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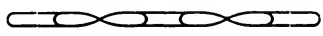
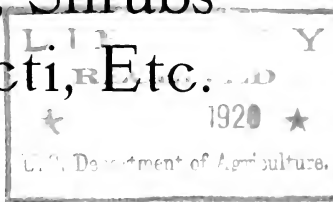
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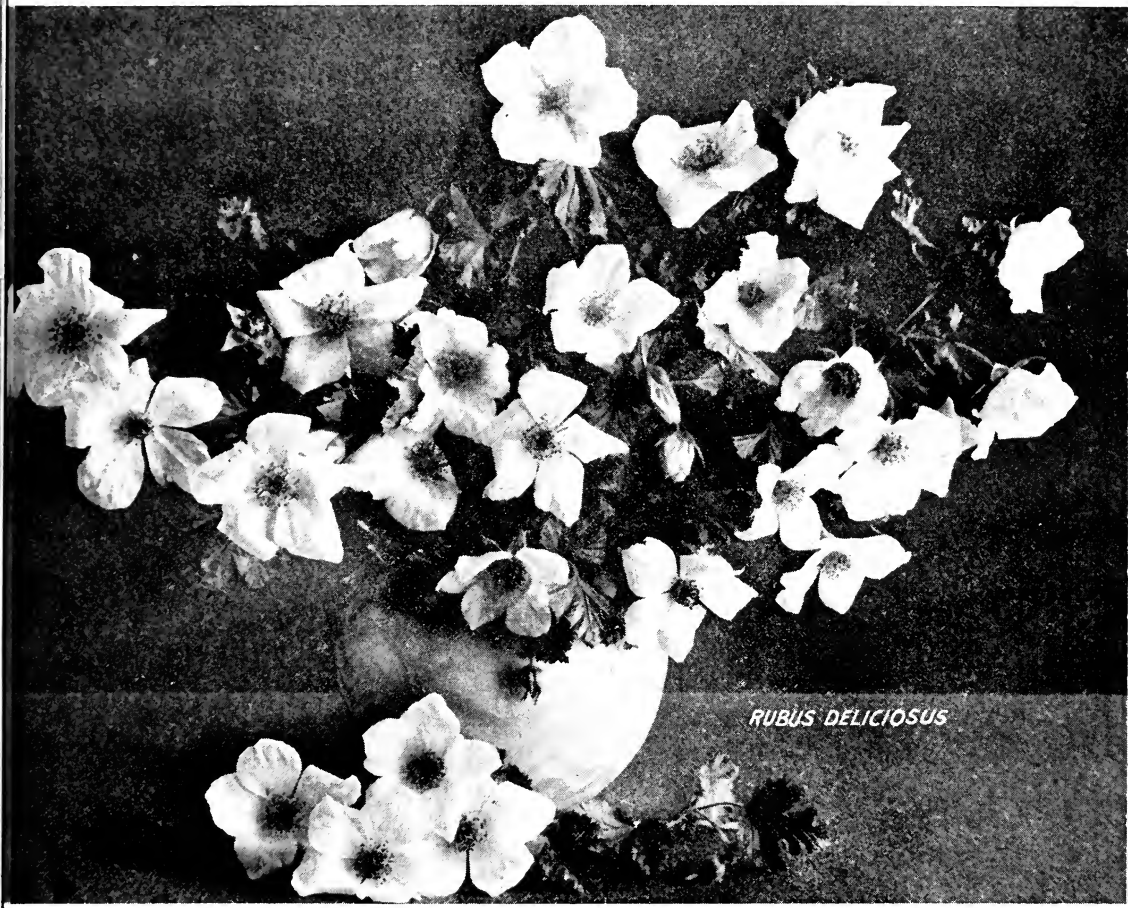
L. C. Franster

FEB 7 1914

Colorado Wild Flowers, Shrubs, Evergreens, Ferns, Cacti, Etc.



ROCKMONT NURSERY, 1914



RUBUS DELICIOSUS

D. M. ANDREWS

Boulder, Colorado, U. S. A.

FOREWORD

This catalogue will reach many people who are unfamiliar with Colorado plants, and especially with their use in our gardens. In the following pages I have undertaken to condense as much information as possible into brief, accurate descriptions, but I fully realize that many special problems exist which are too varied in their nature to be covered within the scope of a descriptive catalogue. I am convinced, after twenty years of constant association with the native shrubs and plants of this region, that there are totally new possibilities in their use for the adornment of our gardens, for extensive landscape effects in parks and large estates, and especially for the subjection and reclamation of sandy, rocky, dry, or otherwise sterile areas without going to the extraordinary expense of changing the character of the soil. Nature has provided the material, adapting it through ages of deprivation to just such conditions, and it is quite possible literally to "make the desert rejoice and blossom as the rose." Letters of inquiry relative to the use of Colorado plants are always welcome and will receive careful attention.

Rockmont Nursery represents the outgrowth of my business which was started under very modest circumstances in 1893. The nursery now comprises three separate tracts of land, differently situated and with sufficiently varied soil conditions to insure the best possible development of all classes of stock. All of this land is irrigated, and lattice houses and shaded beds afford ample provision for acclimatization and propagation. Visitors to the nursery are welcome, but that no disappointment arise, it is requested that they make known their intention beforehand. The best time to see the nursery is during the three summer months.

Shipping season. The spring shipping season begins about March 15th and continues to May 15th. Some classes of stock must be shipped earlier than the later date. The autumn season begins in August for early maturing herbaceous stock, ending in November or December. All the stock offered in this catalogue can be supplied either spring or autumn, except certain kinds which are indicated to be supplied in autumn only. I recommend fall planting for all the wild flowers where practicable, for the reason that many of them begin growth very early in the spring.

Exporting. Some of the Colorado plants can now be obtained from nurseries in England and Europe. I shall be glad to refer correspondents residing abroad to the nearest dealer who handles my stock. In case your dealer will not supply the varieties wanted, I will then ship direct to the customer, guaranteeing safe delivery. Export shipments of alpine and most other herbaceous plants will be made only in autumn. Small plants including all the alpine and most of the wild flowers will be delivered prepaid to Europe by Parcel Post at the prices quoted. Trees, shrubs, evergreens, Cacti, etc., must be forwarded by express, purchaser paying cost of transportation.

Prices and Terms. At the prices quoted I will deliver prepaid all the smaller herbaceous stock anywhere in the United States. The prices for trees, shrubs, evergreens and cacti do not include delivery; purchaser pays transportation. The present Parcel Post rules do not admit plants or nursery stock to the zone rate, and I therefore recommend forwarding by express, because the "general special" rate which applies to all nursery stock is almost always cheaper than mail. When the customer pays transportation on herbaceous plants. I either select heavier stock or give more liberal count.

I will appreciate receiving the addresses of persons likely to be interested in Colorado plants.

Sincerely,

Boulder, Colorado, January, 1914.

D. M. ANDREWS.

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Red Rock Lake; Sub-Alpine Region, Boulder County

COLORADO

The state of Colorado has an area of more than 100,000 square miles, equal to the combined area of Massachusetts, New York and Pennsylvania, or to more than twice the area of England.

In a north and south direction, the Continental Divide separates the state into two nearly equal portions, the eastern half being a plain with an average altitude of about 5000 feet above sea level, the cities of Denver and Boulder being exactly one mile high. The western half of the state is largely mountainous, being divided irregularly by lofty ranges with fertile valleys between.

The Continental Divide which deflects the water-flow toward the Atlantic and Pacific oceans, known in Northern Colorado as the Front Range, forms the west line of Boulder County. The city of Boulder, population 10,000, is beautifully situated where the appropriately named Boulder Creek emerges from the foot-hills thirty miles from its source in the snow-clad mountains to the westward, Longs Peak, the corner stone of Boulder County, rising to an elevation of more than 14,000 feet.

