French prune trees. The orchard from which the original buds were taken is fully twenty-five years old. We now have in bearing in our test orchard at Niles two hundred trees of this variety, which are the source of our budwood. This is an instance of bud selection which must appeal to every fruit grower.

Robe de Sargent. 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; a valuable drying and preserving variety. Dries larger and darker than French. August.

Silver. Large and handsome, oval in shape, light yellow skin; flesh firm, rich and sweet, and adheres to the stone. Fruit shaped like a prune, with the qualities of a plum. Tree a very heavy bearer. September.

Sugar. Extremely early, very large; yellow flesh, tender and sugary; skin very tender, at first of a light purple, tinted with green, changing at maturity to dark purple, covered with a thick, white bloom. Tree an unusually vigorous grower and very productive. Inferior in quality to the French Prune types.



Two-year-old Prune Tree with frame work branches shortened in.



A three-year-old Prune Tree giving evidence of the much-desired goblet form.



Apricot Trees in our Test Orchard near Niles. Our system of pruning promotes fruit spurs and sturdy branches carrying heavy crops of fruit without propping.

THE APRICOT

The Apricot is a native of Asia Minor and the higher regions of Central Asia. As a commercial proposition, California has practically a monopoly in apricot culture, as in no other section of the United States is it produced in quantities at so small an expense, and with so little risk of crop failure. In appearance it is perhaps the most handsome of all stone fruits, and it contains less acid.

For canning, evaporating and drying purposes, as well as for use in the fresh state, the fruit can hardly be excelled. It seems particularly adapted to the Coast Counties of California where the fruit attains the largest size and has the highest flavor. In the warmer interior valleys of the State it has the distinct advantage in that it ripens its fruit fully a month earlier than in the cooler sections of the State. Never plant apricot trees closer than 24 feet apart.

STOCKS

Owing to the success with which the apricot can be budded on different stocks, it adapts itself to a wide range in the matter of soil, moisture, and climate. Apricot trees are budded on peach, apricot, and myrobolan plum roots. Apricots on almond should never be planted as there is no affinity between the two stocks, and the trees will break off at the bud even when several inches in diameter. The only practical way to have the apricot on almond is by budding a peach on this stock, and then re-budding the peach with the apricot. The peach root is well adapted to a light, well drained, warm, sandy soil, and it has the natural tendency to develop a sturdy, magnificent, fruitful tree. The Myrobolan root with-

stands a surplus of moisture, is rather free from sour sap, has a tendency to cause trees to be longer lived, adapts itself to moist and very heavy soils. The apricot root adapts itself to almost any soil, provided it is well drained.

PRUNING

The very fact that the apricot trees are strong, straggly growers obviously makes it necessary to prune the tree carefully for at least the first four years of its life. The trees should be cut back to 20 inches after they are set. It is safe to cut back trees to this height, even if they are extra large, and devoid of any lateral branches below where the tree is nipped off, because of the plump, well developed buds on the stem of the tree. Not more than four branches should be left the following year after planting. Care should be taken to see that these four branches are carefully distributed around the stem. In the second year these branches should have at least two-thirds of their growth cut off. This severe cutting promotes not only a stocky well balanced tree, but insures a vigorous growth, and encourages a compactness that cannot be secured in any other way.

In the third year the pruning should be far more moderate, otherwise there is a tendency to make the tree brushy to such an extent that many of the laterals starting from the framework branches just above the point where they diverge from the main body of the tree are smothered out. In the fourth year the pruning should be more a matter of shaping and controlling the branches making a rampant growth. The tree in its

fourth year should have a pronounced wide open goblet form and it will unquestionably have this, if the pruning has been properly done.

There is no use denying the fact that the apricot is distinctly a creature of environment. It is an open question as to whether or not any benefit is derived as far as fruitfulness is concerned from summer pruning. A grower must determine this for himself. The results obtained must be his answer. Some varieties after they have reached bearing age if pruned heavily every year will not produce sufficient fruit to pay for cultivation. This has been demonstrated to be a fact in the handling of the Hemskirke, which if pruned heavily, is a very shy bearer. For size and flavor there are few apricots to compare with it unless it is the Moorpark. Possibly the largest acreage in apricot trees is found in Santa Clara County, California, and it is an exception to find an instance of where the trees are not pruned.

We are solely responsible for any recommendations concerning pruning in this catalog. After all results are the only things that count. We are not so wedded to our own ideas that we would not recognize some other method in which the life of the tree and its fruitfulness are maintained over a period of years. Our suggestions may be of value to the reader, but in our opinion personal observation of the methods practiced by successful orchardists is after all the best plan to follow.

PRICES OF APRICOT TREES

	Each	Ten
4 to 6 ft. grade.....	\$.60	\$5.00
3 to 4 ft. grade.....	.50	4.00

VARIETIES OF APRICOT TREES

Blenheim. Above medium; oval; orange; flesh deep yellow, juicy and fairly rich; vigorous grower and regular, prolific bearer. July.

Derby Royal. Not quite as large as the Royal and although not a new variety by any means, it has come into considerable prominence in recent years due to its early ripening qualities. Trees bear heavily and the fresh fruit commands not only a ready sale but very high prices because of its earliness.

Hemskirke. Strongly resembles Moorpark in size and color, but differs in bearing better and ripening a little earlier and more evenly. August.

Moorpark. One of the largest, most popular and widely disseminated apricots; deep orange or brownish red; flesh quite firm, bright orange, parting freely from the stone; quite juicy, with a rich and luscious flavor; a favorite canning variety. In some sections a shy and irregular bearer. August.

Newcastle. Medium size, round, well shaped; a shade smaller than the Royal, and two or three weeks earlier. July.

Routier's Peach. (Bergettis French.) Originated near Sacramento. Large, yellow in shade; deep orange mottled or splashed with red in the sun; flesh juicy and rich, with high flavor. July.

Royal. A standard variety; skin dull yellow, with an orange cheek; flesh pale orange, firm and juicy, with a rich, vinous flavor; equally valuable for canning and drying. July.

Tilton. Large, oval, slightly compressed; flesh firm, yellow and parts readily from the stone; heavy and regular bearer; seems to be more exempt from late frosts than any other variety. July.



A combination of high mountains, snow and Apricot Trees in full bloom.



Peaches Harvesting Peaches.

THE PEACH

The peach, like the prune and apricot, is indeed a fruit of commercial importance, and finds wide distribution not only in California, but throughout the length and breadth of the Pacific Slope. For size, flavor, color, and shipping qualities, the peaches grown in this State have a national reputation. The tree prefers a light, deep, sandy loam, preferably inclined to be dry rather than too moist, but well drained. It should be not less than three or four feet deep, the more depth the better.

Commercial importance of peach growing can not be estimated in dollars and cents, for the great territory over which the peach thrives with the practical certainty of a crop one year with another makes the field a very promising one.

The fact that the drying of peaches can be carried on so simply without any loss of fruit, for the sun does the work after the peaches have been halved, and (the pits extracted) exposed to the fumes of sulphur for four hours on wooden trays. The drying of peaches is a business in itself, just as much so as the shipping of the fresh fruit, and the canning business.

In the last analysis it presents the finality in the industry for all the fruit is cared for and there is no wastage. There has been more or less prejudice to dried peaches, due to their fuzzy skin. This has been overcome now by a process, for which the Lovell and Muir varieties seem to have a decided advantage, of removing the peel by a recent invention, even after the fruit is dried. That the consuming public appreciates this grade of fruit is demonstrated by the high prices which dried, peeled peaches sell for in the market.

As a matter of fact the orchardist at a very small additional expense could easily do this for himself. All that is necessary after the peaches have been halved,

regardless of variety, is to immerse the fruit in a hot lye water maintained at a temperature of 200° Fahrenheit for forty seconds. Dissolve one pound of lye in ten gallons of water. The peaches after being given the lye dip are then immersed in a tank of cold water, not only to remove every vestige of lye, but to cause the skins to slough off. It will pay the owners of large orchards to purchase a lye-dipping machine such as is used in the canneries for removing the skin. The machine is not very expensive and would more than pay for itself in a single season.

The general cultural directions for the handling of deciduous fruit trees in the introductory chapters should be closely followed in the case of the peach. Nothing will bring a peach tree to a premature end quicker than not to prune. The trees as they stand in the nursery have the limbs removed to a point about 8 inches from the ground. Instead of removing all these limbs when topping the tree to 20 inches, they should be cut back to about 2 inches long, so in case the buds on the main body do not start in the spring, the buds and smaller branches will. If the buds do start on the main body the branches may be clipped off with a shear.

STOCKS FOR THE PEACH

For a number of years now we have been making careful investigations into the relative value of root stocks. It is just as important to have a strong foundation for fruit trees as it is to have them true to name.

Knowing this we have made it our business to gather our peach seed from trees in California which originally started from Tennessee Natural Pits. The marked vigor of our seedling peach trees in the nursery rows

and the active growth of the budded peach trees when planted out, fully testify to the importance of securing nothing but selected seedling peach pits as a root stock for peach trees. We do not advise the Myrobolan root as a root stock for the peach.

PRUNING

All growers are practically in an accord that peach trees must be pruned. How to do it, brings up an endless amount of argument. There is no argument about heading the trees back, after setting, and resorting to very severe pruning the first year, cutting off at least one-half of the current season's growth. Not more than four branches should be used to make the head of the tree, and they should be distributed to secure as symmetrical a tree as possible. Heretofore our recommendation to prune back severely in the second and third years has resulted in developing an immense amount of woody growth, producing a fine umbrageous head which was a sight to behold in the summer months, and which to all appearance, judging from the general healthfulness of the tree, was the right policy to follow. Careful observations have now convinced us that this severe pruning has promoted the woody growth of the tree to such an extent that it militated against its fruitfulness. Instead of cutting the frame work branches back so severely in the second and third years they should not be cut back more than one-third, and the laterals distributed along their entire length at intervals of six to eight inches apart, should be shortened of course, but not cut off. By following this plan a crop of peaches that will pay for cultivation may be harvested the third year, without in any way impairing the vitality of the tree.

In the fourth and in subsequent seasons the method of pruning will be self-evident to the experienced pruner and requires no further elucidation here.



One-year-old Budded Peach Trees grown in our Nurseries

THINNING

To obtain large, firm fruit, thinning should be done when the fruit has set well, and before the kernel has hardened.

PRICES OF PEACH TREES

	Each	Ten
4 to 6 ft. grade.....	\$.60	\$5.00
3 to 4 ft. grade.....	.50	4.50

VARIETIES OF PEACHES

FREESTONE VARIETIES

Admiral Dewey. Large; yellow with red cheek; flesh yellow; perfect freestone; flavor good. One of the best early yellows. Ripens soon after Triumph. July.

Alexander. Medium to large; greenish white, nearly covered with a deep, rich red; flesh white, very juicy and sweet, with brisk, agreeable flavor. Very early. July.

Briggs' May. Medium size; round; white with red cheek; flesh white, melting, juicy and very sweet. July.

Elberta. Very large; skin golden yellow where exposed to the sun; flesh yellow, juicy, rich, sweet and splendidly flavored; tree very prolific and presents a handsome appearance. It is a perfect freestone and one of the most successful market varieties. August.

Foster. A magnificent, large, yellow peach of good quality. Its size, beauty and productiveness make it one of the most popular varieties for home use and commercial planting. August.

Hale's Early. Large, nearly round; skin greenish white, mostly covered with red and can be readily separated from flesh when fully ripe. Flesh white, melting, juicy, sweet and most delicious; adheres partially to the pit. July.

J. H. Hale. A valuable new table, shipping and drying peach. Smooth skin, almost fuzzless. Very firm. Ships almost like an apple. Yellow freestone; flesh tender, excellent quality. Larger than the Elberta and ripening about the same period. From a California standpoint not in the class of canning peaches because it is red at pit and rags in the syrup. August.

Late Crawford. Fruit very large, roundish; skin yellow, with dark red cheek; flesh deep yellow, juicy and melting, with a very rich and excellent vinous flavor. August.

Lovell. A California seedling; large, almost perfectly round; flesh clear yellow to the pit; firm and of excellent quality; a superb canning peach and dries well. Very prolific. August.

Mayflower. Introduced to the Pacific Coast by ourselves a few years ago as "the earliest peach known." Results have fully substantiated this claim and it still holds that title. It is absolutely red all over, with white flesh of excellent flavor. As large as Alexander and ripens three weeks earlier at Niles. June.

Muir. An excellent bearer, and does not curl; fruit large to very large; skin and flesh uniformly yellow clear to the pit; a fine shipper and one of the leading canning peaches in the United States; as a drying peach it excels all others ever introduced. August.

Salway. Large; yellow with crimson cheek; flesh deep yellow; very juicy, melting and rich; the most valuable late variety. September.

Strawberry. Medium size; oval skin marbled with deep red; flesh whitish, juicy, rich and of a very delicious flavor. August.

Susquehanna. Large; yellow, nearly covered with red; flesh yellow, sweet, juicy. August.

CLINGSTONE VARIETIES

Elberta Cling. Said to have originated in the Sacramento Valley. A very large, highly colored peach, almost globular in shape. In many respects similar to

Levy's Late, and ripening very late in the season. Red at the pit; quality the very best. September.

Heath Cling. The most delicious of all clingstones; very large; skin downy, creamy white, with a faint blush of red in the sun; flesh greenish white; very tender, and exceedingly juicy, with the richest, highest and most luscious flavor. September.

Levy's Late Cling (Henrietta Cling). A most magnificent yellow cling of largest size; mostly covered with bright crimson; hardy. Productive and ripens late. October.

Palora Cling. Large yellow cling, with faint blush; of fine texture; firm and rich; one of the best clingstone varieties for canning. Ripens in August.

Peak Cling. One of the most desirable clings for canning; skin slightly colored when exposed to sun; flesh a clear yellow to the pit; of fine texture and excellent flavor. Classed with the Palora and Hauss Cling varieties. August.

Phillip's Cling. Large; yellow; flesh clear yellow to the pit, which is very small; exceedingly rich and of high flavor. One of the best canning sorts. September.

Seller's Orange Cling. A variety of Orange Cling of largest size; flesh yellow, firm, very juicy and rich. Ripens with Late Crawford's in August.

Strawberry Cling (George's Late Cling). Large, yellow striped with red; flesh white, red around pit; heavy and uniform bearer. September.

Tuscan Cling. Large; yellow; heavy bearer and one of our best Clings; fine shipper. In great demand by canners on account of its early ripening, being one of the first to ripen. July.

THE NECTARINE

There is a mistaken idea that the nectarine is a cross between the peach and something else, while it is really nothing more or less than a smooth skinned peach. The trees bear fully as well as the peach, and for canning,

drying, and shipping, it has so many points in its favor that it is difficult indeed to comprehend why planters have not engaged in nectarine culture more extensively than they have. In England the nectarine can only be grown under glass and the price realized for this, the most highly prized of all stone fruits, is beyond belief.

PRICES OF NECTARINE TREES

	Each	Ten
4 to 6 ft. grade.....	\$.60	\$5.00
3 to 4 ft. grade.....	.50	4.50

VARIETIES OF NECTARINES

Advance. Large, round; skin green on shaded parts, blotched with red and brown on sunny side; flesh greenish white, rich and sugary, with rich flavor. The earliest nectarine. July.

Gower. Ripens with Early Crawford Peach. No fruit of its class has met with such favor as has this new early nectarine. We strongly recommend it for home and commercial planting. Fruit is very firm, freestone. Ships like a clingstone peach. Very early; delicious flavor. Strong grower, bears heavy. July.

New White. (Large White.) Rather large; nearly round; skin white with a light tinge of red when exposed; flesh white; tender and very juicy, with a rich, vinous flavor. The most widely planted and popular variety in this State. August.

Stanwick. Originated in England from seed brought from Syria, and it is no exaggeration to say that it is the best nectarine in existence today. Very large, almost globular, 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. Will average fully two and one-half inches in diameter. For drying and shipping not excelled by any other variety. August and September.

Victoria. Large, round and somewhat flat at the top; skin greenish yellow, crimson on side exposed to the sun; flesh firm, sweet, rich and delicious. A valuable drying and shipping variety. August.

THE QUINCE

It likes a deep, and loamy moist soil. Its distribution is quite general, doing as well in the warm interior valleys as in the cooler coastal regions. In fact it thrives wherever there is sufficient moisture, or irrigation is practicable.

On account of its wide adaptability, quinces are deserving of much more attention than they have been receiving. The trees are tremendous bearers. For jelly making we believe the quince is superior to any other fruit. Such varieties as Pineapple and Smyrna make a most palatable dish when cooked. There is a growing demand for this fruit and although it is not generally known, it is not uncommon for carload shipments of quinces to be dispatched from California to other points.

PRICES OF QUINCE TREES

	Each	Ten
4 to 6 ft.....	\$.70	\$6.00
3 to 4 ft.....	.60	5.00

VARIETIES OF QUINCE

Apple (Orange) (F). Large; roundish, with short neck; beautiful bright golden yellow; an old favorite.

Pineapple (F). Fruit very large, apple-shaped, clear yellow; flesh very tender; can be eaten raw like an apple; makes a high-flavored jelly.

Smyrna (F). Extremely large; elongated; lemon yellow; cooks tender and has a fine flavor; long keeper; tree strong grower with heavy foliage; very prolific. Ripens with Orange.



To secure three-year-old Peach Trees with well-balanced heads — pattern after this.



A Promising Calimyrna Fig Orchard.

THE FIG

Figs grown in the United States either for eating fresh or for drying are of one species, viz.: *Ficus carica*. There are an endless number of varieties of figs. In many instances, on account of the wide distribution of the fig throughout the world, the same variety may be blessed with any number of synonyms. This is the case with many sorts grown in California today. Not over six varieties comprise the list of commercial varieties for all purposes in California.

LOCALITIES FAVORABLE FOR THE FIG

It is safe to say that no deciduous tree grown in the semi-tropical and temperate zones will adapt itself to a wider range of climates and soils than the fig. Figs can be used for such a variety of purposes, namely drying, canning, preserving, shipping in the fresh state, and for home use, that a wide range is open for their successful exploitation. To produce the finest dried figs, with the thinnest skin, and rich in sugar, a warm, dry, climate is an important factor. They will withstand a temperature of 18 degrees Fahrenheit in the winter months without being injured, hence their geographical distribution is very wide.

HISTORY

Many of the countries whose shores are washed by the Mediterranean Sea are producers of figs commercially, but the recognized fig center of the world today is in the Meander Valley, about forty miles distant from Smyrna, Asia Minor. It is here that the Smyrna fig of commerce has been grown for centuries. The secret of their culture was so closely guarded, that it was only after fourteen years of constant and persistent effort on the part of the President of our company, that he succeeded in 1890 in producing the first Smyrna figs in the United States by artificial pollination, and ten years later having succeeded in establishing the fig insect *Blastophaga grossorum*, with the assistance of the United States Department of Agriculture, the first Smyrna figs were produced in a commercial way.

The first figs introduced into the United States were brought, as nearly as can be determined, by the Spanish Padres from Mexico in 1769. They were planted at the San Diego Mission. The Mission fig is still a standard in California. The tree is a great grower, and produces an abundance of what is known as the Breba or first crop, maturing in late June and July, and the second crop ripening from August to October. The very fact that this and other varieties of figs were grown in California from which abundant crops were being gathered annually caused the whole subject of caprifigation to be branded as an idle dream. It is now conceded that the Smyrna type of figs are in a class by themselves, and unless the pollen is conveyed by the *Blastophaga* to the edible fig, all the figs drop off prematurely, when about the size of marbles.

The fundamental difference between the Adriatic and Smyrna class of figs is that the former matures its figs without the fig wasp, while the latter does not. The Adriatic figs seem to possess all the qualities of the Smyrna so far as general appearances go, but upon investigation it will be found that all the seeds are hollow while in the Smyrnas each seed contains a kernel, giving the fig a nutty flavor, and a delicious syrupy sweetness, found in no other fig. The great interior valley of California with its favorable climatic conditions, (there being no rain in the summer months, and the air being both warm and dry) presents favorable possibilities for fig culture. In late years it has been fully demonstrated that there are varieties of Adriatic figs which when caprifigged will improve in size and flavor, and will have a limited number of perfect seeds.

There is hardly any place in the world where the edible fig cannot be grown, except in the tropics, and in countries where the trees will be killed to the ground by heavy frost.

The success of the industry in California is in itself proof of the great possibilities that exist for this industry where conditions are favorable for its development.

CAPRIFICATION

To give even a short review of caprification would occupy pages of a book several times as large as this one. Plant life has just as many intricate problems as human existence. We have in the fig a problem which is beyond human ken. It is very difficult indeed to give any explanation why the edible "Ficus carica" has within its range so many hundred varieties of figs which do not require fertilization of their flowers to produce edible fruit, while in the Smyrna type of figs unless the flowers are pollinated the figs drop off and never mature. The fig is a fleshy receptacle to which is attached thousands of minute flowers. Botanically, flowers grouped together like this are characterized as an inflorescence. The fig differs from practically all other classes of plants in that no ordinary insect can reach its flowers, because the receptacle in which they are enclosed has only one small opening at the apex of the fig, to which from all appearances, as far as human intelligence and eyesight can discern, it would be impossible for any insect to enter. Fortunately for the thousands of people who enjoy eating figs, a great many varieties mature their fruits and are perfect from the standpoint of the consumer, although scientifically imperfect because the seeds are hollow, the flowers not being fertilized.

When California, twenty-five years ago, began to engage in the business of drying figs and shipping them all over the United States, it did not take long to discover that there was something decidedly lacking in the Californian product when compared with the famous fig of commerce from Smyrna. This difference was attributed to soil and climatic conditions, and those who were ready to concede that a little wasp could so completely change the character of a fruit were in the abject minority.

One point must not be overlooked, that the edible fig grows on an entirely distinct tree from the Capri fig. The Capri fig serves as a home for the several genera-

tions of the wasp (*Blastophaga grossorum*). The Capri fig produces three distinct crops annually, the first one pushing out on the wood of the previous year's growth in March, and the second crop comes on the new wood in July, the third in September. These several crops are designated as follows: Profichi or spring crop, Mammoni, or summer crop, and Mamme or overwintering crop. The Mamme figs remain on the tree all winter, from October until into April of the following year, the wasps during this period being in the larvae stage. When the Capri fig starts to grow in the spring the wasps pass out of the larvae into the pupae stage and finally when the Profichi figs are about the size of marbles, which usually occurs in April, the female wasp passes from the Mamme figs and forces her way through the scale of the orifice into the Profichi figs, (which to the naked eye is closed) and deposits an egg in the ovaries of the gall flowers. The life history of the wasp in this crop is the same as in the others, the only difference being that the metamorphosis takes place more rapidly. When the crop reaches maturity there are both males and females. The males are all wingless and are distinguished by their reddish tinge, the females are of a lustrous black color, and are winged. The male wasp crawls out of the gall first, intuitively locates the female in the gall in which she is confined, gnaws an opening with its powerful mandibles, and impregnates her. She then enlarges the opening made by the male, and starts on a tour of exploration. Her sole object in life is to perpetuate her species. To do this she must find the flower of another fig to deposit her eggs. As the Profichi crop bears the most important part in her relation to mankind, for the sake of argument we will take it for granted that the female wasp is coming out of the profichi crop, as she prepares to take her departure, she passes through the male or staminate flowers, surrounding the orifice of this fig, and her body is completely dusted with the pollen grains. In the great fig growing districts this flight occurs in the month of June. It is in this stage of her existence that the hand of man and nature interferes with her effort to propagate her progeny.

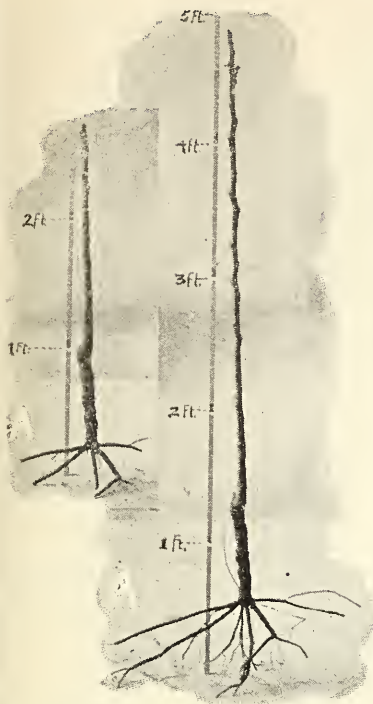
The Profichi figs are gathered from the trees and are distributed in oval baskets made of $\frac{3}{4}$ -inch poultry netting or placed in small strawberry baskets which have been previously hung on wire in the Smyrna Fig Trees. At this time the Smyrna figs vary in size from a small pea to a large sized marble. The wasp forces its way between the scale of the orifice of the edible fig, going into it for the avowed purpose of laying its eggs.

Fortunately for the fig industry it is frustrated in its efforts to reach the ovaries of the female flowers with its ovipositor to deposit eggs. In its persistent and determined efforts to find a receptacle for them, it crawls around the inside of the fig and dusts the pollen on the pistillate organ of the female flowers. The insect is exceedingly small and it finally perishes within the fig, being absorbed by its juices, or it crawls out and dies. One wasp is sufficient to pollinate the numerous flowerets on the inside of the fig, but it very often occurs that on breaking open a fig, three to four insects will be found crawling around. Within a couple of days after the wasp has penetrated the fig, its entire appearance changes, it becomes plump and firm, and of a deep, green color, while the figs on the same tree, which the wasp has failed to reach, turn a sickly yellow, shrivel up, and drop off. Nature again asserts herself on behalf of man, by delaying the pushing out of the Mammoni crop on the capri fig trees until the season for caprifying the edible figs is practically over with. The Mammoni is the lightest of all the crops, and it is very difficult to find any figs of this crop in the capri fig tree until July. There are just enough of the late profichi figs on the tree at this time to supply wasps for the Mammoni crop.

Growers who fail to secure a good crop of figs on their Smyrna trees have only themselves to blame for not studying the problem, for a light crop is traceable to indifference on the part of the grower in caprifying.



A cross section of a Capri Fig. These are not seeds but galls from which the minute insects issue.



A nursery grown Fig Tree. The tree to the left is cut back and root pruned before planting.

There are several varieties of capri figs, some of which ripen their fruit early, while others are later. As the edible figs are not in the receptive stage at the same time this is a fortunate coincidence. In order to know how many figs of the Pro-fichi crop to place in a tree to secure the best results, multiply the age of the tree from its fourth to its ninth inclusive by five and from ten years and up by ten and you will not go very far wrong in placing enough figs in your trees to secure the very best results. From three to ten figs should be placed in the trees every third day or even oftener than this. The frequency with which this is done being determined by the rapidity with which the capri figs ripen.

PLANTING AND PRUNING

The capri fig makes a very desirable shade tree, and as there is no mess from the dropping fruit, growers will make no mistake in planting them around their homes. The additional protection from the buildings is a valuable asset in years when low temperatures may prevail during the winter months. The Mamme crop will withstand a temperature of 20° Fahrenheit without injury, but anything lower than this, particularly over a protracted period will freeze the figs on the outside branches. Capri figs should be planted 30 feet apart, for nearly all varieties are strong growers. They may be used to advantage as Avenue or Border trees. None of the edible types of figs, whether they be of the Adriatic or Smyrna class should be planted closer than 30 feet apart.

Although the fig will stand all kinds of neglect after it becomes established, too close emphasis cannot be laid on the close attention which must be given in transplanting the trees from the nursery to the orchard. The roots of a fig tree are very susceptible to exposure, hence they should be carefully covered in transferring from the trenches to the field. It is surprising what effect the puddling of the roots will have in preventing their drying out, even in cases of severe winds. To make a puddle, dig a hole 18 inches deep, two feet in diameter, fill it partly full of heavy soil, mix with water until you have a muck the consistency of a heavy paint. Dip the roots into this and give no further concern about their drying out, even if exposed to the direct rays of the sun for a short period.

Before planting, cut off all bruised and lacerated roots and make a fresh cut on all other roots, so they have a smooth, clean surface. The tree when planted should not stand over three inches deeper than it stood in the nursery row. Never neglect to settle the earth around the tree with not less than 15 gallons of water. After the water has soaked away fill with fine soil, without tramping. No greater mistake can be made than to wait for rain or for water to be turned into the irrigating ditches. After the tree is planted, cut back to 24 inches from the ground, and cover the wound with rubber paint or grafting wax.

The first winter cut the branches of the one year trees back to about 12 inches leaving not more than four to make the head of a tree. Have these distributed in

such a manner that there will be sufficient room to expand, without crowding, as the trees grow older. The second season cut not less than two-thirds of the new growth, leaving not more than two shoots on each of the frame-work branches. Any branches on the underside of the limbs having a tendency to droop to the ground should be removed. The third season shorten in the new growth about half, leaving the same multiple of branches on each of the previous year's shoots as were left the year before. In after years the pruning is limited to the removal of branches which cross or interfere with each other and checking the growth of branches making an excessive growth. Young trees should always be protected by tree protectors to prevent sunburn.

PRICES OF FIG TREES GROWN FROM CUTTINGS

	Each	Ten
3 to 4 ft., Extra Selected.....	\$.60	\$5.00
2 to 3 ft., First Quality.....	.50	4.00

VARIETIES OF FIG TREES

Calimyrna (Smyrna). The genuine Smyrna fig packed under the name of "Erbeyleli" (signifying fine fig) in Asia Minor, and known in Turkish as "Lop," and in Greek as "Lopia." Large to very large; turbinate, pyriform; very short, stalk short; ribs distinct; orifice large, of pale ochre color and widely open when the fig is mature and before shriveling; skin lemon-yellow; pulp reddish-amber, sometimes pale amber, turning to dark amber just before falling; seeds large, yellow, fertile, overspread with a clear, white syrup, giving the fruit a richness and meatiness unsurpassed by any other fig. Tree of spreading habit, leaves medium to large and five lobed. The dried figs contain 64 per cent sugar, which is 1½ per cent more sugar than found in the imported Smyrna fig. Dries readily and with less trouble and expense than any other fig, dropping to the ground of its own accord, being practically dry when it falls and requiring when placed on trays, only from two to three days exposure to the sun. This is the world-famous fig of commerce.

Duro Black (Portuguese Black). Recognized as the largest of all figs, and with another important factor in its favor, it thrives equally as well in the cool coast sections as it does in the interior valleys. In the former it averages larger size than when grown in the valleys. The reason why it has not been more extensively planted is because little known. There are scattered trees in the Niles territory which never fail to produce a succession of crops of excellent fruit. Skin smooth, violet black, with green neck; pulp reddish, except near the skin, where it is of a violet hue. August.



Note the wide open goblet form of this Fig Tree.

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

White Adriatic. Tree a strong and healthy grower; fruit above medium size; skin white and thin; pulp red, fine, exceedingly aromatic and changes to an amber color when dried.

White Endrich (Kadota). Introduced over forty years ago by the well known nurseryman, Mr. W. B. West, of Stockton; original name lost and given name of Endrich after a fruit grower in the vicinity of Stockton, by Mr. West. Has been sold under the following names: White Endrich, White Pacific, Verdoni, Smyrna, Kadota. Medium sized; thin, white skin; pulp white to pink. One of the best for canning, preserving and pickling. Inferior for drying. Never sours when planted in damp-est locations.

CAPRI FIGS

These are the wild figs which furnish the pollen by which the Smyrna figs are fertilized through the aid of the fig-wasp (*Blastophaga grossorum*) that lives and breeds in the capri figs. Without capri figs the Smyrna figs cannot be made to bear. For orchard purposes one

capri fig for twenty Calimyrna is sufficient, but if only one Calimyrna is planted it is still necessary to have a capri fig tree.

FIGS. Wild or Capri Class

Roeding's Capri No. 1. A very rapid, vigorous grower of spreading habit and with very large leaves. Produces an abundance of all crops; Profichi, Mammoni and Mamme. Particularly valuable on account of its producing all the crops necessary for successfully carrying through all the generations of the Blastophaga.

Roeding's Capri No. 2. A very upright grower, branches very slender; leaves small. Produces an abundance of the Profichi crop, maturing somewhat later than the foregoing. It is valuable because it lengthens the season of carprification of the Smyrna figs.

Roeding's Capri No. 3. A decidedly distinct variety; branches much heavier and more closely joined than Nos. 1 and 2; leaves small and serrated. Figs of the Profichi crop very large, heavily ribbed and developing a larger number of galls with insects than either of the other two varieties. The earliest of all.

Stanford. A good all around variety. Tree a very rapid grower and heavy bearer of large figs full of galls. Figs mature after the No. 3.

THE PERSIMMON

There are in this country but two varieties of Persimmon in cultivation, viz.: the American and Japanese. The impression that the fruits must be on the verge of decay before they can be eaten has militated against their sale. There is much variation in the character of the fruit. Some varieties are not astringent at all, and are edible in early autumn, while still hard and green. Several kinds never soften at all until they decay, others are edible only when fully ripe and soft; others lose their astringency only after they have been dried, and some so abound in tannin that their juice when expressed makes a valuable varnish for preservation of all kinds of woodwork. There is quite a distinction between the dark and light fleshed varieties. The former invariably contains seeds, are crisp and meaty, and are edible before they soften, although their flavor is improved considerably when they reach this state; the light fleshed kinds are seedless (or mostly so) and cannot be eaten until they soften.

Persimmon culture commercially centers in Japan.

There are great possibilities in the culture of this most delicious fruit. It will adapt itself to a wide range of localities. The fruits will very often hang on until January, providing there have been no heavy frosts, and a tree loaded with this deep russet golden fruit is a sight to behold when all the leaves are off.

There is an endless number of varieties, Japan holding the lead in this respect, and China being a close second.

PLANTING AND PRUNING

Trees should be planted 20 feet apart. The Persimmon has a rather decided tap root with numerous small fibrous roots. The tap root should be cut back to 18 inches and fresh cuts made on all the fibrous roots. After the trees are set, head back to 24 inches. The first winter thin out the branches not leaving more than four to form the head of the tree. Cut these back at least one-half. In the second, third and fourth years prune to shape the tree into the typical goblet form.

A better quality of fruit and running into large sizes with a more regular distribution of fruit over the entire tree will be effected by pruning the first four years. The trees are quite hardy and fruit freely in all sections of the West Coast, and in the Southern States, and as

far north as Washington, D. C. Therefore, under average normal conditions the trees always bear fruit.

The stringency is readily removed by placing the hard, well colored fruits in Japanese tubs, from which Saki (Rice-beer) has been recently withdrawn. After the persimmons are placed in the tub, close carefully to exclude the air. In ten days the fruit, although perfectly firm, will have lost all its bitterness.

It is not generally known that the Persimmon is delicious when dried. It is so sweet, so rich in sugar, and has such a unique flavor that one who has never eaten the dried persimmon before, immediately comes to the conclusion that the fruits have been crystallized. The method of drying is simple; the skin is pared off, and the fruits are suspended by the stems on a cord and exposed to the sun, when they gradually lose their original form, turning quite dark and covered with sugar crystals. The dried persimmon is considered by many to be more delicious than the "Date of Commerce." Fruit should be picked for drying when yellow and firm.

PRICES OF PERSIMMON TREES GRAFTED ON PERSIMMON ROOT

	Each	Ten
3 to 4 ft.....	\$2.00	\$16.00

VARIETIES OF PERSIMMONS

Hachiya. Fruit very large, oblong, conical pointed toward the apex; skin bright red with occasional dark spots or blotches, flesh deep yellow, soft and jelly-like when ripe; seeds usually absent; a valuable variety, considered to be one of the best. Dried quite extensively in its native home, Japan. One of the earliest.

Hyakume. The name means "Hundred Momme," a weight equal to four-fifths of a pound and referring to its size; fruit very large, slightly oblate; skin orange yellow; flesh rusty brown, with many purple or dark spots, and but few seeds; ripens early, and not astringent even when hard.

Tane Nashi. Very large; bright red; flesh yellow; seedless. A good market variety of fine quality. Vigorous grower and heavy bearer.



Almond Harvest in Full Swing.

The Nut Trees

The irresistible desire of people in every walk of life to join the brigade and grow something in the fruit line certainly applies particularly to nut culture. Today the walnut and almond predominate in California, but who will deny that the Chestnut, Filbert and Pecan will not all be factors to be reckoned with before many years go by. We know positively from observation in Europe that all of these nuts have a future before them, and the progressive nurseryman who is farsighted enough to realize all this, is cataloging all these nuts, introducing the leading varieties from Europe, and educating our people to the possibilities of their culture.

THE ALMOND

Almond trees are budded on almond and peach roots. Never on apricot root. The almond root should be planted on sandy, gravelly soils, where there is an absence of moisture during the late summer months. The peach root should always be given the preference on loamy, compact soils, which are retentive of moisture.

A well-drained warm soil and a locality where there is not too frequent an occurrence of frost in the spring are the necessary requisites to make almond culture a success.

STOCKS

The almond and peach roots are used exclusively for the growing of almonds. There is a preference for the almond root because its roots go down deeper into the ground and the consensus of opinion is that trees

are not only stronger growers but live longer on the almond than on the peach. In either case the almond is really a very long lived tree, and we have never observed any great difference in the longevity of the trees on either root.

CLASSIFICATION

The sweet almonds are divided into the following grades: Hard Shell, Soft Shell and Paper Shell.

The hard shell variety has no commercial value except for raising stocks for budding and grafting other varieties. These have six ounces or less of kernel to the pound of nuts. There is one exception, viz.: the famous "Jordan" which is a hard shell with its fixed type of elongated kernel and a flavor superior to all other almonds.

Cross pollination is one of the interesting phases in connection with almond culture, and although no exhaustive experiments have been made to determine how far reaching this is, alternating three to six rows of a variety has a very marked effect in improving the yield.

All of our almonds are one-year buds. Long years of experience has demonstrated that the yearling tree grown under our favorable conditions is fully equal to two and three year old trees grown elsewhere.

PRUNING

When planting almond trees the instructions relative to other trees as given in the introduction should be followed. The trees after being set should be headed to 24 inches from the ground. During the first year allow

the numerous shoots to grow without interference, and in the early winter months thin out the branches so that the lowest ones will not be closer than ten inches from the ground, not leaving more than four to form the head of the tree. Even if they have made a growth of from three to four feet, cut them back severely. Because almonds should not be pruned much in later years do not hesitate to prune them when they require your trained eye and hand to shape them properly and create a form and head which can be secured only by severe cutting. If there is any one object we have in view, it is to impress the man who aspires to be a fruit grower to remember that his success for at least the first eight years of his undertaking is dependent absolutely on a few essentials, and the pruning of his trees is one of the most important, for at least the first four years of their existence.

The second and third winters cut off at least from one-third to one-half of their growth. The fourth winter, the tree having become sturdy, and assumed the goblet form, which is ideal, confine the pruning to the thinning out of objectionable branches, and remove laterals where there is a tendency to overcrowding, to permit light and air to circulate through the trees.

PRICES OF ALMOND TREES BUDDED ON EITHER ALMOND OR PEACH SEEDLINGS

	Each	Ten
4 to 6 ft.....	\$.60	\$4.50
3 to 4 ft.....	.50	4.00

VARIETIES OF ALMONDS

Drake's Seedling. Of the Languedoc class; very prolific and a regular, abundant bearer.

Eureka (New). The Eureka, on account of the similarity of the kernel in shape and flavor to the famous Jordan, commands the very highest price, and confectioners pay a premium to secure it. It differs in two essentials from the Jordan, being somewhat smaller in size and is paper-shell. The tree is an exceptionally strong grower and heavy cropper.

I. X. L. Tree a sturdy, rather upright grower; nuts large; hulls easily; shells soft, but perfect.

Jordan. The famous Spanish variety so long sought after by nut growers. Nuts are long with very hard shells. The kernels are of very superior flavor, long and plump, filling the entire cavity. On account of its tendency to bloom early it is a rather shy bearer.

Ne Plus Ultra. A sturdy and rather upright grower; extremely prolific, producing its nuts in bunches all over the twigs; nuts large and long; almost invariably of one kernel; of fine flavor; hulls readily.

Nonpareil. Of a weeping style of growth, but still forms a beautiful tree; an extraordinarily heavy and regular bearer, with very thin shell.

Texas Prolific. Nut medium size; shells perfect and well filled. As the name indicates, this is a very heavy and regular bearer. It is of the greatest value for planting with other sorts to increase their yield by aiding in pollination. Tree is a fine, strong grower.

THE CHESTNUT

Chestnuts thrive fully as well on a heavy, clayey soil as on a sandy loam, providing it is retentive of moisture and is deep enough to allow the roots to penetrate without hindrance. In the interior valleys they should be planted in river bottoms, or they may be planted on the plains, providing the soil conditions are satisfactory, either sub-irrigated, or the moisture being supplied by surface irrigation. As a rule all failures to successfully grow the chestnut in the warm interior valleys can be traced to the sunburn of the exposed high pruned body of the tree. Low heading is therefore, one of the most important points in connection with their successful

culture in the interior. As the trees do not bloom until all likelihood of frost has passed, there is no danger of injury from this source, and bounteous crops are harvested from them annually.

Beyond its economic value, for its nuts, the tree possesses advantages for avenue planting, and it makes a very striking ornamental tree, with its dark, glossy, green leaves, when planted singly. Where solitary trees fail to bear, it usually arises from the fact that the staminate and pistillate blossoms do not mature at the same time. Trees should be planted from 40 to 50 feet apart. After the head of the chestnut tree has once been formed, only such pruning will be required as is necessary to remove interfering branches.

PRICES OF CHESTNUT TREES BUDDED ON CHESTNUT SEEDLINGS

	Each	Ten
4 to 6 ft.....	\$2.00	\$17.50
3 to 4 ft.....	1.75	15.00

VARIETY OF CHESTNUT TREES

Marron de Combale. A very rapid growing tree of spreading habit. Nuts large and of the very best quality. We regard this as the best in our collection of over twenty varieties.

FILBERTS

The impression prevails in California that Filberts or Cobs, commonly known as hazelnuts, will not thrive. The exact contrary is the case. We have had the following varieties in bearing in our test orchard in Niles for years. The nuts are delicious and possess a flavor which is most attractive. They will grow and produce in good land, but the great point in their favor is their adaptability to rough and poor land, to banks and other places where most fruit trees would fail to grow. Our coastal regions are exceptionally favorable for them.

Much interest is being manifested in their culture in the northwest and a number of orchards in this section are producing profitable crops of nuts.

The trees should be grown in the bush form rather than as trees. There is but little expense attached to the harvesting of Filberts; it is a foregone conclusion that a crop failure in California will never be known, because of its late blooming tendencies.

The Filbert like the walnut is unisexual; that is the flowers of both sexes although produced on the same tree, do not occur in the same flower. The staminate flowers are catkins, which appear on the tree in the shape of small green hard tassels, carrying through the winter and shedding their pollen in the late spring when the female blossoms are in the receptive stage.

The English people esteem the Filbert very much indeed. In the county of Kent, England, the annual production is in the neighborhood of ten thousand tons.

PRICES OF FILBERTS GROWN FROM LAYERS

	Each	Ten
3 to 4 ft.....	\$2.00	\$15.00

VARIETIES OF FILBERTS

Cosford. Nut large; oblong; husk hairy; shell remarkably thin; kernel of excellent flavor. Good bearer

Fertile de Coutard. Nut very large; broad pointed, kernel full and highly flavored; early and abundant bearer.

Merveille de Bolwiller. Nut large; rounded at the base, tapering to a point; shell thick; kernel fine flavored. Bears regularly and nuts always filled.

Nottingham Prolific. Nut medium sized; obtusely ovate; shell thick; kernel full and fine flavored; a light producer.



Chestnuts in the Burr.

Prolific Cob. Nut very large; oblong; shell pretty thick, of a brown color; kernel full and of a very rich flavor; one of the best.

Purple Leaved. Large shrub with large, round leaves, intensely dark, bronzy purple in spring, becoming greenish toward fall. Very distinct even among other purple-leaved trees and shrubs. Bears good nuts.

THE PECAN

Of the eight or nine species of hickories the one which produces the most marketable fruit, and in the most profitable quantities, is the pecan. A native of the southern parts of the United States, it is today the only nut grown there which has any commercial importance. The State of Texas is probably the largest producer of pecans, the crop aggregating several millions of pounds and gathered largely from seedling trees. The business of cracking pecans and selling the meats put up in attractive packages has created a demand for the nuts which is increasing at a very rapid rate. It is largely due to the impetus that the industry has received during recent years that has encouraged the planting of trees on a commercial scale of the improved paper-shell types. The difficulty of extracting the meat from the hard-shell seedling nuts has been one of the main causes for their not being a more popular dessert fruit. The thin shell of the improved types, the ease with which the meats are removed, and the noticeable absence of the fibrous segments found in the hard-shell nuts, which possess a peculiar acrid taste, will do much to make it popular.

Old seedling pecan trees are found growing and producing heavy crops annually throughout California.

It is only within the last ten years that pecans have been regarded of sufficient commercial importance to cause groves to be planted in various parts of the United States, and this has been brought about by the unexcelled merit of the paper-shell pecan.

CONDITIONS FAVORING ITS GROWTH

The trees thrive in a great variety of soils, doing well in a stiff clay, or porous sand, and in Texas they are said to do well on soils underlaid with hardpan, pro-

vided proper precautions are taken to blast it before planting. The planting of trees should be confined to soils where moisture is either supplied by natural means or irrigation.

For planting along irrigation ditches the pecan is the ideal tree as it will thrive without cultivation and ripens its nuts after the water is turned out of the ditches.

The advisability of planting only named varieties of grafted or budded trees is conceded by experienced planters. When trees are grown from selected paper-shell seeds, they are liable to produce nuts of variable character in shape, size, thickness of shell and quality of meat. The additional cost of growing named varieties, either by budding or grafting is caused by the very small percentage which a nurseryman succeeds in growing. If the orchardist will only bear in mind that the increased outlay for budded or grafted trees is more than offset by the fact that they will come into bearing in less than half the time that seedlings do, and that the nuts will sell for four times as much on the market, their economy is at once obvious.

The pecan like the walnut is unisexual, that is, the male and female organs are not in the same blossom. It sometimes happens that the male blooms (catkins) mature and release their pollen grains before the pistillate or female bloom is in the receptive stage and when this occurs the nuts are hollow shells, and it is therefore, advisable, to plant two or three varieties and alternate with several rows of each. Trees should be planted not closer than 40 feet and on rich bottom land 50 feet is better. It is entirely practicable to plant some other fruit between, temporarily until the pecan commences to bear profitable crops, when the other trees can be dug up. The oft repeated remark that only trees that have never had their tap root cut will bear, has time and again been shown to be a fallacy, in fact no harm will result from shortening in of the tap root, for the tree is really benefited by the more spreading root system. The difficulty of securing a uniform stand and protecting the trees from injury, the marked variation in the size of the trees when the nuts are planted in the orchard where the trees are to grow has discouraged this method of procedure. Remarks pertaining to the pruning of the walnut tree are applicable to the pecan.

PRICES OF PECAN TREES GRAFTED ON PECAN SEEDLINGS

	Each	Ten
4 to 6 ft.....	\$3.00	\$25.00
3 to 4 ft.....	2.50	20.00

VARIETIES OF PECANS

Frotscher. A large oblong nut two inches long; shell cracks readily, being quite thin. Tree of spreading habit and a very vigorous grower. Bears regularly. One of the old standards.

Schley. A great favorite; nut light reddish brown; shell very thin, separating easily from the kernel; kernel full and plump, and of the very best quality.

Stuart. This variety is responsible for being the first one to call attention to the value of the paper-shell pecan over the seedling types. Shell somewhat thicker than above named varieties, but nevertheless cracks easily. Kernel full and bright colored. Has found favor wherever planted.

THE PISTACHIO

The Pistachio, botanically *Pistachio vera*, promises to assume commercial importance. This is the Pistachio nut of commerce, sometimes called Green Almond. It is very extensively used for coloring and flavoring confectionery and Ice Cream. The tree is dioecious, that is the male and female flowers are on different trees, and must be mated together.

The Pistachio is not only valuable from the standpoint of an ornamental tree, but the high prices at which the nuts are sold makes it worthy of being given more attention by orchardists.



A Female Pistachio Tree with clusters of Nuts.

While the Pistachio is of very easy culture it is necessary to have one tree with the staminate or male blossoms to fertilize the flowers on the trees bearing the edible nuts. It requires about one male tree to fifty of the fruit producing, nut bearing trees. If the male tree is not present the female will produce nuts, but they will all be hollow shelled.

PRICES OF PISTACHIO TREES BUDDED ON PISTACHIO SEEDLINGS

	Each	Ten
3 to 4 ft.....	\$2.50	\$20.00

VARIETIES OF PISTACHIO TREES

Bronte. Introduced by the U. S. Department of Agriculture, this variety has been thoroughly tried out and has been found well adapted to California soil and climatic conditions. Nuts fully an inch long, borne in large clusters.

Red Aleppo. Very similar to the preceding in growth and general habit, bears equally as well. The skin covering the nut has a slight, reddish, yellow tinge, causing it to present a very pleasing appearance on the tree. Nuts are very well filled.

THE WALNUT

This tree prefers a rather loamy, deep, rich soil. The tree is practically free from insect pests, and when once established requires little care as far as pruning is concerned. Good and thorough cultivation is necessary for activity in the growth of the tree, causing it to respond with bountiful crops. The planting of seedling walnut trees has been generally abandoned, on account of the many advantages of grafted trees, which may be summed up as follows: (1) they usually commence to bear profitable crops much earlier than seedlings; (2) they reproduce the variety from which buds and grafts were taken, so there is an absolute certainty that the character of the parent tree will be transferred to the young stock; (3) perpetuation of the bearing qualities of the parent tree with nuts of identical quality. These points form the basis of success for the grower, for the extra prices realized for the product of the grafted trees in connection with their early bearing qualities more than offsets the additional first outlay.

In addition to the other facts mentioned, the California Black Walnut (*Juglans Californica*) root which is used as a stock has a decided influence in causing the graft to grow more vigorously, and it will also adapt itself to a wider range of soil conditions than trees on their own roots.

HOW TO PLANT

For commercial planting, trees are usually set 40 feet each way, although in some instances where the soil is exceptionally fertile, trees are set 50 feet apart, for as the tree matures it makes a wide spreading top, so that it is no uncommon sight to see branches even at the latter distance interlacing.

