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ROCKMONT NURSERY
BOULDER-COLORADO

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ROCKMONT NURSERY

BOULDER, COLORADO.

D. M. ANDREWS, Owner

INFORMATION FOR THE CUSTOMER

Rockmont Nursery is located at Boulder in Northern Colorado, altitude 5,300 feet above sea-level. This latitude and altitude with water for frequent irrigation and an abundance of sunshine, develops hardiness and a rugged constitution, with sturdy tops and plenty of fibrous roots. This class of stock, which is especially valuable for cold climates, we deliver well packed and it invariably makes satisfied customers.

Boulder has a population of about 12,000, is a noted summer resort for tourists, has good hotels, schools, churches and no saloons. The State University of Colorado is here, a famous Chautauqua which furnishes six weeks of entertainment and instruction, scenic drives and strenuous mountain climbs rivaling the Alps. We have mines, a rich farming district, the best of pure mountain water for domestic and irrigation purposes and many other opportunities for both visitor and resident to live comfortably and happily. If interested, write to the Boulder Commercial Association, Boulder, Colo.

Shipping facilities are of the best, with three railroads and three Express companies, excellent and frequent service.

Time of shipment. The autumn shipping season begins in September and lasts until the middle of November or later. Spring shipping from March 15th to about May 1st.

Most of the trees and shrubs, Cacti and Mountain plants can be shipped either fall or spring, but a few of the latter can be delivered in "Autumn only." Please note this, and that orders received in the spring for such items must be carried over till the following autumn. Early orders are recommended so that shipment can be made at the most favorable time.

Substitution. It is well to include a small supplementary list with your order, to substitute from in case any items are out of stock. Almost always a few kinds will be sold out before the end of the season.

Prices, packing and delivery. The prices include packing for shipment and all small plants are delivered free. Trees, shrubs and the larger Cactus plants will be packed light for express shipment, purchaser paying transportation. Plants take **second class rate** by express which is cheaper beyond the third zone than Parcel Post, and cheaper than the ordinary merchandise rate.

My method of packing delivers all kinds of nursery stock to any part of the United States in good fresh condition for planting. Please notify me promptly of any failure in delivery and I will replace.

This Catalogue is almost exclusively Colorado native plants; it is not my intention to reissue each season, so please preserve it and order from it till you receive another copy. Besides the native plants, I grow **The Best Ornamentals for Cold Climates**, and these are described in my general catalogue. Either or both catalogues will be mailed free upon request, or to any of your friends who grow trees or plants.

Orders will be accepted, payment due first of month following delivery, but cash with order is preferred when the amount is small.

Plants in clumps or groups. The best art, recognized and practiced by landscape gardeners, is based upon masses of color. Bare spaces in your garden can be avoided by putting the responsibility upon a group of a half dozen or a dozen of one kind, rather than upon a single plant. The lower price of plants by the dozen is because of the difference in cost over assembling, labeling and packing single plants, one of a kind.

Thanking all who have contributed to my success by past favors and awaiting your early requirements, I am

Very sincerely yours,

September, 1916.

D. M. ANDREWS, Boulder, Colorado.

Culture of Alpines and Mountain Plants

Success with mountain plants is not difficult, nor is it uncertain, provided one is willing to give only a little more care and attention than is required for the more hardy plants of the garden.

In general, the best possible suggestions for growing mountain plants may be found in many recent articles on wall- and rock-gardening in various horticultural publications. Most of the plants recommended for such purposes are mountain plants or alpines from some portion of the world, and in growing them upon a wall or rockery we imitate their natural mountainside more or less imperfectly. The successful culture of Colorado mountain plants does not differ from similar plants of other regions.

Soil, moisture and light are the trinity upon which all plants depend.

Perhaps the most frequent difficulty one has to overcome is a heavy clay soil. A cold, unworkable, unresponsive soil is a perpetual damper to the enthusiasm of even the most confirmed and inveterate gardener. Anything so vitally essential to the success of gardening as the soil is worth considerable effort to correct and improve permanently, because all of our future gardening operations in whatever line will be made easier and more productive.

A clay soil is composed of exceedingly fine particles which allow water to percolate but slowly and with difficulty; which upon drying adhere so firmly that a hard crust is formed; also, that desirable spongy quality which is the delight of the gardener is almost always lacking.

Clay constitutes the best possible subsoil or foundation for the ideal garden because it conserves both moisture and fertility near the surface within easy reach of plant roots. The ideal surface soil for the majority of garden plants would be composed of one part clay-loam, one part sand and one part humus. It is not always possible, without great expense, to change one's soil immediately so as to create such ideal conditions; as the materials required are bulky and may have to be moved considerable distances. Liberal additions of sand from time to time to a heavy soil are often of greater value than manure, because the improved mechanical texture will usually unlock stores of fertility hitherto unavailable, besides improving drainage and aeration.

Scarcely less necessary is the addition of humus to a compact soil, because it helps to prevent the soil from packing and produces that spongy and springy quality which holds and equalizes moisture, stimulates root action and supplies exactly the right organic elements needed for building up the tissues of a sturdy, vigorous plant. Humus may be procured in the form commercially advertised when shipping distance is not prohibitive. Muck or peat from the swamp or marsh is the source of the commercial article, and when obtained direct it should be piled and composted several months before using. Leafmold from the woods may be gathered and applied at once. Very old, thoroughly rotted barnyard manure may be used as a substitute, except for ferns and some of the more delicate alpine plants. Leafmold, the best of all fertilizers, may be prepared by composting fallen leaves in autumn with a small portion of good loam, forking over occasionally and keeping moist to promote rapid decay.

Without first improving the drainage and mechanical texture of a heavy soil by the addition of sand, only a small part of the value of applications of humus will be realized.

