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RETURN TO POMOLOGY

1916

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SECTION OF NOMENCLATURE

INDEXED

McManmon's Nursery

Ornamental Trees, Shrubs,
Vines and Perennial Plants
Flowering Bulbs, Roses
Fruit Trees, Small Fruits

LANDSCAPE SERVICE

One acre covered with glass to supply the needs of
my store—6 Prescott Street, Lowell, Massachusetts

JAMES J. McMANMON

Nurseryman, Florist and Seedsman

Nursery on Boulevard between Lowell and Lawrence

Hardy Phlox

During the dry hot, summer weather, when vegetation generally looks at its worst, these plants can be depended upon to brighten the garden with their brilliant blooms. Possibly there is no other class of perennials that is more popular or which plays a more important part in garden making. Although of easy culture these plants will give best results when grown in fertile soil. The flowers have a wide range of color, from white to the more brilliant hues of pink and scarlet. Like nearly all perennials their beauty is best displayed when planted in colonies. Some gardeners even prefer an all-Phlox border, but the beauty of these popular plants is equally well displayed in a mixed planting. Every garden, large or small, has a space which can accommodate these familiar old favorites. See further description and prices on page 22 of this catalog.

Old Fashioned Peonies

We can supply Peonies in many colors and varieties. No other plant of our gardens thrives so well, nor has so much practical permanent value. See page 22 of this catalog for further description and prices.

The Peony is a close rival of the Rose, either for plantings or for cutting. Its iron clad hardiness, adaptability to varying soils and locations, its wealth of bloom, richness of fragrance, and variety of color, all go to make it a general favorite. So we find it in a single clump by the cottage door, or pleasing variety in the flower garden; in costly and rare varieties in the grounds of the collector, and in extensive planting in parks and in the grounds of the wealthy. A strong point is its hardiness. It may be truly

said to be as hardy as the oak, and after being established they need very little attention.

They have always held an important place among hardy plants, and with the wonderful improvement made during the recent years, have established themselves among the leaders for popular favor. They are hardier and more easily cultivated than the rose, and once planted, all is done, and each succeeding year adds to their size and beauty. They are sometimes used for borders along walks, driveways and parks. As a hedge but one variety should be used, as the foliage of the different varieties is not alike. Do not expect too much of them the first year; they are a little slow in establishing themselves.

FOREWORD

HIS illustrated and descriptive catalogue contains a comprehensive and carefully selected list of Trees, Shrubs, Vines, Evergreens and Plants, which are hardy and well suited to our eastern and northern climates. My nursery is conducted on strictly sound and honest principles, and all who are interested in the improvement and beautifying of their home surroundings will find it to their advantage to choose their plants and shrubs from the very complete collections which are offered herein. I will be pleased to furnish information regarding any trees or plants not enumerated in this catalogue and to supply the same, if desired, on the best possible terms. Customers ordering by letter are requested to write their orders plainly on a separate sheet and at the same time supply clear and explicit directions for shipping. Our packing and shipping facilities are unexcelled.

NOTICE: While we exercise the greatest care possible in having our stock true to name and free from disease, we give no warranty, express or implied, as to description, quality, productiveness, or any other matter of any Nursery Stock, Seeds, Bulbs or Plants we sell, and will not be in any way responsible for the crop. If the purchaser does not accept these goods on these terms, he must return them at once, and all payments therefor will be refunded.

Any shortage, error or overcharge must be reported within five days of receipt of goods.

Notice to Customers

I carry a full line of Flower, Vegetable and Grass Seeds in package or bulk, and it is my aim to procure the best that can be obtained. A great many flower and vegetable seeds I grow myself, and my reputation for Aster seeds is known far and wide. I import bulbs of all kinds by the thousands, and as I use a great many in my business, I cannot afford to handle any but the best. My prices are as low as those of more inferior grades that are offered by others than seedsmen. I have hundreds of varieties of Dahlias that are worthy of merit. You cannot afford to waste your ground with the old varieties that give all foliage and few flowers; you may just as well be cutting Dahlias from July until the frost by getting the best variety. Come in August and be convinced for yourself.

I also have an acre of glass devoted to the growing of the up-to-date varieties of greenhouse-flowering plants. As I have every natural advantage, my own water power, fertilizer, loam, and a country tax rate, I think I am in a position to meet any competition.

There are other advantages that ought to appeal to you. My stock is grown in Massachusetts, thirty miles north of Boston, and within two miles of the New Hampshire line, and if any goods give satisfaction in this section, mine do. A great many nurseries are situated in a more favorable climate, and a great many nurserymen are using Southern-grown trees which give very poor results as far north as New Hampshire. So I feel confident that after you have given my goods a trial, with a reasonable amount of care, the first year your troubles of previous years will be ended, and you will then get what you saw on a paper from some other man.

I do not send out agents; consequently, you save their commissions by selecting your own goods. If you desire advice, I will send an experienced man who will tell you what is right, and save you more than his expenses in the layout of your grounds, using only what is needed for tasteful decoration and omitting all unnecessary expense.

THE LANDSCAPE DEPARTMENT

HAVING one of the most modern and best equipped nurseries in the country, I am prepared to offer service to prospective customers in the landscape department that will be to their decided advantage. Plans and estimates for the planting, improving or remodeling of the home grounds in a manner that will produce the most attractive and pleasing results will be cheerfully furnished. If desired, an experienced and competent man will be sent to consult and advise upon contemplated landscape work. He will supply all needed information, with assurance that any work of this description entrusted to me will be executed upon the most favorable terms and in a way that will give entire satisfaction.

I carry a great variety of specimen Evergreens and large trees not quoted in the accompanying list, but I will be pleased to supply particulars and prices on application. I cordially invite inspection of my nurseries. This will afford patrons an opportunity to examine and satisfy themselves as to the quality of the stock before purchasing.

Catalpa Bungei (See description, page 4).

Catalpa Speciosa (See description, page 4).

Japan Weeping Cherry (See description, page 4).

Ornamental Trees

The trees listed have been one or more times transplanted and are well rooted. The prices quoted are for stock of the usual commercial size. Large specimen trees can be supplied at proportionate rates.

Ash, American White (*Fraxinus Americana*). A well-known native tree of fine proportions and rapid growth; a good shade-tree. 7 to 9 feet, 75c; 10 to 12 ft., \$1.00 to \$1.25.

Ash, European Mountain (*Sorbus Aucuparia*). A small tree with spreading branches. Yields bright red berries. 8 feet, \$1.00; 12 feet, \$1.50.

Beech, American (*Fagus Americana*). A large, stately, light-barked tree. 4 to 5 feet, \$1.00.

Beech, Riversii, Blood-leaved (*F. sylvatica Riversii*). Leaves dark red. Makes a large specimen and excellent for groups. 4 to 5 feet, \$2.50.

Beech, Fern-leaved (*F. sylvatica asplenifolia*). Graceful tree, with delicately divided leaves. 3 to 4 feet, \$2.00; 5 to 6 feet, \$2.50.

Birch, Cut-leaved Weeping (*Betula alba laciniata*). A beautiful tree with slender pendulous branches. 8 to 10 feet, \$2.00 to \$2.50.

Birch, Canoe, or Paper (*B. papyrifera*). An ornamental tree; bark brilliant white. 7 to 9 feet, \$1.00.

Birch, European White (*B. alba*). An attractive tree of spreading and drooping habit. 8 to 10 feet, \$1.50 to \$2.00.

Catalpa Bungei. Grafted on high stems, makes an effective globe-headed tree for formal gardens. \$2.00 and up, according to age.

Catalpa speciosa (Western Catalpa). A hardy, rapid-growing tree; dark green leaves; purple and white blossoms. 7 to 9 feet, 75c. Larger trees, price according to size.

Cherry, Japan Weeping (*Cerasus pendula*). Fine pendulous tree for lawns and small grounds. Draped in rosy masses of bloom in early spring before leaves appear. Exquisite. 5 to 6 feet, \$2.00 and up, according to age.

River's Beech.

American Elm (See description, page 6).

White-flowering Horse Chestnut (See description, page 6).

American Ash (See description, page 4).

Carolina Poplar (See description, page 7).

European Linden.

DECIDUOUS TREES—Continued.

Crab Apple, Bechtel's Double-flowering (*Malus angustifolia* Bechteli). A handsome tree of medium size, covered in the early spring with large, double, fragrant, delicate pink flowers. 5 to 6 feet, \$1.25. Larger trees, prices on application.

Crab Apple, Parkman's (*M. floribunda* Parkman). A splendid, compact grower; flowers double, dark rose, on pendulous branches; foliage dark green. 5 to 6 feet, \$1.25, up.

Dogwood, White-flowering (*Cornus florida*). A beautiful tree with white flowers in the spring and glowing red berries in the fall. 5 to 7 feet, \$1.50.

Dogwood, Red-flowering (*C. florida rubra*). A tree of beautiful form, with bright rose-colored flowers. 4 to 5 feet, \$1.50 to \$2.00.

Elm, American (*Ulmus Americana*). A grand native tree; long and graceful branches. A desirable avenue tree. 9 to 10 feet, \$1.00; 10 to 12 feet, \$1.25.

Fringe, White (*Chionanthus Virginica*). A small native tree with pure white flowers in May and June. 3 to 4 feet, 75c; 5 to 6 feet, \$1.25.

Golden Chain (*Laburnum vulgare*). An ornamental, low-growing tree with small golden blooms in early June. 4 to 5 feet, 75c to \$1.00.

Hazelnut (Purple-leaved Filbert) (*Corylus maxima purpurea*). Handsome shrub with dark purple foliage. 50c up, according to age and size.

Horse-Chestnut, White flowering (*Aesculus Hippocastanum alba*). A large tree of fine proportions; flowers white, in upright panicles. 7 to 9 feet, \$1.50.

Horse-Chestnut, Double Red-flowering (*Ae. rubicunda*). Bears charming red flowers. 8 to 9 feet, \$2.50; 10 feet, \$3.00.

Horse-Chestnut, Double White-flowering. One of our most ornamental trees. 7 to 8 feet, \$2.00 to \$3.00.

Horse-Chestnut, Dwarf. Resembles a shrub. Its flowers and dense foliage make it very desirable for massing and single specimen. 2½ to 3 feet, \$1.00 to \$1.50.

Judas Tree, or Red Bud (*Cercis Canadensis*). A small round-headed tree with a profusion of rosy-pink flowers in early May before the leaves appear. Useful for single specimen. 4 to 6 feet, 50c; 7 to 8 feet, \$1.00.