All the talk that the cutting of the tap root of the walnut interferes with its bearing qualities is mere twaddle. Practically all the orchards in California are transplanted trees.

PRUNING

Even if trees are ten feet high, they should be cut back to 3½ feet from the ground after being set. In the interior valleys of California growers have even found it expedient at times to cut trees to 12 inches and train up a new stem. If there are any advantages in this plan, they are evidenced by the tremendous vigor and prevention of sunburn of the new shoot, which must, of course, be staked the first year.



The Franquette Walnut.

The coined expressions that this tree, or that, should not be pruned because it would be ruined has had the tentacles of misapprehension more closely interwoven around the walnut than possibly any other tree. If you can secure a more striking tree with a broad bearing surface, is it not common sense to suppose that you are not going to accomplish this if you don't do something to check the growth of the frame-work branches?

No person of intelligence will deny the fact that one's arm held at length has not the strength to resist the same strain as when the forearm is held at right angles to the arm. The same principle applies to the main limbs of the tree. The development of elbows promotes strength, increased bearing surface and a perfect tree. Cutting back the framework branches one-half in the first winter after planting, pruning the laterals in the same manner the second winter, and thinning out when there is a tendency to overcrowding, followed by a more moderate treatment in the third winter, and the checking of rampant growing limbs in the fourth season when they have a tendency to outstrip their neighbors, and following out this last recommendation in subsequent years, are requisites easily carried out to make a perfect tree.

SPECIAL FEATURES

The holes for planting should not be less than three feet deep and two feet in diameter. Cut the tap root off at about 24 inches, and trim off all bruised and broken lateral roots before planting. A liberal application of thick whitewash to the trunk of the tree in which some salt or glue has been dissolved is very beneficial, as it prevents sunburn.

The Walnut like the Pecan is unisexual, that is the flowers of both sexes though produced on the same tree do not occur in the same flower. The male flowers are called catkins and in the spring are distributed throughout the tree and look like tassels; the female flowers are like two little horns at the terminal ends of the new growth.

PRICES OF WALNUT TREES GRAFTED ON CALIFORNIA BLACK WALNUT ROOT

	Each	Ten
8 to 10 ft.....	\$2.00	\$17.50
6 to 8 ft.....	1.75	15.00

VARIETIES OF WALNUTS

Cut-leaved. A most graceful ornamental tree, particularly adapted to gardens and lawns; foliage deeply cut and laciniated; nut large, elongated, smooth shell; kernel sweet and well filled; very best quality. Hardy where other soft shell walnuts are not; withstands zero weather.

Eureka. Tree is remarkably vigorous, upright grower, leaves and blooms fully three weeks later than seedlings of the Santa Barbara Soft-Shell, and is therefore very desirable in localities subject to late frosts. An immense producer. Nuts large, elongated, smooth and tightly sealed.

Franquette. Nuts very large, long and pointed; kernel full-fleshed, sweet and rich; buds out late in the spring. We have fruited this variety for many years, never failing to get a full crop. Probably the best French sort for commercial purposes.

Mayette. One of the best; nuts large and uniform, decidedly flattened at the base; shells light colored; tree hardy, buds out late and bears abundantly.

Payne's Seedling. A large shapely walnut which had its origin in Campbell, Santa Clara County. First discovered by Geo. C. Payne through whose efforts it has been brought up to its present state of perfection. Fully as large as the Franquette. Bears regularly and heavily.

Placentia Perfection. A vigorous grower; commences to bear abundantly about the fifth year after planting. An improved Santa Barbara soft-shell. Most popular walnut in the southern part of the State. Nut large; shell smooth and thin; kernel white and sweet.



A young Olive orchard in which a systematic method of pruning has been followed.

THE OLIVE

The great food value of the pickled olive, and olive oil, is recognized throughout the world. In the countries of Europe and Africa bordering on the Mediterranean Sea the planting of olives has reached such proportions that one is led to believe that the business would have been overdone long before this. Pickled olives and olive oil are exported from Europe to every country of the world. The United States, in spite of the fact that California has been engaged in the industry for a great many years, imports no less than 10,000,000 gallons of olive oil, and about the same quantity of green pickled olives annually.

The two countries which stand out most prominently as producers of olives, are Italy, famous for its oil, and Spain, for its green pickled olives. In Italy there are 2,688,738 acres devoted to olive culture, and according to reliable statistics, Spain has 3,546,515 acres. There are many insect pests threatening the olive in those two countries, which frequently curtail the output. There is very little likelihood of any of these pests or diseases gaining entrance into California, because we have all the leading and best European varieties growing here already.

PLANTING

Today the transplanting of olive trees is comparatively an easy matter to what it was 25 years ago, when the industry was just beginning to attract the attention of horticulturists. At that time, unless the trees were potted plants they invariably died. After years of experimental work the cause of the trees fail-

ing to grow was found to be due to not topping the trees and shortening in the lateral branches when digging. This method of trimming overcomes much of the evaporation and loss of vitality through the foliage and much of the trouble previously experienced has been averted.

In nearly all cases where trees fail to grow the trouble can be traced back to not again cutting the trees back after they are set, or to careless handling on the part of the planter after the trees are received.

In order to insure the best results for the orchardists, we make an invariable rule to top prune, and shorten all the lateral branches before shipment from the nursery. This method of trimming overcomes the evaporation and loss of vitality through the foliage. It is a very important point which we have learned from years of experience.

We do not recommend that olive trees be planted until spring, or just about the time the growing season starts actively. When received at destination take the young trees out of the case in which they are packed and heel them in a shady, warm soil, and then turn a hose loose in the trench so that the soil will fill in all interstices and exclude the air. After the soil is settled fill in with loose earth and tramp deep. The trees should stand upright, rather at an angle. Treated in this manner they will remain in perfect condition until the ground is in shape for planting. As soon as they are taken out of the trenches, and prior to planting, all bruised and lacerated roots should be cut off, and a new, clean cut made on all the other roots. Before taking out to the field, puddle the roots the same as described for

the fig. This particular phase of the operation must not be overlooked. Do not fail to cut the tree back to 2 feet after being planted and shorten all laterals to two inches. If there should be no laterals, cut the trees back anyway, for the olive will always force out its blind buds.

The theory that olives can be grown successfully on poor, rocky soils has been exploded long ago. It is a fact that olive trees are found growing in such soils in many countries of Europe. We know from experience that this does not indicate that olive culture is a success in such soils. The trees are usually scrawny, and entirely lacking in the essentials which go toward the perfect tree, and would cause the orchardist accustomed to the fine, luxuriant trees, such as are grown in California to have heart failure if he had such prospects before him.

Do not make the mistake of planting the trees too closely together. The olive is a gross feeder, and sends out a mass of small surface roots. Never plant closer than 30 feet in a good loamy soil, and forty feet apart on rich deep soils, with a deciduous tree between, with a view of taking it out as soon as the olives attain any size. Even in localities where there is a bountiful rainfall, the trees should be irrigated not less than four times in the growing season for the first three years of their existence.

PRUNING

When the tree is planted it should stand at least four inches deeper than in the nursery rows. Allow the tree to grow without much interference the first year, for the more vigorous will be the root development. The first winter after planting trim all the growth off except 4 or 5 branches close to the head, and have these properly distributed, as they will ultimately form the main framework branches. Cut off two-thirds of their growth. The second winter trim the tree in such a manner as to leave from one to two laterals on the original framework branches, bearing in mind that these branches should have an upright tendency, and cut them in turn back at least one-half. In subsequent years this same method of thinning out and shortening should be followed, and this cutting should be quite severe for at least four years. The workman should not always prune to an outside lateral, but should exercise some judgment to balance the tree by causing some branches to slope inwardly and force others to have an outward tendency. This promotes sturdiness in the tree and a healthy uniform growth, also a broad bearing surface, many small lateral fruit bearing branches and naturally more fruit than an unpruned tree, the growth of which, if not checked, would consist of several straight upright shoots with all the fruit bearing branchlets in the top. When the trees have attained the age of six years, the shortening method should be very much modified. The tree should be well balanced by this time and it will only be necessary to remove interfering branches.

When the trees are fifteen years old, they will have a large amount of inside growth which, when it is no longer productive, should be cut entirely. This does not mean necessarily that the trees should be thinned out like a peach, for this would be a mistake. Only wood which indicates by its appearance that it has lost its vitality should be removed, for it will soon be replaced by new wood.

Our nurseries have been more closely associated with the growing of the Olive than possibly any other concern in the State of California. Thirty years ago we were growing over 30 varieties of olives. At that time equal attention was being given to both the oil and pickling varieties. Now that it has been demonstrated that a good pickling olive makes an excellent grade of oil in nearly all cases, the elimination of so many varieties has been very pronounced. The demand has dwindled down to a few standard varieties which seem to meet the exacting demands of the firms engaged in the business commercially.

We are devoting our attention particularly to growing the best types of those recognized standards; cuttings have been taken from our own orchards, of which there are none better in California.

Olive trees are sold on the basis of caliper measurement, the heavier the body the higher the price.

PRICES OF OLIVE TREES GROWN FROM CUTTINGS OR GRAFTED

	Each	Ten
$\frac{5}{8}$ to $\frac{3}{4}$ inch caliper.....	\$1.50	\$12.50
$\frac{1}{2}$ to $\frac{5}{8}$ inch caliper.....	1.25	10.00

VARIETIES OF OLIVES

Ascolano. Bears early; very large, exceeded only by Sevillano; proportion of pit to fruit smallest of all; one of the best pickling sorts.

Manzanillo. One of the standards for green and ripe pickles. Produces oil of a very high grade. Very hardy and a regular and prolific bearer.

Mission. Tree a handsome upright grower and fine for avenues. Medium to large; excellent for pickles; makes a superior oil.

Sevillano (True Spanish Queen). The tree is a strong grower, with spreading branches; leaves large and long. The olives are picked green, pickled and exported from Spain under the name of the "Queen Olive." It is the largest commercial olive known.



Demonstrating the pruning of a three-year-old Olive Tree.



Valencia Late Orange Trees in one of our orchards. Trees of uniform habit which never fail to produce a crop of very fine luscious oranges.

Citrus Fruits

That citrus culture is one of the great and growing industries of the world can no longer be questioned. From a dietetic standpoint the citrus fruits are in a class by themselves. In one form or another they are found on the table every day in the year.

Citrus trees are either dug with a ball of earth varying in weight from 25 to 40 pounds, or they are taken up with the naked roots. The former method is usually followed in California. Freight charges on stock handled in this manner are heavy, still the satisfaction of knowing that with ordinary care every tree will grow, offsets the additional expense incurred in transportation charges. Trees taken up in this way can, if necessary, be kept in a shed for several months before planting, if the balls of earth are watered occasionally. In taking up trees with naked roots the greatest care should be exercised on the part of the orchardist to avoid exposure. When set, the leaves should be stripped off to retard evaporation, and loss of sap in consequence. In planting set the trees so that when the soil is settled the union of the bud with the stock will be at least several inches above the ground.

Be sure to settle the earth around the trees with water, whether planted with naked roots or balled. In filling in the hole around a balled tree, never tramp on the top of the ball, as it will break it, dislodge the fibrous roots, and in many instances cause it to die. After the hole, in which a balled tree is planted, is partially filled, cut the cords by which the burlap is tied to the tree; the burlap need not necessarily be removed as it will soon rot.

Seedling trees should be planted not closer than 30 feet on the square method, budded trees from 22 to 24 feet with the exception of such varieties as Satsumas,

Limes, and Kumquats, which are of dwarfish habit, and should be planted from 12 to 15 feet apart.

TIME TO PLANT

Citrus trees being evergreens can be planted at all seasons of the year, although the spring months are considered the most favorable. In the interior valleys where it is extremely hot and dry during the summer months it is advisable to plant as early as possible in the spring, although planting should not commence until the ground is fairly warm so that the tree will immediately start to grow. Trees planted too early while the ground is still cold and wet will remain in a dormant condition until the ground gets sufficiently warm so that they can make a start.

When this condition prevails for any length of time it causes the fibrous roots to decay, as a consequence of this, when the tree does start it will make rather a slow growth, until new rootlets are formed. For this reason it is advisable to defer planting until conditions are favorable for the tree to start to grow as soon as planted.

Citrus trees do well near the sea coast where the summer climate is moderate and in such localities they may be planted with good results all through the spring and summer months. In fact the trees planted in summer seem to make nearly as good growth as those planted in the spring. The only thing necessary to successful summer planting is to see that the trees are properly handled from the nursery to the orchard and are sufficiently well irrigated and cultivated. The prompt application of water to newly planted trees is very essential in late planting.

STOCKS

In order to meet soil and climatic conditions in different sections, we bud our citrus trees on the following stocks:

- Sweet Orange.....(Citrus Aurantium Dulcis)
- Sour Orange.....(Citrus Aurantium Amara)
- Deciduous Orange(Citrus Trifoliata)

On the first named sort the budded trees outgrow those on any other root, and practically all the old groves of the State are worked on this stock, and are thrifty and healthy, except where situated where there is an excess of moisture during certain seasons. Sweet orange seedlings are grown from the seed of the common sweet seedling orange. Sour orange seedlings are grown from the seed of the sour orange so extensively grown in Florida as a seedling for budding practically all types of Citrus trees. Although the buds do not grow as rapidly or attain as large a size in mature trees, this stock is very resistant to gum disease, hence it has been much in demand in recent years for heavy soils where water was apt to stand for any length of time either because of summer irrigation or a heavy rainfall in the winter months. The Citrus Trifoliata is a native of Japan, and is the hardiest orange known. It is deciduous; its fruits are very bitter and have no commercial value, but its hardness seems to exercise a decided influence on the budded tree. It is more resistant to cold than any other stock.

Actual experiments have proved that trees grown on this stock come into bearing earlier, produce heavier crops when the tree is young, with no tendency to change in this respect as the trees attain age, and although the development of the tree is somewhat slower, it is indicated more by a close compact growth. That the trees do bear regularly and heavily; that they do mature their oranges earlier, and that the orchards are up to the standard of those grown on other roots is shown by trees in full bearing which were grown by us. In most cases where the tendency of a stock is to dwarf the tree on which it is worked, the stock will be smaller than the body of the tree. With the Trifoliata root the very opposite is the case.

PRUNING

Our citrus trees are headed at about 28 inches from the ground, hence all that is necessary for the planter to do is to shorten the branchlets to about 6 inches and to thin them out, not leaving more than six if they have a tendency to be overcrowded.

Trees headed at 4 feet or more should be cut back to 28 inches for the purpose of forming a new head. High headed trees are always objectionable for they not only expose much of the stem causing sunburn, but in addition to this the tree is retarded in acquiring a sturdy compact growth. In pruning, above all things do not be deceived with the idea that the trees must be thinned out to admit air and sun. The tendency of nearly all budded varieties is to droop, so in shaping the tree cut to a lateral which has an upward tendency.

THE ORANGE

An orange tree for the first four years of its existence does not require thinning out as is the case with deciduous trees, but does need systematic shortening in of the rampant growing branches which draw it out of shape. This cutting may be carried on in the summer months and then again in the spring just before the trees start to make their new growth. Although the principle of pruning the orange tree is the very opposite of that employed in shaping deciduous trees, we cannot too emphatically lay stress on the extreme importance of the free use of the pruning shears in the shaping of an orange tree.

Unless lateral branches from the main body of the tree are actually interfering with each other, do not cut them out, but leave them alone to lend their aid, in forming a fine, compact well rounded head. It is no trouble to cut them out in later years when they cease to be fruitful. If you desire to grow crops of oranges do not expect to have all your fruit on the outside of the tree. The natural tendency of the tree is to have its inside branches protected from the rays of the sun and every effort should be made to maintain this condition. During the formative period, any ambitious branches shooting skyward far beyond the others should be cut off and forced to develop laterals which will gradually build the tree upwardly as well as outwardly.

A well pruned orange tree should present a compact mass of foliage with none of the framework branches exposed to view. Never neglect to protect the stems of young trees for the first two years. Wrap with burlap, paper, or tules, but the best and most serviceable tree protector is one made of yucca fibre. This allows the free circulation of air around the stem of the tree. The protection of the stem prevents the development of suckers and obviates the danger from sunburn while the top growth is stimulated.

In most localities during the summer months, citrus trees must be irrigated every three or four weeks. In heavy adobe soils every precaution should be taken not to allow the water used in irrigating to touch the stem as it will cause gum disease.

PRICES OF ORANGE TREES BUDDED ON SOUR ORANGE SEEDLINGS

	Each	Ten
5/8 to 3/4 inch caliper.....	\$2.50	\$20.00
1/2 to 5/8 inch caliper.....	2.00	17.50

VARIETIES OF ORANGES

Washington Navel. In California it has reached its highest stage of perfection, and stands in the lead of all other varieties for its large size, lusciousness and sweetness of pulp. The most extensively planted variety on the market.

Valencia Late. Large; reaching the market when all other varieties are gone. Second only to Washington Navel in the extent of its dissemination. The summer orange of California.



A section of our Citrus Nursery.



Clusters of Marsh Seedless Grape Fruit.

THE LEMON

It is generally understood that the lemon will not stand as low a temperature as the orange, hence its planting for commercial purposes is restricted to localities where the winter temperature does not go below 24° Fahrenheit above zero. The tree is a straggling grower, and the branches must be held in check by systematic annual pruning, for left to itself the fruit will be on the ends of the long unrestrained branches. There are many systems of pruning but the fundamental principle is to produce compact but not too dense low headed trees with a large amount of bearing surface on easily accessible branches.

When the tree is first planted the same directions as given for the orange should be observed, but in the subsequent prunings the method of procedure is quite different. Not more than four branches are selected to form the framework of the tree. These in turn are persistently cut back and encouraged to assume a nearly horizontal position. Any branches showing an inclination to assume a strong growth in a vertical direction are cut down and forced to develop laterals. This continuous pruning has a tendency to produce a dense mass of branches and foliage and as the tree grows, some thinning out is necessary. The result obtained by following out this system of pruning is a shapely broadened out tree, liberally supplied with numerous fruiting laterals permitting the gathering of the greater part of the fruit without the use of long ladders.

PRICES OF LEMON TREES BUDDED ON SOUR ORANGE SEEDLINGS

	Each	Ten
5/8 to 3/4 inch caliper.....	\$2.50	\$20.00
1/2 to 5/8 inch caliper.....	2.00	17.50

VARIETIES OF LEMONS

Eureka. Tree nearly thornless, of rapid growth and prolific bearer; fruit medium size, sweet rind; a good keeper; few seeds; very popular, especially in coast regions.

Lisbon. Tree of largest growth; thorny; fruit medium size, oblong, fine-grained; rind of medium thickness; strong acid; few seeds; a good keeper; popular at interior points especially.

Villa Franca. A strong-growing variety; thornless, or nearly so; fruit oblong, juicy and nearly seedless; withstands lower temperature than any other variety.

THE LIME

Valuable for its citric acid, which is extensively used in the concoction of summer drinks, and especially palatable as a lemonade. The juice is also used in medicine and in the arts. Its export from the West Indies constitutes an important branch of commerce, great quantities being exported to Europe and the United States. Fancy limes, and especially the new seedless sorts, command good prices. The tree is more tender than the orange, hence should only be planted in sheltered regions. Commercial orchards should be planted from 15 to 20 feet apart. It likes a moist soil. The tendency to form a dense bushy head should be encouraged by following more strenuously the instructions given for pruning the orange.

PRICES OF LIMES BUDDED ON SOUR ORANGE SEEDLINGS

	Each	Ten
1/2 to 5/8 inch caliper.....	\$3.00	\$25.00

VARIETIES OF LIMES

Bearss Seedless Lime. Very large; very juicy, with pronounced acidity. One of the best in cultivation. Hardy, enormously productive and matures fruit the year round.

Mexican Lime. Largely used in California for hedges; fruit large and excellent.

THE GRAPEFRUIT

"Grapefruit," the name usually applied to this fruit is really a misnomer, but it has become so customary to designate it as such, it is not likely that the proper name will be used again. The name undoubtedly arose from the fact of the fruit being borne in clusters of from three to fifteen fruits in a bunch. The Pomelo is really an improved Shaddock. The Shaddock, except for ornamental purposes, is of no practical value, for the fruits are extremely large, coarse, and are lacking in every essential necessary to make an edible fruit. The Pomelo is much sought after for its medicinal qualities, and as a healthful breakfast relish it excels every other fruit.

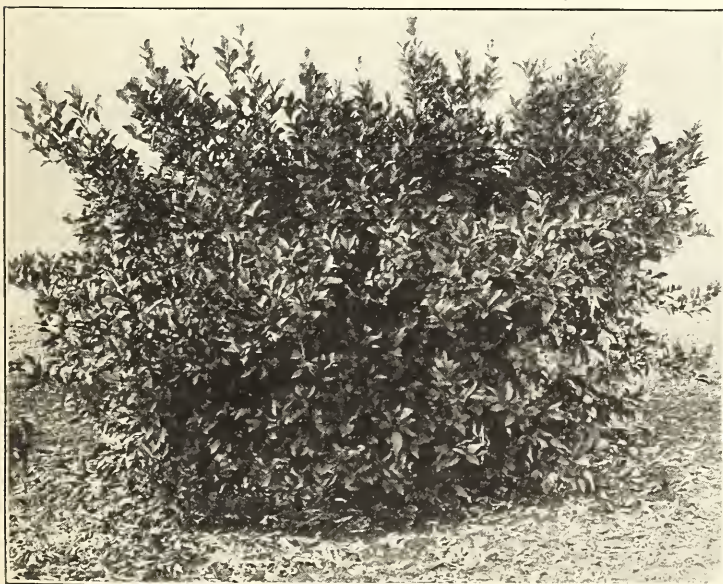
Its popularity is constantly increasing, and the demand for it far exceeds the supply. The most popular variety in California is the Marsh's Seedless. As the seeds of the Pomelo are very objectionable any new varieties which are originated will not receive recognition unless they are practically without seeds. The tree is fully as hardy as the orange, and the instructions for pruning the orange will answer admirably for the Pomelo. Trees should not be planted closer than 22 feet.

PRICES OF GRAPEFRUIT BUDDED ON SOUR ORANGE SEEDLINGS

	Each	Ten
5/8 to 3/4 inch caliper.....	\$3.00	\$25.00
1/2 to 5/8 inch caliper.....	2.50	20.00

VARIETY OF GRAPEFRUIT

Marsh's Seedless. One of the most popular varieties; nearly seedless; large, roundish, skin smooth, lemon yellow; very juicy and of excellent quality.



A well-balanced Lemon Tree.



One and two-year-old Nursery Grown Citrus Trees.

THE CITRON

This tree is even more tender than the lemon, and should, therefore, be planted where there is very little danger from damage from frost. The fruit is prepared for use by immersing in a brine for several months, and after washing it is placed in a hot syrup, remaining for three weeks. Later it is cooked with crystalized sugar dissolved in water, being cooked and cooled alternately until it has taken in sufficient sugar, when it is ready for the market.

The tree grows very much like the lemon, except that it is of more dwarfish habit. Best results are obtained by training the tree along the same lines as recommended for the lemon.

PRICES OF CITRON TREES BUDDED ON SOUR ORANGE SEEDLINGS

	Each	Ten
1/2 to 5/8 inch caliper.....	\$3.00	\$25.00

VARIETY OF CITRON

Citron of Commerce. Large, weighing from 3 to 5 lbs.; shaped like a lemon; skin bright yellow, smooth and very glossy. The tree is of dwarf habit, with large glossy leaves and very ornamental.

POMEGRANATES

The natural tendency of the pomegranate is to grow bushy and it bears indifferently if pruned heavily.

Growers of pomegranates are finding an increased demand for the fruit and there seems to be much encouragement for the planting of a considerable acreage at this time.

PRICES OF POMEGRANATES GROWN FROM CUTTINGS

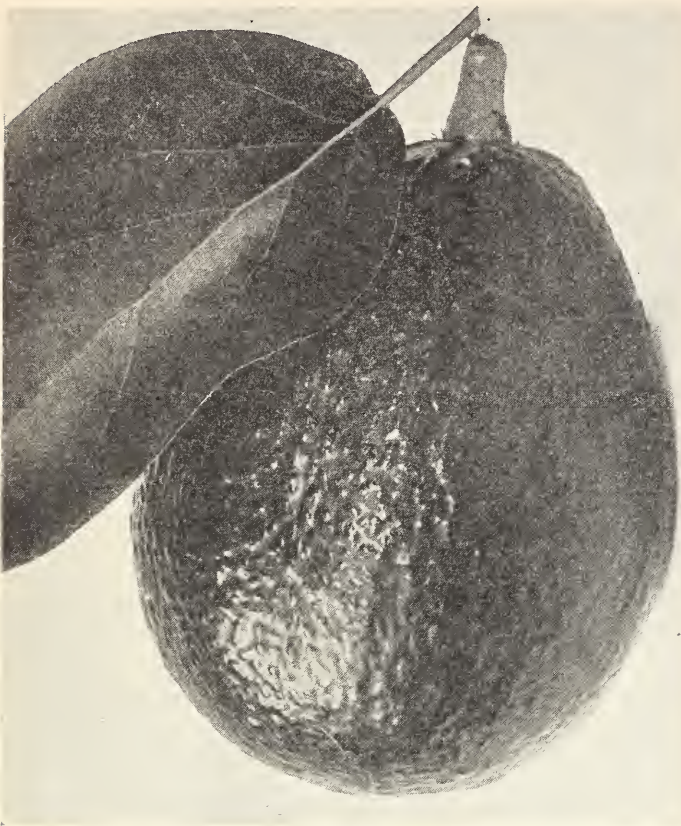
	Each	Ten
3 to 4 ft.....	\$.60	\$5.00

VARIETIES OF POMEGRANATES

Paper Shell. Very large; skin thin; pale yellow with crimson cheek.

Sweet Fruited. Fruit large, with sweet, juicy pulp.

Wonderful. The largest and most attractive. Valuable for shipment. Ripens early. Pulp a rich garnet color, with an abundance of juice, dark as port wine; exquisite flavor.



The Spinks Avocado.

AVOCADO — Alligator Pear

A tropical or subtropical pear-shaped or spherical fruit of great food value, which will undoubtedly become one of the leading commercial subtropical fruits in many parts of the world.

Recent experiments have demonstrated that this highly nutritious, nutty flavored fruit may be grown wherever the Orange thrives, but commercially they should not be planted where the temperature goes below 28° Fahrenheit.

Where conditions will permit no one should neglect to plant one or more trees of this delicious fruit.

PRICES OF AVOCADO TREES BUDDED ON HARDY AVOCADO SEEDLINGS

	Each	Ten
4 to 5 ft.....	\$6.00	\$50.00

VARIETIES OF AVOCADO TREES

Fuerte. Skin quite smooth, of greenish color; flavor excellent with a high percentage of oil. One of the standard winter ripening varieties.

Puebla. Medium to large, roundish oval; skin smooth, glossy purple, medium thick; flesh very rich; bears young and heavily. Ripens in winter months.

Sharpless. Very large, elongated pyriform; skin thick, purplish black; flesh rich, melting; has size, quality, and a very small seed. Ripens in winter months.

Spinks. Almost spherical; weighs 16 to 20 ounces; skin thick, purplish black; flesh cream colored and highly flavored. Very precocious and heavy bearer. Ripens spring to summer.

LOQUAT

A beautiful, evergreen shrub, or tree attaining a height of 15 to 20 feet, bearing pear-shaped fruit of a pleasant acidulous flavor and lemon yellow color. Loquats are harvested in the late spring months.

The large budded varieties listed below are far su-

perior to the seedlings usually grown. The loquat is used quite extensively for making jellies, jams and preserves. Trees are easily grown and may be planted 20 to 24 feet apart.

PRICES OF BUDDED LOQUATS

	Each	Ten
2 to 3 ft., Extra Selected.....	\$3.50	\$30.00

VARIETIES OF LOQUATS

Advance. Worthy of its name, being a decided advance over other sorts, fruit elongated; larger than Giant; proportion of flesh to seeds larger than usual.

Giant. Introduced from Japan; fruit very large, pear-shaped; flesh deep yellow; when fully ripe it has a sweet, cherry-like flavor.

Large Fruited. An improved variety; bears when quite young; fruit shaped like a crab-apple; flesh white; seeds small; flavor rich, pleasant and sweet.

Victor. Introduced by the U. S. Department of Agriculture as a variety of superior excellence.

JUJUBE (Chinese Date Plum)

Many valuable varieties of the Jujube have been introduced into the United States in recent years by the late Frank N. Meyer, who travelled to the most remote places of the globe as a representative of the United States Department of Agriculture.

Investigations made in China, and tests carried on in California have fully demonstrated the adaptability of the Jujube for cultivation in the semi-arid regions of the Southwestern parts of the United States where soil alkalinity, early spring frosts, and a light rainfall, limit the growing of many other fruits. The tree is very ornamental, and ranges from 15 to 40 feet in height.

Jujubes are utilized in China in a great variety of ways, fresh boiled with millet and rice, or baked. When they are processed, or made into glacé fruits by scoring and boiling them in honey and sugar syrup they are strikingly like dates. Experiments with the fruits in this country have demonstrated the possibility of their being utilized as a dainty and delectable confection when processed.

Our stock of Jujubes consists of the very best varieties. The fruits ripen in the fall and winter months.

PRICES OF JUJUBE TREES

	Each	Ten
4 to 6 ft.....	\$2.00	\$15.00

CAROB TREE — St. John's Bread (Ceratonia Siliqua)

The saccharine seed-pods are of value as food for horses, cattle and hogs. A fine tree for dry situations, doing exceptionally well in the southern part of California near the coast, particularly near the sea where it will thrive in the rocks. The very fact that it will grow there and produces bountiful crops of pods which are rich in protein and sugar in the very driest of situations, makes it invaluable for supplying food for cattle, horses, sheep and hogs.

PRICES OF CAROB BUDDED ON CAROB TREES

	Each	Ten
2 to 3 ft.....	\$2.50	\$20.00

VARIETIES OF CAROB TREES

Bolser. Comes into bearing when very young. Chemical analysis shows that the pods contain 52% sugar.

Excelsior. Of recent introduction. The fruit pods are of medium size containing a high percentage of sugar. Foliage shaded deep green. Very ornamental and useful tree.



One of our exhibits of Grapes, Fruits and Plants.

THE GRAPE

It is largely due to the similarity of California's climate to that of the European countries where grapes are grown that it has been possible for us to grow successfully all the leading varieties which it has taken centuries to develop to the point of being adapted to the making of raisins, wine and brandy, and fresh grapes for table use. The accompanying list of varieties has been selected by us as the very best of the innumerable varieties which have been planted in different sections of California as standards worthy of extensive culture for either table and shipping, raisins, wine and brandy purposes.

LAYING OUT A VINEYARD

First establish your base lines. It is best to have this done with a transit, particularly if there are no established regular subdivision lines to work from. If the base lines are not at right angles, the rows will not be straight, and nothing is more unsightly. The difficulty of plowing and cultivating and the advantages of straight rows will be readily understood. For planting, use a steel woven No. 19 galvanized wire, dividing same up into sections as recommended under the heading "Methods of Planting." At equidistant points on the chain a piece of wire is wrapped to which markers are attached, and soldered into place. It is necessary, of course, to change markers to other points for planting at greater or less distances. It is best to have the wire chain the width of the check, the last link coming flush with the stake indicating the roadway. These roads should be at intervals of 24 rows for a wine and table vineyard, and 30 rows for a raisin vineyard. Start at one corner of the field with the chain, which should have three-inch

rings at each end for inserting the iron stakes. These should be made of one-half by two-inch iron, two and one-half feet long and drawn down to a point at one end. The stakes which are to be used as markers may be split out of redwood or any other material for that matter, and at least 6 inches of one end should be dipped into a bucket of whitewash so that the line of the base rows may be readily seen.

Having set the stakes along the outside line at the distance apart the vines are to be planted, start at the same end of the field again and set another line of stakes parallel with the first line and the length of the chain distant from the outside line. Proceed in this manner until the entire field is laid out in checks. With this preliminary work done and having exercised care in the measurements to have the base lines parallel and the stakes in each block opposite each other, no difficulty will be experienced when planting commences to have the vines line up.

DISTANCE TO PLANT

This always gives rise to much discussion, and opinions vary so that the planter is often in a quandary as to what course to pursue. The prevailing practice is to plant wine grapes 8x8 feet, leaving out the 25th row for an avenue. For wine and table grapes the avenues should not be further apart than this. As it is necessary to carry out the grapes in lug boxes to the avenue, the pickers (if the work of harvesting is being done by contract) demand more per ton for the picking than where the checks are 24 vines wide. For types of raisin grapes which are to be short pruned and headed low where the drying is to be done on trays in the vineyard, any of the



Note the heavy crop of Thompson Seedless Grapes on this well-trained vine.

following distances are satisfactory: 8x10 feet, 7x10 feet, 6x12 feet, always leaving the wide rows east and west, so the trays shall get the full benefit of the sun's rays. In this case the checks may be 30 rows wide. For staked vines of raisin grapes, where the drying is to be carried on in the vineyard, 6x12 feet is undoubtedly the most economical distance to plant as picking is much facilitated, the trays get the full benefit of the sun, and the raisins cure quickly which is not the case where vines are closer together. Table grapes should not be planted closer than 8x10 feet with the wide rows north and south. The grapes then have more exposure to the sun and mature more uniformly. This rule applies more particularly to the varieties which ripen rather late, like Cornichon, Emperor, Gros Colman, Block Morocco, etc.

PREPARING FOR PLANTING

All rootlets, excepting those starting from the base of the vines, should be cut off. Next shorten in all the roots radiating from the base of the cutting from two to three inches. Then prune the top of the vine leaving only one spur with from one to two buds. The vines should be pruned a day or so in advance of the planting and the work should be entrusted to careful men. As soon as pruned the vines should be heeled in and the soil either wet or tamped down to prevent the roots from drying out. The heeling-in ground should be centrally located, so that it will not be necessary to carry the vines too long a distance to the planters.

HOW TO PLANT

Each man should be provided with a bucket or five-gallon coal-oil can. A small quantity of water in the bottom will keep the roots moist. Each bucket should be filled with vines, and replenished from time to time with vines as they are needed by the planters.

The planting wire should be stretched across the first check to two stakes which should be directly opposite to each other. Each planter should have charge of two marks on the wire. As an illustration, figure on a basis of planting the vines eight feet apart each way, leaving out every 31st vine for an avenue. It would be necessary to have a wire chain 250 feet long over all, including a two-foot link at each end for the ring and to permit drawing the chain taut. To such a chain it would be necessary to have 17 men, two to stretch the chain

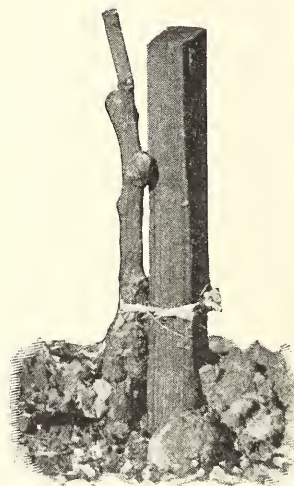
across the field between the two stakes set opposite each other in the check and 15 to do the planting. The marks 8 feet apart in the chain indicate where the vines are to be set. In planting the vines should be set so that the collar will be level with the top of the ground when it is settled, except with grafted vines, which will be referred to later. The soil in the bottom of the hole should be loosened up, and that used to fill in should be top soil, the first few shovels of which should be well tramped in, the top being left loose. Having set this line of vines the chain is carried to the next two line stakes, and so on until the check is planted. Within two weeks after planting the earth should be settled around the vines either by hauling water to them or by irrigating, running the water in furrows along each row. This is important, for even with a good field boss over a crew of men, some of them will be careless, fail to tramp the soil around the roots, and unless timely and heavy rain should cause the earth to settle, the vines will dry out and die.

CARE AND PRUNING THE VINE

Specific rules for cultivation and irrigation cannot be laid down, for this work is dependent on soil conditions, water, rainfall, etc. It goes without saying that thorough cultivation and careful attention to keep the vines in an active state of growth during the growing season will be amply repaid when the vineyard reaches the bearing age.

The training of the vine should be given careful attention during the first year of its growth. In order that the plant may not form a head too close to the ground, a short stake allowing it to be about a foot above the ground should be driven beside each vine. These stakes should be one inch square and two feet long. Any cheap stake will answer the purpose provided it will support the growth of the vine. In July before the growth of the canes have become lignified, they should be tied with three or four ply baling rope to the stake, and about one-third of the top growth cut off. This shortening in of the canes causes them to become stocky, and as a result of the tying up there are a number of straight shoots, the strongest of which may be selected the following winter, the others being removed.

The most serviceable permanent stakes are the split stakes made out of California redwood (*Sequoia semper-*



One-year-old vine showing method of training.



Two-year-old vine with spurs properly distributed.

virens). These stakes should be at least 2x2 inches. Their length will depend largely upon the variety of grape to be trained to the stake. For Muscat vines and other vines which do not make long canes, a 3 foot stake will answer. For Malaga and stronger growing vines in its class use a 4 foot stake, and for Emperor, Flame Tokay, Cornichon, Sultana and Thompson Seedless the stake should at least be 6 feet long.

In making our recommendations in reference to pruning we are going to discuss varieties on a basis of "Standards." In other words, a Muscat and vines in its class making short canes will be referred to as low standards; meaning that the height of the vine should not exceed 24 inches. The Malaga should be termed a medium standard, vine not to exceed 32 inches; and the Thompson Seedless a high standard, vine not to be longer than 42 inches.

No difficulty will be encountered under ordinary conditions in securing a low standard cane the first year, provided the growth of the vine has been tied up as directed. If the cane shows by its size that it is not strong enough to be carried to its maximum height in the first winter's pruning it should be cut off to a point where it is sturdy and during the growing season the strongest cane from it should be selected and firmly tied to a stake. In tying to a stake use nothing smaller than 3-ply baling rope. Anything smaller than this, should the cane grow vigorously well, cut it in two.

On low and medium standards rub all the laterals off, starting not closer than ten inches from the surface of the ground and on the others anything below fourteen inches should be rubbed off. It is of the utmost importance to have the stem of the vine tied firmly to the stake, to have it as straight as possible for it will ultimately form the body of the vine. In the second winter when pruning the low standard, leave at least four spurs, getting them as evenly distributed as possible, and be sure to have one of them at the tip end of the vine. The medium standard should have at least six and the high vine not less than eight spurs. A light crop of grapes may be expected from the vines in the second year by this method of handling. There are several advantages in this method of staking vines. One is that the vines eventually become self-supporting, making an immense saving in stakes.

For trellising, use a 12 gauge wire, and either staple it to the stakes, using a medium sized staple or bore holes through the stakes and pass the wire through. To prevent the wires from becoming slack, the end stakes in each row are braced, the braces being sufficiently long to reach from the top of the inside stake to the base of the stake on the next row.

In trellising, the cultivation of the vineyard is somewhat more expensive, as it only permits working the rows one way so that the center between the rows must be worked out with a horse hoe. It has been found that by trellising, the harvesting of the crop is facilitated, the bunches are more evenly distributed, the vines produce larger crops and in addition to this there seems to be less danger from damage by early Spring frosts.

RESISTANT VINES

The ravages of the phylloxera in the grape regions of France and the practical extermination of the French vineyards through this dreaded pest are too well known to require repetition here. Today France is producing more wine than she did in her palmiest days, prior to the time this pest was introduced. This wonderful change has been brought about by the grafting of the table, raisin, and wine varieties, all of which are native of Europe belonging to the *Vitis Vinifera* class, and none of which no matter how strong growers they are, but will finally perish when attacked by the phylloxera.

The resistant sorts were originally wild American grapes, natives of the Mississippi Valley. These were taken in hand by the French viticulturists, improved by hybridization, and selection, until today a large number of sorts adapted to a variety of soils and locations have come into general use.

The destruction of vinifera vines is due to the roots rotting whenever the insects make a puncture, causing the vines to perish in time. In the roots of the resistants, although subject to these attacks, the punctures do not extend deeper than the bark of the rootlets, and as this is sloughed off each year the roots are left as healthy as before. The grapes of the resistants are worthless, they simply serve as a stock for the more valuable foreign varieties of wine, table and raisin grapes, all of which succumb to the phylloxera on their own roots.

The cultural directions already given for planting vines on their own roots may be applied to the resistants in so far as preparing the vines for planting. In planting the rootings, the vines should be set so the union of the stock is at least an inch above the ground. As soon as the vine is planted, cover it with soil, leaving only the top bud exposed. When the vines have a good, strong growth, clear the soil away from them, and cut off any roots which may be started from the scion. This is one of the important points in bringing a resistant vineyard into bearing, for if these roots are not cut off the resistant roots dwindle away and the vine reverts back to its own root. Suckers starting from resistant cuttings should also be removed.

It is necessary to follow up this root pruning for at least five years after the vineyard is planted, for the scion will invariably start out new roots if the soil from plowing gets banked up against it. In later years, after the wood of the vine becomes well hardened up, there is very little danger of the scion making roots. The same recommendations for training and pruning vines on their own roots may be followed with grafted vines.

Located in the heart of the grape-growing section of California, our nurseries have produced millions of the vines now bearing the enormous tonnage of grapes harvested each year. We shall continue to grow only high quality, fine rooted vines.

Our stock of vines is very complete and they are grown on new land, causing them to have a fine, vigorous root system.



But few grapes equal the Gros Guillaume for color and flavor.



A well-pruned grape vine laden with bunches of grapes.

PRICES OF GRAPE VINES GROWN FROM CUTTINGS

	Each	Ten	One Hundred
1 Year	\$.30	\$2.50	\$6.00

GENERAL COLLECTION TABLE AND RAISIN AND FOREIGN WINE VARIETIES

We have indicated the time of ripening by periods. In explanation: Those ripening first are classified under the 1st period; varieties ripening in the fall, under the 2nd period, and the late types are designated as 3rd period.

Black Hamburg. A fine, tender grape, producing large, magnificent, compact bunches; berries black, very large and oblong. A great favorite everywhere. 2nd period.

Cornichon. Berries very large, oblong; dark blue, almost black, covered with a beautiful bloom; skin rather thick; a good shipping grape. 3rd period.

Emperor. Clusters large; berries large, oval, rose-colored; one of the most valuable grapes for shipping long distances. Does not ripen well near the coast. 3rd period.

Flame Tokay. Bunches very large and handsomely formed; berries large; skin thick, pale red, or flame colored; flesh firm, sweet, with a sprightly flavor; a splendid shipping grape. 2nd period.

Gros Colman. (Fresno Beauty.) Bunches large, thick shouldered; berries very large, round; skin tough, dark purple or black; flesh coarse, but juicy and sweet. 3rd period.

Malaga. Vine a strong grower and immensely productive; bunches very large, loose shouldered; berry very large, oval, yellowish green; skin thick, fleshy. 1st period.

Muscat. Bunches large, long and loose; berries large, slightly oval, pale amber when ripe, covered with a thin white bloom; flesh firm, brittle, exceedingly sweet and

rich; fine flavored; the variety most extensively planted for raisins. 2nd period.

Rose of Peru. (Black Prince.) Bunches very large; berries large, oval; skin thick, brownish black; flesh tender, juicy, rich and sprightly; a fine market variety. 2nd period.

Sultana. Bunches compact, tapering; berries rather small; skin thin, green, semi-transparent, becoming pale yellow as it ripens; pulp tender, seedless. 1st period.

Sultanina Rosea. (Pink Thompson Seedless.) Bunches compact, shouldered and very large. Single bunches frequently weigh four pounds each. Berries much larger than Thompson's Seedless, color same as Flame Tokay; quality as good; perfectly seedless. 1st period.

Thompson's Seedless. Resembles Sultana in some respects, but in others is superior. Bunches large and long; berries yellow, seedless. 1st period.

FOREIGN WINE VARIETIES

Alicante Bouschet. More in demand than any other variety of wine grape. This is due to its heavy bearing and the fact that its juice is deep red. 2nd period.

Carignan. Medium, slightly oblong; makes a superior type of red wine. Vine a fine grower and abundant bearer. 2nd period.

Fehér Zagos. Vigorous, hardy and productive; bunches large and compact; berries oval, yellowish green; flavor very fine; valuable sherry grape. 1st period.

Grenache. A strong-growing variety; bunches conical, rather loose; berries bluish black; makes excellent wine, but requires age. 2nd period.

Mission. The well known variety cultivated at the missions by the Spanish Padres; strong, sturdy grower, bearing large, black berries; valuable for wine. 2nd period.

Petite Syrah. One of the best claret grapes; very vigorous grower and remarkably productive. Cluster loose, long and shouldered; berries of medium size, black, covered with bloom. 2nd period.

Zinfandel. Bunches large, compact; berries round, dark purple, covered with a heavy bloom; succeeds well in most any climate. 2nd period.



The Olivette Blanche, one of the leading table grapes.



A Thompson Seedless Vineyard demonstrating Staking, Pruning and Trellising.

PRICES OF RARE VARIETIES OF GRAPE VINES

	Each	Ten	One Hundred
1 Year	\$.40	\$3.00	\$12.00

RARE VARIETIES

Black Monukka. A black seedless grape, similar in size and quality to the well known Thompson Seedless, but 1/3 larger, very firm, excellent shipping grape. 1st period.

Dattier de Beyrouth (Rosaki). Introduced from Europe. Bunches large, only slightly shouldered; berries loose, never compact. Berries very large; quite oval in form, of a beautiful golden amber and covered with a whitish bloom; very fleshy, juicy and sweet. 2nd period.

Gros Guillaume. Among the grapes of recent introduction this of the black type is the show fruit of them all. Bunches are of medium size, but berries are as large as Damson Plums, with a coloring when used for table decoration that makes them look as if molded in wax. Flavor the very best. 2nd period.

Maraville de Malaga. It is no exaggeration to say that this grape with its remarkable coloring of deep red intermingled with blue, as it reaches maturity, with its firmness, unusual delicious flavor, excellent keeping qualities, will always command a position which will be accorded to comparatively few of the late grapes. 2nd period.

Olivette Blanche. As this variety does not ripen until late fall, it is adapted only to warm climates. The grape is large, fully 2 inches long, never too close; berries long, olive-shaped, greenish amber, slightly brown on side exposed to the sun, firm with a neutral flavor. 3rd period.

Olivette de Vendemian. This grape bears a very close resemblance to the Almeria so extensively exported from Spain, packed in cork dust, with several important exceptions; the vine is a strong grower, and the bunches and berries are larger. 3rd period.

PRICES OF AMERICAN GRAPES

	Each	Ten	One Hundred
1 Year	\$.40	\$3.00	\$12.00

AMERICAN VARIETIES

American Grapes are known in California as "Slip Skin Grapes." More of these should be planted, particularly for table use and arbors. The following do remarkably well.

Concord. Bunch and berry very large; blueblack; sweet, pulpy, tender. 2nd period.

Catawba. Bunches medium size; berries large, coppery color, covered with a thin, lilac bloom; juicy, sweet and musky. Celebrated for its fine wine and jelly. 2nd period.

Niagara. Bunch large, uniform, very compact; berry large, most round, light greenish white, slightly ambered in the sun; peculiar flavor and aroma; enormously productive. Very fine. 1st period.

Pierce. (Isabella Regia.) The strongest grower of all. Berries very large, twice the size of its parent, Isabella; black with a heavy light colored bloom; very sweet and delicious; pulp is soft and dissolves readily; a fine shipper; stands up well; known in the southern part of the State as California Concord. 2nd period.

PRICES OF PHYLLOXERA RESISTANT GRAPE

	Each	Ten	One Hundred
1 Year	\$.30	\$2.00	\$6.00

VARIETY OF PHYLLOXERA RESISTANT

Rupestris St. George. One of the most popular Phylloxera-resistant varieties, both in Europe and in California, having many desirable characteristics. Growth erect and strong with heavy wood. Thrives under more widely variant soil conditions than any other resistant stock. It succeeds in light, dry and gravelly soils; its strong roots going deeply into the soil for moisture. Does well also in heavy soil and in soils having a small percentage of alkali.



Drying raisins on trays in a Muscat Vineyard.



The Logan, Mammoth and Cory's Thornless Blackberries when trellised produce enormous crops of berries.

The Small Fruits

This term usually applies to the berry family—Blackberries, Raspberries, Currants, Gooseberries, Strawberries, etc. The whole Pacific Slope, wherever fruit soils, and sufficient moisture prevail, is adapted to their successful culture. In California there is almost a continuous growth, and intermittent cropping can be carried on almost during the entire year. Every family orchard should have a plot devoted to small fruits, and where the conditions are favorable near to markets they can be made immensely profitable when grown along commercial lines.

PREPARING THE GROUND

The preparation of the soil should be thorough. The roots being close to the top of the ground and of a small, rather fibrous nature, the importance of having the soil in the very best possible condition to insure a good stand of plants and a satisfactory growth must be apparent to any one engaging in the culture of berry plants.

Thorough dressing with well rotted stable manure will do much to promote a vigorous growth the first season, and having secured this, profitable crops may be expected the second year after planting.

Berry culture cannot be successfully carried on without irrigation, so that before planting, the land should be graded, having the grade as uniform as possible, so as to prevent flooding. A berry grower should be absolutely certain of water when it is required, and if there is any question about the supply of water from ditches, a pumping plant should be installed to have water available whenever it is needed. A delay of even a few days may mean the loss of the entire crop.

THE BLACKBERRY AND RASPBERRY

The most satisfactory way of handling blackberries is to plant in rows six feet apart, with eight feet between the rows. The first season all the shoots which have attained a height of two feet should be shortened in to twenty inches. This will cause them to send out

many lateral shoots, so that instead of having the fruiting shoots confined to a few canes, there will be a number of lateral shoots from each of the main canes for producing fruit clusters. These laterals should have one-half of their growth cut off in the winter months. In the second year, as soon as the season's crop has been harvested, cut away the fruiting wood, so that all the energy of the plant will be forced into the new growth. The young shoots should again be cut back at the proper height to develop laterals and these, as has already been directed, should be cut back in the winter months. This method of pruning has other advantages by making the canes sturdy, and self-supporting, and causes the fruit to be distributed over the entire plant instead of being confined to the terminal growth.