Every mountain range is an effective natural barrier against the dissemination of plant life from one slope to the other and from valley to valley. To some extent each valley has a flora of its own. Every mountain canon for example will have a different variety of wild plum. This is very perplexing among species not so well understood, and as the flora is rich in varietal forms, the line of demarkation between many species becomes a matter of controversy. Added to this we observe the effect of abrupt gradation of altitude, and the extreme relations between climate and topography; so that on the whole, the botany of Colorado plants is exceedingly complicated.

Hasty observation might indicate that the soils of Colorado are as varied as its topography, but this is hardly correct. The soil consists of broken-down rocks and shales. From the former are derived the loamy soils and from the shales are derived the clay and adobe soils. The loamy soils are found on the mountain sides and in all the mountain valleys where no shale occurs, and along the courses of such streams for some distance after they leave the foothills. Also, on the plains wherever the shales are overlaid by other formations. Only a very limited part of the native flora occurs naturally on the true adobe soils.

Colorado has an arid or semi-arid climate, except at the higher altitudes. When the first settlers came to the state there were no trees except on the mountains and along streams. The distribution of shrubs followed essentially the same lines. The plains and foot-hills were covered with flowers which bloomed in the spring and early summer, completing their growth with moisture conserved from early snows and rains. In July the flower zone had retreated to the higher foot-hills and mountain valleys, and in August the procession had reached the sub-alpine and alpine region which for one short month became resplendent with a glory of color unparalleled in nature and attended with a luxuriance of verdure which only an abundance of moisture could produce.

The deductions which should be well noted are these: that the majority of Colorado plants are not desert plants but require an abundance of moisture during the growing season. And second, the fact that they are able to come to maturity during a comparatively short growing season eminently fits them for the more northern latitudes everywhere.

Cultivation of Colorado Native Plants

The successful cultivation of plants depends upon a suitable relation of the three elements, soil, moisture and sunshine. It is truly fortunate that our gardens are not all equally well provided for in these three respects, else we should suffer from monotony. Indeed, we are already inclined to a monotonous use of certain shrubs and flowers, so that whenever new effects are introduced the result is very refreshing.

The use of Colorado plants and shrubs not only provides something different and at the same time pleasing, but also makes it possible to have satisfactory results from planting in places where natural conditions are not of the best, and even where planting would not ordinarily be undertaken.

The acclimatization of mountain plants is accomplished in most cases with but little difficulty. The methods in use at Rockmont Nursery are simple but effective. Most of the shrubs and evergreens grow at middle elevations and when they are transplanted to the mellow, irrigated soil of the nursery it requires only a season or two for them to acquire a vigorous root system and to take on the habits of cultivated plants. When they have once become established in the nursery the removal to other gardens can be performed with entire safety.

In the case of alpine and various desert plants like cactus, etc., where peculiarities of environment have materially modified some of the ordinary functions of the plant, it is doubtful if complete acclimatization can ever take place. It would mean that to some extent they would revert to their original form or nature which we can hardly insist is desirable.

By imitating some of the essential features of their natural environment we may succeed very well indeed with many of these, and Nature comes to our assistance in providing a truly remarkable power of adjustment and adaptation to changed conditions. This finds verification in the fact that alpine plants show their finest development at the lower levels of their distribution, while also the plants of middle elevations become dwarfed and stunted as they approach the higher altitudes.

Alpine plants succeed best in a light, deep, rather open soil, offering little resistance to their delicate roots or to the free passage of moisture. To construct such a soil I would take one part gravel, two parts sand and two parts leafmold or peat. As most alpine plants require an abundance of moisture during the growing season, it is best not to go to an extreme in the matter of drainage, relying upon depth of soil rather than upon

elevating the bed or the use of tile. If the bed is sloping the lower portion may be used for plants of a semi-bog character like the *Primula Parryi*, *Caltha*, *Trollius*, *Cardamine*, etc., yet excessive wetness is not essential. The light shifting shade of a lattice house provides a desirable humidity of atmosphere and protection from mid-day sun which is beneficial to most alpine plants. A thin mulch of sphagnum moss helps to maintain humidity and a reduced temperature during the day by evaporation. Some means of spraying with water should be provided during hot, dry weather. A lattice house may be constructed in elaborate style or a cold-frame shaded with lath screens may serve instead. The east or north side of a wall is a fair substitute.

Rock plants are not separable from alpiners by clearly defined characters, although cacti, which are properly treated as rock plants, offer a seeming contradiction. As a matter of fact, several of our hardy cacti are sub-alpine. The principal difference in culture between alpiners and rock plants is to provide for the latter more certain drainage and a sunnier location. The drier portions of the alpine garden will accommodate most rock plants. A rockery as sometimes constructed is neither ornamental nor serviceable. Rough native rocks with their natural surfaces exposed, should be arranged so that the spaces between will contain deep pockets of soil, always connecting with moist soil beneath. Cacti, *Lewisia* and some other rock plants will not flower satisfactorily except in the brightest sunshine.

Shade plants of various sorts grow in the mountain valleys and gulches where the soil is of light, open texture and rich in humus. Some of these which grow in dense shade at low elevations will be found in open, sunny places at high altitudes where the sun's rays are not very heating, apparently indicating that suitable soil and moisture are more important than shade. It should be remembered that the sunlight in Colorado is very intense and that cloudy and hazy days are few at any season of the year. In a climate where more cloudiness prevails the necessity for shading would be diminished.

Vernal plants which bloom very early in the spring usually complete their growth by early summer, after which the tops disappear. To this class belong some of our choicest wild flowers, such as *Anemone*, *Claytonia*, *Dodecatheon*, *Erythronium*, *Leucocrinum*, *Mertensia*, *Viola*, etc. These as a rule should have a light soil and well



Boulder Creek by Moonlight

drained position, so that the roots may become properly matured during their natural resting period.

The larger class of the native flowers will thrive in any mellow loam, most of them flowering best in full sunlight. The most satisfactory effects will be obtained by planting in groups or colonies of a half dozen or a dozen together. This is true also of the alpiners and rock plants. But few of the Colorado wild flowers form large enough clumps to be effective as single roots.

Any classification of plants into cultural groups must be somewhat arbitrary. No hard and fast rules can be laid down for the culture of any plant, as its behavior in a different climate cannot be fully anticipated. Additional suggestions will be found under the descriptions of various species, but all will give fairly satisfactory results under conditions less favorable than recommended. After soil and all the other physical elements have been suitably provided, a certain sympathy on the part of the grower must exist, or the best results will not be realized. This is so true that often the sympathetic grower will attain marvelous results with flowers where physical conditions appear to be unfavorable.

Deciduous Trees and Shrubs

The following are natives of Colorado and embrace only such as have horticultural merit and which have proven successful in cultivation. Other things of equal worth are being propagated in the nursery and will be included in future lists when a sufficient supply becomes available. Six of one kind at the dozen rate.

Acer glabrum, Rocky Mountain Maple. 12 to 20 feet at maturity; a much branched large shrub with handsome, deeply lobed foliage. Dry slopes and along streams to 8,000 feet altitude. Forms dense clumps of symmetrical shape; yellow and orange autumn tints. 4-6 feet, 75 cents to \$1.00 each.

Alnus tenuifolia, Western Alder. 20 to 30 feet; a small bushy tree with smooth gray bark, growing in moist places to 9,000 feet. Suitable for waterside planting but will grow in drier places. The long, drooping catkins appear in early spring before the leaves. 5-6 feet, 50 cents each, \$5.00 per dozen.