Larch, European (*Larix Europaea*). Handsome half evergreen. Makes capital specimen for a large lawn. 5 to 6 feet, \$1.00.

Linden, American (*Tilia Americana*). A large, rapid-growing tree, suitable for parks and avenues. 9 to 10 feet, \$1.00; 10 to 12 feet, \$1.50.

Linden, European (*T. Europaea*). Of compact, erect growth. A very fine ornamental tree. 9 to 12 feet, \$1.50.

Magnolia (Cucumber Tree) (*Magnolia acuminata*). A tall, pyramidal tree, with greenish-yellow flowers and carmine fruit. 5 to 6 feet, \$1.00 to \$1.50.

Magnolia Yulan (*Magnolia conspicua*). Very showy in early spring, when it is covered with large, sweet-scented, pure white flowers. Excellent lawn or garden tree. 3 to 4 feet, \$2.50; 5 to 6 feet, \$3.00.

Cut-leaved Weeping Birch.

Norway Maple.

Magnolia, Lenne's (*Magnolia Lennei*). Flowers deep crimson on the outside and nearly white within; a late bloomer. 2 to 3 feet, \$2.00; 3 to 4 feet, \$2.50 to \$3.00.

Magnolia, Soulange's (*Magnolia Soulangeana*). One of our finest and hardiest Magnolias. Scented pink, cup-shaped flowers. 2 to 3 feet, \$2.00; 3 to 4 feet, \$2.50 to \$3.00.

Magnolia Star (*Magnolia stellata*). Pure white flowers early in the spring; fragrant; splendid for lawn and garden. 2 to 3 feet, \$2.50; 3 to 4 feet, \$3.50 to \$5.00.

Maple, Sugar or Rock (*Acer saccharum*). A well-known tree of elegant, symmetrical form. good for street and lawn purposes. 7 to 9 feet, \$1.00; 9 to 12 feet, \$1.50.

Maple, Norway (*A. platanoides*). A large, handsome tree, shapely and compact, splendid for lawns and parks. The most popular species of the Maple group. 8 to 10 feet, \$1.00; 10 to 12 feet, \$1.50; 12 to 15 feet, \$2.00 to \$3.00.

Maple, Wier's Cut-leaved (*A. Wieri laciniatum*). Of pendulous; habit; fine cut leaves; an attractive and desirable tree. 8 to 10 feet, \$2.00.

Maple, Schwedler's Purple-leaved (*A. platanoides Schwedleri*). Young shoots and leaves of a bright purplish color, changing later to a dark purplish-green. 8 to 10 feet, \$2.00; 12 feet, \$2.50.

Maple, Japan (*A. Japonicum*). A shrub or tree of dwarf habit, with deeply lobed leaves. We have these Maples in several varieties—cut-leaved, purple, dark purple-leaved, etc. 2½ to 3½ feet, \$2.50 to \$5.00, according to shape.

Mulberry, Teas' Weeping (*Morus pendula*). A vigorous and hardy weeping tree, desirable for lawns and gardens. 5 to 6 feet, \$2.50 up.

Oak, Pin (*Quercus palustris*). Considered one of our most beautiful Oaks; drooping limbs, with fine, deeply cut foliage which colors brilliantly in the fall. 6 to 8 feet, \$1.50.

Plane Tree, Oriental (*Platanus orientalis*). A well-known tree, extensively used for street and park planting. A rapid grower and attains a large size. 10 to 12 feet, \$1.50.

Plum, Purple-leaved (*Prunus Pissardi*). A favorite shrub or small tree. Leaves and young branches are a dark, reddish purple, which deepens as the season advances. 3 to 4 feet, 50c; 5 to 6 feet, 75c.

Poplar, Pyramidal Lombardy (*Populus fastigiata*). A well-known tree of handsome appearance. 7 to 9 feet, 75c; 9 to 12 feet, \$1.00.

Poplar, Carolina (*P. Carolinensis*). Large green foliage; of wonderfully rapid growth. Valuable for street planting. 7 to 9 feet, 75c; 9 to 12 feet, \$1.00. Other varieties of Poplars at same rate.

Thorn (English Double Crimson Hawthorn) (*Crataegus Oxyacantha*). A very showy double-flowering Thorn with luxuriant foliage and brilliant carmine flowers; very ornamental. 5 to 6 feet, \$1.00. Larger trees according to size.

Walnut, Black (*Juglans nigra*). A shapely and elegant native tree with beautiful foliage; round nuts. 5 to 6 feet, \$1.00.

Willow, Babylonian, or Weeping (*Salix Babylonica*). A well-known, graceful tree; hardy and rapid grower. 7 to 9 feet, 75c; 9 to 12 feet, \$1.25.

Willow, Thurlow's (*S. elegantissima*). Similar to the above, but of more spreading habit and hardier. 7 to 9 feet, 75c; 9 to 12 feet, \$1.25.

Willow, Golden-barked. A variety with golden yellow bark, particularly conspicuous in winter. 5 to 7 feet, 50c; 8 to 10 feet, \$1.00.

Teas' Weeping Mulberry.

An Attractive Cypress Planting.

Evergreens

I have a large assortment of exceptionally fine Evergreens in all sizes; prices quoted are for those varying from 1 to 2 feet for dwarfs, and from 2 to 5 feet for more advanced specimens. Proportionate rates for larger stock. Special quotations for quantities or collections for grouping purposes. I have a good stock of large trees, on the Arborvitae and Spruces other than appear in this book. Special prices on large lots. These trees will run 15 feet.

Arborvitae, American (*Thuja occidentalis*). Of conical form and rapid growth. Used largely for hedges. 25c; 3 feet, \$1.00. I have them up to 15 feet. Prices on application.

Arborvitae, Pyramidal (*T. o. pyramidalis*). A valuable variety; very compact pyramidal form. 2 feet, 50c; 3 feet, \$1.50. I have some very large plants of this variety.

Arborvitae, Hovey (*T. Hoveyi*). A small-growing, compact Evergreen. 18 inches, \$1.00.

Arborvitae, Golden (George Peabody) (*T. occidentalis aurea*). Neat, pyramidal form; bright golden foliage. A beautiful variety, 18 inches, \$1.00; 2 feet, \$1.50.

Arborvitae, Siberian (*T. Sibirica*). Semi-pyramidal, full, dark green foliage; useful for hedges. 2 feet, \$1.00; heavy, \$1.50; 3 feet, \$2.00.

Azalea amoena. A dwarf, hardy, bushy plant, covered in May with a profusion of bright, rosy-purple flowers. 1 to 2 feet high, \$1.50 to \$2.00.

Biota (Rollinson's Golden Arborvitae) (*Biota orientalis elegantissima*). A handsome bushy tree, of upright pyramidal form; the young foliage tipped with yellow. \$1.50 to \$3.00. I have some larger plants of this variety.

Bay Tree (*Laurus*). Standard and pyramidal. Prices on application.

American Arborvitae.

White Pine (See description, page 11).

White Fir (See description, page 10).

Red Juniper (See description, page 10).

Koster's Blue Spruce (See description, page 11).

Savin Juniper.

EVERGREENS—Continued.

Boxwood, Pyramidal (*Buxus*). For planting in tubs or on lawns. 3 feet, \$2.50.

Cypress, Japan Wire (*Retinispora filifera*). A pretty and distinct Evergreen, with gracefully pendulous branches. Valuable for massing. 18 inches, \$1.00; 2 feet, \$2.00; 3 feet, \$3.00.

Cypress, Sawara (Golden) (*Retinispora pisifera aurea*). Very distinct and pretty, perfectly hardy. The young foliage is profusely marked with rich golden yellow. Makes an elegant specimen for mixing in groups. 18 inches, \$1.00; 2 feet, \$1.50.

Cypress, Fern-leaved (Green) (*Retinispora plumosa*). A very dense, small-sized tree of conical form; branchlets numerous and feathery, with deep green leaves. 75c to \$3.00.

Cypress, Fern-leaved (Golden) (*Retinispora plumosa aurea*). A striking and desirable Evergreen. Similar to the preceding in its habit of growth, but with its terminal shoots and young growth of a bright golden-yellow color. Very distinct, hardy and useful for grouping or as specimen tree. 18 inches, \$1.00; 2 feet, \$2.00.

Cypress (Silver) (*Retinispora squarrosa Veitchii*). A beautiful heath-like plant, with sharp-pointed, silvery foliage, delicate and beautiful; of a rapid, compact, pyramidal growth, with graceful, drooping branches. 18 inches, \$1.25; 2 feet, \$2.50.

Cypress (Sulphur Silver) (*Retinispora sulphurea*). A very beautiful dwarf Evergreen, with foliage of pale yellow, nearly white. \$1.00 to \$3.00.

Daphne, Sweet (*Daphne cneorum*). Low-growing shrub; exceedingly fragrant pink flowers. 50c to \$1.00.

Euonymus variegata (Silver). An elegant Evergreen plant, beautifully variegated leaves. 6 inches to 1 foot high, 25c. Also the green variety.

Fir, Nordmann's (*Abies Nordmanniana*). A splendid tree with massive dark green foliage. \$2.00 to \$5.00.

Fir, White or Concolor (*A. concolor*). A hardy and very beautiful tree; foliage glaucous green and in some specimens as beautiful as the Colorado Blue Spruce. \$2.00 to \$5.00.

Hemlock (*Tsuga*). A fine ornamental tree with green foliage and of graceful growth. 18 inches, 50c; 2 feet, \$1.00; 4 feet, \$3.00. Larger sizes, prices on application.

Juniper, Red (*Juniperus Virginiana*). Native red Cedar; pyramidal form; bright green foliage. 3 to 4 feet, \$2.50; 4 to 5 feet, \$3.50.

Juniper Iris (*J. Hibernica*). A popular tree, columnar in habit and compact in growth. Bluish-green foliage. 2 to 3 feet, \$1.00 to \$1.50.

Juniperus prostrata Sabina (Savin Juniper). Dark green foliage; excellent for grouping or rockwork. 1 to 2½ feet, \$1.50; 3 feet, \$3.00.

Dwarf, or Mugho Pine.

Rhododendrons.

Juniperus stricta variegata (Stricta Juniper). Compact, conical form; grayish-green foliage. 1½ to 2 feet, \$1.50; 2 feet, \$2.00.

Juniperus tamarixifolia. An interesting trailing plant of great beauty. Valuable for rock-work. \$1.00 up. 12 to 18 inches up. \$1.50.