By having the rows 8 feet apart, cultivation can be carried on with a horse, a very important point. A good supply of water, thorough cultivation, and liberal application of rotted barnyard manure are important factors in the cultivation of the blackberry.

BLACKBERRIES (New)

(Grown from Tips)

	Each	Ten	One Hundred
Extra Selected	\$.40	\$3.00	\$25.00

Cory Thornless. (New.) The big luscious berries often grow to a length of 2½ inches, having a small core, are almost seedless and the distinctive flavor is suggestive of the wild berry. They are richer and sweeter than other blackberries, yet have sufficient acidity to make the finest of jelly. The vigorous canes, without thorns, grow erect to a height of about five feet then assume a trailing habit, making a growth of 25 feet or more. Properly cared for gives enormous yields through a long season, thrives in any good soil and will amply repay for special culture and fertilization. For commercial growers "Cory Thornless" will be a big moneymaker, having proven superior in every way to other blackberries in our growing tests covering several seasons; stands handling and shipping and costs less to pick and prune.

PRICES OF BLACKBERRIES AND RASPBERRIES

GENERAL COLLECTION

(Grown from Tips and Cuttings)

	Each	Ten	One Hundred
Extra Selected...	\$.30	\$2.50	\$10.00

VARIETIES OF BLACKBERRIES AND RASPBERRIES

Crandall's Early. Large, firm and very good flavor; it ripens fully two weeks before any other sort, and continues to bear through the whole blackberry season.

Evergreen. Beautiful, cut-leaved foliage; berries large, black, sweet, rich and delicious; it continues to ripen from early summer until late in the fall. An excellent trellis and arbor plant.

Himalaya. Wonderfully vigorous grower; fruit fairly good size, almost round, juicy and with small seeds. Bears during summer and until late in the fall; should be trellised.

Kittatinny. Fruit large, roundish, conical, rich, glossy black; firm, juicy, sweet and excellent.

Lawton. Fruit large, ripens late, very productive.

RASPBERRIES

Cuthbert. An old favorite; large and handsome; bears transportation well; very productive.

LOGAN AND MAMMOTH BLACKBERRIES

These are practically in a class by themselves, and the cultural directions for one apply to the other, so we will consider them under the same head. They should be planted in rows six feet apart and eight to ten feet between the rows. The best results are obtained by trellising the runners to wires on heavy posts which will hold the wire taut. As soon as the fruiting season is past the fruiting canes should be cut away and the new canes bunched together and wound around the wire. At least two wires should be strung on the post, so that as soon as one wire is covered, the remaining canes may be wound around the other. By following this method from year to year, a heavy crop of large, fine berries may be looked for annually.

A novel method of handling them is to plant in squares 8x8 feet. Drive three stakes one and one-half feet into the ground, using 2x2-6 ft. posts. Nail an old barrel hoop on the top of the posts and another two feet from the top. The shoots are trained over these hoops. It is simply astonishing the amount of fruit which will be obtained by this method of handling. Another satisfactory plan is to set 4x6 inch-7 ft. posts twenty feet apart and nail 2x2-18 inch cross ties to each post. Set the posts three feet in the ground, and string No. 12 galvanized wire on the cross ties, holding it in place with staples. The new shoots should be trained across, winding them around the wires from one wire to the other.

PRICES OF LOGANBERRIES AND MAMMOTH BLACKBERRY TIPS

	Each	Ten	One Hundred
Extra Selected...	\$.30	\$2.50	\$12.00

Loganberries. Vine an exceedingly strong grower; trails upon the ground like a dewberry, but should be grown on a trellis; fruit is often an inch and a quarter long, dark red, with the shape of a blackberry, the color of a raspberry and the flavor a combination of both; a splendid shipper.

Mammoth Blackberry. Supposed to be a cross between the wild blackberry of California and the Crandall's Early. 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. Fruit very large, jet black, two inches long. A very superior berry.

THE DEWBERRY

The improved varieties of Dewberry or trailing blackberry are very popular. They are enormous croppers, produce fruit of the very best quality, which ripens fully two weeks earlier than any of the blackberries. Plants should be set four feet apart with rows six feet apart. When there is not sufficient rainfall to keep the vines in active growing condition, irrigation should be practiced. Immediately following the harvesting, all the old canes should be cut off, and the following spring, the new ones should be trained to a wire two feet from the ground. This method of trellising is the same as for the other varieties of trailing vines, except that the canes are trained within two feet of the ground.

DEWBERRIES GROWN FROM TIPS

	Each	Ten	One Hundred
Extra Selected...	\$.30	\$2.50	\$10.00

DEWBERRIES

Lucretia. A trailing variety of the blackberry, producing an abundance of large, glossy, black, handsome fruit of excellent quality; the fruit ripens early and the plant does not sucker.



Cory Thornless Blackberry. For size, bearing qualities and flavor, one of the best.



A Fig Orchard interplanted with Strawberries.

THE STRAWBERRY

Strawberries bear almost the entire year in the coastal sections of California, where cool, foggy weather prevails during the summer months.

In laying off the ground for strawberries the first essential is to grade the plot so it has a gradual fall, so that no part of the rows will become submerged in irrigating. There are a number of methods for laying out strawberry beds, but the one mostly followed by commercial growers is to plant in rows, hilled up and about 2 feet apart, with a ditch between for irrigation. Set the plants 18 inches apart in the rows. The best time to set the plants is late in the fall, after a heavy rain, or any time in the winter or early spring months. It is very important during the fruiting season to keep the plants in an active state of growth by irrigating, weeding, and cultivating. In order to obtain large, highly flavored fruit, pinch off the runners as fast as they appear, and this will cause the plants to stock out.

It is advisable to divide the bed into checks or divisions not to exceed 100 feet. This is very important, for when irrigating the water stands on the same level throughout the row and prevents damage to the berries and plants alike.

PRICES OF STRAWBERRIES

	Ten	One Hundred
Extra Selected	\$.30	\$2.00

VARIETY OF STRAWBERRY

Banner Strawberry. This truly wonderful variety is conceded to be the queen of the strawberry family. For California planting there is no variety that can equal it. The berry is firm, color deep red, very sweet in flavor and best of all a splendid keeper; abundant bearer and a long lived plant. It is the one desirable variety for home and commercial planting.

CURRANTS AND GOOSEBERRIES

Are usually planted in rows five feet apart; the plants standing three feet apart in the rows. They will not thrive in the hot interior valleys, being subject to sunburn. It is only practical to grow them in the coast counties, for here they attain perfection when they get the benefit of the cool, moist air from the ocean.

Prune in the winter, thinning out the new shoots when they are too thick and remove the old unfruitful wood. Thorough cultivation, but not too deep, is at all times advisable.

PRICES OF CURRANTS AND GOOSEBERRIES (Grown from Cuttings)

	Each	Ten	One Hundred
Extra Selected	\$.30	\$2.50	\$20.00

CURRANTS

Cherry. Fruit of the largest; bunches short, berries large, deep red.

Black Naples. A beautiful fruit, the finest and largest of all black currants; highly esteemed for jelly.

GOOSEBERRIES

Champion. A variety from Oregon, where it originated; fruit large, round; an immense bearer and entirely free from mildew.

Houghton. A vigorous grower; fruit medium size, roundish, inclining to oval; skin smooth, pale red; flesh tender, sweet and good; entirely free from mildew.

VEGETABLES AND ESCULENT ROOTS

ARTICHOKE

There are two distinct types. The one so much prized by epicures and which is so extensively grown in California, particularly in the suburbs of San Francisco, where it produces from early winter, and practically throughout the entire summer is the Globe Artichoke (*Cynara scolymus*).

PRICES OF ARTICHOKE

	Each	Ten	One Hundred
Plants	\$.30	\$2.50	\$20.00

JERUSALEM ARTICHOKE

The Jerusalem Artichoke (*Helianthus tuberosus*) different in its character of growth from the preceding, and will thrive in any well drained soil.

PRICE OF JERUSALEM ARTICHOKE

	Per Lb.	Per 100 Lbs.
Tubers	\$.25	\$10.00



An artistic grouping of Coniferous trees, and Broad-leaved Evergreens in the front of this striking home set off with Elms, Sycamores and Poplars in the rear, combine to make a most charming effect.

Ornamental Department

ORNAMENTAL PLANTING SUGGESTIONS

The Importance of a Working Plan. The proverb says that we should do our utmost to encourage the beautiful as the useful encourages itself. No stronger evidence of this could be supplied than that which shows a disregard for the beautification of the home grounds. Even a small garden should have a definite working plan, be it ever so simple, based on what the ultimate growth and development of the plant will reveal. No country in the world offers better natural advantages for the grower of ornamental trees and shrubs than California.

Home Grounds Adornment. No suburban home or farm can afford to be without a few trees and shrubs around the house. Money expended in this direction is well invested, not only from the fact of its creating pleasant surroundings, but because the beautifying of a place enhances its value. It is not so much the plants themselves which add to the beauty and picturesqueness of a garden, as it is the grouping of them to obtain results. Imitate nature, avoid having small beds with narrow walks with not enough of any one thing to bring out pleasing effects. Have a few open spaces planted to grass and obstruct the views of undesirable objects with tall growing shrubs and trees. It will repay the intending home maker who proposes to plant extensive grounds to engage a landscapist to draw the plans and select the plants. It is just as important to do this as it is to engage an architect to draw plans for a house.

The Proper Time to Plant. All varieties of deciduous trees should be planted in the dormant season from

December to April, just as soon as sufficient rain has fallen to soften the ground so that large enough holes can readily be dug to receive the roots. Evergreens transplant best from February to May, and in localities where there are no great extremes of heat during the summer months, planting may be continued to June. Palms can be safely transplanted from September until June of the following year.

How to Prepare and Plant. No matter how carefully a deciduous tree is taken up, there are always some roots which will be bruised or broken, and these should be cut off to smooth sound wood. All other roots should have a fresh cut made on them and shortened in so they will fit into the holes readily without doubling up. Before planting the ground should be thoroughly ploughed or spaded, and the holes should be dug sufficiently large to accommodate the roots without cramping. Far better to dig the holes too large and fill in with surface soil than to err by having them too small. It is a safe rule to set the trees a few inches deeper than they stood in the nursery rows.

Evergreens and Palms are always taken up with a ball of earth and should be handled with care so as not to break the balls. In planting the rope used in tying the sacking to the ball should be cut, but the sack can remain or be allowed to drop to the bottom of the hole. The earth around deciduous trees should be well tamped and in the case of evergreens it should be well tamped with a bar; avoid at all times tamping on the ball itself



The combination of Italian Cypress, Yews, Arbor Vitae and Japanese Cypress make a most pleasing entrance to this home.

as this will cause the soil to fall away, frustrating the very object of making the ball to begin with. After planting, water freely and the following day draw loose soil around the tree filling up the basin left for watering. When the growing season sets in, not less than ten gallons should be given to a tree at intervals of two weeks apart. With evergreens proper precautions should be taken to retain moisture in the ball of earth and it will be necessary to water more frequently. This can be determined by digging down, and feeling the ball; if it is dry and hard, water should be given immediately and be applied often enough to prevent a repetition of this condition. Never place manure or fertilizer of any kind in the holes, as the young and tender roots will be killed, and the plant otherwise injured, sometimes fatally.

Cultivation and After Care. Trees of all kinds require careful attention the first season after planting. The soil should be kept normally moist, and after each irrigation, well worked with a hoe or a spade. In the hot interior valleys where the heat is intense, partial shading by building a skeleton frame and covering with burlap will do much to insure evergreens growing and becoming established. Standard deciduous trees branching six to eight feet from the ground should have their bodies wrapped with burlap or paper the first and second years, to prevent sunburn.

Pruning Suggestions. As far as possible, trees and shrubs should be allowed to assume a natural form.

Nothing is more hideous than to see trees pruned to assume shapes and forms entirely foreign to them. In pruning the pre-dominant idea should be to retain the natural shape of the tree, cut off straggling branches, thin out the head where it becomes too dense and to remove dead wood. This applies to deciduous trees. In coniferous trees the branches should be allowed to touch the ground, removing none, except in such instances where there are two parallel leaders, when the weaker one should be cut out. Nothing is more unsightly than to see a majestic evergreen tree with the lower branches removed and exposing to sight an ugly gnarled trunk.

Specimen Trees for Quick Effects. Those who desire to obtain immediate results can do so by purchasing specimen trees. These are carefully selected and are well furnished with lateral branches. It very often happens that such trees are not listed in our price list, or we may have new varieties, which are not catalogued. Our assortment of large plants covers considerable range for a selection, hence we invite correspondence from intending planters. Specifications touching on size of grounds, situation and effect desired will assist in a proper selection and also the size of trees required.

New and Little Known Varieties. It is our constant endeavor to keep pace with the demand for all classes of ornamental stock adapted to California conditions, and we are continually introducing new varieties and eliminating undesirable sorts. Our many years of experience places us in a position to advise our customers intelligently as to what they should plant and what to avoid in their particular section. Our aim and constant effort is to grow stock of the highest quality. As a result of our efforts our Ornamental Department has become the largest and most complete in the West.

HOW PLANTS ARE HANDLED AND SOLD

Established. This means plants have been grown in open ground, transplanted into boxes in early fall and given special treatment until they have made new root growth, thereby becoming "established." This treatment is necessary and practiced only with evergreen trees and palms. Such plants are indicated in price list by giving the dimensions of the box in which they stand. For instance: "16x18 inch box, 6x7 ft." means that the plant is already dug and established in a box 16 inches square on top and 18 inches deep, inside measurement, and that the plant stands between six and seven feet tall measured from the top of the box.

Balled. Ordinary medium sized evergreens are dug with a proper sized ball of earth around the roots. This ball is tightly wrapped in burlap. In all cases and under all circumstances, plant burlap and all without even cutting the rope. Violation of this rule causes more loss of plants than any other one thing. After it is planted and the dirt packed down the rope attaching the top of burlap to trunk should be cut.

Naked Roots. All deciduous trees and shrubs grown in the open ground are dug with bare roots. Balling is unnecessary and of no benefit. There are a few minor unimportant exceptions and in such cases price list specifies "balled."

From Pots. In most instances pot grown stock is taken from the pots and the ball of earth and roots wrapped in burlap or paper. Remove the burlap before planting. Plants for house and conservatory culture, like ferns, house palms, etc., are ordinarily shipped in pots. Established and pot grown stock can be safely transplanted any time in the year; that in the open ground only during the fall and winter months.

Coniferous Evergreens

ABIES. Fir

The Firs as a class are marked by pronounced regularity and symmetry of growth. Branches are usually produced in tiers, and by side branching form wide, flat sprays. Outline usually elongated conical. Distinguished from Spruces (*Picea*) by the sessile (stemless) leaves, which ultimately fall away clean from the branches, leaving the latter perfectly smooth; and by the cones, which are always borne erect. These fall to pieces at maturity, leaving the slender, woody axis on the tree. About a third of all known species are native to the Pacific Coast region.

A. baborensis (*A. numidica*). ALGERIAN FIR. N. W. Africa. A very rare fir. Leaves blunt, set closely together, short, marked with two glaucous lines beneath; upper surface deep green, usually tipped with a single, short, glaucous line. Habit compact. Balled, 4 to 6 ft., \$8.00 each; 3 to 4 ft., \$6.00 each; 2 to 3 ft., \$4.50 each.

A. cephalonica. CEPHALONIAN FIR. Island of Cephalonia. A very beautiful species; broad for its height. Leaves are dark green above, silvery beneath, dagger-shaped and very acute, standing out from branches at right angles. Makes a fine specimen. Balled, 3 to 4 ft., \$6.00 each; 2 to 3 ft., \$3.50 each; 1½ to 2 ft., \$2.50 each.

A. cilicica. CILICIAN FIR. Asia Minor. Leaves narrow, flattened; dark glossy green above, silvery white beneath. Very hardy. Balled, 3 to 4 ft., \$6.00 each; 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$3.00 each.

A. concolor. WHITE FIR. Western North America. Very beautiful fir; conspicuous on account of its ashy gray, often nearly white bark. Growth very regular and symmetrical; sometimes open, often very compact. Leaves long and slender, light green, usually very glaucous. This is the Silver Fir so highly admired in the Yosemite and Sierra region generally. Very resistant to drought and heat. Balled, 6 to 7 ft., \$10.00 each; 4 to 5 ft., \$8.00 each; 3 to 4 ft., \$6.00 each.

A. firma. JAPANESE FIR. Japan. A stately tree of rapid growth. Branches stout but flexible. Leaves are long, flattened, glossy green above, paler underneath, usually forked at tips. Young growth light, yellowish green, making a pleasing contrast. A very ornamental and desirable Japanese species. Entirely distinct in appearance from all other firs. Boxed, 7 to 8 ft., \$14.00 each. Balled, 5 to 6 ft., \$10.00 each; 3 to 4 ft., \$6.00 each.

A. nobilis glauca. SILVERY RED FIR. A garden form of preceding with very glaucous foliage. In this climate it is a true dwarf, usually growing only three or four inches a year. Of great value for Japanese gardens. Balled, 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$4.00 each; 1 to 1½ ft., \$3.00 each.

A. nordmanniana. NORDMAN'S SILVER FIR. Caucasus. A majestic species; growth slow, but eventually becomes a large tree. Branches very widely spreading, so that a particularly good specimen should be as broad as it is tall. Leaves are flattened, not acute, dark green and glossy above, silvery underneath. The contrast in color between the old and new growths is most charming. One of the very best firs. Balled, 4 to 5 ft., \$8.00 each; 3 to 4 ft., \$6.00 each; 2 to 3 ft., \$5.00 each.

A. picea (*A. pectinata*). SILVER FIR. Europe. Of moderate growth, ultimately forming a large tree. Leaves are dark, glossy green above and silvery beneath. Somewhat resembles *A. nordmanniana*, but has shorter leaves, and usually of more open growth. Balled, 3 to 4 ft., \$6.00 each; 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$3.00 each.

A. pinsapo. SPANISH FIR. Spain. A magnificent tree, very regular and symmetrical in habit. Leaves rigid, acute, entirely surrounding the branchlets; often reflexed; upper surface glaucous, underlaid deep green, while the lower surface is marked with two conspicuous silvery lines. Well adapted to a warm climate. Balled, 2 to 3 ft., \$6.00 each; 1½ to 2 ft., \$5.00 each.



Araucaria excelsa (Norfolk Island Pine). As a decorative plant in the home or for the garden there are but few conifers which will compare with it.

ARAUCARIA. Bunya-Bunya Tree

Are massive evergreen trees belonging to the Southern Hemisphere. They are objects of great beauty, all of the species being of symmetrical habit, some varieties being exceptionally so. Producing large cones after the trees attain a considerable size, they attract much attention. All are desirable for large grounds and parks, and also as single specimen plants.

A. bidwilli. BUNYA-BUNYA. Australia. Beyond question this tree ranks among the very best conifers for California. Grows quickly and makes a large tree. Leaves are flat, sharp and dark, glossy green. Cones about the size and shape of a large pineapple. When young the tree is loose and open, but with growth becomes compact and extremely symmetrical. The lower branches on an old tree will strike the ground about ten feet from the trunk and then rise to a height of about three feet. Very desirable as a specimen tree and for grouping. Potted, 2 to 3 ft., \$6.00 each.

A. excelsa. NORFOLK ISLAND PINE. Norfolk Island. When well established this beautiful tree is perfectly hardy in this part of the State. The growth is absolutely symmetrical; branches growing in tiers, between which the trunk is perfectly bare. Leaves are small, awl-shaped and curved. Potted, 2 to 3 ft., \$7.00 each; 1½ to 2 ft., \$6.00 each.

A. imbricata. MONKEY PUZZLE. Well known tree of very unusual appearance. Trunk straight; coarse, blunt branches in regular whorls. Leaves short, broad, triangular; very sharp, overlapping like shingles, closely surrounding trunk and branches. Entirely unlike any other tree. Balled, 1½ to 2 ft., \$5.00 each.

CALLISTRIS

C. australis robusta. Eastern Australia. Tree erect with long, slender jointed branches, often with very minute, scale-like persistent leaves; fruit globular. Fine for specimen planting. Potted, 2 to 3 ft., \$1.50 each.

CEDRUS. Cedar

Although many conifers of various kinds have the name "Cedar" applied to them, the true Cedars are limited to three species, all natives of the Old World. There are no true Cedars native to North or South America. They are all magnificent, long-lived trees of noble appearance and readily distinguished by their needle-like leaves produced in bunches except on the young growing shoots, where they are scattered. Cones are borne erect and are very beautiful. Their beauty is emphasized when planted as single specimens on small lawns.

C. atlantica. MT. ATLAS CEDAR. North Africa. Large, pyramidal, open tree. Leaves very slightly glaucous. The hardiest species. Balled, 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$4.00 each.

C. atlantica glauca. BLUE MT. ATLAS CEDAR. A variety of *C. atlantica* with intensely glaucous or silvery leaves. When young, the growth is irregular and straggling, but later becomes symmetrical and compact. One of the most strikingly beautiful specimen trees in our collection. Grafted stock, balled, 4 to 5 ft., \$7.00 each; 3 to 4 ft., \$6.00 each; 2 to 3 ft., \$5.00 each.

C. deodara. DEODARA; INDIAN CEDAR. Himalaya Mts. This magnificent tree is a picture of grace and beauty. Pyramidal in general outline; the lower limbs lie on the ground, all the upper ones droop gracefully. The foliage of young trees is decidedly glaucous, but not so much so when older. Thrives to perfection in California. Balled, 5 to 6 ft., \$7.00 each; 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$4.50 each; 2 to 3 ft., \$3.50 each.

C. deodara verticillata glauca. A variety with light bluish leaves and stiffer growth. Retains its glaucous hue even when older. Its striking color, symmetrical growth, make it most desirable for grouping or as a single specimen. Balled, 4 to 5 ft., \$8.00 each; 3 to 4 ft., \$6.00 each; 2 to 3 ft., \$3.50 each.

C. libani. CEDAR OF LEBANON. Asia Minor. Vigorous growth; wide-spreading, horizontal branches; dark green foliage; massive and picturesque. Closely resembles *C. atlantica*, but grows slower and more compact. Balled, 1½ to 2 ft., \$3.00 each.

CEPHALOTAXUS

Commonly known as the "False Yew;" graceful trees of upright and columnar growth, resembling the Irish yew; leaves two inches long, heavy and of a deep green color, and marked with two silver lines beneath; these trees produce plum-like fruits in clusters. Admirable for individual planting on small places.

C. pedunculata fastigiata. KOREAN YEW. Entirely distinct from other Yews. Growth is very compact, upright and columnar like Irish Yew. Leaves larger, nearly two inches long, acute, deep glossy green above and marked with two broad, silvery lines beneath. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$2.50 each; 1 to 1½ ft., \$2.00 each.

C. fortunei. FORTUNE'S YEW. A dense shrub or bushy tree, largely used in grouping and rock work effects; branches produced in ringlets; leaves 2 to 3 inches long, bark green and lustrous; fruit about an inch long and of a greenish brown color. Valuable for planting in shady situations. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$2.50 each.

CHAMAECYPARIS

Trees valuable for garden and park purposes, and in the smaller sizes admirably adapted to porch and in-

terior decorations. The genus is closely allied to the Cypresses, hence more or less known as "Flat-branched Cypresses," as the branchlets are always arranged so as to lie in a plane. Cones are smaller than those of Cypress. Habit varies from almost dwarfs to very large trees.

C. lawsoniana. LAWSON CYPRESS; PORT ORFORD CEDAR. Oregon and California. A beautiful tree, native of this State; tall and slender except at base. Has elegant drooping branches and very slender, feathery branchlets. Foliage usually more or less glaucous. Tip of tree always droops. Balled, 3 to 4 ft., \$4.50 each; 2 to 3 ft., \$3.50 each; 1½ to 2 ft., \$2.00 each.

C. lawsoniana alumi. A variety of Lawson Cypress, of dense growth and columnar habit. Foliage very glaucous, with decidedly bluish metallic hue. Grafted stock, balled, 2 to 3 ft., \$6.00 each; 1½ to 2 ft., \$5.00 each.

C. lawsoniana argentea. SILVER LAWSON CYPRESS. A handsome type of a more globular form than the preceding; foliage dense and of a rich, silvery hue. Desirable as a single specimen plant for home lawns. Grafted stock, balled, 3 to 4 ft., \$8.00 each.

C. lawsoniana bowleri pendula. A dense, compact form with tips of the branchlets elongated and pendulous. Balled, 1½ to 2 ft., \$4.00 each.

C. lawsoniana erecta viridis. A remarkably handsome variety, differing in its color and compact growth. The branchlets all stand vertically and close together. The foliage is a clear rich green with no glaucous markings. Develops very symmetrically into a beautiful specimen for individual planting. Grafted stock, balled, 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$4.00 each.

C. lawsoniana filifera. Very distinct. It produces an abundance of long, slender, thread-like branchlets covered with minute, closely overlapping leaves. Growth quite erect; tips of branches somewhat drooping. Very graceful and handsome. Grafted stock, balled, 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$4.00 each.

C. lawsoniana filifera glauca. Produces an abundance of long, slender thread-like branchlets covered with minute, closely overlapping leaves. Only moderately glaucous. Growth quite erect; tips of branches somewhat drooping. Very graceful and handsome. Grafted stock, balled, 3 to 4 ft., \$6.00 each; 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$4.00 each.

C. lawsoniana glauca coerulea. Beautiful compact form with silvery foliage. Balled, 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$4.00 each.

C. lawsoniana lutea. GOLDEN CYPRESS. Grows very compact with elegant graceful foliage. Considered one of the best of the golden cypress. Balled, 1½ to 2 ft., \$4.00 each.

C. texana glauca. Forms a rather broad head; foliage brownish green; a very erect pyramidal grower. Balled, 3 to 4 ft., \$4.00 each; 2 to 3 ft., \$3.00 each.

CHAMAECYPARIS. Dwarf Types

Shrubs or very small trees of varying appearance, attaining only a few feet in height at maturity. Excellent for rockeries and miniature garden effects.

C. obtusa. JAPANESE CYPRESS. The famous miniature variety; horizontal branches with fern-like tufts of bright green and shining foliage. Balled, 1½ to 2 ft., \$6.00 each. Potted, 1 to 1½ ft., \$5.00 each.

C. obtusa compacta. THE COMPACT CYPRESS. Of dense habit, forming a dense shrub of deepest green. Grafted stock, balled, 2 to 3 ft., \$8.00 each; 1½ to 2 ft., \$6.00 each.

C. obtusa decussata. Shrub of very dense growth, after the style of *Cryptomeria japonica elegans*. Form nearly globular. Leaves needle-like, very silvery and assume bronzy winter tints. Balled, 2 to 3 ft., \$2.50 each.



Pines, Broad-leaved Evergreens and perennials are used to advantage in the creation of this beautiful garden.

C. obtusa ericoides. Similar to preceding, but with slightly narrower and longer leaves and of more compact growth. Summer color less glaucous; winter tints more pronounced. Balled, 3 to 4 ft., \$4.00 each; 2 to 3 ft., \$3.50 each; 1½ to 2 ft., \$2.50 each.

C. obtusa gracilis. The GRACEFUL CYPRESS. A handsome pyramidal type with beautiful green foliage evenly furnished over the plant, drooping in character and of good substance. Balled, 1 to 1½ ft., \$2.50 each.

C. obtusa gracilis aurea. SLENDER GOLDEN CYPRESS. Same as the preceding, only the foliage is a light clear yellow, ultimately turning to light green. Grafted stock, potted, \$6.00 each.

C. obtusa lycopodiodes. A novel and distinct variety; foliage dark green; plant of a loose, spreading habit. The beautiful tufted ends of branches resemble miniature cockscombs. Balled, 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$3.50 each.

C. obtusa nana. DWARF JAPANESE CYPRESS. The smallest of the species, rarely exceeding 2 feet in height; foliage dense and bright green. Grafted stock, potted, nicely furnished, \$6.00 each.

C. obtusa rosedale. A low growing variety with feathery bluish green foliage. Its fine habit makes it valuable for growing in tubs or for grouping compact. Balled, 1 to 1½ ft., \$3.00 each.

C. pisifera filifera. THREAD-BRANCHED CYPRESS. A remarkable dwarf tree with thread-like pendulous branches; foliage bright green. A remarkably decorative tree. Grafted stock, balled, 3 to 4 ft., \$4.50 each; 2 to 3 ft., \$3.50 each.

C. pisifera plumosa aurea. Low, compact tree of slow growth and regular outline. Foliage plummy, very graceful; tinged in spring with a golden hue. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$3.00 each.

C. pisifera plumosa viridis. Similar to preceding, but foliage is deep, attractive green. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$3.00 each.

CRYPTOMERIA

C. japonica. JAPANESE CEDAR. Large, elongated, pyramidal tree, with straight, slender, tapering trunk;

fern-like, upward spreading branches; the leading timber tree of Japan. A general favorite. Balled, 6 to 7 ft., \$8.00 each.

C. japonica elegans. Botanically a variety of the foregoing, but so very distinct that the relationship is difficult to recognize. Foliage fine and feathery, but very dense and compact; in summer a rich green, but changes to purplish bronze in winter. A very handsome small tree. Balled, 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$3.50 each.

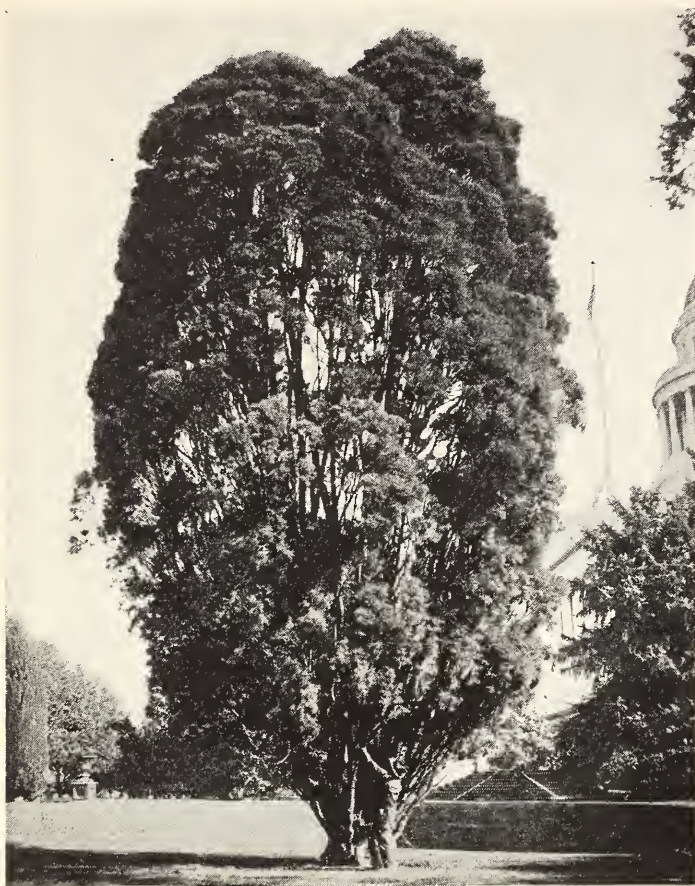
CUPRESSUS. Cypress

A genus of evergreen trees popular throughout California, finding a wide use as wind-breaks, hedges or as specimen trees in parks and gardens. Among the species our native Cypress (*C. macrocarpa*) is more widely used than any other kind. Growth mainly erect. Foliage consists of very small, overlapping, scale-like leaves. Cones nearly globular.

C. arizonica. ARIZONA CYPRESS. Handsome tree with brilliant, silvery blue foliage. Growth rather compact with somewhat stout branches. Bark red. Similar to Guadalupe Cypress in color, but more compact and with straighter, more ascending branches. Grafted stock, balled, 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$4.00 each. Potted, 1½ to 2 ft., \$1.00 each.

C. glabra. SMOOTH CYPRESS. It is certainly deserving of the name "Smooth." A very strong grower, of graceful pyramidal habit and very compact; foliage fern-like and feathery; very distinct and steel blue. Balled, 4 to 5 ft., \$5.00 each; 3 to 4 ft., \$4.00 each; 2 to 3 ft., \$3.00 each.

C. guadalupensis glauca. BLUE GUADALUPE CYPRESS. In its form, very rapid growth and other respects, except color, this splendid tree is quite similar to Monterey Cypress; but the foliage is an intense silvery blue. Seedlings vary decidedly, but our stock is always grafted to insure maintenance of the rich color. Grafted stock, balled, 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$4.00 each.



Cupressus guadalupensis glauca with its glaucous green foliage and branches like burnished mahogany makes a most beautiful specimen tree.

(CUPRESSUS) Continued

C. lusitanica. PORTUGAL CYPRESS. A very handsome, low growing tree; foliage glaucous adpressed to the branches, which are spreading and numerous; a very handsome species. Balled, 5 to 6 ft., \$6.00 each; 4 to 5 ft., \$5.00 each; 3 to 4 ft., \$4.00 each.

C. macnabiana. MENDOCINO CYPRESS. California This tree forms a dense, bushy pyramidal head, and has the reputation of being the hardiest of the genus; foliage deep green, with a rich glaucous tint. Grafted stock, balled, 6 to 7 ft., \$6.00 each.

C. macrocarpa. MONTEREY CYPRESS. California The well known native cypress tree, reaching a picturesque perfection along the coast of Monterey Bay. One of the best shelter trees on sea sands, naturally following the coast line. Can be trimmed for hedges for tall enclosure lines, for which it is widely used in California; the wood is pleasantly scented. Does well in all sections of the Pacific Coast. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each. Potted, 2 to 3 ft., 50c each. Seedlings in flats, 8 to 12 inch plants, \$5.00 per hundred.

C. macrocarpa lutea. GOLDEN MONTEREY CYPRESS. A very beautiful golden-hued variety of the Monterey. Color especially pronounced in spring and held fairly well through the year. Grafted stock, balled, 4 to 5 ft., \$5.00 each; 3 to 4 ft., \$4.00 each.

C. macrocarpa variegata. VARIEGATED MONTEREY CYPRESS. The variegation is very plentiful all over the tree. The creamy yellow markings mixed with the green make this a very striking specimen. Grafted stock, balled, 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$5.00 each.

C. sempervirens fastigiata. ITALIAN CYPRESS. Europe and Asia. A tall, very slender, tapering tree with strict branches lying close to the stem; much esteemed for lining drives and landscape work. Balled, 6 to 7 ft., \$6.00 each; 4 to 5 ft., \$4.00 each; 3 to 4 ft., \$3.00 each. Potted, 2 to 3 ft., \$1.25 each.

GINKGO. Maiden Hair Tree

G. biloba (*Salisburia adiantifolia*). One of the most remarkable trees in cultivation. Allied to the conifers and has the regular outline of a fir. Leaves are fan-shaped, clear green during summer and changing to a clear, soft yellow in the fall. Apparently extinct except in cultivation. Has been preserved from antiquity in grounds about the temples of China and Japan. Bare root, 3 to 4 ft., \$1.50 each; 2 to 3 ft., \$1.25 each.

JUNIPERUS. Juniper

Mainly small trees of rather slow growth. They have two kinds of foliage. One is needle-like, prickly, in whorls of three; the other scale-like, overlapping and arranged in four rows like those of Cypress, which they often closely resemble. Most species show both kinds of leaves on the same tree; others are limited to but one form. Fruit is a berry.

J. chinensis argentea variegata. VARIEGATED JAPANESE JUNIPER. A very beautiful and ornamental variety adapted to wide uses in garden adornment and porch decoration. Of somewhat spreading habit and of easy culture. Grafted stock, balled, 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$4.00 each.

J. chinensis fortunei. ROUND FRUITED JUNIPER. Northern China. A bushy tree with closely set upright branches; foliage dark green. A hardy species. Grafted stock, balled, 4 to 5 ft., \$5.00 each; 2 to 3 ft., \$4.00 each.

J. chinensis pendula. WEEPING JAPANESE JUNIPER. A very handsome form. Growth erect, but the spreading branches all droop at the tips, giving the tree a decidedly graceful appearance. Grafted stock, balled, 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$4.00 each.

J. chinensis pfitzeriana. PFITZER'S JUNIPER. A new and very graceful variety. Develops a large number of long, slender, tapering shoots clothed with fine sage green foliage. Most of the leaves are minute and scale-like, but with here and there a few very silvery ones of the needle form. In all one of the most highly desirable Junipers. Balled, 3 to 4 ft., \$7.00 each; 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$3.50 each.

J. chinensis procumbens. CREEPING JAPANESE JUNIPER. Foliage grayish green; stems elongated with numerous short branchlets, affording a wide and low spread over the ground; a dense grower and as a ground cover is very desirable. Sizes are determined by spread and not height. Grafted stock, balled, 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$3.50 each; 1 to 1½ ft., \$2.50 each.

J. communis depressa. A handsome low growing juniper, attaining a spread of 12 to 15 feet. An invaluable ground cover. Beautiful silvery bluish-green foliage. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$3.00 each.

J. communis hibernica. IRISH JUNIPER. A distinct and beautiful variety of slender, erect, dense, columnar growth. Foliage very glaucous. Very useful where a tree is needed shaped like Italian Cypress, but of slower and smaller growth. Balled, 2 to 3 ft., \$3.00 each; 1½ to 2 ft., \$2.00 each.

J. excelsus stricta. UPRIGHT JUNIPER. Asia Minor. This variety differs from the type, principally in having a more tapering outline; foliage decidedly glaucous, giving a distinct grayish aspect; a pretty species deserving a place in home grounds. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$2.50 each.

J. libretonia. A compact pyramidal form with ascending branches and silvery blue foliage. Balled, 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$4.00 each.

J. sabina tamariscifolia. The TAMARISK LEAVED JUNIPER. Southern Europe. A very ornamental, low-growing, densely branched, trailing species; has a neat

habit of growth; foliage bright, and of a pleasing, feathery character. An excellent plant for rock work, banks, etc. Balled, 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$3.50 each.

J. virginiana. VIRGINIA RED CEDAR. Virginia. A well known ornamental tree, usually a pyramidal form, and having a beautiful bright red heart wood; foliage beautiful bronze green. Balled, 3 to 4 ft., \$4.00 each; 2 to 3 ft., \$3.00 each; 1½ to 2 ft., \$2.00 each.

J. virginiana glauca. BLUE VIRGINIA CEDAR. A very glaucous form of the so-called Eastern "Red Cedar." The silvery color is quite pronounced and its habit graceful and pleasing. Very handsome tree. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$3.00 each.

J. virginiana keteleeri. Compact pyramidal form with ascending branches and dark green scale-like foliage. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$3.00 each.

KETELEERIA

K. davidiana. Tall tree of pyramidal habit when young; in old age with a broad-topped head; leaves similar to those of the firs, but lighter green. Balled, 6 to 8 ft., \$6.00 each; 3 to 4 ft., \$5.00 each.

LARIX. Larch

L. leptolepis. JAPANESE LARCH. Japan. A very handsome species. Branches spread horizontally, forming pyramidal head. Foliage soft bluish green. Branchlets yellow. A very handsome lawn tree. Potted, 2 to 3 ft., \$2.00 each.

LIBOCEDRUS

A group of American evergreen trees resembling somewhat the arborvitae. Popular for home grounds adornment and for garden and park purposes; foliage much like Thuya (Arbor Vitae). The native species is one of our handsomest conifers.

L. chilensis. CHILEAN CEDAR. Tree of spreading but compact growth. Foliage glaucous green, marked with silvery lines beneath. A very graceful, attractive tree. Balled, 1½ to 2 ft., \$3.00 each.

L. chilensis viridis. A variety of the preceding with a more feathery foliage of a bright green color and branches devoid of glaucous bands. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$3.00 each.

L. decurrens. INCENSE CEDAR. WHITE CEDAR. California and Oregon. A noble tree of vigorous, close growth and conical outline. Branches are spreading and ascending, clothed with compact, bright, glossy green foliage. Easily among the best of our specimen trees. Balled, 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$4.00 each.

PICEA. Spruce

Symmetrical trees of straight, upright growth, with branches produced in whorls. Often confused with the Firs, from which they can very easily be distinguished by their leaves, which are borne on a very short leaf stock instead of directly on the branch, as is the case with Firs. When the leaves finally drop the little stalks remain on the limbs, giving them a bristly appearance. Cones are always pendant instead of erect and do not fall to pieces. Of great importance both economically and horticulturally.

P. alba coerulea. A silvery blue form of the White Spruce. Growth and general appearance like Norway Spruce, but entirely different in color, and bears very small cones. Not as silvery as Colorado Blue Spruce,



Chamaecyparis lawsoniana alumi. Very pleasing with its bluish-green foliage and columnar habit.

but of much quicker growth. Balled, 4 to 5 ft., \$6.00 each.

P. breweriana. WEEPING SPRUCE. A very rare and most beautiful spruce native to the mountainous regions of southern Oregon and northern California. Of very erect growth, but the horizontal branches with their long, slender pendulous branchlets give the tree a most decided weeping effect; the leaves are slightly curved, dark green with white lines above. Balled, 1 to 1½ ft., \$5.00 each.

P. douglasi. DOUGLAS SPRUCE. OREGON PINE. Pacific Coast. Excepting the Sequoias, our most gigantic native tree. Growth erect and very rapid. Very symmetrical. Foliage very soft and rich, dark green. Yields the valuable timber known as Oregon Pine. Balled, 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$4.00 each.

P. excelsa. NORWAY SPRUCE. Europe. A compact, symmetrical tree; the branches assuming a graceful, drooping habit with age. Cones very large. Foliage light green in this climate. Extremely hardy and of rapid growth. The original Christmas tree of northern Europe. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$2.50 each.

P. excelsa pendula. WEEPING NORWAY SPRUCE. A variety with decidedly drooping branches. Growth is very irregular and picturesque. Balled, 3 to 4 ft., \$5.00 each.

P. polita. TIGER TAIL SPRUCE. Japan. A distinct Japanese species. It is of erect habit and has sharply pointed, very rigid, bright green leaves, contrasting beautifully with the yellow branches. Excellent specimen tree for a lawn. Balled, 4 to 5 ft., \$7.50 each; 3 to 4 ft., \$6.00 each; 2 to 3 ft., \$5.00 each.

P. pungens. COLORADO SPRUCE. Western United States. Regular, compact, pyramidal tree, with stout, horizontal, bright yellowish brown branches. Leaves rigid, very acute, varying from green to silvery white.



Sequoia gigantea (Big Tree) has a distinctiveness of its own as will be observed in this picture.

Specimens having the silvery hue well developed are considered to belong to the following variety. Balled, 4 to 5 ft., \$7.50 each; 3 to 4 ft., \$6.00 each.

P. pungens glauca. COLORADO BLUE SPRUCE. A form of preceding with intensely glaucous, silvery foliage. As a lawn tree it is unsurpassed for distinctiveness and beauty. Balled, 4 to 5 ft., \$8.00 each; 3 to 4 ft., \$7.00 each.

P. smithiana (*P. morinda*). Himalaya Mountains. Handsome species of very distinct habit. The main trunk grows upright; the branches slope downward, the branchlets droop very decidedly. The leaves are closely set, very long, slender and very soft, not at all rigid. Possesses decided individuality and great beauty. Balled, 3 to 4 ft., \$6.00 each.

PINUS. Pine

Pines find wide uses in California, being a conspicuous feature in private grounds, in public parks, for forest plantings, windbreaks and avenue uses. All the varieties are of comparatively easy culture and under ordinary conditions make a satisfactory growth. Pines are all characterized by needle-like leaves in bundles of from two to five. Many are excellent specimen trees, others, especially useful where a considerable area is to be covered.

P. canariensis. CANARY ISLAND PINE. Easily one of the most beautiful pines. The extremely long leaves, eight to twelve inches in length, are gathered into large tufts all over the tree, giving it decided individuality. New growth on small branches is silvery white in young trees. Vigorous and thrives perfectly under our conditions. Balled, 7 to 8 ft., \$8.00 each; 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$4.00 each; 2 to 3 ft., \$2.50 each.

P. excelsa. BHOTAN PINE. Himalayas. A magnificent tree; branches spreading, slender, flexible and regularly whorled; needle-like leaves in fives, grayish or bluish green, 5 to 7 inches long; cones pendulous, 7 to 9 inches long; unexcelled as a specimen plant on lawns and fine for grouping in parks and gardens. Balled, 2 to 3 ft., \$3.50 each; 1½ to 2 ft., \$2.50 each.

P. halepensis. ALEPPO PINE. Western Asia. Growth very rapid; habit spreading. Leaves medium length, light yellowish green. Succeeds admirably in California. Balled, 4 to 5 ft., \$3.00 each; 3 to 4 ft., \$2.50 each; 2 to 3 ft., \$1.50 each.

P. mughus. MUGUS DWARF PINE. Central Europe. Desirable for small home grounds, rockeries, etc. A densely branched tree, upper branches erect, lower ones generally decumbent; leaves dark green and stiff, about 2 inches long; cones usually in pairs, small, about 1½ inches long. Balled, 1 to 1½ ft., \$2.50 each.

P. nigra austriaca. AUSTRIAN PINE. Southern Europe. A robust, hardy, spreading tree with stout, blunt branches and stiff, very dark green leaves. Balled, 3 to 4 ft., \$3.00 each; 2 to 3 ft., \$2.50 each.

P. pinea. ITALIAN STONE PINE. Southern Europe. Of slow growth, delighting in a deep, sandy, dry soil. Very symmetrical and compact. With age it forms a flat, parasol-like head. Foliage deep green, presenting a striking contrast to that of the young growth, which is silvery blue. Balled, 3 to 4 ft., \$3.50 each; 2 to 3 ft., \$2.50 each.

P. ponderosa. WESTERN YELLOW PINE. Western United States. A tree with stout, spreading branches, forming a narrow, spire-like head. Leaves long, acute, dark green. One of the most important pines of the Western States. Balled, 2 to 3 ft., \$2.50 each; 1½ to 2 ft., \$1.50 each.

P. radiata (*P. insignis*). MONTEREY PINE. Central California. Our well known native variety. The most handsome of the genus. Growth upright and extremely rapid, probably more so than any other pine. Balled, 4 to 5 ft., \$4.00 each; 3 to 4 ft., \$2.50 each; 2 to 3 ft., \$1.50 each. Potted, 1½ to 2 ft., 75c each.

P. sylvestris. SCOTCH PINE. Scotland. This is one of the chief timber trees of Europe and often planted as a screen in sand-dune regions to prevent drifting; leaves dense, of a glaucous color, from 1½ to 2 inches long; cones solitary, 2 or 3 together, about 2 inches long. Fine for grouping and backgrounds. Balled, 3 to 4 ft., \$3.00 each; 2 to 3 ft., \$2.50 each.

SEQUOIA

Our wonderful native genus of only two species, found no where else in the world. Remarkable for their vast size, longevity and resistance to fire. Admirable where columnar effects are desirable and as specimen trees in parks and on private estates where ample space is afforded for their massive development. Do well in all portions of the State, and especially along the mountain plateaus and in the costal region.

S. gigantea. CALIFORNIA BIG TREE. Has a straight, erect trunk, with thickly furnished branches, which at first are ascending, but in time curve downwards. The leaves are spirally arranged around the branchlets and are glaucous, light green. Very handsome for a large lawn. When given plenty of room, the branches are retained from the ground up and form a very regular, beautiful, conical outline. The popular opinion that this is a tree of slow growth is decidedly erroneous. Boxed, 7 to 8 ft., \$12.00 each; 5 to 6 ft., \$10.00 each; 4 to 5 ft., \$8.00 each; 3 to 4 ft., \$6.00 each.

S. gigantea glauca. DWARF BIG TREE. A variety of above, of very much slower growth and bluish green foliage. Very slender. Potted, 1½ to 2 ft., \$5.00 each.

S. gigantea pendula. WEEPING BIG TREE. An extremely peculiar form of the Big Tree, showing how widely plants will sometimes vary from type. The foliage is identical, but the limbs grow directly downward and are pressed close to the trunk, giving a narrow, erect form similar to that of Italian Cypress, but less formal. Grafted stock, potted, 1 to 1½ ft., \$6.00 each.

S. sempervirens. CALIFORNIA REDWOOD. A valuable ornamental tree, of rapid growth and of tapering pyramidal habit. Does remarkably well in all parts of California and makes a beautiful avenue or specimen tree. Branches stand out horizontally from the main stem, the lower ones hanging down gracefully and inter-

mingling. Leaves dark green with two pale bands beneath. It finds great favor in Europe and should be more widely used in California. Balled, 4 to 5 ft., \$5.00 each; 3 to 4 ft., \$4.00 each. Potted, 2 to 3 ft., \$2.50 each.

S. sempervirens glauca. BLUE REDWOOD. A variety having foliage with a decidedly bluish cast, but otherwise identical with *S. sempervirens*. Balled, 3 to 4 ft., \$5.00 each.

TAXODIUM

T. distichum. BALD CYPRESS. Southern U. S. A deciduous conifer. The famous Knee Cypress of the South. Tall tree of regular and symmetrical growth. Foliage somewhat similar to Redwood, but more delicate, soft, and feathery and very light green. Particularly striking in the fall, when leaves slowly turn brown before the branchlets fall off. Although native to very moist, swampy regions, it does well in California. Potted, 1½ to 2 ft., \$2.50 each.

T. mucronatum. MONTEZUMA CYPRESS. Mexico. General appearance very similar to the better known "Bald Cypress" (*T. distichum*) of the Gulf region. This variety carries its foliage all winter. Very delicate and graceful with fine, soft green foliage. Very beautiful and thrives well in California. Potted, 1½ to 2 ft., \$4.00 each.

TAXUS. Yew

Valuable for planting in formal gardens and as specimen trees on a lawn; useful for decorative purposes on porches, verandahs, pergolas, etc. The Yews have branches much subdivided, clothed with dark green shining persistent leaves in two lateral double rows, sometimes more or less scattered, especially in some varieties. Yews are held in high esteem by all lovers of coniferous trees.

T. baccata. ENGLISH YEW. Europe and North Africa. Tree or large shrub of slow growth and very bushy head, densely branched and thickly covered with somber green leaves. Can be trimmed into any shape. Balled, 4 to 5 ft., \$10.00 each; 3 to 4 ft., \$8.00 each; 2 to 3 ft., \$6.00 each.