Moisture and drainage are vitally associated, and the ordinary rock-garden is more likely to provide ample drainage than to afford moisture with any degree of uniformity. This fact apparently needs to be emphasized, as we still find rock plants and alpines planted in shallow pockets of soil with no connection with the cool, moist underlying stratum which the roots must reach if the plant is to survive the trying and exhausting heat of midsummer. Most rock-gardens are too much elevated above the general level, and wall-gardens are insufficiently provided with a uniform and constant supply of moisture.

Plants require sunlight, but in varying quantity. Some plants are more tolerant than others and are well contented and thrive with much or little as the case may be. Cactus, Yuccas and many other plants of arid and semi-arid regions have their leaf surface much reduced or wanting and are thereby enabled to endure constant heat and sunshine without perishing from exhaustion of moisture from their tissues. Hardy plants of this character are especially valuable for a sunny wall or rockery and are provided in good variety in the various native Colorado species of Cactus and Yucca, and such other plants as *Delphinium Geyeri* and *Penhardii*, *Liatris punctata*, *Leucocrinum*, *Malvastrum*, *Oenothera caespitosa*, etc.

Others which will endure such conditions to a less degree, needing more moisture and thriving as well or better with less direct sunlight are *Allium*, *Anemone globosa* and *Patens*, *Campanula*, *Clematis Douglasii*, *Calochortus*, *Gentiana Bigelovii*, *Geranium Fremontii*, *Iris Missouriensis*, *Liatris ligulistylis*, *Lithospermum*, *Oenothera brachycarpa*, *Phlox multiflora*, *Solidago spectabilis*, *Thermopsis montana*, and *Sedum stenopetalum*.

All the above may be classed as rock plants; the following, including a few of those just mentioned, will succeed in any good garden soil under ordinary treatment:—*Aquilegia chrysantha*, *Asclepias incarnata* and *alba*, *Campanula*, *Clematis coccinea* and *crispa*, *Eupatorium*, *Humulus*, *Iris Missouriensis*, *Lithospermum*, *Mertensia ciliata*, *Penstemon*, *Salvia azurea* and *Pitcheri*, *Solidago spectabilis*, *Thalictrum*, *Thermopsis*, *Yucca glauca* and *Harrimanae*.

The following grow in rather moist places with partial shade and prefer a soil rich in humus. While most of these will succeed under less favorable conditions, the best results will be attained by imitating their natural habitat as closely as possible. *Aconitum*, *Actaea*, *Aquilegia coerulea*, *Caltha*, *Calypso*, *Dodecatheon*, *Erigeron*, *Erythronium*, *Gentiana Parryi*, Ferns, *Primula Parryi*, *Trollius*, *Viola rugulosa*, *Zygadenus elegans*.

Other Colorado plants which cannot be furnished at the present time and all which cannot be cultivated with fair prospect of success are omitted from this catalogue and the above lists.

Deciduous Trees and Shrubs

The following trees and shrubs are natives of Colorado and embrace only such as have merit and which have proven successful in cultivation. All are fitted by nature for cold climates and some have unusual ability to resist drought and to endure bleak and exposed positions. We shall never attain the highest success in our planting until we make a liberal use of our native American shrubs.

Alnus tenuifolia, Western Alder. A small tree with smooth gray bark, suitable for waterside planting, but will grow well in drier places. Attractive in early spring for its long catkins. 4-6 feet, 50 cents.

Amorpha canescens, Lead Plant. 1½-2 feet; a half-shrubby plant of the plains suitable either for dry or moist sunny places. The spikes of deep purple flowers are arranged in terminal clusters and harmonize perfectly with the finely cut, silvery, gray-green foliage. Strong plants, 25 cents, \$2.50 per dozen.

Amorpha fruticosa tenuifolia, Indigo Bush. 4-6 feet; pinnate foliage with small leaflets, and spikes of brown-purple flowers with conspicuous golden anthers. Will grow in moist or dry soil. 2-3 feet, 25 cents, \$2.50 per dozen.

Ampelopsis vitacea, Woodbine. This native Colorado species has the largest foliage and most vigorous habit of any *Ampelopsis*. It climbs freely by tendrils like a grapevine. Trained to a wire netting, it will afford quickly a permanent shade or screen, or may be used as a trailer over rocks, banks, fences, etc. Hardy, and thrives everywhere; heavy stock, 25 cents, \$2.50 per dozen.

Berberis Fendleri, Rocky Mountain Barberry. 2-4 feet; this rare shrub of our southwestern mountains is intermediate be-

tween *B. vulgaris* and *B. Thunbergii*. The berries, borne in clusters all along the stem in greatest profusion, are bright scarlet and remain plump and glossy all winter. The bushes with age form large, dense masses without much increase in height, and the autumn colors are very brilliant. It is hardy and as easily cultivated as other Barberries. Small plants 25 cents, \$2.50 per dozen.

Berberis repens, (Mahonia) Oregon Grape. An evergreen creeping shrub only a few inches high, extending by underground stems and suitable for shade. The flowers are golden yellow, in large clusters, are exquisitely fragrant and appear very early in spring. The foliage resembles Holly, is evergreen, but in sunny places during the winter it assumes most beautiful russet stades tinged with red. For a ground cover it should be planted about 8-10 inches apart; choice collected plants at \$1.00 per dozen, \$5.00 per 100, \$35.00 per 1,000.

Betula fontinalis, Rocky Mountain Birch. A large shrub, branching from the ground, with smooth purplish brown trunks and branches. Extremely hardy and easily grown. 4-6 feet, \$1.00.

Celtis reticulata, Mountain Hackberry. Medium sized tree with rounded head and elm-like foliage. Thrives best in good soil, but can endure severe and prolonged

Berberis Fendleri (3½ foot clump).

drought when established. Hardier than *C. occidentalis*. Fine specimens, 8-10 feet, \$1.50.

Cercocarpus parvifolius, Mountain Mahogany. 4-8 feet; a Rosaceous shrub, with upright wand-like branches and small semi-evergreen foliage. The flowers are followed by long curled and twisted feathery achenes which present an interesting and unique effect during the summer. 2-3 feet, 25 cents, \$2.50 per dozen.

