

Iowa Seed Company,
1885.

J. WALTON, DEL.

SASSEVILLE, ST.

G. W. DORR AND CO.
SEEDSMEN,
Des Moines, Iowa.

DORR'S CHOICE FLOWER SEEDS.

COLLECTION "K."



ASTER, CHOICE, MIXED.



BALSAM, DOUBLE MIXED.



CANDYTUFT, FINE MIXED.



MORNING GLORY, MIXED.



MIGNONETTE.



PANSY, CHOICE ENG. MIXED.



PETUNIA, SINGLE MIXED.



PHLOX, BEST MIXED.



VERBENA, Extra Choice Mixed.



SWEET ALYSSUM.



SWEET PEAS, MIXED.



ZINNIA, DOUBLE MIXED.

This collection "K," 12 beautiful flowers, 1 well filled packet of each, post paid for 50 cents. The packages are put up ready for mailing, and cannot be broken or changed; but will be sent to any address, with the paper one year, ALL FULLY PREPAID, by mail, on receipt of price. THERE IS NO DISCOUNT ON THESE PACKAGES, no matter how many are ordered.

Address all orders plainly to

C. W. DORR & CO., Des Moines, Iowa.

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As this copy of the Manual will reach thousands who have never seen it before, we desire to say to you, one and all, send us a trial order, and whether it be large or small, we will endeavour to satisfy you of our claims that DORR'S IOWA SEEDS are of superior quality.

DORR'S IOWA SEEDS.

For many years we have made an annual visit to our friends through the medium of our Seed Manual. Each year the demand for the Manual has increased until in 1884 we published two hundred thousand copies, which have been distributed far and near, into every State and Territory in the Union. Again we come before the public with our new Manual, soliciting your attention and your ORDERS.

Perhaps never in the history of our country have crops been so large and so good as in the year just passing away. The seed harvest, like grain, has been bountiful.

We congratulate our friends and customers that we are able to offer them a choice supply of the best seeds at reasonable rates.

ANNOUNCEMENT.—Mr. Chas. N. Page, who for many years was in our employ, until last season, when he purchased a green-house, is now associated with us as a member of the firm, the green-houses coming with Mr. Page. We are thereby enabled to grow our own plants, and test our seeds in our own green-houses. We are also fortunate in the association of Mr. Page, who has had years of experience and is thoroughly posted in the business.

HISTORICAL.—Iowa is the garden spot of North America. It is an Indian word, signifying, "This is the place." Its deep, rich, fertile soils; thick veins of coal; charming streams of pure water, and delightful climate provide for its inhabitants the richest natural agricultural country in the wide world. And its picturesque landscapes, intelligent settlers, thrifty villages, with our broad prairies all dotted over with school houses and churches combine to make the most comfortable homes. As compared with other states, it ranks 34th in the order of its settlement, 29th in admission, 14th in number of square miles, and 10th in population: 1st in acres of tillable land, 1st in corn, 2d in wheat, 2d in pork producing, 4th in coal lands, 5th in oats, 5th in barley, 5th in hay, 5th in flax, 5th in newspapers, 6th in value of farm products, 2d in railroads, 7th in schools, 10th in number of manufacturing establishments, 12th in wealth, 1st in population of inhabitants that can read, 2d that can write, has no public debt.

DES MOINES.—The capital of Iowa is a thrifty city of 40,000 inhabitants. It is centrally located in a perfect net-work of railroads, which afford us unequalled facilities for shipping to all parts of the country.

OUR BUSINESS of growing, importing and selling Seeds, was established in 1871, in a small way, by other parties; it changed hands several times during its early history, while struggling hard for an existence, but not until late years, under the present management, has it attained a notable position in the seed trade.

SHOPPING BY MAIL.—Since the seedsman first inaugurated the system of shopping by mail, it has become exceedingly popular in many other commercial branches of business. The advantage to the buyers are great, especially in the seed business. Practically it places a seed store at every post office in the world; on receiving the seed catalogues, they can be carefully read at home and a selection of seeds made, much better than hurriedly in a crowded store in Spring.

WHERE DO WE GET OUR SEEDS.—"Do you grow all of your seeds?" we are asked a dozen times a day. *We do not*, nor would you want them if we did. Think of a dozen kinds of melons grown side by side; they would all mix in a single season. We know of no business requiring as much judgment, care and calculation as the growing of seeds. We grow *everything that we can*, others we have grown by experienced and careful growers, as much in Iowa as possible. While certain varieties of Vegetables and Flowers, are better and cheaper grown across the water. These we import direct from the most careful foreign growers. We invite our friends to visit our home seed farm (of 240 acres) five miles northwest of the city.

NOVELTIES.—We offer many of the most valuable novelties of recent introduction; yet are backward about selling novelties, until thoroughly tested, as we think it better to lose our own time and money in testing them, than to have our customers imposed on. We therefore feel safe in saying, you will find *every new variety* just as represented.

MARKET GARDENERS who buy seeds in large quantities will please notice the discounts on Vegetable Seeds, at the head of the list. In case you want more than \$25 worth, send us the list wanted and we will take pleasure in quoting you prices.

TESTING SEEDS—Our system is very complete. A sample is taken from every package or bag, which is numbered, counted and planted in the natural soil and in manner in the green-house; all being recorded in the test books. We then know just what proportion of the seed will grow, and nothing is sold that does not prove good.

WE CLAIM that our seeds are fresh and reliable. That with proper treatment, the climate and soil being in a proper condition, they will grow. The prices are as low as good fresh seeds can be sold for. That our business is conducted in an honorable and business-like manner.

"DO YOU WARRANT YOUR SEEDS TO GROW?"—We are asked a dozen times a day. **WE DO NOT!** What would you think of a doctor who warranted his medicine to cure every disease that flesh is heir to? His warrant would be as reasonable, however, as that from the seedsman who undertakes to insure that his seed will always grow and produce a perfect crop, regardless of how, when or where they may be planted, or what kind of weather or cultivation they may have to grow in. It is asking entirely too much of any seedsman, and no responsible sane man can afford to make such warrants. In proof of this, all the principal seed houses in Europe and America plainly print their refusal or non-warrants in their Catalogues, but this does not injure the quality of their seeds in the least, or cause them to be less careful. In fact nobody knows as well as the intelligent seedsman himself that his seeds must come up to a high standard of quality if he would keep and increase his trade. Whenever the planter is ready to warrant the weather, the ravenous insects that sometimes destroy entire crops of young plants just when they are coming through the ground, and before the planter ever sees them, the manner in which he will plant, cultivate, etc., then we shall only be too glad to warrant our part of the crop—the *Seeds*. Therefore, while we exercise the greatest possible care to have everything strictly reliable and perfectly satisfactory in every particular, yet we cannot warrant the same and are not liable or responsible for any loss or damage arising from any seeds sold by us.

PROMPTNESS—We endeavor to fill every order promptly on the day it is received. Our rule is first in first filled, etc. Sometimes it happens, we have such a tremendous rush, we cannot possibly get them off the day they are received, notwithstanding we always expect to work till midnight in the Spring.

ORDER EARLY—This will enable us to fill the orders promptly, and assure their being filled before our stocks are exhausted or broken.

ORDER SHEETS AND ENVELOPES—These are sent with each manual, for convenience in making out and forwarding your orders.

WE WILL BE RESPONSIBLE—That all money sent by Registered Letter, Postal Note, Post Money Order, or Bank Draft will reach us. Small amounts may be sent in stamps when more convenient. *Do not moisten them in the least*, but place them safely in a sealed letter. Do not send private checks, as they have to be returned for collection. Do not send silver, except in registered package.

OUR TERMS—Are cash with all orders. No goods sent C. O. D.

REMEMBER—That the prices quoted on **VEGETABLE** and **FLOWER SEEDS**, (except Peas, Beans and Corn, in larger quantities than packets) **TREES** and **PLANTS**, **POTATOES BY THE POUND**; and other articles where *so noted*, **INCLUDE MAIL OR EXPRESS CHARGES PREPAID THROUGH BY US.**

PERISHABLE GOODS—Like Potatoes, &c., which are ordered before the season for forwarding, will be held till the proper time and sent as soon as practicable, without further writing by the customers.

DEPARTMENTS—This manual is divided into the following general departments: Vegetable Seeds; Flower Seeds; Fruit Trees, Grape Vines, &c.; Mulberry Trees for Silk Culture; Choice Seed Potatoes; Vegetable Plants; Flower Plants and Bulbs; Miscellaneous Farm Seeds and Roots; and Implements. The rules and directions which govern each department, are under their respective headings. Where discounts are allowed in one department, this has nothing to do with any other. For instance in the Vegetable department, there are special discounts for orders that amount to \$5.00 and over; these discounts apply only to *Vegetable Seeds*, there being other rules for Flower Seeds and the other departments. We cannot allow part of the order to be made up from one department and the balance from the others and then allow *the same discount as though it was all in one department*. Therefore please be particular in making your orders, and observe the special rules and discounts under **EACH DEPARTMENT**.

EXHIBIT YOUR FARM AND GARDEN PRODUCTS—At our next State Fair, which will be held in this city the first week in September. We have the best State Fair in the United States, and there you will be welcome and kindly treated; another thing the Iowa State Fair pays its premiums in full and has money left every year.

TO THE FARMERS IN THE NORTH-WEST who desire the best practical information in horticulture, we recommend you to join the Iowa State Horticultural Society. It costs but one dollar per year, which entitles you to the large annual reports of the society. Send your address and \$1.00 to J. L. Budd, secretary of the society—P. O. address, Ames, Iowa, and your money will be well invested.

Thanking our friends and customers for their generous patronage in the past, which we trust has been merited on our part, we most sincerely wish you, one and all, a year of happiness and prosperity.

CHARLES W. DORR,
W. W. McKNIGHT,
CHARLES N. PAGE, }

C. W. DORR & CO.,
Office and Seed Store, 219 Fourth St.,
DES MOINES IOWA.

FLOWER SEEDS.



The soil best adapted for most flowers is a deep, rich, mellow loam, containing a liberal amount of sand or muck, so that it will not bake after hard rains. Be sure that the garden is well drained, that no water may stand near the surface. Clay soils are much improved by being broken up in the Autumn and left as rough as possible, working in well-rotted manure, sand or road dust. If this is not done in the Fall, be careful not to work it while too wet in the Spring; use sand freely if to be had; sod with leaves well rotted and ashes make a good manure, and will improve heavy soils. There are very few flowers that will not do well in sandy soil if it is *rich*. Select such varieties as are suited for the places and purposes for which they are designed.

Under proper conditions and treatment, flower seed will grow and thrive as readily as vegetable or field seeds, but most of them require careful handling, this is especially true of the finer sorts.

A proper degree of heat, moisture, and a sufficient amount of covering are necessary to secure germination. Each one of these conditions need attention. Where no hot-beds can be had the following directions may be observed for starting plants in the house: Sow seeds in shallow boxes about two inches deep and of convenient size to handle, filled with prepared soil, which should be gently pressed down and perfectly level. No better general rule can be given than the old one of covering seeds about twice their depth, although something depends what the covering consists of; one-fourth of an inch of leaf-mould would be no more than equivalent to half that amount of common soil, and it is best to use it whenever it can be obtained, as it holds moisture well and does not bake, rendering it the least possible obstruction to the tender shoot. Muck from swamps, or old rotted manure mixed with sand, is also good. The covering should never be allowed to become dry, as nothing is more

fatal to seeds than to allow them to become dry after having commenced to germinate; still care should be taken not to keep them too wet.

As soon as the plants can be handled, they should be transplanted into similar boxes from one to two inches apart, where they are to remain until time to transplant to permanent beds. Never pull, but always lift them with a trowel or some other implement.

Whether sown in hot-beds, boxes, or open ground, the same conditions should be secured as nearly as possible.

ANNUALS.—An annual is a plant that flowers the first year, then dies, root and all, after ripening its seeds.

To the large and cherished list of annuals we are indebted for most of the rich beauty, charming grace and delicious perfume of our flower gardens. No class of plants are as easily cultivated, and attended with as little expense and full satisfaction. By the out-lay of a few cents and the exercise of a little labor, which to all lovers of flowers, is but a delightful pleasure, an abundance of beautiful flowers may be had from early Summer till frost cuts them down, late in the Fall. Some of the colors are unsurpassed for richness and dazzling brilliancy. Most of the beautiful grasses, climbers and everlastings are among the annuals. The hardy annuals may be sown in the open ground, in this latitude, ordinarily, about May 1st; but much time will be saved by starting those which can be transplanted, a month or six weeks sooner, in the house. A little more time must be given for the ground to become thoroughly warm before sowing the half hardy and tender sorts.

BIENNIALS, grow the first season without blossoming, survive the Winter, flower, then die, root and all, after ripening their seeds. These may be sown the same time as the annuals. Keep them well hoed and free from weeds during the Summer. Care must be taken to give them plenty of room, so the plants will not crowd each other. Some of our best flowers are of this class.

PERENNIALS live and blossom year after year, but annually die down to the ground. The hardy varieties remain out all Winter, in safety, while the more tender ones require protection, or must be taken indoors.

SHRUBS are perennial plants, with woody stems, which live and grow year after year; differing from trees only in their size.

The seeds of these require careful treatment and should be protected by partial shade.

ORNAMENTAL CLIMBERS.—There is no other class of plants more subject to complete control than the climbers. They are Nature's drapery, and are inclined to furnish us with decorations of exquisite beauty and rare grace.

From the most delicate to the very vigorous growing varieties, all are desirable, and have many places to fill, from the covering of the low screens, trailing from

pots and baskets to the clothing of arbors, fences, and even buildings and huge trees with habiliments of verdure.

EVERLASTINGS.—The everlastings are not very attractive in mid Summer, when our gardens are gay with Flora's very choicest treasures.

But after King Winter takes possession, and spreads his carpet of snow over "God's footstool," and we are wondering where Summer has gone, and dreaming of the beautiful flowers that were so much loved, and such agreeable companions, the Everlastings are welcome inmates of our homes. It is then that they are arranged into Winter bouquets and various ornamental designs for the parlor, dining-room or chamber. They are becoming justly popular in all parts of the civilized world.

For mottoes, monograms and emblems of many designs, the Everlastings are utilized. When Brother comes home, you are arranging for Sister's wedding, and a thousand other joyous occasions, not forgetting Christmas—that day of all days—we are prone to add cheer and strengthen love's chains, by appropriately decorating our homes and churches.

Flowers should be gathered just before fully expanded, tied into small bunches and hung up to dry. Gomphrenas must be fully developed before picking.

The Everlastings readily thrive with kind treatment.

ORNAMENTAL GRASSES.—These are used with Everlasting flowers for decorative purposes, Winter bouquets, wreaths, etc., etc. There are many curious and pretty varieties of the grasses, which are easily cultivated.

They should be cut just as they are coming into flower, and dried in small bunches.

They are frequently dyed bright and showy colors.

In France this is quite an extensive business, and large quantities are annually exported to this country.

SEEDS FOR THE GREENHOUSE.—For Florists and amateurs. Imported from the best European sources. These require extra care, especially the Calceolarias.

GOOD SEEDS.—We take great pains in growing and importing the choicest flower seeds, and are confident that none better can be had from any source. We have hundreds of flattering testimonials from our customers, as to the superior quality of our seeds.

IMPORTANT.

The figures at the right of the column indicate the price per packet. Our packets are liberally filled with fresh seeds.

The figures at the left of the columns, are the number of the variety of seeds. All flower seeds being numbered for convenience in ordering. Please order *by numbers* and not names; it will save you labor in writing, and assist us in filling the orders. Write the numbers **PLAINLY**.

COLLECTIONS OF FLOWER SEEDS.

We have arranged the following collections of flower seeds which contain the most popular and desirable sorts. Being our own selection, they will invariably be found satisfactory in quality and exceedingly liberal in quantity. They are put up ready for mailing and cannot be divided or changed, but will be sent to any address, postpaid, on receipt of price. We urgently recommend these collections to all, and especially to those not thoroughly acquainted with the various kinds and classes of flowers.

Collection A contains 25 varieties of splendid annuals. \$1.

Collection B contains 12 varieties of splendid annuals. 50c.

Collection C contains 12 varieties of extra choice annuals. \$1.

Collection D contains 20 varieties biennials and perennials. \$1.

Collection E contains 10 varieties extra choice biennials and perennials. \$1.

Collection F contains 5 varieties very choicest annuals, biennials and perennials, including the finest German prize Pansy. \$1.

Collection G contains 25 varieties assorted from the most popular annuals, biennials, perennials, ornamental climbers, ornamental grasses and everlastings. \$1.

Collection H contains 50 varieties assorted from the most popular annuals, biennials, perennials, ornamental grasses, ornamental climbers and everlastings. \$1.75.

Collection I contains 100 varieties assorted from the most popular annuals, biennials, perennials, ornamental climbers, ornamental grasses and everlastings. \$3.

Collection J contains 10 varieties of choice greenhouse seeds. \$2.

To those preferring to make their own selections from the general list, and for the benefit of all who are enough interested in the growing of flowers to assist in encouraging the taste for flower gardens among their neighbors, by getting up clubs for seeds, the following liberal discount is offered. This discount applies to flower seeds by the packet only. **NOTHING ELSE.**

Any one person remitting \$ 1.00	may select seeds amounting to \$ 1.20
" " " 2.00	" " " 2.50
" " " 3.00	" " " 3.75
" " " 4.00	" " " 5.00
" " " 5.00	" " " 6.50
" " " 10.00	" " " 14.00
" " " 20.00	" " " 30.00
" " " 30.00	" " " 45.00
" " " 50.00	" " " 100.00

ALL FLOWER SEEDS ARE SENT POST PAID BY MAIL ON RECEIPT OF PRICE.

ABRONIA.

Beautiful trailing plants, from California, somewhat resembling the Verbena; sweet scented flowers, continuing in bloom a long time. Half hardy annual.
21—Umbelata.....10

ABUTILON.

Attractive, half hardy shrubs. Should be started in the green-house or in pots. Free bloomers. Trumpet shaped flowers.
27—Choicest Mixed.....25

ACONITUM.

Better known under the name of *Monk's Hood*. Thrives best in shady places. Quite desirable. Hardy perennial.
33—Napellus, white flower; three feet.....5

ACCROCLINIUM.