Laurel, Mountain (*Kalmia latifolia*). Large clusters of pinkish-white flowers in June; very hardy. A beautiful and satisfactory Evergreen shrub; very easy to transplant. 2 feet, \$1.00; 3 feet, \$1.75.

Mahonia, Holly-leaved (*Mahonia aquifolia*). Shiny green, prickly leaves, turning to bronze and red in autumn; clusters of yellow flowers in May. 1 to 2 feet, 50c, \$1.00 and up. Large plant if desired. Price on application.

Pine, Austrian (*Pinus Austriaca*). A hardy tree of spreading form, with long leaves, stiff and dark green; of rapid growth. 2 to 3 feet, \$1.25 to \$2.00.

Pine, Dwarf Mountain (*P. Mughus*). A dwarf tree of the highest value where a low, dense, spreading growth is desired. Very dark foliage; extremely hardy. 1 to 1½ feet, \$1.00 to \$1.50.

Pine, White (*P. Strobus*). The most ornamental of all our native Pines. Foliage light, delicate, of silvery green; flourishes in the poorest soils. 3 to 4 feet, \$1.00; 5 feet, \$2.00.

Pine, Swiss Stone (*P. Cembra*). Of thick, regular growth, foliage resembling the White Pine, and quite silvery. 2 feet, \$2.00; 3 feet, \$3.00.

Pine, Scotch (*P. sylvestris*). A fine, robust, rapid-growing tree, with stout, erect shoots and silvery-green foliage. Very hardy; especially adapted for windbreaks and grouping. 3 to 4 feet, \$1.00. Larger trees in proportion.

Rhododendrons, Hardy Hybrids. All of the best and most useful varieties. 1½ to 3 feet, \$1.50 to \$5.00.

Rose, Bay (*Rhododendron maximum*). A grand native species; quite hardy; light pink blossoms in July. Found generally throughout New England. 2 to 5 feet, \$1.00 to \$2.50.

Spruce, Colorado (*Picea pungens*). Stiff, pungent foliage and clusters of cones. No Evergreen tree can excel it, as it has the advantage of growing vigorously where others fail. Withstands the coldest seasons. 2 feet, \$1.00; 3 feet, \$2.00; 5 feet, \$4.00; 6 feet, \$6.00; 8 to 9 feet, specimens, \$10.00.

Spruce, Colorado (*Picea pugnens glauca*). Habit of growth similar to that of the preceding. Foliage of a rich blue or sage color. Extremely hardy. 2 feet, \$2.00; 3 feet, \$3.50; 4 feet, \$5.00; 5 to 7 feet, specimens, \$10.00.

Spruce, Koster's Blue (*Kosteriana*). Foliage silvery blue. The bluest strain that can be selected; grafted from the famous Koster variety. 12 to 18 inches, \$1.00; 2 feet, \$2.50; 3 feet, \$3.50; 4 feet, \$5.00; 5 feet, \$7.00; 6 to 7 feet, specimens, \$12.00.

An Effective Shrubby Planting.

Flowering Shrubs

Flowering shrubs, which are easy to grow, show to best advantage when arranged in groups; but they are also effective when planted singly, and by a careful selection of varieties a succession of bloom will be afforded throughout the summer. Strong, well-rooted plants, 2 to 7 feet high, are offered in the following list. **Price:** Each, 35c, 50c and 75c, unless otherwise specified. **Special quotations on larger quantities.**

Almond, Pink-flowering (*Prunus Japonica*).

One of the best of flowering shrubs. Beautiful, double rose-colored blossoms in May. 35c up, according to size.

Althaea, or Rose of Sharon (*Hibiscus Syriacus*). A very popular shrub, flowering in July and August. Double white, single white, double red, double pink, red and white blossoms, which at a distance look like Roses. 25c up to 50c.

Aralia, or Hercules' Club (*Aralia spinosa*). A large shrub with prickly stems; white flowers in immense panicles. Useful for screening when planted in masses. 35c to 75c.

Aralia pentaphylla. A pretty, medium-sized shrub, with glossy leaves and prickly branches. Suitable for groups or hedges. 35c.

Azalea amoena (Hardy Evergreen Azalea). Of dwarf, bushy habit and thoroughly hardy. Densely covered with rosy-purple flowers in May or June. \$1.00 to \$2.00.

Azalea mollis Hybrids. Dwarf bushy shrub of great attractiveness. Flowers of different shades of yellow. 75c to \$1.50.

Apple, Bechtel's Double-flowering Crab (*Malus Ioensis Bechteli*). A spreading tree bearing delicate pink, fragrant double flowers in great profusion. 75c to \$1.25.

Apple, Parkman's Crab (*M. floribunda Parkmani*). A handsome shrub with semi-double rose-colored flowers. 75c to \$1.25.

Azalea Mollis.

Berberis Thunbergii (Thunberg's Japanese Barberry). "M." June. A species from Japan, with round, drooping habit; leaves of a fine, brilliant green in summer, taking on, from early autumn till December, the most glowing colors. After the leaves fall the branches are seen to be load with scarlet-crimson berries. It is the very best of all plants to form a hedge, being impenetrable and thickly set with spines, and never growing bare.

	Each	100
12 to 15 inches.....	\$0.20	\$10.00
15 to 18 inches.....	.25	15.00
18 to 24 inches.....	.30	20.00

Purple Barberry. Ornamental and showy shrub with clusters of brilliant rose-colored berries in the fall. 35c, 50c to 75c.

Cornus alba Sibirica. In the winter this is the most showy of all the shrubs, standing out bright and cheerful with its brilliant red bark. It should be planted in groups where its color effect is visible at a distance. It has healthy, compact foliage, white flowers and white berries. 2 to 3 feet, each, 35c; doz., \$3.00.

Cornus alba Sibirica elegantissima variegata. A splendid variegated form of the above, with silver and green foliage. 2 to 3 feet, each, 50c; doz., \$5.00.

Cornus alba Spaethi. One of the finest of recently introduced shrubs. Variegated with pale yellow, and most distinct and valuable in all plantings. 2 to 3 feet, each, 40c; doz., \$4.00.

Cornus alternifolia (Alternate-leaved Dogwood). A very distinct and graceful form; branches arranged in whorls, giving tier-like effect; bunches of white flowers borne about the close of May, followed by deep blue berries. 3 to 4 feet, each, 50c; 4 to 5 feet, each, 75c.

Cornus florida. (See Deciduous Trees).

Cornus Sibirica—Siberian Red Dogwood.

Cornus Mas, or mascula (Cornelian Cherry). Handsome shrub of dense growth, with glossy foliage; very attractive in early spring, with its yellow flowers, and again in the fall, with shining scarlet fruit. 3 to 4 ft., each, 50c.

Cornus paniculata (Panicles, or Gray Dogwood). July and August. A bush with a multitude of finely branched stems, the whole plant taking the form of a round umbel of twigs. 2 to 3 feet, each, 35c; doz., \$3.50.

Cornus sanguinea. June. Most valuable for its blood-red bark in winter. Low-branching habit and handsome leaves. 2 to 3 feet, each, 35c; doz., \$3.50.

Currant, Flowering (*Ribes aureum*). Racemes of yellow sweet-scented blossoms in May. 35c.

Berberis Thunbergi—Thunberg's Barberry.

Bush Honeysuckle.

FLOWERING SHRUBS—Continued.

Currant, Indian (*Symphoricarpos vulgaris*). A graceful shrub bearing a wealth of red berries in late autumn. 35c to 50c, according to age.

Deutzia crenata candidissima (Double White). Fall shrub, desirable for background or shrubby border. 35c to 50c.

Deutzia crenata fl. pl. rosea (Double Pink). Similar to above, except in color.

Deutzia gracilis (Slender Deutzia). Dwarf, bushy shrub, with slender arching branches; pure white blossoms in June. 35c to 50c.

Elder, Golden-leaved (*Sambucus aurea*). A shrub much used on account of its golden-yellow foliage. 35c up to 50c.

Forsythia Fortunei (Golden Bell). Makes long, drooping shoots and is extremely pretty in April, when its arched branches are covered with golden-yellow flowers. 35c to 50c.

Forsythia intermedia. A lovely shrub, erect in growth and somewhat slender, with glossy green foliage and an abundance of bright golden flowers.

Forsythia suspensa (Weeping Forsythia). Golden yellow blossoms; very floriferous. 35c to 50c.

Hawthorn (*Crataegus*). Hardy and exceedingly ornamental in flower and fruit. Double white, double pink and scarlet. 50c to \$1.00 and up.

Honeysuckle, Bush (*Lonicera fragrantissima*). Leaves bright green; flowers creamy white and deliciously fragrant. Good size. 50c.

Honeysuckle, Tartarian (*L. Tartarica*). A fine shrub, bearing a wealth of pink or white flowers, followed by orange-scarlet berries. 35c to 50c.

Honeysuckle (*L. Morrowi*). Dark green foliage, pure white flowers, succeeded by bright scarlet fruit. 35c to 50c.

Hydrangea arborescens grandiflora (Snowball Hydrangea). New. The flower clusters are large, averaging 4 to 5 inches in diameter. Pure white, blooming at a time when flowers are scarce. 18 to 24 in., each, 50c; doz., \$5.00.

Hydrangea paniculata, var. grandiflora. The variety grown in almost every garden, bearing immense cone-shaped heads of white flowers, turning later to shades of pink and red. Given plenty of water and hard pruning every spring, its heads of bloom attain immense size. Without doubt the most popular shrub grown. 25c to 50c and up. We offer fine trained standards at 50c to \$1.00.

Kerria Japonica (Globe Flower). A slender green branched shrub, yielding a profusion of globular yellow flowers. 35c to 50c.

Kerria Japonica, Double-flowering. Similar to the preceding, but has double rosette-like flowers. 25c to 50c.

Kerria Japonica variegata. Dwarf habit, golden variegated foliage. 25c to 50c.

Kerria, White-flowering. Charming shrub, with single, white blossoms; black berries in the autumn. 35c to 50c.

Lilac (*Syringa*). As there is such an extensive family of the Lilac, I have selected some of each of the best varieties in each family—white, purple, lavender, pink, and purple changing to red. Some of the new French dwarf, early flowering sorts. Price, according to age, 50c to \$1.50.

Privet, Japanese (*L. Regelianum*). A dense shrub with spreading branches, drooping at the ends. Valuable for borders, hedges or groups. \$10.00 per 100; larger, \$15.00 per 100. This variety is more reliable for a permanent hedge in Northern Massachusetts and New Hampshire than the California. Also the Amoor and vulgaris family.