Clematis ligusticifolia, Western Virgin's Bower. A vigorous and rapid climber to a height of 30 feet, affording a dense shade. The white flowers are several weeks earlier than *paniculata*, and the remarkable plumose seed clusters are borne in large masses and are very showy during the late summer and entire autumn. 25 cents, \$2.50 per dozen.

Cornus stolonifera Coloradensis, Colorado Dogwood. 4-6 feet; an excellent native form of the Red-stemmed Dogwood, used extensively in Denver parks. A compact bushy plant with clean healthy foliage, dark green above, whitish beneath, with superb autumn tints. The clusters of white flowers, green and ripe fruit are borne in

constant succession all summer. The twigs are blood-red in winter, several shades darker than the Siberian Dogwood; clumps 1-2 feet, 35 cents, \$3.50 per dozen.

Corylus rostrata, Hazel Nut. 3-8 feet; valuable for planting at the back of shrubbery and for partly shaded positions. The thick, rugged foliage, healthy appearance and ability to thrive under all conditions justify its increasing popularity. The nuts are miniature filberts. Strong clumps, 1-2 feet, 35 cents, \$3.50 per dozen.

Jamesia Americana, Colorado Mock Orange. Flowers waxy-white, fragrant, in small upright panicles, most closely resembling *Deutzia*. Of dense habit, usually met with as a shapely bush 3-4 feet high, and quite distinct among hardy shrubs. The leaves, deeply veined and coarsely toothed, are covered with a felt of grayish hairs. It grows well in any moderately light loamy soil with sunny exposure or partial shade. Clumps, 35 and 50 cents each, \$3.50 to \$5.00 per dozen.

Juglans rupestris, Walnut. A large shrub from the mountains of Western Texas, hardy in Colorado and also in Massachusetts. Like a miniature Black Walnut with light graceful foliage consisting of small narrow leaflets. Nuts very small, produced in clusters; 35 cents, \$3.50 per dozen.

Lonicera involucrata, Bush Honeysuckle. 3-4 feet; a bush which is attractive throughout the season for its dense masses of

Opulaster monogynus.

Opulaster Ramaleyi.

Jamesia Americana.

dark, healthy foliage, and in summer for the showy purple involucres which enclose the ripening fruit, and which render it entirely distinct from all other hardy shrubs. Thrives in sun or shade and very hardy. Small plants, 25 cents.

Opulaster monogynus. (*O. giabratus*) Small Nine-bark. 3-4 feet; a shrub of neat habit with the floral aspect of a spiraea; blooms profusely in early spring, the white or rose-tinted flowers in numerous small umbels blooms well in partial shade. 2-3 feet, 25 cents, \$2.50 per dozen; clumps, 50 cents.

Opulaster pubescens, Opulaster. 5-6 feet; remarkably attractive all the season for its superb, deeply lobed, maple-like foliage which assumes rich autumn tints. The showy, white flowers are produced in such profusion that the wreath-like branches bend with their weight. Thrives in partial shade as well as full sun, and in any soil. Small plants, 25 cents, \$2.50 per dozen.

Opulaster Ramaleyi, (*O. intermedius*) Ramaley's Opulaster. 6-8 feet; of strong and vigorous constitution, having the same flowering characters and profusion of bloom, but differing in foliage and style of growth. The leaves are of firm texture and the plant is of such vitality that it will thrive in exposed places where many shrubs would fail. All of the Opulasters are practically free from insects or other pests. Small thrifty plants, 25 cents, \$2.50 per dozen.

Potentilla fruticosa, Shrubby Cinquefoil. 2-3 feet; a dwarf shrub of compact, bushy

habit, desirable for foregrounds; the yellow flowers, like large Butter-cups, are very showy, and last in constant succession all summer; one of our best native shrubs. Clumps, 25 cents, \$2.50 per dozen.

Prunus Besseyi, Dwarf Sand Cherry. 2-4 feet; a dwarf shrub with spreading or reclining branches, dark glossy foliage, the white flowers in small clusters are borne the entire length of the leafy branches. The fruit which is the size of the Morello cherry, is black and frequently so abundant as to load the branches to the ground; somewhat astringent but well liked for jelly. 2-3 feet, 25 cents, \$2.50 per dozen.

Prunus melanocarpa, Western Choke Cherry. 8-12 feet; fragrant white flowers in drooping racemes, fruit black, astringent, but used for jellies, etc. The foliage is of thick texture and resists wind and drought. 2-4 feet, 25 cents, \$2.50 per dozen.

Rhus glabra cismontana, Western Sumac. 4-6 feet; very nearly like the common sumac of the eastern states, but has fewer and thicker leaflets and smaller fruiting panicles. One of the very best drought-resisting shrubs, glorious in its autumn colors, and picturesque in winter. 2-3 feet, 25 cents, \$2.50 per dozen, \$12.00 per 100.

Rhus trilobata, Three-leaved Sumac or Squaw Currant. 3-5 feet; the Northern Colorado form of this exceedingly variable shrub is of dwarf, spreading, diffusely branching habit. The leaves are small, trifoliate, of smooth, thick texture; and whether growing in the moist soil of the nursery

Rhus Trilobata, on a Dry Hillside.

or on a bleak, dry hillside, the dark, healthy green of the foliage makes the plant appear to be overflowing with vitality. The fruit, which is bright scarlet and produced in terminal and axillary clusters, ripens in early summer and makes a most vivid contrast with the foliage. It produces no suckers from the roots and the latter penetrate to a great depth, enabling the plant to retain a perfectly fresh appearance during prolonged drought. Being easily grown, free from pests and possessing ironclad hardiness, it is all to the good as an ornamental. 2-3 feet, 35 cents, \$3.50 per dozen; larger clumps, 50 cents to \$1.00.

Ribes cereum, Red Currant. 3-4 feet; a spineless, bushy shrub with pink flowers and musky red fruit. 25 cents, \$2.50 per dozen.