Amelanchier alnifolia, Dwarf June Berry. 3-6 feet; one of our most delightful flowering shrubs with star-like white blossoms. No early shrub gives a better or more distinct general effect, and its soft gray-green foliage later in the season, its purple-black fruit in summer and masses of rich brown twigs in winter leave little to be suggested by way of improvement. 1-2 feet, 25 cents, \$2.50 per dozen.

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. A more refined and dwarfer shrub than the eastern form. 2-3 feet, 25 cents, \$2.50 per dozen.

Amorpha nana (*A. microphylla*) Dwarf Indigo. 1-2 feet; a most interesting and rare shrub with minute dark green leaflets and spikes of fragrant, garnet-red flowers, the whole plant delightfully lemon-scented. Dry plains, Colorado to Manitoba. 50 cents each.

Ampelopsis vitacea, Woodbine. This is the Colorado form of the Virginia Creeper, and climbs freely by tendrils instead of suckers. Trained to wire netting it will afford quickly a dense and permanent shade or screen. It has larger foliage and stronger stems than the eastern plant, is equally hardy, stands drought and may be used as a ground trailer for banks. Strong plants, 25 cents, \$2.50 per dozen.

Erberis Fendleri, Rocky Mountain Barberry. 2-4 feet; this rare shrub of our southwestern mountains is intermediate between *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. Clumps 2-3 feet 50 cents, \$5.00 per dozen.



Berberis Fendleri

Berberis repens, (Mahonia) Oregon Grape. An evergreen creeping shrub only a few inches high, extending by underground stems and suitable for shade. The Colorado plant is distinct from *Berberis Aquifolium*, being a creeper rather than an upright shrub and is hardier. 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 bronze and russet shades tinged with red and purple. For a ground cover it should be planted about 8-10 inches apart for quick results, and I offer choice collected plants at \$1.00 per dozen, \$5.00 per 100, \$35.00 per 1,000.

Betula fontinalis, Western Black Birch. 15-25 feet; a large shrub branching from the ground with smooth purplish-brown trunks and branches, the foliage rather small and deeply serrated, with numerous drooping catkins in early spring. Suitable for wet or moderately dry situations. 4-6 feet, 75 cents.

Celtis reticulata, Hackberry. A medium sized tree whose range is from the mountains of western Texas to Colorado; thrives best with a fair amount of moisture but will endure extreme and prolonged drought when once established. Of elm-like appearance, of rather dense habit and well rounded outline, with thick reticulated foliage and strong but slender branches. 6-8 feet, 75 cents; 8-10 feet, \$1.00.

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. 3-4 feet, 35 cents; clumps, 50 and 75 cents.

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 much earlier than *C. paniculata*, and the remarkably 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; I consider this the best and hardiest of the Red-stemmed Dogwoods. It has been used extensively in the Denver, Colorado Springs and Boulder parks with most satisfactory results. It makes a compact spreading clump with remarkably clean and healthy foliage, dark green above, whitish beneath. The clusters of white flowers are produced in constant succession all summer and are followed by pearly-white berries. The twigs are blood-red in winter, several shades deeper than the Siberian Dogwood. The fall color of the foliage and the winter color of the twigs are unequalled. 2-3 feet, 35 cents, \$3.50 per dozen.

Corylus rostrata, Hazel Nut. 6-8 feet; as a background for other planting or for thickets this is always satisfactory; the nuts are small but make food for squirrels. 25 cents, \$2.50 per dozen.

Crataegus cernis, (*C. erythropoda*) Hawthorn. 12-15 feet; a fine small tree with yellowish branches and glossy, serrated foliage. Flowers white with purple anthers, fruit deep morocco-red, very showy, several shades deeper than other red fruited hawthorns. All the hawthorns should be rather severely pruned when they are transplanted. 4-5 feet, 50 cents, \$5.00 per dozen; 5-6 feet, 75 cents.

Crataegus Coloradensis, Colorado Hawthorn. 15-20 feet; a well branched, symmetrical tree with handsome foliage and

unusually large clusters of flowers and fruit, the latter dark scarlet when ripe. Comparatively rare but one of the finest in cultivation and of ironclad hardiness. Stock limited. 2-3 feet, 75 cents.

Crataegus saligna, Black-fruited Hawthorn. 12-15 feet; in its elegant style of growth, clean glossy foliage and reddish purple twigs which afford a charming winter effect, this is the gem of hardy hawthorns. Found in cold mountain valleys it is extremely hardy, and it differs from other sorts in its slender, upright growth, small shining foliage and jet-black fruit which ripens early in the summer. It will stand fifty degrees below zero and is as certain to thrive as an apple tree. 4-6 feet, 75 cents, \$7.50 per dozen; 6-8 feet, \$1.00.

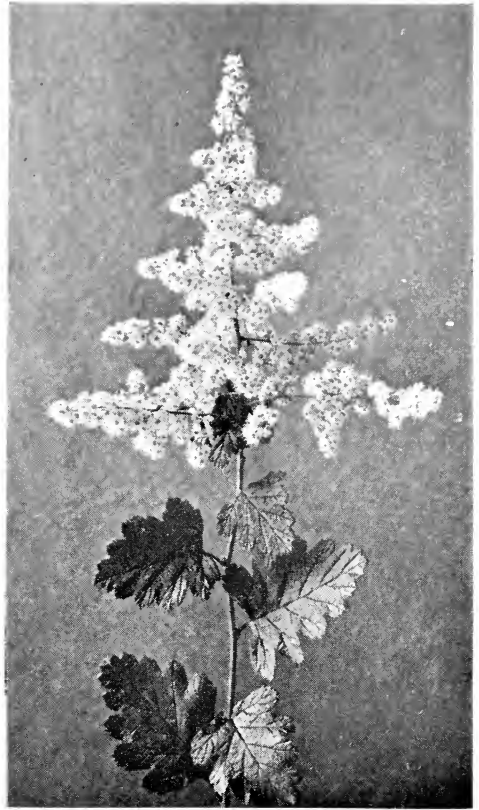
Equisetum robustum, Giant Scouring Rush. 2-3 feet; a shrub-like plant with evergreen leafless stems, suitable only for rather moist places but will grow in sun or shade. 25 cents, \$2.50 per dozen.

Holodiscus dumosus, (synonyms, *Spiraea discolor*, *S. ariaefolius*, etc.) Wild Spiraea. 4-6 feet; one of the most desirable of our native shrubs, forming graceful clumps with slender arching branches, each terminating in an airy panicle or plume of creamy-white flowers. Of proved merit and hardiness, suited to a variety of conditions and will bloom freely in partial shade. Occurs in a variety of forms and I have therefore propagated only from an exceptionally fine type. Small plants, 25 cents, \$2.50 per dozen.

Jamesia Americana, Wild Mock Orange. 3-4 feet; a low bush, preferring partial shade and a loose, well drained soil, having velvety foliage and clusters of waxy-white flowers which are delightfully fragrant and resemble orange blossoms. In heavy soils it is apt to make a straggly growth which may be corrected by pruning soon after blooming. 35 and 50 cents each.

Lonicera involucrata, Bush Honeysuckle. 3-4 feet; a bush which is attractive throughout the season for its dense masses of 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, very hardy, growing to 10,000 feet in the mountains and north to Alaska. 1-2 feet, 25 cents, \$2.50 per dozen.

Opulaster glabratus (syn. *Physocarpus*, *Spiraea*, etc.) Smooth Ninebark or Wild Spiraea. 3-4 feet; a shrub of neat habit, having the floral aspect of the best of the Spiraeas. Blooms very profusely in early spring, having showy umbels of white or rose-tinted flowers. Does well in partial shade. 2-3 feet, 25 cents, \$2.50 per dozen; larger clumps, 50 cents to \$1.00.



Holodiscus Dumosus

Opulaster monygnus, Small Ninebark. 2-4 feet; this is the smallest species and is often useful on account of its small size. It grows in the mountains to 9,000 feet altitude and will stand considerable shade. As a flowering shrub it ranks with the best. 1½-2 feet, 25 cents, \$2.50 per dozen.