One of the very useful and pretty everlastings. Pretty for borders during the summer, but especially adapted for Winter decorations, bouquets, etc. Half hardy annual.
40—Mixed Colors. One foot.....5

ADLUMIA.

Adlumia Cirrhosa, or Alleghany Vine, is a pretty perennial climber, with pale green foliage. Sow seed in the spring in a damp cool place. Transplant in the autumn, if possible. The flowers are pink and white.
45—Cirrhosa, or Alleghany Vine, sometimes called Wood Fringe.....10

ADONIS.

Will grow most anywhere, with little care. Not a profuse bloomer, but flowers are pretty and very brilliant red. Hardy annual. Grows one foot.
49—Flos.....5
53—Vernalis.....5

AGERATUM.

A very desirable little Mexican flower for bouquet making. Not particularly showy in the garden but is a very constant bloomer. Half hardy annuals. Plant 1 foot.
57—Mexicanum, blue.....5

AGROSTEMMA.

Hardy Perennials. Free blooming and pretty pink like flowers. Very useful for cutting. 1 foot.
65—Coela Rosa, rose color.....5
68— " purple.....5
71—Coronaria, (Rose Champion).....5
75— " mixed.....5

ALONZOA.

Flowers not large, but very brilliant, constant bloomers. Half hardy annuals. 1½ feet. Set plants one foot apart.
83—Warczewiczii, bright scarlet.....5

ALYSSUM.

One of our very best border plants; constant bloomer from early summer till frost, and the more it is cut the better it does. Very pretty delicate white flowers. Hardy annual; delicate perfume. 8 inches.
90—Sweet, fragrant.....5



AMARANTHUS.

The Amaranthus are desirable, principally for their ornamental foliage. The class is large and varied, and is very interesting and attractive, either for the conservatory or out-of-doors. Half hardy annuals.

- 99—Bicolor ruber, green foliage, shaded with red, and frequently pointed yellow. 3 feet..... 5
 102—Caudatus. (Love lies bleeding.) Long drooping panicles of handsome red flowers. 3 feet..... 5
 105—Tricolor. (Joseph's Coat) Foliage red, yellow and green; 2 feet..... 5
 108—Salicifolius, very graceful, drooping habit, scarlet and bronzy green foliage; 3 feet..... 10

AMMOBIUM.

Half hardy perennial, used principally for dried winter flowers, although a showy border plant; 2 feet.
 115—Alatum..... 10

ANAGALLIS.

Very beautiful flowers. Valuable for edgings or rock work. Half hardy annuals, should be started under glass.

- 121—Mixed Colors..... 10

ANTIRRHINUM.**ANTIRRHINUM.**

Generally known as *Snap dragon*. One of the most valuable, half-hardy perennials. Very showy and attractive; fine for beds of massed colors or borders.

- 127—Majus, best colors mixed; 2 feet..... 5
 130—Tom Thumb, best mixed; 1 foot..... 5

AQUILEGIA—Columbine.

Hardy perennials. Very curious and beautiful flowers, highly ornamental.

- 145—Mixed sorts, about 2 feet..... 10

ARGEMONE.

Flowers large, poppy shaped. Very free blooming, hardy annuals. Sometimes known as the *Prickly Poppy*, on account of its sharp-pointed leaves.

- 153—Grandiflora, white petals, yellow stamens, flowers about 4 inches in diameter; 2 feet..... 5

ASPERULA.

Low growing hardy annual, profuse bloomer. Flowers sweet scented, lavender, well adapted for bouquet making.

- 160—Azurea setosa; 10 inches..... 5

ASTER.

The well-known and universally popular Aster stands unrivalled for variety of habit, form, color and charming richness of beauty. It produces a great profusion of perfectly-formed and richly colored flowers, until frost cuts them down in the fall.

The Aster requires a deep, rich, loose soil, with plenty of mulching. Should be started early in the hot-bed, or in boxes in the house, and transplanted to one foot apart.

- 171—New Rose, flowers large, very double, brilliant, robust habit, two feet, mixed colors..... 10
 173—Truffant's Paeony Flowered Perfection, large, elegant flowers, mixed colors; 18 inches..... 10
 175—Imbrique Pompon, very perfect, almost globe-shaped, beautifully imbricated; 18 inches; mixed colors..... 10
 178—German Quilled, very double, oval form, many colors; 2 feet..... 5
 181—Cocardeau or Crown, large, white-centered flowers, very beautiful; 18 inches..... 10
 185—New Washington, enormous size, convex formed flowers, frequently attaining the diameter of six inches extremely showy, mixed colors..... 15
 190—Pyramid Bouquet, half-dwarf, forms beautiful bouquets of 150 to 200 flowers; 1 foot..... 10
 194—The above varieties mixed..... 10

**ASTER.****BALSAM.****BALSAM.**

These magnificent plants produce gorgeous masses of the most brilliant flowers, in great profusion. They should be grown in the richest kind of soil. Plant the seed in boxes, and when plants are five inches high transplant to 15 inches apart, in open ground. Transplanting twice or even three times improves the quality of the flowers. We have grown

and improved the Balsam for a number of years, and prize it very highly. Under proper treatment our seed will produce very double flowers. Half hardy annuals.

- 206—Camelia Flowered or Blotched, many beautiful colors mixed, very double; 2 feet..... \$ 10
 208—Fine Rose..... 15
 210—Bright Pink..... 15
 212—Solferino..... 15
 214—Scarlet, white spots..... 15
 216—Pure White..... 15
 218—Bluish Pink..... 15
 220—New Crimson..... 15
 222—Purple, white spots..... 15
 225—The collection of eight..... 1 00
 227—Double Fine Mixed..... 10
 229—Double Common mixed..... 5
 231—Dwarf, double mixed, very fine; 1 1/4 foot.... 10

BARTONIA.

Leaves somewhat like the thistle in shape. Flowers very brilliant yellow. Altogether it is a very showy plant. Requires considerable moisture; should not be transplanted. Half hardy annuals.

- 240—Aurea, 1 1/2 foot. Prostrate habit..... 5

BEGONIA.

A beautiful class of house plants, of easy culture and great popularity. Their varied foliage and brilliancy of flowers render them extremely desirable for bedding or pot culture. Tender perennials.



- 242—Rex Hybrid, beautiful variegated foliage, especially adapted for house culture..... 25
 250—Tuberous Rooted, from the choicest collections..... 50

BELVIDERE—Summer Cypress.

Admirably adapted for the decoration of cemeteries, being extremely graceful and highly ornamental. Hardy annual; 4 feet..... 5

**SMILAX.**

- 265—BOSTON SMILAX—Myrsiphyllum asparagoides.

The most popular plant now known for decorative purposes; fine climber, furnishing yards of glossy green trimming..... 25

BRACHYCOME—Swan River Daisy.

Compact branching habit, profuse bloomer, flowers blue and white, somewhat resembles the Daisy, nice for baskets or edging. Half hardy annuals.

- 271—Iberidifolia, mixed colors; 6 inches..... 10

BROWALLIA.

Very free blooming, half hardy annuals. Plants should be set one foot apart. They are also desirable for house plants; 18 inches.

- 275—Elata, mixed colors, blue and white..... 10

CACALIA. (Tassel Flowers.)

Very pretty, profuse blooming, tassel-shaped flowers. Sometimes called *Flora's Paint Brush*. Seed does better started in the house. They bloom the entire season and are not injured by cutting. Half hardy annuals.

- 282—Mixed Colors. 18 inches..... 5

CALAMPELIS.

Beautiful climber. Bright orange flowers and pretty foliage. Start seed in house.

- 287—Scabra..... 10

CALANDRINIA.

For borders or rock-work, these are best adapted. They are low-growing plants, natives of South America, and will endure heat and drouth; thrive best in a light sandy soil. Start in the house. They somewhat resemble the Portulacca. Hardy annuals.

- 295—Grandiflora, rosy lilac, free bloomer; 6 inches.. 5
 299—Umbellata, reddish purple..... 5

CALCEOLARIA.

Highly decorative greenhouse plants, bearing magnificently blotched flowers. Although they can be grown in the garden, they thrive best in-doors. Tender perennials.

- 308—Hybrida, fine mixed..... 25
 310— " extra choice mixed..... 50
 313—Rugosa, the best for out-door culture..... 50

CALENDULA (Pot Marigold).

Free growing and profuse blooming, hardy annuals. Thrive readily in most any soil; 1 foot.

- 320—*Officinalis* Meteor, light golden yellow, distinctly striped with intense golden orange, very double.....10
322—Nankeen Color (*Le Proust*)..... 5

CALLIRHOE.

Hardy, free flowering annuals, producing masses of beautiful flowers during the entire season.

- 327—*Involucrata*, trailer, large crimson and purple flowers..... 5
330—*Pedata*, purple crimson; 2 feet..... 5
333— " *nana*, violet crimson; 1 foot..... 5

CAMPANULA.

A class of pretty annuals and perennials, among which is found the well-known Canterbury Bell.

- 340—Medium (*Canterbury Bell*), very attractive for border. should be set two feet apart. Hardy biennials; 2½ feet. Single mixed..... 5
345—Medium (*Canterbury Bell*), double mixed.....10
347—*Carpatica*, blue; 1 foot. Hardy perennial.... 5
351— " white, " "..... 5
354— " mixed, " "..... 5

CANARY BIRD FLOWER.

One of the most desirable climbing plants. Very quick growth. Pretty foliage and curious yellow flowers, resembling our pet canary birds, from whence its name. Half hardy annual. 10 to 15 feet.

- 365—*Tropaeolum peregrinum*.....10

CANDYTUFT.

The Candytuft has long been regarded as one of the most useful border plants. It is also desirable for conservatories. Dense bloomer, indispensable for bouquets. Hardy annuals. 1 foot.

- 370—White..... 5
372—Rocket, very large tresses.. 5
374—Lilac or Purple..... 5
376—Flesh Colored..... 5
378—Very Dark Purple..... 5
380—The above mixed..... 5
382—Hybrid Dwarf Mixed.....10

CANNA (Shot Plant).

Stately, majestic, handsome foliage plants, with brilliant plants. Very striking in groups. Half hardy perennials.

- 392—*Indica*, mixed; 2 feet..... 5

CARDIOSPERMUM.

Very handsome climber of rapid growth. Half hardy annual.

- 400—Baloon Vine, 5 feet.....10

CARNATION.

Probably, with the exception of the Rose, no flower has ever been so popular for festivities. They are extremely rich and handsome, and deliciously fragrant, very double, exquisite flowers. Half hardy perennials. Our seed is from the best European collections, and is especially recommended to florists.

- 408—Double Grenadin, very profuse bloomer, brilliant scarlet.....25
410—Single Grenadin.....15
412—Double, Early Dwarf.....15
414—Picotee, extra fine mixed.....25
416— " fancy white ground.....50
418— " " yellow ground.....50
420— " " Slate ground.....50
423—The last three mixed.....50

CELOSIA.

There are two beautiful forms of the Celosia, the Coxcomb and the feathery. They are very graceful and free blooming plants. Half hardy annuals.

- 430—President Thiers, new crimson, fine dwarf.....15
432—New Japan Coxcomb, extremely bright.....10
434—*Cristata*, extra fine mixed.....10
436—*Superba Plumosa*, a new and beautiful feathery sort.....10
438—*Nana Maxima*, leaves bronze colored.....15

CENTAUREA.

Quite hardy and of great variety, desirable for ribbon borders or carpet bedding.

- 445—*Cyanus*, the Old Bachelor's button or Blue Bottle, mixed colors..... 5

- 447—*Gymnocarpa*, beautiful silver gray foliage15
450—*Candidissima*, splendid silver leaf.....25

CENTRANTHUS.

Effective for edging or ribbons, free flowering and compact growing; many colors; hardy annals.

- 455—*Centranthus*; 2 feet..... 5

CHRYSANTHEMUM.

For late autumn blooming in the house there is no flower to take the place of this. It blooms just at a time when there are but few other flowers, and furnishes several hundred flowers on each plant; hardy annuals.

- 460—*Burridgeanum*, a beautiful white variety with crimson band; 1 foot..... 5
462—*Japonicum*, a new distinct sort, of great variety and beauty of colors.....25

CINERARIA.

Well known, green-house perennials, having a diversity of flowers and foliage.

- 470—Hybrid, extra fine mixed.....25
472—*Maritima*, handsome silvery leaf.....10

CLARKIA.

Very free growing and profuse blooming hardy annuals.

- 480—*Elegans*, rose, 2½ feet..... 5
482— " pure white..... 5
484— " purple..... 5
486— " mixed colors..... 5
488—Tom Thumb, dwarf rose, 1 foot..... 5

CLEMATIS.

Hardy climbers of rapid growth, flowering freely.

- 595—*Cirrhosa*, great bloomer, flowers white and fragrant.....10

CLEOME.

Very singular flowers, the stamens resembling spiders legs. Plants should be set one foot apart. Half hardy annuals.

- 499—..... 10

CLIANTHUS.

One of the most beautiful plants in cultivation. Pretty compound leaves, drooping clusters of large, rich, scarlet flowers, each flower being distinctly marked with a large black blotch; half hardy shrubs.

- 506—*Dampierii*, 3 feet.....15

COBEA SCANDENS.

One of the prettiest and most popular rapid climbers. Beautiful foliage, large bell shaped flowers. Half hardy perennial, flowers lilac; 20 feet.

- 509—..... 10

**COLEUS.**

The well known and universally admired foliage plants, of great variety, some of which are strikingly marked, producing beautiful effect in foliage beds or borders. Tender perennials; 2 feet.

- 579—Best mixed varieties.....25

COLLINSIA.

Very attractive for beds or mixed borders. Free flowering half hardy annuals; 1 foot.

- 600—Fine mixed..... 5

CONVOLVULUS. (Morning Glory.)

One of the best known ornamental climbers, rapid growth. Flowers freely till frost. Hardy annuals.

- 614—Dark Purple..... 5
616—White..... 5
618—Finest Mixed..... 5
620—Dwarf Morning Glory very showy and brilliant. Fine mixed sorts..... 5

**COREOPSIS. (Calliopsis.)**

Very useful plants, of slender habit, and rapid growth. Flowers all shades of yellow, orange and reddish brown; 2 feet. Hardy annuals.

- 628—Choice mixed..... 5

CUPHEA.

Very ornamental little plant, sometimes known as "Cigar plant."

- 635—*Purpurea*, half hardy annual, 1 foot.....10

CLYCLAMEN.

Elegant blooming plants, for Winter or early Spring. Sow seed early in the spring under glass.

639—Persicum, splendid mixed.....25

CYPRESS VINE.

One of the most beautiful ornamental climbers we have ever grown. Foliage deep green and fine; 10 feet. Half hardy annual. Rapid grower.

544—Scarlet.....5
646—White.....5
648—Mixed.....5

**DAHLIA.**

Nothing is more gorgeous, for autumn, than the Dahlia. Seed sown early will usually flower the first season. Take up roots on appearance of frost and store in cellar in dry sand. Half hardy perennial; 3 feet.

655—Best double mixed.....15

DAISY—Bellis Perennis.

There is no greater favorite than the double daisy, wherever grown. Splendid for house culture, or borders. Half hardy perennial.

660—Best Double Mixed, 4 inches.....15

DATURA—Trumpet Flower.

Rather a rank growing plant, with large, trumpet-shaped flowers. Very ornamental. Roots may be preserved in sand during the winter. Half hardy perennials. 2 feet.

666—Fastuosa, double purple.....5
668— " double white.....5
670— " mixed.....5

**DIANTHUS.**

Among the most popular hardy annuals. Extremely brilliant and beautiful; very effective in beds; profuse bloomer.

676—Chinensis (Chinese Pink), double extra fine mixed. 1 foot. 10
678—Laciniatus, beautiful fringed, choicest colors, mixed.....10
680—Heddewigii—Magnificent varied colors, rich and velvety.....10

682—Heddewigii—Double.....10
684—Dwarf Mixed.....10
686—Imperialis (Double Imperial Pink).....10

DIDISCUS.

A pretty half hardy annual from Australia.

695—Coerulus. 18 inches.....5

DIGITALIS—Fox Glove.

Very ornamental and fine for high borders; quite showy; hardy perennials.

699—Gloxinoides. Elegant large flowering; many brilliant colors, mixed. 4 feet.....10
701—Purpurea, purple spotted. 3 feet.....5

DOLICHOS—Hyacinth Bean.

Rapid growing, and very ornamental climbers; flowers are white, seed pods are quite attractive. Tender annuals. 15 to 20 feet.

708—Purple.....5
710—White.....5
712—Mixed.....5

ELICHRYSUM.

Everlasting flowers of great beauty. Plants are also quite ornamental. Hardy annuals. 2 feet.

718—Yellow.....5
720—White.....10
722—Red.....10
724—Mixed colors.....5
726—Vestitum. Large white cape flowers.....25
728—Dwarf Rose, very fine.....25

ERYSIMUM.

Handsome, hardy annuals. Free blooming, resembling the single Wall Flower. 18 inches.

735—Pelrow skianum. Deep orange flowers.....5

ESCHSCHOLTZIA.

Sometimes known as the California Poppy; quite pretty and very showy; hardy annuals. 1 foot.

740—California, bright yellow with orange center...5

EUPHORBIA—Snow on the Mountain.

A native of the Western states, very pretty foliage; hardy annual.

746—Variegata, white.....5

EUTOCA.

Pretty for beds or borders; from California; hardy annuals. 1 foot.

751—Viscida, pretty blue.....5

FENZLIA.

Beautiful little plant; neat and effective; requires plenty of moisture; hardy annual. 4 inches.

755—Dianthiflora, rosy lilac.....20

FORGET-ME-NOT.

An early flowering favorite border plant, blooms freely; half hardy perennial.

759—Alpestris, fine mixed.....10

FUCHSIA.

Very well known greenhouse perennials. Easy culture, great beauty, grows readily from seed or cuttings.

765—Choice named varieties.....25

GAILLARDIA—Blanket Flower.

Constant blooming bedding plants; flowers remarkable for their size, beauty and duration. Hardy annuals.

770—Best mixed varieties.....5

GERANIUMS.

The finest bed of these well-known favorites we have ever seen, was grown from seed. Greenhouse perennials of great diversity and beauty; start seed under glass; do not transplant to open ground till thoroughly warm weather.