Ribes inerme, Thornless Gooseberry. 3-4 feet; a nearly thornless species of robust habit with erect branches and purple-black acid fruit. The large, lobed foliage give the plant a distinctly ornamental appearance. 25 cents, \$2.50 per dozen.

Ribes longiflorum, (*R. aureum*) Golden Currant. 4-6 feet; a shrub of decided excellence, with clean foliage which assumes fine autumn colors. The rich, spicy fragrance of the golden flower clusters makes it well worth growing. The berries of our Colorado form are sometimes black, but more commonly amber-yellow. 2-3 feet, 25 cents, \$2.50 per dozen; larger clumps, 35 and 50 cents.

Ribes saxosum, Wild Gooseberry. 2-3 feet; the common trailing gooseberry of the mountains which will grow in dense shade and is fine for covering banks and slopes. 25 cents, \$2.50 per dozen.

Robinia Neo-Mexicana, Pink Locust. 20-30 feet; among flowering trees none surpasses the New Mexican Pink Locust. It grows along the mountain streams of southern Colorado to an altitude of 7,000 feet, and is entirely hardy. It is used as a shade tree in Denver and Colorado Springs, but is at its best when left untrimmed and allowed to form large bushy masses, either as isolated groups, or as a background for other planting. It thrives in any soil, either wet or dry, and requires no particular care. In general habit it is like the common Black Locust, *R. pseudacacia*, except that the foliage is paler and the flowers are a glorious shell-pink. It blooms when only a few feet tall in large full clusters which are richly fragrant. 4-6 feet, \$1.00.

Rosa Arkansana, Prairie Rose. 1-2 feet; always dwarf, blooming in clusters, the flowers very fragrant and produced in long succession. The scarlet fruit remains bright all winter. 25 cents, \$2.50 per dozen.

Rosa Fendleri, (*R. Woodsii*) 4-6 feet; our tallest rose; the stems are upright and become stout with age. It branches freely, forms good clumps and the fine autumn coloring, the persistent red fruits, and bright purple-red of the twigs in winter make it very desirable either as an individual clump

or for massing. 3-4 feet, 35 cents, \$3.50 per dozen.

Rubus deliciosus, Rocky Mountain Bramble or Thimble Berry. 4-5 feet; this, the most popular of our native shrubs, stands unique in the Raspberry family for its wonderful flowering habit and in the entire absence of spines and prickles. It makes a rounded spreading bush, and in June bears fragrant snow-white flowers as large as single roses and like them in form. It grows both along streams and on dry hillsides, in any soil, and is a satisfactory and reliable shrub in cultivation, entirely hardy. 2-3 feet, 35 cents, \$3.50 per dozen.

Salix irrorata, Blue-stem Willow. 8-10 feet; a large bushy species, the branches in winter coated with a dense blue-glaucous bloom. 2-3 feet, 25 cents, \$2.50 per dozen.

Shepherdia argentea, Buffalo Berry. 6-10 feet; in its beautiful silvery foliage, hardness and easy culture this is like the Russian Olive, to which it is related. A large shrub of excellent habit, holding its foliage till very late, clean and free from insects, and refined enough for the most exacting requirements; berries bright red. Fine bushy stock, 3-4 feet, 35 cents, \$3.50 per dozen.

Symphoricarpos occidentalis, Wolfberry. 2 feet; a large-leaved species with opal-white berries in clusters. Will make a satisfactory growth in poor soil and among

trees, the clumps extending slowly to form large masses. 25 cents, \$2.50 per dozen, \$12.00 per 100.

Symphoricarpos oreophilus, Trailing Snowberry. 4-5 feet; an entirely distinct type of Snowberry, and the only kind worth growing for its flowers which are like miniature honeysuckles, either pink or white, and are produced in myriads all over the bush. In mid-summer these are replaced by pearly-white berries. The bush has gracefully spreading and arching branches, thriving in the sun or shade, wet or dry soil. Old clumps measure 8 feet broad, the branches sweeping to the ground on all sides. 25 cents, \$2.50 per dozen.

Symphoricarpos pauciflorus, Dwarf Snowberry. 1 foot; a miniature of the well known Snowberry, and may be used successfully wherever a very small undergrowth is desired. Clumps, 25 cents, \$2.50 per dozen.

Viburnum Lentago, Black Haw. 10-12 feet; low bushy tree, symmetrical in form, dark glossy foliage which turns to red and orange in autumn; a native of Colorado and especially valuable for this region. 2-3 feet, 35 cents, \$3.50 per dozen.

Vitis vulpina, Wild Grape. Valuable for covering arbors, fences or anything where a luxuriant growth of foliage is desired. The flowers are not showy, but are deliciously fragrant. 25 cents, \$2.50 per dozen.

Prunus Melanocarpa.

Rosa Fendleri.

Mamillaria Vivipara.

Echinocactus Simpsoni.

Hardy Cacti

Several species of Cactus extend northward along the Rocky Mountains to Colorado and the Dakotas. These stand temperatures of 20 to 40 below zero. They seem indifferent to dry cold, but suffer if water is allowed to stand about them during winter.

Contrary to general opinion, cacti require good soil for best results, and it must be of such texture that water will percolate through it very freely. To prepare such a soil take equal parts of good garden loam, leaf mold and coarse gravel. If the gravel cannot be obtained, hard-burned bricks may be broken quite fine or you may use finely crushed rock. Add a small handful of air slaked lime to each bushel of soil to insure against acidity, and mix the ingredients thoroughly. After planting, the surface may be lightly covered with clean gravel to keep mud from spattering the plants. Very good results may be had with cacti on any sandy loam if good surface drainage is assured.

A rocky slope or ledge with full exposure to the sun where deep pockets of good soil can be provided is an ideal situation. Although living far north the hardy cacti seem to delight in sunning themselves on a dry slope where hardly anything else would thrive; but the soil pockets should be so constructed that the roots can penetrate to moist soil.