Opulaster pubescens, Silky Ninebark. 4-6 feet; intermediate in size, but of remarkably sturdy habit. Its deeply lobed, maple-like foliage is attractive at all seasons and gives desirable autumn tints. Both the umbels and individual flowers are comparatively large and are produced in such lavish profusion that the wreath-like branches bend with their weight. Add to this the utmost vigor, hardiness and ease of culture and you have what I consider one of the most universally valuable shrubs for cold climates. Stock limited; 3-4 feet, 50 cents to \$1.00.

Opulaster Ramaleyi, Ramaley's Opulaster. 5-8 feet; a stout and vigorous shrub, showing the same remarkable profusion as the last, but attaining larger size and with



Cercocarpus Parvifolius



Opulaster Glabratus

narrower foliage. Like the other Colorado species it has leaves of firm texture, not subject to the effects of wind or insects, and may be planted in places too exposed for more delicate shrubs, and all are desirable as individual specimens. 2-3 feet, 35 cents, \$3.50 per dozen.

Populus accuminata, Lance-leaved Poplar. A large tree with smooth trunk and branches and a rounded, symmetrical head. It succeeds as a shade tree far north in the mountains where no other tree will thrive. The branches are slender but tough, and under our western conditions, at least, this tree surpasses in value the Carolina Poplar and other cottonwoods. 10-12 feet, \$1.00 each, \$10.00 per dozen.

Populus angustifolia, Narrow-leaved Cottonwood. A rather slender tree with narrow foliage resembling a willow; best adapted for moist places. 6-8 feet, 50 cents, \$5.00 per dozen.

Populus Sargentii, (*P. occidentalis*) Western Cottonwood. A tree of large size and of broad spreading habit. The common cottonwood of the eastern slope of the mountains in Colorado. Its chief value is for a quick shelter for bleak regions and for which nothing except the Lance-leaved Poplar is superior. 6-8 feet, 35 cents, \$3.50 per dozen; 8-10 feet, 50 cents, \$5.00 per dozen; Larger trees, \$1.00 to \$2.50 each.

Potentilla fruticosa, Shrubby Cinquefoil. 2 feet; not botanically different from the eastern plant, but the branches are more spreading and it is a more constant bloomer,

the flowers, like golden buttercups, being freely produced all summer. It develops into fine bushy clumps and its small size and excellent habit make it indispensable for foreground planting. 1-2 feet, 25 cents, \$2.50 per dozen.

Prunus Americana, Wild plum. 8-10 feet; used in parks and large grounds for backgrounds and for massing. The flowers in early spring are fragrant and showy. Its value in decorative planting is apt to be overlooked. 3-4 feet, 25 cents, \$2.50 per dozen; larger at 50 and 75 cents each.

Prunus Besseyi, Dwarf Rocky Mountain Cherry or Sand Cherry. 2-4 feet; a dwarf shrub, varying much in habit, with spreading or reclining branches or sometimes more upright. The foliage is dark green, glossy, narrowly lanceolate. Having been offered as a fruiting plant, its high ornamental value is not usually recognized. The fruit, which is of the size of English Morello cherries, is nearly black and of rather astringent quality, but abundantly produced and well liked by many people. 3-4 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.

Purshia tridentata. 1-2 feet; a very dwarf rosaceous plant with extensively branching habit and semi-evergreen foliage. Grows on dry rocky slopes and should have a well drained, sunny position. 25 cents.



Opulaster Ramaley



Jamesia Americana

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 glabra minor. This is a selected type of the Western Sumac which is every way more refined than the ordinary form. When first discovered growing wild, it had fruiting clusters only 1½ inches long, but in cultivation they are larger. The leaves are small, dark green and as glossy as if varnished. It has the same autumn colors and drought-resisting character as the common form, and the rich, glossy, fern-like foliage and small growth make it one of the choicest of hardy shrubs. 3-4 feet, 35 cents, \$3.50 per dozen; 4-5 feet, 50 cents, \$5.00 per dozen.

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 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 hardness, 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. Clumps, 35 and 50 cents each.

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 training 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



Rhus trilobata, on a Dry Hillside

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. 6-8 feet, \$1.25 each; small plants, 35 cents.

The Wild Roses of Colorado are varied and interesting. For naturalizing in rough ground and as a temporary filler among large-growing shrubs they cannot be too highly recommended. They are free from pests and so able to take care of themselves that when present in the garden a roseless June will be unknown.

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 Engelmanni, Engelmann's Rose. 3-4 feet; a stout bush, the stems very spiny and leafy, forming better clumps than most wild roses. Being quite variable, I have propagated from one of the most desirable types. 3-4 feet, 35 cents, \$3.50 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.

Rosa Sayi, Say's Rose. 2-3 feet; a mountain rose with cinnamon scented foliage

which will grow well in shady places. 25 cents, \$2.50 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, but blooming most freely in a warm, sunny position. 2-3 feet, 35 cents, \$3.50 per dozen; large heavy clumps, 75 cents and \$1.00.

Rubus parviflorus, Salmon Berry. 2 feet; a half-shrubby *Rubus* with very large, lobed foliage and showy white flowers. Grows in moist shady places. 35 cents.

Salix irrorata, Blue-stem Willow. 8-10 feet; a large bushy species, the branches in winter coated with a dense blue-glaucous bloom. 5-6 feet, 50 cents.

Shepherdia argentea, Buffalo Berry. 6-10 feet; besides possessing high ornamental value, this shrub is of the utmost hardiness, and has the unusual ability to thrive both on dry bluffs and on wet bottom land in alkaline soil. It has beautiful silvery foliage, is of upright, rather dense growth and produces on the female plants an abundance of scarlet, acid berries, which persist all the season till early winter. It is easily cultivated, and few places are so unfavorable that it cannot make a good showing. 2-3 feet, 25 cent, \$2.50 per dozen.

Shepherdia Canadensis, 2-3 feet; quite distinct from the last, of low spreading growth, found only in rather moist shady woods. It can be easily cultivated under similar conditions. The foliage is dark green above, but with a brown scurf underneath and on the twigs; berries bright red but insipid. 35 and 50 cents each.

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 pauciflorus, Dwarf Snowberry. 1 foot; a miniature of the well known snowberry, and may be used success-

fully wherever a very small undergrowth is desired. Clumps, 25 cents, \$2.50 per dozen.

Viburnum Lentago, Black Haw. 8-10 feet; a small tree or shrub-like, symmetrical in form with glossy dark green foliage, turning to shades of red and purple in autumn. This is a native in a single locality near Boulder, and has proven very successful in cultivation. 2-3 feet, 35 cents, \$3.50 per dozen; large clumps \$1.00.

Vitis vulpina, (*V. riparia*) Wild Grape. A valuable climber for covering arbors, fences, or anything where a luxuriant growth of foliage is desired. The flowers are deliciously fragrant, and the small black grapes are not unattractive. 25 cents; \$2.50 per dozen; extra strong, 35 cents, \$3.50 per dozen.

Hardy Cacti

Cacti in the popular mind are generally associated with the semi-tropical desert or with the window garden.

Several notable exceptions which offer interesting possibilities for the out door rockery or hardy flower border are found along the Rocky Mountains northward through Colorado and Dakota. These include some twenty or more species in both the flat-jointed and pincushion forms. They stand temperatures of forty degrees below zero without harm. They seem entirely indifferent to dry cold, but suffer from stem-rot if water settles about them in 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 splattering 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 except a stoncrop or *Sempervivum* would thrive; but the soil pockets should be so constructed that the roots can penetrate to moist soil.