T. baccata elegantissima. ELEGANT VARIEGATED YEW. Brilliantly variegated. In spring it is covered with almost solid, golden yellow. This becomes less pronounced later, but every leaf always shows the creamy variegation. Growth is slow, compact and erect. Very fine. Balled, 4 to 5 ft., \$10.00 each; 3 to 4 ft., \$8.00 each; 2 to 3 ft., \$6.00 each.

T. baccata erecta. ERECT YEW. Variety of compact, erect growth, similar to that of Irish Yew. Differs in its more rapid growth, smaller leaves and slightly lighter color. Does not bear berries. Balled, 4 to 5 ft., \$12.50 each; 3 to 4 ft., \$10.00 each; 2 to 3 ft., \$6.00 each.

T. baccata erecta aurea. GOLDEN ERECT YEW. Identical with the preceding in every respect except the brilliant golden-hued foliage. Its form and color make it a most striking and effective plant. Balled, 3 to 4 ft., \$8.00 each; 2 to 3 ft., \$6.00 each; 1½ to 2 ft., \$4.00 each.

T. baccata fastigiata. IRISH YEW. Peculiarly upright in growth, resembling a bundle of closely packed branches. The foliage is of the darkest hue, and the whole plant appears like a deep green column. Bears conspicuous red berries. Balled, 3½ to 4 ft., \$15.00 each; 3 to 3½ ft., \$12.00 each; 2½ to 3 ft., \$8.00 each; 2 to 2½ ft., \$7.50 each.

T. baccata fastigiata variegata. VARIEGATED IRISH YEW. Has the same remarkable form and habit as the Irish Yew, but in the spring the foliage has the most intense golden hue that can be imagined. This becomes creamy as the season advances, but is always very pronounced. Very rare and easily one of the most remarkable conifers in our collection. Balled, 4½ to 5 ft., \$20.00 each; 4 to 4½ ft., \$15.00 each; 3 to 3½ ft., \$12.00 each.

T. baccata washingtoni. WASHINGTON GOLDEN YEW. A form of the English Yew and of similar growth, but with golden variegated leaves. Habit bushy. Very distinct and handsome. Balled, 6 to 6½ ft., \$14.00 each; 5 to 6 ft., \$12.00 each; 4 to 5 ft., \$8.00 each; 3 to 4 ft., \$6.00 each.

T. cuspidata. JAPANESE YEW. Japan. Although a distinct species, it is quite similar to English Yew. Probably grows a little faster; leaves broader and sharp pointed. Bark reddish. Inclined to grow rather broad and therefore useful for grouping. Balled, 5 to 6 ft., \$10.00 each; 4 to 5 ft., \$8.00 each; 3 to 4 ft., \$6.00 each.

T. repandens. A low dense shrub of spreading habit; foliage dark, shining green. Splendid hardy species for rockeries and miscellaneous plantings. Balled, 3 to 4 ft., \$7.00 each.

THUYA. Arbor Vitae

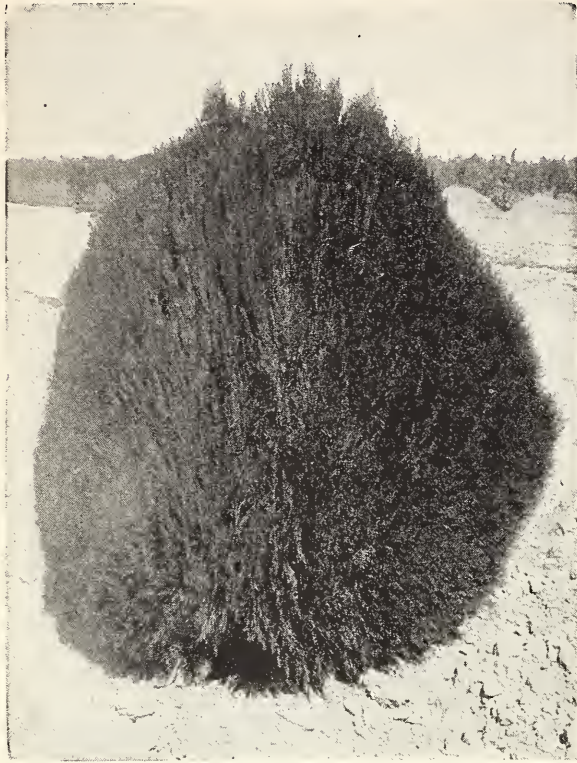
A group of very useful, hardy evergreens, thriving in a wide variety of soils and exposures. Many of the formal sorts are successfully used in producing architectural effects and in geometric gardening; as tub plants they are durable and attractive. They comprise species of varying growth and appearance, but most are inclined to be compact and of symmetrical shape. Branchlets are usually flattened, with leaves overlapping like scales. Cones very small.

T. gigantea (T. lobbi; T. plicata). GIANT ARBOR VITAE. Pacific Coast. One of our splendid native conifers. In fairly young trees the lower branches are very long in proportion to height and upper half of tree is extremely slender. With age it becomes more columnar, as the lower branches do not maintain their growth. Attains height quite rapidly. Balled, 3 to 4 ft., \$4.50 each; 2 to 3 ft., \$3.00 each; 1½ to 2 ft., \$2.00 each.

T. gigantea aurea. GOLDEN GIANT ARBOR VITAE. Identical with preceding except foliage strongly marked



Taxus baccata fastigiata. This and other members of this family are most stately trees.



Thuya orientalis. Very desirable conifer as a single specimen or for use in formal gardens.

(THUYA) Continued

with yellow. Balled, 3 to 4 ft., \$4.50 each; 2 to 3 ft., \$3.50 each; 1½ to 2 ft., \$2.50 each.

T. lobbi gracilis aurea. THE GRACEFUL ARBOR VITAE. Very distinct, small, of fairly loose spreading habit. The golden tipped branches are fine and delicately pendulous. Grafted stock, balled, 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$3.50 each.

T. occidentalis. AMERICAN ARBOR VITAE. A tree of varying heights; foliage bright green, yellow green beneath. Valuable as a tub plant and as specimens in formal gardening. Balled, 2 to 3 ft., \$3.00 each; 1½ to 2 ft., \$2.00 each.

T. occidentalis globosa. GLOBE ARBOR VITAE. A dwarf, dense, globular bush, resembling the type except in size. Balled, 1½ to 2 ft., \$2.00 each.

T. occidentalis pyramidalis. THE PYRAMIDAL ARBOR VITAE. Columnar upright habit; green cedar-like foliage. Especially desirable where striking formal effects are essential; one of the hardiest. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$3.00 each.

T. occidentalis wareana. SIBERIAN ARBOR VITAE. A very distinct form of nearly globular shape when young. Foliage an unusual shade of sage green. Very compact, regular and handsome. Balled, 2 to 3 ft., \$2.00 each.

T. orientalis. CHINESE ARBOR VITAE. Asia. Compact, bushy, small tree. Branchlets stand edgewise to the trunk. Foliage bright, pleasing green; bronzy during winter. Balled, 2 to 3 ft., \$3.00 each; 1½ to 2 ft., \$2.00 each.

T. orientalis aurea berckmanniana. BERCKMAN'S GOLDEN ARBOR VITAE. Dwarf, compact shrub; bright yellow foliage retaining its wonderful color and form under all conditions; well adapted to garden and porch ornamentation. We recommend this variety highly on account of its striking appearance. Grafted stock, balled, 1 to 1½ ft., \$2.50 each.

T. orientalis aurea conspicua. Very erect, with intense, golden foliage, partly suffused with green. Balled, 1 to 1½ ft., \$3.00 each.

T. orientalis aurea nana. DWARF GOLDEN ARBOR VITAE. Compact and symmetrical, branchlets flattened tips, retain their golden tint throughout the year; plant dwarf in habit. Desirable for lawn and porch decoration; popular and one of the best hardy evergreens. Balled, 1 to 1½ ft., \$3.00 each.

T. orientalis compacta. COMPACT ORIENTAL ARBOR VITAE. Of compact habit, rather dwarf, with bright green foliage. Formal and attractive, hence popular everywhere. Grafted stock, balled, 1½ to 2 ft., \$3.00 each.

T. orientalis compacta aurea. DWARF GOLDEN TYPE. A compact, dwarf variety with golden foliage. Desirable for low growing effects. Balled, 1 to 1½ ft., \$3.50 each.

T. orientalis filiformis stricta. JAPANESE ARBOR VITAE. So distinct from other forms of Chinese Arbor Vitae that it might be taken for another species. Without any training it assumes a dense globular form. Foliage light green and thread-like. Entirely unique. Grafted stock, balled, 2 to 3 ft., \$3.50 each; 1½ to 2 ft., \$2.50 each.

T. orientalis pyramidalis. An upright grower of columnar habit. Foliage light green, very desirable for formal effects. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$3.00 each.

T. orientalis semperaurescens. EVERGOLDEN CHINESE ARBOR VITAE. A compact variety of globular form and dwarf habit, retaining its very pronounced golden tint throughout the year. Balled, 1 to 1½ ft., \$2.50 each.

TORREYA

T. californica. CALIFORNIA NUTMEG; TUMION. A rare native tree with spreading branches usually in whorls. Leaves long, straight, feathered and very acute. Named from the peculiar form and appearance of the fruit. Potted, 1½ to 2 ft., \$2.50 each.



Thuya occidentalis pyramidalis. A popular Conifer in the East, and bound to find favor here due to its dark green foliage and pyramidal habit.



The planting of the grounds around this home aptly illustrate the pretty effect secured by the use of Spiraeas, Conifers, Broad-leaved Evergreens and Climbers.

Broad-Leaved Evergreens

No country in the world offers better natural advantages for the grower of ornamental trees and shrubs than California. With a variety of climates embraced in a limited area from the torrid heat of the Colorado desert to the balmy and equable climate of the southern coast counties, thence extending to the far northern counties, with their abundant supply of rainfall during the winter months, conditions prevail in which nearly every variety of tree or plant from the temperate and tropical zones finds surroundings and soils conducive to successful culture. California people are lovers of trees and are becoming impressed with the advantages which nature has bestowed upon them so bountifully, hence there is a steady and increasing demand for the very best that can be obtained in ornamental stock.

We group what are ordinarily called "Broad-Leaved Evergreens" to distinguish them from conifers. They vary in size from the largest trees to the smallest shrubs, but all included here are hard-wooded plants. Balled plants, and also those from pots, are shipped with the earth wrapped in burlap. Do not remove it. Plant burlap and all, cutting the top string, but allow the burlap to remain, otherwise the ball might break, causing the loss of the plant; to this rule there are no exceptions. Where the soil is exceptionally coarse and of a very sandy nature it often happens that the water will seep away from the heavy soil composing the ball, and the plant, after a few months, shows evidence of drought; in such cases examine the ball carefully and if hard and dry break into it with some sharp instrument and then water freely, being sure that all the soil has become saturated. For planting instructions see introductory pages.

The letter "S," where it follows the name of variety, means that the plant does not attain any greater size than that of a shrub, while "T" means tree-like.

ABELIA

A. grandiflora (S). A garden hybrid. Free-flowering shrub with small, opposite, glossy green leaves. Flowers are tubular, almost an inch long, white flushed lilac pink. The large, ruddy sepals remain after the flowers fall, adding to the showy effect. Blooms profusely and continuously all summer. A very fine shrub. Balled, 3 to 4 ft., \$3.00 each; 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each.

ABUTLION. Flowering Maple

Boule de Neige. Pure white. Very free blooming. In 4-inch pots, 50c each.

Fireflame. Bright red, large flowers. In 4-inch pots, 50c each.

Variiegated. Orange yellow, veined red; a distinct species. In 4-inch pots, 50c each; in 6-inch pots, 75c each.

ACACIA

Flowering trees or shrubs of widely varying habit, appearance and foliage. Flowers are always some shade of yellow, ranging from deepest golden or orange to nearly white. Leaves are either bipinnate (feathery) or reduced to phyllodia (blade-like); in the latter case they vary from minute to very large, in some species



Acacia longifolia. A most valuable shade tree and excellent for grouping.

attaining to as much as a foot in length. All the following species are native to Australia except where otherwise stated. Many varieties are admirably adapted to street and avenue planting, especially where quick effects are a consideration.

A. armata. KANGAROO THORN (S). Spreading shrub with long, slender branches. Foliage deep green, leaves (phyllodia) small and undivided. A small, sharp thorn at each leaf. Flower heads light yellow, borne all along the branches. Makes a very graceful plant. Potted, 1½ to 2 ft., 75c each.

A. baileyana (T). One of the very best. Growth extremely rapid when planted out. The whole tree is intensely glaucous throughout the year. Leaves feathery and finely divided. Flowers borne in racemes, are produced in midwinter in the utmost profusion, deep golden yellow. A magnificent species. Potted, 3 to 4 ft., \$1.25 each; 2 to 3 ft., 90c each.

A. cultriformis (S). Tall shrub with long, willowy, yellow branches. Leaves small, undivided, acute and very glaucous. A very heavy bloomer, with flower heads in clusters and all along the branches; deep golden yellow. Blooms early. Potted, 3 to 4 ft., 80c each; 2 to 3 ft., 60c each.

A. dealbata (*A. mollissima*). SILVER WATTLE (T). Probably the most popular Acacia in California. Highly prized for its wonderful freedom of bloom in late winter or early spring. Foliage is feathery and varies from silvery to green. Flowers are clear yellow, very fragrant and borne in clustered racemes in utmost profusion, practically covering the tree. When young its growth is almost unbelievably rapid, forming quite a good-sized tree in two or three years. Potted, 4 to 5 ft., \$1.00 each; 3 to 4 ft., 75c each; 2 to 3 ft., 60c each.

A. decurrens. BLACK WATTLE (T). A fine tree of large size and rapid growth, with broad, round head. Leaves feathery, rich deep green. Flowers are pale yellow or creamy and quite fragrant. Has the unusual habit of blooming twice a year; the first crop does not come until long after *A. dealbata* is out of bloom. Potted, 4 to 5 ft., \$1.00 each; 3 to 4 ft., 80c each.

A. juncifolia (*A. pinifolia*). BROWN LEAVED ACACIA (S). Shrub or small tree of spreading habit and branches glabrous green, thread-like; foliage about 5 inches long and narrow; flowers yellow in numerous pairs. An interesting sort for ornamental planting. Potted, 2 to 3 ft., \$1.00 each.

A. linearis (S). A straggling shrub with leaves as long and slender as pine needles and from six to twelve inches long; flowers golden yellow on a loose slender spike. Has a character all of its own. Excellent for grouping among the taller growing types. Potted, 2 to 3 ft., 75c each.

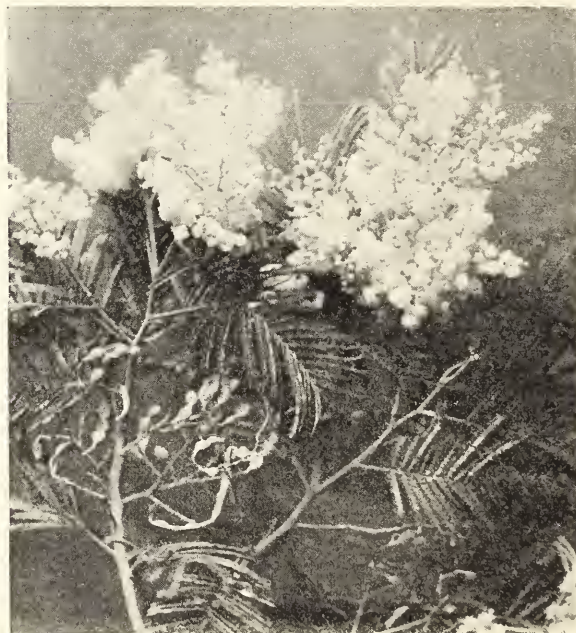
A. longifolia (*A. latifolia*). SYDNEY GOLDEN WATTLE (S or T). Large shrub of quick growth. Can be trained as a small tree and is excellent for hedges. Leaves undivided, long and varying from narrow to broad. Flowers rich yellow, borne freely in rather long spikes. Potted, 4 to 5 ft., 90c each; 3 to 4 ft., 80c each; 2 to 3 ft., 60c each.

A. melanoxylon. BLACK ACACIA: BLACKWOOD. (T). An erect, pyramidal grower, forming a well-shaped head. Flowers very light yellow, in heads. Leaves large and oblong. Well adapted and extensively used for sidewalk planting owing to its regular, symmetrical growth. A peculiarity of this tree is that when young it has both "blade" and "feather" leaves. Potted, 5 to 6 ft., \$1.00 each; 4 to 5 ft., 80c each; 3 to 4 ft., 60c each; 2 to 3 ft., 50c each.

A. neriifolia (*A. floribunda*) (T). Tall, quick-growing tree with long, slender, light green leaves. Flower heads yellow, in short racemes, very fragrant. Tree is in bloom most of the time; particularly valuable for this reason. Potted, 4 to 5 ft., \$1.00 each; 3 to 4 ft., 75c each.

A. podalyriaefolia (T or S). A most beautiful Acacia, as yet very rare. It is the first of all to bloom, preceding even *A. baileyana*. The blade-like leaves are about the shape of a *cultriformis*, but larger and covered with silvery down. The branches are almost the same tint, giving the entire plant a striking appearance at any season. Flower heads are rich yellow, rather large and borne in long racemes. A beauty and deserving great popularity. Potted, 2 to 3 ft., \$1.25 each.

A. pravissima (S or T). An elegant species of upright growth, but with very long, slender, drooping branches. Leaves similar to *A. cultriformis*, but smaller and sage green. Flowers soft yellow, borne early in drooping racemes all along the branches. Rare and very beautiful. Potted, 2 to 3 ft., 75c each.



Acacia decurrens. A rapid grower, blooming in the late spring and early fall months.

A. verticillata (S or T). Shrub or small tree of very distinct appearance. Leaves awl-shaped, dark green, whorled, rigid and sharp, about one-half to three-quarters of an inch long. Flowers light yellow, in short dense spikes, about an inch long, somewhat resembling catkins of "Pussy Willow." Potted, 4 to 5 ft., \$1.00 each; 3 to 4 ft., 80c each.

ARBUTUS

A. unedo. STRAWBERRY TREE. Europe (S). Moderate-sized shrub with clean, attractive foliage. White flowers appear in winter months and with them the large, red, strawberry-like fruits of the previous season. Very showy and handsome. Balled, 3 to 4 ft., \$3.00 each; 2 to 3 ft., \$2.00 each.

AUCUBA

A. japonica. GOLD DUST PLANT (S). Although the original form is doubtless a green-leaved plant, the name is commonly applied in the nursery trade to the form that has the leaves almost covered with yellow dots, accounting for the common name. Excellent for tub culture or planting out. Bushy plants, potted (male), 1½ to 2 ft., \$1.50 each; (female), 1½ to 2 ft., \$1.50 each.

A. japonica serratifolia (S). Similar to preceding, but with toothed leaves. Bears profusely. Potted (male), 2 to 3 ft., \$2.00 each; (female) 1½ to 2 ft., \$1.50 each.

AZARA

A. microphylla. Chile (S). Shrub of erect growth. Bark gray. Leaves very small, green and glossy. Flowers minute, yellow, with fragrance decidedly like chocolate. Handsome and graceful. Potted, 1½ to 2 ft., \$1.50 each.

BERBERIS. Barberry

Shrubs of moderate size and free blooming habit. Flowers yellow. The evergreen species usually have prickly leaves. Fine for grouping and massing in shrubbery borders.

B. darwini. Chile (S). Shrub with many slender branches drooping toward tips. Leaves small, rich green, prickly like Holly. Many of the leaves turn bright red in fall, holding this tint through winter. Flowers golden yellow, produced in utmost profusion early in spring. Berries blue. One of the very finest small evergreen shrubs. Balled, 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each. Potted, 1 to 1½ ft., 50c each.



Berberis darwini. A dainty shrub with glossy, green leaves, and deep golden yellow flowers.



Acacia melanoxylon. A fine shade, street and avenue tree.

B. formosiana (S). Of spreading habit, branches ranging out horizontally; leaves small and very numerous on the stem. Promises to be a very valuable plant as a ground cover and for finishing in group planting. Balled, 2 to 3 ft., \$1.50 each.

B. elegantissima (S). An erect, strong growing shrub with light green, holly-like leaves and yellow flowers. Quite hardy. Balled, 2 to 3 ft., \$1.50 each.

B. knightii (S). A shrub with large glossy leaves and yellow flowers. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.

B. pruinosa (S). Fast growing shrub. Branches brownish yellow, nearly terete; spines to 1 inch long; leaves ovate-oblong. Potted, 1½ to 2 ft., 75c each.

B. stenophylla. GARDEN HYBRID (S). Shrub with long, slender, arching branches. Leaves small, long and narrow; dark green above, silvery beneath; spiny pointed with revolute margins. Flowers deep golden yellow. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.

B. subcauliata (S). Shrub of low growth and globular habit; foliage a bronzy green in color, turning in autumn to a bright red; flowers a deep orange yellow and berries a fine shade of bright red. Balled, 2 to 3 ft., \$2.00 each.

B. tricanthophora (S). Considered one of the most beautiful of the narrow leaved varieties; flowers pinkish yellow in November. Balled, 1½ to 2 ft., \$1.25 each.

B. wilsoni (S). Shrub of erect habit with upright or arching branches; foliage light green with bronzy tips turning to a brilliant scarlet in the fall; flowers lemon yellow, berries light red. Fine for hedges. Balled, 3 to 4 ft., \$1.50 each; 2 to 3 ft., \$1.25 each.

BUDDLEIA

Shrubs native of semi-tropical regions. The species described below have similar foliage, but are so unlike in flowering habit as to appear of different genera.

(Continued)



Cornus capitata. One of the best flowering, foliage and ornamental fruited shrubs.

(BUDDLEIA) Continued

B. asiatica (S). A good grower with slender spikes of deliciously fragrant flowers 3 to 6 inches long. Potted, 2 to 3 ft., \$1.00 each.

B. globosa (S). Chile (S). Medium-sized shrub with long, narrow, rough leaves. Flowers yellow, fragrant, in globular heads on long stalks. Balled, 3 to 4 ft., \$1.50 each; 2 to 3 ft., \$1.25 each. Potted, 2 to 3 ft., 50c each.

B. madagascariensis (S). Loose growing shrub, leaves dark green and glabrous above, clothed beneath with fluffy white tomentum; orange flowers in large terminal panicles in winter. Potted 2 to 3 ft., \$1.00 each.

B. magnifica (S). A beautiful arching shrub of robust habit; foliage a bright green, long and narrow; flowers of a deep rose purple, with an orange eye and the margin of petals reflexed; panicles dense; blooms in August. Balled, 3 to 4 ft., \$1.75 each; 2 to 3 ft., \$1.50 each. Potted, 2 to 3 ft., 75c each.

B. officinalis (S). Shrub of spreading habit and a rapid grower; leaves long and narrow, grayish above with whitish tomentose beneath; flowers lilac with orange eye, very fragrant. Fine for backgrounds. Balled, 2 to 3 ft., \$1.50 each. Potted, 2 to 3 ft., 75c each.

B. superba. BUTTERFLY PLANT. China (S). A tall shrub with arching branches; leaves long and narrow; flowers in drooping panicles, attaining a length of 30 inches; color a bright rose lilac with orange eye; blooms in fall. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each. Potted, 2 to 3 ft., 75c each.

BUXUS. Box

These very ornamental shrubs of dense but rather slow growth, with shining foliage, are invaluable for grouping, lawn decoration and for hedge purposes. For tub culture and for formal decorative work they are more extensively grown than any other class of plants. They thrive in a warm, dry climate fully as well as on the coast. The very hard and close-grained wood is in demand for engraving and fine turnery work.

B. balearica. Spain (S). Has larger leaves and stouter branches than common Box. Growth decidedly

upright and faster than the others. Foliage light green. Balled, 2 to 3 ft., \$3.00 each.

B. japonica angustifolia. NARROW-LEAVED JAPANESE BOX (S). A variety with remarkably long, narrow leaves. Growth slow and very compact. Makes an interesting specimen plant. Excellent for a very low hedge. Balled, 1 to 1½ ft., \$1.50 each.

B. sempervirens. BOXWOOD. Europe, Africa and Asia (S). Handsome shrub of dense, compact growth. Leaves quite small, deep green. Used for low, formal hedges. Also trained into various artificial forms such as round-headed standards, pyramids, globes, etc. Can be kept at any size and trimmed into any shape. Bushes, balled, 1 to 1½ ft., 75c each, \$6.00 per ten. 3-inch pots, 20c each, \$1.50 per ten, \$12.50 per 100.

B. sempervirens aureo marginata. GOLDEN MARGINED BOX (S). A variety with brilliant golden variegation. Growth and habit similar to type. Balled, 2 to 2½ ft., \$4.00 each; 1½ to 2 ft., \$3.00 each.

B. sempervirens arborescens. TREE BOX (S or T). A variety with slightly larger leaves, of somewhat faster growth and ultimately making a small tree. Balled 1½ to 2 ft., \$3.00 each.

B. sempervirens elegans variegata. ELEGANT VARIEGATED BOX (S). All leaves conspicuously variegated. Growth very regular, compact and symmetrical. Balled, 1½ to 2 ft., \$3.00 each.

B. sempervirens suffruticosa. DWARF BOX (S). The well known, round-leaved, very dwarf form, much used for edging beds and walks. Can be kept from four to twelve inches high by trimming. Balled, 1 to 1½ ft., \$2.00 each; 1 ft., \$1.50 each.

B. sempervirens rotundifolia (S). Quite distinct from all other kinds. Of strong growth and makes a large shrub; leaves large, nearly circular, reflexed, slightly glaucous above, whitish beneath; branches downy. Balled, 2 to 3 ft., \$3.00 each; 1½ to 2 ft., \$2.00 each.

B. handsworthii (S). A distinct form of erect habit, bearing dark, rich green oval leaves. Fine for specimen planting in formal gardens and also valuable as a pot or tub decoration. Balled, 2 to 3 ft., \$3.00 each.

CALLISTEMON. Bottle Brush

Showy flowering shrubs, native of Australia and thriving perfectly in California. Flowers in the exact shape of a bottle brush, which gives the common name. Color ranges through several shades of red to nearly pink. Often known as *Metrosideros*. Will thrive in very dry locations with little care or attention. Callistemons are variable in color, usually red, but very frequently run to pink.

C. coccineus (S). Leaves narrow. Branches usually drooping. Potted, 3 to 4 ft., \$1.50 each.

C. cunninghami (S). Leaves extremely narrow. Growth low and compact. Potted, 3 to 4 ft., \$1.50 each.

C. hybridus (T). Makes a small tree of irregular but vigorous growth. Flower spikes large and borne very profusely. The most useful form where a large plant is required. Potted, 4 to 6 ft., \$1.25 each.

CAMELLIA

Well known Oriental shrubs. Foliage leathery and glossy. Flowers very handsome. Thrive best in partial shade and should never be allowed to get too dry.

C. japonica. China and Japan (S). The common and well-known Camellia. Grows very slowly, but begins blooming when very young. Colors range through white, pink and red. There are also varieties with variegated flowers. The double forms are best known, but we also grow seedlings, which have usually single flowers and are preferred by some for their simplicity and free blooming. Potted, 1 to 1½ ft., \$4.00 each.

CAMPHORA

C. officinalis. CAMPHOR TREE. China and Japan (T). A very handsome ornamental tree. Fine for street planting where an evergreen tree of moderate growth and regular form is needed. Leaves are pointed, glossy green, and strongly scented with camphor; many turn

red during winter. Flower inconspicuous. The camphor of commerce is obtained from this tree. Potted, 2 to 3 ft., \$1.00 each.

CANTUA

C. buxifolia. Peru (S). A straggling shrub with branches more or less downy; leaves variable, generally oblong, tapering at the base; flowers about 2½ inches long, tubular shaped, color red. Half climber, hence can be used on trellises or as an ornamental shrub. Potted 1½ to 2 ft., 75c each.

CARMICHALIA

C. odorata. South Africa (S). Loose growing shrub of an erect habit; leaves very small; flowers in drooping racemes, pea-shaped and small; color purplish lilac. Potted, 3 to 4 ft., \$2.00 each.

CARPENTERIA

C. californica. WHITE ANEMONE. California (S). A splendid native shrub, bearing profusely clusters of large, fragrant, pure white flowers with yellow stamens, like greatly enlarged Mock Orange. Will thrive in the driest of locations. Highly prized for both beauty and rarity. Potted, 1½ to 2 ft., \$1.00 each.

CASSIA

C. floribunda grandiflora (S). Good sized shrub of loose habit. Branches and leafstalks smooth or nearly so. Leaflets usually ten, perfectly smooth. Flowers large, bright yellow with brown anthers. Free blooming. Potted, 1 to 1½ ft., 60c each.

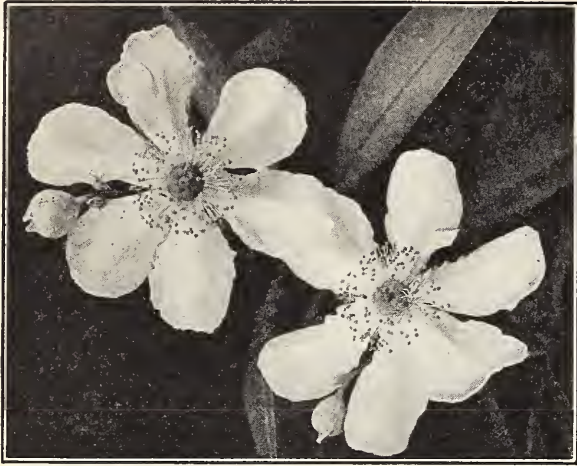
CASUARINA

Native of Southern Asia and tropical Australia. Tall growing trees valuable for fuel. Will live in a somewhat saline soil near the ocean. Good for reclaiming sandy land. The wood being lasting finds uses for piles,

(Continued)



A section of one our Broad-leaved Evergreen blocks.



Carpenteria californica. A California shrub of great beauty.

(CASUARINA) Continued

posts and underground purposes. Their drooping, feathery-like plumage renders them strikingly individual for park and garden planting.

C. equisetifolia. Australia (T). Growth strong and dense; branchlets numerous and fine, with short internodes. A handsome, rapid-growing tree. Potted, 6 to 7 ft., \$2.00 each; 5 to 6 ft., \$1.50 each; 4 to 5 ft., \$1.00 each.

C. stricta. BEEFWOOD OR SHE OAK (T). Desirable for avenue planting; a rapid grower with slender, reed-like foliage. Will tolerate a degree of alkali in the soil and also considerable drouth. Potted, 3 to 4 ft., \$1.00 each; 2 to 3 ft., 75c each.

CEANOTHUS

C. thyrsiflorus. CALIFORNIA WILD LILAC. California (S). A native shrub, sometimes becoming a small tree. Leaves small and shiny. Flowers pale blue. One of our fine native plants. Potted, 1½ to 2 ft., \$1.00 each, \$9.00 per ten.

C. Gloire de Versailles (S). Has very large leaves and bright blue flowers. In bloom nearly all summer. Potted, 1½ to 2 ft., \$1.25 each.

CERATONIA

C. siliqua. CAROB; ST. JOHN'S BREAD. Mediterranean region (T). Although of great economic value on account of its edible pods, this splendid tree is also one of the handsomest ornamentals adapted to our climate. It is of regular growth with spreading branches forming a rounded head. Leaves are pinnate, with large, leathery, deep green, glossy leaflets. Very resistant to drouth and not inclined to become dusty. Potted, 2 to 3 ft., \$1.00 each.

CERATOSTIGMA

C. plumbagionides (*Plumbago larpentae*). China (S). Low herbaceous perennial rarely over a foot high. Branches red. Flowers shaped like common *Plumbago*, but a beautiful deep blue and borne profusely in dense clusters during late summer and fall. Potted, 1½ to 2 ft., 75c each.

CESTRUM

C. aurantiacum. Guatemala (S). A strong growing shrub with oval wavy leaves. Flowers tubular, orange-yellow, about one and a half inches long and borne in clusters, followed by showy white berries. A fine winter bloomer. Potted, 2 to 2½ ft., \$1.00 each.

C. elegans. Mexico (S). Growth tall and slender, almost climbing. Young branches covered with reddish purple down. Flowers are about an inch long, deep, purplish red, in clusters at ends of branches. Potted, 2 to 2½ ft., \$1.00 each.

C. fasciculatum. Mexico. Growth tall and rather slender; young branches covered with reddish purple; flowers a full inch long, a light red in color, borne in clusters and quite compact. Potted, 2 to 2½ ft., \$1.00 each.

C. parqui. Chile (S). Somewhat similar to preceding, but with narrow leaves and greenish yellow flowers. Also fragrant at night. Potted, 2 to 2½ ft., \$1.00 each.

CHOISYA

C. ternata. MEXICAN ORANGE (S). Compact shrub of rather slow growth. Leaves light green, divided into three leaflets; fragrant when crushed. Bears a profusion of white, very fragrant flowers in broad clusters. Balled, 3 to 4 ft., \$3.00 each; 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each. Potted, 1 to 1½ ft., 75c each.

CHORIZEMA

C. ilicifolium. Australia (S). A slender flowering shrub with drooping branches and orange red flowers borne in loose racemes; blooms in the spring. Balled, 1½ to 2 ft., \$1.50 each. Potted, 1 to 1½ ft., 75c each.

CISTUS. Rock Rose

A class of small or medium-sized shrubs of compact growth, bearing a profusion of flowers shaped like a single rose.

C. albidus. Southern Europe (S). Foliage woolly white. Flowers lilac pink, two or three inches wide. Blooms continuously. Very resistant to drouth. Potted, 2 to 3 ft., \$1.00 each; 1½ to 2 ft., 75c each.

C. crispus. Southern Europe (S). Resembles the preceding; flowers deep rose color; does best in a sunny situation and in most any soil. Potted, 1½ to 2 ft., \$1.00 each.

C. ladaniferus maculatus. SPOTTED ROCK ROSE. Europe (S). Spreading shrub of prostrate growth. Foliage covered with aromatic resin. Flowers large, often four inches wide, pure white except for a conspicuous crimson spot at base of each petal. Free flowering and very handsome indeed. Particularly desirable where very low growth is wanted. Potted, 1½ to 2 ft., \$1.00 each.



The Coronillas are fine winter flowering shrubs; flower fragrant golden yellow.

C. monspeliensis. Europe (S). Erect shrub with a profusion of fine, wire-like branches; leaves small. Flowers white, small, but produced very freely. Potted, 1½ to 2 ft., \$1.00 each.

C. salvifolius. Mediterranean region (S). Small shrub with long, slender, often drooping branches. Leaves small, very rough, wrinkled and downy. Flowers medium sized, white, borne on long, slender stalks. Potted, 1½ to 2 ft., \$1.00 each.

CITRUS

C. limonia (S). Dwarf ornamental lemon. Produces lemons considerably larger than a hen's egg when a foot high. Exceedingly attractive when in flower and later when loaded with its edible lemon-yellow colored fruits. A fine house plant. Potted, 1½ to 2 ft., \$1.00 each.

COPROSMA

C. baueri. New Zealand. (S). Low-growing shrub, or can be trained up as a low climber. Leaves are rounded, green and wonderfully glossy, exceeding any plant we know of in this respect; dust will not stick to them. Flowers are inconspicuous, but followed by clusters of showy, yellow berries. Balled, 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each. Potted, 1½ to 2 ft., 75c each.

C. baueri variegata. Variety of preceding, differing only in the very conspicuous yellow variegation of the leaves. Probably the showiest variegated plant in our collection. Potted, 1½ to 2 ft., \$2.00 each.

C. baueri albo variegata. Same as preceding, only variegations are white. Potted, 1½ to 2 ft., \$2.00 each.

CORNUS. Dogwood

C. capitata (*Benthamia fragifera*). EVERGREEN DOGWOOD. Himalayas (S). A splendid shrub of rather large size. Flowers are large, like those of the Eastern "Flowering Dogwood" or the Pacific Coast species, but the plant is far more successful under cultivation in California than either, with the further advantage of being entirely evergreen. Flowers are cream colored, becoming ruddy before falling, followed by large, red, showy fruits, which are edible but insipid. Altogether this is a most beautiful plant and will be widely grown when better known. At present it is quite rare. Balled, 2 to 3 ft., \$1.50 each. Potted, 1½ to 2 ft., 75c each.

CORONILLA

Shrubs with pinnate leaves. Flowers usually yellow, in ring-shaped clusters like a little crown, hence the name.

C. emerus. SCORPION SENNA. S. Europe (S). Leaves deep glossy green. Flowers yellow, sometimes tinged red. Blooms in spring and early summer. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each.

C. glauca. S. Europe (S). Rather similar to above, but with fine and very glaucous foliage. Flowers deep golden yellow, intensely fragrant by day, but scentless at night. Very free bloomer. Especially valuable as it commences blooming early in the winter and continues through the spring. Potted, 3 to 4 ft., \$1.25 each; 2 to 3 ft., \$1.00 each; 1½ to 2 ft., 75c each.

C. glauca variegata. A form of the preceding; identical except that the foliage is conspicuously variegated. Potted, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.00 each.

COTONEASTER

Handsome shrubs of wide use in both the home grounds and public parks; leaves somewhat small, glossy and of varying shades of green; flowers minute, usually white or pinkish white; berries of many hues and colors varying from orange to bright scarlet. Unexcelled for grouping, corner effects and for edging large plantings of shrubby borders.



Cestrum are interesting flowering and foliage shrubs.

C. acuminata (*C. nepalensis*). Himalayas (S). Growth erect. Leaves medium sized and pointed. Flowers pinkish-white, followed by large, showy, red berries. Semi-evergreens. Balled, 4 to 5 ft., \$2.50 each; 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each. Potted, 1½ to 2 ft., 75c each.

C. francheti. China (S). Growth upright. Well distinguished by its very arching branches, which gives it a most graceful habit. Leaves about the size of *C. acuminata*, but downy. Flowers pink. Berries yellowish red. Balled, 2 to 3 ft., \$1.50 each. Potted, 2 to 3 ft., 75c each.

C. frigida. Himalayas. (S). A very strong-growing species with leaves as much as four inches long. Flowers white. Berries brilliant scarlet, in large clusters. When loaded with a heavy crop of berries it is indeed a remarkably striking specimen. Grows very vigorously and should be well pruned. Balled, 4 to 5 ft., \$2.50 each; 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each.

C. pannosa. China (S). A very beautiful shrub of upright growth. Branches long, slender and slightly arching, covered with purplish mahogany bark. Leaves deep, rich green above and covered with silvery down beneath and along edges. Flowers white. Berries borne in great profusion in the fall, are vermilion red. The branches loaded with berries can be cut and kept in water for weeks. Balled, 3 to 4 ft., \$2.50 each; 2 to 3 ft., \$2.00 each. Potted, 2 to 3 ft., \$1.00 each; 1½ to 2 ft., 75c each.

PROSTRATE VARIETIES

(Sizes of the following are determined by spread of the branches and not in the height.)

C. horizontalis. China (S). One of the best trailing shrubs. Branches grow almost on the ground. Leaves very small and turn red during winter. Flowers pinkish white. Berries bright red and borne in great profusion. Nearly deciduous. Balled, 1½ to 2 ft., \$2.00 each; 1 to 1½ ft., \$1.50 each.

C. microphylla. Himalayas (S). Very densely branched and of almost prostrate growth. Leaves small, glossy and very dark green. Flowers white. Berries larger



Diosma eriocoides. The Breath of Heaven.

(COTONEASTER) Continued

than those of preceding and purplish red. Entirely evergreen. Balled, 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each.

C. microphylla thymifolia (S). A variety of preceding of dense, compact growth, with tiny leaves, smaller flowers and berries. A very dainty little plant. Balled, 1½ to 2 ft., \$2.00 each.

DAPHNE

D. odora. WHITE DAPHNE. China and Japan (S). Small shrub of slow growth. Flowers white or creamy, intensely fragrant and massed in dense clusters at ends of branches. Blooms during the winter. Potted, 1 to 1½ ft., \$5.00 each.



Abelia grandiflora. One of our very best flowering shrubs.

D. odora marginata. PINK DAPHNE (S). Although a variety of the foregoing it is quite distinct; the leaves are edged creamy white and the flowers are pink. Potted, 1 to 1½ ft., \$5.00 each.

DAPHNIPHYLLUM

D. macropodum. Japan (S). Growth shrubby, like *Photinia serrulata*, and has leaves nearly as large, borne in rosettes with showy, ruddy stalks. Assumes globular shapes without trimming. Very rare and handsome. Potted, 3 to 4 ft., \$2.00 each.

DEERINGEA

D. celosioides variegata. Australia (S). Slender growing shrub. Leaves margined with white. Long spikes of white flowers during summer. Growth extremely strong; will climb if shoots are trained up. Potted, 2 to 3 ft., \$1.00 each.

DIOSMA

D. ericoides (*D. alba*). BREATH OF HEAVEN. Africa (S). Well-known, small shrub. Foliage minute and heath-like; very fragrant, especially if bruised. Flowers are white, very small and star-shaped; borne in such profusion as almost to cover the entire bush. Potted, 1 to 1½ ft., \$1.00 each.

D. purpurea. S. W. Africa (S). Very rare shrub. Foliage coarser than preceding. Flowers delicate purple in terminal cluster, borne in great abundance even on very small plants. Potted, 1 to 1½ ft., \$1.50 each.

DURANTA

D. plumieri. GOLDEN DEW DROP. South America. (S) 12 ft. Foliage light, pleasing green. Flowers are



Eriobotrya japonica. The Loquat.

lilac-blue in racemes, followed by yellow berries. A very pretty summer bloomer. Will endure only a moderate amount of frost. Potted, 1 to 1½ ft., 75c each.

ELAEAGNUS

These are highly ornamental shrubs with handsome foliage; the flowers are inconspicuous, but mostly fragrant. They grow in almost any well-drained soil, and prefer a sunny position.

E. pungens. Japan (S). Shrub of striking appearance. Leaves large, wavy-margined; smooth above, except for numerous small, brown, waxy specks, silky beneath. Balled, 1½ to 2 ft., \$1.50 each. Potted, 1 to 1½ ft., \$1.00 each.

E. pungens maculata (S). Identical with *Pungens* except in color of leaves, which are bright yellow with green margins. The most beautiful of the species. Balled, 1½ to 2 ft., \$2.00 each. Potted, 1 to 1½ ft., \$1.25 each.

E. pungens argentea variegata. Japan (S). Shrub of striking appearance. Leaves large, wavy-margined; smooth above, except for numerous small, brown, waxy specks, silky beneath; strongly margined with creamy white. Balled, 1½ to 2 ft., \$2.00 each.

ERICA. Heath or Heather

Low growing shrubs, some even trailing, with very minute leaves and almost innumerable small tubular flowers. The new hybrids present varying characteristics in foliage, size, shape and color of flowers, all of which find wide use in the florist trade and also as striking objects of beauty in any garden. Ericas are of easy culture, and should find a wide popularity with commercial and amateur plantsmen. They are conspicuous on account of blooming freely during the winter months.

E. carnea (S). One of the lower growing heathers with numerous short upright branches. Bears an abundance of bright rosy blooms from September to November, being the only heather to bloom at this time. Balled, 1 to 1½ ft., \$1.25 each.

E. charleysiana (S). A strong growing heather with delicate pink flowers, tubular shaped. One of the hardiest of the long tubular varieties. Balled, 1 to 1½ ft., \$1.25 each.

E. cotonoides alba (S). Rather tall-growing shrub; leaves three to five in a whorl; flowers small and white in color, disposed in numerous densely crowded racemes. Fine for grouping. Spring bloomer. Balled, 1½ to 2 ft., \$1.25 each.

E. gracilis (S). A compact, dainty plant; flowers small white with red stamens which completely envelop the plant. In full bloom in November. Balled, 1 to 1½ ft., \$1.25 each.



Erica melanthera. Blooms all winter.

E. regerminans (S). Flowers almost continuously during the year. Purplish pink, similar to *E. melanthera*. Balled, 1½ to 2 ft., \$1.50 each; 1 to 1½ ft., \$1.25 each.

ERIOBOTRYA

E. japonica. LOQUAT (T). Largely planted as an ornamental tree. Blooms during the winter with very fragrant flowers. Fruit is round and grows in clusters like small plums. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.00 each.

ESCALLONIA

Flowering shrubs from South America, with clean, glossy foliage. Flowers white, pink or red, rather small, but more or less clustered. A splendid ornamental for grouping and massing effects.

E. berteriana (S). Shrub of erect habit and good growth. Foliage dark green and glossy. Flowers white, rather small, in very long, loose, erect panicles. Continuous bloomer. Balled, 4 to 5 ft., \$2.50 each; 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each.

(ESCALLONIA) Continued page 64



Carpenteria californica. White Anemone.

E. mediterranea. MEDITERRANEAN HEATH. Europe (S). One of the most popular Heaths. Forms a densely branched, perfectly globular shrub, with dark green leaves. In winter it is simply covered with tiny pink flowers. Balled, 1½ to 2 ft., \$1.25 each.

E. melanthera (S). Another splendid winter-blooming Heath. Of less regular growth than preceding. Flowers a little larger, rosy with conspicuous, protruding, black-tipped stamens. This also is a wonderful bloomer. Balled, 1½ to 2 ft., \$1.50 each; 1 to 1½ ft., \$1.25 each.

E. multiflora grandiflora (S). Of dense and spreading growth. Flowers purple, in long spikes. Blooms all summer. Balled, 1 to 1½ ft., \$1.25 each.

E. mediterranea hybrida (S). A dwarf, compact variety, not over 1½ feet high; flowers similar to *E. mediterranea*; blooms in October. Balled, 1 to 1½ ft., \$1.25 each. Potted, 1 to 1½ ft., 75c each.

E. persoluta alba (S). Erect but very small; completely covered with pure white flowers. Spring bloomer. Balled, 1½ to 2 ft., \$1.25 each.

E. persoluta rosea (S). One of the best pink flowering varieties. Highly desirable for spring flowering. Balled, 1½ to 2 ft., \$1.50 each; 1 to 1½ ft., \$1.25 each.



Erica regerminans. Purplish Pink.

E. langleyensis. A graceful shrub with arching branchlets. The ends of the branches are surrounded with racemes of light pink flowers. Balled, 2 to 3 ft., \$1.50 each.

E. montevidensis (*E. floribunda*) (S). Large shrub of symmetrical habit and glossy green leaves, which are almost identical with those of *E. berteriana*, but are notched instead of acute at apex. Flowers pure white, borne in large, compact, terminal cymes or panicles in late summer or fall. The clusters are produced in such great profusion as to cover completely the entire plant. By far the handsomest of the white kinds. Balled, 4 to 5 ft., \$2.50 each; 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each.

E. organisi. (New.) (S). An erect shrub, with spreading branches; leaves thick, oblong and serrulate; flowers pink in long, terminal clusters. Balled, 4 to 5 ft., \$2.50 each; 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each.

E. rosea (S). Growth strong and upright. Leaves rough, serrate and with resinous glands beneath. Flowers pink, in conspicuous terminal racemes. Very handsome species. Balled, 4 to 5 ft., \$2.00 each; 3 to 4 ft., \$1.50 each; 2 to 3 ft., \$1.25 each. Potted, 2 to 3 ft., 75c each.

E. rubra (S). Compact shrub of rather slow, dense growth, with large, very dark leaves, shining above, dull and resinous beneath. Flowers rather dark red, in short terminal clusters. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.

EUCALYPTUS

Eucalyptus trees thrive so well in California and such large specimens can be seen that many believe them indigenous. This is incorrect, as they are all from the Australian region. Each year sees a wider planting of Eucalyptus, and we doubt if it can be carried too far. In spite of the extremely rapid growth of most kinds, the wood is mainly hard and strong; in fact, many species surpass even Hickory in this respect. Some yield valuable oils and others are valued chiefly for their flowers. The chief uses of the genus in California, however, consists in their adaptability for windbreaks, street and avenue planting, woodlots, park embellishment and shade on the farm and home grounds.

E. ficifolia. SCARLET-FLOWERING GUM. Contrary to the habits of most Eucalypti, this species is dwarf and of slow growth. Leaves large, leathery, pointed, wavy-margined, dark green. Flowers very large and normally crimson or scarlet, but vary considerably, sometimes appearing pink or orange. Has the handsomest flowers of all. Potted, 2 to 3 ft., \$1.50 each.



Eucallonia montevidensis. A fine fall flowering shrub. Flowers in clusters, pure white.



Eucallonia rubra. Flowers deep red, appearing in the summer months.

E. globulus. BLUE GUM. By far the most widely planted species in this country. Growth exceedingly rapid, probably more so than of any other known tree. Flowers yellowish white. Has a white, hard, close-grained wood of great strength. Admirable for fuel, as it will renew itself continually from sprouts after being cut. Succeeds in a great variety of soils and conditions. Foliage is used to obtain eucalyptus oil. Potted, 4 to 5 ft., 40c each, \$3.50 per ten; 3 to 4 ft., 35c each, \$3.00 per ten. Transplanted in flats, \$4.00 per hundred.

E. globulus compacta. BUSHY BLUE GUM. A very distinct and valuable variety introduced by this company. With no pruning whatever, it forms a symmetrical, rounded, compact tree. It does not form any main trunk and the branches are indefinitely divided, giving a solid mass of foliage from the ground to top. Lower foliage is like that on young growth of common Blue Gum, but considerably smaller and even more silvery. When five or six years old it commences to develop the longer, narrow leaves toward the top. It makes a fine single specimen and is also, beyond any doubt, the most efficient windbreak that can be planted in California. Potted, 3 to 4 ft., 50c each, \$4.00 per ten.

E. leucoxylon rosea. WHITE IRON BARK. Tall tree, usually branching not far from the ground. Bark strips off, leaving branches smooth. Blooms all winter, producing brilliant pink flowers. A valuable bee tree. Timber remarkably hard, strong and durable. Potted, 3 to 4 ft., 75c each.