These plants are natives of a climate where a large part of the rainfall comes in late winter and early spring. They store up sufficient moisture to carry them through the blooming and fruiting season with slight summer showers. By late summer the plants should gradually lose moisture so that they go into winter considerably shrunken in appearance. This is necessary for the natural maturing of the tissues of the plant and enables it to endure the winter without injury.

The proper maturing of the plants in autumn also insures a full crop of blooms the next spring, and all of these hardy species are profuse bloomers, the beauty and splendid coloring of the flowers being unrivaled by anything in the garden.

Besides having a unique value for rock- and wall-gardening, the Hardy Cacti are excellent for window or greenhouse during the winter.

ECHINOCACTUS.

Echinocactus Simpsoni, Pincushion Cactus. Round and symmetrical, thickly covered with curved and interlacing spines, brown or gray and arranged in star-like clusters; flowers rose or pink, early spring; two or three inches in diameter or often larger. Small plants 15 cents each, \$1.50 per dozen, prepaid; larger plants, not prepaid, same price.

Echinocactus Simpsoni, Perpetual Snow.

Snow-Ball Cactus. Identical with the last, except that the spines are pure, crystal-white, the rosy flowers making an especially beautiful combination. 50 cents, 75 cents and \$1.00 each, according to size; assorted, \$7.50 per dozen. Very rare and supply limited.

ECHINOCEREUS.

Echinocereus viridiflorus, Rainbow Cactus. Cylindrical in form, and very attractive for its brilliantly colored spines which

are in clusters along the perpendicular ridges, there being more or less distinct bands of color in the transverse direction. The flowers are green with purplish markings. Two or three inches tall during the growing season, but shrinking considerably during fall and winter. Small plants, prepaid, \$1.00 per dozen; extra strong, not prepaid, \$1.50 per dozen.

MAMILLARIA.

Mamillaria Missouriensis, Star Cactus. A small plant, dark green, with a star of gray spines at the tip of each tubercle. Flowers yellow, followed by scarlet berries which are very pretty. 15 cents, \$1.50 per dozen, prepaid.

OPUNTIA. Prickly Pear.

This includes all those having flat joints, and the following kinds are distinct from

Opuntia.

the sorts usually grown in the eastern states. They are extremely hardy, are great bloomers and are especially valuable for making a permanent evergreen covering for rocky or sandy places. The following kinds are supplied in liberal plants at 15 cents each, \$1.50 per dozen, \$10.00 per hundred, one kind or assorted; too heavy for mailing, must be sent by express, purchaser paying charges.

Opuntia arenaria, Sand Cactus. Small oval joints, an inch or two long, very spiny, flowers yellow; price as above.

Opuntia mesacantha, Prickly Pear. Forms large mats of green oblong joints, not very spiny, remarkably floriferous, fruit purple, showy; stands more moisture than the others. Special prices by the thousand.

Opuntia phaeacantha. This has very large joints which are very glaucous and have a purplish tinge. The spines are stout and very dark, the flowers deep yellow, fruit purple. A very decorative plant and particularly recommended.

Opuntia polyacantha. Remarkable for the abundance of long stout spines which nearly hide the plant. The spines vary from white or gray to dark purplish brown, often several shades of color on the same plant. Flowers orange-yellow, fruit prickly. Price of all Opuntias as above.

Note. Yuccas thrive under same conditions as Cacti and may be appropriately planted with them.

Yucca—Adam's Needle, Spanish Bayonet

Of the dozen or more species of Yucca found in the semi-arid area of the United States and Mexico, the three described below, additional to *Y. filamentosa*, are natives of the mountain region of Colorado and are extremely hardy. Among their advantages as ornamental plants they are always in full leaf and green; the wax-like blossoms are large and like lilies in form and elegance; they bring an atmosphere of the semi-tropics and will thrive on the driest, sunniest slope of the rock garden and improve from year to year. Their essential requirements are most simple, needing only a deep, well-drained soil, a slope preferred, with full sunshine.

Yucca baccata, (Spanish, Datil.) Leaves thick, variously curved like an Agave, with coarse white marginal filaments. Has the largest flowers of any species; the succulent fruits, 6-8 inches in length, resemble cucumbers and are sliced and dried in the sun by the Indians for winter food. For best results good drainage is essential. Grows naturally on dry slopes of the rocky foothills. Our Colorado stock is hardy north where southern stock of the same species would not survive. Small well-rooted plants grown in the nursery, 15 cents, \$1.50 per dozen, \$10.00 per hundred.

Yucca filamentosa, Adam's Needle. The best known species, being a native of the

southeastern U. S. Has greener and less rigid foliage than the western species and smaller flowers which are produced in a tall, branching panicle. Strong plants, 15 cents, \$1.50 per dozen.

Yucca glauca. Known in the west as Soapweed, from the fact that a vegetable soap is produced from the root. Leaves narrow and very stiff with white margins, the central portion pale gray-green. Old plants branch just under the surface of the ground and form large clumps, each rosette producing a simple raceme of white or purple-tinted flowers. Strong nursery-grown plants, finely rooted, 15 cents, \$1.50 per dozen, \$10.00 per hundred.

Yucca baccata.

Yucca Harrimaniae. The most alpine and the smallest of the Yuccas; it is also doubtless the hardiest, growing on mountain summits where the temperature reaches fifty degrees below zero. Discovered in eastern Utah in 1902 by the Harriman Expedition for which it was named. It has since been found in the mountains of western Colorado. Fortunately this Yucca is easily cultivated, growing well in dry places, but also enduring moisture and thriving in any soil from adobe to a light sandy loam. The miniature rosettes, 4-8 inches in diameter and height, are perfectly symmetrical, composed of 100 or more slender stiff needles in mature specimens, edged with white filaments. For a rock plant it is an acquisition, on account of its small size and easy culture. Small plants, 15 cents. \$1.50 per dozen, \$10.00 per hundred.