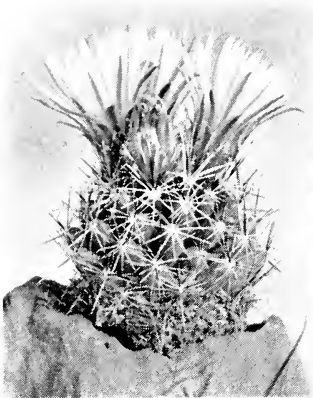
These plants are natives of a climate where a large part of the rainfall comes in late winter and early spring. They store up sufficient moisture to carry them through



Prunus Melanocarpa



Rosa Fendleri



Mamillaria Vivipara



Echinocactus Simpsoni

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.

It should also be remembered that in planting hardy cacti, you have a display never failing in attractiveness for the full twelve months of the year.

The species offered in the list which follows have actually been cultivated out of doors without protection throughout the northern states and in England with perfect success and in large quantities, so that their use is no longer experimental. Many gardens afford ideal conditions and anyone can prepare for them with only a little outlay. Cactus plants are shipped at purchasers expense; have them forwarded by express if practicable.

ECHINOCACTUS.

Echinocactus Simpsoni, Pincushion Cactus. Round and symmetrical in form, thickly covered with short curved and interlacing spines which are usually brown or gray and being arranged in little star-like clusters the effect is very beautiful. The handsome rose or shell-pink flowers appear in early spring. The plants average about three inches in diameter but sometimes exceed four inches and are frequently in clusters. 25 cents, \$2.50 per dozen; large plants, 50 and 75 cents; clusters, 50 cents to \$1.00.

Echinocactus Simpsoni, Perpetual Snow. Snow Cactus. This is identical with the last except that the spines are all pure glistening white, of a peculiar crystalline quality, and when the delicate rosy flowers appear the plant is beautiful beyond description; very rare. 50 cents, 75 cents and \$1.00; assorted sizes \$7.50 per dozen.

Echinocactus Simpsoni minor. This is a flattened less spiny form from high altitudes, quite distinct, spines usually dark purplish brown; quite rare. 35 cents, \$3.50 per dozen. Supplied only in autumn.

ECHINOCEREUS.

Echinocereus viridiflorus, Rainbow Cactus. Rounded or short cylindrical, a profuse bloomer and especially pleasing on account of its brilliantly colored spines. The clusters of spines are arranged quite regularly along the perpendicular ridges of the plant with more or less distinct bands of color in the opposite direction. The flowers are green with a brownish exterior. Plant an inch or two in diameter or larger, often forming clusters having two or three to a half dozen heads, 2 for 25 cents, \$1.50 per dozen; large plants 25 cents, \$2.50 per dozen; large clusters 50 and 75 cents.

MAMILLARIA (Cactus).

Mamillaria Missouriensis, (Cactus Missouriensis) Star Cactus. A small species with elongated tubercles, each tipped with a star of gray spines. Flowers yellow, followed by scarlet berries. 2 for 25 cents, \$1.50 per dozen.

Mamillaria similis, (Cactus similis). This is very much like the last but larger and often grows in large clusters containing half a dozen or twenty heads; rare. 35 cents, \$3.50 per dozen; clusters \$1.00 to \$5.00 each.

Mamillaria vivipera. (Cactus viviperus). Bird's Nest Cactus. The prominent tubercles are each tipped with a cluster of purplish brown spines thickly interlaced over the

whole plant. Flowers large and showy, bright purple, plant extra hardy and a good bloomer but very scarce. 50 cents each.

OPUNTIA, Prickly Pear.

Most of these have flattened joints which are more or less spiny and of various shapes. They are rapid growers and great bloomers, the following hardy sorts usually form low spreading clumps and are especially useful for making a permanent ever-green covering for dry rocky places, thriving with a small amount of soil.

Very effective arrangements may be made by combining the hardy Opuntias with *Yucca glauca*, *Calochortus*, *Delphinium Geyeri* and *Penhardi*, *Leucocrinum*, *Malvastrum*, *Pentstemon*, *Rosa Arkansana*, etc., which grow well under about the same conditions.

Large sandy and rocky areas in parks and private estates may be planted with Opuntias, requiring but little attention thereafter. Opuntias are supplied in liberal plants at 25 cents, \$2.50 per dozen, transportation at purchaser's expense.

Opuntia arenaria, Sand Cactus. Distinct, with small oval joints $1\frac{1}{2}$ inches long, forming matted clumps with numerous long brownish or redish spines; flowers yellow.

Opuntia camanchica. Joints round, purple tinged, upper half very spiny, the yellow flowers followed by an abundance of purple pear-shaped fruit.

Opuntia fragilis, Brittle Cactus. A curious sort with small, long spined joints which break off easily, hence the name. These joints scatter and take root forming new colonies, and by reason of this method of propagation they seldom bloom and more rarely produce seed.

Opuntia mesacantha, Prickly Pear. Producing large mats of green oblong joints which are not very spiny but exceedingly floriferous; this and its two varieties are the most certain to thrive under all sorts of conditions, enduring more moisture than the others.

Opuntia mesacantha Greenii. Joints large, round, dark green, a wonderful bloomer, the pear-shaped fruit bright purple, often remaining all winter.

Opuntia mesacantha cymochila. Joints obovate, glaucous, spines on the upper half

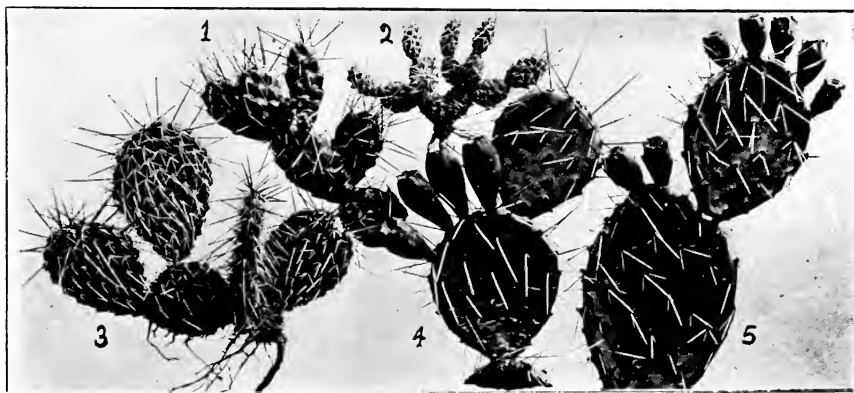
very long and dark redish brown. Flowers and fruit abundant and showy; one of the best.

Opuntia phaeacantha major. This has very large joints which are very glaucous with a purplish tinge and forms very large clumps. The spines are stout and set very regularly upon the plant, the flowers deep yellow and the fruit purple. This is the most decorative of the hardy Opuntias and a well grown clump in bloom or in fruit is a sight not easily forgotten.

Opuntia polyacantha. Remarkable for the abundance of long stout spines which almost hide the plant. The spines are gray, light brown or some times very dark, often with the different shades mingled on the same plant; flowers deep yellow, fruit dry and very bristly.

Opuntia polyacantha albispina. White-spined Cactus. A variety with white spines which are slender and on the old joints sometimes become much elongated and curiously curled or twisted.

Prices of the various Opuntias, 25 cents each, \$2.50 per dozen of one kind; large quantities quoted on application. They are too large for mailing and must be forwarded by express or freight.



1. *Opuntia Arenaria* 2. *O. Fragilis* 3. *O. Polyacantha* 4. *O. Mesacantha* 5. *O. Phaeacantha Major*

Colorado Evergreens

The fact that the Douglas Spruce of Colorado is hardy in the East, while the same tree from the Pacific Coast is not, is a practical illustration of the effects of climate and altitude upon hardiness. It may have taken ages to produce this difference, but the same factors of climate, however long they have been in operation, have produced the same result upon all the other evergreens of this region and upon the native trees and shrubs as well.