E. polyanthemos. RED BOX. AUSTRALIAN BEECH. Among the handsomest and most ornamental. The growth is irregular and picturesque, much branched. Bark is smooth, varying from greenish to bluish white. The foliage is silvery and appears to fine advantage when planted near trees of more somber hue. Flowers white, borne in clusters. Wood is hard. Tree resistant to drought. Makes an effective windbreak. Potted, 3 to 4 ft., 40c each, \$3.00 per ten.

E. rostrata. RED GUM. Next to Blue Gum this is at present the most popular for large plantations. Growth is rapid. Flowers white, very small and borne in compact clusters. Will stand extremes of both heat and cold, being one of the best for very hot sections, also quite resistant to frost. Timber is heavy, strong and extremely durable, both above and below ground. Excellent for fuel. About the best species for very hot and dry regions. Potted, 3 to 4 ft., 40c each, \$3.00 per ten. Transplanted in flats, \$4.00 per hundred.

E. rudis. DESERT GUM. An excellent tree, attaining considerable popularity in California both as an avenue tree and for forest work. For the former purpose it is particularly suitable on account of not shedding its bark and for its fine compact habit. Wood is light brown, hard and readily polished. Potted, 3 to 4 ft., 40c each, \$3.00 per ten.

E. viminalis. MANNA GUM. A very tall, rapid growing and hardy species. A most pleasing avenue tree. Has been called Red Gum from the ruddy color of the ends of growing shoots. Bark sometimes persistent, sometimes stripping off. Very valuable for its resistance to frost and strong winds. Potted, 4 to 5 ft., 40c each, \$3.50 per ten; 3 to 4 ft., 35c each, \$3.00 per ten. Transplanted in flats, \$4.00 per hundred.

EUGENIA

Shrubs closely related to Myrtle, having white or creamy flowers of similar form, followed by berries, which, in most species, are edible. Particularly desirable for hedges and specimen plants. For other plants often included under Eugénias see Myrtus.

E. apiculata (Myrtus Luma). Chile. (S). Attractive shrub of compact growth. Leaves small, smooth, rounded or oval, tipped with a small point; very dark green. The contrast between the dark foliage and numerous white flowers is very fine. One of the very best hedge plants, as it can be kept trimmed to any desired form. Almost as compact as Box, and, of course, of far faster growth. Potted, 1 to 1½ ft., \$1.00 each.

E. hookeriana. A tall-growing handsome tree pyramidal in outline. Shiny dark green foliage, young growth ruddy bronze. Fruit very attractive and borne in large clusters. A remarkable tree. Potted, 2 to 3 ft., \$1.50 each.

E. myrtifolia (*E. australis*). BRUSH CHERRY. Australia (S). Tall, handsome shrub of erect, compact growth. Leaves dark, glossy green when fully developed, but very ruddy on new growth. Blooms profusely, flowers creamy. Berries violet or purple, edible. Potted, 3 to 4 ft., \$1.50 each; 1 to 1½ ft., \$1.00 each.



Eucalyptus compacta globulus. A sport from the Blue Gum, grows like an immense bush.



Eucalyptus leucoxydon rosea. A pink, flowering variety, blooms in midwinter.

EUONYMUS

The evergreen sorts are grown for their very handsome foliage, which varies considerably and includes many variegated forms. In some parts of the State they bloom and bear heavy crops of curiously formed, showy, red and orange berries during fall and winter. No collection of plants nor landscape effect is quite complete without one or more of these beautiful plants in evidence. Admirably useful and attractive when used in groups, edgings, hedges, corner plantings and in rockeries.

E. japonicus. Japan (S). Fine, upright shrub of moderate size and rather compact growth. Foliage and bark are clear, dark green. Has many variegated forms. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.00 each. Potted, 1 to 1½ ft., 50c each.

E. japonicus albo marginatus. SILVER-MARGINED EUONYMUS (S). Leaves have a very narrow margin of silvery white. Growth slow and compact. Entirely distinct. Balled, 2 to 3 ft., \$1.50 each.

E. japonicus albo variegatus. SILVER VARIEGATED EUONYMUS (S). Of strong, erect growth. Branches very light green. Leaves almost white around edges, changing to yellow as season advances, making a beautiful hedge and excellent for landscape work. Balled, 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each.

E. japonicus aureo marginatus. GOLDEN EUONYMUS (S). Of dwarf and compact growth. Branches light green. Leaves deep yellow towards the edges, blotched in the center with light and dark green. Does not "sport back" to the green type. Balled, 1½ to 2 ft., \$1.50 each.

E. japonicus aureo variegatus. GOLDEN VARIEGATED EUONYMUS. Branches green; leaves yellow in center, dark green around edges. Color about equally divided. Often sends out branches with green leaves. Balled, 1½ to 2 ft., \$1.50 each; 1 to 1½ ft., \$1.25 each.

E. japonicus columnaris (S). An erect shrub of compact, globular form; foliage dark shining green. Particularly fine for borders or as a foreground in shrubbery plantings. Balled, 1½ to 2 ft., \$1.50 each.

E. japonicus microphyllus (*E. pulchellus*) (S). Very distinct sort of dwarf, compact habit. Leaves very small, dark green, slender, serrated. Fine for edging. Balled, 1 to 1½ ft., \$1.25 each.



Acacia longifolia. A fine sidewalk tree.

E. japonicus microphyllus variegatus (S). A variety of the preceding. Leaves have silvery white edges, which contrast beautifully with the dark background. Balled, 1 to 1½ ft., \$1.50 each.

E. japonicus viridi variegatus. DUC D'ANJOU (S). Very vigorous and of spreading growth. Branches green. Leaves dark green toward the edges, striped in the center with light green and pale yellow. Balled, 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each.

E. president gauthier (S). A splendid ornamental shrub of upright growth, with striking silvery variegated foliage margined pink, presenting an attractive appearance in the midst of other shrubs. Balled, 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each.

E. radicans acuta. A climbing variety of recent introduction; leaves glossy green turning to bronze red in winter. Excellent for covering tree trunks. Potted, 2 to 3 ft., \$1.00 each.

E. radicans argenteo marginatus (S). With us a shrub of compact and rather erect growth, but in some sections becomes a climber. Leaves considerably smaller than *E. japonicus*, silvery white around edges, dark green toward center, faintly marked with light green. Handsome. Balled, 1½ to 2 ft., \$1.50 each.

FATSIA. *Aralia*

Foliage plants becoming fine trees. Leaves very large and palmately lobed, on long leafstalks.

F. japonica (*Aralia sieboldi*). Japan and China (S). Shrub with one or several undivided, stout stems. Leaves smooth and deep, glossy green. Splendid for pot culture as a porch plant. In open ground should have at least partial shade. Flowers, like English Ivy, in round clusters. Potted, 1½ to 2 ft., \$1.50 each.

F. papyrifera. CHINESE RICE PAPER TREE. Formosa (T). Tall shrub, young branches and lower surface of leaves covered with dense, white down. Flowers greenish white. This is one of the plants from which the Chinese make rice paper. Potted, 1½ to 2 ft., \$2.00 each.

FEIJOA SELLOWIANA

F. sellowiana (S). Fruit is oblong. Flesh thick, white, pulpy and watery, with a sugary taste resembling the pineapple and guava, and with a strong agreeable odor. Very hardy. Potted, 2 to 3 ft., \$1.00 each; 1½ to 2 ft., 75c each.

FESTUCA. Fescue Grass

F. glauca. BLUE FESCUE GRASS (S). A handsome low-growing grass with very fine, intensely silvery blue leaves. Excellent for borders, window baskets and for trimming hanging baskets. In 4-inch pots, 50c each.

FICUS

F. elastica. INDIA RUBBER PLANT. Asia (T). Handsome ornamental plant for pot culture, but almost too tender to grow outside except in very favored sections. Leaves large and glossy, surrounded while developing by pink, membranous sheath. Potted, 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$4.00 each.

F. macrophylla. MORETON BAY FIG. Australia (T). A very hardy type; leaves dark green above, light green beneath. Sheath almost white. There are many very large trees of this scattered over California. One in the city of Los Angeles has a spread of 125 feet, and the trunk is 5 feet in diameter. Potted, 1½ to 2 ft., \$2.00 each.

FUCHSIA

Phenomenal. Sepals bright scarlet; corolla double, purple. Our largest Fuchsia. In 4-inch pots, 75c each.

Phenomenal White. Sepals bright scarlet; corolla double white. In 4-inch pots, 75c each.

Phenomenal rosea. Sepals bright scarlet; corolla double rose. In 4-inch pots, 75c each.

F. magellanica riccartoni. Large, dense shrub with fine, slender branches and small leaves. Of entirely different appearance from the ordinary fuchsias. The flowers, while much smaller, are miniature reproductions and are borne in the greatest profusion throughout the entire summer and fall. Potted, 1½ to 2 ft., 75c each.

F. microphylla. Small leaved fuchsia with deep red petals. Flowers in the autumn. Potted, 1½ to 2 ft., 75c each.

GARDENIA

G. florida. CAPE JASMINE. A shrub with bright green, glossy foliage. The double, wax-like flowers are very fragrant. A most desirable plant. Potted, 1 to 1½ ft., \$1.50 each.

GARRYA

E. elliptica. SILK TASSEL BUSH. California (S). An evergreen shrub with elliptical leaves, dark green and shining above, hoary beneath. Flowers greenish white, borne in elegant pendulous catkins, 6 to 15 inches in length. Wonderfully attractive at blooming time. Very rare in cultivation. Potted, 1½ to 2 ft., \$1.50 each.

GENISTA. Broom

These ornamental and free-flowering shrubs succeed in most any soil or situation. They have erect stems and are apparently without leaves, the latter being rounded or elongated on the stems; flowers large and pea-shaped, blooming profusely in spring and early summer, and followed by small, rather insignificant pods. Admirable as specimen plants, being umbrageous in character, the contrast with the dark green foliage and stems and the profusion of golden yellow flowers presenting an object of rare beauty in the garden.

G. aetnensis. Sicily (S). A very graceful shrub with very slender, green branches and few leaves. Flowers deep yellow. A succession of blooms during the entire summer. Potted, 2 to 3 ft., \$1.00 each; 1½ to 2 ft., 75c each.

G. canariensis. Canary Islands. Moderate-sized shrub of dense growth; branches downy; leaves downy on both sides; flowers in numerous racemes, bright yellow and fragrant; desirable for hedges. Potted, 3 to 4 ft., 75c each.

G. hispanica. SPANISH BROOM (S). An upright growing shrub; flowers yellow, produced freely in the spring on long, pendulous, round, leafless branches. Potted, 3 to 4 ft., \$1.25 each; 2 to 3 ft., \$1.00 each.

G. hispanica nana. DWARF SPANISH BROOM (S). This variety originated with us. A dwarf form of Spanish broom but differs entirely in habit of growth. It develops a large number of slender branches, which form a fine, compact, globe-shaped head, completely hiding the stem of the plant. Branchlets are clear green and almost devoid of leaves. When covered with its bright yellow flowers it is a magnificent sight. An excellent plant for foreground plantings and for borders. A very desirable shrub. Potted, 1 to 1½ ft., \$1.50 each.

G. maderiense (S). Resembles *G. canariensis*, but has much larger foliage and flowers; a new introduction. Potted, 2 to 3 ft., \$1.50 each.

G. monosperma. BRIDAL VEIL. Spain; Africa (S). Handsome shrub with very fine, drooping, silvery branchlets. Almost leafless. Flowers white, borne profusely in early spring. Rare and very handsome. Potted, 1 to 1½ ft., \$1.50 each.

G. racemosus (S). Medium-sized shrub, highly desirable for its free-blooming quality; flowers yellow, very fragrant, and borne in long racemes, which are in bloom most of the time. Garden hybrid. Potted, 1 to 1½ ft., \$1.00 each.

G. scoparius. SCOTCH BROOM (S). Europe. Easily recognized by its rigid branches; flowers clear yellow and rather large; seed pods almost black. Potted, 1½ to 2 ft., \$1.00 each; 1 to 1½ ft., 75c each.

G. scoparius andreanus (S). A very beautiful variety of the Scotch Broom. Identical in all respects except the flowers, in which the side petals instead of being clear yellow are deep mahogany red. Being a very free bloomer, it is most desirable. Potted, 1 to 1½ ft., \$1.25 each.

G. sessilifolius. S. Europe (S). Finely branched shrub. Leaves not downy. Flowers in short racemes. Potted, 1 to 1½ ft., 75c each.

GERBERA

G. jamesoni hybrida. HYBRID TRANSVAAL DAISY. S. Africa. Stemless, herbaceous perennial. Leaves like dandelion. Flowers borne on very long stalks; composite, about three inches broad, with small disc and long, showy petals. In 4-inch pots, 75c each.



Hypericum moserianum. The gold flower.

GREVILLEA

G. robusta. SILK OAK. Australia. (T) Good-sized tree of rapid growth. Leaves large, deeply dissected, fern-like. Flowers orange-yellow, curiously formed, very sweet scented. Very resistant to drought. Should be kept well pruned. Potted, 3 to 4 ft., \$1.25 each; 2 to 3 ft., \$1.00 each.

G. thelemanniana (S). A very dainty, graceful shrub. Finely branched and densely covered with fine, needle-like leaflets of a soft, pleasing green. Flowers are in small clusters, ruddy pink with green tips. It is no exaggeration to say that this is the freest blooming shrub grown in the State, as it blooms throughout the entire year. Splendid in every way. Potted, 1½ to 2 ft., \$1.25 each; 1 to 1½ ft., \$1.00 each.

HAKEA

Interesting genus of shrubs or small trees. All from Australia. The different species show great diversity in foliage, growth and habit. Very resistant to drought and quite hardy here.

H. laurina (*H. eucalyptoides*). SEA URCHIN. (S) Large shrub with leaves four to six inches long. Flowers clustered into a ball, red with yellow, protruding styles. Potted, 1½ to 2 ft., \$1.00 each.

H. pugioniformis. DAGGER FORMED HAKEA (S). Compact shrub of very unusual appearance. Leaves divided into needle-like lobes, tipped with a very sharp, stiff point. It is abundantly able to take care of itself and will not be molested. Flowers white, borne quite freely in gloublar clusters. Highly resistant to drought. Potted, 2 to 3 ft., \$1.00 each; 1½ to 2 ft., 75c each.

H. saligna. WILLOW-LEAVED HAKEA (S). Medium-sized shrub with long, slender, pale green leaves and small clusters of white flowers. Potted, 2 to 3 ft., \$1.00 each.

HELIANTHEMUM

H. chamaecistus. ROCK ROSE. Europe. A trailing shrub with small, ovate green leaves. Excellent for rock gardening; flowers apricot yellow. Potted, 50c each.



Leptospermum laevigatum.
A fine shrub for grouping.

HYPERICUM

Ornamental, free-flowering shrubs, with yellow flowers ranging from one-half to two inches in diameter; blossoming in summer. Suitable for almost any soil and thrives in full sun and partial shade.

H. aureum. Showy shrub of dense habit. Flowers bright yellow, one to two inches in diameter. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each. Potted, 1½ to 2 ft., 50c each, \$4.50 per ten.

H. calycinum. Low growing with golden flowers. Does well in shade, transplanting itself. Balled, 1½ to 2 ft., \$1.50 each. Potted, 1 to 1½ ft., 75c each.

H. moserianum. Garden hybrid. Pretty, low-growing shrub; valuable for borders. Foliage light green; flowers large, deep yellow with five spreading petals and numerous long stamens tipped with reddish anthers. Blooms almost continuously. Does best in partial shade. Balled, 1½ to 2 ft., \$1.25 each. Potted, 1 to 1½ ft., 75c each.

H. patulum henryi. This variety is hardier than others of the species and of more vigorous growth. Showy, large flowers. Potted, 1 to 1½ ft., 75c each.

ILEX. Holly

Though a large genus, there is practically but one species grown here, viz., the English Holly and its numerous varieties, which differ widely in the color of their foliage. Holly prefers a moist and partially shaded situation, which enhances the luster and brilliancy of foliage and berries.

I. aquifolium. ENGLISH HOLLY (T). Well-known, small tree with leathery, dark green, prickly leaves; inconspicuous flowers and numerous red berries on fertile plants. Growth usually slow. Requires plenty of moisture. Balled, 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$4.00 each; 2 to 3 ft., \$3.00 each.

I. aquifolium. (Self-fertile) (T). A great improvement over the seedling type. Instead of having male and female flowers on different plants, the self-fertile variety has hermaphrodite flowers. A grafted plant can be depended on to produce berries. Grafted stock, potted, 1 to 1½ ft., \$2.50 each.

I. perado (*I. maderensis*) (S). Shrub or small tree of pyramidal habit; foliage obovate with short spines, bright, glossy green above, reticulate below, 4 inches long; fruit a beautiful dark red, one-half inch in diameter. Balled, 2 to 3 ft., \$5.00 each; 1½ to 2 ft., \$4.00 each.

IOCHROMA

Native of South America. Shrubs or small trees very similar in habit to *Cestrum* but coarser and with larger leaves. Growth strong, flowers long, tubular and clustered.

I. carnea (S). Half shrubby plant blooming when very young. Flowers are flesh pink, two or three inches long, slender, tubular, arched toward the top; borne in clusters, surrounding end of branches. Potted, 1½ to 2 ft., 75c each.

I. fuchsioides. South America (S). Growth moderate. Flowers drooping, orange scarlet and very handsome. Potted, 1 to 1½ ft., \$1.00 each.

I. lanceolatum. South America (S). Moderate-sized shrub with downy branches. Flowers purple in large clusters. Potted, 1½ to 2 ft., \$1.00 each.

LAGUNARIA

L. patersoni. Australia (S or T). Small tree with ovate, entire leaves. Flowers large, pale rose, similar to Hollyhock or Hibiscus and borne freely. Handsome. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each.

LAURUS. Laurel

L. nobilis. BAY TREE; SWEET BAY; GRECIAN LAUREL. Mediterranean region. This is the historic Laurel of the Greeks, sacred to Apollo and used to crown the victors in the ancient Olympian games. Planted out it makes a narrow, erect tree, branching close to the ground. It is more commonly grown as a tub plant with a straight stem and compact, round head, or in pyramidal form. In these forms is often called Belgium Laurel or Bay Tree. One of the very best plants for porch use, hotel corridors, formal gardens, etc. Balled, 1½ to 2 ft., \$1.50 each. Potted, 1½ to 2 ft., \$1.00 each.

L. nobilis. Standards. Balled, 4 ft. stem, \$8.00 each.



The Myrtus has a combination of foliage, flower and fruits which should cause it to be used in every garden.

LAVENDULA. Lavender

L. vera. Mediterranean region (S). Well-known, small shrub with gray, downy, small, narrow leaves, and spikes of very aromatic, blue flowers on long stalks; fine for borders. In 6-inch pots, 75c each.

LEONOTIS

L. leonurus. LION'S TAIL. S. Africa (S). Medium-sized shrub of rather straggling growth. Flowers are ruddy orange, with a surface like plush, about two inches long; borne in whorls around branches during late summer and fall. In 4-inch pots, 75c each.

LEPTOSPERMUM

L. laevigatum. AUSTRALIAN TEA TREE (S). Large spreading shrub with small glaucous leaves, entirely covered in early spring with small flowers, having five white spreading petals and pinkish center. An Australian shrub that thrives remarkably well in California. Balled, 2 to 3 ft., \$1.50 each. Potted, 1 ft., 75c each.

L. nicholsii. A scandent shrub; leaves of a purplish, bronzy hue; flowers carmine, covering the entire bush when in full bloom. Potted, 1½ to 2 ft., \$1.50 each.

LIGUSTRUM. Privet

Shrubs or even trees, mostly of quick growth. Leaves always opposite and flowers white. Several sorts are used as hedge plants, for which they are well adapted. Flourish in most any soil and situation. Suitable for grouping, massing and collective planting.

L. coriaceum. Japan (S). Shrub of dwarf, compact, slow growth. Leaves numerous, leathery, very dark green and glossy, convex above. Balled, 1 to 1½ ft., \$1.50 each. Potted, 1 to 1½ ft., \$1.00 each.

L. ciliatum variegatum. BRIGHT FRUITED PRIVET. Japan. Leaves dark green at edges, center blotched with lighter green; white, glossy flowers. Balled, 1 to 1½ ft., \$1.25 each. Potted, 1 to 1½ ft., 75c each.

L. henryi. (New.) China (S). Good for hedges; medium, dark, glossy green leaves; of erect habit and fast growing. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.

L. lucidum (*L. spicatum macrophyllum*). Japan (S). Shrub of spreading but compact growth. Leaves large, leathery, very dark green and glossy above, light green beneath. Easily one of the handsomest. Balled, 1½ to 2 ft., \$1.25 each.

L. lucidum tricolor. THREE-COLORED PRIVET (S). Pleasing and novel shrub of strong, upright growth. Leaves green, with broad white margin, often with ruddy tints. Young growth vivid red. Balled, 1 to 1½ ft., \$1.50 each.

L. nepalense (S). A new variety from the Himalaya Mountains, with oblong ovate leaves. A fine introduction, excellent for hedges. Balled, 2 to 3 ft., \$1.50 each; bare root, 2 to 3 ft., 25c each, \$2.00 per ten. Transplanted in Flats, \$6.00 per hundred.

L. japonicum. JAPANESE PRIVET (S or T). Large shrub or tree, with leathery, dark green, glossy leaves and white flowers. Remarkably good for a tall hedge and also makes a handsome flowering tree. Balled, 4 to 5 ft., \$2.00 each; 3 to 4 ft., \$1.50 each; 2 to 3 ft., \$1.25 each.

L. ovalifolium. CALIFORNIA PRIVET. Japan (S). A strong-growing pyramidal shrub, with bright green, medium-sized leaves; white flowers in June. One of the best low-priced hedge plants. Can be kept trimmed at any height. One of the most popular shrubs in the East and should receive more attention here. Bare root, 2 to 3 ft., 25c each, \$2.00 per ten, \$15.00 per hundred.

L. ovalifolium albo-marginatum. SILVER MARGIN PRIVET (S). A variety of ovalifolium with silver edged leaves. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each.



Ilex aquifolium. Pyramidal in habit with glossy, green leaves, and brilliant red berries. A fine specimen plant.

L. ovalifolium aurea marginatum (S). Variety of ovalifolium with yellow variegations. Balled, 2 to 3 ft., \$1.50 each; 1 to 1½ ft., \$1.25 each. Potted, 1½ to 2 ft., 75c each.

L. reevesi. A small-leaved type, excellent for hedges; will stand shearing well. Balled, 1 to 1½ ft., \$1.25 each.

L. sinense. CHINESE PRIVET. China and Korea (S). Shrub with very leathery, acute leaves; smaller than those of preceding, dark green above, light green beneath. Flowers white, very fragrant, in erect panicles. Potted, 1 to 1½ ft., 50c each.

L. vulgare. EVERGREEN or ENGLISH PRIVET. Europe; Africa; Asia (S). Hedge plant. Leaves small and dark green. Spikes of fragrant, white flowers in June, followed by numerous clusters of black, shining berries. If symmetrically pruned, it cannot be surpassed for hedges. Bare root, 3 to 4 ft., 35c each, \$3.00 per ten; 2 to 3 ft., 25c each, \$2.00 per ten, \$15.00 per hundred.

LONICERA

L. nitida (S). A handsome shrub with dark green, ovate leaves about half an inch long; fine for hedges or as single specimens; can be pruned in any desired form for pot culture. With other flowers sprays can be used for table decoration with good effect; a rapid grower. Balled, 2 to 3 ft., \$1.25 each, \$10.00 per ten; 1½ to 2 ft., \$1.00 each, \$8.00 per ten. Potted, 1½ to 2 ft., 60c each, \$5.00 per ten; cone-shaped, balled, \$2.50 each.



Magnolia grandiflora. As an avenue tree, or as a specimen, with its fine habit, leathery glossy leaves and immense white flowers, it has few equals.

MAGNOLIA

A native of the extreme southern states, reaching the greatest perfection in Louisiana along the Mississippi and recognized as one of the grandest of all broad-leaved evergreen trees. In its native habitat it often attains a height of 100 feet. The flowers are extremely fragrant, measuring from 10 to 12 inches across. They bloom very abundantly in May and June and have a scattering of flowers all through the fall. The flowers are succeeded by cone-like fruits from which seeds of the deepest coral red issue in October.

M. grandiflora. Southern U. S. (T). Well-known tree of splendid appearance. Growth slow but erect and usually symmetrical. Leaves very large, leathery, deep, glossy green. Flowers as much as ten inches broad, pure white, with a powerful aromatic and spicy fragrance. Hardy, long-lived, free from disease and desirable in every way. Balled, 5 to 7 ft., \$6.00 each; 4 to 5 ft., \$5.00 each; 3 to 4 ft., \$4.00 each; 2 to 3 ft., \$3.00 each.

MAHONIA

Closely related to *Berberis*, from which they differ in their spineless branches and pinnate leaves; leaflets are large, with prickly margins; stems mostly arise from base of plant and usually do not branch. Flowers always yellow and berries borne like grapes, hence the name. Finds wide use in ornamental planting. Should be given a partially shady situation.

M. aquifolium. OREGON GRAPE. Oregon and California (S). Well-known native shrub of medium size, with dark green leaves, which become coppery purple during winter. New growth very glossy. Flowers are bright yellow, in slender, erect, clustered racemes, followed by a profusion of dark blue berries. Balled, 3 to 4 ft., \$2.50 each; 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each. Potted, 1 to 1½ ft., 75c each.

M. japonica (*M. beali*). JAPANESE MAHONIA (S). Leaves and leaflets much larger than Oregon Grape. Soft green if shaded, becoming marked with yellow and red if exposed to full sun. Flowers large, in long, erect racemes, followed by large, blue berries. Possesses decided individuality and is excellent for shaded loca-

tions. Balled, 1½ to 2 ft., \$1.50 each. Potted, 3 to 4 ft., \$2.50 each; 2 to 3 ft., \$2.00 each; 1 to 1½ ft., \$1.25 each.

M. pinnata. CALIFORNIA GRAPE. Looks very much like the Oregon Grape, but is a much more upright grower; its leaves are deeply toothed like the holly and the young growth is burnished with red and bronze. A grand shrub adapted to either a sunny exposure or to a shady position. Balled, 1½ to 2 ft., \$2.00 each; 1 to 1½ ft., \$1.50 each.

MELALEUCA

Low spreading shrubs with graceful drooping branches and bottle-shaped flowers; effective for grouping and for ground covers because rapid growers. Will do well on the poorer soils and are more or less tolerant of drouth, sea winds and alkali.

M. armillaris (S). Large shrub of spreading habit, with long, slender drooping branches, well clothed with small, narrow, soft green leaves. Flowers like a diminutive Bottle Brush, creamy white. Growth very rapid. Potted, 4 to 5 ft., \$1.00 each.

M. decussata (S). Tall shrub with arching branches; very small, opposite, grayish leaves. Flowers lilac on short spikes. Very graceful. Balled, 2 to 3 ft., \$1.50 each. Potted, 2 to 3 ft., 75c each.

M. ericifolia. Small tree or shrub with slender branches and leaves like heather. Flowers yellowish white. Potted, 3 to 4 ft., \$1.00 each.

M. hypericifolia. Shrub of spreading growth. Leaves opposite, slender and rather long for the genus. Flowers large, with long stamens, fine red. Potted, 2 to 3 ft., 75c each.

M. nesophila (S or T). Rather strong and quick-growing shrub, which sometimes even makes a tree. Leaves about like *Leptospermum laevigatum*. Flowers rosy pink, in terminal, rounded heads—not formed like the "Bottle Brushes." Free flowering. Potted, 2 to 3 ft., 75c each.

M. wilsoni (S). Fine, erect-growing shrub with medium-sized, lance-shaped leaves. Foliage soft and pleasing; branches slightly downy. New growths ruddy, making a beautiful contrast. Potted, 4 to 5 ft., \$1.00 each; 2 to 3 ft., 75c each.

MYRTUS. Myrtle

Handsome shrubs with rather small, very aromatic leaves; flowers white, with very numerous stamens followed by handsome bluish-black berries. Uses wide and various, being adapted to grouping, massing, single specimens and as pot and tub plants.

M. communis. COMMON MYRTLE. Europe (S). A beautiful shrub with fine, clean, glossy foliage. Leaves about an inch long. Flowers spicy, fragrant, pure white. Handsome as a specimen or hedge plant. Balled, 2 to 3 ft., \$1.50 each; 1/2 to 2 ft., \$1.00 each. Potted, 1 to 1/2 ft., 60c each.

M. communis flore pleno. DOUBLE-FLOWERING MYRTLE. Flowers very double, with few or no stamens. Balled, 2 to 3 ft., \$2.00 each; 1/2 to 2 ft., \$1.50 each.

M. communis microphylla. SMALL-LEAVED MYRTLE (S). Leaves very small. Growth spreading but compact. Balled, 1/2 to 2 ft., \$1.50 each.

M. communis variegata. VARIEGATED MYRTLE. Foliage handsomely variegated. Very free flowering and fruiting. Balled, 1/2 to 2 ft., \$1.50 each.

M. ralphii. Numerous slender stems; small, brownish green leaves. Balled, 1/2 to 2 ft., \$1.00 each.

NANDINA

N. domestica. Japan (S). A very handsome shrub of moderate size and rather slow growth. The leaves are much divided, with rather large leaflets, light green in summer, turning to a vivid red during the fall and winter. The white flowers are small, in good-sized, erect panicles, followed by bright crimson berries. This is one of our handsomest shrubs, its winter appearance with the bright red berries and darker red foliage being particularly striking. Balled, 3 to 4 ft., \$3.00 each; 2 to 3 ft., \$2.50 each; 1/2 to 2 ft., \$1.50 each. Potted, 1 to 1/2 ft., 75c each.

NERIUM. Oleander

N. oleander. Orient. The general characteristics of this species are too well known to need description, but most people seem to overlook the fact that there are many named varieties, ranging in color through various shades of red, pink, white and yellow, which are very fine. They do best when planted in the full



Nerium. The Oleander is a very rapid growing shrub, producing a succession of brilliantly colored flowers all summer.



Photinia arbutifolia.
The famous Xmas Berry of California.

sun. It should not be forgotten that all parts of the Oleander are poisonous if eaten. We have pink, red and white flowering varieties. Potted, 1/2 to 2 ft., \$1.00 each; 1 to 1/2 ft., 75c each.

N. variegata. Leaves strongly marked with white, changing to creamy yellow. Flowers single, reddish purple. Potted, 1 to 1/2 ft., \$1.50 each.

OLEARI

O. fosterii. Australia (S). A handsome shrub of erect, pyramidal habit; foliage yellowish green and undulated; flowers white. Desirable for small gardens. Potted, 1/2 to 2 ft., \$1.00 each.

PARKINSONIA

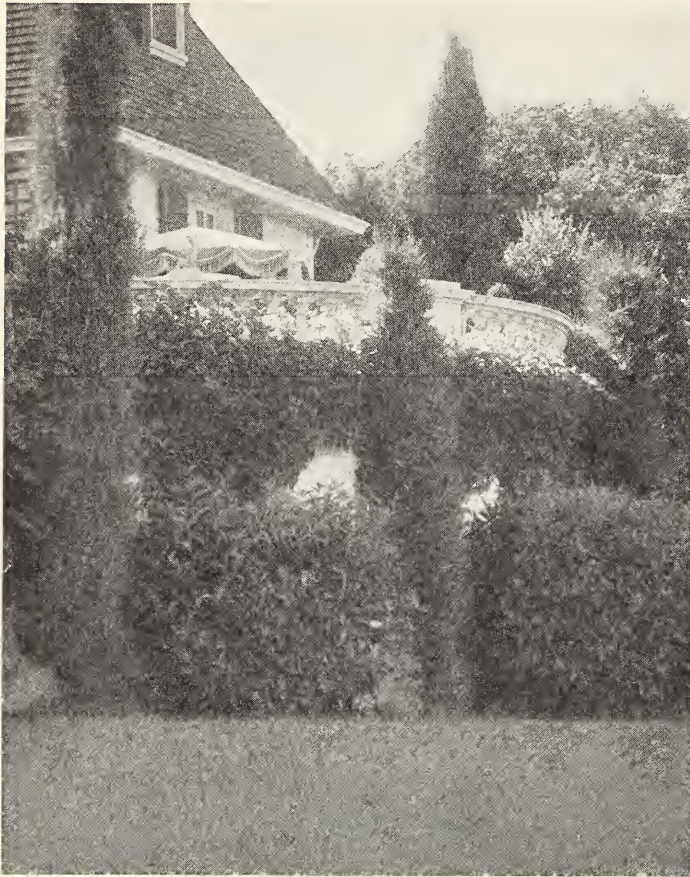
P. aculeata. JERUSALEM THORN. North America (T). Rare and interesting small tree. Bark is bright green, even on old wood. Leaves doubly pinnate; the pinnae from six to eighteen inches long, with numerous, very small leaflets. Small thorns on leafstalks. Flowers, resembling those of Cassia, are yellow, fragrant and borne freely in racemes. Will thrive in the driest soil and is quite hardy. Potted, 2 to 3 ft., \$1.00 each.

PHILLYREA

P. latifolia. Europe; Africa. Large shrub of rapid growth related to the Olive and having similar flowers. Branches stout. Leaves slightly serrated, almost as broad as long, dark green and lying close against branches. Will thrive well even in dry and exposed situations. Native of the Mediterranean region. Fine for hedges. Balled, 2 to 3 ft., \$1.25 each; 1/2 to 2 ft., \$1.00 each. Seedlings, 6 to 8 inches, \$15.00 per hundred.

PHOTINIA

Graceful and handsome native shrubs of wide popularity during the holiday season on account of their bril-



The foundation plan for this home demonstrates rare judgment in the selection of Italian Cypress, English Laurel, and the Boston Ivy as a clinging vine.

(PHOTINIA) Continued

liant colored berries. Habit rather tall; flowers borne in clusters and white in color. Decidedly attractive in the wild and an object of beauty and luxuriance under cultivated conditions.

P. arbutifolia. TOYON; CHRISTMAS BERRY; CALIFORNIA HOLLY. California (T). Our well-known native shrub, the glory of our hills and canyons in early winter when loaded with its brilliant red berries. Thrives admirably under cultivation and with good care grows very quickly. Potted, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each; 1 to 1½ ft., 75c each.

P. arbutifolia. The same as the preceding except that the berries are golden yellow. Introduced by us from Catalina Island. Potted, 1 to 1½ ft., \$1.50 each.

P. serrulata. China (S). Large shrub of rounded form. Leaves are drooping, six or seven inches long and two or three broad, very dark and green and very glossy on upper surface, some turning vivid red in fall and holding on through the winter. Bears in great profusion small, white flowers in large, convex heads from six to twelve inches broad. Is in bloom most of the year except during summer. Perfectly hardy and seems to have no diseases or enemies. A thoroughly fine shrub. Potted, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each.

PIMELEA

P. ferruginea (P. decussata). Australia (S). Much-branched little shrub with small, decussate leaves closely surrounding the branches. Flowers beautiful rosy pink, crowded in heads at ends of shoots. Very handsome and free blooming. Easily one of our very finest small shrubs. Potted, 1 to 1½ ft., \$1.50 each.

PITTOSPORUM

Shrubs or trees, mostly natives of Australia and New Zealand. In several species the flowers, while small, are handsome. *P. eugenioides*, *nigricans*, and *undulatum* are highly valued as hedge plants. All thrive well in California.

P. crassifolium (S). Large or small tree. Leaves colored same as Olive, dark green above, silvery beneath; are two to three inches long and very downy. Flowers wine-colored. Very valuable on account of its great resistance to wind, even close to the coast. Balled, 1½ to 2 ft., \$1.25 each. Potted, 1½ to 2 ft., 75c each.

P. eugenioides (S or T). If grown singly will make quite a good-sized, handsome tree, but more often used in hedges. Leaves are bright yellowish green, medium-sized in hedges, but rather large in the tree form; margins wavy. Flowers clustered, yellow and fragrant. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each. Potted, 2 to 3 ft., 75c each. Transplanted in flats, 8 to 10 inches, \$5.00 per 100.

P. fairchildi (S). Similar to *crassifolium* but with longer leaves. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.

P. phillyraeoides. NARROW-LEAVED PITTOSPORUM (T or S). A very remarkable tree with slender, drooping branches, giving it almost the exact habit of the Weeping Willow. Leaves are long and very narrow, only about one-fourth inch broad. Flowers small, yellow and fragrant. Thoroughly adapted to the driest situations. Rare at present, but should become popular. Potted, 2 to 3 ft., \$1.00 each.

P. ralphii. Very similar to *P. crassifolium*, but the leaves are flat on the margins and the fruits are smaller. Balled, 2 to 3 ft., \$1.50 each.

P. tenuifolium (P. nigricans) (S or T). Growth about the same as *P. eugenioides*, whether as a specimen or in hedges. Leaves smaller and darker green. Particularly remarkable for its black flowers and stems. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each. Potted, 1½ to 2 ft., 75c each.

P. tobira. JAPANESE PITTOSPORUM (S). Forms a dense, globular shrub of good size or can even be trained into a small tree. Leaves dark green above, lighter beneath, broadest towards the end. Flowers numerous, pure white and fragrant. Very showy in bloom, as the flowers are larger than those of the other species and borne at the ends of the shoots. Balled, 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each. Potted, 1½ to 2 ft., 75c each.

P. tobira variegatum (S). Identical with preceding except that foliage is strongly and conspicuously variegated with white. One of the very handsomest shrubs in our collection. Balled, 1½ to 2 ft., \$2.00 each.

P. undulatum. VICTORIAN BOX (T). Makes a handsome, round-headed tree, or can be trained as a hedge. Leaves rich green, longer than any of above, wavy-margined and taper-pointed. Flowers yellowish white, extremely fragrant, particularly at night. Makes a beautiful, free-flowering tree and is one of the very handsomest hedge plants for sections where it is sufficiently hardy. Balled, 2 to 3 ft., \$1.50 each. Potted, 1 to 1½ ft., 75c each.

P. viridiflorum. CAPE PITTOSPORUM (S). Closely resembles *P. tobira* except that it is a much more robust grower. Leaves are longer and narrower. Flowers are greenish yellow in dense, compound clusters. Balled, 1½ to 2 ft., \$1.50 each.

POLYGALA

P. dalmaisiana. Garden hybrid (S). One of the most continuous blooming shrubs in our collection, as it is never without flowers and most of the time is nearly covered. Forms a dense, globular shrub of moderate growth, with very slender branches. Flowers magenta-pink, tipped with a little white brush. Balled, 1½ to 2 ft., \$1.25 each. Potted, 1½ to 2 ft., 75c each.

PRUNUS

A greatly diversified genus, including many of the stone fruits; valuable ornamental trees and shrubs. The evergreen kinds described below include our native

wild cherries and the Cherry Laurels, all characterized for their fine foliage. Pleasing to the eye when used as specimens in large or small plantings, in groups, hedges, pyramidal effects and for backgrounds. Will stand trimming.

P. carolinensis. AMERICAN CHERRY LAUREL (S). This fine evergreen tree of the Southern States is valuable for shade, ornament, and makes a fine hedge. The leaves are large, bright and shiny. Flowers are small, with cream colored petals; fruits black and shiny. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each.

P. ilicifolia. CALIFORNIA EVERGREEN CHERRY; HOLLY-LEAVED CHERRY; ISLAY (T or S). Well-known native shrub or tree with very glossy, prickly margined leaves, resembling those of English Holly. One of the very handsomest hedge plants, but of rather slow growth. Potted, 1 to 1½ ft., 75c each.

P. ilicifolia integrifolia. CATALINA CHERRY (T). A variety of the preceding with considerably larger and more pointed leaves, usually without the prickly edges. Grows more rapidly. Potted, 1½ to 2 ft., \$1.00 each.

P. lauro-camelliaefolia. CAMELLIA LEAVED LAUREL (S). A medium sized compact shrub. Leaves glossy green, long and narrow, recurved, both edge-wise and lengthwise. Flowers are white, in slender racemes, followed by black, cherry-like fruits. Balled, 2 to 3 ft., \$3.00 each.

P. laurocerasus latifolia. ENGLISH LAUREL; CHERRY LAUREL. S. Europe (S). Large shrub or even small tree, with broad, heavy, glossy leaves, slightly serrated. Flowers are white, in erect racemes, followed by black, cherry-like fruits. There are several varieties, which differ in the shape and color of leaves. Balled, 2 to 3 ft., \$3.00 each; 1½ to 2 ft., \$2.00 each. Potted, 1 to 1½ ft., \$1.25 each.

P. lusitanica. PORTUGAL LAUREL. Spain and Portugal (S). Easily distinguished by its somber, very dark green, sharply serrated leaves, which usually show a tendency to hold upward from the midrib. Growth compact. Flowers white, in very long, slender racemes. Easily one of the handsomest evergreen shrubs and excellent for tub culture. Balled, 1½ to 2 ft., \$1.50 each. Potted, 1 to 1½ ft., \$1.00 each.

PSIDIUM. Guava

P. cattleianum. STRAWBERRY GUAVA. Brazil (S). Handsome, compact shrub. Leaves dark green, leathery and glossy. Flowers cream colored. Fruit deep claret, with very fine flavor. Often grown as a loose, tall hedge. Potted, 1½ to 2 ft., \$1.50 each.

PYRACANTHA. Firethorn

Large shrubs adapted to most any soil and situation; admired for their bright berry-like fruits (which remain on the plant until spring), white flowers and firm foliage. The genus is closely allied to the Cotoneasters, but is easily distinguished by their crenulate leaves and thorny branches.

P. angustifolia. EVERGREEN HAWTHORN. China. Shrub with long slender spreading prostrate branches; young growth yellowish tomentose; foliage long and narrow and of a pleasing green; flowers white, borne in large clusters; berries bright orange color and profuse, developing their color in the fall and lasting until spring. Balled, 3 to 4 ft., \$2.50 each; 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each. Potted, 1½ to 2 ft., 75c each.

P. coccinea. BURNING BUSH. Europe (S). Large, thorny shrub with small, ovate leaves. Bears a great profusion of small white flowers in flat corymbs, followed by a mass of orange red berries in early fall. Balled, 3 to 4 ft., \$3.00 each; 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each. Potted, 1 to 1½ ft., 75c each.

P. coccinea lalandi (S). Variety of stronger growth, making long shoots that can be trained against a wall if desired. Leaves a little longer. Berries orange yellow. Balled, 2 to 3 ft., \$2.00 each; 1½ to 2 ft., \$1.50 each.

P. crenulata. CHINESE EVERGREEN HAWTHORN (S). Very distinct from the preceding sorts. Growth is more compact, branches slender, leaves longer, narrow and glossy. New growth very ruddy. Flowers about the same, but berries clear, bright red. It is about the earliest red-berry-bearing shrub, as color is fully developed by August. Will endure considerable shade. As yet this is comparatively scarce, but is rapidly attaining great popularity. Balled, 4 to 5 ft., \$3.00 each; 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.

P. crenulata yunnanensis. A splendid form of the preceding; growth prostrate and more vigorous; foliage larger and glossy; flowers white and followed by masses of large bright red berries, which remain on the plant until early spring. Excellent for general ornamental planting; birds do not molest the fruit. Balled, 4 to 5 ft., \$3.00 each; 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each.

P. formosiana. (New.) This evergreen pyracantha has much smaller foliage and is a more compact low growing shrub than any of this species. Berries are bright scarlet. Balled, 2 to 3 ft., \$2.00 each.

QUERCUS. Oak

Q. agrifolia. CALIFORNIA LIVE OAK (T). The well-known grand old California evergreen, which adds so much beauty to our lowland scenery, where it abounds and grows to perfection. Many refuse to plant this on account of its supposed slow growth. This impression is entirely erroneous, as it grows very rapidly, and quickly forms a fine tree. Potted, 2 to 3 ft., \$1.25 each.

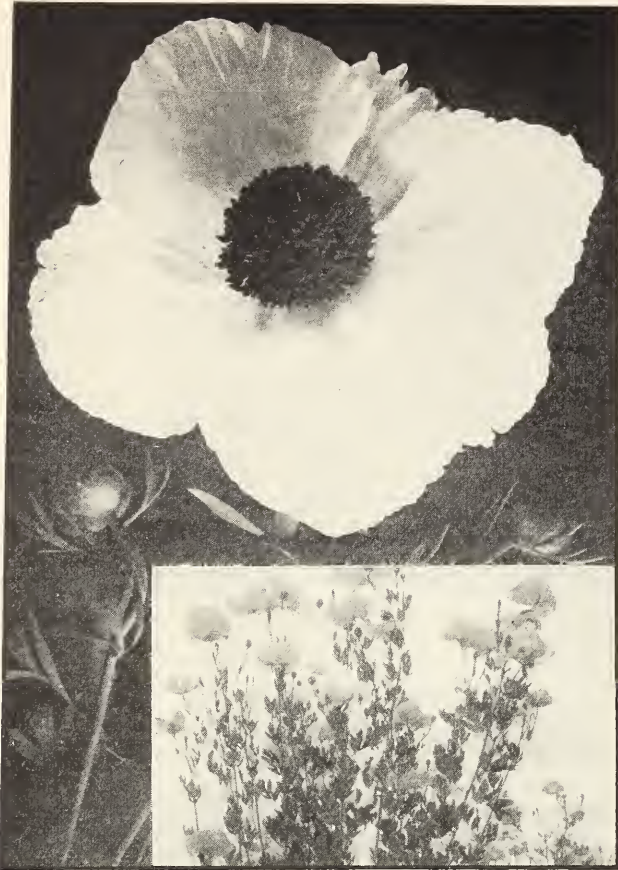
Q. suber. CORK OAK. South Europe (T). As its name implies it supplies the bark from which corks are made. Beautiful ornamental for garden and park purposes, planted either in rows, groups and as single specimens; will do well in most any situation and varying conditions of soil and climate in California. Potted, 3 to 4 ft., \$1.25 each.

RAPHIOLEPIS

R. japonica (R. ovata). Japan (S). Handsome, compact shrub of low and rather slow growth. Branches
(Continued)



Quercus agrifolia—California Live Oak—completes the picture in this home.



Romneya coulteri. This native California shrub is a glorious sight when in full bloom.

(RAPHIOLEPIS) Continued

stout. Leaves of medium size, oval or rounded, leathery, very dark but lustrous green. Flowers white and fragrant, in early spring, followed by blue berries in clusters during winter. Balled, 1½ to 2 ft., \$1.50 each. Potted, 1 to 1½ ft., \$1.00 each.

RHAMNUS

R. alaternus. Evergreen shrub or small tree; leaves glossy, dark green above, pale or yellowish green beneath. A fine sort, but little known. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each. Potted, 2 to 3 ft., \$1.25 each.

R. purshiana californica. CASCARA; CALIFORNIA WILD COFFEE. Pacific Coast (S). Handsome and hardy native shrub. Leaves green, oblong, glossy, aromatic when crushed. Flowers greenish. Berries shaped like those of coffee, red turning black. Thrives well in shade. Potted, 2 to 3 ft., \$1.50 each.

ROMNEYA

R. coulteri. MATILIJIA POPPY. Southern California. Our finest native flowering plant. Half-shrubby, forming a large bush of silvery hue. The flowers are magnificent, sometimes six inches broad; petals purest white, center rich yellow from the numerous stamens. The fragrance is much like that of the pulp of a ripe orange. The individual flowers last many days and the plants are in bloom all summer. Difficult to propagate, hence scarce, but there is no difficulty about transplanting good pot-grown plants. Potted, 1 to 1½ ft., \$1.25 each.

ROSMARINUS. Rosemary

R. officinalis. Mediterranean region (S). Small shrub of irregular growth. Leaves linear and highly aromatic, as are numerous lavender-colored flowers borne in early spring. Thrives in dry soil. Potted, 1½ to 2 ft., 75c each.

RUSCUS

R. aculeatus. BUTCHER'S BROOM. Europe (S). Small, compact shrub of very peculiar appearance;

branches and spiny false leaves one uniform shade of dull green. Flowers are small and inconspicuous, but are followed by large, red berries, which contrast handsomely with green plants. Very odd little shrub. Sterling plant for Christmas decoration. Balled, 1½ to 2 ft., \$1.50 each.

SANTOLINA

S. chamaecyparissus. COMMON LAVENDER COTTON. Has small, linear, thickly set leaves. July. Potted, 1 to 1½ ft., 35c each.

SCHINUS. Pepper Tree

S. molle. CALIFORNIA PEPPER TREE. Peru (T). Round-headed tree with low, drooping branches. Leaves pinnate with acute leaflets. Foliage very pungent-aromatic. Flowers very small but very numerous, greenish white, very attractive to bees. Berries rosy red, in long, drooping clusters during the winter. Potted, 4 to 5 ft., \$1.00 each; 3 to 4 ft., 75c each.

STERCULIA (Brachychiton)

S. diversifolia. BOTTLE TREE. Australia (T). Tall tree with moderate-sized, clean, glossy leaves, deeply and variously lobed. Flowers small, greenish white, marked with red. Remarkable for the great size of trunk at the base. An excellent specimen and first class as an evergreen street tree. Bare root, 4 to 5 ft., \$2.00 each; 3 to 4 ft., \$1.50 each.

STROBILANTHES

S. isophylus. Height 1 to 2 feet. Flowers, lavender color; leaves nearly equal; beautiful sub-shrubs, and merit a place in every collection. Potted, 1½ to 2 ft., 60c each.

SWAINSONIA

Shrubby plants of spreading growth. Pinnate leaves, very finely divided. Flowers much resembling Sweet Peas, but smaller and not fragrant; borne in long, erect sprays. Bloom continually through spring and summer. Very showy and handsome; excellent for cutting.

S. greyans. Australia. Flowers varying from red to pink. Potted, 1½ to 2 ft., 60c each.

TEMPLETONIA

T. retusa. Australia (S). Rare shrub with dark green leaves of unusual form, notched at tip. Bears elongated, remotely pea-shaped flowers of peculiar form, coral red. Potted, 1 to 1½ ft., \$1.00 each.

TEUCRIUM

T. fruticans. Small shrub with silky white sage-like foliage; flowers in racemes three to six inches long, color purple. Potted, 1 to 1½ ft., 75c each.

UMBELLULARIA

U. californica. CALIFORNIA LAUREL or BAY. Our well known large native tree with dark green, strongly aromatic leaves and yellow flowers. We consider this one of the handsomest trees in cultivation and believe it should be widely planted. Potted, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.00 each.