775—Zonale, fine mixed.....25

777— " choicest mixed, from named varieties...50

779—Apple Scented.....25

780—Pelargonium, large flowered.....25

GILIA.

Delicate little dwarf hardy annuals; will grow most anywhere.

785—Tricolor, white, lilac and purple.....5

787—Nivalis, snowy white.....5

789—Mixed colors.....5

GLADIOLUS.

Although generally grown from the bulbs, the Gladiolus can be readily raised from seed, which is sure to produce new varieties. Half hardy bulbs.

795—Best Mixed Hybrid.....25

GLOBE AMARANTH.—Gomphrena.

Handsome and showy everlasting. Half hardy annuals.

800—Orange.....10

802—Purple.....5

804—Striped.....5

806—White.....5

808—Mixed.....5

810—Dwarf Compacta, very dense bushy habit; flowers deep violet; new.....15

GODETIA.

Free and constant blooming plants. Pretty for beds. Hardy annuals.

814—Best Varieties Mixed.....5

GOURDS AND CUCUMBERS.

These are very numerous and dissimilar. They are vigorous growers and are very desirable for fences, arbors, etc. Our collection of mixed varieties contains about 60 varieties, a large number of which are in each packet of seed.

819—Cucumis Anguria, small, yellow fruit, growing in pairs.....10

821—Cucumis, Perennis, foliage very ornamental...10

823—Cucurbita, Melopepo, apple-egg, early.....10

825— " egg shaped, white.....10

827— " flat striped.....10

829— " orange.....5

831— " pear shaped, white.....10

833— " striped.....10



835—Cucurbita mixed.....	10
838—Gourd, bottle, large.....	10
840—“ “ small.....	15
842—“ flat Corsican.....	10
844—“ Hercules Club.....	10
846—“ Powder Horn.....	10
850—“ mixed varieties.....	10
852—“ all the above mixed.....	15

GLOXINIA.

Greenhouse perennials, producing a great profusion of elegant, richly colored flowers.

554—Choicest Mixed Hybrid.....	50
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GYPSOPHILA.

Admirably adapted for rustic work, baskets and edging. Hardy annual.

856—Elegans, white.....	5
858—“ pink.....	5

HAWKWEED. (Crepis.)

Very showy and pretty hardy annuals; delicate flowers, yellow, pink, purple and white; well adapted for rock work. Sow seed in open ground.

862—Best varieties mixed.....	5
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HELIOTROPE.

A well-known genus of profuse flowering and deliciously fragrant plants, splendid for bedding or ribboning, and for baskets or pot culture; seeds sown in spring make fine plants for summer and autumn decoration; half hardy perennial.

865—Finest mixed.....	10
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**HIBISCUS.**

The Hibiscus is one of the most highly ornamental plants, large flowers, beautifully varied colors. Hardy annuals; 1½ feet.

870—Africanus, large cream colored flowers, brown center.....	10
872—Perennial, very fine.....	15

HOLLYHOCK.

The Hollyhock is one of the grandest flowers for fall decoration. Stately growth, gorgeously colored flowers. It has been greatly improved during the past few years. Sow seed very early indoors. Hardy perennials.

877—Double extra fine mixed.....	15
879—Double White, very fine and large.....	25

HONESTY.

The seed pod, which is rich silvery, is much used for winter bouquets. It is quite pretty and easily grown. Hardy biennial; 2 feet.

895—Lunaria, purple.....	5
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HONEYSUCKLE.

The Honeysuckle is a hardy perennial shrub; it is a great favorite and well known; 20 feet.

899—Scarlet.....	10
901—White.....	10
903—Mixed.....	10

HUMEA.

Very handsome decorative plant, for house culture or bedding. Majestic and graceful. Half hardy biennial; 3 feet.

910—Red.....	15
912—White.....	15

ICE PLANT.

Very handsome trailer. Leaves covered with crystalline globes, which give it the appearance of ice. Half hardy annuals.

916—White.....	5
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IPOMŒA.

Extremely beautiful. Its graceful form, fine foliage and rich, brilliant flowers render it indispensable for the garden or conservatory.

920—Bona Nox (Good Night or Evening Glory), flowers large, fragrant, satin rose, expanding in the evening. Vine 10 feet. Half hardy annual.....	10
922—Coccinea (Star Ipomœa), great profusion of small scarlet flowers; 8 feet. Half hardy annual.....	5
935—Mexican Grandiflora. Immense white flowers; very fragrant. Perennial.....	15

IPOMOPSIS.

Long handsome spikes of brilliant flowers; blooms freely. Half hardy biennials.

1000—Elegans, Picta, orange, gold and scarlet, 3 feet.....	5
1002—Fine mixed varieties.....	10

JACOBŒA.

Great bloomers; gay colored flowers. Hardy annuals.

1006—Best double varieties.....	10
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KAULFUSSIA.

Fine little compact bedding plants; free flowering. Hardy annuals.

1011—Mixed, 6 inches.....	5
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LANTANA.

Remarkable for the brilliancy of colors, constantly changing in hue. Desirable for pot culture or bedding.

1015—Finest mixed.....	10
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LARKSPUR.

Very ornamental and beautiful hardy annuals. Thrive best in a cool location.

1018—Dwarf German Rocket, double, extra fine mixed.....	5
1020—Tall German Rocket, double, extra fine mixed.....	5
1022—Hybrid, extra fine mixed.....	10
1024—Imperial Branching, double, extra fine mixed.....	15

LEPTOSIPHON.

Beautiful foliage and flowers. Sow seeds very early in the spring. Hardy annuals; 6 inches.

1030—Hybrid, mixed, splendid.....	10
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LIMNANTHES.

Does nicely in damp or shady places; very easily grown; fragrant. Hardy annuals; 6 inches.

1035—Grandiflora, mixed colors.....	5
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LINUM.

Slender, delicate, handsome bedding plants, belonging to the Flax family. Sow seed in-doors.

1041—Grandiflorum, Rubrum, mixed colors.....	5
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LOASA.

Very pretty and rapid growing climbers; flowers are quite curious and numerous. The plant is covered with little sharp hairs. Hardy annuals.

1047—Vulcanica, elegant starlike, white flowers; 4 feet.....	25
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LOBELIA.

One of the prettiest and most useful little trailing plants for the hanging basket. The low growing sorts are very valuable for edgings; very free, pretty bloomers. Half hardy annuals.

1052—Erenus, deep blue, 6 inches.....	10
1054—“ Crystal Palace, dark blue.....	10
1056—“ Grandiflora, Superba.....	10
1058—“ mixed.....	10
1060—“ Dwarf double mixed.....	10

LUPINUS.

Frequently called sun dials; flowers pea formed, quite conspicuous; seed should be sown in open ground; colors rich and varied, mostly blue. Hardy annuals. 1 foot.

1065—Mixed Varieties.....	5
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LYCHNIS.

Very ornamental and handsome; great variety of colors; start seed early in the house. Hardy perennials.

1070—Chalcedonica, scarlet, very bright; 2 feet.....	5
1072—“ white.....	5
1074—“ mixed.....	5
1076—Haageana, mixed hybrid, large flowers; 1 foot.....	10

MALOPE.

Handsome branching plants; great profusion of large fine flowers. Hardy annuals.

1085—Grandiflora, mixed; 2 feet.....	5
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MARIGOLD.

Quite large and coarse plants; flowers very double. The name is said to be a corruption of Mary's gold. Half hardy annuals.

1090—African, Double, best mixed, all colors; 2 feet.....	5
1095—French, double mixed.....	5

MARVEL OF PERU.—Mirabilis.

Very beautiful, both in foliage and flowers; flowers open in the afternoon, hence it is commonly called "Four o'clock." Roots can be preserved through the winter. Half hardy perennials.

1100—Hybrid Mixed, many colors..... 5

MATRICARIA.—Feverfew.

Free flowering ornamental bedding plants. Half hardy perennials.

1106—Parthenium, double.....10

MAURANDIA.

Extremely handsome climbers; particularly adapted for the conservatory or training on trellises. Very profuse bloomers; start seed early. Half hardy perennials.

1111—Finest mixed varieties.....10

MIGNONETTE.

MIGNONETTE.

The well and long known "Frenchman's Darling;" should be in every garden; extremely fragrant. Seed can be sown at any time. Hardy annual.

1117—Golden Queen, a very attractive variety; large, golden blossoms.....15

1120—Miles Hybrid Spiral, very fragrant and profuse bloomer; robust grower.....10

1125—Parson's White, very fragrant.....10

1129—Large Flowering Pyramidal, orange red, very fine.....10

1135—Sweet Scented, the great favorite..... 5

MIMULUS.

Very brilliant flowers of curious shape; half hardy perennials; sometimes called "Monkey Flower;" fine for baskets.

1139—Hybridus, mixed, very beautifully spotted...20

1141—Moschatus (Musk plant).....10

MOMORDICA.

Curious trailing plants; the fruit is golden yellow; when ripe it opens, disclosing the seeds and a brilliant carmine interior. Half hardy annual.

1155—Balsamina (Balsam Apple)..... 5

1158—Charantia (Balsam Pear)..... 5

NASTURTIUM.

The dwarf varieties are very useful and beautiful for bedding, while the tall sorts are suited for covering trellises, &c.; hardy annuals; tall varieties grow six feet.

1165—Dwarf, Tom Thumb, scarlet.....10

1167— " The Pearl.....10

1169— " Crystal Palace Gem, sulphur spotted mauve.....10

1172— " mixed.....10

1174—Tall, Spitfire the most showy.....10

1176— " Dark crimson..... 5

1178— " Rose..... 5

1180— " Mixed..... 5

NEMOPHILA.

Neat, compact, uniform habit of growth; very beautiful shades and colors; one of the most charming dwarf hardy annuals. Sow early and transplant.

1185—Best varieties, mixed..... 5

NIGELLA.—Love-in-a-Mist.

Also sometimes called "Devil in the Bush." Hardy annuals with showy flowers and fine foliage. Sow seed in open ground; one foot.

1191—Mixed varieties..... 5

NOLANA.

Beautiful free flowering trailing plants; prefer a light soil; excellent for rock-work; hardy annuals.

1196—Mixed varieties..... 5

OENOTHERA.—Evening Primrose.

Attractive annuals, opening their flowers in the latter part of the day. They are very interesting free-blooming plants; hardy annuals.

1199—Lamarckiana, Grandiflora, yellow flowers, 4 inches in diameter; 4 feet..... 5

1201—Acaulis alba, very dwarf.....10

OXALIS.

Half-hardy perennials, suitable for rock-work or baskets; brilliant flowers, handsome dark foliage; 6 inches.

1207—Rosea, rose-colored.....10

PANSY.

PANSY.

A general favorite the world over. A very lovely flower; unrivalled for the place it fills; nothing is more effective. We recommend our seed as being of the best quality; it is saved with the greatest care. Many of the following varieties are of our own growing, and have been improved from year to year; hardy perennials.

- 1212—Light blue.....15
 1214—Bronze.....15
 1216—Pure white.....15
 1219—Pure yellow.....15
 1222—Dark purple.....15
 1225—Odier, or Five Blotched.....15
 1227—Emperor William, brilliant blue; purple eye.....15
 1230—King of the Blacks.....15
 1233—Violet, white edge.....15
 1235—New German, probably the finest strain of mixed pansies ever brought to America; the most exquisite colors mixed.....50
 1240—Snow Queen, charming, delicate, satiny white, slightly tinged with yellow towards the center...50
 1243—Choice English Mixed, seed from prize flowers.....25
 1246—Extra Mixed, from above varieties.....25
 1248—Fine Mixed.....15
 1250—Good Mixed.....10
 1252—The first nine varieties.....1.00
 1254—The first twelve varieties.....2.00

PEAS.

Very ornamental and useful free-flowering plants; hardy annuals, except the everlasting pea, which is a hardy perennial. Sow in good rich soil.

- 1260—Invincible Scarlet..... 5
 1262—Purple brown..... 5
 1264—Purple striped..... 5
 1266—Red striped..... 5
 1268—White..... 5
 1270—The above mixed (per oz. 15c)..... 5
 1273—Butterfly, white ground, delicately laced with lavender blue; very fragrant.....10
 1275—Lord Anson's, sky-blue..... 5
 1280—Everlasting, mixed.....10

PENTSTEMON.

Graceful, ornamental plants; bloom freely from June till October; half-hardy perennials.

1285—Choice Mixed..... 5

PERILLA.

Pretty, ornamental foliage, being of deep mulberry or purple; half-hardy annual.

1289—Nankinensis, 18 inches..... 5

PETUNIA.

One of our especial favorites, flowering from early Summer till frost; they are very showy. Our double seed is saved from the finest collection of blotched petunias in the country, and will produce a large proportion of elegant double flowers. Seed sown in the Spring, plants will bloom in June. Half-hardy perennials.

- 1295—Grandiflora, very finely blotched.....25
 1297—Countess of Ellesmere, rose white throat.....10
 1299—New Dwarf Inimitable, very profuse bloomer; 6 inches; flowers beautifully striped.....50
 1301—Hybrid, extra fine mixed.....15
 1303—Large flowering, striped.....20
 1306—Good mixed..... 5
 1309—Finest Double.....25

PHACELIA.

Branching tufted stems, incised leaves, spikes of blue flowers; excellent for bees. Hardy annuals.

1315—Cungesta.....10

PHLOX.

One of our best annuals; blooms freely till frost; unsurpassed for bedding. The colors are very distinct and striking; the red shades are almost dazzling. 1 foot.

- 1320—Dark Red and Black Warrior, mixed.....10
 1323—Rose.....10
 1324—Rose, striped white.....10
 1326—Lilac, white eye.....10
 1328—Rose, scarlet eye.....10
 1330—Large pure white.....10
 1332—Scarlet.....10

- 1334—Large-flowering, mixed colors 10
 1336—Bright red, white center 10
 1338—White, crimson eye 10
 1341—The above ten varieties 75
 1343—Best mixed, splendid colors 10
 1345—Perennial Phlox, best mixed 10

POLYANTHUS.

Beautiful, hardy perennials, for pot culture or borders; 8 inches.

- 1354—Splendid mixed 20

POPPY.

Very showy, free-blooming plants, producing a rich and effective display. Hardy annuals.

- 1359—Carnation, double mixed; 18 inches 5
 1361—Carnation, Double Dwarf, mixed 10
 1363—French, Fine Double, mixed 5
 1365—Umbrosum, huge, crimson flowers, with a large black blotch at the base of each petal 10
 1367—Opium Poppy 5

PORTULACA.

One of the best bedding annuals. Very showy, brilliant colors. Indispensable for bedding or baskets. Sow seed in open ground or under glass. It thrives best in warm, sandy soil, with plenty of sun. Commonly known as *Rose Moss*.

- 1375—Single Large-flowering, mixed colors 5
 1377—Very large rose 5
 1379—Very large striped 5
 1381—Very large red 5
 1383—Very large white 5
 1385—Best single varieties, mixed 5
 1387—Finest Double, mixed 15

POTENTILLA.

Handsome flowering hardy perennials. Very useful in mixed borders.

- 1393—Finest Hybrid, double, mixed 25
 1396—Best single mixed 10

PRIMROSE.

The Primrose is a well-known and greatly admired hardy perennial.

- 1400—Choicest mixed 25

PRIMULA.

Indispensable for winter or spring decorations. Profuse blooming greenhouse perennials. Thrive readily in the sitting room.

- 1408—Sinensis, splendid mixed 25
 1411— " best double mixed 50
 1413— " fimbriated, fringed edge, best mixed 50

PYRETHRUM.

Hardy perennials, ornamental, free-blooming plants.

- 1417—Golden feather, golden foliage; 1 foot 10
 1421—Roseum, double mixed 10

RHODANTHE.

Half-hardy annual everlastings. Very valuable for winter decorations.

- 1427—Choice mixed, 1 foot 10

RICINUS.

Extremely ornamental foliage plants. Brilliant-colored fruit. Stately growth. Half-hardy annuals; 8 to 15 feet.

- 1433—Fine mixed varieties 10
 1435—Sanguinens, very ornamental, red fruit 10

ROCKET.

Very pleasing hardy perennials, blooming profusely, early in the Spring. Exquisitely fragrant flowers.

- 1441—Mixed, 18 inches 5

SALPIGLOSSIS.

Very picturesque plants, curiously penciled and marbled funnel-shaped flowers. Hardy annuals.

- 1446—Tall varieties mixed, 2 feet 10
 1448—Dwarf varieties mixed, 1 foot 10

SALVIA.

Elegant scarlet flowers, profuse bloomers.

- 1453—Coccinea, 2 feet 10
 1455— " Dwarf, 8 inches 10

SANVITALIA.

Hardy annuals, dwarf growing, free bloomers.

- 1461—Procumbens, rich brown and yellow 10
 1463— " double, great bloomer 10

SAPONARIA.

Desirable for small pots or edging. Flowers all the season. Half-hardy annuals.

- 1470—White 5
 1472—Rose 5
 1474—Mixed 5

SCABIOSA—Mourning Bride.

Handsome variegated flowers, suitable for borders. Hardy perennials.

- 1480—Major, fine mixed; 2 feet 5
 1482—Dwarf, double mixed 5

SCHIZANTHUS.

Suitable for pots or borders. Elegant branching habit, curious flowers. Very attractive. Half-hardy annuals.

- 1489—Best mixed varieties 10

SEDUM.

Pretty for rock-work. Very free blooming, hardy perennials.

- 1495—Mixed, 4 inches 10

SILENE—Catchfly.

Small red and white flowers. Free blooming, hardy annuals.

- 1499—Mixed colors 5

SOLANUM—Jerusalem Cherry.

Very interesting and ornamental, fruit-bearing, half-hardy annuals. Exceedingly handsome; 18 inches.

- 1506—Capsicastrum, bears abundantly all Winter 10
 1508—Fine mixed 10

STATICE.

The flowers of the Statice are particularly desirable for Winter bouquets and baskets, as they dry beautifully. Half-hardy annuals.

- 1512—Bonduelli, golden yellow 10
 1514—Incana, hybrida, fine mixed colors 10
 1516—Spicata, rosy-pink flowers 10

STEVIA.

Desirable for borders or pot culture. Half-hardy perennials.

- 1520—Best mixed 5

STOCKS.