Hydrangea Paniculata Grandiflora.

FLOWERING SHRUBS—Continued.

Privet, California (*Ligustrum ovalifolium*).

Very broad, oval-shaped leaves which remain on well into the winter. One of the most universal of hedge plants, and one of the best, growing especially well at the seashore. 1½ to 2 feet, \$5.00 per 100, \$40.00 per 1,000; 2 to 2½ feet, \$6.50 per 100, \$55.00 per 1,000; 2½ to 3 feet, \$10.00 per 100, \$90.00 per 1,000.

Quince, Japanese Scarlet (*Cydonia Japonica*). One of the best hardy shrubs. Covered with brilliant scarlet flowers early in the spring. 25c to 50c each. Makes a beautiful hedge.

St. John's Wort (*Hypericum*). A dwarf plant highly prized for its beautiful foliage and bright yellow flowers. 50c.

Silver Thorn (*Elaeagnus*). Particularly handsome silvery leaves; golden yellow flowers; brilliant berries in the autumn. 50c.

Smoke Tree (*Rhus Cotinus*). A much admired ornamental plant, its mass of curious fringe or hair-like pale purple flowers giving it a smoky appearance. 50c, 75c to \$1.00 up, according to size.

Snowball (*Viburnum Opulus*). (Bush Cranberry.) A well-known shrub, producing heads of showy, pure white flowers in great abundance. Large plants, 50c.

Snowball (*V. Lantana*). A vigorous-growing tree with heavy soft leaves and clusters of white flowers, followed by red fruit. 50c up. Large plants on application.

Snowball, Japanese (*V. tomentosum plicatum*). highly ornamental shrub with handsome foliage and bearing a profusion of globular flowers of purest white. 50c to \$1.00.

Spiraea Bumalda var. Anthony Waterer. A dwarf but vigorous shrub, bearing brilliant rose-colored blossoms in midsummer and autumn. 25c to 35c.

Spiraea prunifolia fl. pl. (Bridal Wreath). A splendid shrub, producing an abundance of small, pure white blossoms in May. 35c to 50c.

Spiraea Thunbergii (Japan Small-leaved Spiraea). Dwarf habit, branches of drooping tendency; foliage pleasing shade of light green; flowers pure white in early spring.

Spiraea Van Houttei.

The habit of the entire plant is very graceful. Beautiful the entire season; in the fall it takes on the loveliest tints. 35c to 50c.

Spiraea van Houttei. The finest and most satisfactory of all Spiraeas, either singly or among other shrubs. It forms a round and graceful bush with arching branches, which, in June, are set from end to end with the beautiful white blossoms. A shrub which cannot be overlooked and for large hedge cannot be beaten. 35c to 50c.

Stephanandra flexuosa. A medium-sized shrub with numerous pendent branches covered with deeply cut leaves; flowers creamy white. 35c.

Sumach, Cut-leaved (*Rhus glabra laciniata*). An effective low-growing shrub with Fern-like leaves which are beautifully tinted in the fall. 25c to 35c.

Sweet Shrub, or Allspice (*Calycanthus floridus*). A grand native shrub, remarkable for the peculiarity of its wood and reddish-brown flowers. 35c to 50c.

Snowberry (*Symphoricarpos racemosus*). A choice native shrub with small pink flowers in summer, and pure white berries in the fall. 35c to 50c.

Syringa (Mock Orange) (*Philadelphus coronarius*). One of the best and most useful of the Sweet Syringas. Pure white, fragrant flowers in dense clusters. 35c to 50c, according to size.

Syringa, Golden-leaved (*Philadelphus aurea*). A splendid variety with golden-yellow leaves. 50c, strong plants.

Weigela (*Diervilla*). The Weigelas are hardy and free-flowering and rank among the most effective and ornamental of garden shrubs. My stock embraces the red, pink, white and variegated varieties. They need favored locations as the tops are liable to be winter-killed, but the crowns survive and will break out very quickly. 35c to 50c.

Ligustrum ovalifolium—California Privet.

Hardy Climbing Vines

The following collection includes the best of the Climbing Vines which are so essential in the artistic treatment of the home grounds. For covering verandas, terraces, fences and unsightly objects, they are distinctly valuable.

Actinidia polygama, or *arguta*. A strong-growing climber from Japan. Foliage large and green, and flowers white, with a purple center. 3 years, 40c.

Boston Ivy (*Ampelopsis Veitchii*). One of the most popular of hardy climbers. Used generally, notably in Boston, to cover walls. Its fine shoots extending to the roofs of tall buildings. In the fall the leaves assume most gorgeous and varied tints. The young leaves are quite distinct from those which are of older growth. The vine can be made to grow even on wood. The young plants require for a year or more some covering in winter. 3 years old up, 25c to 50c.

Celastrus paniculatus (Bittersweet). Assumes a shrub-like form, unless given an opportunity to climb; crimson fruit; from Japan. 2 to 3 years, 35c to 50c.

Clematis paniculata (Virgin's Bower). A hardy and rapid-growing climbing vine, with shining green foliage and a great profusion of beautiful and deliciously fragrant flowers which are borne in large panicles. Perfectly hardy and admirably adapted for covering trellises or fences. 3 years old up, 25c to 50c. Also carry hybrid types in the blue, white, red and pink.

Dutchman's Pipe (*Aristolochia Sipho*). A vigorous-growing vine; light green foliage. Bears curious pipe-shaped, yellowish-brown flowers. Suitable for arbors and trellises. 2 to 4 feet long, 50c to \$1.00.

Euonymus, Creeping. Beautiful evergreen vine with rich green foliage, trailing habit; clings tightly to walls. 1 to 2 feet long, 25c to 50c.

Euonymus, Variegated. A strong grower, with variegated leaves. Very effective when growing on walls, etc. 1 to 2 feet, 25c to 50c.

Euonymus, Carrieri. A hardy, broad-leaved vine; dark green foliage. For covering walls, nothing could be finer than this variety. 1 to 2 feet, 35c to 50c.

Hall's Japan Honeysuckle.

Honeysuckle, Hall's White (*Lonicera Halleana*). The well-known, rapid-growing, Japanese Honeysuckle; almost evergreen. Flowers creamy white and very fragrant. Especially useful for slopes and banks. 2 to 3 years old, 25c to 50c.

Matrimony Vine (*Lycium*). A hardy climbing plant which will thrive in almost any situation. Bears purple flowers which are succeeded by bright scarlet berries. Extensively used for covering fences and trellises. 2 to 3 years old, 35c to 50c.

Wistaria, Chinese. An elegant, free-growing, climbing vine, producing pendulous clusters of pale blue flowers in May. Grows 20 to 30 feet in one season. 3 years old, 50c to \$1.00. Extra strong plants, \$1.50.

Wistaria, White Chinese. A charming white-flowering variety of the above. 3 years old, 50c to \$1.00. Extra strong plants, \$1.50.

Ampelopsis Quinquifolia, Virginia Creeper. Very hardy vine of rapid growth. Has very dainty foliage and its autumn tints are exceedingly ornamental. Admirably adapted for covering walls, verandas or tree trunks. One of the best in shady locations. 2 to 3 years old, 25c to 50c.

Ampelopsis Veitchii.

Roses

The varieties enumerated in the following list are usually hardy in the open ground, but require slight protection during the winter months. To secure the best results, the growth should be cut back annually to two-thirds, and the soil enriched.

Prices quoted are on very strong, 2- to 3-year-old, field-grown plants, low budded. 35c each, \$3.50 per doz., unless otherwise specified. To produce best results, I grow in pots for those who wish to plant late at beaches or other summer resorts. Such stock I would recommend for all parties that have not a gardener to care for those in dry conditions. 50c each, \$5.00 per doz.

Hybrid Perpetual and Hybrid Tea Roses

Alfred Colomb. Crimson red, large and full.

American Beauty. Dark pink shading to carmine.

Anne de Diesbach. Bright rose color, large and fragrant.

Baron de Bonstetten. Velvety maroon, large and full.

Baroness Rothschild. Bright pink, large and full.

Captain Hayward. Carmine crimson; vigorous and free blooming.

Clio. Flesh color, shaded with rosy pink in center.

Coquette des Alpes. Large, full and fragrant, pure white.

Earl of Dufferin. Brilliant, velvety crimson, shaded with maroon; cup-shaped and very fragrant.

Alfred Colomb.

Frau Karl Druschki.

Fisher Holmes. Carmine crimson, strong and free bloomer.

Francis Livet. Cherry-red; free bloomer.

Frau Karl Druschki. White, large bud, free; needs protection.

Francis Levet. Cherry-red, free bloomer.

Frau Karl Druschki. White, large bud, free, needs protection.

General Jacqueminot. Bright scarlet-crimson.

Harrison Yellow. Deep sulphur-yellow.

John Hopper. Bright rose, carmine center.

Kaiserin Augusta Victoria. A superb white Rose.

La France. Silvery peach. One of the most fragrant of hardy Roses; good autumn bloomer.

Mable Morrison. One of the best white.

Madam Gabriel Luizet. Silver pink.

Magna Charta. Pink, large, full, double.

Margaret Dickson. A magnificent Rose. White, with pale flesh center; shell-shaped and fragrant.

Marshall P. Wilder. Cherry-carmine. An improved Alfred Colomb.

Mrs. John Laing. Light pink, fragrant and free.

Paul Neyron. Deep rose pink, large flower and free.

Prince Camille de Rohan. Velvety crimson.

Ulrich Brunner. Cherry-red, free and hardy.

General Jacqueminot.

Ramblers and Climbing Roses

Baltimore Belle. Blush, changing to white, double.

Climbing American Beauty. A new Rose; \$1.50 each.

Crimson Rambler. Cluster of crimson flowers.

Dorothy Perkins. Cluster of bright pink, sweet-scented.

Flower of Fairfield. New climber, Crimson Rambler; \$1.00.

Lady Gay. Cherry-pink.

Queen of the Prairie. Bright rose pink, double, large.

Tausendschoen. A handsome, graceful, climbing Rose; lovely soft pink, semi-double flowers, changing to carmine when fully developed. Strong plants, 50c each. There should be more of this type planted on account of its continuous blooming qualities and hardiness.

White Dorothy Perkins. The best white climbing, cluster.

Dwarf Bedding Roses, or Baby Ramblers

A type of Rose which is becoming very popular for bedding purposes. They form shapely, compact, bushy specimens about 18 inches high, producing in great profusion from early in the season until severe frost, immense trusses of small flowers. Set deeply and prune back to within 3 or 4 inches of the ground.