VERONICA

Their habit is compact and well adapted to finishing groups of strong growing shrubs. Foliage smooth, carries no dust, and is always glossy and fresh looking. They flower in racemes and are always in bloom.

V. buxifolia. BOX LEAVED VERONICA. Somewhat dwarf in habit; foliage green, glossy, acute, thick, petiolate; flowers white, in spikes one inch long. Balled, 1 to 1½ ft., \$1.50 each.

V. cupressoides. Globular shrub with numerous slender branches clothed with scale-like leaves which

give it the appearance of cypress; flowers small, in terminal heads, lilac in color. Balled, 1 to 1½ ft., \$1.50 each.

V. decussata (S). Rather dwarf. Leaves medium sized and closely set. Flowers large, violet blue. An excellent hedge plant. Balled, 1½ to 2 ft., \$1.25 each. Potted, 1 to 1½ ft., 60c each.

V. decussata variegata. A new variety originating with us. Foliage brilliantly and freely variegated with bright yellow. Very handsome. Balled, 1½ to 2 ft., \$1.25 each. Potted, 1 to 1½ ft., 60c each.

V. decumbens. A low-spreading shrub; foliage small, rounded, glossy green; stems black. Flowers in short spikes. Potted, 1 ft., 50c each.

V. elliptica (S). Growth upright. Leaves small, light green. Flowers large in loose spikes, violet tinted in bud, changing to pure white. Balled, 1½ to 2 ft., \$1.50 each; 1 to 1½ ft., \$1.25 each.

V. pinquifolia. Of spreading habit, branches more or less decumbent; foliage oblong, narrowing to a point, silvery grey and glaucous, margined red; flowers in short spikes, dense, and white in color. Balled, 1 to 1½ ft., \$1.50 each.

V. speciosa andersoni. Hybrid (S). Growth strong and leaves rather long. Flowers violet purple. Very free bloomer. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.

V. speciosa andersoni variegata. Growth strong and upright; leaves large and conspicuously variegated with creamy white; flowers light blue. Balled, 1½ to 2 ft., \$1.25 each. Potted, 1 to 1½ ft., 60c each.

V. speciosa imperialis. IMPERIAL VERONICA (S). Growth strong and rather spreading. Leaves large, dark green with purple margins and midribs. Flowers amaranth red. Very handsome. Balled, 1½ to 2 ft., \$1.50 each. Potted, 1 to 1½ ft., 60c each.

V. traversi (S). Small shrub of upright, compact growth. Leaves far smaller than in any of preceding. Flowers pure white, in great profusion. Spikes small. Very dainty. Balled, 1 to 1½ ft., \$1.00 each.

VIBURNUM

Universal favorites throughout the State, finding wide uses in both park and garden making; thrive in most any soil and situation.

V. odoratissimum. China (S). Bushy shrub with stout, erect branches. Leaves large and leathery, glossy green, dark above, pale beneath. Flowers white, very fragrant, borne in large panicles, sometimes followed



Pyracantha coccinea. Burning Bush, valued chiefly for its brilliant, orange colored berries which completely cover the plant during the fall and winter season.

by showy red berries. During winter the exposed leaves turn a vivid red. Very rare and handsome shrub. Balled, 1 to 1½ ft., \$1.50 each.

V. rectangulum. A small shrub with bronze, green and white flowers. Mass of red berries follows the flowers. Balled, 1 to 1½ ft., \$1.25 each. Potted, 1 to 1½ ft., 75c each.

V. rhytidophyllum. A shrub with distinct large leaves, dark, bronze green in color. A good foliage plant with very large wrinkled leaves. Very popular in the South and should find congenial conditions in California. Potted, 1 to 1½ ft., \$1.50 each.

V. robustum. A viburnum of good promise, being an erect grower with round leaves. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.

V. suspensum (*V. sandankwa*; *V. ellipticum*). Growth spreading. Leaves elliptic, large, dark green and quite wrinkled; edges finely scalloped. Flowers cream color, in small clusters, very fragrant. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.

V. tinus. (*Laurustinus*.) Mediterranean region. (S) Shrub with rather small, wavy-margined, pointed leaves. Flowers in broad heads, pinkish in the bud, white when fully opened. A great hedge plant. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.

V. tinus lucidum (*Laurustinus grandiflora*). Much better than the type. Growth is stronger, leaves larger and very glossy, with flower clusters several times as large. Very fine. Balled, 3 to 4 ft., \$2.00 each; 2 to 3 ft., \$1.50 each, \$13.50 per ten; 1½ to 2 ft., \$1.25 each.

V. tinus variegatum. Leaves very conspicuously marked with yellow. Otherwise same as type. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.

V. tinus strictum (*Laurustinus rotundifolia*). Variety of very tall, slender and erect growth. Leaves slightly rounded. Blooms freely. Flower clusters rather small. Balled, 2 to 3 ft., \$1.50 each; 1½ to 2 ft., \$1.25 each.



Prunus laurocerasus latifolia. The English Laurel is entitled to a place in every garden where foliage effects are desired.



Populus nigra italica. Lombardy Poplar. This exotic finds itself very much at home in California.

Deciduous Ornamental Trees

In this class will be found some varieties that make beautiful specimen trees, others valued for their wealth of blossoms and some "general purpose" trees. All have been carefully grown, and such as needed it pruned each year. It is advisable, however, when planting, to cut back pretty well all but a few kinds. This helps the tree to become established and lessens the risk of loss. It is easy to cut back too little, but hard to overdo it. In the hot interior valleys it is advisable to shade the trunks of this class of trees, wrapping with either paper or burlap until they become well established.

ACER. Maple

Among our most ornamental and valuable deciduous trees for park and street planting. The foliage of nearly all assumes handsome autumnal tints. All have leaves with the characteristic lobes except the Box Elder, which has pinnate leaves. For Japanese Maples see Deciduous Shrubs.

A. campestre. ENGLISH CORK-BARKED MAPLE. Europe. Beautiful small tree of compact habit. Leaves very small compared to other Maples, dark green. Bark somewhat corky. Certain to attain popularity when better known. Bare root, 4 to 6 ft., \$1.00 each, \$7.50 per ten.

A. macrophyllum. OREGON or LARGE-LEAVED MAPLE. Oregon; California. A native tree of large size. Young branches rather stout, bluish and glaucous. Leaves very large, dark green and deeply lobed. One of our best shade and avenue trees. Bare root, 6 to 8 ft., \$1.50 each, \$12.00 per ten; 4 to 5 ft., \$1.20 each, \$10.00 per ten.

A. negundo californicum. CALIFORNIA BOX ELDER. Native variety of Eastern Box Elder. Pinnate leaves, usually of five leaflets. Young branches light green.

Particularly handsome when in bloom. Bare root, 10 to 12 ft., \$2.00 each, \$17.50 per ten; 8 to 10 ft., \$1.50 each, \$12.50 per ten; 6 to 8 ft., \$1.25 each, \$10.00 per ten; 4 to 6 ft., \$1.00 each, \$7.50 per ten.

A. platanoides. NORWAY MAPLE. Europe; Asia. A large, handsome tree of rounded form, with very broad, five-lobed, dark green, shining leaves. One of the most desirable for any situation. Bare root, 6 to 8 ft., \$1.25 each; 4 to 6 ft., \$1.00 each; 3 to 4 ft., 75c each.

A. pseudo-platanus. SYCAMORE MAPLE. Europe; Asia. A handsome tree of rapid, upright growth, with smooth, ash-gray bark. Leaves are large, five-lobed, deep green above, glaucous beneath. Bare root, 4 to 6 ft., \$1.00 each; 3 to 4 ft., 75c each.

A. rubrum. SCARLET MAPLE. Eastern N. America. A medium, round-headed tree of slow growth here. Produces deep red blossoms, appearing before the leaves, which change to a brilliant scarlet in early autumn. Bare root, 12 to 14 ft., \$3.00 each, \$25.00 per ten; 6 to 8 ft., \$1.50 each, \$12.50 per ten; 4 to 6 ft., \$1.25 each, \$10.00 per ten; 3 to 4 ft., \$1.00 each, \$7.50 per ten.

A. saccharinum (*A. dasycarpum*). SILVER MAPLE; SOFT MAPLE. Eastern N. America. Large tree of very quick growth. Bark nearly white. Leaves are deeply lobed and very variable in form, green above and silvery beneath. Bare root, 10 to 12 ft., \$2.00 each, \$15.00 per ten; 8 to 10 ft., \$1.50 each, \$12.50 per ten; 6 to 8 ft., \$1.25 each, \$10.00 per ten; 4 to 6 ft., \$1.00 each, \$7.50 per ten.

A. saccharum. SUGAR MAPLE; ROCK MAPLE. Eastern N. America. A well known tree of stately growth, fine form and foliage, which assumes beautiful autumnal tints in cold sections. Leaves rather small, three or five lobed. Bare root, 6 to 8 ft., \$1.25 each; 4 to 6 ft., \$1.00 each; 3 to 4 ft., 75c each.

AESCULUS. Buckeye, Horse Chestnut

Ae. hippocastanum. EUROPEAN HORSE CHESTNUT. Sturdy tree of strong growth. Flowers white tinged with red. Pods spiny. Succeeds well in California and worthy of more extensive planting. Bare root, 14 to 16 ft., \$7.50 each.

ALBIZZIA

A. julibrissin (Acacia julibrissin). CONSTANTINOPIE ACACIA. Asia; Africa. Of low and widely spreading growth, very hardy. Leaves very large, bipinnate, finely divided and feathery. Flowers borne profusely during summer, in heads, varying from pink to white. Potted, 1 to 1½ ft., 75c each.

BETULA. Birch

Trees of vigorous and upright growth, but with slender, usually drooping shoots. Leaves rather small. Will thrive even in poor soils.

B. alba. EUROPEAN WHITE BIRCH. Europe to Japan. Medium to large tree with white bark on the older limbs and trunk. Growth somewhat irregular. At about five years the young branches assume a drooping habit. Bare root, 4 to 6 ft., \$1.00 each; 3 to 4 ft., 75c each.

B. papyrifera. CANOE BIRCH; PAPER BIRCH. Northern U. S. Bark on trunk and older limbs becomes paper-white similar to European Birch. The cordate leaves are very much larger and darker; dull green above. Veins on lower surface are fleshy and covered with rusty down. Very distinct. Bark used by Indians for making canoes. Bare root, 10 to 12 ft., \$3.00 each; 4 to 6 ft., \$1.25 each.

CASTANEA. Chestnut

C. sativa. ITALIAN or SPANISH CHESTNUT. Makes a fine, round-headed tree of great beauty. Flowers, in very long, slender spikes, are produced very profusely



Platanus orientalis. The European Sycamore is very much in demand as a Street and Avenue Tree.



Fraxinus velutina—Arizona Ash—is finding great favor in California.

in spring. Bare root, 16 to 18 ft., \$6.00 each, \$50.00 per ten; 14 to 16 ft., \$5.00 each, \$40.00 per ten.

CATALPA

C. bignonioides. S. E. United States. Resembles *C. speciosa*, but slower grower and makes a smaller tree with smaller foliage, but more conspicuous and numerous flowers. Bare root, 4 to 6 ft., 75c each; 3 to 4 ft., 50c each.

C. speciosa. HARDY CATALPA. Eastern United States. Very rapid-growing, tall tree with large, heart-shaped leaves, sometimes a foot long. A free bloomer, bearing panicles of white, fragrant flowers in June and July. Yields valuable timber. Bare root, 6 to 8 ft., \$1.25 each; 4 to 6 ft., 75c each; 3 to 4 ft., 50c each.

CEDRELA

C. sinensis. Northern China. Large trees with feathery foliage similar to *Ailanthus*, but without its disagreeable odor. Flowers white, in long, drooping racemes, two to three feet in length. Very fine as an avenue tree. Potted, 1½ to 2 ft., 75c each.

CELTIS. Nettle Tree

Trees of strong, spreading growth. Leaves resemble those of Nettles. Flowers inconspicuous, but followed by numerous small berries. Wood is very fine grained, light and elastic, useful for manufacture of small articles.

C. australis. Mediterranean region. Healthy, vigorous tree; succeeds almost anywhere. Leaves three to five inches long, like Elm. Berries dark purple. Bare root, 4 to 6 ft., \$1.00 each; 3 to 4 ft., 75c each.

CERCIS. Judas Tree

Small trees bearing innumerable small, pea-shaped flowers before leaves appear. Pods remain all summer, adding to its picturesque appearance.

C. siliquastrum. EUROPEAN JUDAS TREE. Very beautiful in spring when covered with a mass of purplish rose flowers. Bare root, 3 to 4 ft., 75c each.



The *Liquidambar styraciflua*. As a foliage tree has few equals.

(CERCIS) Continued

C. siliquastrum alba. WHITE-FLOWERING JUDAS TREE. Variety of preceding with pure white flowers. Bare root, 3 to 4 ft., 75c each.

CRATAEGUS. Thorn; Hawthorn

Among the most showy of the smaller deciduous trees. They bloom freely in spring and most kinds bear highly ornamental berries in fall.

C. cordata. WASHINGTON THORN. Eastern United States. Easily one of our handsomest small trees. Leaves are triangular, lobed, deep glossy green, holding their color until very late in the fall, when they assume beautiful red and yellow tints. Flowers are white and borne late in spring, followed by large clusters of small, glossy, intensely red berries. Bare root, 4 to 6 ft., \$1.00 each.

C. azarolus carrieri. CARRIER'S WHITE THORN. Of recent introduction. Tree upright, with yellowish bark and deep green foliage which persists until quite late make a fine contrast. The large white flowers which are produced in great profusion, followed by brilliant scarlet bunches of fruit, which hangs on until late in the winter, cause it to be very much admired. Bare root, 4 to 6 ft., \$2.00 each.

C. crus-galli. COCKSPUR. Eastern United States. Small, thorny tree, but very decorative. Bloom handsome. Fruit showy red, remaining on tree most of the winter. Bare root, 4 to 6 ft., \$1.50 each.

C. monogyna pauli. PAUL'S DOUBLE SCARLET THORN. Small tree, but larger than the others and of

very erect, quick growth. Flowers produced in great profusion in early summer, bright carmine and double. Berries large, dull red and borne freely. Very fine. Bare root, 4 to 6 ft., \$2.00 each.

C. oxyacantha. ENGLISH HAWTHORN. Europe. Small tree or shrub with spreading branches and stout spines. Very fragrant, single, white flowers produced freely. Berries scarlet. The celebrated English hedge plant. Bare root, 4 to 6 ft., \$1.50 each.

C. oxyacantha flore pleno. DOUBLE WHITE HAWTHORN. A double-flowering form of the foregoing. Flowers usually become nearly pink before falling. Bare root, 3 to 4 ft., \$1.25 each.

C. rubra splendens. Trees of spreading habit with single, bright red flowers. Bloom is very profuse, followed by a heavy crop of red berries. Probably a variety of *C. oxyacantha*. Bare root, 4 to 6 ft., \$1.75 each.

FAGUS. Beech

F. sylvatica. EUROPEAN BEECH. A magnificent tree of rather slow growth. Branchlets and twigs very slender. Bare root, 4 to 6 ft., \$4.00 each.

F. sylvatica purpurea. PURPLE-LEAVED BEECH. The finest of the purple leaved trees. Foliage glossy, purplish crimson. Bare root, 4 to 6 ft., \$6.00 each.

FRAXINUS. Ash

Trees of upright growth. Leaves pinnate. The following two species make excellent street trees.

F. americana. AMERICAN WHITE ASH. Tall tree of rapid growth, with straight, clean trunk and broad, rounded head. Bare root, 8 to 10 ft., \$2.00 each, \$15.00 per ten; 3 to 4 ft., \$1.00 each.

F. velutina. ARIZONA ASH. A splendid rapid growing tree for Arizona and California street and highway planting; recommended for soils tainted with alkali. Bare root, 3 to 4 ft., \$1.00 each.

GLEDITSCHIA. Honey Locust

Large flowering trees with pinnate leaves and numerous strong, sharp thorns. The flowers are greenish and inconspicuous, followed by very large, long pods on the fertile trees.

G. triacanthos. COMMON HONEY LOCUST. Eastern U. S. Tall tree with conspicuous spines, gray bark and finely divided, feathery foliage. Pods 12 to 18 inches long. Bare root, 4 to 6 ft., 75c each.

LABURNUM

L. vossii. A beautiful form with very long, deep yellow racemes. This is regarded as one of the very best varieties. Bare root, 4 to 6 ft., \$1.50 each, \$12.50 per ten.

L. vulgare. GOLDEN CHAIN. S. Europe. A beautiful small tree of rather quick growth. Leaves clover-shaped, soft, pleasing green; do not change color in fall. Flowers fragrant, bright yellow, in long, drooping racemes, suggestive of yellow Wistarias borne on a tree. Bare root, 6 to 8 ft., \$1.50 each; 4 to 6 ft., \$1.25 each, \$10.00 per ten.

LIQUIDAMBAR

L. styraciflua. SWEET GUM. Eastern U. S. Forms a large tree, but of slow growth. Branches corky. Leaves star-shaped and very similar to Maple. The autumn coloring of the foliage in this climate is most gorgeous, surpassing that of any other tree. As this tree is rather difficult to transplant, all possible care should be exercised. It should be thoroughly pruned before planting and kept well watered until established again. Bare root, 3 to 4 ft., \$1.00 each.

LIRIODENDRON

L. tulifera. TULIP TREE. Eastern U. S. Stately tree of moderate growth in this climate. Leaves large, rich green, somewhat violin-shaped. Flowers are handsome, cup-shaped, much resembling those of Tulip; greenish yellow, marked with orange inside. A magnificent tree as a specimen or for avenue purposes. Bare root, 4 to 6 ft., \$1.00 each.

MELIA

M. azedarach umbraculiformis. TEXAS UMBRELLA TREE. One of the handsomest of our quick-growing shade trees. Leaves finely divided; flowers lilac colored and fragrant. Good specimens form a perfect umbrella head. Bare root, 6 to 8 ft., \$1.25 each, \$10.00 per ten; 4 to 6 ft., \$1.00 each.

MORUS. Mulberry

M. alba. WHITE MULBERRY. China. Tree of extremely rapid growth. Branches long and slender. Leaves rather small, lobed. Fruit elongated, white or violet. Useful for quick effect and to furnish food for birds to keep them away from more valuable fruit. Bare root, 6 to 8 ft., \$1.25 each, \$10.00 per ten; 4 to 6 ft., \$1.00 each.

M. multicaulis. CHINA SILKWORM MULBERRY. A medium sized tree with very large, silky like leaves; fruits rather small, black, sweet. Stands out very prominently as the leading variety for silkworm forage. Bare root, 6 to 8 ft., \$1.00 each, \$8.00 per ten.

M. nigra. PERSIAN. This excellent fruit tree should be in every family orchard. Trees of rather slow growth, but bear young and produce the largest and finest fruit of all the mulberries. The fruit is black, large, one to one and a half inches long, with a fine aromatic flavor and abundant sub-acid juice. Commences to ripen in early summer and bears continually until late fall. Bare root, 3 to 4 ft., \$1.50 each.

PISTACIA. Pistachio

P. chinensis. CHINESE PISTACHIO. Beautiful, round-headed tree of upright growth. Leaves about ten inches long with about eleven leaflets an inch and a half long. Handsome at any time, but glorious in the fall, when the foliage becomes an intense, vivid scarlet unequaled by any other tree. Extremely rare at present, but sure to be widely planted when its adaptability to our climate and wonderful autumnal tints become better known. Bare root, 4 to 6 ft., \$1.50 each.

PLATANUS. Sycamore; Plane Tree

P. orientalis. EUROPEAN SYCAMORE; ORIENTAL PLANE. Europe and Asia. This splendid tree is almost perfection for street and avenue use. Without training it forms a fine, spreading, well-rounded head. Almost entirely free from disease or pests. In hot climates the trunks should be shaded when first transplanted to protect the thin bark from sunburn. Leaves are large, dark green and deeply lobed. Fruit heads from two to four on long, drooping stalks. Bark flakes off from trunk and older limbs. Everything considered, we believe this is the very best street tree for California use and do not hesitate to recommend it most thoroughly. Bare root, 12 to 14 ft., \$4.00 each; 8 to 10 ft., \$2.50 each; 6 to 8 ft., \$1.50 each.

POPULUS. Poplar

Trees of very rapid growth. Wood soft and brittle. Leaves tremble in the faintest breeze. Among the very easiest trees to transplant and will thrive almost anywhere.

P. balsamifera. BALSAM POPLAR; BALM OF GILEAD. Tall, large-headed tree of wonderfully rapid growth. Bark green on younger branches. Leaves dark green above, lighter beneath. Will thrive any-

where, and, at least when young, is the fastest growing tree in our entire collection. Bare root, 10 to 12 ft., \$2.00 each, \$15.00 per ten; 8 to 10 ft., \$1.25 each, \$10.00 per ten; 6 to 8 ft., \$1.00 each, \$9.00 per ten.

P. deltoides carolinensis. CAROLINA POPLAR. A very rapid-growing variety with large leaves; grows to a large size in short time. Valuable for street planting. Bare root, 14 to 16 ft., \$3.50 each; 12 to 14 ft., \$3.00 each, \$20.00 per ten; 8 to 10 ft., \$2.00 each, \$15.00 per ten; 6 to 8 ft., \$1.00 each, \$7.50 per ten.

P. nigra italica. LOMBARDY POPLAR. Widely known and esteemed for its decided individuality. Grows to a great height; narrow and columnar. Forms a strong contrast with most other trees, hence of great value in landscape work. Bare root, 10 to 12 ft., \$2.50 each, \$20.00 per ten; 8 to 10 ft., \$2.00 each, \$15.00 per ten; 6 to 8 ft., \$1.00 each, \$7.50 per ten.

QUERCUS. Oak

The deciduous oaks are grand, long-lived trees of sturdy growth. They impart an air of permanence and stability to their surroundings. All bear acorns and have the lobed leaves characterizing the deciduous species.

Q. coccinea. SCARLET OAK. Eastern U. S. Grows rapidly and forms round-topped, open head. Does well in dry situations. Leaves deeply divided, and turn to a vivid, brilliant scarlet in fall. Bare root, 3 to 4 ft., \$1.25 each.

Q. macrocarpa. BUR OAK. Eastern U. S. A wide-spreading tree, with corky branches and very large, deeply lobed leaves. The acorn cups are fringed and bur-like. One of the grandest and noblest Oaks. Bare root, 4 to 6 ft., \$1.50 each; 3 to 4 ft., \$1.00 each.

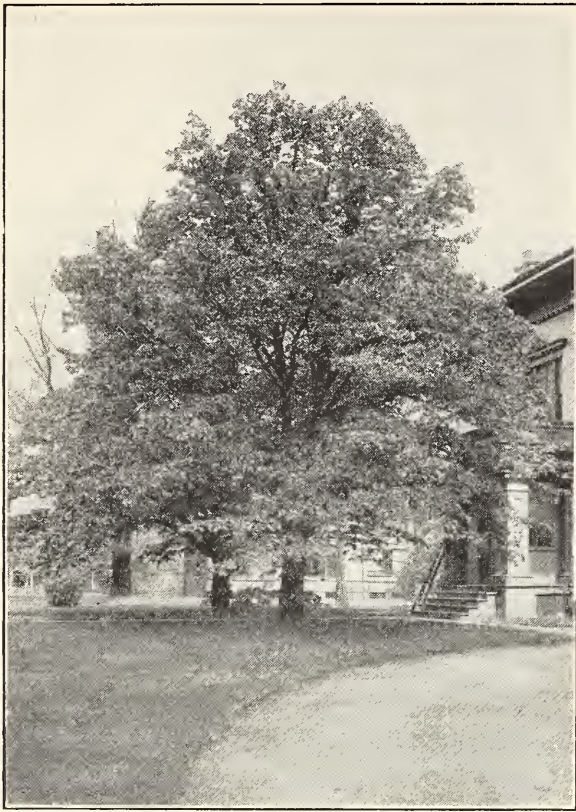
Q. rubra. RED OAK. Eastern U. S. Beautiful Oak of rather rapid growth; forms large, majestic tree. Foliage turns dark red in autumn. Bare root, 3 to 4 ft., \$1.00 each.

ROBINIA. Locust

Flowering trees of varying growth. All have pinnate leaves and pea-shaped flowers in drooping clusters. Some are thorny.



Aesculus hippocastanum. The European Horse Chestnut is a valuable Avenue and Specimen Tree in the coast sections of California.



Tilia platyphyllos. The European Linden.
A very promising Avenue Tree.

(ROBINIA) Continued

R. hispida. ROSE ACACIA. Naturally of weak, shrubby growth. When grafted on vigorous stock it forms a small tree. Easily distinguished from Pink-Flowering Locust by the larger, deeper pink flower and by the short, soft bristles on most parts of the plant. This species succeeds well in California and is highly prized as a beautiful flowering tree. Bare root, 4 to 6 ft., \$1.50 each; 3 to 4 ft., \$1.25 each.

R. pseudacacia. COMMON or BLACK LOCUST. A native American tree of extremely rapid growth, valuable for timber as well as quite ornamental. The flowers are in long, pendulous racemes, white and very fragrant, appearing in June. Bare root, 8 to 10 ft., \$1.25 each, \$10.00 per ten; 6 to 8 ft., \$1.00 each, \$8.00 per ten.

R. pseudacacia decaisneana. PINK-FLOWERING LOCUST. Remarkable for its vigorous growth and fine, pink-colored flowers, which it produces in great abundance. Entirely distinct from Rose Acacia, which see above. Bare root, 8 to 10 ft., \$2.50 each, \$20.00 per ten.

SOPHORA

S. japonica. PAGODA TREE. Asia. A handsome tree of medium size, with dark green bark. Leaves are pinnate; leaflets dark green above, lighter beneath. Bears small, cream-colored, pea-shaped flowers in racemes about a foot long. Bare root, 4 to 6 ft., \$1.50 each, \$12.00 per ten; 3 to 4 ft., \$1.25 each, \$10.00 per ten.

SORBUS

S. aucuparia. EUROPEAN MOUNTAIN ASH; ROWAN TREE. Handsome, small tree of erect growth. Leaves pinnate, leaflets serrate. Flowers white, in flat clusters, four or five inches broad, followed by rather large, red berries. Very handsome at any season. Bare root, 10 to 12 ft., \$6.00 each; 6 to 8 ft., \$1.50 each; 4 to 6 ft., \$1.25 each.

TILIA. Linden

Fine, stately trees of large size and rapid growth. Leaves large and heart-shaped. Flowers yellow, in drooping clusters; intensely fragrant.

T. americana. AMERICAN LINDEN; BASSWOOD. Eastern U. S. Fine tree of rapid, erect growth when young but ultimately forming a fine, broad, round head. Leaves large, light green. Bare root, 4 to 6 ft., \$1.00 each; 3 to 4 ft., 75c each.

T. platyphyllos. EUROPEAN LINDEN; LIME TREE. Europe. The celebrated European street tree. Similar to American, but has smaller, deeper green leaves and red or yellow branches. Bare root, 4 to 6 ft., \$1.00 each; 3 to 4 ft., 75c each.

ULMUS. Elm

Widely known and popular trees. All are of rapid, erect growth and several species are well adapted for street planting. Very easily transplanted.

U. americana. AMERICAN or WHITE ELM. United States. A magnificent tree, native from the Rockies to the Atlantic. Growth is erect, with smaller branches drooping when old. Grows rapidly here. Bare root, 8 to 10 ft., \$1.50 each, \$12.50 per ten; 6 to 8 ft., \$1.00 each, \$8.00 per ten; 4 to 6 ft., 80c each, \$7.00 per ten.

U. campestris. ENGLISH ELM. Europe; Africa; Asia. An erect, rapid-growing tree of spreading growth. Branches sometimes more or less corky. Leaves smaller than those of American, remain on tree late in fall. Bare root, 8 to 10 ft., \$1.25 each, \$10.00 per ten.

U. scabra huntingdoni. HUNTINGDON ELM. Of very erect habit and rapid, vigorous growth. Bark clean and smooth. Foliage dense, leaves large, dark green, remaining on the tree until late. Fine for street and avenue planting. The handsomest of all Elms. Bare root, 15 to 18 ft., \$6.00 each.

ZIZYPHUS

Z. jujube. Asia. One of the handsomest smaller deciduous trees, thriving even in ground impregnated with alkali. Regularly round-headed, main branches stout, but secondary branches or branchlets very fine, often thread-like and drooping, bearing small, light green, highly glossy leaves. Fruit edible. Bare root, 4 to 6 ft., \$2.00 each, \$17.50 per ten.



Acer macrophyllum. California Maple.
Very effective as a Street Tree or for Driveways.



The Flowering Crabs are Gems of the Garden.

Winter and Spring Flowering Trees

As harbingers of spring in all delicate hues and colors of beautiful blossoms, no group of shrubs and trees makes so strong an appeal as the flowering apple, apricot, almond, cherry, peach and plum. The earliness of the flowers, which burst forth in all their gorgeous beauty of varying shades, from pure white to deep rose red, before the appearance of foliage, give an individuality to the garden that is not only pleasing but a joy and a gratification. Beyond the beautiful blooms, most of the varieties produce highly colored fruits and a pleasing foliage. After flowering they must be carefully pruned in order to induce the growth of flowering wood for the following year. No garden, whether large or small, can afford to be without an assortment of these popular flowering trees. All are of easy culture, thrive in any good garden soil and flourish under varying conditions.

CYDONIA. Quince

C. japonica. JAPAN SCARLET QUINCE. China; Japan. An old favorite. Flowers brilliant scarlet. Makes an impassable and beautiful flowering hedge. Bare root, 2 to 3 ft., \$1.00 each.

PRUNUS. Flowering Peach

P. persica. FLOWERING PEACH. Highly prized for the great masses of double flowers borne early in spring before leaves appear. For best results they should be heavily pruned each year as soon as they have finished blooming. There are several forms and colors as follows:

Double Red. Double, bright red.
Double Rose. Double, pale rose.

Double White. Double, pure white.
Bare root, 3 to 4 ft., \$1.25 each.

PRUNUS. Flowering Plum

P. pissardi. PURPLE-LEAVED PLUM. Very ornamental small tree. Leaves deep purple in spring, gradually becoming greenish. Flowers numerous, white, appearing before leaves. Fruit reddish purple. Doubly beautiful and desirable for both blossom and foliage. Bare root, 3 to 4 ft., \$1.50 each.

P. "Vesuvius." BURBANK'S PURPLE-LEAVED PLUM. Differs from common Purple-Leaved Plum in its more vigorous growth, with longer, willowy branches and much larger, longer leaves. Color of foliage is very pronounced and held well through the season. It is of a rich metallic crimson color, with a crumpled surface like a Coleus. Very fine. Bare root, 3 to 4 ft., \$1.50 each.

PYRUS. Flowering Apple

P. atropurpurea. Growth strong. Flowers semi-double, along stems, deep purplish red in bud, shell pink when open. March and April. Bare root, 4 to 6 ft., \$1.50 each.

P. floribunda halliana. Dwarf, compact tree. Flowers semi-double, deep rose and do not fade; produced in drooping clusters. Bare root, 4 to 6 ft., \$1.50 each.

P. niedwetzkyana. A curiosity from Siberia. The entire tree—bark, wood, fruit and foliage, except old leaves—is red. Free bloomer and bears edible fruit. Bare root, 4 to 6 ft., \$2.00 each.

P. spectabilis roseo pleno. Flowers very large, semi-double, pink. Fragrant. Bare root, 4 to 6 ft., \$1.50 each.

Deciduous Weeping Trees

The trees in this class are characterized by the tendency of the branches to droop, or even to go directly downward. They are invaluable for making contrasts in large plantings. Varying in size from the diminutive weeping cherry to large trees like the weeping willow, they offer a wide range for selection. In waterside planting the use of this class of trees is imperative, if natural landscape effects are to be reproduced.

BETULA. Birch

B. alba pendula laciniata. CUT-LEAVED WEEPING BIRCH. Very beautiful form of European White Birch. The main trunk, with snow-white bark, grows straight as an arrow. Branches spread but slightly, while the fine slender shoots hang vertically. The foliage is fine and deeply cut. Many consider this the most beautiful deciduous tree in cultivation. Bare root, 6 to 8 ft., \$3.00 each.

POPULUS. Poplar

P. tremula pendula. WEEPING POPLAR. One of the most showy of the top-grafted weeping trees. The head is large and graceful, the fine branches growing to the ground on all sides. Forms a natural "summer-house." The large catkins are borne profusely in the early spring considerably before leaves, which are large and deeply serrated. Bare root grafted on 8-ft. stems, \$6.00 each.

PRUNUS. Cherry

P. pendula. JAPANESE WEEPING ROSE-FLOWERING CHERRY. Top-worked on ordinary cherry stock, this makes as dainty a weeping tree as can be imagined. The branches are very slender and gracefully drooping. The flowers are rose-pink, borne all along the branchlets early in spring before leaves appear. Bare root, grafted on 6-ft. stems, \$5.00 each.

SALIX. Willow

S. babylonica. WEEPING WILLOW. The common and well-known Weeping Willow. Bare root, 4 to 6 ft., \$1.00 each.

S. babylonica aurea. GOLDEN WEEPING WILLOW. Variety of preceding of identical habit. Differs in the intense golden hue of the branches, making it particularly handsome during the winter. Bare root, 4 to 6 ft., \$1.00 each.

ULMUS. Elm

U. scabra pendula. CAMPERDOWN ELM. Always top grafted. Limbs grow outward and downward, giving the trees a remarkably picturesque aspect. Bare root, 4 to 6 inch stem diameter, head spread of 10 to 12 ft., \$15.00 each; 3 to 4 inch diameter, head spread of 8 to 10 ft., \$12.50 each; 2 to 3 inch diameter, head spread of 6 to 8 ft., \$8.00 each.



Salix babylonica. The Weeping Willow. A tree of remarkable grace and beauty.



Syringa (Lilac). The Forerunners of Spring.

Deciduous Shrubs

The term shrubbery is usually applied to woody plants of comparatively small size. The line of distinction is often narrow, but a shrub has, as a rule, a number of stems springing from the ground while a tree has a single stem. Interspersed among larger trees, many varieties when in flower give life to a landscape effect which would otherwise be dull and displeasing to the eye. In grouping shrubs, the aim of the gardener should be to have the taller growing kinds serve as a background, aiming to have a gradual slope to the lower growing kinds. The ultimate effect of the grouping should be to have a continuous mass of varying foliage. As a boundary or screen for dividing fields or hiding unsightly fences, or for a background for flower gardens, they are unsurpassed. A good rule is to prune shrubs after they have finished blooming. This is necessary with such as bloom from the old wood of the previous season; observation will show which these are. To prune when dormant spoils their chances of flowering. Those which bloom from new wood of the current season's growth can be pruned either when dormant or after flowering. By pruning we do not mean shearing, which is good for hedges but not for single plants.

More attention should be given to the deciduous shrubs. Because they are bare of foliage in the winter months, it seems very difficult—even with illustrations and descriptions which are given them—to awaken in

the minds of the planters their great value to the garden. Interspersed with Evergreens in the background, they make a picture and an appeal for recognition which few plant lovers can resist.

BERBERIS. Barberry

Low growing shrubs, rich in their variety of leaf and habit. They are very attractive in the spring with their bright orange yellow flowers and in the fall with their red, dark blue or nearly black fruits. Desirable for hedges, grouping and border effects.

B. thunbergi. THUNBERG'S BARBERRY. Handsome, low-growing shrub. The branches arch outward in a very graceful manner. Leaves rather small and color beautiful in fall. Flowers borne singly along the branches; berries bright red. Very fine. Bare root, 2 to 3 ft., \$1.00 each, \$8.00 per ten.

B. vulgaris. COMMON BARBERRY. Europe; Asia. 8 ft. Branches grooved; leaves one to two inches long. Flowers and berries in numerous drooping racemes all along branches. Berries purple or red. Bare root, 3 to 4 ft., \$1.00 each, \$7.50 per ten.

B. vulgaris atropurpurea. PURPLE-LEAVED BARBERRY. A very handsome variety of the preceding, with purple leaves. Probably the best shrub of its color. Bare root, 3 to 4 ft., \$1.00 each.



Cydonia (Flowering Quince). Masses of brilliant flowers envelop the bushes in late winter months before any leaves appear.

CAESALPINIA. Poinciana

C. gilliesi. S. America. 10 ft. Tall shrub or sometimes small tree. Growth very vigorous. Leaves double pinnate with small leaflets. Flowers large and borne in clusters, extremely showy, having light yellow petals and long, brilliant red stamens. Blooms almost continuously all summer. Sometimes called "Bird of Paradise Flower," a name that is also applied to *Strelitzia reginae*. Potted, 2 to 3 ft., \$1.00 each.

CALYCANTHUS

C. floridus. SWEET-SCENTED SHRUB. S. E. United States. 6 ft. Flowers reddish brown. Entire plant fragrant. Summer bloomer. Bare root, 2 to 3 ft., \$1.25 each.

CARYOPTERIS

C. mastacanthus. BLUE SPIREA. China. 5 ft. Shrub of moderate, compact growth, with opposite, gray, downy leaves. Flowers bright blue, small but in large clusters in axils of leaves. In bloom all through the summer. Very valuable for its unusual color and long blooming period. Bare root, 2 to 3 ft., \$1.00 each, \$7.50 per ten.

CHILOPSIS

C. saligna. FLOWERING DESERT WILLOW. 20 ft. Low spreading tree with willow-like foliage and an abundance of lilac pink flowers in summer. Bare root, 3 to 4 ft., \$1.25 each.

C. saligna alba. Much like the preceding, only the flowers are white. Bare root, 3 to 4 ft., \$1.25 each.

CORNUS. Dogwood

Medium-sized shrubs and small trees with white flowers in numerous clusters. Of easy culture and extremely hardy. Exceptionally beautiful in most any situation.

C. alba sibirica. SIBERIAN DOGWOOD. 10 ft. Growth erect. Branches bright red, particularly conspicuous in winter. Flowers creamy; berries light blue. Bare root, 3 to 4 ft., \$1.00 each; 2 to 3 ft., 75c each.

C. florida. FLOWERING DOGWOOD. N. America. 15 ft. Large shrub or small tree. Differs from the

others in having each flower cluster surrounded by four large, white bracts, the whole looking like a very large flower. Leaves large, dark green, turning bright red in fall. Native of Eastern States; rare in California. Bare root, 2 to 3 ft., \$1.00 each; 1½ to 2 ft., 75c each.

C. paucinervis. Young branches, reddish brown; leaves short stalked, of firm texture, dark green above and pale green beneath; flowers creamy white in umbels; fruit black. Handsome half evergreen. Bare root, 2 to 3 ft., \$1.00 each.

C. sanguinea. Europe; Asia. 12 ft. Large shrub with blood-red branches. Leaves downy on both sides. Flowers greenish white, in dense clusters. Berries black. Bare root, 3 to 4 ft., \$1.25 each, \$10.00 per ten.

CORYLUS. Filbert

C. maxima purpurea. PURPLE-LEAVED FILBERT. Large shrub with large, round leaves, intensely dark, bronzy purple in spring, becoming greenish toward fall. Very distinct even among other purple-leaved trees and shrubs. Bare root, 3 to 4 ft., \$1.50 each.

DESMODIUM

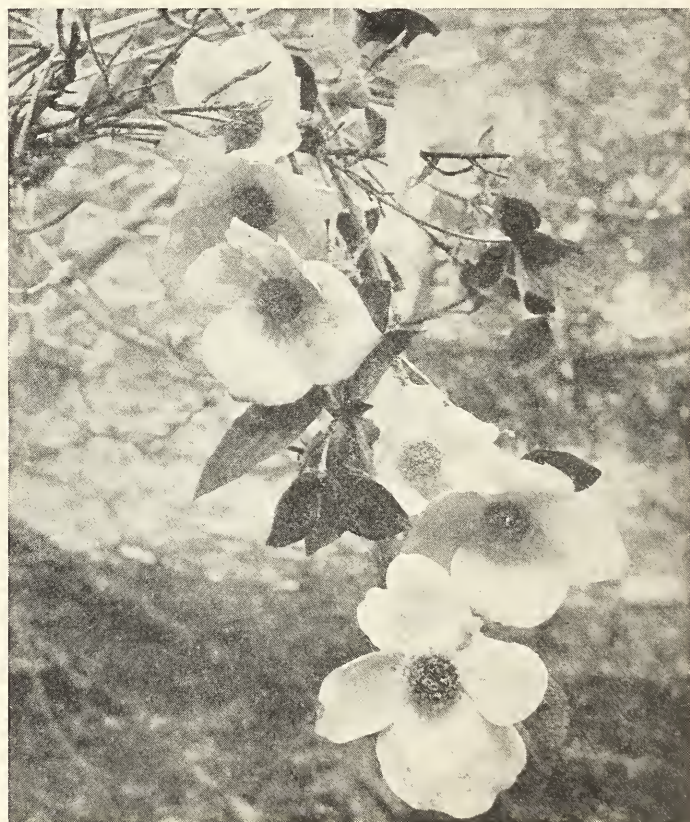
D. ciliatum. A shrub with graceful, slender branches; oval, clover-like leaves, and a profusion of pea-shaped flowers. Bare root, 3 to 4 ft., 75c each.

DEUTZIA

Beautiful, free blooming, Asiatic shrubs with bell-shaped flowers produced during spring and early summer. Should be more widely planted in California for their gorgeous color effects in the garden and shrubbery.

D. fortunei. 6 ft. Handsome hybrid of strong growth. Flowers are large, single and pure white. Bare root, 3 to 4 ft., \$1.00 each, \$7.50 per ten; 2 to 3 ft., 75c each, \$6.00 per ten.

D. gracilis rosea. 3 ft. One of our daintiest and most graceful flowering shrubs. Branches are extremely slender and arching, covered with a profusion of small, beautifully formed flowers, which are bright pink in the bud and pale flesh when fully opened. Altogether a



Cornus. The Dogwoods are appreciated for their Spring flowers and brilliant Fall foliage.



The Diervillas are very profuse blooming summer flowering shrubs.

most charming plant. Bare root, 2 to 3 ft., \$1.00 each; 1½ to 2 ft., 75c each.

D. lemoinei. 3 ft. Growth similar to preceding, but a little more vigorous. Flowers pure white. Very free flowering. Bare root, 2 to 3 ft., \$1.25 each.

D. "Pride of Rochester." Tall growing. Flowers large and double; white, slightly tinged pink on back of petals. Bare root, 3 to 4 ft., \$1.25 each; 1½ to 2 ft., 75c each.

D. scabra plena (D. crenata rosea plena). 6 ft. Growth like preceding; leaves lighter green. Flowers double; white, tinged rose outside. Bare root, 3 to 4 ft., \$1.25 each. Potted, 1½ to 2 ft., 75c each.

D. scabra candidissima. 6 ft. Growth vigorous and erect; leaves dark green. Flowers double and pure white. Bare root, 2 to 3 ft., 75c each.

DIERVILLA. Weigela

A most desirable class of free-flowering shrubs. In late spring they are simply a mass of trumpet-shaped flowers showing a profusion of bloom that is almost unequalled. Colors in the different varieties range from nearly white through pink to deep red and crimson. Their striking foliage contrasts finely with other shrubs, while for borders and interspersed among groups of trees they are very effective. Prune after flowering in the summer.

D. florida (Weigela rosea). China. 6 ft. An old favorite and probably still the most popular. Flowers pink, large and borne in the utmost profusion. Bare root, 2 to 3 ft., 75c each.

D. hendersoni. Growth upright and compact. Flowers deep rose. Bare root, 2 to 3 ft., 75c each.

D. van houttei. Growth strong and spreading. Flowers pink, shaded carmine. Bare root, 2 to 3 ft., 75c each.

ELAEAGNUS

E. longipes. Japan; China. 6 ft. Very ornamental shrub of spreading habit. Branchlets ruddy brown. Leaves silvery, brown dotted beneath. Flowers small but numerous, yellowish white and fragrant, followed by scarlet fruits nearly an inch long, on elongated stalks. The fruit is not only edible, but adds greatly to the effect of the plant. Bare root, 3 to 4 ft., \$1.00 each; 2 to 3 ft., 75c each.

E. angustifolia. RUSSIAN OLIVE. 10 ft. A large shrub with silvery spiny branches; leaves light green above and silvery white beneath, lanceolate, two to three inches long; flowers bell-shaped, yellow within and silvery on the outside, berries lemon yellow. Bare root, 2 to 3 ft., 75c each.

EVONYMUS

E. alata. Spreading shrub; branches stiff with two to four corky wings; leaves elliptical at both ends, sharply toothed, turn bright crimson in fall. One of the handsomest of the species. Potted, 1½ to 2 ft., \$1.00 each.

EXOCHORDA

E. grandiflora. PEARL BUSH. China. 10 ft. Large shrub, blooming early in spring, when the entire plant is covered with purest white blossoms. The common name is from the pearly flower buds, which are globular just before they open. The finest white flowering shrub of early spring. Bare root, 3 to 4 ft., \$1.25 each; 2 to 3 ft., \$1.00 each; 1½ to 2 ft., 75c each.

FORSYTHIA. Golden Bell

F. suspensa. China. 8 ft. Rather tall, but with very drooping branches. Can be trained over arbors. Bare root, 2 to 3 ft., 75c each.

F. suspensa fortunei. A variety of more upright and vigorous growth. Petals more slender. Bare root, 2 to 3 ft., 75c each.

F. viridissima. Of a straggling growth with long, deep green, smooth leaves; blooms just as the leaves unfold with masses of golden bell-like flowers. Bare root, 2 to 3 ft., 75c each.

HIBISCUS. Althea. Rose of Sharon

Large, much branched shrubs. Leaves appear rather late in spring and flowers in a variety of colors in late summer and fall; all have double flowers. Our assortment consists of varieties in the following colors: White, Dark Red, Purple, Rose. Bare root, 2 to 3 ft., 75c each.



Hibiscus (Althea). Valuable late summer and fall flowering shrubs.



Kerria japonica flore pleno. The Japanese Rose.

HYDRANGEA

These ornamental, large leaved plants with their enormous corymbs of beautifully colored flowers are worthy of the most extensive cultivation. Conditions favoring their most rapid development are found in cool coast climates. In the interior valleys they require partial shade, and must be well supplied with moisture to bring out their many fine points.

H. arborescens sterilis. HILLS OF SNOW. 10 ft. Native American shrub, considered in the East to be the best acquisition in years. Cymes shaped like our common pink variety, but snow white. Blooms from early to late summer. Of great value for sections too cold for the hortensis types. Bare root, 2 to 3 ft., \$1.00 each.

H. domoti. A very beautiful pink variety with double flarets, giving the bloom a large, compact, solid appearance. Balled, 1 to 1½ ft., \$1.50 each.

H. French hybrids. Recent French introduction, all large flowered, colors varying from deep pink and white. Balled, 1 to 1½ ft., \$1.00 each.

H. hortensis. China; Japan. 8 ft. The most common form in California. Large leaves, practically an evergreen; pink flowers in immense cymes one foot in diameter. Blooms all summer. Balled, 1½ to 2 ft., \$1.00 each.

H. paniculata grandiflora. Entirely distinct from hortensis types. Flowers white, in very large, pointed panicles at end of branches during late summer. The flowers remain on bush for a long time, turning pinkish. Especially adapted to cold sections. Bare root, 2 to 3 ft., 80c each.

KERRIA (Corchorus)

K. japonica. JAPANESE ROSE. Japan. Shrub having numerous, very erect, long and slender branches with bright green bark. Flowers are clear yellow, similar to a small, single rose. Bare root, 2 to 3 ft., 60c each.

K. japonica flore pleno. DOUBLE-FLOWERING KERRIA. Variety of stronger growth with very double flowers. Free blooming and deservedly popular. Bare root, 2 to 3 ft., 75c each.

LAGERSTROEMIA. Crape Myrtle

Strong growing shrubs, adapting themselves to almost any soil condition, and should have a place in every garden. The leaves are bright green, retaining their fresh color all summer; the flowers are produced in very large panicles at the ends of the branches during the entire season.

L. indica purpurea. China. Shrub or small tree with very smooth bark. Foliage somewhat scanty. Flowers purple. The Crape Myrtles are very desirable shrubs, being in bloom through most of the summer. Bare root, 1½ to 2 ft., \$1.25 each.

L. indica alba. WHITE CRAPE MYRTLE. Asia. A very rare and beautiful shrub with leaves ovate, dark lustrous green. Flowers very much crimped, pure white and ruffled. Seems to be exceptionally well adapted to our interior climates. Bare root, 1½ to 2 ft., \$2.00 each.

LEYCESTERIA

L. elegans. 12 ft. Rare and handsome shrub of strong growth. Flowers white, slightly tinged purple, in drooping racemes. Berries and bracts surrounding them turn vivid purple, making a striking contrast with the green foliage and branches. Bare root, 3 to 4 ft., \$1.25 each.

LIPPIA

L. citriodora. LEMON VERBENA. S. America. 12 ft. Well-known old favorite. Foliage strongly lemon scented. Flowers are lavender or nearly white, minute, borne in a delicate, loose panicle. Bare root, 4 to 6 ft., \$1.00 each; 2 to 3 ft., 75c each.

LONICERA. Honeysuckle

L. tatarica. TARTARIAN HONEYSUCKLE. Asia. 10 ft. Compact, much-branched, leafy shrub of pleasing appearance. Bears small, pink flowers of typical Honeysuckle form. Not at all climbing. Bare root, 3 to 4 ft., \$1.25 each.



Lagerstroemias (Crape Myrtle). Brilliant summer flowering shrubs.

PHILADELPHUS. The Mock Oranges

A very vigorous class of shrubs, with large, handsome foliage and with white showy flowers in terminal racemes, or solitary on short branchlets, appearing in May and June. Very fragrant with an odor of the orange blossom, hence the name. They are well adapted to shrubberies, thriving in any well drained soil. Most of the varieties form large sized shrubs 12 to 15 feet high. Pruning should be done after flowering.