Hardiness seems for the most part to have a direct relation to earliness of maturity. The early-maturing habit of a tree, whether due to a northern climate or to altitude, becomes fixed to the extent that the production of new wood ceases early in the season. Severe freezing may catch the plant in full leaf without harm to the already ripened wood, nor even to the leaves themselves. In the relation of altitude to latitude, 500 feet of altitude is said to be equivalent to about one degree of latitude.

All the following evergreens are one or more times transplanted and will be shipped with a ball of earth enclosing the roots. This fully protects them against exposure, which is responsible for most of the loss with this class of stock. The superiority of evergreens thus handled over the cheaper seedlings pulled from the earth and shipped with naked roots will be apparent to any one.

Long distance shipment of evergreens by freight is not recommended except in autumn or very early spring; and in any case the purchaser must assume the risk of freight transportation. I shall be glad to give information by letter regarding express rates and approximate weight of evergreens packed for shipment.

Six of one kind and grade will be sold at the dozen rate. Matched pairs and selected specimens will be charged for according to value, about 25 per cent in addition to prices quoted.

Juniperus scopulorum, Colorado Silver Cedar. This Rocky Mountain species, sometimes catalogued as *Juniperus Virginiana glauca*, is distinct from its eastern relative in several important particulars. The foliage has the beautiful glaucous hue which is characteristic of so many Colorado ever-

greens; the tree makes an upright, pyramidal growth and retains its lower branches and symmetrical form to a great age; it is also distinct in requiring two years to mature its fruit. It retains a pleasing color throughout the winter. 12-18 inches, 35 cents, \$3.50 per dozen, \$25.00 per 100; 18-24



Juniperus Siberica, Colorado Trailing Juniper

inches, 50 cents, \$5.00 per dozen; 2-3 feet, 75 cents, \$7.50 per dozen; 3-4 feet, \$1.25 to \$2.00 each; 4-5 feet, \$3.00 to \$5.00 each.

Juniperus Sibirica, Prostrate Juniper. A low creeping evergreen, forming broad clumps, its graceful sprays spreading fan-like in all directions. 10-12 inch clumps, 50 cents, \$5.00 per dozen.

Picea Engelmanni, Engelmann's Spruce. A fine large-growing species of symmetrical form, with ascending branches. The foliage is usually tinged with blue, but is not as silvery as the Blue Spruce, but the tree is said to retain its lower branches in the eastern states longer than that species. 10-12 inches, 35 cents, \$3.50 per dozen.

Picea pungens, Colorado Blue Spruce. A symmetrical tree with horizontal or slightly ascending branches, needles very stiff and sharp pointed, foliage varying from nearly green to silvery blue. The color usually improving under cultivation, but not reaching its best for a year or two after transplanting. The state tree of Colorado, and found native in Colorado, Wyoming and Utah. It has gained a most remarkable popularity throughout America and Europe, combining as it does superlative beauty with almost universal adaptability. Ordinary forms more or less tinged blue. 10-12 inches, 35 cents, \$3.50 per dozen, \$25.00 per 100; 12-18 inches, 50 cents, \$5.00 per dozen;

18-24 inches, 75 cents, \$7.50 per dozen; 2-3 feet, \$1.25, \$12.50 per dozen; 3-4 feet, \$2.00 to \$3.00 each; 4-5 feet, \$3.50 to \$5.00 each.

Picea pungens glauca, very choice stock, 2-3 feet, \$2.50 to \$3.50; 3-4 feet, \$4.00 to \$6.00.

Pinus flexilis, Limber Pine or Rocky Mountain White Pine. Soft bluish-green foliage; a slender symmetrical tree, easily grown, and one of the most ornamental of the Pines. 18-24 inches, \$1.00 each.

Pinus scopulorum, Bull Pine. The northern form of *Pinus ponderosa*, being the common Pine of our foothills. It is one of the most noble and picturesque of American conifers, and is without doubt the best evergreen for wind protection throughout the region lying between the Mississippi River and the Rocky Mountains. Its hardy constitution and ornamental value are sufficient recommendation for use elsewhere. 1½-2 feet, \$1.00; 2-3 feet, \$1.50 to \$2.00.

Pseudotsuga Douglasii, Douglas Spruce. The common spruce growing on dry north slopes. It is a graceful tree in cultivation and extensively used for reforestation. The Colorado tree often has a slight bluish tinge to the foliage. 10-12 inches, 35 cents, \$3.50 per dozen.

For other evergreen plants, see *Berberis repens*, *Equisetum*, *Yucca glauca* and Hardy Cacti.

Colorado Wild Flowers, Alpines, Etc.

Attention is directed to the suggestions for cultivation to be found on another page. Also, please note that the time of delivery of some of the following is "in autumn only." Spring orders may include stock for autumn delivery and such will be forwarded at the proper time.

While I can almost unreservedly recommend the native trees, shrubs and evergreens for a prominent place in general cultivation, this is not so entirely true of the wild flowers. It is not expected that they will displace such flowers as the Peony, Iris, Hardy Phlox and others which we depend upon for the main display in our gardens. Most of our wild flowers appeal to people who enjoy Nature in her quieter moods, and for all such a great deal of pleasure is in store in the cultivation of the flowers described on the following pages.

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. Large roots, 25 cents, \$2.50 per dozen; autumn only.

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



Aquilegia Coerulea, Rocky Mountain Columbine. The State Flower of Colorado

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; succeeds best as a rock plant. 3 for 25 cents, \$1.00 per dozen.

Aquilegia coerulea, Rocky Mountain Columbine, the State Flower of Colorado. 2 feet; not only is the Rocky Mountain Columbine the most beautiful of this remarkable group, but it is easily the finest of our wild flowers. The blooms, which are more than four inches across, have petals of pure white, sepals and spurs of lavender-blue with no tinge of purple, and a center of golden stamens. As commonly grown, this is shorter lived than the other species, lasting but a few seasons. In our Colorado gardens it is much more permanent, failure arising most frequently from an excess of moisture during freezing weather which causes the crown to decay. The best success will be had by growing it in a rich porous soil as recommended for alpine, on a gentle slope with partial shade. Garden-grown seedlings become degraded by hybridization; to be sure of a pure strain my true wild stock should always be planted. Flowering roots, 2 for 25 cents, \$1.25 per dozen; extra strong, 25 cents, \$2.00 per dozen.

Aquilegia chrysantha, Yellow Columbine. 2-3 feet; this is the most permanent in cultivation and thrives everywhere; a nearly perpetual bloomer, forming very strong clumps. 2 for 25 cents, \$1.25 per dozen.

Asclepias incarnata, Rose Milkweed. 3-4 feet; a native of swamp lands, but will thrive in any garden, forming large clumps with numerous showy umbels of rose-pink flowers. 2 for 25 cents, \$1.25 per dozen.

Asclepias tuberosa, Butterfly Weed. 1-2 feet; one of the prettiest of hardy plants with its clusters of brilliant orange-red flowers all summer, which seem irresistible to butterflies, hence the name. 25 cents, \$2.00 per dozen.

Brickellia grandiflora, Tassel-flower. 1-2 feet; the loose panicles of nodding tassel-shaped flowers of tawny white give a pretty effect in the shady corner, and are quite distinct from anything else. 2 for 25 cents, \$1.25 per dozen; autumn only.

Calochortus Gunnisoni, Mariposa Lily. 1-2 feet; this Rocky Mountain species is the hardiest and most easily cultivated. Flowers two to three inches across, creamy-white with purplish blotch at the base of each petal, the whole flower often suffused with lilac. They require perfect drainage and in moist climates it will be best to dig and dry the bulbs soon after flowering, replanting them in autumn; treat as rock plants; 4 for 25 cents, 75 cents per dozen, \$5.00 per 100; autumn only.