Baby Dorothy. Nothing can surpass its beauty in a deep pink shade. It has all the flowering qualities of the famous Dorothy Perkins, but, being dwarf, it is completely smothered in flowers throughout the summer and fall. Strong, field-grown plants. Each, 35c, doz., \$3.50.

Crimson Baby Rambler (Mme. Norbert Levassieur). Crimson flowers similar to the popular climbing Crimson Rambler. Strong, 2-year plants. Each, 35c, doz., \$3.50.

Mrs. Wm. H. Cutbush. A beautiful cherry-pink, and very free flowering. Strong, 2-year plants. Each, 35c, doz., \$3.50; pot-grown, 50c each.

Tea and Hybrid Varieties

American Beauty. Deep pink; large bud.

Caroline Testout. Double clear bright rose.

Gruss an Teplitz. Dark red.

Frau Karl Druschki. A good white, quite hardy.

Pink Killarney. Double pink.

White Killarney. Double white.

La France. Silvery pink.

Lady Hillingdon. Deep yellow, a beauty. \$1.00 each.

All the above varieties pot grown, 50c each, \$3.50 per doz, except where noted.

Miscellaneous Roses

Wichuraiana. Crawling Rose suitable for cemetery, one of the best, is the Wichuraiana, the true memorial Rose, with white flowers, dark glossy foliage. 50c, except where noted.

Rosa rugosa. A lovely Rose with single, glossy, crimson, fragrant blossoms.

Rosa rugosa alba. Same as above, but pure white. Very desirable for hedges, as after they are through blooming, they are loaded with beautiful orange-colored balls that hang all winter. Hedging size, \$25.00 per 100. Strong plants, perfectly hardy, \$4.00 per doz.

Crimson Rambler.

The Perennial Garden Is an Attractive Spot.

Hardy Herbaceous Perennials

A nice assortment of Hardy Herbaceous Perennials forms an interesting and attractive adjunct to the home flower garden. These plants are permitted to remain in the ground permanently and every year they increase in size and beauty. We offer a collection of the most desirable varieties, which we can recommend with every confidence. Their culture is easy and they will yield good results in ordinary garden soil.

	Each	Doz.	100
X—One year stock.....	\$0.20	\$2.00	\$15.00
XX—Heavier and older plants.....	.25		
XXX—Large clumps.....	.35		

Achillea millefolium rubrum. Red Yarrow. Beautiful fern-like foliage; bright red flowers in dense heads.

Achillea Ptarmica (The Pearl, or White Yarrow). Pure white double blossoms in great profusion.

Aconitum autumnale (Monkshood). Deep, purplish-blue flowers. June to July. 3 feet.

Aconitum Napellus. Flowers dark blue; the best of the Monkshoods. June to July. 3 feet.

Alyssum saxatile compactum (Gold Dust). Bright yellow flowers. Suitable for rockery or border. April to May 12 inches.

Anemone (Windflower). Large, snowy white blossoms. June to September. 12 to 18 inches.

Anthemis Kelwayi (Marguerite). Produces large yellow flowers throughout the summer. 1½ feet.

Aquilegia coerulea (Columbine). White flowers, tinted blue. April to July. 1 foot.

Aquilegia vulgaris alba. Pure white flowers. May to June 2 feet. In a great variety of colors, very hardy and make a great display all summer.

Asclepias tuberosa (Silkweed). Umbels of bright orange-colored flowers. June to July. 2 feet.

Aster Tataricus. A late bloomer; bluish-violet flowers. October. 2 feet.

Bocconia cordata (Plume Poppy). A noble plant, well adapted for shrubby borders or groups; flowers in panicles of creamy white color. August to September. 6 feet.

Achillea—The Pearl.

Dianthus—Pinks.

HARDY PERENNIALS—Continued.

Boltonia latisquama (False Chamomile). Beautiful pink flowers, tinged lavender. August to September. 4 feet.

Campanula media fl. pl. The well-known Canterbury Bell. Bell-shaped flowers of blue, white or rose. July. 2 to 3 feet.

Campanula persicifolia. Deep blue flowers. July to August. 1½ feet.

Campanula persicifolia alba. White flowers. July to August. 1½ feet.

Campanula rotundifolia. The popular Blue Bells of Scotland. Pretty, small, blue flowers. June to August. 1 foot.

Cerastium tomentosum (Silver Chickweed). Low growing, with white flowers and silvery foliage. June to July. 6 inches to 8 inches.

Chrysanthemum, Hardy Pompon in Varieties. White, pink, yellow, rose, bronze and maroon. Prolific bloomers. October to November. 2 feet. 25c each, \$2.50 per doz.

Chrysanthemum Leucanthemum (Shasta Daisy). Enormous white flowers on stiff wiry stems. June to July. 2 feet. 25c each, \$2.50 per doz.

Convallaria majalis (Lily of the Valley). An old favorite. Delightfully fragrant, pure white flowers. May. 6 inches.

Coreopsis lanceolata (Tickseed). Golden-yellow flowers on long stems. May to June. 2½ feet.

Delphinium elatum (Larkspur). Grand spikes of bright blue flowers. One of the best. June to August. 3½ feet.

Delphinium formosum. Rich, deep blue flowers, with white center. June to July. 2½ feet.

Dianthus barbatus. The popular and well-known Sweet William. A fine old biennial; colors brilliant and effective. June. 1½ feet.

Dianthus plumarius. (Hardy Garden Pink). A double white flowering plant. June. 10 inches.

Dianthus (Napoleon III.). Double, blood-crimson flowers. June. 1½ feet.

Dicentra spectabilis. The old-fashioned Bleeding Heart. Graceful, heart-shaped pink flowers. July. 2 feet. 25c each.

Dictamnus fraxinella (Gas Plant). White and red; fragrant. July. 2 feet.

Digitalis purpurea gloxinoides (Foxglove). This plant, with its broad foliage and towering showy spikes of blooms, affords fine effects in any border. Flowers of various colors, finely spotted. June to September. 2½ feet.

Gaillardia grandiflora (Blanket Flower). Large flowers of gorgeous coloring; center dark reddish brown, with petals marked with orange and crimson. June to October. 1½ feet. 25c.

Geum Heldreichi. Copperish-yellow flowers; beautiful foliage. June to October. 1½ feet.

Delphinium—Larkspur.

Gypsophila paniculata (Baby's Breath). Small, pure white flowers, presenting a gauze-like appearance; strikingly effective. August to September. 2 feet. 35c to 50c, according to age.

Grass, Ornamental (*Eulalia variegata*). Long, narrow leaves, striped green; white, feathery plumes. 7 feet. 25c, \$2.50 per doz.

Helenium autumnale superbum (Sneezewort). Golden yellow flowers. Sept. to Oct. 6 feet.

Helenium grandicephalum rubrum. A low-growing plant with reddish, coppery-yellow flowers. September. 2 feet. 25c.

Helianthus multiflorus fl. pl. (Sunflower). Double, golden-yellow flowers in great profusion. One of the best for cutting purposes. July to August. 5 feet. 25c.

Helianthus orgyalis. Pretty yellow, single flowers; long, narrow, drooping foliage. September to October. 7 feet.

Hemerocallis flava (Lemon Lily). Lovely lemon-yellow flowers; fragrant. July to August. 2 feet. 25c.

Hemerocallis Kwanso. Double bronze-colored flowers. August to September. 2½ feet. 25c.

Helleborus niger (Christmas Rose). Nearly white. October to November. 8 inches. 40c.

Hibiscus Moscheutos (Marshmallow). Large white flowers, tinged with purple; splendid foliage. July to September. 5 feet. 25c.

Hollyhock (*Althaea*). A favorite everywhere; double crimson, white, red and yellow. July to September. 3 feet. 25c.

Heuchera sanguinea (Coral Bells). Spikes of bright coral-red flowers. July to August. 2 feet. 25c.

Iberis sempervirens (Hardy Candytuft). Effective dwarf plants with evergreen foliage; pure white flowers. April to May. 6 inches. 25c.

Single Everblooming Hollyhocks.

Japan Iris.

Iris, German. The German Iris (*Iris Germanica*), frequently termed "Flags;" among the most showy, beautiful and valuable of early-

blooming hardy perennials. Succeeds in all soils, but prefers dry, well-drained situations. Upright petals are termed "stands;" drooping ones "falls." Six choice varieties, 15c each, \$1.50 per doz. **Aureole.** Yellow penciled; velvety purple.

Canary Bird. Clear yellow.

Mme. Chereau. Light blue, penciled dark blue.

Pont-Point. Deep blue.

Queen of Gypsies. Chocolate brown mixed with bluish yellow.

Silver King. Pale blue, turning to a silvery white. Will thrive in almost any sunny situation.

Iris, Japanese. Following the German Iris, the Japanese Iris begins to bloom. The delicately colored flowers of this attractive type are marvels of beauty. They thrive best in moist, rich soil. Six choice varieties, 25c each, \$2.50 per doz.

Blue Jay. Light azure blue, with yellow.

Francellia. White, with deep rose at margins.

Oshokum. Rich deep blue.

Pyramid. Light Blue.

Purity. Waxy white.

Snow Bound. Pure white.

I can supply scores of other good varieties.

Peony, Festiva Maxima.

HARDY PERENNIALS—Continued.

Liatris pycnostachya (Kansas Gay Feather). Spikes of rosy-purple flowers. September. 3 feet.

Linum perenne (Flax). Large blue flowers. May to July. 1½ feet.

Lychnis viscaria splendens fl. pl. (Campion). Double red flowers. June to July. 1 foot 20c.

Monarda didyma (Horse Mint). Bright scarlet flowers all summer. July to August. 2 feet.

Myosotis Nixenauge (Forget-Me-Not). A handsome variety. April to June. 8 inches. 15c.

Oenothera serrulata (Evening Primrose). A popular plant, producing fine clear yellow flowers. May to June. 1 foot.

Papaver orientale (Oriental Poppy). Huge, brilliant scarlet flowers. June to July. 2½ feet. 25c.

Peonies, Herbaceous. These old garden favorites are too well-known to need description. June. 3 feet. 35c to 75c each, \$3.50 to \$7.50 per doz. Six choice varieties:

Festiva maxima. The purest white.

Francois Ortegale. Deep rich red.

Humei rosea. Beautiful pink.

Officinalis fl. pl. Early double pink; an old favorite.

Officinalis rubra. Dark red. Very early.

Perfection. Outside rosy lilac, salmon center. Sweet.

Rubra superba. Dark crimson. Late. Each, \$1.00.