The Stocks are general favorites, affording a large profusion of elegant flowers, which are quite double and remain a long time in bloom. They are very desirable for bedding, borders or pot culture. Plant seeds in open ground or in the house. If the latter, transplant while the plants are very small, to one foot apart. About 15 inches.

- 1525—German or Russian, very fine mixed double; annuals 10
 1527—Large Flowering German, fine mixed double; annuals 15
 1530—French Autumn, a beautiful biennial sort for pot culture 15
 1533—Brompton or Winter, great bloomers, producing an elegant display. Finest mixed colors 15
 1535—Perpetual Blooming, produces beautiful double flowers, all the year round. Best mixed colors 15

SWEET SULTAN.

Free blooming, sweet scented plants. Pretty for borders; 18 inches.

- 1541—Best mixed colors 5

SUNFLOWER.**SUNFLOWER.**

No flower has become so suddenly popular as the Sunflower. They are hardy annuals, easily grown, very showy. From 5 to 10 feet.

- 1550—California, tall double yellow 5
 1552—Globosus fistulosus, one of the very best; large and double 5
 1554—Double Green Centered; very large, green center. When old, perfectly double 5
 1557—Mammoth Russian, very large 5
 1560—Best mixed 5

SWEET WILLIAM.

The Sweet William is an old favorite, which has been greatly improved of late years. Hardy perennials; 18 inches.

- 1567—Brilliant red 10
 1570—Dark crimson 10
 1572—Fine mixed 5

THUNBERGIA.

Rapid growing climbers; very pretty flowers. Half-hardy annuals; 5 feet.

1580—Best mixed.....10

TORENIA.

A tender annual of quite recent introduction, which, for hanging vases and pot culture is unsurpassed. Sow early under glass.

1585—Fournieri; large azure blue flowers, three dark indigo blue spots and a bright yellow stain in the center of the flower.....25

TRITOMA—Red-Hot Poker.

The flower spikes are produced in great profusion, of a fiery red color, remaining a long time in bloom. Hardy perennials.

1591—Uvaria.....25

VALERIAN.

Large corymbs of bright flowers, which stand the shade well. Handsome for mixed borders. Hardy perennials.

1597—Best mixed colors.....5

VENUS LOOKING GLASS.

The plants form a small spreading mass; pretty, free flowering, hardy annuals.

1602—Mixed colors.....5

VERBENA.

Of all the magnificent bedding plants, the Verbena is finest in cultivation. For dazzling brilliancy and effective colors it is unrivaled. Sow seed under glass early in the Spring, transplant when 3 or 4 inches high to open ground, 2 feet apart each way. A good, healthy plant will effectually cover this space. Half-hardy perennials. Some of the most beautiful Verbenas are seedlings.

1608—Pure white.....10

1610—Brilliant red.....10

1612—Blue.....20

1614—Italian, striped and variegated.....20

1616—Auricula-flowered, fine mixed varieties, with white center.....20

1618—Fine Mixed Hybrid.....10

1620—Extra Choice Mixed Hybrid.....25

1622—Very Choicest Mixed, from finest named strains, unequalled.....50

VERONICA.

A class of half-hardy annuals, which grow readily with but little care, and are very showy and pretty.

1628—Spicata, very fine mixed.....10

VINCA.

Extremely ornamental green-house shrubs, compact form, shining green foliage, handsome round flowers, free bloomers.

1633—Choice Mixed.....10

VIOLA—Violet.

The well known and pretty sweet violet is always in great demand. They are profuse bloomers and exquisite y fragrant. Hardy perennials; about 8 inches.

1637—Czar, large violet, very fragrant.....25

1639— " white; same as above, except color.....25

1641—Odorata, common sweet-scented violet.....25

VIRGINIAN STOCKS.

The Virginian Stocks grow freely most anywhere, and are always pretty. They are profuse bearing little plants, well suited for edgings or hanging vases. Hardy annuals.

1646—Red.....5

1648—White.....5

1651—Mixed.....5

VISCARIA.

Pretty free-flowering hardy annuals, suited for bedding or borders. They require a light, airy soil.

1658—Flesh-colored.....10

1661—Bright Rose.....10

1663—Mixed.....10

WALLFLOWER.

Deliciously sweet-scented; charming flowers, indispensable in every garden; very profuse bloomers; half-hardy perennials; about 18 inches.

1668—Bright Yellow, very fine flowers; pure yellow.....25

1670—Dark Brown.....10

1672—Purple.....10

1674—Fine Mixed.....10

1677—Choicest Double Mixed.....20

WHITLAVIA.

A charming plant from California; hardy annuals; very delicate foliage; drooping clusters of blue and white bells; perfectly hardy annuals; thrive well in the shade. 1 foot.

1685—Grandiflora, violet blue.....5

1687—Gloxinioides, tube of corolla pure white, with delicate blue line.....5

WIGANDIA.

Magnificent plants, with immense veined leaves; the stems are covered with crimson hair; one of the finest ornamental foliage plants in cultivation. Half-hardy perennials. 7 to 8 feet.

694—Caracasana, lilac.....25

1696—Vigieri, superb glaucous foliage.....25

XERANTHEMUM.

Very showy and useful everlasting flowers; easy to grow. Hardy annuals.

1703—Purple.....10

1705—White.....10

1707—Superbissimum, new and beautiful, very double blue flowers.....25

1709—Mixed.....10

ZINNIA.

The Zinnia is a very old flower, but has been greatly improved of late years; the flowers are large and showy; robust habit; half-hardy annuals. 18 to 24 inches.

1716—Double Orange.....10

1718—Double Purple.....10

1720—Double Scarlet.....10

1723—Double Violet.....10

1725—Double White.....10

1727—Double Mixed.....5

1730—Dwarf Mixed, very desirable.....10

ORNAMENTAL GRASSES.**ANNUAL VARIETIES.****AGROSTIS.**

Very fine and graceful grasses, easily cured.

1758—Nebulosa.....10

AVENA.

1763—Sterilis, Animated Oats.....10

BRIZA.

One of the most useful and neat; commonly called Quaking Grass.

1767—Gracilis, small.....5

1770—Maxima, large.....5

CHRYSURUS.

1775—Aurea, very pretty golden spikes.....5

COIX.

Broad leaves, about 2 feet.

1777—Job's Tears.....5

ERAGROSTIS. (Love Grass.)

1779—Very beautiful, both in borders and dried.....5

HORDEUM. (Squirrel-tailed grass.)

1781—Very fine, 18 inches.....5

LAGURUS. (Hair's Tail.)

1783—Resembling the "Cotton-tail," 12 inches.....5

PANICUM.

Suitable for borders or bouquets.

1785—Capillare, very beautiful, 2 feet.....5

1787—Sulcatum, extremely showy, 4 feet.....10

PENNISETUM.

One of the most distinct and beautiful.
1789—Mixed varieties..... 5

UNIOLA.

Very beautiful grass for bouquets.
1795—Latifolia..... 10

ZEA.

The striped grass, or Japanese maize. Well known and popular.
1797..... 10

A MIXTURE.

1800—Of many of the above, best ornamental grasses, suitable for bouquets..... 10

PERENNIAL VARIETIES.**ANDROPOGAN.**

Large growing, fine sub-tropical plants. Very picturesque and pleasing.
1810—Very fine mixed..... 10

BROMUS.

One of the most useful and showy.
1814—Brizæformis, 1 foot..... 5

CHLORIS.

1818—Barbata, bearded, curious..... 10

ERIANTHUS.

A very noble grass, somewhat resembling the pampas plumes. Very useful in filling baskets.
1825—Ravennae, 7 feet..... 10

GYNERIUM. (Pampas Grass.)

The most stately of all grasses, attaining in its native country the height of 12 to 15 feet. The plumes are from 20 to 36 inches long. When bleached of a beautiful silvery white. Extremely ornamental.
1830—Argenteum..... 10

STIPA. (Feather Grass.)

The most graceful of all grasses. Extremely useful for bouquets. Nothing handsomer in borders.
1835—Pennata, 2 feet..... 10

1840—WILD GARDEN SEEDS.

The introduction of these has proved a most marked success. Any one who has planted and cultivated flowers in neatly laid out beds or carefully planned ribbon borders is aware of the amount of labor and constant attention necessary to produce the desired effect. To those who cannot give this care, the "Wild Garden" presents a substitute which, for its universal and varied effects, for cheapness and the small amount of labor necessary for its construction, has no rival. "Wild Garden Seeds" are a mixture of over one hundred varieties of hardy flower seeds, and being mixed together can be offered at a much less price than when sold in separate packets. No one who has not seen such a bed can form an idea of its possibilities, the different seasons of bloom insuring something new almost every day. Half ounce packets, 25 cents.

VEGETABLE SEEDS.

All Vegetable Seeds are sent by mail, or express to any address, *charges prepaid through by us*, at prices named except peas, beans and corn in larger quantities than packets, which are sent by express or freight at expense of purchaser, unless 25 cents per quart for beans, and peas and 20 cents for corn, is added to prepay postage.

All five cent Papers, 50 cents per dozen.

All ten cent Papers, \$1 per dozen.

Discounts—On all orders for Vegetable Seeds (except packets at the dozen rate) amounting to \$5 and not exceeding \$10, 5 per cent. On orders amounting to \$10 and not exceeding \$25, 10 per cent. Write for special discounts on larger orders than \$25, sending list of seeds wanted.

COLLECTIONS OF VEGETABLE SEEDS.

If you have a garden and do not know just what varieties to select, and will send us the amount of money you wish to spend, we will make the best selections for your locality, and guarantee a liberal quantity of seeds.

ARTICHOKE.

Sow seed early in spring, in deep, rich soil, thoroughly pulverized, in drills ten inches apart and an inch and a half deep, allowing six inches space between the plants. Following spring transplant to permanent beds in rows three feet apart and two feet in the row. They mature in the second year. Must be protected in Winter. The edible portion is the undeveloped flower head which is only fit for use before it begins to bloom. It is eaten both raw and boiled, and by epicures is considered a great luxury.

French Green Globe—Per pkt. 5c; oz. 25c.

Artichoke Roots—Entirely different from the above. (See Vegetable Plants and Roots.)

ASPARAGUS.

Asparagus is one of the first vegetables of spring, and may be produced in any garden with very little trouble. One year's time will be gained by procuring plants (which we can supply in any quantity), but if seed is used it should be soaked twenty-four hours in warm water. Plant in drills one foot apart, in a bed which should be enriched with well-rotted manure and thoroughly pulverized. When the plants are well up, thin to three or four inches in the row; hoe often and keep entirely free from weeds. Transplant the next Spring to the permanent bed, which should be prepared by deep spading or plowing, working in a large quantity of fine manure. For horse culture the plants should be set in rows four feet apart and eighteen inches apart in the row; for hand culture set in rows three feet apart and one foot apart in the row; set the plants in their *natural* position and cover four inches deep; cultivate thoroughly and often. The next and

each succeeding Spring, work in a heavy coat of manure and salt, which is usually put on the bed in the Fall after the tops are *dead*, when they may be cut off and burned. It can be cut for use the third spring from seed or the second from plants. In a few words, *thorough* cultivation and plenty of manure makes good Asparagus.



CONOVER'S CO-
LOSSAL.

Conover's Colossal—An improved variety of extra large size, tender and productive. Per pkt. 5c; oz. 10c; ¼ lb. 20c; lb. 60c.

New Mammoth Emperor—An English variety, which, sown side by side with Colossal, has produced by far the thickest stalks in a given time. Matures for cutting very early. Superior in flavor and color to any other varieties now in cultivation. Pkt. 10c; oz. 25c.

Conover's Colossal Roots—See Vegetable Plants and Roots.

BEANS—Dwarf Bush Varieties.

Dwarf or bush beans require no support and may be planted in hills or drills, the latter way being preferred. All beans are so sensitive to frost and cold that it is useless to plant them before the ground has become thoroughly warm. For a succession, sow every two weeks until August first; make the drills 2½ feet apart and 1½ inches deep; drop the beans 3 inches apart in the drills. While it is true that beans will grow and make something of a crop on very poor soil, still no crop responds more profitably to good soil and culture. Keep clean, but do not hill up or hoe when wet, as it

tends to make them rust. A sandy loam is most desirable. Our beans are all hand picked and are fine samples.

Twenty-five cents per quart must be added to pay postage when beans are ordered by mail.

ALL BEANS, PER PACKET, TEN CENTS, EXCEPT WHERE NOTED. POST PAID.

Early Mohawk—Good string bean, valuable on account of its hardiness, being able to stand cold nights and even slight frosts. It may be planted earlier than any other sort. Qt. 25c; pk. \$1.50; bu. \$5.

Early Red Valentine—One of the best green podded varieties. Pods medium length, curved and nearly round; being fleshy and tender and remaining a long time in fit condition for use. They are preferred by some to the wax varieties. Qt. 25c; pk. \$1.50; bu. \$5.

Early China Red Eye—A hardy, productive and excellent string bean, pods tender and rich if used when young; as green shell beans, they are mealy and excellent, and when dry they are splendid for baking. Qt. 25c; pk. \$1.50; bu. \$5.

Early Rachel—The earliest of the green podded varieties. Pods long, straight and narrow; an excellent string bean. Qt. 25c; pk. \$1.50; bu. \$5.

Early Yellow Six Weeks—An old popular variety, very early and productive. One of the best. Qt. 25c; pk. \$1.50; bu. \$5.

Early Refugee or Thousand to One—As its name indicates, it yields enormously. Pods are thick, fleshy and tender, and it is considered one of the best for pickling. Qt. 25c; pk. \$1.50; bu. \$5.

Golden Refugee—This is a very handsome, and really excellent novelty. It is much more prolific than the old refugee; ripens even; matures about the same time; beans beautiful rich golden brown; pods handsome lemon green. Qt. 50 cents.

Large White Kidney or Royal Dwarf—Large white kidney shaped beans; has no superior as a shell bean for winter use. Qt. 25c; pk. \$1.50; bu. \$5.

Large White Marrowfat—Large, white, round, rich flavored beans; used principally shelled. Very productive. Qt. 25c; pk. \$1.50; bu. \$5.



CAL. BRANCH.

California Branch Bean—This is a white field bean, growing to the height of 18 to 20 inches, branching out in all directions and bearing the pods so high that they are not so apt as the common sorts to touch the ground and be injured by wet weather. A single vine has yielded 130 pods. They closely resemble the Navy Bean, and have yielded over forty-five bushels to the acre. The variety is so prolific that but one plant should be

allowed to grow each 18 or 20 inches in the row—the rows being 2½ feet apart. Qt. 25c; pk. \$1.50; bu. \$5.

Dwarf Horticultural—To many tastes there is no Bean equal to the old London Horticultural Pole. In this dwarf we have the advantage of the excellent quality of the pole variety, and the convenience of cultivating a dwarf sort. Pods short, broad; not as desirable as some others as snaps, but extra as a shell bean either green or dry. Qt. 35c; pk. \$2; bu. \$7.

Black Wax or Butter Bean—A great favorite with market gardeners, as they can pick the whole crop at two or three pickings. It is not a strong grower, but with rich soil and good cultivation, it yields abundantly. Pods short, round and curved; thick fleshed and waxy in color; beans black when ripe. Qt. 35c; pk. \$2; bu. \$7.

White Wax—Similar to above except color, which makes it valuable for winter use. Qt. 35c; pk. \$2; bu. \$7.

Golden Wax—The best and most popular of the dwarf bush beans for general use. It is more vigorous in growth, more productive, hardier and earlier than any other wax bean. Pods are of a very rich waxy yellow color, brittle and entirely stringless. We can heartily recommend this to all, being equally valuable as a snap or dry. Qt. 35c; pk. \$2; bu. \$7.



GOLDEN WAX.

Crystal White Wax—New and decidedly fine. A strong grower and very productive. Pods medium size, stringless, of quick growth, but slow to ripen, remaining tender a long time; very fleshy and brittle; quality fine, both for snaps and pickling; color very clear greenish white. Qt. 35c; pk. \$2; bu. \$7.

Jones' Ivory Pod Wax—In many respects one of the best Wax beans yet introduced, especially valuable for gardeners; ten days earlier than Black Wax; beautiful long ivory colored pods, stringless and brittle, being exceedingly handsome and of a rich creamy flavor; especially desirable for canning; also good as a dry bean. Qt. 35c; pk. \$2; bu. \$7.

Lemon Pod Wax—A valuable new, late wax bean, continuing in bearing through the season and fully two weeks later than any other variety. Pods long, fleshy, stringless, brittle and very handsome; surpassed by none in quality. Being an abundant bearer with large white beans when ripe makes it a valuable sort for winter use. Qt. 35c; pk. \$2; bu. \$7.

Dwarf Case Knife—The great favorite among market men around Providence, R. I., and Newport markets, who grow it almost exclusively for an early dwarf bean, claiming it to be all that can be desired for this purpose. Earlier than any other dwarf variety; exceedingly productive, and standing the cold spring weather better than any other sort. Qt. 50c.

Low's Champion—This is a new early dwarf variety, entirely distinct from any other. It is a very vigorous grower; stands up well, thus keeping the pods off the ground and free from mildew or rust. Pods large, long and handsome, very productive and combining the highest qualities of both string and shell beans. Color bright red, and larger than the Horticultural. It is one of the handsomest and best dwarf beans yet introduced. In packets only, 25c. per pkt.

Boston Favorite—This variety originated with the Boston market gardeners. It is said to be remarkably productive, has a large, handsome and showy red and white pod; very tender as a string bean, free from mildew, and as a shell bean is ahead of all others. Qt. 50c.

Red Cranberry-bush—An old variety, and one of the best; early and productive; pods long, well filled and tender. Qt. 40c; pk. \$2.

Dunn Cranberry-Dwarf—Early, prolific and handsome; a fine market variety, and equally valuable for the private garden. First class as a string bean or shelled, either green or dry. Qt. 40c; pk. \$2.

Improved Yellow Eye—A remarkably strong and healthy grower; very prolific, and unusually fine for baking; the kind that is used for the famous Boston baked beans in that city. Qt. 35c; pk. \$2; bu. \$7.

Cleveland's Improved Red Valentine—Cleveland's Improved Red Valentine bean is said to be ten days earlier than any other strain of this well-known variety. In addition to this most important feature, all of the excellent points which go to make this bean so popular for trucking purposes, are preserved in their greatest perfection in the improved stock now offered. It is, however, more robust and vigorous, and produces the true, round, curved pods, more abundantly than does any other stock heretofore sold. Qt. 50c.