Caltha leptosepala, (*C. rotundifolia*) Cowslip. 4-8 inches tall, with rounded ovate



Calochortus Gunnisoni

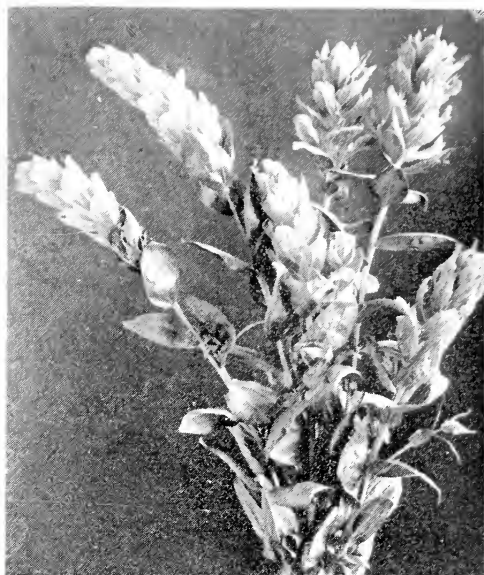
leaves in an ample rosette. The star-shaped white flowers, often two and one half inches across, consist of 7 to 15 narrow white sepals which are tinged outside with blue. A sub-alpine plant, best treated as an alpine but thrives in almost any good soil, blooming at the first breath of spring and at 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; autumn only.

Campanula rotundifolia, Harebell. 1 foot; the Colorado form of this variable species is a most profuse bloomer, the delicate blue bells on thread-like stems are the most 'airy-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.

Castilleja acuminata, Fairy Paint-brush. 1-2 feet; a strikingly beautiful plant with red or scarlet-tipped bracts enclosing flowers of the same color, every branch sup-



Gentiana Parryi



Castilleja Sulphurea

porting a brush. Our Colorado species are all perennial; light, well drained soil, rich in humus. 2 for 25 cents, \$1.25 per dozen.

Castilleja sulphurea. 1 foot; the broad, overlapping bracts of this species are pale green, tipped with canary-yellow; a conspicuous plant of mountain meadows, succeeds best as an alpine. 2 for 25 cents, \$1.25 per dozen; autumn only.

Cardamine cordifolia, Cuckoo Flower. 1 foot; sub-alpine in wet places; very pretty cruciform white flowers all summer, dark green foliage; very suitable for planting along streams and about springs in the edge of the water. 2 for 25 cents, \$1.25 per dozen; autumn only.

Claytonia multicaulis, Spring Beauty. Many stemmed from a round tuber, producing a multitude of purple-veined white flowers in early spring; plant the tubers two inches deep in light soil. 4 for 25 cents, 75 cents per dozen; autumn only.

Claytonia megarrhiza. A remarkable species having the aspect of a large-growing *Lewisia*, with a rosette of spatulate, succulent foliage interspersed with sprays of pink-veined white flowers. An alpine from high elevations which should be grown in a peaty soil with good drainage. A rare plant and the supply uncertain. 50 cents, \$5.00 per dozen; autumn only.

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; treat as a rock plant. 25 cents, \$2.50 per dozen.

Clematis Fremontii, Fremont's Clematis. Stems 1-2 feet, reclining, with broad, leath-

ery 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. Large clumps, 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.

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 radicans, 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 as an alpine but is easily grown. 2 for 25 cents, \$1.25 per dozen; autumn only.



Clematis Fremontii



Dodecatheon Radicatum

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 Andrewsii, Closed Gentian. 1-2 feet; flowers pale blue in terminal and axillary clusters, remaining closed, but are large and showy; one of the most beautiful plants of early autumn and easily grown. 2 for 25 cents, \$1.50 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 bloom renders the plant very attractive. 2 for 25 cents, \$1.50 per dozen.

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, rather

moist but well drained. *Gentiana Parryi* comes from high altitudes and should be treated as an alpine. 25 cents, \$2.50 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 Avens. 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; a very neat plant; strong clumps, 25 cents, \$2.00 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 cutting. 2 for 25 cents, \$1.25 per dozen.

Helianthus Maximiliani, 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 or 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 and considered more ornamental than the common hop-vine. 25 cents, \$2.00 per dozen.



Aspidium Filix-mas, the Colorado Male-Fern

Colorado Native Ferns

The variety of ferns in Colorado is not large, but there are a few excellent kinds which are easily cultivated. Many people who have shady corners where flowers will not thrive, overlook the supreme value of Hardy Ferns. A few sacks of leaf-mold, which is the most suitable fertilizer, will make success as certain as with the most common flowers; and when once properly prepared, a fern bed is good for many years. I supply leaf-mold at \$1.00 per sack, six sacks for \$5.00, but do not advise shipping long distances because of the cost of transportation. In the eastern states many ferns will grow without much shade, but in Colorado, with continuous sunshine, shade is essential.

Aspidium Filix-mas, Colorado Male-Fern. 2-3 feet; the nearly evergreen fronds form large massive clumps of luxuriant habit and is at the same time one of the most successful of all ferns for cultivation. Foliage is of very firm texture, stands wind, and can be grown in rather dry places. 2 for 25 cents, \$1.50 per dozen, \$10.00 per 100. If ordered by express larger plants will be sent than by mail.

Asplenium filix-foemina, Lady Fern. Not common in Colorado and found in moist springy places in the mountains. A very stately fern of erect habit, forming clumps 2-4 feet tall. 25 cents, \$2.50 per dozen.

Asplenium septentrionale, Forked Spleenwort. 2-3 inches; one of the rarest of American ferns, the curiously forked fronds make the clumps resemble tufts of withered grass: crevices of rock. 50 cents, 3 for \$1.25.

Cheilanthes Fendleri, Lace Fern. 4-8 inches; a rare evergreen with finely-cut fronds, growing among rocks in full sun. 25 cents, \$2.50 per dozen.

Cryptogramme achrosticoides, Rock Brake. 5-8 inches; evergreen, growing in tufts on dry shaded slopes among rocks. The sterile fronds are light green, the fertile fronds taller, turning to brown. Clumps, 25 cents, \$2.00 per dozen.

Cystopteris fragilis, Brittle Fern. 4-6 inches; makes an early growth which disappears by late summer; may be used freely among all shade-loving plants as a ground cover. 4 for 25 cents, 75 cents per dozen, \$5.00 per 100.

Woodsia scopulina, Rock Fern. 6-8 inches; growing in tufts among rocks in shaded gulches, suitable for edging the fern bed or rockery. 3 for 25 cents, \$1.00 per dozen, \$6.00 per 100.

*Leucocrinum Montanum**Liatris Ligulistylis*

Iris Missouriensis, 1 foot; an early sort which grows in clumps, having large showy flowers of pale clear lavender to lavender blue, variously penciled and veined with blue or purple; very choice and easily grown; 3 for 25 cents, \$1.00 per dozen, \$6.00 per 100.

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 25 cents, \$1.00 per dozen, \$6.00 per 100.

Lewisia minima, Small Bitter-root. A very small alpine species forming rosettes from a thick root. The white flowers are produced on short scapes for several weeks; plant in a sunny part of the rockery, as they bloom only in bright sunshine; an exceedingly rare plant; 25 cents, \$2.00 per dozen; autumn only.

Lewisia pygmaea, Least Bitter-root. Very similar to the last, but with crimson-rose flowers. Requires the same culture; 25 cents, \$2.00 per dozen.

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. 25 cents, \$2.50 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.

Liatris scariosa, Button Snake-root. 4-5 feet; Native of Illinois and Kansas, and one

of the most strikingly beautiful of this group. This particular type is distinct from other stock sold under the same name. The individual heads are large and scattered along the upper half of the stem, otherwise resembling *Liatris pycnostachia*. Large tubers, 25 cents, \$2.50 per dozen.