I have other good varieties too numerous to list.

Phlox amoena (Dwarf Phlox). Immense heads of bright pink flowers. April to May. ½ foot. 25c.

Phlox suffruticosa (Miss Lingard). Large trusses of pure white flowers with pale pink center. XX., 25c.

Phlox subulata (Moss Pink). A creeping plant with white and red flowers; moss-like evergreen leaves. April to May. 6 in. XX., 20c.

Phlox decussata. Hardy garden variety; showiest and most useful plant. July to October. 2 feet. Six choice varieties, 15c to 25c, according to size.

Bouquet Fleuri. White with crimson center.

Caran d'Ache. Rosy carmine.

Coquelicot. Fiery red.

Independence. Pure white.

Isaby. Fiery salmon red.

Placida. Rosy lilac.

Eclaireur. Carmine, with rose-salmon center. Dwarf in habit.

Gen. Van Hentz. New. Enormous flowers and trusses of the most brilliant salmon red, with white center. Each, 25c; doz., \$2.50.

La Feu de Monde. Bright salmon red. Late and fine.

Le Mahdi. Darkest of all. Deep reddish violet, with deeper eye.

L'Esperance. Bright lavender pink; large, white center.

Le Pole Nord. Very tall; medium sized flower; white with a large crimson eye; one of the best tall late blooming varieties; clean and vigorous.

Le Soleil. Medium; beautiful soft rose, shaded pink; one of the best Phlox in our collection; blooms constantly and abundantly throughout July, August and September.

Madame Meuret. Tall; flame color, changing to rich salmon; center deep carmine; one of the best varieties and always satisfactory. We have had this Phlox for over twenty-five years. Not subject to mildew or any other disease.

Richard Wallace. Tall; white with violet red center; a good old sort.

Stella's Choice. Very tall; pure white; vigorous, and a free bloomer; very late and valuable for cut flowers.

Many other good varieties.

Phlox, Miss Lingard.

HARDY PERENNIALS—Continued.

Spiraea Chinensis (Meadowsweet). Large heads of pretty pink flowers. June to July. 2 to 3 feet.

Spiraea Japonica. White flowers in large panicles. June to July. 2 feet. XX., 25c.

Statice latifolia (Sea Lavender). Forms an immense head of small, bright blue flowers. August. 1½ feet. XX., 25c.

Stokesia cyanea (Stokes' Aster). Exquisite deep blue flowers. June to September. 1½ feet. XX., 25c.

Tritoma uvaria grandiflora (Red-Hot Poker). Also called Torch Lily. A plant of much merit, with curiously formed heads of rich crimson flowers, shading to yellow. September to November. 3 feet. XX., 25c.

Trollius Caucasicus (Globe Flower). Large orange colored flowers. May to June. 2 feet.

Veronica longifolia subsessilis (Speedwell). Bears spikes of deep blue flowers. July to September. 1½ feet.

Viola odorata fl. pl. (Sweet Double English Violet). May. 6 inches.

Viola cornuta (Hardy Violet.) Blue.

Yucca filamentosa (Adam's Needle). A highly ornamental evergreen plant, with sword-like foliage and tall, branching spikes of large, fragrant, drooping, creamy-white flowers. July to August. 4 to 6 feet. 25c to 50c.

Tritoma—Red Hot Poker.

Bulbs

Crocus, Tulips, Hyacinths, Lilies, all in their season, and **Dahlias** a specialty. I have imported a large lot of new varieties of merit: **Gladioli**, the best grown; **Tuberoses**, all very desirable for garden use. I grow **Cannas** by the thousand, and my collection cannot be excelled. A complete line of under-glass stock at reasonable prices; 40,000 square feet of glass devoted to the growth of plants and flowers, on the banks of the Merrimac River, two miles from Lowell, on line of the Lawrence and Lowell division. When it is convenient, come and see for yourself, and it will pay you.

Bulbs for Fall Planting

We import all our bulbs from Holland. They are all large size and are sure to bloom the first season.

Our bulbs should not be compared in price with second or third size stock and those which are grown in this country.

NOTICE—Please do not order a large lot of bulbs to be sent by mail. Bulbs are heavy, and with the exception of small ones, such as Tulips, Crocus, etc., should be sent by express. If wanted sent by mail, add postage.

Estimates upon all kinds of No. 1 grade of bulbs cheerfully given. As I am a large bulb grower, the Dutchman cannot afford to send me poor goods, as I grow some out of the same case of the different varieties and in so doing I would be the first to detect poor bulbs if they sent me any. Give me a part of your trade in any of the articles listed in this catalogue and be the best judge yourself.

SEND IN OR CALL AND GET OUR PRICES BEFORE PLACING YOUR ORDER.

Quantity of Lawn Grass Seed Usually Required in Making a New Lawn

10x25 feet requires.....	1 pound	40x 60 feet requires.....	10 pounds
25x50 feet requires.....	5 pounds	50x100 feet requires.....	16 pounds
40x50 feet requires.....	8 pounds	50x150 feet requires.....	24 pounds

For Renewing Old Lawns—Use about one-half the quantity given above.

Fruit Department

The ground in which trees are planted should be drained in such a way as to avoid stagnant moisture, which is inimical to the best growth of newly planted trees, and the ground should be as well prepared as for crops of Corn, Potatoes, etc. Before planting the trees, see that all broken roots are properly pruned; and in the case of standard trees, which run from 5 to 7 feet, have all of the top branches pruned back to within three or four buds at the base of the shoot, thus lessening the strain upon the roots, and giving the remaining buds an opportunity for more vigorous growth. Larger trees may be shortened to a lesser degree; and, where there are small, twiggy growths, these should be cut out entirely. An easy and beneficial way of digging is to use dynamite. In all cases have holes dug sufficiently large to allow roots of tree to be straight and natural, and, with the tree held in an upright position, have the finest and best soil carefully worked in among the roots so that the latter may be in close contact with the soil. This important point will save the loss of many trees. Trees which are tall enough to be shaken by the wind should be carefully staked, with a piece of cloth tied about the tree to prevent rubbing of the bark by either the stake or the tying material. After planting the trees, have the ground, so far as the roots extend, well mulched, several inches deep, with manure; this protection, in dry ground especially, is beneficial, as it prevents the cracking or drying out of the ground, and provides a very even moisture about the roots. Keep the ground about young fruit trees cultivated and open, not allowing the grass to grow about them.

Apples

First size, 5 to 7 feet, 50c each, \$5.00 per doz.
2-year-old size, \$35.00 per 100, all varieties.
1-year-old, smaller sizes cheaper, 5 to 6 feet,
\$25.00 per 100.

SUMMER APPLES.

Early Harvest. Moderate growth. Medium to large; yellow, tender, rather acid; very good. Ripening August.

Golden Sweet. Free growth. Large yellow, tender, sweet, rich; very good. Ripening August and September.

Red Astrachan. Free growth. Large, roundish; deep crimson, juicy, rather acid; good; very hardy. Highly esteemed on account of its fine appearance, earliness and hardness. Ripening August.

Williams' Favorite. Moderate growth. Large, oblong; red, rich, excellent. Ripening August.

Yellow Transparent. Free growth; Russian. Medium, roundish oblate, slightly conical; pale yellow; tender; juicy, sprightly, subacid; good quality. Ripening August.

AUTUMN APPLES.

Duchess of Oldenburg. Vigorous growth; Russian; large; striped, tender, juicy, subacid; good; regular and abundant bearer. One of the hardiest kinds known. Ripening September.

Fall Pippin. Free growth. Very large, yellow, tender, rich. October to December.

Fameuse, or Snow. Vigorous growth; medium; deep crimson; tender, subacid, melting, delicious; very good; hardy. One of the best dessert Apples. Ripening November to January.

Gravenstein. Vigorous growth. Very large, striped; juicy, tender, crisp, rich, subacid. Very good. Ripening September to October.

McIntosh Red. Vigorous growth. Handsome; very good; hardy. Ripening November to February.

Porter. Moderate growth. Medium to large; yellow; fine-grained, sprightly subacid; very good. Ripening September.

WINTER APPLES.

Baldwin. Vigorous growth. Large, bright red, crisp, juicy, subacid; good. The most profitable and popular market sort in the East. Ripening December to March.

Golden Russet. Vigorous growth. Medium; russet; crisp, juicy; hardy, very good; long keeper. November to April.

Jonathan. Medium size; red and yellow; flesh tender, juicy and rich; a moderate grower; shoots light colored, slender and spreading; very productive. One of the best varieties either for table or market. November to March.

Northern Spy. Vigorous growth. Large; striped red, tender, juicy; very good. A fine dessert fruit. December to June.

Rhode Island Greening. Vigorous growth. Large; green; fine-grained, rich, subacid; very good. Ripening December to April.

Roxbury Russet. Free growth. Medium; greenish; rich, subacid; good; late keeper. Ripening December to June.

Tompkins King, or King of Tompkins County. Vigorous growth. Large; red, striped; tender, juicy, vinous; very good. Ripening November to January.

Baldwin.

WINTER APPLES—Continued.

Hubbardston Nonesuch (American Blush). Large, round; beautiful yellow, striped and splashed with red; flesh tender, juicy and fine, with agreeable rich flavor hard to distinguish between sweetness and acidity; tree vigorous; bears large crops. November to January.

Rome Beauty. A new variety.

Wealthy. Free growth. Medium; dark red; juicy; vinous, subacid; good; very hardy. Ripening December to February.

Also dwarf varieties suitable for small gardens and quick returns. Price about the same as Standards.

Crab Apples

Hyslop. Large size; dark crimson, with bloom; very showy and most beautiful of all the class. Hardy.

Transcendent. Vigorous growth. Medium; red and yellow. A beautiful variety of the Siberian. Ripening September.

Van Wyck. Free growth. Large; bright red; firm, sweet. Ripening September.

Whitney. Vigorous growth. Large; green, splashed with carmine; juicy and rich; very good. Ripening August and September.

I carry a limited quantity of reliable varieties of dwarf apples suitable for small places.

Pears

It is well to bear in mind that Pear trees, in some seasons, are liable to overbear, and these should be freely thinned out when the fruit is about one-third grown, thus assuring proper development for the remainder, and preventing injury to the trees by the branches breaking. Gather Summer Pears at least ten days before they are ripe, and Autumn Pears at least a fortnight. Winter Pears may be left until the leaves drop.

Standard Pears, on Pear stock, 2 to 3 years old, 5 to 7 ft., 50c to 75c each; \$5.00 to \$7.50 per dozen. Dwarf Pears, on Quince stock, 2 to 3 years old, 50c to 75c. Also have some large trees; prices upon application.