POLE OR RUNNING VARIETIES.

These are more tender and require rather more care and culture than the Bush beans. They succeed best in clay loam, which should be liberally enriched with short manure in the hills. Set poles six to eight feet long in rows, four feet apart, and three feet apart in the row, and set leaning to the north. Set poles firmly and fasten the tops together with strings or lath. Set in this way the vines climb better and the pods grow straighter and are more easily seen. Around each pole plant six to eight beans, placing the eye down of flat varieties; when well up thin to three or four plants to the hill and start those that fail to climb around the pole in the same direction as the others.

Horticultural Pole—An old favorite; pods short, broad and tender, making one of the best snap beans, while for shell, either green or dry, they are esteemed by many above the Lima. Qt. 35c; pk. \$2; bu. \$7.

Giant Wax—Thick, fleshy, creamy-yellow; large and very handsome pods, fine as a snap bean but not so valuable shelled. Qt. 40c; pk. \$2.50.

Large White Lima—None equal this as a shelled bean; it is the most buttery and delicious bean grown; plant with the eye down; vines rather slender, but a vigorous grower; should be kept on the poles. Qt. 40c; pk. \$2.50; bu. \$9.

Dreer's Improved Lima—Pods short, broad, straight and thick. When green they are nearly as large as the large Lima, sweeter, more tender and nutritious, remaining green in the pod a long time. Qt. 40c; pk. \$2.50; bu. \$9.

White Dutch Case Knife—Matures in 60 days; pods long and flat; beans kidney-shaped, excellent quality; vines do not cling closely, hence it can be used as a corn hill bean. Qt. 35c; pk. \$2; bu. \$7.

Cut Shorts—Every year we have numerous calls for the old "Cut Short," or corn-field bean. This variety is among the oldest in cultivation and very popular, but hard to find; pods round, thick, fleshy and tender; excellent shelled; the favorite for succotash. Qt. 50c.

Scarlet Runner—A favorite Snap bean in Europe; valuable for table use or as an ornamental vine. Qt. 50c.

Yard Long—Is quite a curiosity; pods are at times two to three feet in length and of good quality. Pt. 40c.

Concord—An improvement on the Horticultural, being earlier, more vigorous and productive; pods long, fleshy and brittle, beans large, nearly round, flavor excellent, either green or dry. Qt. 40c; pk. \$2.50.

Marblehead Champion—One of the very earliest known, either bush or pole. Pods six to ten inches long, with six or eight beans; excellent as shell beans. Qt. 40c; pk. \$2.50.

Portland Fancy—We would call particular attention to this bean as being one of the very best on the list, being early, productive and of high quality, both for snap and shelled. Qt. 40c; pk. \$2.50.

Green Mountain Pole—This valuable variety originated with an old market gardener at Montpelier, Vt. Beans somewhat resemble the Horticultural, but are about twice as long. Vines are not as long as other pole varieties. It is medium late. Quality extra good. We have but a very limited stock. Pkt. 15c; qt. 50c.

Southern Prolific—One of the best pole snap-short beans; habit vigorous, prolific, bearing till frost. Pods borne in clusters; succulent and delicious. Qt. 40c; pk. \$2.50; bu. \$9.

The Bliss Pole Bean—This bean has been grown by one family in Westport for forty years. It is a very valuable pole bean, but has never, to our knowledge been disseminated. We have secured a small quantity only. They are best described as early, extremely productive, bearing immense crops, pods very wide and long, speckled brown black and white, and wide like a case knife, which they strongly resemble when growing. The blossom is a beautiful light pink, altogether making a very showy and beautiful plant. Pkt. 25c; pt. 50c; qt. 90c.

BEETS.

Beets are an important crop, and succeed best in deep, rich, sandy loam. Early varieties should be sown as early as the ground can be worked, in drills fourteen inches apart, thin to six inches in the row. For a succession, sow every two weeks to first of July. For winter crop, sow in May. Seed germinates quicker if soaked in warm water six hours, but care should be taken not to plant soaked seed in very dry ground as it is liable to die.

PER PACKET, FIVE CENTS, EXCEPT WHERE NOTED.



EGYPTIAN TURNIP.

Egyptian Turnip—The very earliest in cultivation; fine for forcing, on account of its small tops. Roots very dark red; flat on top but oval below; handsome and tender; a valuable market variety. Oz. 10c; ¼ lb. 20c; lb. 60c.

Extra Early Bassano—This is, with the exception of the Egyptian, the earliest sort; turnip-shaped, flesh white, circled with rose color; tender, sweet and juicy. Tops large and fine for greens. Oz. 10c; ¼ lb. 20c; lb. 60c.

Bastian's Extra Early Red—Follows the Egyptian very closely, and is considerably larger; of quick growth, bright red color; turnip-shaped, tender and juicy; one of the best. Oz. 10c; ¼ lb. 20c; lb. 60c.

Early Blood Turnip—A reliable variety, of good form and size.



BASTIAN'S.

It is the standard early sort and also good for winter use. Color bright and dark red, which is retained in cooking; flesh tender, rich and juicy, continuing so till fully grown. Oz. 10c; ¼ lb. 20c; lb. 60c.



DEWING'S IMPROVED BLOOD TURNIP.

Dewing's Improved Blood Turnip—An improvement on the above, being about one week earlier; has smooth skin and small top; flesh tender good for summer or winter. Oz. 10c; ¼ lb. 20c; lb. 60c.

Eclipse—A new, turnip-shaped beet from Germany, which is giving great satisfaction among the gardeners on account of its wonderfully rapid growth, small top and fine quality; smooth, deep red skin and flesh, very sweet and productive. Oz. 15c; ¼ lb. 35c; lb. \$1.

Market Gardeners—A magnificent new variety which we have been cultivating and improving on our seed farm since 1878, but would not offer to the public until it had attained its present



ECLIPSE.

perfection. It is the result of continual selections from the Henderson's Pineapple. It is nearly round, symmetrical, with small tap root and but few fibrous roots; small tops. At the age of the Egyptian it is larger, while it continues to grow till late in the fall, and attains large size. Some weighed Sept. 24th averaged six pounds, and were eight inches in diameter. Color outside is very deep blood-red; inside, layers of



MARKET GARD'N'RS.

blood-red and pure white alternately. Cooks all red when not cut. It is never hollow, and keeps well, being good at any time from first early until the next spring; quality unsurpassed. Oz. 15c; ¼ lb. 35c; lb. \$1.

Extra Long Dark Blood—The standard Winter sort; smooth, blood-red, very sweet and tender, keeps well. Oz. 10c; ¼ lb. 20c; lb. 60c.

Swiss Chard or Silver—For greens only. Oz. 10c; ¼ lb. 25c.

BEETS AND MANGELS FOR FEEDING STOCK.

If dairymen and farmers better knew the real value of root crops for stock food, they would certainly pay more attention to this branch of farming. Mangel Wurtzels produce abundant crops with ordinary culture, and cannot be too highly recommended.

Sow six to eight pounds of seed to the acre, in rows thirty inches apart on good, rich soil, which should be plowed very deep. Thin to eight inches in the row. For winter, store in pits or cellars as soon as frost occurs; cover them with earth to keep them from wilting.

Silesian or White French Sugar—Roots large and half long; flesh white, coarse grained and very sweet. Excellent cropper. Oz. 10c; ¼ lb. 20c; lb. 60c.

Lane's Imperial Sugar—The result of several years' careful selections from the above; hardier and sweeter. An average of fifteen tons can be produced per acre of this variety. Oz. 10c; ¼ lb. 20c; lb. 60c.

Yellow Tankard—A new variety of great value. One of the most nutritious in cultivation; tankard shape; flesh rich golden yellow; highly prized for milch cows for the rich color given the butter; an abundant cropper. Oz. 10c; ¼ lb. 20c; lb. 60c.

Long Red—A standard sort, growing mostly above ground; good sized; excellent. Oz. 10c; ¼ lb. 20c; lb. 60c.

Mammoth Long Red, or Norbition Giant—The roots grow to an enormous size and are of very good texture. Oz. 10c; ¼ lb. 20c; lb. 60c.



MAMMOTH LONG RED.

Carter's Sugar Cane—This is decidedly the sweetest and best of all the sugar beets; medium size; excellent for stock. Oz. 10c; $\frac{1}{4}$ lb. 20c; lb. 60c.



RED OVOID.

Red Ovoid—Large oval shape. Oz. 10c; $\frac{1}{4}$ lb. 20c; lb. 60c.

Red Globe—Similar to Orange Globe, except color, which is a light red. Oz. 10c; $\frac{1}{4}$ lb. 20c; lb. 60c.

Carter's Orange Globe—The best of the yellow globe shaped varieties. Is of excellent quality and keeps better than the Long Red. Produces good crops. Oz. 10c; $\frac{1}{4}$ lb. 20c; lb. 60c.

New Kinver Yellow Globe—The London Times says: "This splendid variety possesses most distinctive features in size, shape and color. Unlike the ordinary Globe Mangel, it is of greater girth at the top or shoulder than at the middle of the bulb, whence it gradually tapers to a perfect tap-root. Its skin, which is as fine as that of an apple, is, as far as it penetrates the soil, of a bright orange tint. It is of superb quality and an enormous cropper, the great weight of eighty-four tons per acre having been grown of it, and single bulbs weighing forty-five pounds each." Oz. 10c; $\frac{1}{4}$ lb. 20c; lb. 60c.

BROCCOLI.

Growth and habit like the cauliflower, except that the heads are not as compact and it is more hardy and much easier to cultivate. Use and cultivation same as cauliflower.

PER PACKET, FIVE CENTS.

Early Purple Cape—A popular sort; heads well and is very hardy. Oz. 40c.

Early Large White—Very valuable early sort; large size. Oz. 40c.

Covent Garden—One of the very best—Oz. 40c.

BRUSSELS SPROUTS.

Of the Cabbage family, producing numerous small heads on the stem, as well as a cabbage-like head at the top. These small heads are very tender and of fine flavor in the fall after frost. May be stored in the cellar for winter. Use and cultivation same as winter cabbage. Pkt. 5c; oz. 25c.

CABBAGE.

Sow early sorts in hot-beds in February and March, or in open ground as soon as it can be worked. Later or winter crops, in May or June in shallow drills, six inches apart. Plants should stand thin in the seed bed that the stem may be short and strong; in transplanting always set in the ground to the first leaf. When the plants are four inches high, transplant into richly manured ground; the early kinds two feet apart, the fall and winter varieties three feet apart. Hoe at least once a week, drawing a little earth up to the plants each time. The ground must be deeply loosened and worked thoroughly and often until the heads begin to mature.

For Winter and Spring use, lift the plants before the severe frosts set in. Select the dryest and most sheltered part of the garden, and bury the roots, stump and a portion of the head in the ground, and when the weather is severe cover with straw and a light covering of earth. The crop of seed is very fine this year.

Our prices are as low as FIRST CLASS seed can be sold for, and our stock must not be confounded with low-priced seed. Realizing the importance of the cabbage crop to the gardeners, we spare neither pains nor money to supply them seeds of the highest quality.

PER PACKET FIVE CENTS, EXCEPT WHERE NOTED.

Early Jersey Wakefield—The great favorite with market gardeners, being relied on for first early. Heads good size, conical in form and very solid. The very best early cabbage grown for the family garden. Our stock is extra choice. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.



Landreth's Earliest—A novelty indeed, and one of superlative merit. Is claimed by Messrs. Landreth to be ten

days earlier than any other cabbage, and producing well-formed conical heads, remarkably large for so early a ripener, sometimes reaching ten to twelve pounds. This claim is sustained by the experience of a number of Des Moines market gardeners the past season. Whoever plants it will be amazed at its early maturity, and if he be a market gardener, will be able to place it in market ahead of all competitors. Taking this into consideration, it is the most valuable early sort for market gardeners, in cultivation, as all know that the first ten days, with any vegetable, is the cream of the market. Our seed is grown by the originator. Pkt. 10c; oz. 35c; $\frac{1}{4}$ lb. \$1.

Gardener's Pride—In this superb novelty we offer an extra early cabbage sure to become popular with everybody who tries it. It has small, compact, solid heads, weighing 4 to 5 lbs; all maturing together, so the entire patch can be cut at the same time. It is a little more pointed than the Wakefield and fully two WEEKS EARLIER than the earliest strain of this famous market cabbage. It can be marketed July 1st to 4th. Pkts. only 25c; 5 per \$1.



EARLY ETAMPES.

Very Early Etampes—We put this at the head of our list of cabbages as being the very earliest cabbage grown. The heads are heart-shaped and quite large for so early a variety; the flavor is fine. We recommend a trial of it. Pkt. 10c; oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Extra Early York—A well-known variety, with small, compact head; can be grown fifteen to eighteen inches apart; an old favorite, but is much surpassed by some of the newer sorts. Oz. 15c; $\frac{1}{4}$ lb. 40c; lb. \$1.50.

Early Large York—Little larger and later; endures the heat well. Oz. 15c; $\frac{1}{4}$ lb. 40c; lb. \$1.50.

Early Wyman—Allied to the Jersey Wakefield; much larger, but not quite so early; fine quality; highly valued by market gardeners. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

French Oxheart—Early; heads close and solid. Oz. 15c; $\frac{1}{4}$ lb. 40c; lb. \$1.50.

Early Sugar Loaf—For the North this is a superior sort, but will not stand the heat of the South. Heads medium size, conical shape. Bluish green color, quite showy. Oz. 15c; $\frac{1}{4}$ lb. 40c; lb. \$1.50.



HENDERSON'S SUMMER.

Henderson's Early Summer

—A superior variety of recent introduction. Ten days later than Wakefield and much larger. Heads flat or slightly conical, growing very compact; of excellent quality and keeps longer after heading without bursting open than most other varieties. FIRST-CLASS; try it. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Newark Early Flat Dutch

A well known and valued second early. Heads large and solid and of excellent quality. It is not only valuable as a summer cabbage, but makes a good second crop for winter. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Early Drumhead—Solid heading; early fall sort. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Winningstadt—Cone-shaped; one of the best summer sorts; never fails to head, often producing good, solid heads when other sorts fail; if sown late, good for Fall and even winter; a sure header and good keeper. Oz. 15c; $\frac{1}{4}$ lb. 40c; lb. \$1.50.



WINNINGSTADT.

Chase's Excelsior—The most valuable summer cabbage by all odds. It is a magnificent new, medium early variety following the Henderson's Summer in close succession. In appearance it somewhat resembles the Fottler's Brunswick, but much larger. It is not equaled by any medium early cabbage we are acquainted with for sure, solid heading,



CHASE'S EXCELSIOR.

which it must be remembered is the highest recommendation for a cabbage which must mature in the trying heat of summer. Another remarkable feature is that it *never cracks*. Planted the last of July, it is an elegant winter variety. Market gardeners will find it an acquisition of decided value. We recommend all to try it. Our seed is direct from the introducer and is strictly pure and reliable. Pkt.

10c; oz. 40c; $\frac{1}{4}$ lb. \$1.25; lb. \$4.50.

Premium Flat Dutch—This is without doubt the finest winter cabbage in cultivation; the heads are large and solid, of a bluish green color, slightly flattened on the top; is of fine and well-flavored quality; first-class keeper; *sure header*. This variety has been grown and improved in America since before the Revolutionary war. The stock we offer cannot be excelled for purity. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.



PREMIUM FLAT DUTCH.

Fottler's Improved Brunswick—Superior second early sort; constantly grows in favor wherever used as a summer cabbage, on account of its sure heading qualities in spite of heat or scorching sun; heads large and compact; an excellent keeper, making a good winter sort. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Large Late American Drumhead—An old favorite; the variety most used by the Germans in making "Sauer-Kraut." Late, large and heavy, a sure header and good cropper. Our seed is from an extra stock. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.



STONE MASON DRUMHEAD.

Stone Mason Drumhead—Very reliable, compact heading, fall and winter variety; very hardy, and will endure the cold of extreme northern climates; heads quite large. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Marblehead Mammoth—Surpasses all others in size and weight of crop, and has succeeded well in all parts of the United States. It requires rich soil and high cultivation, but well repays any extra labor. Should be planted three and a half feet apart each way. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Strasburg Drumhead—This is the finest strain of late imported cabbages we have seen. It is a remarkable fine cabbage for winter use. Heads well and keeps well. Although we highly recommend it, yet it must not be considered equal to our American grown Premium Flat Dutch, which is without doubt the finest winter cabbage in cultivation. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Perfection Drumhead Savoy—Heads large and very finely curled; very compact; short stalk. Finest Savoy in cultivation; closely approaching the cauliflower in its fine delicate flavor; well worthy a place in every garden. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.



PERFECTION DRUM-HEAD SAVOY.

Fine Red Pickling—Deep red color; medium size; solid. Oz. 20c; $\frac{1}{4}$ lb. 65c.

Low's Peerless Early—The originator says of it: "I think it combines to a greater degree than any other, earliness, size, fineness of quality, reliability of making very solid heads, with few outer leaves. Nearly equaling Jersey Wakefield in earliness, and forming very much larger heads (often weighing more than twelve pounds apiece). Very round and uniform in shape and general appearance, fine grained small short stump, with few loose leaves, thus allowing them to be set out nearer together, and increasing the number of plants per acre; it also has the very valuable quality of remaining after fully matured without cracking or bursting, much longer than any other variety. In a trial on our grounds the past season, with all of the leading varieties of early and late cabbages, the Early Peerless far surpassed all other varieties in reliability of heading. Pkt. 25c; oz. \$1.00.

Cabbage Plants—See list of Vegetable Plants.

CARROT.

This is one of the most healthful and nutritious of our garden roots, and should be much more extensively

raised than it is. The field varieties are superior for feeding stock, especially desirable for milch cows. No crop is more valuable for the dairy. A light sandy loam is best; in any case the soil should be deeply and thoroughly pulverized. Fresh manure is likely to make the roots grow rough and prongy, hence ground that has been well manured the previous season is much the best. For early crops sow in spring soon as the ground can be worked, in rows 15 inches apart, covering one-half inch. For field culture rows should be of sufficient distance to admit of the use of a horse cultivator; sow seed in May.

PER PACKET, FIVE CENTS.