Note The prices of Yucca include prepaid delivery, except *Y. filamentosa*, which is 20 cents additional per dozen.

Yucca Harrimaniae.

Colorado Mountain Plants

Styles in gardening are not subject to frequent change, but the awakening interest in rock and wall-gardening offers attractive possibilities, especially to many who are limited for space.

Intensive gardening for a small area permits better preparation of the soil, including the use of humus, sand or gravel, improved sprinkling devices, and perhaps a small lattice-house for the growing of shade-loving plants and alpine.

A study of the various mountain flowers and shrubs offered in this catalogue will reveal most interesting opportunities offered the flower lover and especially the possessor of a rock garden, both to greatly improve the variety and to fill attractively spaces which sun or drought have made difficult. Attention is directed to cultural suggestions on another page.

Note. The prices of Mountain Plants of the following list include prepaid delivery anywhere by mail or express, unless stated otherwise. Plants can be furnished either in spring or autumn, unless designated "autumn only."

Aconitum Columbianum, Monk's-hood. 2-4 feet; one of the earliest Monk's-hoods, blooming in May or June; flowers blue, in long, branching racemes: moist woods in rich soil. 3 roots for 25 cents, \$1.00 per dozen; supplied only in autumn.

Aconitum lutescens. Almost identical with the last, except that the flowers are pale creamy yellow; a very rare plant and the supply uncertain. 25 cents each, \$2.50 per dozen; autumn only.

Actaea arguta, Red Bane-berry. 2 feet: desirable for its handsome foliage and umbels of white flowers, but its chief attraction is the clusters of bright red berries which remain in perfection all summer: moist shade, in rich soil. 15 cents, \$1.50 per dozen.

Allium recurvatum, Wild Onion. 1 foot: one of the few plants of this family which is really worth growing for its pretty, nodding umbels of rose-pink flowers. 6 for 25 cents, 50 cents per dozen.

Anemone globosa, Red Anemone. 1 foot: many stems from a clump of finely cut foliage, each bearing one to three bright red flowers an inch broad; rarely with pale yellow or variegated flowers; best treated as a rock plant with partial shade. 2 for 25 cents, \$1.25 per dozen.

Anemone Patens Nutt, (Pulsatilla) American Pasque Flower. There are few sights more charming than the purplish, silky buds of the Pasque Flower pushing up through the ground with the first days of spring, often before the snow is gone. The flower is cup shaped, consisting of 5-7 large lavender-purple sepals, with a center of golden stamens, often a dozen or more flowers in a clump. 2 for 25 cents, \$1.25 per dozen.

Aquilegia chrysantha, Golden-spurred Columbine, 3 feet; the common Columbine of the southern mountains, flowers pure

yellow, large, with very long slender spurs. A vigorous species which thrives anywhere and will bloom all summer if seedpods are removed. 15 cents, \$1.50 per dozen.

Aquilegia coerulea, Rocky Mountain Columbine. 1½ feet; the State Flower of Colorado and queen among Columbines. Few indeed are the flowers of the Rockies that can compare with it in beauty. The great blossoms, sometimes five inches in

Aquilegia coerulea.

Calochortus Gunnisoni.

diameter, look like bits of fallen sky, and when the plants cover acres of mountain meadow as they sometimes do, no words can be found to do justice. Sepals light clear blue, petals white; golden-yellow stamens and long slender blue spurs. Short-lived in cold heavy soils, but will thrive many years in a light loam, rich in humus, with partial shade. Through hybridization the flowers of seedlings become degraded both in size and color unless pure native stock is procured. Extra strong transplanted stock grown from wild seed, 15 cents, \$1.50 per dozen, \$10.00 per hundred.

Asclepias incarnata, Rose Milkweed. 3-4 feet; a neat upright grower with rose-colored umbels of fragrant flowers in early summer. 15 cents, \$1.50 per dozen.

Asclepias incarnata alba. A rare white variety of exactly the same habit, the two making a pleasing effect when planted together. 15 cents, \$1.50 per dozen.

Calochortus Gunnisoni, Mariposa Lily.

1-2 feet; a summer-flowering bulb which must be planted in autumn. Flowers creamy-white, two or three inches broad, with a purplish blotch at base of each petal. Should be planted three inches deep in a rather light soil with good drainage. A north slope under the edge of low shrubs, open enough to allow the flowering stems to come up through, is the ideal place for Mariposa Lilies; the slope is not necessary if drainage is otherwise good. 4 for 25 cents, 75 cents per dozen, \$5.00 per hundred.

Caltha leptosepala, (*C. rotundifolia*) Cowslip. 4-8 inches tall, with rounded ovate leaves in an ample rosette. The star-shaped white flowers, often two and one half inches across, consist of 7 to 15 narrow white sepals which are tinged outside with blue; thrives in almost any good soil, blooming at the first breath of spring and at intervals during the season. Mr. Wm. Robinson (England) says, "It would be hard to overrate its value. It is sad that such a glorious thing should have been so long unknown to us." 2 for 25 cents, \$1.25 per dozen.

Calypso bulbosa, a small native Orchid with flower like a Lady Slipper, suitable for the fern corner where it can have shade and a soil of leafmold; flower rose-pink with inflated sac-like lip. 15 cents, \$1.50 per dozen.

Campanula rotundifolia, Harebell. 1 foot; the Colorado form is a most profuse bloomer, the delicate blue bells on thread-like stems are the most fairy-like of the mountain flowers, yet the plant is easily grown in any light soil and blooms nearly all summer. 2 for 25 cents, \$1.25 per dozen.

Clematis Douglasii, Douglas' Clematis. 1 foot; forming bushy clumps, not climbing, flowers deep purple, nodding, bell-shaped, followed by feathery seed clusters; foliage silky and cut into linear divisions; 25 cents, \$2.50 per dozen.