Dwarf varieties, 25 per cent more.

SUMMER PEARS.

Bartlett. Vigorous growth. Large; yellow and red; juicy, buttery, with a rich, musky flavor; very good. Ripening September.

Clapp's Favorite. Vigorous growth. Very large and handsome; yellow and crimson; melting, buttery; very good. August.

AUTUMN PEARS.

Angouleme, or Duchesse d'Angouleme. Vigorous growth. Large; greenish yellow; juicy; good. Ripening September and October.

Flemish Beauty. Vigorous growth. Large; yellow and russet; juicy, melting, sweet; good; very hardy. Ripening September and October.

Louise Bonne de Jersey. Vigorous growth. Large; yellow and red; melting, buttery, rich; very good. Ripening September and October.

Seckel. Moderate growth. Medium; brown; juicy, melting, buttery; of the highest flavor. Ripening September and October.

Clapp's Favorite.

Sheldon. Vigorous growth. Large; russet and red; melting, rich, delicious; very good. Ripening October.

Vermont Beauty. Originated in Vermont. A very brilliant-colored skin and most beautiful when ripened. It matures a little later than the Seckel, and has qualities which render it valuable as a shipping Pear. Flesh rich, aromatic and juicy. The tree is strong in habit, and is well adapted to the coldest climate.

EARLY WINTER PEARS.

Anjou. Vigorous grower. Very large; greenish yellow; melting, buttery, juicy, sprightly, vinous. Keeps into midwinter, and is the most valuable of all Winter Pears. Ripening fully in November and December.

Lawrence. Moderate grower. Medium to large; golden yellow; melting, pleasant, aromatic; very good. A valuable Winter Pear. Ripening November and December.

Cherries

Cherries do well on dry soil, and can be trained in any form required.

Standard trees, 2 to 3 years, 50c, 75c and \$1.00 each, according to age.

HEARTS AND BIGARREAUS.

Black Tartarian. Vigorous grower. Very large; purplish black. One of the best. Ripening end of June.

Gov. Wood. Vigorous grower. Medium; clear light red; tender and delicious. Ripening end of June.

Montmorency. One of the hardiest and quickest to bear.

Windsor. Vigorous grower. Large; liver colored; very firm; very good. A very valuable variety; hardy. Ripening end of July.

Abundance Plum.

Japan Plums

These have quickly found favor among growers on account of their great vigor, freedom from disease, and the fact that they come into bearing two or three years after planting. They are of high quality, beautiful in appearance, and keep for an unusually long period after picking. A number of customers have Japan Plum trees which, the second year from planting, produced fruit which sold for more than enough to pay entire cost of orchard.

50c to 75c each, \$5.00 to \$7.50 per doz.

Abundance. The best known of all the Japan Plums. It is quite distinct from any other variety, and now being largely planted in preference to many other kinds. The habit of growth is unusually vigorous, and the tree bears very early such an abundance of fruit as to almost break down the branches. The fruit is large, amber in color, turning to a rich, bright cherry, and highly perfumed. Flesh tender and of delicious sweetness. It ripens in August; cannot be too well spoken of for its adaptability to general cultivation.

Shropshire Damson. An English variety of great merit for preserving. Large, and much more desirable than the common Damson. Tree vigorous grower, hardy, and an abundant bearer. October.

Burbank. Clear cherry-red with yellow dots. Flesh deep yellow, rich and sugary. The tree is low and spreading and an abundant bearer.

Wickson. A magnificent hybrid. A cross between Burbank and Kelsey, and thought to be the finest yet produced. Fruit large, dark and showy, and of the highest quality. Free, most vigorous and prolific.

Satsuma Blood. A purple-fleshed Plum of very vigorous growth, with rank, dark green foliage; enormously productive of fruit; large; skin dark purplish red, mottled with bluish bloom; shape globular, or with a sharp point; flesh firm, juicy.

We have a few of the different varieties in bearing condition that are safe to move. We will clean them out at \$1.00 each.

Quince Trees

50c to 75c.

Apple, or Orange. Large; roundish; bright golden yellow; very productive.

Champion. A vigorous and productive variety, ripening very late.

Peaches

3 to 4 ft., 25c each, \$2.00 per doz., \$15.00 per 100; 4 to 6 ft., \$3.00 per doz., \$20.00 per 100.

Crawford's Early. Very large; yellow; juicy; melting freestone. Ripening early September.

Crawford's Late. Very large; yellow; juicy; good; freestone. Ripening end of September.

Champion. New. Handsome, creamy white with red cheek. It is of large size and of very superior flavor. Ripens about August 1, and has shown that it bears a full crop when others fail.

Crosby. This is considered the best variety introduced for years, and is being extensively planted through New England where hardiness is essential. It originated in Massachusetts, and has withstood some of the most severe winters, producing large crops of fruit where all other varieties have failed. The fruit is bright yellow, freestone; flesh yellow and of delicious flavor, ripening before Late Crawford. Experts in Peach culture claim that this variety is destined to revolutionize Peach-growing in New England.

Elberta. An exceedingly large, light-colored yellow Peach, a cross between Crawford's and Chinese Cling. Juicy, well flavored. Said to be probably the finest yellow freestone in existence. Ripening early August.

Mountain Rose. Large; white and red; juicy; good. Ripening end of August.

Old Mixon Free. Large; greenish white and red; juicy and rich. Middle of September.

Stump the World. Medium to large; red and white; good. Ripening middle of September.

Wheatland. Large; golden yellow with crimson; juicy, sweet, and of fine quality. Ripening middle of September.

Crosby Peach.

Native Grape Vines

All strong, 2-year vines, 25c.

We have older vines if desired. Price according to age. 3-year, 50c; 5-year, fruiting size, 75c.

BLACK, Doz., \$2.50.

Eaton. A large and showy Grape, of recent introduction. 2-year, 30c.

Moore's Early. Large, showy, of medium quality. Ripens with Hartford. 25c.

Wilder. (Rogers' No. 4.) Very large; handsome. Ripens with Concord. One of the best of Rogers'.

Worden. Resembles Concord, but it ripens ten days earlier, and is superior to it in flavor. Becoming very popular for vineyard and garden. 25c.

RED AND REDDISH PURPLE.

Agawam (Rogers' No. 15). Large; tender, juicy, vinous. Vine vigorous. 25c; doz., \$2.50.

Brighton. Large; handsome, and of the best quality. Ripens early. 25c.

Delaware. Medium or small, but delicious. Highly esteemed everywhere. 20c.

Salem (Rogers' No. 53). One of the best and most popular of the Rogers'. Ripens with Concord. 25c, older plant for a little more.

WHITE, Doz., \$2.50.

Moore's Diamond. Bunch large, compact; berry about the size of Concord; color greenish white with a yellow tinge when fully ripe; flesh juicy and almost without pulp; quality very good. Early. Vine vigorous and productive. 25c.

Niagara. Bunch medium to large; skin thin but tough; slightly pulpy, tender, sweet. Vine vigorous, healthy, and very productive. Ripens with Concord. All things considered, probably the most valuable white Grape in cultivation. 25c.

Moore's Early.

Pocklington. Large and showy; tender, juicy, sweet and pleasant. Ripens after Concord. 25c to 50c.

Raspberries

75c per doz., \$5.00 per 100, except where noted.

RED RASPBERRIES.

Cuthbert. Medium to large; sweet and good; very hardy. One of the best varieties for market.

Columbian. New. A remarkably vigorous new Raspberry. It is an improvement upon Shaffer, being even more vigorous in growth, quite as productive, while the fruit is sweeter, of higher flavor, and very much firmer. The berries are also very large, conical, dark purplish red, rich and luscious. It is of giant habit, attaining a height of 12 feet or more, of iron-clad hardiness, and marvelously prolific. 75c per doz., \$5.00 per 100, one-year-old; \$7.00 per 100, two-year-old.

Marlboro. The best early red Raspberry for the North. Large, luscious and bright crimson fruit. Very hardy.

Shaffer's Colossal. Fruit large and purple, of sprightly flavor. Vigorous and productive. Medium to late.

St. Regis Everbearing. (New.) Red; berries of large size and of a bright crimson color. Flavor very sweet and rich; excellent quality. Highly productive and very hardy. Producing abundantly throughout the entire summer. Each, 20c, doz., \$2.00, 100, \$12.00.

YELLOW RASPBERRIES.

Golden Queen. Large; firm, and of fine quality; hardy; beautiful amber color.

We have older plants, if desired, of all Raspberries.

Cuthbert Raspberry.

Marshall Strawberries.

Blackberries

Except where noted, 60c per doz., \$3.50 per 100.

Agawam. For home use has no superior, being sweet as soon as black. Hardy and early.

Snyder. An old variety standing the severest cold. A most profitable market berry, as it is productive and of high quality.

Wachusett. Fruit of medium size, moderately firm, sweet, and of good quality. Is a good keeper, also hardy, and comparatively free from thorns.

Eldorado. A new and valuable addition to the Blackberry family. A marked improvement and is very desirable as a marketer. Is perfectly hardy. Fruit is excellent. \$1.00 per doz., \$5.00 per 100.

Gooseberries

Downing. Whitish green; vigorous and prolific; juicy and good. A fine, reliable berry for general culture. \$1.50 per doz.

Houghton. Vigorous, but slender grower. Its medium, pale red berries are plentiful and good. \$1.50 per doz.

Industry. A European variety more generally planted than any other, as it is free of mildew and bears freely very large, dark red fruit of delicious quality. We recommend this for general use. \$3.00 per doz. for 3-year-old plants. Will thrive best on the shady side of a tree during the noon hour sun.

Red Jacket. A pure native American variety, rivaling the English varieties in size, and absolutely free from mildew. Fruit large and smooth, rich ruby red in color, and a fine flavor. A most valuable variety. 25c each, \$2.50 per doz.

Smith's Improved. Large, light green fruit, sweet and of good quality. Vigorous and productive. \$2.00 per doz.

Strawberries

Those marked (P) have imperfect flowers and must be planted near perfect-flowered kinds to ensure fertilization.

Except where noted, 30c per doz., \$1.00 per 100.

Brandywine. One of the very best of new sorts, which has been fully tested. Growth strong and healthy, and fruit much above the average in size. Season medium to late. The berry is of the finest.

Haverland (P). Large, long, light red. Moderately firm; good quality; vigorous and a great yielder. Early.