P. coronarius. GARLAND SYRINGA. Europe; Asia. 10 ft. Flowers creamy white, medium-sized, in very short, dense racemes; as fragrant as orange blossoms. Bare root, 3 to 4 ft., \$1.00 each; 2 to 3 ft., 75c each.

P. coronarius flore plena. A vigorous and graceful shrub. It is covered with fragrant double white flowers in the spring. Bare root, 1½ to 2 ft., 75c each.

P. inodorus (P. grandiflorus). LARGE-FLOWERED SYRINGA. S. E. United States. 10 ft. Of stronger growth than the common Garland. Flowers borne profusely; much larger, but not so fragrant. Bare root, 3 to 4 ft., \$1.00 each; 2 to 3 ft., 75c each.

P. mont blanc. A very hardy, dwarf variety producing masses of large, pure snow-white flowers. Bare root, 2 to 3 ft., 75c each.

P. mexicana. Practically an evergreen; flowers cream colored, very fragrant and two inches across. Bare root, 2 to 3 ft., 75c each.

PUNICA. Pomegranate

The flowering Pomegranates are of very great value. Perfectly adapted to our climate, they are in bloom throughout the summer, lending their brilliant coloring at a period when it is greatly needed and appreciated. Foliage is neat, glossy and handsome, with ruddy tints on new growth. Should be a feature in every garden.

P. granatum nana. DWARF POMEGRANATE. This exquisite plant is very deserving of the popularity it is rapidly attaining, for it is attractive not only when covered in the summer with red flowers and again with



Punica granatum (Dwarf pomegranate). Has double scarlet flowers appearing all summer followed by brilliant red fruits.



The Rhus cotinus (Smoke Tree). Its clusters of feathery, lacy, pale purple flowers give it the appearance of being enveloped in smoke.

its brilliant dark maroon fruits in the fall months. Bare root, 1 to 1½ ft., \$1.50 each.

P. Double Red. A very rapid growing shrub with deep, double scarlet flowers. Bare root, 3 to 4 ft., \$1.00 each.

Double White. A very rapid growing shrub, with double creamy white or yellow flowers. Bare root, 2 to 3 ft., \$1.00 each.

Mme. Legrelle. A handsome variegated form. Flowers very double, light red, conspicuously edged with yellow. Bare root, 2 to 3 ft., \$1.00 each.

RHUS. Sumach

Few shrubs are more picturesque or so little used. Their beauty lies in the gorgeousness of their foliage and in the Smoke Tree in the downy masses surrounding the seeds in mid-summer, apparently enveloping the trees in puffs of smoke.

R. cotinus. PURPLE FRINGE; SMOKE TREE. Asia. 15 ft. Well-known large shrub with rounded leaves. Flowers borne in peculiar, pale purple, plummy masses. Entirely unique. Bare root, 2 to 3 ft., \$1.00 each.

R. typhina. STAGHORN SUMAC. One of the most brilliant plants in autumn, with lovely foliage and velvety bark. Bare root, 2 to 3 ft., 75c each.

RIBES. Currant

Shrubs blooming in early spring. The different kinds are very distinct in color and growth. All bloom profusely and are highly attractive. Thrive in any soil or situation; good for grouping and borders.

R. aureum. YELLOW-FLOWERING CURRANT. Foliage shiny. Flowers, yellow, tipped with red, are borne in small clusters all along branches; have a pleasing spicy fragrance. Bare root, 4 to 5 ft., \$1.50 each; 3 to 4 ft., \$1.00 each.

(RIBES) Continued

R. gordonianum. Hybrid between preceding and following. Growth loose and spreading. Flowers crimson, marked with yellow. Bare root, 4 to 5 ft., \$1.50 each; 3 to 4 ft., \$1.00 each.

R. sanguineum. RED-FLOWERING CURRANT. California. Handsome shrub with five-lobed, rounded leaves and ruddy branches. Flowers, borne in drooping racemes, are a beautiful shade of rosy red or very deep pink. Berries large, glaucous blue. Both foliage and flowers are very handsome. Bare root, 3 to 4 ft., \$1.00 each.

SAMBUCUS. Elder

Large shrubs of erect, extremely rapid growth, with large, pinnate leaves; flowers white, small, in large cymes. Extremely hardy and useful in the garden beautification.

S. canadensis aurea. GOLDEN ELDER. Foliage deep yellow throughout the season. Bare root, 6 to 8 ft., \$1.50 each.

S. canadensis laciniata. CUT-LEAVED ELDER. Foliage dark green and deeply cut. Bare root, 6 to 8 ft., \$1.25 each.

S. canadensis alba variegata. VARIEGATED ELDER. Foliage strongly marked with creamy white. Bare root, 6 to 8 ft., \$1.50 each.

SPIRAEA. Spirea

Medium-sized shrubs of free blooming habit, varying in appearance, color of flowers and manner of blooming. All have very small flowers borne in compact clusters of different forms. Do well in any ordinary good garden soil.

S. aitchensonii. Decorative shrub of spreading habit; foliage pinnate and of a beautiful bronzy hue; flowers in panicles and pure white in color. A new introduction from France; unusually fine. Bare root, 3 to 4 ft., \$1.00 each; 2 to 3 ft., 75c each.



Spiraea bumalda. Has bright, pink flowers which appear all summer.

S. bumalda (Anthony Waterer). Dwarf but erect form, growing about three feet high. Flowers bright crimson, in flattened heads at end of branches. Blooms about midsummer. Bare root, 2 to 3 ft., 75c each.

S. californica. Growth erect, about six feet high. Flowers reddish pink, in elongated, dense, terminal panicles. Blooms during summer months. Bare root, 2 to 3 ft., 75c each, \$6.00 per ten.

S. prunifolia flore pleno. BRIDAL WREATH. 8 ft. Small shrub with long, very slender branches. Flowers very double and pure white, borne along the branches before the leaves appear. This is the genuine "Bridal Wreath." Bare root, 2 to 3 ft., 75c each.

S. reevesiana. China; Japan. 8 ft. Medium-sized shrub with long narrow, leaves. Flowers pure white and large for the genus, borne most profusely in dense heads. Practically evergreen, as it holds most of its leaves over winter. Bare root, 2 to 3 ft., 75c each; 1½ to 2 ft., 60c each.

S. van houttei. Garden hybrid. Moderate size. Branches arching and drooping with the weight of the flowers, which are borne so freely in spring as to cover plant completely with a mass of snowy bloom. Very beautiful and extremely hardy. Bare root, 3 to 4 ft., \$1.00 each; 2 to 3 ft., 75c each.

SYMPHORICARPOS. Snowberry

Slender shrubs with fine branches, valued chiefly for their ornamental fruits which remain on the plants for a long period. They are unexcelled for massing and grouping; do well in shady situations and in a variety of soils.

S. occidentalis. WESTERN SNOWBERRY. 5 ft. Native shrub of spreading, arching growth, bearing small, pink flowers and showy clusters of very large, clear white berries at ends of branches. Bare root, 3 to 4 ft., \$1.00 each; 2 to 3 ft., 75c each.

S. racemosus. EASTERN SNOWBERRY. 5 ft. Indigenous to Eastern States and similar to preceding, but of more erect growth. Fruiting habit about the same. Bare root, 3 to 4 ft., \$1.00 each; 2 to 3 ft., 75c each.



Spiraea prunifolia (Bridal Wreath). The clusters of pure white, double flowers, on the gracefully arched branches give this plant the appearance of a bank of snow.



Syringas (Lilacs). Beautiful spring flowering shrubs. A great favorite with florists for forcing.

S. vulgaris. INDIAN CURRANT; RED-FRUITED SNOWBERRY. Eastern U. S. 4 ft. Habit similar to the others, but somewhat more compact. Loaded during fall and winter with a profuse crop of dark red, small berries in dense clusters. Bare root, 3 to 4 ft., \$1.00 each; 2 to 3 ft., 75c each.

SYRINGA. Lilac

This class of beautiful flowering shrubs should be represented by one or more specimens in every garden. They do well in all soils, are extremely hardy and are among the best of our beautiful spring flowering shrubs. Their fragrance, great range of colors, from dark purple to lilac, pink and white, gives them a prestige as spring flowering plants. Immediately after blooming they should be pruned.

Out of the great number of named varieties we have selected the best of them and list them under their respective colors. All of our lilacs are budded plants.

Double White. Very large trusses of double white flowers. A strong, vigorous grower. Bare root, 2 to 3 ft., \$1.00 each.

Double Purple. Lilac blue, nearly lavender. Very double with pointed petals; panicles compact. Bare root, 2 to 3 ft., \$1.00 each.

Persian Cut Leaved. Pale lilac, single; panicles loose on very long stems. Leaves deeply cut. Very free bloomer and fine for cutting. Bare root, 1½ to 2 ft., \$1.00 each.

Purple. Light purple, single; both flowers and panicles extremely large. Growth upright and very strong. Bare root, 2 to 3 ft., \$1.00 each.

White. Purest white, single; panicles very large and loose. Growth very vigorous. Bare root, 2 to 3 ft., \$1.00 each.

TAMARIX. Tamarisk

Elegant, fine foliage and handsome flowering shrub, thriving in all soils; one of the best plants for growing near the seashore, as it will bear wind exposure with

impunity. Does well also in the interior, thriving under trying conditions where other plants fail. Flowers pink, long, tapering panicles.

T. algerica. Growth spreading. Foliage grayish green. Bare root, 4 to 5 ft., \$1.00 each.

T. articulata. Has the appearance of a coniferous-looking tree. Long, slender branches with slender spikes of delicate pink flowers. Bare root, 3 to 4 ft., 75c each.

T. hispida aestivalis. Has the unusual and valuable habit of blooming twice a year, in spring and again in late summer. Growth slender and upright. Bare root, 4 to 5 ft., \$1.25 each; 3 to 4 ft., \$1.00 each, \$9.00 per ten.

T. odessana. Asia. Growth erect and compact. Foliage plummy. Appearance entirely distinct from the others. Can be trained into quite a tree. Bare root, 4 to 6 ft., \$1.25 each; 3 to 4 ft., \$1.00 each, \$9.00 per ten.

T. parviflora purpurea. Growth strong and upright. Makes a good tree. Blooms after the others. Extremely free bloomer. Bare root, 4 to 5 ft., \$1.00 each; 3 to 4 ft., 75c each, \$6.00 per ten.

VIBURNUM. Snowball

There are but few deciduous shrubs that will thrive with less care than the Viburnums. They are attractive as specimen plants and for grouping. No garden can afford to be without one or more of these popular plants.

V. opulus sterile. COMMON SNOWBALL. Well-known shrub, bearing large, globular clusters of white flowers during late spring. Foliage colors brilliantly in fall. Bare root, 2 to 3 ft., \$1.00 each.

V. tomentosum plicatum. JAPANESE SNOWBALL. Flower heads rather smaller, but borne more profusely. Leaves strongly plaited and not lobed. Makes a more compact shrub than the common variety. Bare root, 2 to 3 ft., \$1.25 each.



Tamarix. An elegant feathery foliage and flowering shrub, growing thriftily in the poorest soils.



It requires no stretch of the imagination to be convinced that plant life adds much to the charm of this home.

Climbing and Trailing Plants

No class of plants are of wider use nor add so much to the beauty of California home plant adornment than the climbers and trailers. Doing well in most any good garden soil, and of easy culture, makes them favorites in any garden. Their grateful shade on porch and veranda, their beautiful foliage and flowers on pergolas, fences and coverings for unsightly objects lend a charm to the garden that is to be attained by no other class of plants. The varieties we offer are particularly adapted to prevailing conditions of soils and climates in California. Certain varieties will cling to stone and brick walls, others to trellis and fences, and still others will cover broad surfaces by reason of their sprawling habits. All this is made possible by their varying habits of growth, some by twining, others by tendrils and some by rootlets.

Churches, depots, factories, outbuildings, and all brick and stone edifices can be covered by clinging vines, without trellising, relieving their harshness or lack of architectural beauty and make them things of beauty. The house embowered with vines in the introduction of this chapter exemplifies the value of vines and creepers for home embellishment.

ACTINIDIA

A. chinensis. China. Very strong-growing, twining, deciduous climber. Leaves very large, rounded, downy beneath. Branchlets and leafstalks are densely covered with bright red hairs. Flowers, about two inches broad with five spreading petals and a mass of stamens, are creamy white, soon turning yellow. Quite out of the ordinary in every way. In 4-inch pots, \$1.00 each.

AKEBIA

Handsome twining vines with dense, semi-evergreen foliage. Flowers borne in early spring, are small, in short racemes, a peculiar shade of livid purple.

A. lobata. China; Japan. Leaves of three large leaflets, deeply or slightly lobed, sometimes only wavy-margined. Foliage very dense. Rare. In 6-inch pots, \$1.00 each.

A. quinata. China; Japan. Leaves of five small leaflets. Foliage more graceful and less dense than preceding. In 6-inch pots, \$1.00 each.

AMPELOPSIS

Well-known deciduous vines climbing by tendrils. All assume most gorgeous autumnal tints, Virginia Creeper first and Boston Ivy later. Both types are extremely hardy.

A. quinquefolia. VIRGINIA CREEPER; WOODBINE. Eastern U. S. Very well known. Leaves large with five leaflets. Berries dark purple with a bloom, borne on red stalks. Foliage colors a most intense scarlet early in the fall. 60c each, \$5.00 per ten.

A. tricuspidata (*A. veitchi*). BOSTON IVY; JAPAN IVY. China; Japan. Perfectly distinct from Virginia Creeper. Leaves on very young plants are divided into three separate leaflets, but on older plants are merely three-lobed. Foliage is dense and very glossy. Tendrils furnished with small discs, which adhere tenaciously to brick, stone or even wood. Foliage turns yellow and red in fall later than Virginia Creeper and persists longer. 60c each, \$5.00 per ten.

ARISTOLOCHIA

A. macrophylla. DUTCHMAN'S PIPE. A hardy vine producing a dense shade; leaves broad, large, bright green; flowers purplish and yellow-green, solitary or two or three together from the axils of the leaves, resembling a pipe. In 4-inch pots, 75c each.

BIGNONIA. Trumpet Flower

Among the climbing vines, these beautiful plants are deserving of far more attention than they have ever received. Their flowers are large, showy, of the most delicate shades and colors. For covering walls, rocks, trellis-work, or for climbing trees they have few equals. Some varieties are very hardy while others will only thrive in localities where severe frosts do not occur.

B. australis. WONGA-WONGA VINE. Australia. Evergreen twining vine of strong and rapid growth and particularly valuable for its beautiful, dark green, glossy foliage; leaflets large; flowers small and borne profusely in early spring, creamy white and violet spot inside. In 4-inch pots, \$1.00 each.

B. cherere. Mexico. Leaflets long. Branches inclined to be square. Flowers about four inches long, blood red, yellow at base. Very handsome species. In 6-inch pots, \$1.50 each; in 4-inch pots, \$1.00 each.

B. grandiflora (B. chinensis). CHINESE TRUMPET VINE. Foliage similar to common Trumpet vine; flowers of similar color but shorter, more flaring and much larger spreading lobes, borne in large, open panicles. Makes a beautiful display nearly all summer; superior to the common form. In 5-inch pots, \$1.25 each.

B. speciosa. Argentina. Leaflets glossy. Flowers lilac and yellow inside the tube, but lavender on the flaring lobes. Free bloomer. In 6-inch pots, \$1.50 each.

B. tweediana. Argentina. Leaflets long and narrow. Flowers lemon-yellow and usually broader than long. The vine itself is very graceful and handsome and will climb very high. The tendrils are hooked and adhere readily to brick, stone, cement and wood. In 4-inch pots, 75c each.

B. venusta. Brazil. Leaflets in threes, dark green, somewhat glossy. Flowers are about three inches long, tubular, in large and numerous clusters; bright orange. Blooms during the winter and early spring. Slightly tender until well established. Where it will thrive it is one of the most gorgeous flowering vines. In 4-inch pots, \$1.00 each.

B. violacea. Attractive; flowers a delicate shade of lavender; foliage bright, glossy green; rapid grower and does well in any good garden soil and situation; hardy. In 6-inch pots, \$1.00 each.

BOUGAINVILLEA

Very showy evergreen climbers from South America, with insignificant red flowers surrounded by three very showy bracts appearing like flowers and usually so-called. Leaves thick and large, bright green. Bracts crimson lake. Quite hardy and very profuse bloomer.

B. spectabilis. Leaves large and bright green; flowers brilliant rose magenta; vine a rapid and robust grower, attaining an immense size; a gorgeous sight when in full bloom. In 6-inch pots, \$1.50 each; in 4-inch pots, \$1.00 each.

B. spectabilis lateritia. While considered a variety of the foregoing it is absolutely distinct. The leaves and shoots are very downy; the flowers are usually called brick red when grown outside, but occasionally verge to a deep wine color. Grown under glass they are a beautiful salmon rose. There is nothing more difficult to propagate, so that plants are always very scarce and high-priced. Will stand but very little frost. In 5-inch pots, \$3.00 each.

CISSUS

C. striata (Ampelopsis sempervirens). EVERGREEN AMPELOPSIS. Very handsome vine of much more dainty appearance than the deciduous kinds. Leaves small, palmate, with five dark green leaflets. Adheres by tendrils. Rare, but well-liked where known. In 4-inch pots, 75c each.

CLEMATIS

Well-known deciduous climbers clinging by their twining leafstalks. Flowers vary greatly in size, color and time of blooming. Perfectly hardy here. They require rich, light soil, plenty of moisture with good drainage.

C. flammula. SWEET CLEMATIS. A hardy, rapid climber, with small, dark green foliage, with small white fragrant flowers. An excellent sort for the porch or the trellis. Potted, 75c each.

C. montana. Himalaya Mts. A great favorite in California. Flowers fragrant, rather small, four sepals, almost pure white. Strong grower. Blooms very early in the spring. In 4-inch pots, 75c each.

C. paniculata. Japan. Flowers white, fragrant, very small, but borne in the greatest profusion during late summer. In 4-inch pots, 75c each, \$6.50 per ten.

DOLICHOS

D. lignosus. AUSTRALIAN PEA VINE. Handsome and popular climber. Leaves of three broad and pointed leaflets. Bears a profusion of fragrant, purplish rose flowers in upright racemes, greatly resembling miniature Sweet Peas. Blooms from late winter to midsummer. In 5-inch pots, \$1.00 each.

FICUS. Fig

F. pumila (F. repens). CLIMBING FIG. Extremely handsome evergreen climber with about same habit as the well-known Boston or Japan Ivy. It adheres closely to walls by its clinging tendrils. Leaves are small, dark green and heart-shaped. Has been proved perfectly hardy here by several years' test on our office building, where it has thrived admirably. In 4-inch pots, 75c each, \$6.50 per ten.

F. pumila minima. A variety of short, compact growth with tiny leaves. Useful to climb to a very low height and excellent for hanging baskets, window boxes, etc. In 3-inch pots, 75c each.

HARDENBERGIA

Very handsome Australian evergreen, twining vines; flowers pea-shaped, small and dainty, borne in numerous elongated, compact clusters during late winter and early spring. Rank very high among the best winter-blooming climbers.

H. comptoniana. Leaves of three or five leaflets. Flowers deep, intense violet. We know of no other climber that can approach it in color. Remarkably handsome. In 5-inch pots, \$2.00 each; in 4-inch pots, \$1.50 each.

H. monophylla rosea. Leaves undivided. Flowers pink, in utmost profusion. In 6-inch pots, \$1.50 each.

H. monophylla alba. Flowers white. In 5-inch pots, \$1.50 each.

HEDERA. Ivy

Valuable plants for covering walls, trunks of trees, for screens and hanging baskets. They make a handsome evergreen carpet under trees and may be used to advantage for borders of shrubberies.

H. helix. ENGLISH IVY. Europe; Africa; Asia. The well-known species with very dark green, leathery



Bignonia venusta.

(*HEDERA*) Continued

leaves, usually about five-lobed. Old vines have greenish flowers and black berries in clusters on lower part of plant. In 4-inch pots, 60c each.

H. helix canariensis. GIANT OR LARGE-LEAVED IVY. Large, roundish, ovate, entire or slightly three-lobed leaves, of a bright yellowish green, sometimes eight inches broad. In 4-inch pots, 60c each.

H. maderiense variegata. Resembling the preceding, excepting the foliage is larger. In 4-inch pots, \$1.25 each.

JASMINUM. Jasmine

Interesting plants, some of which grow in the form of shrubs, but the majority are either climbers or trailers. Flowers yellow, white and pink, all of which are very fragrant and borne in masses; will grow in a variety of soils and under variable conditions; find wide uses for porch and veranda decorations. Suitable for large plantings as well as small gardens.

J. floridum. A new variety with smooth, angled branches and alternate leaves of three to five oval leaflets; flowers golden-yellow, borne in terminal clusters. Very fine. In 5-inch pots, \$1.00 each; in 4-inch pots, 75c each.

J. gracillimum. Borneo. Moderate climber. Branches and leaves downy. The latter are simple, small and pointed. Flowers large, fragrant and pure white. The five calyx teeth are long and slender, remaining at ends of branchlets in odd-looking tufts after flowers have fallen. Evergreen. In 6-inch pots, \$1.50 each; in 4-inch pots, \$1.00 each.

J. grandiflorum. CATALONIAN JASMINE. India. Pinnate leaves. Flowers pink in bud, white when open, very large and double, delightfully fragrant. Blooms most of the time. Evergreen. In 6-inch pots, \$1.50 each.

J. humile (J. revolutum). ITALIAN YELLOW JASMINE. Asia. Strong grower. Pinnate leaves. Leaflets slender and pointed. Flowers bright yellow in open clusters. Evergreen. Very fine. In 6-inch pots, \$1.50 each.

J. nudiflorum. China. Leaves of three very small leaflets. Flowers yellow, not in clusters, produced freely during the winter. Deciduous. Especially handsome in early spring when covered with bright yellow flowers before the leaves appear. In 6-inch pots, \$1.00 each; in 4-inch pots, 75c each.

J. officinale. JESSAMINE; COMMON JASMINE. Persia; India. Slender vine with finely divided pinnate leaves and numerous small, white, fragrant flowers. Summer bloomer. Partly evergreen. In 5-inch pots, \$1.00 each; in 4-inch pots, 75c each.

J. primulinum. DOUBLE YELLOW JASMINE. China. A recent and very valuable introduction. It is not only the fastest growing Jasmine, but almost the quickest growing climber in our entire list. Leaves of three good-sized leaflets. Flowers clear primrose yellow, very large and usually double. Evergreen. In 5-inch pots, \$1.00 each, \$9.00 per ten; in 4-inch pots, 75c each.

LONICERA. Honeysuckle

Popular free-blooming, twining vines of a hardy nature and growing well in all sections of the Coast; adapted to the city and suburban home grounds and larger plantings as coverings for porches, pergolas, fences and unsightly objects. Require little or no attention and afford a dense shade and a profusion of flowers throughout the summer months.

L. chinensis. CHINESE HONEYSUCKLE. Growth extremely strong. Old leaves dull green. New growth is reddish purple on branches and backs of leaves. Flowers white inside, purple outside. One of the very best vines where very rapid growth and a dense mass of foliage are desired. In 5-inch pots, 75c each; in 4-inch pots, 60c each.



Jasminum grandiflorum.

L. gigantea superba. GIANT HONEYSUCKLE. Heavy and strong grower; leaves soft and glabrous, about two and one-half inches long; flowers creamy yellow, turning almost to orange. In 5-inch pots, 75c each.

L. japonica halliana. JAPANESE HONEYSUCKLE. Habit exactly like Chinese; growth equally strong and dense. Leaves are bright green above, grayish green below, not at all purplish. Flowers white, changing to yellow. Very fragrant. In 4-inch pots, 60c each, \$5.00 per ten.

L. sempervirens fuchsoides. FUCHSIA-FLOWERING HONEYSUCKLE. Very handsome vine of moderate growth. Leaves large, silvery beneath. Flowers are extremely showy, large and borne in good-sized clusters, red outside, orange within. In 5-inch pots, 75c each.

MANDEVILLA

M. suaveolens. CHILE JASMINE. Deciduous vine, bearing white flowers shaped like Jasmine, but far larger and even more fragrant. Remarkable for the long seed pods in pairs, joined at the tips. Summer bloomer. In 6-inch pots, \$1.25 each.

MUEHLENBECKIA

M. complexa. WIRE VINE; TASMANIAN IVY; MAIDEN HAIR VINE; MATTRESS VINE; MONEY VINE, etc. New Zealand. Remarkably strong-growing, evergreen, twining vine. The innumerable branches are very slender and black, resembling wire. Leaves about the size of Maiden Hair Fern. Flowers white, but entirely inconspicuous. Splendid for training up trunks of trees. If grown on poultry netting will make a very beautiful hedge, as the branches intertwine until a dense mass is formed. In 4-inch pots, 50c each, \$4.00 per ten.

M. platyclada. Interesting and an erect shrubby plant with broad, flat, ribbon-like branches replacing the leaves, which are scanty. In 4-inch pots, 75c each.

PASSIFLORA. Passion Vine

The Passion Vines are all strong growing evergreen climbers with large yellowish green leaves and brilliantly colored flowers, some varieties maturing their fruits



Passiflora — Passion Vine.



Plumbago capensis.

when grown out of doors, thus adding to the beauty of the plant. They are of exceedingly rapid growth and well adapted for growing on old tree-stumps, covering walls or buildings; always excite admiration when in bloom.

P. jamesonii. A rapid growing vine, with bright green glossy foliage; flowers large, bright rose or coral-red, with cylindrical tube four inches long; fruit oval, greenish-yellow at maturity. In 4-inch pots, 75c each.

P. manicata ignea. SCARLET PASSION VINE. Growth vigorous; leaves broad, three-lobed; flowers about four inches across, fiery scarlet, corona double, outer series blue, tube rather short and flowers do not droop. Highly valuable for its brilliant coloring and free-blooming quality. In 4-inch pots, 75c each.

P. mollissima. PINK PASSION VINE. Andes Mountains. Leaves deeply three-lobed, downy beneath; flowers large, drooping, rose-colored, corona short, tube long. In 4-inch pots, 75c each.

PLUMBAGO

Very useful vines or can be grown as spreading shrubs. Foliage clean and smooth. Flowers shaped like Phlox with very long tube. Borne in racemes throughout the season. Very free bloomers.

P. capensis. S. Africa. Flowers a very uncommon shade of azure blue. Almost unique in color. In 6-inch pots, \$1.25 each.

P. capensis alba. A variety of preceding with pure white flowers. Seems to be even more free flowering than the blue. In 6-inch pots, \$1.25 each.

PUERARIA. Kudzu Vine

P. hirsuta. KUDZU VINE. For rapid growth it has no equal, making forty to sixty feet in a single season; leaves large; flowers purple and pea-shaped. In 6-inch pots, 75c each.



Tecoma jasminoides.

SOLANUM

S. jasminoides. POTATO VINE. S. America. Well-known vine of strong and rapid growth. Leaves small. Flowers white, star-shaped, in numerous clusters. Blooms here throughout the year. In 4-inch pots, 60c each.

SOLLYA

S. heterophylla. AUSTRALIAN BLUEBELL. Low evergreen climber. Leaves variable but not lobed or cut. Flowers numerous and very handsome, brilliant blue, about half an inch long, bell-shaped. Decidedly pretty. In 5-inch pots, \$1.00 each; in 4-inch pots, 75c each.

TECOMA

Evergreen and deciduous climbers, very much like Bignonias. Flowers are tubular or trumpet-shaped, varying considerably in size. Desirable for covering pillars, verandas, trunks of trees, etc.

T. capensis. S. Africa. Growth moderate. Leaflets rather small and coarsely serrated. Flowers bright orange red, slender, with protruding stamens. Evergreen. In 6-inch pots, \$1.25 each.

T. jasminoides. Australia. Vigorous evergreen climber. Leaflets small, pointed, dark green. Flowers large, the flaring lobes white shading to rosy pink inside the tube; borne in clusters. Blooms almost continually throughout the year. Very handsome. In 5-inch pots, \$1.00 each.

T. jasminoides alba. Variety of preceding. Flowers larger and entirely white. Foliage bright glossy green. In 5-inch pots, \$1.00 each.

T. mackenii. S. Africa. Evergreen climber. Leaflets dark green above, pale beneath. Flowers large, borne in clusters, light pink, striped red. In 5-inch pots, \$1.00 each; in 4-inch pots, 75c each.

VINCA

The various types of Vincas, both in the large and small leaved sorts, are of inestimable value as garden plants. For planting on banks or under the dense shade of trees they make splendid ground cover plants. Used in window boxes or hanging baskets their long trailing stems and pretty blue flowers give a light and airy decorative effect.

V. major. Large leaves. In 4-inch pots, 50c each, \$4.00 per ten; in flats of 100, \$4.00 each.

V. minor. Small leaves. In 4-inch pots, 50c each, \$4.00 per ten; in flats of 100, \$4.00 each.

WISTARIA

Graceful and quick-growing climbers unsurpassed for wall coverings, piazzas, pergolas and arbors; flowers borne in long pendulous panicles, varying from white to a rich lilac purple and pea-shaped in formation, which appear in spring before the advent of foliage. Wistaria make gorgeous effects by reason of their profuse and abundant flowering characteristics.

W. chinensis. CHINESE WISTARIA. Racemes nearly a foot long and very compact. Flowers are very light purple or nearly lavender and appear before the leaves. Potted, \$1.25 each.

W. chinensis alba flore pleno. DOUBLE-FLOWERING CHINESE WISTARIA. Flowers very double; purple. Potted, \$1.50 each.

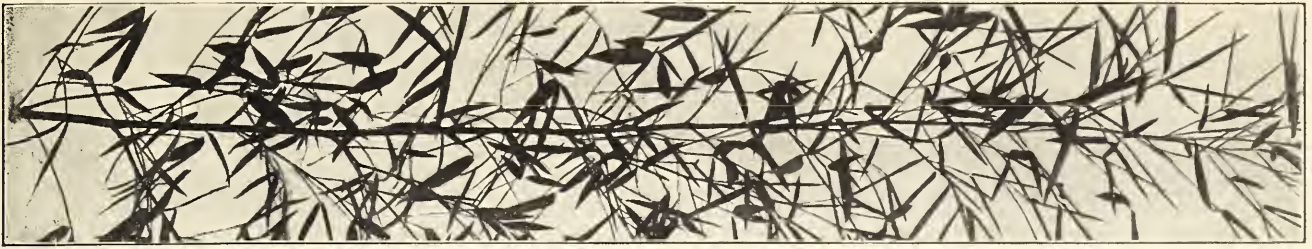
W. multijuga. JAPANESE WISTARIA. Entirely distinct from the Chinese type. Its characteristic feature is the great length of the racemes, which are often two or three and occasionally, in good specimens, nearly four feet long. Much looser than the racemes of the Chinese form. Comes into bloom about ten days later, as the leaves are appearing. Best grown on a pergola or arbor where the long racemes may hang through, giving a picturesque and charming effect. Grafted plants, \$2.00 each.

W. multijuga alba. WHITE JAPANESE WISTARIA. Differs from type in bearing pure white flowers. Grafted plants, \$2.00 each.

W. multijuga rosea. PINK JAPANESE WISTARIA. A very rare variety with pink-tinted flowers. Grafted plants, \$2.50 each.



Jasminum gracillimum.



Bamboos and Grasses

Useful and ornamental plants that do well in any reasonably good soil. All the leading varieties of Japan seem to find conditions in California favorable for their rapid growth. They are very decorative house plants, and as single specimens on the lawn and for grouping; with their airy foliage, graceful bending branches and rich green color there are few plants which will compare with them for producing striking effects. Nothing rests the eye like a fine expanse of lawn; likewise the ornamental grasses, many of which attain size and individuality, when used in clumps, borders and nooks and corners, afford a sense of repose to any well planted park or garden.

ARUNDO

A. donax. GIANT REED. Orient; S. Europe. 15 ft. Not a Bamboo, but a woody plant of near relationship and somewhat similar general appearance. Canes are unbranched and bear large, sage green leaves from top to bottom. Spreads from roots and forms clumps. Good windbreak. Far harder than any of the Bamboos, hence can be used to excellent advantage where they are too tender. Roots, \$1.00 each.

A. donax variegata. 8 ft. Handsome variety of preceding. Grows about half as tall. Leaves conspicuously marked with broad, creamy white bands running lengthwise. Highly ornamental. Roots, \$1.00 each.

BAMBOOS

Arundinaria falconeri. Himalayas. 12 ft. This species is unique in sending up two kinds of canes; one bears flowers and seed, but not leaves; the other, leaves only. The latter are most remarkably slender, shoots 8 or 10 feet tall having only the diameter of a lead pencil at base. Leaves are slender and average four inches long, clear green. Branches several at each joint, very narrow. Very distinct in appearance. Balled, 4 to 5 ft., \$4.00 each.

Dendrocalamus strictus. ERECT STEMMED GIANT. Formosa. Of dense habit, broad leaved foliage and extra large canes with a diameter of four inches and attaining a height of forty to fifty feet; plants are foliaged clear to the ground. In 12-inch pots, \$6.00 each.

B. fastuosa. 20 ft. Magnificent Bamboo of extremely strong and erect growth. When plants are well established the canes spring up straight as spears; when sheaths fall the canes are deep green, with very heavy, glaucous bloom; this color later changes to purple, then gradually ripens, where exposed to sun, into a beautiful, polished mahogany-brown. Entirely different from other sorts. The branches are numerous, stiff and very short. Leaves dark green with yellow blotches. The falling leaf sheaths are particularly beautiful, being as smooth as glass inside and stained brilliant purple. Balled, 6 to 8 ft., \$3.50 each; 4 to 5 ft., \$2.50 each.

Phyllostachys aurea. Japan. 15 ft. Named for its golden yellow canes; but this character is found in several others. Can be recognized by the joints being close together at base of canes. Shoots come up densely, most of them being very slender and of moderate height. Leaves two to four inches long. Furnishes excellent decorative material. Balled, 4 to 5 ft., \$2.00 each; 3 to 4 ft., \$1.50 each.

P. quilioi. 40 ft. Our strongest growing, tallest and possibly hardest Bamboo. Probably the species most likely to prove of greatest economic value. Growth is very rapid and mainly erect. Leaves very variable, sometimes up to a foot long by two inches broad, but mainly from three to six inches long. Canes shiny green, changing to clear yellow, and possessing great strength when seasoned. Furnishes fine decorative material. Ought to be widely planted in California from an economic as well as esthetic point of view. Balled, 6 to 8 ft., \$4.00 each; 3 to 4 ft., \$1.50 each.

CORTADERIA (Gynerium). Pampas Grass

Well-known plants succeeding everywhere in the State. A showy and ornamental species with large feathery plumes.

C. argentea (Gynerium argenteum). S. America. The most widely cultivated but not the handsomest sort. Plumes white. Balled, 4 to 6 ft., \$3.00 each; 3 to 4 ft., \$2.00 each.

C. quila jubatum. Growth like Argentea, but has broader leaves and more feathery, glossy, lavender-colored plumes. Blooms freely and is remarkably handsome. Balled, 3 to 4 ft., \$2.00 each.

C. roi des roses. Leaves narrow; plumes rosy purple; winter bloomer. Balled, 4 to 5 ft., \$3.00 each.

C. variegata. Growth somewhat dwarf; leaves narrow with white stripes. Balled, 3 to 4 ft., \$2.50 each.

MISCANTHUS (Eulalia)

M. sinensis (Eulalia japonica). Asia. Hardy perennial grass, growing four to five feet and resembling Pampas Grass on a smaller scale. The blooms have clusters of silky hairs, giving them a beautiful feathery appearance. Balled, 2 to 3 ft., \$1.00 each.

M. sinensis zebrinus. Leaves slightly narrower than type. Variegation is very odd, consisting of broad, white bands across the leaves. Balled, 3 to 4 ft., \$1.50 each.

M. sinensis variegatus. Another variegated variety. Leaves same breadth as in type, but with several white stripes running their full length. Balled, 3 to 4 ft., \$1.50 each.

PHORMIUM

Foliage plants of great economic, as well as decorative value. The leaves are sword-shaped and have wonderful tensile strength due to a fine white fiber. Flowers are red or yellow, borne on stalks usually twice as tall as leaves.

P. tenax. NEW ZEALAND FLAX. Leaves clear green, often six feet or longer. Flower stalks in proportion. The fiber is so plentiful that a small strip of the leaf makes excellent tying material. It is imported in great quantities from New Zealand. Makes large clumps of striking appearance. Balled, 4 to 5 ft., \$4.00 each; 3 to 4 ft., \$2.50 each.

P. tenax variegatum. VARIEGATED NEW ZEALAND FLAX. Variety of preceding, identical in all respects except that leaves are conspicuously striped lengthwise with creamy white. Balled, 2 to 3 ft., \$3.00 each.



The *Phoenix canariensis* depicted in this picture illustrates how effective grouping brings out the best in Palms.

Palms and Dracaenas

No class of plants lends itself more harmoniously to a California landscape than do the Palms, Dracaenas, Agaves, Dasylirions and growths of a like character. Their wide range and diversity of habit and growth render some one of the different genera and species available for both the small garden and the more pretentious landscape effect. Palms are especially desirable, both the feathery and the fan-leaved species, giving an effect that at once suggests tropical conditions. All are admirable as specimen plants, planted in group and mass effects and the larger growing sorts are effective for boulevard and street purposes and for gorgeous effects in public parks and grounds. Plants of this class submit to transplanting even after attaining quite an age and size.

CHAMAEROPS

Includes only the European Dwarf Fan Palm. The Japanese Fan Palms will be found under *Trachycarpus*. The *Chamaerops* have long spines on the leafstalk; the *Trachycarpus* have none.

C. humilis. DWARF FAN PALM. Mediterranean region. 20 ft. Dwarf, hardy palm of extremely slow growth. Leaves very small with spiny stalks, segments rigid and double-pointed. A very useful palm for a small lawn. Fine for tub culture. Handsome and requires but little space. Balled, 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$4.00 each.

C. humilis argentea. Variety of preceding and identical except that the dark green leaves are very silvery on lower surface. When the young leaves are first

expanding, this surface faces outward, contrasting finely with the older leaves. Balled, 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$4.00 each.

COCOS

C. australis (*C. eriopatha*). 12 ft. Remarkably handsome and graceful palm. Leaves are strongly arched and even recurved. Often all the leaves on a plant are similarly bent to one side while arching, giving a unique and striking spiral effect to the whole palm. Leaf segments very long, narrow, sage green and more or less glaucous. Forms practically no trunk, at least not for many years. Splendid for lawn planting, as it will not grow out of all bounds and overshadow everything else as the date palm often does. It is thoroughly hardy here and certainly ought to be far more widely planted. Balled, 2 to 3 ft., \$4.00 each; 1½ to 2 ft., \$3.00 each. Potted, 1½ to 2 ft., \$2.00 each.

CORDYLIN (Dracaena)

C. australis (*Dracaena australis*; *D. indivisa*). New Zealand. 30 ft. Tropical looking trees with sword-shaped leaves and very large panicles of white flowers. Often called "Dracaena Palm," which is incorrect, as they are far from palms and really closely related to the lilies, as the flowers will show. Next to the palms, they are probably our most tropical looking trees. Balled, 2 to 3 ft., \$3.00 each. Potted, 1½ to 2 ft., \$2.00 each.



Trachycarpus excelsus. The Windmill Palm. This very hardy Palm is one of the best in our collection.

DASYLIRION

Ornamental desert plants with short trunks; leaves long, straight and slender, usually spiny on the edges; flowers in tall, dense spikes; novel, attractive and interesting. Require no care.

D. acrotrichum (*D. gracile*). Mexico. Habit and general appearance similar to following, but leaves are clear green. Balled, 2 to 3 ft., \$3.00 each.

D. glaucophyllum. Mexico. Trunk short if any. Leaves very glaucous; numerous, standing almost rigid in all directions, about two or three feet long and an inch broad. Margins armed with numerous small, spiny teeth. Flower spike about 8 ft. tall. Balled, 3 to 4 ft., \$3.50 each. Potted, 1 to 1½ ft., \$1.25 each.

ERYTHEA

E. armata. BLUE PALM. Lower California. 40 ft. Leaves are extremely glaucous, giving the plant a silvery blue hue. Leafstalks armed with curving spines. Extremely showy and entirely distinct from other palms. Growth comparatively slow. Balled, 1½ to 2 ft., \$2.00 each.

E. edulis. GUADALUPE ISLAND PALM. 30 ft. In our opinion the handsomest of the fan-leaved Palms. The leaves, borne on very long stalks, are extremely large and hold their color for many years, so that even on plants ten or fifteen years old the lower leaves, still green, will touch the ground. Blooms comparatively young and bears large, black nuts. Balled, 3 to 4 ft., \$4.00 each; 2 to 3 ft., \$3.00 each.

LIVISTONA (Corypha)

L. australis (*Corypha australis*). Australia. Fan-leaved palm with segments cut nearly to the leafstalk, which is very long. Handsome as a pot plant and in the open ground. Balled, 4 to 5 ft., \$4.00 each; 3 to 4 ft., \$2.50 each.

NOLINA

N. longifolia. Mexico. In time forms a trunk five or six feet tall. Leaves much like preceding, not glaucous, about an inch or more wide; older ones very drooping. Center leaves loose and slightly spiral, usually forming a tube. Decidedly handsome. Balled, 3 to 4 ft., \$2.50 each. Potted, 1 to 1½ ft., \$1.50 each.

PHOENIX

P. canariensis. CANARY ISLAND DATE PALM; ORNAMENTAL DATE PALM. The most widely planted palm in California. A popular garden variety. Its ultimate great size should be remembered when planting so as to allow enough room for development. Unless there is plenty of space a small palm, such as *Cocos australis*, should be used instead. Balled, 2 to 3 ft., \$3.00 each; 1½ to 2 ft., \$2.00 each. Potted, 1 to 1½ ft., \$1.00 each.

TRACHYCARPUS (Chamaerops)

T. excelsus (*chamaerops excelsa*). WINDMILL PALM. Asia. 30 ft. Trunk slim and very hairy; in old specimens thicker at the top than at the base. Leaf segments are narrow and flexible; the outer third usually droops on older leaves. An excellent species for street planting. Hardest palm known. Balled, 4 to 6 ft., \$6.00 each; 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$3.50 each.

T. fortunei. Although similar to preceding, it is nevertheless distinct. Trunk is stouter and tapers upward. Growth is slower. Leaves are larger with broader segments, more closely set; very glaucous beneath. Very handsome. Balled, 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$3.50 each.

T. nepalensis. Himalayas. Trunk and general appearance similar to *T. excelsus*, but the leaves are darker, smaller and borne on shorter stalks; segments extremely rigid and never drooping. Balled, 4 to 5 ft., \$6.00 each; 3 to 4 ft., \$5.00 each; 2 to 3 ft., \$3.50 each.

WASHINGTONIA

W. filifera. CALIFORNIA FAN PALM. Trunk attains diameter of four feet; leaves fan-shaped, with numerous divisions and whitish filaments; petioles stout, smooth, 5 to 6 feet long, margined with hooked spines. Balled, 3 to 4 ft., \$3.00 each. Potted, 2 to 3 ft., \$1.50 each.

W. robusta (*W. gracilis* or *sonorae*). MEXICAN FAN PALM. A distinct type; leaves drooping, much greater than preceding and with fewer white filaments. Petioles more heavily spined; much more rapid grower than *W. filifera*. Potted, 2 to 3 ft., \$1.50 each.



Washingtonia robusta (Mexican Fan Palm). More universally used for Avenue and Street Planting than any other Palm.



Golden Emblem.

CALIFORNIA ROSES

Among all the flowering shrubs that grace the garden or add to the beauty of hall or conservatory, none can compare with the rose. Of diverse color and character of foliage, of endless design and color of bloom, it lends itself to a wider range of decoration than any other single group of plants, being equally desirable as pot plants, for garden culture and for cut flowers. When to these qualifications are added ease of culture and quick and ample responses in flowers, it is explained why the rose has been aptly termed "The Queen of Flowers." In our collection of flowering and ornamental shrubs, it occupies first place.

THE ROSE NURSERIES

In the fertile soil of Alameda County in California, under almost perpetual sunshine, tempered by ocean breezes, our extensive Rose Nurseries are located. Here are grown each year in the open field thousands of the strongest, hardiest rose plants known to the nursery trade in all sections of the United States.

Under these favorable conditions we produce but one grade—the best. We select only those sorts producing freely of blooms possessing good substance and striking individual characteristics. These plants are shipped to every part of the world to delight the fancy of thousands of rose-lovers.

BUDED ROSES

Budded roses grow far more vigorously than those on their own root and are longer lived; so that the slight additional expense incurred to begin with, is more than compensated in having superior plants. The only possible objection—claimed by some—is that the plants are apt to sucker. We avoid this by dis-budding the stock and budding low on the stock, making this possibility nil. As a further preventative we recommend

that our customers plant the junction of the bud with the stock two or three inches under ground. If planters will observe to do this, the plants will make a better root system, and all possible difficulty of suckering will be removed.

THE RIGHT BEGINNING

It is impossible to grow a rose garden of fine large thrifty bushes with an abundance of blooms by starting with small plants, which have been previously started or grown under glass, or weak imported plants. To have satisfactory success you must have fine thrifty field grown plants to start with. Do not form the opinion that California field grown roses are tenderer than plants grown in cold climates, as this opinion is a decided mistake. Nowhere in the world can better rose plants be grown than in the coast counties of California. Being thoroughly hardy and vigorous, with well-ripened wood and well-branched root system, these plants are planted everywhere.

SITUATION

The ideal situation is high ground, well sheltered from the prevailing wind. Along the coast it is not best to plant roses where they will be shaded by large trees or hedges. In the warmer interior valleys of California and in similar climates this condition is not objectionable, but instead is favorable, provided the shade is not too dense, permitting the plant to receive the sunshine a portion of the day.

SOIL

A good heavy loam soil is best for roses. Gravel soil is far from being ideal for roses, but it is better than very sandy soil. (In a poor heavy clay or rocky soil, it

will pay to dig the hole extra large and two feet deep. Wheel the dirt away entirely. Fill the hole with six inches of well-rotted barn yard manure at the bottom and good rich soil to the top.) The ground should be spaded thoroughly and if any well-rotted manure is available, it should be worked well into the soil. Under no circumstances use fresh or new manure. It is best to prepare the ground some time before planting if it is possible to do so.

PLANTING DISTANCES

This depends upon the type of rose. Plant the strong Hybrid Perpetual Roses three feet apart. Hybrid Teas and Teas about two and one-half feet. The Polyantha type are more dwarf in their habits and permit of being more closely planted.

PLANTING

The best season of the year for planting roses on the Pacific Coast and in the southern states is in the winter months, with the recommendation in favor of early planting. In the northern states planting should be done during the fall or in the spring.

When plants are received, unwrap them with the greatest care; do not allow the roots to be exposed to the sun or drying winds. If for any reason the roots are dry, soak in water for a few hours and then bury in the earth for a few days. If the stems are also dry, bury the whole plant in moist earth for three or four days, and they will again show life and vigor. Too much stress cannot be given to the importance of properly trimming the rose at planting time. Prune the top, cutting back the branches at least two-thirds. Thin out, leaving not more than three branches to form the head. The roots should be cut back to six inches; all bruised roots removed. In planting, the same care

should be observed as with any tree or plant. Dig a hole large enough to receive the roots and dip them in thin mud before planting. When planting, point the roots down, slanting to the side of the hole. Fill in with surface soil to within four inches of the top of the ground, tramping same down. Make a basin around the plant and pour into it ten to fifteen gallons of water. The following day fill in with loose soil.

Do not forget these points, but follow this advice if you want good strong plants.

PRUNING

No definite rule can be laid down for pruning roses except that Teas and their allied families do not require as severe pruning as the Hybrid Perpetuals and others of equally vigorous growth. There is one fast rule, however, and that is never to allow roses to go unpruned. The best time is from December 15th to March 1st. The first winter after planting, thin to three main shoots and cut these back at least two-thirds. In after years with the frame-work branches established, the laterals should be thinned out to prevent over-crowding and those allowed to remain should be cut to spurs of about four buds each. If this method is followed regularly each season, a properly pruned plant will have the shape of a deer's antlers. With climbers the frame-work branches should be trained up against the wall in the shape of a fan, not leaving more than three or four, and these should be cut back severely the first two seasons to promote vigor and sturdiness of growth. In after years shorten in the laterals and thin out sufficiently to prevent over-crowding, otherwise the plant will be a mass of dead wood and twisted branches, and its vigor will become seriously impaired. If you fail to prune and thin out you will have an over-abundance of small flowers.

When the roses have stopped blooming in the early summer the faded buds should be cut and the plants given a light pruning, or more correctly, a pinching back, which will have the effect of making them respond with a bounteous bloom in the summer and fall.

FERTILIZING

Roses are often found blooming under adverse conditions and with little care, but perhaps no plant responds more quickly to "feeding" than the rose. Manure from the cow barn is the best fertilizer you can use. Other manures may be used with good results when the former cannot be conveniently obtained, but never let any green or fresh manure come in direct contact with the roots. Use it only as a top-dressing. Roses need fertilizer most when blooming. When the flower buds begin to swell an application of liquid manure will give immediate and pleasing results.

Poultry droppings, slacked lime or a handful of ground bone thrown on the ground around the plants, letting the rain take it into the soil is effective.

Do not become over-enthusiastic during the first year, in your efforts to force bloom by giving your plants too much fertilizer. Many plants are killed by manuring them too freely the first season after planting.

WINTER PROTECTION

In the mild climate of the Pacific Coast and extreme south no protection is needed for even the tenderest Teas and Hybrid Tea sorts. In colder climates for tender sorts, we advise mounding up the dirt around the base of the bush about six or eight inches. In addition a fork full of straw manure should be forked well into the branches. To make this easier, trim the canes back to within fifteen inches of the ground.

Also a good bunch of leaves or straw on the ground around the bushes weighted down to prevent blowing away will help to prevent injury when weather gets very cold.



A well-pruned Rose Bush. Pruning the plant not only promotes a sturdy growth but with it a profusion of flowers during the growing season.

VARIETIES

No attempt is made to list all the known varieties. By observation and testing we select and list only such varieties as have merit and are the best of the class, taking into consideration color, habit and other desirable points.