Clematis Fremontii, Fremont's Clematis. Stems 1-2 feet, reclining, with broad, leathery leaves 3-4 inches long; flowers creamy-white, tinted with lilac and purple; a rare plant but easily grown and well worth cultivation, if only for its unique foliage. 50 cents, \$5.00 per dozen.

Clematis coccinea, Scarlet Clematis. An herbaceous climber 10 to 12 feet, native of Texas, but hardy north. The scarlet bell-shaped flowers with recurving tips are produced freely all summer and till severe frost. Easily grown and improves with age, being one of the most permanent of herbaceous vines. 25 cents, \$2.50 per dozen.

Clematis crispa, Lavender Clematis. Similar to the Scarlet Clematis except in color, which is a delicate pale lavender; the two make a pleasing combination when planted together. 25 cents, \$2.50 per dozen.

Clematis Fremontii.

Dodecatheon Radicatum.

Delphinium Geyeri, Blue Larkspur. 2-3 feet; growing in clumps, the stems branching above, flowers in spikes of most intense azure blue. 2 for 25 cents, \$1.25 per dozen.

Delphinium Penhardii, (*D. albescens*) White Larkspur. 2-3 feet; producing usually a single stem and should be planted in groups; long slender spike of white flowers, grayish foliage, distinct and desirable. 2 for 25 cents, \$1.25 per dozen.

Dodecatheon radicatum, Shooting Star. 8-12 inches; flowers deep rose, resembling Cyclamen; a charming small species for the rockery or alpine garden, and blooms in April. Clumps containing several roots, 25 cents, \$2.00 per dozen; selected pips, \$5.00 per 100; autumn only.

Erigeron salsuginosus, Alpine Daisy. 1-2 feet; the most exquisitely beautiful of the daisy family, found in moist sub-alpine woods or meadows; flowers two inches broad with yellow disc and the deep rose colored rays in a double series, giving the flower a full and perfect form. Succeeds best in a semi-shaded position with plenty of moisture. Clumps, 25 cents, \$2.50 per dozen.

Erigeron macranthus. 1 foot; a very showy purple-flowered daisy, forming broad clumps and blooming profusely. 15 cents, \$1.50 per dozen.

Erythronium parviflorum, Dog-tooth Violet. This is the Colorado form of *E. grandiflorum* and has bright yellow flowers four inches across when fully spread. The perianth is soon recurved exactly like a miniature lily, two or three on a stem; partial shade, in peaty soil. 3 for 25 cents, \$1.00 per dozen; autumn only.

Eupatorium maculatum. 3-4 feet, a stately plant, forming large clumps with huge terminal clusters of small purple flowers; for the wild garden and especially for wet places it is superb. Strong plants, 25 cents, \$2.50 per dozen.

Gentiana Bigelovii, Clustered Gentian. 6-10 inches; this forms neat clumps with terminal flower clusters of deep blue; the individual florets are not large but the profusion of blooms renders the plant very attractive. 2 for 25 cents, \$1.50 per dozen; autumn only.

Gentiana Parryi, Parry's Gentian. 1-2 feet; quite stout, forming clumps, the base of the flower cluster partly enclosed in a leafy involucre, the flowers large with spreading petals of most intense pure blue. Most of the Colorado Gentians grow best in a firm soil of turfy, fibrous quality. Autumn only; 25 cents, \$2.50 per dozen.

Geranium Fremontii, a bush-forming plant with purplish flowers nearly all sum-

Aspidium Filix-mas, the Colorado Male-Fern

mer. 2 for 25 cents, \$1.25 per dozen; autumn only.

Geranium Richardsonii, White Cranesbill. 1 foot; of bushy habit, with neat foliage, one inch white flowers with pink veins. 2 for 25 cents, \$1.25 per dozen; autumn only.

Geum triflorum, Three-flowered Aven. 1 foot; the flowers which appear in early spring are rosy purple and are followed each by an erect seed plume which is at first purplish, fading to silver. 15 cents, \$1.50 per dozen.

Helianthella quinquenervis, Star Sunflower. 3 feet; a neat plant related to *Helianthus*, with large light yellow flowers having a yellow center and long narrow pointed rays; a free early bloomer and desirable in the garden or for cuttings. 2 for 25 cents, \$1.25 per dozen.

Helianthus Maximillani, Prairie Sunflower. 6 feet; a fine tall perennial species with the showy yellow flowers arranged in a loose raceme half the length of the stem. 2 for 25 cents, \$1.25 per dozen.

Humulus lupulus Neo-mexicanus, Rocky Mountain Hop Vine. A vigorous herbaceous climber of rapid growth with an abundance of broad, deeply cut foliage, producing a quick dense shade. 15 cents, \$1.50 per dozen.

COLORADO FERNS.

Several of the Colorado ferns are desirable for cultivation and grow well in a

shady corner as described more fully in my general catalogue.

Aspidium Filix-Mas, Colorado Male Fern. A large vigorous species producing bold masses of superb foliage of good substance, nearly evergreen; easily grown and especially recommended for general planting. Small roots prepaid, 15 cents, \$1.50 per dozen, \$12.00 per hundred; larger roots by express at same prices.

Cryptogramme acrostioides. A small evergreen fern growing in tufts among rocks; small clumps, 15 cents, \$1.50 per dozen.

Woodsia scopulina, Rock Fern. A small tufted fern with finely cut upright fronds; 15 cents, \$1.50 per dozen.

Iris Missouriensis. 1 foot; an early sort which grows in clumps, having large showy flowers of pale clear lavender to lavender blue, varicously penciled and veined with blue or purple; very choice and easily grown; 3 for 25 cents, \$1.00 per dozen, \$6.00 per hundred.

Leucocrinum montanum, Sand Lily. An early spring flower of crystal-white, fragrant, from a rosette of grass-like foliage. The flowers spring up much like *Crocus*, and follow in succession for several weeks. One of the most distinct and charming of our earliest flowers and easily grown in a light well drained soil; may be treated as a rock plant. 3 for 5 cents, \$1.00 per dozen, \$6.00 per 100; clumps, 25 cents.