Marshall. Especially valuable for its quality and flavor; thus desirable for table use. The plant is strong and luxuriant in growth, productive, and its foliage withstands hot sun well. The fruit is uniformly large and of perfect form, dark crimson when fully ripe but colors up all over before ripe, an advantage where shipment to market is wished. 25c per doz., \$1.50 per 100.

Sharpless. One of the best all-round varieties. One of the largest and best in cultivation. Plants very hardy.

Sample (P.) One of the best-known varieties, vigorous and very productive. The largest size, and uniform in shape. 25c per doz., \$1.50 per 100.

Other varieties upon application.

For Fall planting, especially in dry season, we recommend pot-grown plants. \$3.50 per 100.

Currants

Currants can be successfully planted in the fall or spring, and require deep and good soil, well manured. To destroy the Currant worm, dust the plants with white hellebore when they are wet with dew.

\$1.00 per 10, \$8.00 per 100.

Fay's Prolific. Well known. Esteemed by many for jellies, etc.

Moore's Favorite Currant. The largest and most productive for this section of the country. Has been thoroughly tested here and brings the highest retail price in the market. \$1.50 per doz., \$10.00 per 100.

Asparagus

Medium plants, 75c per 100; larger plants, \$1.00. 3-year-old plants, \$2.00 per 100.

Conover's Colossal. A fine, large and popular variety.

Palmetto. It is claimed to be an improvement on Conover's in that it yields a much heavier crop, and is fit for use nearly a week earlier.

Donald's Elmyra. A variety that has great merit. Large crown when desired, price accordingly. \$2.00 per 100.

Rhubarb

Myatt's Linnaeus. Large, early and tender. The best variety. \$1.50 per doz. Large plants, 25c each.

A Young Apple Orchard That Shows Good Care.

Directions for Transplanting Trees and Shrubs

Success in the growing of trees and shrubs depends upon the proper care of the young plant, both at the time of transplanting and while it is becoming well established. Below we give directions which, if faithfully observed, will practically insure satisfactory results.

Preparation of the Soil

For fruit trees the soil should be dry, either natural or made so by artificial drainage, as they will not live or thrive on a soil constantly saturated with stagnant moisture. It should also be well prepared by twice plowing, at least, beforehand, using the subsoil plow after the common one at the second plowing. On new, fresh lands, manuring will be unnecessary; but on lands exhausted by cropping, fertilizers must be applied, either by turning in heavy crops of clover, or well decomposed manure or compost. To insure a good growth of fruit trees, lands should be in as good condition as for a crop of wheat, corn or potatoes.

Preparation of the Trees

This is one of the most important operations to be performed, and one in which the most fatal errors are liable to be committed. The object of pruning is two-fold: First, to secure a head properly shaped and sufficiently open to the sun and air for the successful ripening of the fruit; and, second, to preserve the natural balance between the roots and branches of the trees, that a healthy growth may be secured.

When young trees are removed from the nursery and often roots are broken or bruised, as will be the case however careful the digging, packing and transportation may be performed, it becomes very necessary that the balance should be preserved by a proper and judicious

pruning. This pruning should be adapted to the size and condition of the tree, and at the same time the form should not be forgotten. It should be so close as to enable the roots to supply the demand for sap from the remaining branches, and at the same time no growth already secured should be wasted.

In both standard and dwarf trees, it will usually be found a safe rule to cut back, in pruning at transplanting, one-half of the growth of the previous season. The ends of the large roots should be made smooth with a sharp knife where they have been roughly cut by the spade in digging, always cutting from the bottom of the root with an outward cut. New roots will form and the injured parts heal more readily with this attention.

Planting

The holes should be dug large enough in the first place to receive the roots of the trees without cramping or bending them from their natural position. It would pay for the extra cost to use a little dynamite. It helps to open the holes so much quicker and has a tendency to loosen the soil in the immediate surroundings. The tree having been properly pruned, should be held upright and the earth filled in about the roots, the finest and best soil from the surface being worked in among them, filling every space and bringing every root fully in contact with it. When the hole has been half filled, pour in a pail or two of water, let this settle well, then finish the planting by placing soil enough about the tree to raise it somewhat higher than elsewhere, and press the soil carefully down with the foot. Care must be taken against planting too deep; when the earth settles about the tree, it should stand at the same height as when in the nursery.

Cultivation After Planting

Here is the grand opportunity for the success of the skillful fruit grower. It is not enough for him that his trees are of the choicest sorts, selected with regard to the climate and adaptation to the uses for which they are designed, that they are properly pruned and planted in dry, mellow soil, thoroughly enriched and prepared for their reception, protected from winds by proper staking, and that they are perfect in shape and thriftiness. He knows very well that all this may be properly and well done, at great expense, and without further care be followed by an entire failure. So he watches their growth and defends them from their enemies, that the cankerworm and caterpillar do not find safe lodgment among their branches, nor the borer cut about them, or the cattle obtain access to them by neglected gates or fence corners, and break down the tender branches. He is well repaid, for they thrive and grow rapidly, the shoots are vigorous, the bark clean and smooth, and soon a most abundant crop of superior fruit testifies to his wisdom and care. His neighbor, perhaps with better soil and equal care and experience in planting, having at the outset neglected these apparently trivial but really important matters, sees instead of thrifty trees loaded with luscious fruit, the wreck of his hopes in a few mossy, scraggy, misshaped specimens of what he considers his ill-fortune, and hastens to remove. He, too, is justly rewarded for his neglect, as is his more prosperous neighbor for his care.

Those who are obliged to plant trees in a field of grain or grass, should see that all such are carefully mulched with rough manure, and that the ground is kept loose and moist

about the trees. A hoed crop is greatly preferable in such a plantation for the first five years. After a growth for this time, standard apple, pear, cherry, and plum trees will grow and produce fairly in turf. The dwarf trees and peaches should be well mulched every year with loose manure, and the ground thoroughly cultivated. They will amply repay for this attention in the increased quantity and improved quality of the fruit.

Treatment of Trees

When trees have been frozen in the packages or received during frosty weather, or after long exposure, place the package, unopened, in a cellar or some such place, cool but free from frost, until perfectly thawed, when they can be unpacked, and either planted or placed in a trench until convenient to plant. Treated thus they will not be injured by the freezing. If dried from long exposure, bury entirely in the ground, soaking well with water, or place in water from 12 to 24 hours and should be pruned more closely than ordinarily.

Pruning

Pruning after the first year should be varied according to the purposes of the planter and the variety of the tree. Should be trimmed as early as possible up to the height it is intended the future head should be, and the cutting off of large limbs may not in future be necessary. The removal of large branches should be avoided in all cases whenever it is possible to do so, as decay is liable to commence at the point of separation and extend into the trunk; and whenever it is done, the wound should be carefully pared smooth and a coating of paint or grafting wax applied to protect it from the action of the weather.

Improperly Pruned
and Planted.

Properly Pruned
and Planted.

After the lower branches have been removed until the head has reached the desired height, the only pruning needed is to remove such branches as are crossing or interfering with each other; keep the head in symmetrical shape and well open to the sun and air. Trees should receive proper shape by judicious pruning and attention early in the spring of each year while they are young, and very little pruning will be needed afterward.

Methods of Planting

There are two methods of planting, commonly followed throughout the fruit belt, namely, the "Square" method, and the "Hexagonal" or "Triangular" method. Each has its respective merits, and the illustrations given below will explain themselves. Figure 1 sets for the "Square" method, and Figure 2 the "Hexagonal." In each figure the trees are thirty feet apart each way. In the "Square" method of planting, the rows are thirty feet apart in each direction, while in the "Triangular" method, the rows in one direction are only twenty-seven and one-half feet apart, thus allowing a few more trees to be planted to the acre.

There are various methods used in setting fillers. When the permanent trees are planted on the "Square" method, the filler is usually set in the center of the square, though some set the filler between the trees in the row. When the "Triangular" system is used, the filler is set in the row, between permanent trees.

Method of Determining Number of Trees per Acre.

When using the 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 tree or plant which divided into the number of feet in an acre (43,560) will give the number of plants or trees to the acre.

For the Hexagonal method, divide the number required to the acre under the Square method by the decimal .866, or calculate the number

by the Square method, and add 15 per cent. The result will be the number of trees or plants required to the acre.

Number of Trees per Acre

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

Suitable Distances for Planting

Apples, Standard	30 to 40 feet
Pears, Standard	18 to 20 "
Pears, Dwarf	10 "
Peaches	16 to 18 "
Nectarines and Apricots.....	16 to 18 "
Cherries, Sweet	18 to 20 "
Cherries, Sour	15 to 18 "
Plums	16 to 20 "
Quinces	10 to 12 "
Grapes	8 to 10 "
Currants	3 to 4 "
Gooseberries	3 to 4 "
Raspberries, Red	3 to 4 "
Raspberries, Black	4 to 5 "
Blackberries	5 to 7 "
Strawberries, rows	1 by 3½ "
Strawberries in beds.....	1½ by 1½ "
Asparagus in beds.....	1 by 1½ "
Asparagus in field	1 by 3 "

Fig. 1

Fig. 2

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The Popular Montmorency Cherry

This variety of early sour Cherries has been one of the most popular on the market for a great many years, and is beyond doubt the best all-around Cherry for the commercial orchard. It is much larger and better than Early Richmond and fully ten days later in ripening. The Montmorency is a beautiful, large, red Cherry. Being extraordinarily prolific and very hardy, it can be recommended as a variety of great value. One acre of Montmorency Cherries has returned an average annuity of over \$600.00 for the past ten years. It is in great favor wherever grown. We show this famous variety in colors above. Prices and further description shown on page 25 of this catalog.

Kieffer Pear, the Great Money Maker

The best grown Pear for the market and for canning purposes, and free from insect pests gives it a far greater value than most properly ripen the fruit should remain on the trees until the leaves fall carefully and allow to ripen in a cool, dark cellar. The fruit yellow (see cut in colors below) sometimes tinted red on the sun-become a profitable market variety on account of its good shipping and keeping qualities.

The tree being so hardy other varieties. To begin to fall, then gather is large, rich golden exposed side. It has

The McIntosh Red Apple

As a market sort for the table we highly recommend the McIntosh Apple to our customers, and it should be liberally planted in every orchard. It was originated in Ontario. Turn to Apple Department, beginning with page 24 of this catalog for prices and further description.

The Elberta Peach

Elberta is one of the largest peaches grown. Color light yellow; a cross between Crawford's and Chinese Cling; one of the most satisfactory for Massachusetts and New Hampshire. Free.