FRENCH FORCING.

Early French Forcing—The earliest variety; valuable for forcing. Roots are small, nearly round, with slender tap root; color reddish orange, excellent quality. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Early Horn—A little later and larger than the above; also used for forcing. Much esteemed for summer use. Flesh fine grained and of deep orange color. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Half Long Stump Rooted—A second early sort of medium size, bright scarlet color, and fine flavor. Quite a favorite among market gardeners. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.



EARLY HORN.



DANVERS.

Danvers—In the town of Danvers, Mass., the raising of carrots on an extensive scale has for years been quite a business. After years of experimenting they settled upon a variety which originated among them (as did the Danvers Onion), known in their locality as the "Danver's Carrot." It is in form about midway between the Long Orange and Short Horn class, growing

generally with a stump root. The great problem in Carrot growing is to get the greatest bulk with the smallest length of root, and this is what the Danvers growers have attained in their carrot. Under their cultivation they raise from twenty to thirty tons to the acre, and at times even larger crops. This carrot is of a rich, dark orange color, very smooth and handsome, and from its length is easier to dig than the Long Orange. It is a first-class carrot for any soil; sweet and tender; equally valuable for table use or stock. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Improved Long Orange—The standard sort for field culture; also desirable for table use. Our stock is extra fine, being the result of our own careful selection for a series of years. It now produces very large fine grained and even roots; rich orange color, fine flavor. Dairymen who feed these carrots will have little need of artificial butter colors. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Large White Belgian—Very productive; grown for stock, for which it is highly recommended. Flesh white, with green top; grows about one-third above ground, making it easy to harvest. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Altringham—A red carrot similar in form to the Long Orange. This is one of the favorite varieties for feeding stock; yields abundantly, rather coarse grained but sweet and a good keeper. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

CAULIFLOWER.

For very early crop, sow the early varieties middle of autumn, and when two to three inches high, transplant into cold frame, setting plants four inches apart. In the spring, transplant and cultivate same as cabbage. When no plants have been wintered, sow seed in hotbed in February or March, and transplant as soon as the ground can be worked. As cauliflowers will not head in dry, hot weather, they should be forced along as rapidly as possible. Make the ground very rich, they can hardly be over-fed; cultivate thoroughly and hoe often, drawing a little earth to the stems each time. For the late crop, sow seed in April or May, and treat as



IMPROVED LONG ORANGE.

late cabbages, bearing in mind that they must have strong lands and high culture. Water freely when they begin to head; break the leaves over the head to protect from the sun.



EARLY SNOWBALL.

Early Snowball—The earliest of, all; also as good, if not better than any other as a late sort. The most reliable header on the list, while its dwarf habit and short outer leaves permit it to be planted as close as eighteen inches apart each way. Pkt. 25c; $\frac{1}{4}$ oz. \$1.25; oz. \$4.50.

Erfurt Earliest Dwarf—One of the best for forcing, as it is of dwarf habit, compact growth, and scarcely a plant fails to make a good head; excellent flavor. **FIRST QUALITY.** Poor seed is cheaper. Pkt. 25c; $\frac{1}{4}$ oz. \$1.25; oz. \$4.50.



DWARF ERFURT.

Early Favorite—A new and exceedingly fine first-class early sort. Very sure to head. Pkt. 25c; $\frac{1}{4}$ oz. \$1.25; oz. \$4.50.

Early Paris—An old standard, and still the favorite variety with some gardeners. Heads large, uniform and fine. Pkt. 10c; oz. 75c.

Early London—A well known and valuable variety. Pkt. 10c; oz. 75c.

Lenormands—Large, well formed, beautiful white heads. Best late sort. Has more leaves than any other sort, which protect the head; short, thick stump. Pkt. 10c; oz. 75c.

Cauliflower Plants—See list of Vegetable Plants.

CELERY.

Sow seed in open ground, in light, sandy soil, in April, and thoroughly firm the soil; keep shaded, moist and clean of weeds. Clip the tops two or three times, to make the plants stocky, before transplanting, which should be done in July, in trenches eight inches deep and three feet apart for dwarf, and four for tall varieties. If the weather is dry or the soil is very loose at time of transplanting, care should be taken to *firm* the earth about the roots. This should be carefully attended to, as thousands of plants are lost by the drying out of the roots before the new rootlets are formed. Cultivate often for two months, when it will be time to commence "earthing up," which should be done by degrees as the plants grow, being careful not to allow the soil to get into the center of the plants. Store in well dried, open ground, in trenches twelve inches wide and of sufficient depth so the tops of the celery will be six inches above the surface, which must slope to carry off the surface water. Set plants closely together in an upright position. On the approach of severe cold weather, cover gradually (to prevent heating) with hay or leaves, and boards to keep out moisture. The stalks will blanch perfectly and may be taken out any time during the winter. The plants will also keep and blanch nicely if earthed up in a cool cellar.

An ingenious manner for bleaching celery is now practiced by our most successful growers in this vicinity, and so far as we are aware, is an original idea here. It consists of the placing of a section of a three-inch drain tile over each plant, which takes the place of the "earthing up" process. The tile is placed over the plant at about the same time the "earthing" would otherwise commence. Celery bleached in this manner is crystal white, free from dirt or rust, crisp and tender. It also grows to a good length. The only outlay is the first cost of the tile, which of course can be saved and used year after year. Good celery is one of the luxuries of life, as well as one of the most profitable garden crops.

PER PACKET, FIVE CENTS, EXCEPT WHERE NOTED.

HENDERSON'S
HALF DWARF.

Henderson's Half Dwarf—The favorite market variety in New York; when blanched is a yellowish white, entirely solid, and possessing the rich, nutty flavor peculiar to the dwarf kinds. Of close habit and a vigorous grower. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.



KREAMER.

Kreamer—A novelty. This delicious celery was originated by Mr. Kreamer, one of the most careful and successful celery growers in the country. It is the result of a careful cross, and is one of the very earliest sorts we have ever seen, coming into market from the first to the middle of June. It is never hollow, grows very rapidly and is consequently extremely crisp and tender. It is of a close, compact, upright habit; bleaches readily and rapidly. In height it corresponds with "Henderson's Half Dwarf." The flavor is exquisitely fine and rich, partaking largely of a mild and delicious walnut taste. Although this is the third year we have sold this celery we have not yet been able to grow enough to offer it, except by the packet. Per pkt. 15c; 8 for \$1.00.

White Walnut—Is of dwarf habit, seldom attaining a height of more than 20 inches. It is solid and heavy, and has a peculiar rich walnut-like flavor. A novel and valuable quality of this variety is its graceful and feather-like foliage, which, when blanched, makes it the most beautiful of all for the table. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Sandringham Dwarf White—Remarkably solid, crisp and fine-flavored. Habit of growth erect and close. A great favorite for private gardens. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Large White Solid—Large size, solid and crisp. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Boston Market—This has been a favorite with market gardeners for years. Quite dwarf and loose in habit; is usually grown without trenches. Is easily blanched, very brittle and fine flavored; it is sure to please all who try it. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Golden Dwarf—A new variety of decided merit. When blanched the heart is of a rich, golden color; excellent quality; stands handling remarkably well; a good keeper and one of the very best for storing in cellars. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

La Plume Chestnut—A magnificent, new, half dwarf, white celery, having uncommonly large and solid leaf stalks which possess a true chestnut flavor, greatly admired by all lovers of good celery. It has been produced by long continued selection, and is a vigorous and rapid grower. Pkt. 10c; oz. 35c.

LA PLUME
CHESTNUT.

Perfection Hartwell—New. A very large and vigorous growing variety which is giving great satisfaction. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Turner's Dwarf White—Stiff, close habit, crisp and juicy. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Laing's Mammoth Red—Very large; perfectly solid. The red varieties are noted for their crispness and delicious flavor. Laing's Mammoth is one of the best and deserves more general cultivation. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Sealey's Leviathan—Large white; solid, fine flavor. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Seymour's Superb White—Very popular English sort; very large, crisp and tender. The stalks do not get woody and tasteless like most large sorts. Oz. 20c; $\frac{1}{4}$ lb. 65c.

White Plume—In this we have a new celery that is likely to so simplify its culture that celery of the finest quality can be found on every table in the land. It was sent out last year by Mr. Henderson. The peculiarity of "White Plume" is, that *naturally* its stalk and portions of its inner leaves and heart are white, so that by closing the stalks, either by tying them up with matting, or by simply drawing the earth up against the plant, and pressing it together with the hands, and again drawing up the soil with the hoe or plow, so as to keep the soil in place, the work of blanching is completed, thus saving the high "banking" with the spade, necessary with all other varieties. Another great merit of the "White Plume" is its beauty, being the handsomest table ornament of any known vegetable; its inner leaves resembling an ostrich feather so much as to suggest its name "White Plume;" as a market variety, this feature makes it especially valuable, as it is well

known, that for hotel and restaurant use, appearance is as desirable as quality; it is however unsurpassed in eating qualities, being crisp, solid, and having that peculiar nutty flavor so much admired by all lovers of celery. Its size and weight is similar to the half-dwarf varieties, keeps well till about the middle of January, but its tenderness prevents its keeping into the spring months as well as the green sorts. Pkt. 25c; five pkts. for \$1; oz. \$2.

Turnip-Rooted, or Celeriac—Used principally in soups and for seasoning meats. Oz. 20c; $\frac{1}{4}$ lb. 65c; lb. \$2.

Old Celery Seed—For flavoring. Per lb. 50c.
Celery Plants—See list of Vegetable Plants.

CHERVIL.

Curled—Leaves used in soups and salads. Cultivate like parsley. Per pkt. 5c; oz. 25c.

CHICKORY.

Large Rooted—Used as a substitute for coffee. Take up the roots in the fall, cut into small pieces and put away to dry. When wanted for use, it is roasted and ground like coffee. Sow early in the spring in rich, mellow soil, in drills; cover half an inch deep and cultivate same as carrots. Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 30c.

COLLARDS.

A species of loose heading cabbage used almost universally in the South for "greens;" known in some localities as "Cole" or "Colewort." Sow seed in May, transplant and treat as cabbage. In the South, seed should be sown in the autumn and it will produce a luxuriant growth all winter.

Georgia—The most popular variety. Pkt. 5c; oz. 20c.

CORN SALAD, or FETTICUS

A delicious Winter salad. Sow early in September in drills quarter of an inch deep and six inches apart. Just before cold weather cover with straw or leaves. Per pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c.

CORN, GARDEN VARIETIES.

Our crop of sweet corn is unusually fine this year, and has been saved with great care. We can recommend it with confidence, believing it cannot fail to give entire satisfaction. Sweet corn should not be planted until the ground has become warm, as it is very liable to rot and nothing is gained by it. Always select a warm, rich soil, if possible, especially for the earlier varieties, as besides insuring the crop, the difference in soil and exposure will make at least a week's difference in the time of maturity. Drill cultivation is more profitable than hill cultivation. Plant in drills three feet apart and thin stalks to 12 to 18 inches apart in the drills. Cultivate thoroughly.

Twenty cents per quart must be added to pay postage when corn is ordered by mail.

PER PACKET, TEN CENTS, POSTPAID.

Marblehead Early Sweet Corn—This variety was first sent out by Mr. Gregory who speaks of it as follows: "When tested with such standards as Early Minnesota, Naragansett, Tom Thumb and other early varieties, it proved to be *full a week earlier than any of them*. In all its characteristics except earliness, it bears a close resemblance to the Naragansett. The stalk is dwarf in its habit of growth, and sets its ears very low down. It is of fair market size and very sweet. For six years I have made a special business of testing the Marblehead Early Sweet Corn side by side with all the earliest varieties, including those said to be the earliest of all, and the result has been that *without a single exception it has proved to be the earliest of all*." It is certainly one of the most valuable market sorts we have grown. Qt. 20c; pk. \$1; bush. \$3.50.

Extra Early Six Weeks—Produced good roasting ears for us in less than six weeks from planting. Ears small, but well filled. Not sweet, but of good flavor, and deserves a place in every garden. We believe it beats them all in earliness. Qt. 30c; pk. \$1; bush. \$3.50.

Extra Early Tom Thumb—This is a very early eight-rowed variety producing ears of fair size, kernel large, white and sweet. Stalks grow three or four feet high, with two or three ears on the stalk. It is very sweet and tender, resembling the Crosby or Evergreen in flavor. This superiority in sweetness over other extra earlies, and its extreme earliness, makes it very desirable for both market and the private garden. Qt. 20c; pk. \$1; bush. \$3.50.

Extra Early Des Moines—Since introducing the Early Des Moines to the public in 1881, we have received many flattering testimonials of its great value as an extra early variety. It is as early as any we have found, with ears much larger than most early sorts; supremely delicious flavor; very prolific. It has been grown and improved by some of the best market gardeners in this vicinity for something over twenty years, and since its introduction to the public by us in 1881, the demand for it has increased very rapidly, especially among market gardeners, far exceeding our most sanguine expectations. It is not only an extra early sweet corn, but is an exceedingly productive sort, producing remarkably large, well-formed ears. The quality is not excelled in any sweet corn. Do not fail to try it. Qt. 25c; pk. \$1.50; bush. \$5.

Pee-and-Kay—A new sweet corn; first sent out in 1884; it is said to be a valuable variety because of its earliness and the large size of its ears, in strong contrast with the small ears of other early sorts. It is as early as the Minnesota, only a few days behind the very earliest. It has an ear as large as the Evergreen; kernels very large, pearly white and sweet; ears are 10 to 12 rowed, large and plump; stalks strong and vigorous, 6 to 7 feet high, bearing 2 to 3 ears each. It is meeting with great favor among the market gardeners and farmers; its large fine white ears selling it rapidly as it can be offered early in the season when nothing but small ears of the other kinds can be obtained. It is the best early variety yet introduced, and every one should try it. Qt. 30c.

Perry's Hybrid Sugar Corn—Grows about six feet high, is a rapid grower; ears 12 rowed, sometimes 14. It has two perfect ears on a stalk, usually succors more, one or two ears low down; the corn is white and the cob light red; the kernels are large and sweet. Tested by the side of Early Minnesota corn planted the same day, proved it much earlier. At the time of picking for green corn, the Hybrid was ready first. Qt. 20c; pk. \$1; bush. \$3.50.

Early Adams—Very early and productive; white dent sort, much used for roasting ears. Qt. 20c; pk. \$1; bush. \$3.50.

Extra Early Naragansett—Matures fit for table in sixty days. The kernels are a light red, much shriveled and very sweet. Qt. 20c; pk. \$1; bush. \$3.50.

Early Minnesota—An old and deservedly popular market variety; stalks short, with very few suckers; ears good size; kernels broad and not much shriveled, but very sweet, one of the earliest. Qt. 20c; pk. \$1; bush. \$3.50.



EARLY MINNESOTA.

Crosby's Early Sweet—Little later than above; sweet and fine. Qt. 20c; pk. \$1; bush. \$3.50.

Moore's Early Concord—

Large, well-filled ears, very sweet and delicious; earlier than any other of equal size; valuable for market or private gardens, much used for canning. We recommend this as the best second early sort and a most desirable variety. Qt. 20c; pk. \$1; bush. \$3.50.



MOORE'S CONCORD.



AMBER CREAM.

Amber Cream—This delicious variety is strong and vigorous, growing from seven to eight feet high, ears having from twelve to sixteen rows; color, when fit for table, white and handsome, and of very superior quality; ears large, average from ten to fourteen inches. When dry, it is of a rich amber color, varying from dark to light shade and very much shriveled, kernels deep, rich and sugary. From a plot of ground containing one hundred and forty-four hills, planted two by three feet, there was harvested in a single season one thousand one hundred and twenty (1,120) ears, from which there could be selected only thirty ears less than nine inches in length. Stands dry weather better than any other sweet corn. Qt. 20c; pk. \$1; bush. \$3.50.

Potter's Excelsior, or Squantum—A variety of corn in great favor with the well-known Squantum Club, of Silver Spring, R. I., and used almost exclusively by them in their famous clambakes. It is about as early as the Moore's Concord, the ears being the same size. Its quality is of the best. Very sweet and wonderfully productive, producing four to five ears on a stalk. Qt. 30c; pk. 2.25.

Asylum—Medium early; large ears; fine flavor; very desirable. Qt. 20c; pk. \$1; bush. \$3.50.

Early Eight Rowed Sweet—An excellent variety. Qt. 20c; pk. \$1; bush. \$3.50.

New England Sugar—A popular variety; fine quality. Qt. 20c; pk. \$1; bush. \$3.50.

Triumph—A very valuable new variety which has already gained great popularity; second early in season; ears large, and is scarcely surpassed for sweetness, richness and delicacy of flavor. It is a superior market variety, being very productive and of vigorous growth. Qt. 20c; pk. \$1; bush. \$3.50.



BLACK MEXICAN.

Black Mexican Sugar—The Black Sugar Corn is especially rich in saccharine, or sugar qualities, and is highly prized by those who have tried it. The grain, though black when dry, is hardly tinged when in edible condition; late, large and a vigorous grower. Qt. 25c; pk. \$1.50; bush. \$5.

Hickox—Very fine quality; especially useful for canning. Ear twelve rowed, straight and handsome; deep kernels. Qt. 20c; pk. \$1; bush. \$3.50.

Egyptian—This magnificent variety is deserving of the highest praise, which it receives from all who have tested it—in fact, another year's experience with it has thoroughly convinced us that it is the best late sweet corn in the market. It grows to a good height; is very prolific; quality the very highest; unsurpassed for sweetness, and remains a long time in the edible state. Qt. 20c; pk. \$1; bush. \$3.50.

Stowell's Improved Evergreen—Very large; sixteen rowed; deepkerneled and sugary, remaining a long time in a fit condition for boiling; one of the best for general purposes. Qt. 20c; pk. \$1; bu. \$3.50.



MAMMOTH.

Mammoth—The largest of all varieties; late; fine quality; large yielder. Qt. 20c; pk. \$1; bu. \$3.50.

Ne Plus Ultra—This variety having gained such a reputation among the market gardeners of New Jersey as to attract the attention of a Philadelphia seed firm, it was by them distributed three years ago, and they say of it: "All who have grown it pronounce it the sweetest, most productive and best they have ever had. The ears are medium size, grain deep and rows very irregular; produces three to four good ears to a stalk. It is a valuable and distinct acquisition." Qt. 20c; pk. \$1.50; bush. \$5.