Leucocrinum Montanum. *Liatris Ligulistylis.*

Liatris ligulistylis, Blazing Star. 1½ feet; a rare mountain species with large showy rose-purple heads in a short-branched raceme; the terminal head is sometimes 1½ inches broad. Of unique value for its dwarf habit and because it is the earliest to bloom. 15 cents, \$1.50 per dozen.

Liatris punctata, Snake-root. 1 foot; another dwarf species forming clumps, very floriferous suitable for the rockery. 3 for 25 cents, \$1.00 per dozen, \$6.00 per hundred.

Lithospermum multiflorum, Puccoon or Indian Paint 1½ feet; golden-yellow bell-shaped flowers in branching panicles, the oldest plants forming large clumps. Not only does it bloom very profusely, but new flower buds keep forming so that the season is extended for many weeks. 2 for 25 cents, \$1.25 per dozen.

Malvastrum coccineum, Scarlet Mallow. One of the most distinct and showy plants of the Mallow family; of dwarf habit, only six inches tall, with silvery foliage and racemes of scarlet or orange-red flowers. 2 for 25 cents \$1.25 per dozen.

Mertensia ciliata, Mountain Bluebell. 2 feet; a plant of much beauty of color and grace of habit, flowering for a long period in ordinary garden conditions or when naturalized along stream banks, either in sun or dense shade. The small bell-shaped blossoms are borne in loose drooping clusters well above the glaucous foliage. The color varies from a delicate pale blue to a rosy-pink in the buds and young flowers. 15 cents, \$1.50 per dozen.

Oenothera brachycarpa, Yellow Evening Primrose. The magnificent pure yellow fragrant blooms five inches across are pro-

duced from a rosette of narrow foliage in almost daily succession for several weeks. They have no stems but are supported above the foliage by the long flower-tube, and the petals turn orange-scarlet with age. 2 for 25 cents, \$1.25 per dozen.

Oenothera caespitosa, White Evening Primrose. Similar in habit to *O. brachycarpa*, with pure white flowers which turn to rosy pink in fading. The flowers are similar in size, are produced rather more freely and at intervals later in the summer and fall; prefers a light sandy soil. 3 for 25 cents, \$1.00 per dozen, \$6.00 per hundred.

Pentstemon acuminatus, Beard Tongue. 1 foot; very showy racemes of lilac flowers of comparatively large size, glaucous foliage. 2 for 25 cents, \$1.25 per dozen.

Pentstemon alpinus, 1 foot; a hardy early bloomer with large very deep purple-blue flowers in a dense raceme. 2 for 25 cents, \$1.25 per dozen.

Pentstemon Barbatus, Scarlet Pentstemon. 3-4 feet; flowers brilliant coral-red, in long slender racemes, excellent for cutting and thrives everywhere; large clumps make a dazzling display for months. 15 cents, \$1.50 per dozen.

Phlox multiflora, Moss Pink. Rather similar in habit to *Phlox subulata*, but with larger flowers produced in such abundance in early spring as to hide the plant. The color is rose or lilac to lavender and they are richly fragrant; succeeds best on the rockery in deep soil with perfect drainage. 15 cents, \$1.50 per dozen.

Primula Parryi, Parry's Primrose. 12 to 20 inches; from a tuft of luxuriant foliage the stout stems arise, bearing umbels of

Oenothera Caespitosa.

crimson flowers, each with a vivid yellow eye. No one can fail to be impressed with this superb alpine. Mr. William Robinson (England) says, "It has succeeded in the open border in moist deep loamy soil mingled with peat; it is hardy and requires partial shade from extreme heat rather than protection from cold." 25 cents, \$2.50 per dozen; autumn only.

Salvia azurea grandiflora, Blue Salvia. 3 feet; this is one of the very best hardy blue flowers for early autumn. The color is a pure pale azure blue, the tall stems make it effective as a cut flower and particularly valuable for the long duration of blooming. Thrives in almost any soil or position. 15 cents, \$1.50 per dozen.

Salvia Pitcheri. Almost identical with the last, except that it blooms two weeks later and the flowers are a pure dark blue. Both of these are indispensable for late garden decoration and for cutting. 15 cents, \$1.50 per dozen.

Solidago spectabilis, Goldenrod. 2 feet; this does not have the rank spreading habit of most species, but forms neat clumps producing long narrow panicles of delightfully fragrant flowers of golden yellow. I consider this the finest of all Goldenrods. 15 cents, \$1.50 per dozen.

Thalictrum Cornuti. (T. Polygamum) Meadow Rue. 4 feet; the Meadow Rues are worth growing for their remarkable foliage

which rivals in delicacy the Maidenhair Fern. They are easily grown in any light soil. This robust sort has also very attractive airy panicles of cream white flowers. 15 cents, \$1.50 per dozen.

Thalictrum Fendleri. 2 feet; this more slender variety has purplish tinged flowers and smaller, finer cut foliage and will grow in shade. 2 for 25 cents, \$1.25 per dozen.

Thermopsis montana, Buffalo Pea. 1 foot; the showy yellow pea-shaped flowers are among the earliest spring bloomers, are fragrant and last well for cutting. 2 for 25 cents, \$1.25 per dozen; autumn only.

Trollius albiflorus, White Globe-flower. 1-2 feet; a very desirable alpine for moist peaty soil; it blooms early, the flowers are large, at first creamy white, fading to pure white. The flower is more open than other sorts, reminding one of a Buttercup. 25 cents, \$2.50 per dozen; autumn only.

Viola rugulosa, White Violet. A large leaved and large flowered form of the *Viola Canadensis*, thriving best in shady places, and is one of the best species. 2 for 25 cents, \$1.50 per dozen.

Zygadenus elegans, Star Hyacinth. Racemes of beautiful star-like white flowers from tufts of slender foliage; a plant of exceptionally elegant appearance and easily grown in moist soil. 2 for 25 cents, \$1.25 per dozen.