It has been our purpose to do this in a thorough manner, and we offer a list from which may be selected all the colors and shades; the most fragrant; the best bloomers; and the hardiest, strongest growers, to completely plant the garden of the amateur, or the expert.

TREE ROSES

Tree Roses, known also as Standard Roses, are very imposing when planted among Shrubbery and occupy very little ground space.

These Tree Roses are produced by budding on a tall stem about three feet from the ground, the variety desired. We select the most vigorous and hardiest sorts, keeping in view the selection of best colors and most constant bloomers.

This careful selection on our part is making the standard rose more popular every year, and to meet this ever increasing demand, we are growing large blocks of standard roses, while several years ago we grew only a few. A well-grown trained standard rose tree is a beauty to behold, and several planted together, or grouped, are very attractive. There are many places on nearly all grounds, even on city lots, where standard roses may be planted with splendid effect.

Proper pruning of the standard rose is very essential. Shorten in the head and thin out the plant, causing it to become symmetrical, and it will respond with a wealth of bloom which is surprising. The first two seasons wrap the stem with paper or burlap to prevent sunburn, and cut away all suckers appearing below the crown. Our Standard Roses are as fine as our bush



A Standard or Tree Rose.

plants, which is to say they are the best possible. It takes several years to grow them, and this, with constant selling, keeps the assortment continually changing. We will be pleased to quote prices and varieties we can supply on application.

CLASSES IN ROSES

Characteristics of the different classes are briefly defined as follows:

Hybrid Tea. A class of comparatively recent origin and today the most important of all. They show a blending of the beauty, delicacy and perpetual blooming habit of the Teas with the vigor and great hardiness of the Hybrid Perpetual group. Many have the tea scent very strongly developed, while the fragrance of others suggests the Hybrid Perpetuals.

Tea. As a rule, to which there are exceptions, their growth is slender and not very vigorous. Foliage is almost always very glossy. Their tendency is to bloom continuously. They require considerable pruning, good soil and proper care, but will well repay all the care and attention they receive.

Hybrid Perpetual. Hardy and resistant to cold, enduring a much lower temperature than either of the foregoing. Growth is usually vigorous and upright, often with long, unbranched canes. Stems are strong, frequently very long, and flowers are usually borne erect. Foliage is rough and entirely without the glossy surface so pronounced in the Teas. The fragrance is likewise distinct.

PERNETIANA

The most recent class of roses. Originated by J. Pernet-Ducher, of Lyons, France, as the result of a cross between Persian Yellow (Austrian Briar) and Antone Ducher (Hybrid Perpetual). It is truly a wonderful group and the startling color effects obtained in varieties to date is doubtless only a foretaste of what may be expected in the future.

POLYANTHA

Characterized by small flowers borne in large clusters. In most other respects there are few points of similarity. They are all of rampant growth and with the exception of Climbing Cecile Brunner, bloom only in the spring.

DWARF POLYANTHA

Low-growing varieties, having flowers in clusters and blooming all summer. Used for forcing as well as outside culture.

NOISETTE

Also called Champney Roses, which is the name they should really bear. All are climbers and range in color from yellow to white; none red or pink.

MOSS

So called from the sepals being covered with moss-like glands. Handsome in the bud stage only.

CHEROKEE

A beautiful class of climbers, mainly single-flowered, with glossy evergreen foliage. Often trained on wire fencing to form hedges.

IRISH SINGLE

The Irish Single Roses are attaining great popularity in California. They are apparently Teas or possibly hybrids. Very free blooming.

The Rose



Our collection is arranged in alphabetical order with the family to which the variety belongs following the name. This arrangement is preferable by far to listing varieties under numerous sub-divisions.

Belle Siebrecht.

American Beauty. Hybrid Perpetual. Deep rose. Originated in France, where it never became very well known; then imported to this country, renamed and achieved an unequalled popularity, which is still maintained. This was all due to its success under glass, which still continues. Was originally named Madame Ferdinand Jamin. Price, 60c each.

America. Hybrid Tea. This late introduction is a novelty, the value of which is being recognized by rose growers. The flowers are borne on long stems, are large, shapely, pearly pink, and possessing good substance. A wonderful keeper; stems are practically free from thorns. Price, \$1.50 each.

Amelia Gude. Hybrid Tea. Another recent introduction. A unique and charming yellow rose, color of Sunburst, with deeper shadings on the reverse; the blooms possess an individual beauty not frequently found in a rose with such big buds. For table decora-

tion, corsage bouquets, baskets, it is an ideal rose. Price, \$1.50 each.

Anne de Diesbach. Hybrid Perpetual. Bright pink. Flowers are large, of strong texture and beautifully colored. Has the fragrance of the class well developed. Price, 60c each.

Arthur R. Goodwin. Pernetiana. With us, apricot flushed salmon, fading through shrimp pink to flesh. Very rich indeed. Petals are very numerous and narrow, all strongly reflexed when the medium-sized flower is fully developed. Very free bloomer. Plant said to be vigorous, but with us practically a dwarf. Price, 60c each.

Baby Rambler or Madame N. Levavasseur. Polyantha. Crimson. This is practically an extremely dwarf and continuous-blooming Crimson Rambler. Does not mildew and blooms all summer. Price, 60c each.

Beaute de Lyon. Pernetiana. Has no resemblance whatever in color or form to any other rose. The half-developed flowers are much the same shade as a ripe tomato. The buds are curiously globular, with tips of petals overlapping; about saucer-shape when fully open. Blooms moderately. Bush is quite vigorous and rather thorny. Certainly a most unique variety. Price, 75c each.

Belle Siebrecht or Mrs. W. J. Grant. Hybrid Tea. Bright rosy pink. Flowers large, well formed and sweetly perfumed. Buds are long and tapering. Grows vigorously and blooms freely. A thoroughly fine variety. Price, 60c each.

Belle of Portugal or Belle Portugais. Wichuraiana. This wonderful climbing rose is a most vigorous rampant grower of clean light green foliage; begins to flower in January and continuing until June. The roses are borne on stems two or three feet long and are of soft pink shade flushed with yellow at the base of the petals. That fails to convey a correct impression of its wondrous beauty. Its long pointed buds expand into enormous flowers of a form and substance that cannot be compared to any other rose. Price, 75c each.

Betty. Hybrid Tea. Coppery rose overlaid with ruddy gold. Buds long and pointed; moderately double; petals unusually large and conspicuously veined. Stems long. Fragrance rich. Altogether a fine sort that quickly secured high rank. Price, 75c each.

Billard et Barre. Tea. Clear canary-yellow; turning to golden yellow; buds and flowers large and cup-shaped. A strong grower. Marechal Niel has long held first place among the yellow climbers, but it remains to be seen whether this variety will not become even more popular. Price, 75c each.

Black Prince. Hybrid Perpetual. Dark crimson, nearly black; flowers globular. Price, 60c each.



Mme. Caroline Testout.

Captain Christy. Hybrid Tea. Delicate flesh pink, medium to large. Petals have a satiny texture. Often included in the Hybrid Perpetual section, but as one of its parents was Safrano, it certainly belongs here. Price, 60c each.

Caroline Goodrich. Hybrid Perpetual. Light red, very double; rich in fragrance; vigorous grower. Price, 60c each.

Cheerful. Hybrid Tea. This is a rose with unique coloring and one very difficult of description. It has been referred to as a rich orange flame, the flame shade overspreading the petals. The base of the petals are orange yellow. The two shades create a color hitherto unknown in roses. The buds are long and pointed, the expanded flowers are large and spreading. With us it is mildew proof and blooms continuously throughout the season. Price, \$1.00 each.

Cherokee (Double White). Pure white. Flower of medium size, very double and borne profusely in spring only. Considered a hybrid between Banksia and Cherokee, hence often called "Cherokee Double White." Price, 75c each.

Cherokee Pink. Cherokee. About the same as preceding except that flowers are noticeably larger and ruddy pink. Single. Price, 75c each.

Climbing American Beauty. Miscellaneous. Cerise red. Flowers medium size, double and possessing a rich fragrance due to its Wichuraiana blood, which is also evident in its glossy, rich foliage, doubtless mildew proof. Its name is deceiving, as it has no resemblance to American Beauty. Growth extremely vigorous. Price, 60c each.

Climbing Belle Siebrecht or Climbing Mrs. W. J. Grant. Hybrid Tea. Bright rosy pink. It frequently happens that climbing forms are inferior to their bush prototypes, but this magnificent climber considerably surpasses the bush variety. The flowers are colored the same as the beautiful Belle Siebrecht, but are considerably fuller and far larger; in fact, it is among our largest roses. Price, 60c each.

Climbing Captain Christy. Hybrid Tea. A climbing form of the popular Captain Christy from which it sported. Very distinct. Price, 75c each.

Climbing Cecile Brunner. Polyantha. A vigorous climber which may be held in the bush form by pruning. An exact counterpart of the great favorite, Mlle. Cecile Brunner, except that it is a much more robust grower. Always in bloom; flowers perfectly, double, rosy pink, petals in bud daintily reflected. Delightfully fragrant and in every respect a most exquisite rose. Price, 75c each.

Climbing Hoosier Beauty. Hybrid Tea. Glowing crimson with very deep shadings. Free and constant bloomer and a very vigorous grower. Price, 75c each.

Climbing Kaiserin Augusta Victoria. Hybrid Tea. White faintly suffused lemon yellow. Identical with "Kaiserin" except in vigorous climbing habit. Price, 75c each.

Climbing La France. Hybrid Tea. Bright salmon pink, with silvery reflexes; a fine old rose; very sweet. Price, 75c each.

Climbing Lady Hillingdon. Tea. Deep apricot yellow. Can be told at a glance from any other rose known; even after the flower is cut the color will deepen. It never fades. The color is solid without any shading and absolutely unique. Growth strong and vigorous. Foliage at first dark violet, becoming a very deep green with slight violet hue. Flowers are large and loose, with long, pointed buds and remarkably large petals. Price, \$1.00 each.

Climbing Liberty. Hybrid Tea. A magnificent variety; color brilliant velvety crimson; bears large quantities of beautiful buds which expand into wonderful highly-colored open flowers. Price, 75c each.

Climbing Maman Cochet. Tea. Rose pink with lighter creamy yellow center. Growth extremely strong. Flower identical with the very popular bush form. Price, 60c each.

Climbing Mme. Caroline Testout. Hybrid Tea. This most wonderful rose is identical with that most beautiful and very free flowering rose, Mme. Caroline Testout, except that it is a very vigorous climber, canes making a growth of 12 feet in a season and an inch through. No garden should be without this magnificent rose. Price, 75c each.

Climbing Papa Gontier. Tea. Rosy crimson with carmine center. All that its name implies. Flowers identical with the bush variety except that they are somewhat larger. Blooms very freely; growth remarkably strong. An admirable free-blooming climber and in every respect superior to its parent. Price, 75c each.

Climbing Sunburst. Hybrid Tea. (New.) One of the most popular of the new roses. Its long and lovely buds, which open to large and full flowers of distinct and beautiful sulphured-yellow cause it to be very much esteemed by rosarians. Price, \$1.00 each.

Climbing White Maman Cochet. Tea. White tinged pink. Flowers are indistinguishable from bush form. Growth rampant. Price, 75c each.

Clio. Hybrid Perpetual. Flesh color, deepening in center to rosy pink, large fine globular form; very free bloomer. An exceedingly strong grower, with fine large foliage, setting off a flower as beautiful as it is distinct. Price, 60c each.

Cloth of Gold. Noisette. Deep yellow center, tinted sulphur toward edges. Flowers large, full and very handsome. An old variety which will always be popular on the Pacific Coast. A strong climber. Price, 75c each.

Columbia. Hybrid Tea. Flower true pink, deepening as it opens to glowing pink; deliciously fragrant and produced on long, stiff stems. It is a free grower with beautiful foliage, the leaves on the stem are spaced just right to form a fine setting for the bloom. The stem is almost thornless. Price, \$1.00 each.

Commonwealth. Hybrid Tea. This new rose is a strong, vigorous grower with hard leathery foliage. The blooms are large and nicely formed and are borne on long, straight stems. The color is a deep shade of

bright pink. It gives promise of not only being a valuable rose for outside culture as well as under glass. Price, \$1.25 each.

Conrad F. Meyer. Hybrid Rugosa. Splendid, large, elegantly formed buds and flowers 3½ to 4 inches across and perfectly double. Color is clear silvery rose, very attractive; intensely fragrant, very hardy and an exceedingly vigorous grower, and constant bloomer. An outstanding rose. Price, 75c each.

Constance. Hybrid Tea. Flowers of beautiful cadmium yellow, coloring passing to golden yellow; large, full of globular form; the buds are long-pointed, orange yellow, streaked with carmine. Growth very vigorous, free branching, perpetual flowering; foliage glossy green. Price, \$1.00 each.

Crimson Rambler. Polyantha. Well known. Blooms but once a year. Wonderfully showy in the early summer. Not fragrant. Price, 60c each.

Crusader. Hybrid Tea. This new introduction of American origin breathes character, stability and boldness in every line. Its growth is sturdy, its canes erect, its foliage heavy, its flowers are large with petals nicely reflexed at the edges; color a rich velvety crimson; very free flowering. Price, \$1.50 each.

Dean Hole. Hybrid Tea. Silvery carmine, shaded salmon. Buds enormous and very long pointed, opening into a mammoth flower of great substance. Growth strong and vigorous. A variety of great excellence and useful for any purpose. Price, 75c each.

Dorothy Perkins. Wichuraiana Hybrid. Shell pink; blooms in spring only, when it is literally covered with innumerable dainty pink, double flowers. Foliage is glossy, attractive and does not mildew. Sweetly scented. Very strong climber. Price 75c each.

Duchess of Sutherland. Hybrid Tea. Bright rose pink. Buds very long pointed, borne on splendid strong stems carrying flowers perfectly erect. Very double. Petals large and very conspicuously veined. The bush is unusually good, vigorous, strong and erect, with fine foliage and few thorns. Price, \$1.00 each.

Duchess of Wellington. Hybrid Tea. Flowers intense saffron yellow, stained with rich crimson, changing to deep coppery saffron yellow as the flowers develop; large, moderately full, opening well, of delightful fragrance. Growth very vigorous, erect and very free flowering. A very valuable addition to this family of roses. Price, \$1.00 each.

Earl Haig. Hybrid Tea. Large, full, globular double brick-red flowers of good lasting quality. Growth vigorous, bushy, with abundance of bloom. Price, \$1.00 each.

Elsie Beckwith. Hybrid Tea. A new English rose of rich, deep, rosy pink, borne on long strong stems. Sweetly scented, very vigorous upright habit. Disease resistant. One of the best roses of the year. Price, \$1.50 each.

Emily Gray. Wichuraiana. A marvelous Wichuraiana with foliage like *Berberis Vulgaris*, great substance and very glossy; flowers rich golden yellow and almost as large as "Madame Ravary." Without doubt the finest yellow Wichuraiana rose yet introduced. Price, \$1.00 each.

Erna Teschendorff. Dwarf Polyantha. The color is a brilliant carmine red. It is a very free bloomer and has a permanency of color which has always been lacking in other roses of this class. Price, 75c each.

Flame of Fire. Pernetiana. Flower deep, pure orange flame, intensely bright; sweetly scented. Growth sturdy and stout, holding its flowers perfectly upright; extra free flowering. Price, 75c each.

Fortune's Yellow. Syn.: BEAUTY OF GLAZENWOOD. A very rampant climber with bright green foliage and covered in the spring with a wealth of bronze-yellow blooms, splashed with red. For covering fences or for creating a massive effect, has few equals. Price, 60c each.

Frau Karl Druschki. Hybrid Perpetual. Snow white. Flowers extremely large, yet beautifully formed. Blooms six inches broad are nothing uncommon. Growth is strong and vigorous, with abundant foliage. It is one of the very best bloomers in this division. Superb. Sometimes called White American Beauty. Price, 60c each.

General Jacqueminot. Hybrid Perpetual. Brilliant red. Very popular and likely to remain so. Flowers large and fragrant. Was introduced seventy years ago. Price, 60c each.

General MacArthur. Hybrid Tea. Fiery red. In our last edition we said of this variety, "undoubtedly destined to attain the greatest popularity." Our confidence was well grounded and sales have increased every year. It has a magnificent color, is one of our very freest bloomers, possesses the richest fragrance, is healthy, vigorous and not subject to mildew. Perfectly adapted to our climate. Price, 75c each.

General Superior Arnold Janssen. Hybrid Tea. The flowers are glowing deep carmine, well filled and perfumed; finely formed bud on perfect stems. Growth vigorous, compact and continually blooming. Fine for bedding, forcing, and cut-flower purposes. Price, 75c each.

George Arends. Hybrid Perpetual. Delicate pink. A large, handsome rose of solid color and good form. Widely heralded as "Pink Frau Karl Druschki" but does not look like a sport from that variety. Growth is so rampant that it could easily be trained up as a climber and might be classed as such. Price, 60c each.

George Dickson. Hybrid Tea. Deep scarlet, shaded velvety crimson. The coloring is wonderfully rich, especially in half opened flowers, the ground-color red with scarlet tips, while the inside of the expanding petals is nearly black. Large, very full, with enormous petals. Growth extremely vigorous, almost like a climber. Won the Gold Medal National Rose Society of England. A majestic rose whose imperious size, contour, color and rare perfume, stamp it as a perfect rose without compeer. Price, \$1.00 each.



Dean Hole.



Irish Elegance.

Glorie de Chedane Guinoisseau. Hybrid Perpetual. Very large, full globular flowers of brilliant vermilion red with velvety shadings. **Price, 75c each.**

Golden Emblem. Hybrid Tea. (New.) A beautiful clear yellow in color, showing lovely buds and delicate crimson on outer petals; stem strong and upright; foliage a glossy green. A splendid yellow rose of good substance and a fine grower. A recent introduction destined to become very popular. **Price, \$1.00 each.**

Golden Ophelia. Hybrid Tea. An excellent new seedling of Ophelia. The flower is of medium size, deep golden yellow in the center, paling slightly toward the outer petals; of perfect symmetrical form, and the plant is a sturdy, stiff-stemmed grower. **Price, \$1.50 each.**

Gold of Ophir. Noisette. Apricot yellow. A medium sized rose, blooming in clusters, of a very singular color, entirely different from any other rose known, being a bright coppery red, petals edged yellow. A vigorous climber. **Price, 75c each.**

Gorgeous. Hybrid Tea. Deep orange yellow, heavily veined and flushed deep reddish copper; large, full and very free; a magnificent bedder and an ideal rose for any purpose. **Price, 75c each.**

Gruss an Teplitz. Hybrid Tea. Rich scarlet, overlaid with crimson, particularly in spring. The ground color is intensely red, unsurpassed by any other. A wonderfully free bloomer. Growth extremely vigorous, sometimes classed as a climber. An excellent garden variety and unexcelled as a hedge rose. **Price, 60c each.**

Hadley. Hybrid Tea. Deep velvety crimson that does not fade; sweet scented; flowers of perfect form and good size. A standard and popular variety. **Price, 75c each.**

Harrison's Yellow. Austrian Briar. A splendid variety; flowers semi-double, which suffuse the whole plant with their bright golden yellow color and fragrance in the spring of the year. A rare addition to any rose garden. **Price, 60c each.**

Harry Kirk. Tea. A favorite creamy yellow with bright amber center. Buds are much deeper in color and long pointed. Open flowers are fairly double, saucer-shaped and large. Fragrance is exceptionally fine. It is an exceedingly heavy bloomer. Bush grows vigorously, branches freely and has rich, dark, glossy

green foliage. About the best light yellow rose. **Price 60c each.**

Hoosier Beauty. Hybrid Tea. A vigorous grower and a persistent bloomer; rich, glowing crimson with deep shadings; bud long and slender and blooms large, full and fine. A splendid rose and does well under all ordinary conditions. **Price, 75c each.**

Hugh Dickson. Hybrid Perpetual. Brilliant crimson, tinted scarlet. A thoroughly fine rose. Has been fully tested in this climate and has been found perfectly adapted to it. Has large, finely formed, fragrant flowers; blooms well and is healthy and vigorous. **Price, 60c each.**

H. V. Machin. Hybrid Tea. Named after one of Great Britain's famous rosarians. Flowers intense, black grained, scarlet crimson, of gigantic size, full, of perfect form with high pointed center, carried on rigid flower stalks; faintly tea perfumed. A most valuable exhibition rose of noble proportions. **Price, \$1.00 each.**

Irish Elegance. Hybrid Tea. This rose is deserving of a place in every garden. It is a most vigorous grower, and with us it is a most profuse bloomer. It possesses a combination of colors found in but few roses. The long pointed buds are deep maddery orange, splashed with crimson, expanding to large single flowers of rich, satiny old gold. As a bedding and decoration rose it has but few equals. **Price, 75c each.**

Isobel. Hybrid Tea. A rose of real merit; single flowers of a rich, flushed orange-scarlet color with faint copper shadings and pure yellow centers and fine fragrance. Comparatively new on the Pacific Coast, hence worthy of trial culture; comes highly recommended. **Price, \$1.00 each.**

Jonkheer J. L. Mock. Hybrid Tea. A good grower and a free bloomer in summer; flowers produced in profusion of a rich carmine changing to bright pink with a silvery reflex; stems strong and erect. **Price, 75c each.**

Joseph Hill. Hybrid Tea. A perfect gem and remarkably free-flowering; in color a lovely shade of salmon-pink; the perfect flowers are large, full and double. **Price, 60c each.**

Juliet. Pernetiana. Outside of petals old gold, interior rich rosy red, changing to deep rose as the flowers expand. The effect in the expanding bud stage



Los Angeles.

is indeed striking; the edges and tips of petals roll back slightly and show an intense contrast of bright cherry red against the buff shade. Flowers are rather large, double, fairly fragrant and borne in moderate quantity. Bush is handsome, growing vigorously. Price, 60c each.

K. of K. (Kitchener of Khartoum). Hybrid Tea. A rose of marvelous beauty and distinctness and one that will hold the highest place of admiration wherever it is grown. Named after the famous British soldier. Flowers of absolutely pure intense scarlet color; its petals are velvet sheened, solid scarlet throughout, deliciously perfumed. A strong grower and most profuse bloomer. Price, \$1.00 each.

Kaiserin Augusta Victoria. Hybrid Tea. Universally known in California and easily the most popular white variety in this division. Flowers are large, full and beautifully formed, with reflexed outer petals. Bush robust and healthy. Price, 60c each.

Killarney. Hybrid Tea. Flesh suffused pink. Semi-double. Buds long pointed and very beautiful. Free blooming. Very fragrant. Price, 60c each.

Lady Dunleath. Hybrid Tea. Pale yellow with deep golden center; surpassingly graceful and dainty at every stage. The buds are remarkably long pointed and slender; flowers cupped as the bloom expands when color greatly deepens. Free blooming and delightfully fragrant. Price, 75c each.

Lady Hillingdon. Tea. Deep apricot yellow. The color is solid without any shading and absolutely unique; it never fades. The new wood and long stems are deep violet, making a contrast with the flower that is unique. Growth is strong and vigorous. Foliage at first dark violet, turning deep green. Flowers are large and loose, with long, pointed buds and remarkably large petals. Price, 75c each.

Lady Mary Ward. Hybrid Tea. A beautiful orange, shaded deeper with a metallic sheen and touches of bronzy red. A superb and vigorous grower of erect habit and free blooming characteristics. Price, 75c each.

Lady Ursula. Hybrid Tea. The color is a beautiful shade of light pink; of good form and substance; petals large, circular and delicately perfumed; a remarkably upright grower. Price, 75c each.



Laurent Carle.



Mme. Edouard Herriot.

La Fayette. (Joseph Guy.) Polyantha. This is a new Baby Rambler. The dwarf, bushy growth, clustered flower heads and continuous blooming, are conventional, but nothing like the magnificence of size of bloom has ever before appeared in the class. The individual flowers are fully as large as Paul's Scarlet Climber, semi-double and prettily ruffled. Price, \$1.00 each.

La France. Hybrid Tea. Pink, tinted silvery blush. Flowers large and borne freely. Delightfully fragrant, excelling nearly all others in this respect. One of the favorites. Price, 60c each.

Lamia. Hybrid Tea. Flowers intense reddish orange, of medium size and charming form in the bud and beautifully colored when expanded. A vigorous grower and grand for massing. Price, 75c each.

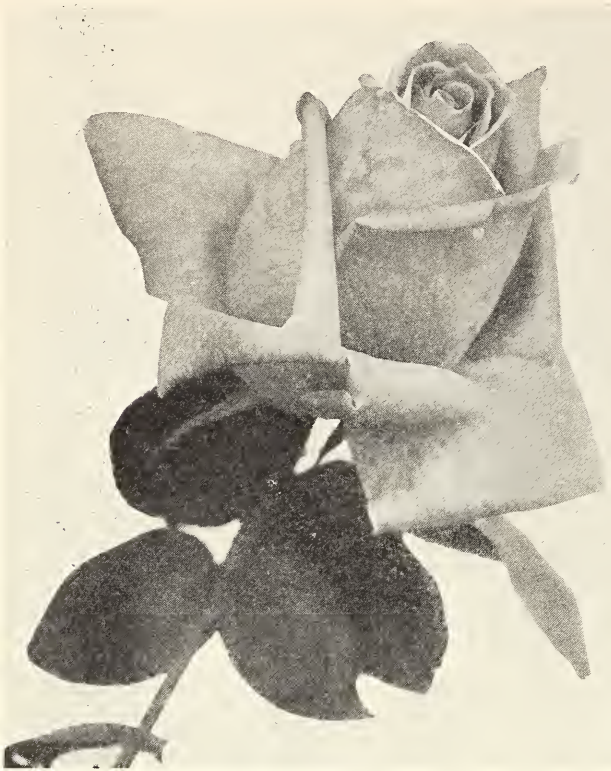
Lamarque. Noisette. White. The most popular white climber in California. Flowers borne continually and in great profusion. Has more abundant foliage than most of the other free-blooming climbers. Price, 60c each.

Laurent Carle. Hybrid Tea. Brilliant, velvety carmine; flowers large, of perfect form and delightful fragrance; a good grower and abundant free bloomer. A wonderful bedding rose. Price, 75c each.

Le Progress. Hybrid Tea. Very free blooming rose; the nankeen-yellow flowers are large and full. Price, 75c each.

Los Angeles. Hybrid Tea. Of California origin. It has acquired a world-wide reputation and is without doubt one of the finest of roses. Growth very vigorous and producing a continuous succession of long stemmed flowers. Flower of a luminous flame, pink, toned with coral and shaded with translucent gold at the base of the petals. The buds are long and pointed and they expand into a fragrant beautiful flower of the largest size, the wealth of color being maintained from the incipient bud until the last petal drops. In richness of fragrance it equals in intensity the finest Marechal Niel. Price, 75c each.

Louise Catherine Breslau. Pernetiana. A unique rose, varying from a coral-red in its long-pointed bud to reddish coppery orange in the full, fragrant globular flowers. Will find a welcome everywhere on account of its large flowers and fine coloring. The foliage is remarkably thick, glistening, bronze-green. Price, \$1.00 each.



Columbia.

Lyon. Hybrid Tea. Shrimp pink, or coral-center salmon shaded chrome yellow. Its color is gorgeous, form unsurpassed and fragrance delightful. Flowers are occasionally of enormous size, but always faultlessly formed. **Price, 75c each.**

Mme. Butterfly. Hybrid Tea. A brilliant sport of Ophelia which is attracting much attention; flowers of a brilliant pink, suffused apricot and gold; an unusually fine bedding rose, which under good care will produce a profusion of flowers all summer. Buds are carried on erect stems; is highly regarded as a greenhouse plant. **Price, 75c each.**

Mme. Caroline Testout. Hybrid Tea. Bright pink. Almost too well known on the Pacific Coast to require description. The official city flower of Portland, Oregon. Flowers of the largest size and beautifully formed. Free blooming, vigorous and healthy. **Price, 60c each.**

Mme. Colette Martinet. Hybrid Tea. One of the most popular of the new roses. Buds long, old golden-yellow, opening into medium size flowers of a deeper yellow. Very free flowering. **Price, 75c each.**

Mme. Edouard Herriot or Daily Mail. Pernetiana. The flowers moderately large and semi-double; buds perfectly formed and magnificently colored; a free blooming rose. Its floriferousness surpasses everything else. It is not only profuse, but continuous. Called "Daily Mail" as a result of winning gold cup offered by that paper for best new rose at International Horticultural Exposition, London, in 1912. As a bedding rose it stands in a class by itself. Its many precious qualities warrants its having a prominent place in every garden. **Price, 75c each.**

Magna Charta. Hybrid Perpetual. Rosy Red. Flowers very large, full and fragrant. Grows vigorously and blooms freely. **Price, 60c each.**

Marechal Niel. Tea. Deep golden yellow. Doubtless the best known yellow rose. Flowers very large and full, beautifully formed and most deliciously fragrant. Its classification has always been subject to argument. Often included with the Noisettes, but has no resemblance to the rest of them and certainly conforms to the usual idea of a Tea Rose. **Price, \$1.00 each.**

Margaret Dickson. Hybrid Perpetual. White with flesh center; petals large and of firm texture; quite fragrant. A standard popular rose. **Bare root, 60c each.**

Marie Van Houtte. Tea. Creamy yellow, tinted rose on the outer petals. Buds and opened flowers are full and handsomely formed. Growth vigorous. **Price, 60c each.**

Marshall P. Wilder. Hybrid Perpetual. Extra large, full flowers of a dark, deep red color; strong grower and free bloomer; handsome. **Bare root, 60c each.**

Melody. Hybrid Perpetual. Saffron yellow with primrose edges and tips. Flowers are of medium size, sometimes large, particularly in fall; very double, but always opening freely into a lovely flower with reflexed outer petals and fine center. The fragrance is delightfully rich. Plant grows vigorously, has very dark green foliage, which is violet when young and mildew proof at all ages. Stems long, slender, and stiff. **Price, 75c each.**

Miss Alice de Rothschild. Tea. Deep yellow center with lighter edges. Buds rather light, but color deepens as they expand. Flowers are of medium size, very full, pointed in bud, cupped when open, with a rich tea fragrance. A valuable addition to any collection of choice roses. **Price, 75c each.**

Miss Lolita Armour. Pernetiana. One of the most striking color combinations ever seen in a rose. As the flowers expand, they develop to a deep coral-red with a golden coppery-red suffusion, the base of the petals being a rich golden-yellow with coppery sheen. The flower is very double and cup shaped, and the vigorous plants are a continual mass of brilliant bloom. **Price, \$1.00 each.**

Mrs. Aaron Ward. Hybrid Tea. Yellow, tinted salmon rose. Color variable. In spring it is nearly white outside, with blush of light salmon center. In the fall the color deepens to a good yellow. Handsomely formed on strong stems. **Price, 75c each.**

Mrs. Ambrose Ricardo. Hybrid Tea. An exceptionally strong grower and free bloomer; flowers are quite double, of good form, a bright flesh-pink in color overlaid with a delicate tinge of yellow, and delightfully fragrant. A rose that comes highly recommended by rosarians who are growing it; should be a feature in every rose garden. **Price, 75c each.**

Mrs. A. R. Waddell. Hybrid Tea. Orange pink or reddish salmon, outer petals flesh. Of medium size and semi-double. Highly colored and very free blooming. Foliage dark, glossy green. **Price, 75c each.**



Ulrich Brunner

Mrs. Chas. Russell. Hybrid Tea. A fine variety of American origin. The color is rosy carmine with rosy scarlet center. The blooms are large, globular and of fine form. The bush is strong, sturdy, of branching habit and produces an abundance of beautiful blooms; possesses leather-like foliage. **Price, 75c each.**

Mrs. Franklin Dennison. Hybrid Tea. Flower porcelain white, primrose yellow, deepening to ocher at the base; of enormous size, beautifully pointed buds of great substance; delightfully perfumed. **Price, 75c each.**

Mrs. George Sawyer. Hybrid Tea. Brilliant rose pink. Almost solid color. Large, full and well formed. Highly recommended for forcing. **Price, 60c each.**

Mrs. John Laing. Hybrid Tea. Shell pink. Easily one of the best pinks in this division. Flowers are beautifully colored and finely formed, extremely fragrant, and borne freely on strong stems. Splendid for cutting. A good variety. **Price, 60c each.**

Mrs. Mackeller. Hybrid Tea. Flower centre solid deep citron or delicate pure canary, becoming pearly primrose white as the blooms expand, large, with high pointed centre, produced on vigorous flower stalks; very fragrant. Growth vigorous, stiff and erect. **Price, 75c each.**

Mrs. W. C. Miller. Hybrid Tea. Large, globular peony-flowered blooms of light pearly pink, shaded salmon, darker on the outside of the petals. A free bloomer and a most excellent bedding variety. **Price, 75c each.**

Niles Cochet. Tea. Cherry red on outer petals, lighter within. A sport from the popular Maman Cochet and a far better rose. The pink of the latter is replaced by a bright red, which at some seasons becomes decidedly brilliant. It is a remarkable free bloomer, particularly in the fall, at the very time its color is at its best. **Price, 75c each.**

Old Gold. Hybrid Tea. Coppery orange. The long slender pointed buds are vivid orange-red, tinted apricot; flowers semi-double with about two rows of petals. Very fragrant. A good grower and free bloomer; foliage glossy green. **Price, 75c each.**

Ophelia. Hybrid Tea. Salmon flesh shaded rose with chamois center. A rose that is lovely at every stage. The buds and flowers are beautifully formed and colored, enhanced by rich veining on the petals. Stems long and carry flowers erect. **Price, 60c each.**



Ophelia.

Papa Gontier. Tea. Rosy crimson with carmine center. Only moderately double, but has most beautiful buds. One of the freest blooming roses known. Perfectly adapted to California conditions and probably is still the most popular variety in the State. **Price, 60c each.**

Paul Neyron. Hybrid Perpetual. Dark rose. The largest rose in cultivation. The buds are larger than the best American Beauties grown under glass and are borne freely in the open ground. Growth is strong and vigorous. **Price, 60c each.**

Perle d'Or. Polyantha. Golden yellow with orange center. Another duplicate of Mlle. Cecile Brunner except for color, which is also entirely distinct from that of Etoile d'Or. A very beautiful little rose. **Price 75c each.**

Persian Yellow. Austrian Briar. Bright yellow. Small but quite double. Foliage faintly scented. Particularly interesting as being one of the parents of the wonderful Pernetiana class. **Price, 60c each.**

Premier. Hybrid Tea. Flowers pure rose pink, borne on stiff, thornless stems; deliciously fragrant. The habit is perfect, the growth quick and free. Its freedom of bloom and quick succession of crops makes this a most productive forcing variety, as well as being a popular sort for out of door culture. **Price, 75c each.**

Radiance. Hybrid Tea. A popular American rose that blooms all summer; it has long upright stems, perfectly formed flowers of a lovely rosy pink color. **Price, 75c each.**

Rayon d'Or. Pernetiana. Clear, bright cadmium yellow; buds are a coppery orange, slightly flushed carmine, but the open flowers have a shade of yellow that is certainly distinct, and are fairly large, double, fragrant, and borne continuously. A moderately vigorous grower. **Price, 75c each.**

Red Letter Day. Hybrid Tea. A strong, vigorous grower and free bloomer; flowers semi-double of a most vivid crimson-scarlet color, rendering the plant a striking object in the garden; fine for cutting. **Price, 75c each.**

Red Radiance. Hybrid Tea. A superb rose of American origin; flowers of a lovely deep red color, with erect stems, and borne all through the summer. Similar to Radiance in every respect except in color. **Price, 75c each.**



Premier.



White Killarney.

Reine Marie Henriette. Hybrid Tea. Cherry Red. A great favorite among the climbers. Flowers are very large, full, freely borne, attractively colored and fragrant. An old standard variety which maintains its popularity. Price, 75c each.

Richmond. Hybrid Tea. Scarlet lightly shaded crimson. In the bud this closely resembles Liberty, but as the flowers open the color is better retained. Blooms freely and has good fragrance. Price, 75c each.

Silver Moon. Hybrid Wichuraiana. One of the most satisfactory and indispensable climbing roses. This extraordinary climber is covered with rich dark green foliage, a fitting background for the large semi-double white and creamy flowers, often 4 inches in diameter, that are borne in great profusion. Price, \$1.00 each.

Soleil d'Or. Pernetiana. Fine golden yellow, shaded Nasturtium red. Flowers large, very full and rather flat. Free blooming and extremely hardy, thriving readily in regions too cold for those with Tea blood. Price, 75c each.

Souvineir de Claudius Pernet. Pernetiana. A new yellow rose which has come from Europe with a great reputation and is proving very satisfactory in this country. A vigorous, erect grower with brilliant green foliage and buds of exquisite shape on long stiff stems. Color a most striking sunflower yellow, deeper in the center, with no other color. An exceedingly free and continuous bloomer. Price, \$1.50 each.

Souvenir de Georges Pernet. Pernetiana. This splendid rose is one of the most promising bedding roses offered in recent years. In vigor of growth and freedom of bloom it even surpasses Claudius Pernet; its flowers are large, of globular form, color Orient-red, shading to a cochineal-carmine at the end of the petals, the whole being suffused with a golden sheen. Price, \$1.50 each.

Souvenir H. A. Verschuren. Hybrid Tea. Large, well-formed flowers of deep apricot, passing to orange-yellow. Price, \$1.50 each.

Sunburst. Hybrid Tea. Yellow, shaded coppery orange, outer petals lighter. It is large, magnificently formed and richly Tea scented. Form is long and cup shaped when fully expanded. No other yellow in this

division has attained a greater popularity. Price, 75c each.

Sunset. Tea. Golden amber with a faint ruddy tinge. A sport from the Perle des Jardins and the equal of that fine variety. New foliage is very beautiful. Price, 60c each.

Tausendschoen. Polyantha. Delicate pink, shaded rosy carmine. Produces a great mass of bloom in spring. Wood is brown and absolutely thornless. There are a few prickles on the leafstalks. Does not mildew. An old sort that has many admirers. Price, 60c each.

Ulrich Brunner. Hybrid Perpetual. A rose of standard excellence; flowers light cherry red, tending toward scarlet, with a tint peculiarly its own and produced in abundance on long stems, maintained by a plant unusually robust. Price, 60c each.

Wm. Allen Richardson. Noisette. Orange yellow. Flowers rather small, but well formed and borne very profusely. This, with its vigorous growth and healthy constitution, makes it a valuable and popular climber. Price, 60c each.

White Killarney. Hybrid Tea. A sport of Pink Killarney and its equal in quality. Flowers are of fine shape and substance, not unlike Sunburst, and are borne in abundance. One of the best hybrid teas in cultivation. Price, 60c each.

White Maman Cochet. Tea. The greatest of all the Cochets. Buds and flowers are magnificently formed and borne very freely. Like Maman Cochet, the stem is rather weak for the enormous flowers, otherwise almost faultless. Price, 60c each.

Willowmere. Pernetiana. A really fine rose of a pronounced coral-red color, suffused with carmine in the bud state, which opens to a large, full, handsome flower of a rich shrimp-pink, shaded yellow in the center and flushed carmine-pink towards the edges of the petals. Price, 60c each.

Wm. F. Dreer. Hybrid Tea. This beautiful rose which has become exceedingly popular since its introduction in 1921, comes closer to possessing pure pastel shades than any other variety, displaying beautiful color combinations of shell pink, orange and golden-yellow, as the long pointed buds open into full, well-shaped blooms. Price, \$1.50 each.



Souvenir de Claudius Pernet.

LARGE ORNAMENTAL TREES

For Immediate Effects in the Planting of Home Grounds, Parks and Gardens

In the adornment of home grounds and in plantings where immediate effects are desired, without waiting a number of years, it is advisable to use large specimen trees.

In order to meet the demand for trees of this character we have made it a point to reserve a certain number in our nurseries for this purpose. These trees will vary in age from twenty to thirty years. In other words they are specimens which have been carefully grown, and which have been side-boxed in advance of taking them out of the ground, so that they have a well established root-system in their containers.

We have had remarkable success in transplanting these large specimen trees, and know that if they receive ordinary care from the planter they very rarely fail to grow.

There is more or less variation in the shape, symmetry, and furnishing of specimen trees, therefore, it is impossible to make definite prices on this class of stock. We invite a personal inspection of these specimen trees wherever this is possible. Where not practicable, we will make the selection and prices in keeping with the character of the specimen furnished.

Our quotations must be considered minimum and maximum prices. The degree of variation between these figures depending very largely upon the character of the plant supplied.

Parties interested in large specimen trees will find a personal visit to our growing grounds a pleasant and interesting experience, and of decided advantage in making a selection of the trees they would like to have.

The following list will give intending purchasers an idea of what we have to offer in this line:

Evergreens

	Price Each		Price Each
ABIES cephalonica		PINUS radiata	
30-inch box, 10 to 12 feet.....	\$100.00 to \$150.00	24-inch box, 10 to 12 feet.....	\$ 20.00 to \$ 30.00
ABIES concolor		SEQUOIA gigantea	
18-inch box, 6 to 8 feet.....	\$ 15.00 to \$ 30.00	20-inch box, 10 to 12 feet.....	\$ 25.00 to \$ 50.00
ABIES nordmanniana		18-inch box, 8 to 10 feet.....	\$ 25.00 to \$ 40.00
24-inch box, 8 to 10 feet.....	\$ 75.00 to \$100.00	SEQUOIA sempervirens	
18-inch box, 6 to 8 feet.....	\$ 30.00 to \$ 50.00	24-inch box, 12 to 16 feet.....	\$ 25.00 to \$ 50.00
CEDRUS atlantica		TAXUS baccata	
30-inch box, 20 to 24 feet.....	\$ 75.00 to \$100.00	18-inch box, 6 to 8 feet.....	\$ 25.00 to \$ 50.00
20-inch box, 12 to 14 feet.....	\$ 35.00 to \$ 50.00	TAXUS baccata washingtoni	
CEDRUS deodara		16-inch box, 6 to 8 feet.....	\$ 25.00 to \$ 50.00
30-inch box, 20 to 24 feet.....	\$ 75.00 to \$150.00	THUYA gigantea aurea	
CEDRUS libani		20-inch box, 8 to 10 feet.....	\$ 20.00 to \$ 30.00
20-inch box, 10 to 12 feet.....	\$ 35.00 to \$ 75.00	18-inch box, 6 to 8 feet.....	\$ 15.00 to \$ 25.00
CHAMAECYPARIS lawsoniana		MAGNOLIA grandiflora	
18-inch box, 8 to 10 feet.....	\$ 30.00 to \$ 50.00	20-inch box, 8 to 10 feet.....	\$ 10.00 to \$ 25.00
CRYPTOMERIA elegans		PITTOSPORUM eugenoides	
16-inch box, 4 to 6 feet.....	\$ 20.00 to \$ 35.00	20-inch box, 8 to 10 feet.....	\$ 12.50 to \$ 25.00
CRYPTOMERIA japonica		PRUNUS laurocerasus	
16-inch box, 6 to 8 feet.....	\$ 20.00 to \$ 35.00	20-inch box, 6 to 8 feet.....	\$ 10.00 to \$ 25.00
PICEA alba coerulea		PYRACANTHA crenulata	
18-inch box, 8 to 10 feet.....	\$ 15.00 to \$ 35.00	16-inch box, 6 to 8 feet.....	\$ 8.00 to \$ 15.00
PICEA engelmanni		PYRACANTHA angustifolia	
24-inch box, 10 to 12 feet.....	\$ 75.00 to \$150.00	14-inch box, 4 to 6 feet.....	\$ 12.00 to \$ 20.00
PICEA maximowiczii		PHOENIX canariensis	
24-inch box, 10 to 12 feet.....	\$ 25.00 to \$ 50.00	24-inch box, 6 to 8 feet.....	\$ 15.00 to \$ 40.00
PICEA orientalis		TRACHYCARPUS excelsus	
20-inch box, 8 to 10 feet.....	\$ 35.00 to \$ 50.00	20-inch box, 6 to 8 feet.....	\$ 10.00 to \$ 25.00
PICEA pungens		TRACHYCARPUS fortunei	
24-inch box, 8 to 10 feet.....	\$ 35.00 to \$ 75.00	20-inch box, 6 to 8 feet.....	\$ 10.00 to \$ 25.00
16-inch box, 4 to 6 feet.....	\$ 20.00 to \$ 35.00	TRACHYCARPUS nepalensis	
PICEA polita		20-inch box, 6 to 8 feet.....	\$ 10.00 to \$ 25.00
16-inch box, 4 to 6 feet.....	\$ 15.00 to \$ 35.00		

For detailed descriptions see preceding pages.

Correspondence is invited from intending planters and landscape gardeners in this class of plants.

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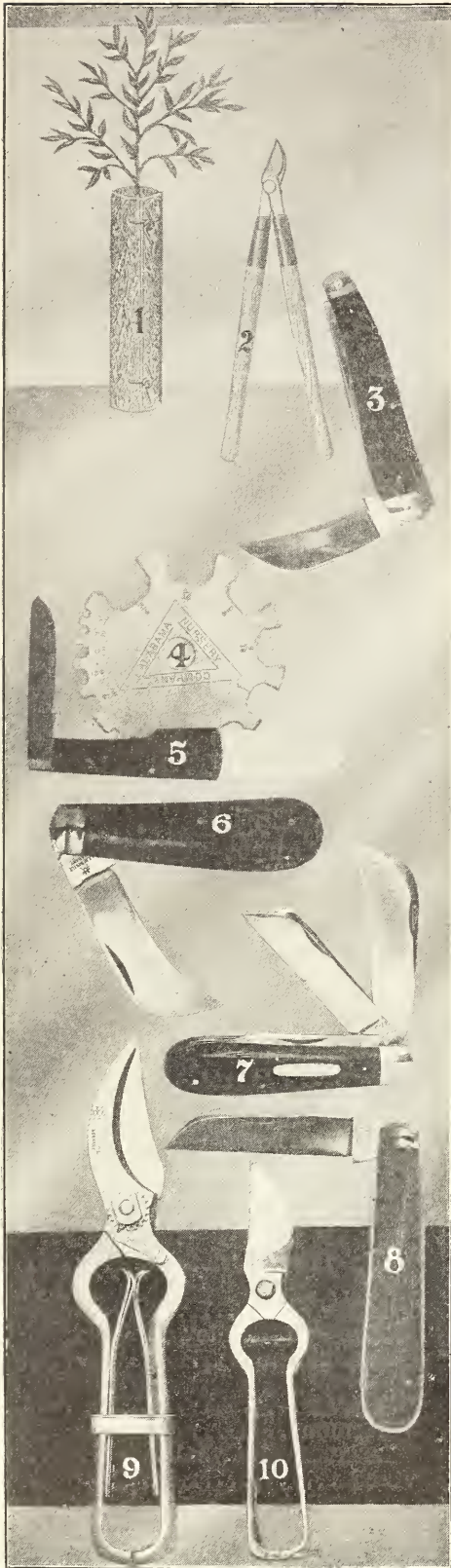
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Lagerstroemia—Crape Myrtle	86	Privet—Ligustrum	69	Weeping Elm	82
Lagunaria	68	Prunus	72	Weigela—Diervilla	85
Larch	51	Prunus—Flowering Peach, Plum	81	Yew—Cephalotaxus	48
Larix—Larch	51	Psidium—Guava	73	Yew—Taxus	53
Laurus—Laurel	68	Punica—Pomegranate	87	Zizyphus	80
Laurel	68	Puerari—Kudzu Vine	93		
Lavendula—Lavender	69	Pyracantha	73		
		Pyrus—Flowering Apple	81		
		Quercus—Oak	79		

Horticultural Supplies



(1) **YUCCA TREE PROTECTORS.** They will protect your trees from injury of RABBITS, SQUIRRELS, GOPHERS, GRASSHOPPERS, BORERS, FROST and SUNBURN.

These protectors are cheap, durable and guaranteed to give satisfaction. They will save your trees as they have saved others.

Length	Width	Wt. per 100	Per 25	Per 50	Per 100	Per 1000
30 in.	7 in.	22 lbs.	\$1.00	\$1.50	\$2.50	\$21.00
24 in.	7 in.	22 lbs.	.90	1.25	2.00	18.00
18 in.	7 in.	13 lbs.	.80	1.10	1.75	15.00
16 in.	7 in.	12 lbs.	.70	1.00	1.50	13.50
14 in.	7 in.	10 lbs.	.60	.85	1.30	12.00
12 in.	7 in.	9 lbs.	.50	.75	1.15	11.00

NO ORDER FOR LESS THAN 25 PROTECTORS ACCEPTED.

TREE LABELS. 3½-inch iron wire, \$2.50 per 1000; 3½-inch copper wire, \$3.00 per 1000. No printed labels furnished.

(2) **FRESNO PRUNING SHEAR.** Made of finest tempered steel; jaws spread 3½ inches; handles are made of ash, and sockets are strengthened with a steel band. Weight, per pair, 3¾ lbs.; length, handle and blade, 26 inches. Per pair, \$4.00.

(3) **FOLDING PRUNER.** Cocoa handle, steel-lined; length of handle 4 inches. Blade oil-tested and tempered. For heavy work. \$2.00 each.

(4) **TREE CALIPER.** Is made of aluminum. Rust proof. Contains 15 different grades. Price, 75c each.

(5) **FOLDING BUDDER.** Ebony handle; brass-lined, with ivory tip, forged same as the finest razor; best on the market. \$1.65 each.

(6) **FOLDING PRUNER.** Cocoa handle, steel-lined; length of handle, 4 inches. Blade oil-tested and tempered. For heavy work. \$1.50 each.

(7) **ALL PURPOSE KNIFE.** Manufactured expressly for us. 3½ inches long; budding, pruning and grafting blades. Made of best material and suitable for nursery and orchard work. Fully guaranteed by the manufacturer. \$2.00 each.

(8) **FOLDING GRAFTER.** A fine light knife with blade of the best material. \$1.50 each.

(9) **PRUNING SHEAR.** This fine shear has been tested and found to be highly satisfactory. Price per pair, \$4.00; actual weight, 1 pound.

(10) **ROSE SHEAR.** For light pruning and cutting flowers. Weight, ¼ lb., 6 inches long. Price per pair, \$1.50.