Sweet Corn for Fodder or Ensilage—This is as good as any corn so far as the growing qualities are concerned, but we do not take the pains to keep it strictly pure, like the table sorts; on this account it can be offered cheaper, but it does well for the purpose we sell it. Sweet corn should be much more extensively cultivated for stock feed. It is beyond doubt one of the best known fodder plants; can be grown as easily as field corn, and is of twice the value for feeding. Pk. 65c; bu. \$2.

Pop Corn—We have a choice stock of extra fine Rice corn, both white and red; also the hard, smooth Pop corn. All are carefully grown for seed and saved with special care. Qt. 30c; pk. \$2.

Field Corn—See miscellaneous list field seeds.

CRESS, or PEPPER GRASS.

Extra Curled—A well-known salad. Sow thickly and at intervals during the season; cover seed slightly. Pkt. 5c; oz. 10c; ¼ lb. 25c.

True Water—One of the most delicious of small salads. Will only grow where its roots are covered with water. Sow the seed along the borders of running water and cover lightly. Pkt. 10c; oz. 25c.

CUCUMBERS.

Cucumbers succeed best in a rich, loamy soil. For first early sow in hot-beds, upon pieces of sod or in small flower pots six weeks before they can be set out in open ground. A cheap substitute for flower pots when cucumbers are raised on a large scale, is to plant the seed in ordinary strawberry boxes, then set the boxes in the open ground instead of transplanting. By this method there is no danger of disturbing the young plants, and the boxes serve as protection against cutworms until they rot away, which we have found an important item. When danger of frost is over, transplant in hills four feet apart each way. For general crop plant in open ground in May, about twelve seeds in a hill. When danger of bugs is past, thin to four strong plants in a hill. For pickling, plant in June. Sprinkle vines with plaster or air-slacked lime to protect them from bugs. Fruit should be gathered when large enough, whether required for use or not, as if left to ripen on the vines it destroys their productiveness.

PER PACKET, FIVE CENTS, EXCEPT WHERE NOTED.



EARLY RUSSIAN.

only being white, and few in number. Remarkably smooth, straight and handsome; thick flesh, with few seeds; unsurpassed for pickles, holding its bright green color better than most other sorts; a great yielder. Oz. 10c; ¼ lb. 30c; lb. \$1.

Boston Market—Among the finest for table use and pickling. Oz. 10c; ¼ lb. 30c; lb. 1.



EARLY CLUSTER.

When young is superior for pickling. Oz. 10c; ¼ lb. 30c; lb. \$1.

Green Prolific—One of the best pickling sorts, being uniformly straight, a little smaller at the ends, bright green and immensely productive. Oz. 10c; ¼ lb. 30c; lb. \$1.

Boston or Jersey Pickling—This is one of the standard sorts throughout the United States for



JERSEY PICKLING.

both pickling and slicing. It is almost exclusively used by the Boston market gardeners for pickling, and we highly recommend it as among the best cucumbers for short pickles. It is of medium size, straight, smooth, of very uniform growth, hardy and immensely productive. Flesh tender, crisp and well flavored. Our stock is choice. Oz. 10c; ¼ lb. 30c; lb. \$1.

Perfection Pickling—New, combines many good qualities for a pickling or table sort, claimed by the introducer, from whom we secured the seed, to be the best of all. Oz. 10c; ¼ lb. 30c; lb. \$1.

Improved Long Green—Old standard sort, crisp, tender, good flavor. Our stock of this variety has been carefully selected and cannot fail to give satisfaction. Oz. 10c; ¼ lb. 30c; lb. \$1.



EARLY WHITE SPINE

Early Cluster—Grows in clusters and extremely productive; following Early Russian closely in earliness; excellent for table use but not so good for pickles. Oz. 10c; ¼ lb. 30c; lb. \$1.

Early Frame or Short Green—One of the best. Plants are vigorous, healthy and productive; fruit straight and well-formed; flesh tender; color bright green



EARLY FRAME.

Tailby's Hybrid—A cross between the White Spine and an English variety. A handsome, large and very productive variety. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

London Long Green—One foot in length; flesh greenish white. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Gherkin, or Burr—For pickling only; very small, oval shaped, resembling a burr somewhat; should be used when young and tender. Pkt. 10c; oz. 25c.

Snake—A singular and remarkable looking curiosity, growing sometimes to the length of six feet, coiled up exactly like a snake, with head protruding. Pkt. 10c; oz. 25c.



GHERKIN, OR BURR.

Astro—A very productive and finely formed serpentine cucumber, with dark green, finely netted peel, attaining 18 to 24 inches in length with a very firm, thick, fine grained, extremely delicate and well flavored flesh; entirely free from seeds when young, and but few when ripe. It is especially suited for slicing. A novelty of decided merit. Try it. In pks. only. 25c; 5 for \$1.

EGG PLANT.

A tender plant, requiring starting in the hot-bed; seed germinates slowly, and must be kept very warm; when the second rough leaf is formed they should be carefully transplanted to four inches apart, and still kept warm. It is important that egg plants be carefully handled and pushed along as rapidly as possible; they never fully recover from a check received when young, but with a little care any one can succeed. Those who have no hot-beds can sow a few seeds in boxes in the house. Hand-glasses are useful for covering at the time of transplanting. Set in rows three feet apart and two feet apart in the row. There are several varieties, but the largest and best of all is the Improved New York Purple. Egg Plant is usually cut in slices, partially boiled, sometimes in thin batter, and is considered by most persons a great luxury.



IMP'D NEW YORK.

Early Long Purple—Hardy and productive; six to eight inches long. Pkt. 10c; oz. 30c; $\frac{1}{4}$ lb. \$1.

Improved New York—Extra large; nearly round; deep purple; flesh white, tender, and of superior quality. Pkt. 10c; oz. 50c.

Black Pekin—A distinct early variety from China. Fruit large, fine grained and of delicate flavor. Pkt. 10c; oz. 50c.

ENDIVE.

Extra Curled—Sow early and thin; cover slightly. Soon as large enough, thin to one foot apart. As endive is used mostly in the fall after lettuce is gone, the main sowings should be made in June and July. When nearly full-grown close up the outer leaves, and tie near the top, this will exclude the light and air, and in two or three weeks the heart will be nicely blanched, when it makes a delicious salad; the blanching should be done in succession, and when quite dry, as it will only keep a short time after blanching. For winter use take up carefully with a ball of earth to each plant, and plant close together in a frame or dry cellar. Pkt. 5c; oz. 25c.

GARLIC.

See list Vegetable Plants and Roots.

GOURDS.

These are quite tender and should not be planted until all danger of frost is over. Cultivate same as cucumber.

Dish Cloth—A native of the East Indies, and in it, nature has furnished us with a vegetable dish cloth, the seeds being enveloped in a sponge-like cloth, which is at the same time, tough, elastic and durable, answering the purpose desired admirably. The fruit is about two feet in length, and the vine a very rampant grower. Seeds should be first sprouted in a hot-bed. Pkts. 10c; oz. 25c.

Sugar Trough—Very useful for baskets, dishes, buckets, etc., etc. They have hard, thick shells, lasting for years, and capable of holding from two to ten gallons each. Plant ten feet apart each way, when ground is warm and weather settled. Pkt. 10c; oz. 25c.

Nest Egg—Produces fine, white fruit exactly the size and shape of eggs, and so similar as to almost deceive the most experienced. Capital for nest eggs, as they do not crack and will last for years. Plant is a rapid grower, very ornamental—useful for covering screens, etc. Pkt. 10c; oz. 25c.



NEST EGG.

Dipper—Can be used for dippers.

Will hold about a quart on the average, and have handles at times a foot long. Pkt. 10c; oz. 25c.

Ornamental Varieties—See Flower Seeds.

HORSE RADISH.

See list of Vegetable Plants and Roots.

KALE, or BORECOLE.



DWARF GERMAN.

A very excellent member of the cabbage family and should be more extensively cultivated. It is quite hardy and is improved by frost. Cultivate same as cabbage. For winter sow in September and treat as spinach.

Dwarf German Green—Best for winter greens. Pkt. 5c; oz. 10c.

Tall Curled Scotch—Bright and green; beautifully curled; 18 inches. Pkt. 5c; oz. 10c.

KOHL RABI, or TURNIP-ROOTED CABBAGE.

An excellent vegetable intermediate between the cabbage and turnip. For early crop sow in hot-bed, treat as early cabbage, for general crop in May or June, 18 inches apart, thinning to eight inches between the plants; should be used when young, as they become tough and woody when full grown. Cook as turnips.



VIENNA.

Early White Vienna—Flesh white

and tender; best variety for table use. Pkt. 5c; oz. 20c.

Early Purple Vienna—Differing from White only in color. Pkt. 5c; oz. 20c.

LEEK.

The leek is very hardy and easily cultivated. Sow early in the spring, either in the seed bed, to be transplanted, or in trenches six inches deep: make bottom of the trench mellow and very rich, cover half inch deep, and when well started thin to six inches; in cultivating gradually draw the earth to the plants until the ground is level. They are a branch of the onion family, and better liked by some.



LONDON FLAG.

London Flag—A hardy, strong growing variety. Pkt. 5c; oz. 15c.

Musselburg—Grows to an enormous size; very hardy. Leaves broad and tall, spreading out like a fan. Pkt. 5c; oz. 20c.

LETTUCE.

Probably no vegetable is more universally used than lettuce, and to be fully appreciated must be brought to the table fresh and unwilted. As it requires but little room and is of the easiest culture, there are few families that can not have it direct from the bed. The soil should be rich and mellow; may be sown as soon as the frost is out of the ground, or it may be grown under glass: when grown in the hot-bed, water freely and air on pleasant days. For succession, plant every three weeks during the season. Thin out as it grows, so that the plants left to head will stand twelve inches apart. The quality of lettuce depends largely on its rapid and vigorous growth. The favorite varieties among the gardeners around Des Moines are Tennis ball for forcing and Hanson for general crop.

PER PACKET, FIVE CENTS, EXCEPT WHERE NOTED.

Early Curled Silesia—A very early variety of strong growth; leaves greenish-yellow, and much wrinkled; does not head, but is tender and crisp; much used for bunching by market-men. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Passion—A beautiful lettuce, grown largely by the gardeners in California, sometimes called California Lettuce. Black seeded; good for summer. Oz. 20c; $\frac{1}{4}$ lb. 60c; lb. \$2.

Golden Stone—A new variety from Germany, with very compact, solid heads; very handsome and fine quality; equal to the Tennis Ball in earliness and quite as desirable for forcing. Oz. 20c; $\frac{1}{4}$ lb. 60c; lb. \$2.

Early Curled Simpson—Very similar in habit of growth to Silesia; dark green, much wrinkled and tending to a large, loose head; very tender and crisp; a general favorite. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Newport—The finest forcing lettuce we have ever seen. The stock we have is selected from the choicest strain of lettuce grown for the Newport market by an old market gardener, who has improved it for many years. In appearance it is somewhat similar to the White Seeded Tennis Ball, but is superior in every respect, and will produce good heads of Lettuce every month in the year. Pkt. 10c; Oz. 50c.



NEWPORT.

Perpetual—This new variety is said to be without exception the very best lettuce in cultivation for family use; entirely distinct, not heading, but forming very large, compact bunches. Leaves large, rich greenish golden color, very crisp and of high quality. Especially desirable for private gardens, as only one sowing is necessary for the whole season. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Tennis Ball, or Boston Market—The favorite in this market for forcing or growing under glass, matures very quick, forming close, compact solid heads; leaves thick, crisp and tender, also one of the most desirable for early planting in the open ground. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Ice Drumhead—Remarkably large, compact, light green heads, which are crisp and tender. This is one of the best summer varieties. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Boston Curled—A variety of great beauty with large, dark green leaves, whose edges are deeply frilled, making it highly ornamental; quality first-class. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Victoria Cabbage—Hardy, and fine for early sowing; makes large, solid heads; should be thinned to one foot apart; slow to run to seed. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Philadelphia Butter—Extra fine; second early sort; holding in good condition for the table well through the summer. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Black Seeded Simpson—Much whiter and larger than the ordinary Simpson; leaves beautifully wrinkled, and when well grown forming a mass or bunch nearly compact enough to be called a head; resists the heat well. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.



GREEN FRINGED.

Green Fringed—This very ornamental sort certainly surpasses all other sorts in its handsome appearance. It is of a very delicate and peculiar shade of green, the inner parts of the leaves white, with the edges beautifully cut and fringed. It not only furnishes an abundance of tender leaves fit for use nearly all the summer, but its ornamental character makes it very desirable for table decoration. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Red Fringed—Same as above except the fringe, which is a striking red, being very showy. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Improved Head, Imperial Head or Prized Head—To those who grow their own lettuce this variety is probably more valuable than any in the entire list. It remains exceeding crisp and tender throughout the entire season; of delicious flavor; very slow in running up to seed; very hardy; if given room it attains mammoth size. Oz. 15c; $\frac{1}{2}$ lb. 50c; lb. \$1.50.



IMPROVED HEAD.

Hanson—A very fine heading variety of the largest size, and stands the heat of summer better than any other sort. Heads are solid, sweet, tender and crisp throughout and entirely free from bitter taste. Specially recommended to gardeners. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Curled India—Stands the heat well; very tender; of large size and reliable heading variety. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Hubbard's Market—This is one of the very best market sorts; medium sized, light green color, very slow to run to seed, solid heading sort. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.



GOLDEN SPOTTED.

Golden Spotted—A distinct new variety which is said to have given the most unqualified satisfaction, whenever introduced. Particularly tender; heads large and firm; outer leaves golden yellow speckled with brown-red. Pkt. 10c; Oz. 50c.

Oak-Leaved—A novelty of this season. The introducer says of it: "The distinguishing feature of this new variety of lettuce, is in its oak-shaped leaves, the broader part set to the stem and pointed at the tip, thus giving it a very unique, handsome and attractive appearance, which is retained during all stages of its growth. The leaves are of a light green color, slightly crimped or curled, set very close and forming a head as compact as the peculiar shape of the leaf will permit. It is free from coarse stems; has no bitterness of taste; is possessed of fine flavor and extreme tenderness. When heads are forming, the leaves inside assume a whitish color. It is slowest of any in running to seed, in fact will remain in head for a month before its shoots appear. These shoots are in turn covered with small leaves as delicate and tender as those on young plants." In packets only, 25c; five pkts. for \$1.



OAK-LEAVED.

Paris White Cos—Tender, brittle, mild flavor, very superior quality. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

MARTYNIA.

A strong-growing hardy annual plant, with curious shaped seed pods, which, when young and tender, are highly prized by many for pickling. Pods should be gathered when about half grown. Plant seed in May, in rich, warm soil, in hills three feet apart each way. At first hoeing leave one plant only in a hill. Pkt. 5c; Oz. 25c.

MELON—Musk.

Both the Musk and Water Melon should be planted on the lightest soil to be had, light sandy loam being the best, an old pasture plowed deep and thoroughly harrowed is good; no crop responds more profitably to high culture than the melon. If no other method of enriching the ground has been adopted, work under the surface of the hills a liberal quantity of decomposed stable manure. Plant twelve to fifteen seeds to the hill, which make six feet apart. As melons are very sensitive to cold they should not be planted till settled warm weather sets in, in this latitude about the middle of May. Cultivation should commence as soon as the plants appear above the ground and be kept up once a week until the vines interfere too much. Set the boys after the cut worms, and drive the bugs off with ashes, slackened lime or dry dust; leave but three or four plants to the hill when you are sure of a stand. To grow melons very early, pursue the same plan as recommended for cucumbers.

PER PACKET, FIVE CENTS, EXCEPT WHERE NOTED.

Green Citron—Medium size, deeply netted; flesh green; delicious flavor. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.



JENNY LIND.

Green Nutmeg—An old favorite which has, for many years, been considered the best flavored of any. Flesh light green, rich, melting and highly perfumed. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Jenny Lind—A small, very early melon of most delicious flavor; nearly round, flattened at the ends; distinctly ribbed and finely netted, green fleshed. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Silver Netted—A novelty of decided merit; very dark green, fine silver white netting, light lemon color; flesh very hard and firm; an extra early and beautiful melon. Pkt. 10c; oz. 25c; $\frac{1}{4}$ lb. 75c.

Skillman's Fine Netted—Round, flattened at the ends; flesh green, very thick and of delicious flavor; very early. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

White Japan—Very early, thick flesh, sweet; skin and flesh creamy white. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Casaba—One of the largest and best musk melons in cultivation. Flesh green, very sweet, melting and delicious. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Improved Cantelope—Large size; flesh light green; most delicious flavor; superior for market or private gardens. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Surprise—Thin, cream-colored skin, thickly netted; flesh deep salmon color, very thick, highly flavored and surprisingly productive. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Turks Cap, or Hackensack—A remarkably productive, round melon of large size; deeply ribbed and netted; flesh green, thick and of delicious flavor. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.



SURPRISE.

California Citron—Very large and showy, good quality; flesh deep orange. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.



BAY VIEW.

Bay View—Although but of recent introduction, it occupies an enviable position in the list of luscious melons. It is by far the finest flavored melon we ever ate, deliciously rich and sweet, large size under ordinary treatment; on good ground it averages from twelve to twenty pounds. Flesh very deep, rich green color, skin russet colored; very handsome and attractive in appearance, very firm when ripe and endures shipping well. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Orange Christiana—Undoubtedly the earliest and most delicious of all the musk melons. Should be eaten fresh from the vine; especially desirable for the family garden; very prolific and hardy; deeply ribbed and finely netted; color dark green with yellow flesh. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.



CHRISTIANA.

Arlington Green Nutmeg—An oval, green fleshed and highly flavored sort; the favorite with Boston market gardeners; well worthy a trial, especially by parties growing for market. Our stock is from prize selections. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Netted Gem—A very early, rather small, round melon, with thick, light green flesh of luscious flavor. Very productive, of a handsome appearance and very uniform in size; keeps well after picking. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Honey Dew—Grows to a medium size weighing from three to five pounds, somewhat oblong in shape, deeply netted flesh of a greenish cast, remarkably sweet and with a most delicious, fine, musky flavor. Productive and continues to bear until killed by the frost. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Long Yellow—A large variety, long, oval shape, deeply ribbed; flesh thick, light salmon color and of a peculiar musky flavor. This variety is much used in its green state for Mangoes. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.