Lithospermum albicans, Puccoon. 1 foot; a slender plant with flowers resembling phlox, but pure yellow; a number of leafy stems from a thickened root. 2 for 25 cents, \$1.25 per dozen; autumn only.

Lithospermum linearifolium, dwarfier and stouter, making neat clumps; flowers pale yellow, the petals fringed. The showy early blooms are followed by miniature flowers later in the season which are entirely different and which produce the seed. 2 for 25 cents, \$1.25 per dozen; autumn only.

Lithospermum multiflorum, Puccoon or Indian Paint. 1½ feet; golden yellow bell-shaped flowers in branching panicles, the older 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. The yellow color of these *Lithospermums* is unique, belonging as they do with the *Mertensia*, *Anchusa*, *Forget-me-not*, etc., where the color is commonly blue. They all grow in dry soils and in humid climates will be most at home in the rock garden, though easily grown in any light soil. 2 for 25 cents, \$1.50 per dozen; larger roots, 25 cents each.

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. Will thrive in almost any sunny position but will bloom most freely in a rather poor

*Oenothera Caespitosa*

dry soil. On dry slopes it often makes a solid mass of color. 3 for 25 cents, \$1.00 per dozen, \$6.00 per 100.

Mertensia ciliata, (M. *Siberica* var. *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. 2 for 25 cents, \$1.50 per dozen; autumn only.

Mertensia lanceolata, Prairie Bluebell. 1 foot; grows in open fields with little moisture, blooms in early spring, the delicate blue flowers and rosy-pink buds appearing first in a compact cluster which gradually expands with a constant development of new flowers into a large drooping open panicle. A choice rock plant and will thrive in any light soil. 3 for 25 cents, \$1.00 per dozen; autumn only.

Mertensia papillosa, A mountain form similar to *M. lanceolata*, but with narrower pubescent foliage and smaller, more compact panicles. 3 for 25 cents, \$1.00 per dozen; autumn only.

Monarda Ramaleyi, Mountain Balm. 1-2 feet; a rather dwarf species with proportionately large flower heads which are a bright red-clover color. 3 for 25 cents, \$1.00 per dozen.

Oenothera brachycarpa, Yellow Evening Primrose. The magnificent pure yellow fragrant blooms five inches across are produced 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. Will thrive in almost any sunny position and is very satisfactory as a rock plant. 2 for 25 cents, \$1.25 per dozen.

Oenothera caespitosa, White Evening Primrose. Similar in habit to *O. brachycarpa*, but 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 and is best treated as a rock plant. 3 for 25 cents, \$1.00 per dozen.

Oxytropis Lambertii, Crimson Loco. 10 inches; racemes of crimson pea-shaped flowers from a rosette of pinnate foliage. 3 for 25 cents, \$1.00 per dozen.

Oxytropis villosa, (*O. spicata*) Silky Loco. Silvery white foliage and racemes of creamy-white flowers, blooms in early summer. 2 for 25 cents, \$1.25 per dozen; autumn only.

Oxytropis hybrida, Entirely distinct from the preceding kinds, with taller stems and more showy flowers, a single clump sometimes producing 80 or more flower spikes 15 to 20 inches tall. Colors white to deep purple, lavender, rose and flesh tints; very beautiful. Grows in a gravelly loam and should have an open sunny position; like other plants of the pea-family, a small amount of lime in the soil is beneficial. 25 cents, \$2.50 per dozen; autumn only.

The Pentstemons of Colorado are varied in color, profuse in flower, of graceful habit and have a value for the border and rock garden that few other plants possess. Pentstemons are short-lived in a heavy clay soil and to have best results a light sandy loam, well enriched with leafmold should be pro-



Primula Parryi



Oxytropis Hybrida

vided. All will thrive in the rock garden, and the dwarfier sorts are especially suitable for such culture.

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 coeruleus, A dwarf stocky plant with very full racemes of exceedingly beautiful sky-blue flowers, often tinted in the bud with rose-pink but with no dull purple shades. Its hardiness, easy culture and fine general appearance have made it the most popular of all. 3 for 25 cents, \$1.00 per dozen.

Pentstemon unilateralis. 2 feet; the large clumps with their one-sided racemes of lilac-purple flowers are exceptionally ornamental and grow well in any light soil; it cannot be too highly recommended. 2 for 25 cents, \$1.25 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; succeed best on the rockery in deep soil with perfect drainage. 25 cents, \$2.00 per dozen.

Primula Parryi, Parry's Primrose. 12 to 20 inches; from a tuft of luxuriant foliage the stout stems arise, bearing umbels of crimson flowers, each with a vivid yellow eye. No one can fail to be impressed with this superb alpine as it grows in the peaty soil at the edge of a mountain brook, diffusing a sweet fragrance which often reveals its presence. 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." Alpine treatment is recommended with plenty of moisture. 25 cents, \$2.50 per dozen; clumps, 50 cents to \$1.50 each; autumn only.

Ranunculus adoneus, Alpine Buttercup. An alpine growing and blooming at the edge of snow banks; a small plant but with large showy yellow flowers nearly two inches broad. Can be flowered in a cool greenhouse and will probably succeed in a moist cool position as an alpine. Undivided clumps, 50 cents, \$5.00 per dozen; autumn only.

Rudbeckia ampla, a very early-flowering form nearly related to *R. laciniata* and suitable for naturalizing in moist places. 2 for 25 cents, \$1.25 per dozen.

Salvia azurea grandiflora, Blue Salvia. 3-4 feet; since I introduced this plant about 15 years ago, it has found its way into all



Pentstemon Accuminatus



P. Alpinus



P. Coeruleus

the leading plant catalogues of America and Europe. It 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. Succeeds in practically all soils. 2 for 25 cents, \$1.25 per dozen.

Salvia Pitcheri. This is similar to the last, but is more branching, the flowers are a much deeper shade of blue and are two weeks later. No hardy border is complete without these two salvias, and they never fail to give satisfaction. 2 for 25 cents, \$1.50 per dozen.

Smilax herbacea melica, Sweet Smilax. A climber to 6 or 8 feet with smooth lanceolate foliage and with umbels of purple-black berries in autumn. This differs from the eastern form in having sweet-scented flowers, which removes the only objectionable feature as a cultivated plant. 25 cents, \$2.00 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. 2 for 25 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. 2 for 25 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. Undivided clumps with 5-8 crowns, 50 cents; larger clumps 75 cents to \$1.50 each; autumn only.

Viola Nuttallii, Yellow Violet. Flowers bright yellow, grows in dry places; suitable for the rockery. 3 for 25 cents, \$1.00 per dozen.

Viola pedatifida, Larkspur-leaved Violet. The unique foliage and large blue flowers make this a favorite sort. 3 for 25 cents, \$1.00 per dozen, \$6.00 per 100.

Viola Pratincola, Blue Violet. Forms large clumps of heart-shaped foliage with purple-blue flowers. 3 for 25 cents. \$1.00 per dozen.

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.

Yucca glauca, (*Yucca angustifolia*) Considered the hardiest species and grows north to the Dakotas and high in the mountains. The leaves are very narrow and stiff, with whitish margins and thread-like filaments. The flowers are large, in tall simple spikes, creamy white or purple-tinged. It will grow on bleak stony hillsides or in any well drained sunny position. Large plants, 25 cents, \$2.50 per dozen, by express; smaller plants by mail same price, or by express at \$10.00 per hundred.

Zygadenus elegans, Bunch-flower. 1 foot; a liliaceous plant from a bulbous root, the stems bearing racemes of white flowers. 2 for 25 cents, \$1.25 per dozen; autumn only.