Montreal Market—A round melon of the largest size, often weighing twenty pounds and upwards. Skin green and netted; flesh very thick and of the finest flavor. On account of its large size and extremely handsome appearance, it is one of the most valuable market melons grown. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Pine Apple—Medium size, thickly netted; flesh firm, thick, sweet and of finest flavor. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Hardy Ridge, or Prescott—Very large, round flattened at both ends; skin white, warty and deeply ribbed. Flesh is four or five inches thick, of a beautiful rich salmon color, very juicy and sugary. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Golden Gem—An exceedingly promising new sort; very distinct, being of light green; flesh showing a bright golden center when cut; not large, but very

uniform in size and shape; nearly round; thickly netted; flesh deep and luscious; none earlier, and the vines continue vigorous, producing fruit longer than any other sort. Their superb quality, great productiveness and earliness must make them very popular and profitable for market. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

MELON—Water.

Plant in hills eight feet apart, and cultivate the same as muskmelon.

PER PACKET, FIVE CENTS, EXCEPT WHERE NOTED.

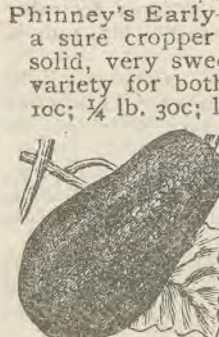
Scaly Bark—This variety first came to public notice at the Atlanta, Ga., Exhibition, in 1881, and has been rapidly growing in favor until it is now considered one of the best, if not the very best shipping melon grown. The skin is dark green, quite smooth, and has a peculiar scaly appearance, hence its name; it is very productive, and unusually large, many specimens attaining a weight of sixty to seventy-five pounds each, average weight about thirty-five pounds. The flesh is crimson, solid, very sweet and melting; rinds very thin, but remarkably tough; it will bear rough handling better than any other sort, and will remain in choice eating condition a month if kept in a dry, cool place. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.



SCALY BARK.

Vick's Early—The earliest of all. Long, rather small size; flesh bright pink; solid and sweet; very desirable. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Phinney's Early—Very early; hardy; productive and a sure cropper; flesh bright crimson, remarkably solid, very sweet, tender and brittle. A valuable variety for both private gardens and market. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.



MOUNTAIN SPROUT.

Mountain Sprout—A long, large striped variety, with bright red flesh. An old favorite. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Mountain Sweet—A large oval variety with striped and marble skin and scarlet flesh. Very solid, sweet and delicious. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Black Spanish—An old and well-known variety and one of the richest. Round; medium to large size; skin dark green; flesh red. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Ice Cream—Medium size, almost round; white seeded, flesh scarlet. A good variety for main crop. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Orange—One of the sweetest; form oval; flesh scarlet and tender; when fully ripe the flesh separates from rind. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Gipsy, or Rattlesnake—Very large and productive; great favorite with gardeners. Flesh bright scarlet and very sweet; form oblong; color light green, distinctly marked with creamy-white stripes;



GIPSEY.

a handsome melon, and will stand shipping long distances. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Haskell's Excelsior—The very best market sort; flesh bright red, very superior quality; enormous size, frequently weighing over forty pounds. Has taken first premium at our State Fair for a number of years. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.



EXCELSIOR.

Cuban Queen—This magnificent new melon is certainly the largest variety ever introduced and is universally admired by all who have seen it. The skin is beautifully striped dark and light green, of the latter there being two shades agreeably diversified. The vines are very strong, healthy and vigorous in growth. The flesh is bright red, remarkably solid, peculiarly luscious, crisp and sugary, and in delicious flavor is unsurpassed. It is an excellent keeper, and although the rind is unusually thin, being scarcely more than half an inch



CUBAN QUEEN.

thick on a melon of enormous size, will bear transit to distant markets well. It is *the* great prize taker; some specimens have weighed over one hundred pounds, having the same delicious qualities as those of smaller or medium size. Do not fail to give it a trial; you will be well repaid and greatly pleased. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Peerless—One of the very best for both private and market gardeners; a vigorous grower and very hardy. Fruit good size, oval, beautifully mottled dark and light green, faintly marked in stripes; rind thin; flesh scarlet, tender and sweet. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Chinese Sculptured Seeded—Flesh cream color, very early, delicious, seeds very curiously marked. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

New Italian—Medium sized, oval, very dark green variety, with crimson flesh, *excellent*. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Boss—Very early and very productive. Medium size, oblong in shape, very dark green skin, thin rind. Flesh is very rich appearing, deep scarlet, sugary, crystalline and melting. One of the best for shipping, having been sent over 1,000 miles in safety. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Apple Pie—Excellent substitute for apples for making pies. Oz. 15c.

Mammoth Iron Clad—The claims of this new variety are said, by the introducer, to be, 1st, uniformly larger in size than any other variety known, the whole crop averaging fifty pounds each, while hundreds of specimens weighed from sixty to seventy pounds each; 2d, its great attractiveness, the shape being the most perfect that could be desired, being oblong and carrying its full size well towards the ends; 3d, quality, equal if not superior to any other sort, never failing to cut solid, with a dainty red color, rich, sugary flavor and a melting deliciousness that is sure to captivate; 4th, firmness, making the longest keepers and best shippers in the whole list. Pkt. 10c; oz. 30c; $\frac{1}{4}$ lb. \$1.

Pride of Georgia—This new melon originated in Georgia and the originator describes it as follows: "We consider this melon par excellence; superior to all melons of which we have any knowledge. It is a dark green mottled color, nearly oval, ridged like an orange, grows partly upon its end; is firm, will ship well, and when well cultivated in good soil, attains a large size. What we claim for this melon especially above all others is, that for crispness, sweetness and flavor, it stands among all the various types of melons as did Saul among the children of Israel—head and shoulders above them all. Pkt. 15c; oz. 50c; $\frac{1}{2}$ lb. \$1.50.

American Champion—Introduced in 1884, by the originator in the following terms. A cross-between Rattlesnake and Scaly Bark melon, both renowned for their excellence. In general character it partakes somewhat of the features of each, but excels in all the most desirable qualities of a first-class melon for market as well as home use. The skin is dark green, delicately marbled with lighter shades; shape slightly oval; size large and remarkably uniform; the crop holds out well in size up to the last pickings, rind very thin, yet so remarkably firm and tenacious that it bears transportation without injury; flesh tender, melting, and of unsurpassed

quality in every respect, retaining its freshness and sweetness longer after picking than any known kind. The vines are of extraordinary vigor and astonishingly productive." Pkt. 10c; oz. 30c; $\frac{1}{4}$ lb. \$1.

Citron—Grown very extensively for making preserves and sweet pickles. Fruit round, not large, smooth, dark green striped and marbled with lighter shades; seeds red; flesh white and solid. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.



CITRON.

MUSTARD.

A pungent salad, used sometimes with cress, also elegant for greens. Sow thickly in rows and cut when about two inches high; for use during winter, it may be sown at intervals in boxes, in the greenhouse or in a frame. For a crop of seeds sow in April, in drills a foot apart, and thin out moderately when about three inches high. Sow early in shallow drills.

White English, or London—Pkt. 5c; oz. 10c; lb. 50c.
Brown or Black—Pkt. 5c; oz. 10c; lb. 50c.

Large White California—Very fine. Pkt. 5c; oz. 10c; lb. 50c.

NASTURTIUM, or INDIAN CRESS.

The seeds, while young and succulent, are pickled and used as capers. The plants are also highly ornamental; the tall variety makes an excellent screen or covering for unsightly places in the garden.

Tall—Pkt. 5c; oz. 15c. **Dwarf**—Pkt. 5c; oz. 25c.

OKRA or GUMBO.



IMPROVED DWARF.

Its long pods, when young, are used in soups, stews, etc., and are believed to be very nutritious. Sow at the usual time of all tender vegetables, in drills two inches deep, setting the plants from two to three feet apart.

Dwarf White—Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c.

New Improved Dwarf—This is an improvement on the old okra, and promises to be quite an acquisition. It grows but fourteen inches high, has long slender pods, and is very productive. Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c.

ONION.

No vegetable is more extensively known and cultivated than the onion. It has been the common seasoning for soups and meats of all nations from time immemorial; and in cooking it is indispensable. It possesses valuable medicinal properties, and is used in colds and coughs as an expectorant. It contains considerable nutriment and is tolerably wholesome, especially if boiled; raw, fried or roasted they are not very digestible. Eating a few leaves of parsley will destroy, in a measure, the unpleasant smell they impart to the breath.

There is no vegetable where the quality of the seed exerts a greater influence upon the crop than in onions. Here, then, if nowhere else, the greatest care should be taken to secure the best possible seed. Seed grown in the North will be pretty sure to produce better onions when sown in the Southern States than Southern grown seed.

TO MAKE MONEY

growing Onions, plant them *year after year regardless of price.*

There is probably no vegetable which fluctuates so much in price as the onion. They seem to run to extremes. We have seen them sold in Iowa as low as fifteen cents, and as high as four dollars per bushel within a few years. Therefore we say plant them year after year, and the *average price* will pay as well as any crop we know of. Do not be discouraged and stop because of low prices you obtain for your crop.

The onion thrives best on very rich, loamy soil. Unlike most vegetables, it flourishes when cultivated on the same land for many successive years. If possible, plow ground in the Fall. Sow four pounds of seed per acre *as early in Spring as ground can be worked*, which must be *thoroughly* pulverized and leveled, in drills fifteen inches apart; cover one-half inch. Commence hoeing soon as rows can be seen; skim the ground over the surface; avoid stirring deeply, and work the soil away from the bulbs. At second hoeing weed thoroughly and carefully by hand; thin plants to three inches in the row. When the tops die, pull and spread evenly over the ground; stir or turn until fully dried, then cut the tops one-half inch from the bulb. To keep the onions through Winter, a cool, dry, outside cellar (those under dwellings being usually too warm) or barn may be employed, any cool (not freezing) dry, well ventilated room will do. If in a barn, protect on all sides with two feet of good straw. Do not pile them in more than ten-inch layers between the straw. Freezing does not injure, if not allowed to thaw and freeze again. To grow sets from seed, sow early and thick in drills. When the tops die down, (about middle of July) they are ready to harvest. For the cultivation of onions, we know of no tools so useful as Comstock's Horticultural Implements and Planet, Jr., tools; see last part of manual for description of these. Our seed is grown from bulbs selected for perfect shape and small necks. Prices are as low as first-class fresh seed can be sold at. We are aware of the importance of the onion crop, and pay special attention to this seed. Our customers are unanimous in their praise of our onion seed wherever grown, there-

fore it is unnecessary to say anything to them. But to new customers we would respectfully say, GIVE US A TRIAL ORDER; it will pay you.

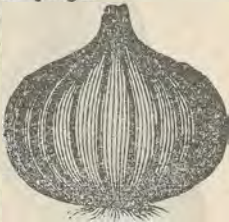
PER PACKET, FIVE CENTS, EXCEPT WHERE NOTED.

Best American sorts grown from choice Onions.

Extra Early Bloomsdale Pearl—The most remarkable onion ever introduced. Earliest of all. Pearly white, translucent, growing almost with the rapidity of a radish. Form flat; flavor very mild. Try it. *Wonderfully fine.* Pkt. 10c; oz. 50c; ¼ lb. \$1.50.

Extra Early Red—Fortnight earlier than Wethersfield. Medium size, flat, dark red in color; an excellent keeper. Oz. 15c; ¼ lb. 50c; lb. \$1.50.

Large Red Wethersfield—This is the standard variety of the Western onion growers and a favorite sort wherever onions are grown for shipment. Large size; skin deep purplish-red; form round, flat; flesh purplish-white; moderately fine-grained. Very productive and an excellent keeper. Oz. 15c; ¼ lb. 50c; lb. \$1.50.



LARGE RED WETHERSFIELD.

Yellow Danvers—A fine variety, originated in South Danvers, Mass. Above the medium size, globular in form; skin yellowish-brown; flesh white, sugary, comparatively mild and well flavored; a good producer, frequently producing six hundred bushels to the acre, from seed sown in the spring. A good keeper, probably the best of all the onions. Oz. 15c; ¼ lb. 50c; lb. \$1.50.

White Portugal—Handsome, mild flavor; not extra good keeper; extensively grown for pickling. Pkt. 10c; oz. 25c; ¼ lb. \$1; lb. \$3.

Large Yellow—One of the oldest sorts, and as a market variety, probably better known and more generally grown in this country than any other. Flesh white, fine-grained, mild, sugary and well-flavored. Hardy and productive. Oz. 15c; ¼ lb. 50c; lb. \$1.50.



LARGE WHITE GLOBE.

Large White Globe—The handsomest market variety we have ever seen. Large size; oval form; very even; mild and pleasant flavor; good keeper; outsells every other variety. Pkt. 10c; oz. 25c; ¼ lb. \$1; lb. \$3.

Red Globe—Ripens ahead of the Wethersfield. It is a very productive and extremely popular market sort. Oz. 15c; ¼ lb. 50c; lb. \$1.50.

Small White Silverskin—For pickling. This is of small size, silvery white, and used almost entirely for pickling, on account of its small size, handsome appearance and mild flavor. Pkt. 10c; oz. 25c; ¼ lb. \$1; lb. \$3.

ITALIAN ONIONS.

The flavor of these is much milder than the ordinary onion. They are large, early and well adapted to home use. They are not good keepers, as a rule. The following are the best varieties:

EACH, PER PACKET, TEN CENTS.

New Queen—A very nice extra early silver-skinned Tripoli onion, as remarkable for its keeping qualities as for the rapidity of its growth, being the best keeper of the foreign sorts. Very mild flavored and excellent for pickling. Oz. 25c; ¼ lb. \$1; lb. \$3.

Giant Rocca—Very large, frequently weighing three and one-half pounds. Globular form; mild, delicate flavor. Oz. 25c; ¼ lb. \$1; lb. \$3.

Marzago—Very handsome, large, flat, silvery onions, extremely early. Oz. 25c; ¼ lb. \$1; lb. \$3.

Large Red Tripoli—Also very large and mild flavored; will grow to a large size from seed the first season, but to attain full size the small onions should be kept over and set out the following spring. Oz. 25c; ¼ lb. \$1; lb. \$3.

Large White Tripoli—Similar to the red except color. Pkt. 10c; oz. 25c; ¼ lb. \$1; lb. \$3.

Onion Sets—See Vegetable Roots.

PARSLEY.

A vegetable much used for seasoning soups and stews, and for garnishing. For winter use it may be transplanted under glass or to a light cellar; it may also be dried and rubbed to powder and kept in jars or bottles. The seed is very slow to germinate, and should be planted very early in spring; soaking the seed a day in warm water before sowing is an advantage. Sow in

drills one foot apart, cover half an inch, and thin to six inches; or, better still, transplant and cut back. Well-grown plants are very ornamental in the flower garden, and make handsome borders.

Fern Leaved—One of the very best in cultivation; leaves bright green, beautifully curled and crested like fern or moss; nothing better for garnishing could be desired, as well as ornamental for a garden decorative plant. Pkt. 5c; oz. 10c; ¼ lb. 30c.



COVENT GARDEN.

Covent Garden—Finest curled; best for garnishing. Pkt. 5c; oz. 10c; ¼ lb. 30c.

Plain Leaved—The hardiest and strongest growing variety. Leaves dark green. The best flavored for seasoning. Pkt. 5c; oz. 10c; ¼ lb. 30c.

PARSNIPS.

For this crop the ground should be thoroughly prepared by plowing rather deep, and harrowing till clear of clods and lumps; well decomposed manures should be used, as rank manures produce rough, ill-shaped roots. It is extremely valuable for cattle feeding, being more nutritious than turnips or carrots, and yields immense crops with ordinary cultivation. Sow early in spring, in drills fifteen inches apart, covering half an inch; thin to five or six inches apart. They are improved by the frost, and it is usual to take up in the fall a certain quantity for winter, leaving the rest in the ground until spring; in this latitude they need no protection if left in the ground.

PER PACKET, FIVE CENTS.

Long Sugar or Hollow Crown—Best for general use; very tender, sugary, excellent flavored; large size; white and smooth. Oz. 10c; ¼ lb. 30c; lb. \$1.

Maltese—A new, long, very fine English variety. Claimed to be an improvement over all other sorts. Oz. 10c; ¼ lb. 30c; lb. \$1.

Sutton's Student—A fine flavored variety, somewhat smaller than the above kinds. Unexcelled for table use. Oz. 10c; ¼ lb. 30c; lb. \$1.



LONG SUGAR OR HOLLOW CROWN.

PEAS.

Peas mature quickest in light, dry soil, not too rich. May be sown as early as the ground can be worked, and for a succession every two weeks up to July, after which there is danger of mildew. Sow in drills four to six feet apart, according to varieties, one inch apart in the drills, not less than four inches deep, and late in the season seven or eight inches. A good plan, and one adopted by many market gardeners, is to sow in double drills, allowing four to six inches between these rows. Occasionally a good late crop can be obtained by sowing an early sort as late as the 20th of August. All peas should be gathered as fast as they become fit for use, for if they are allowed to ripen on the vine, the vines stop producing. All wrinkled peas are superior to the smoother sorts in flavor and sweetness, and they remain longer in condition for use. They are marked * in this list and should be sown thicker in the row than the smooth varieties, as they are more liable to rot. *Twenty-five cents per quart must be added to pay postage when Peas are ordered by mail.*

ALL PEAS, PER PACKET, TEN CENTS, POST-PAID.

EARLY VARIETIES.

***Bliss' American Wonder**—Undoubtedly the earliest wrinkled pea yet introduced; hardy, and of very robust habit, attaining a height of only nine inches, but "filled to the brim" with pods, and these pods crowded with very sweet, sugary peas of the most delicious flavor. It has become a favorite with all lovers of peas. Qt. 40c; pk. \$2.50; bu. \$9.

Telegraph—This is an extraordinary acquisition, the peas often being so close together as to appear to be forming a double row in the pod. It is a fine second early variety, very robust in habit, bearing immense pods; the peas, when cooked, of a fine, deep green color; a great bearer and of fine flavor; height five feet. Qt. 40c; pk. \$2.10; bu. \$8.

Extra Early Challenge—The Challenge was obtained by continued selections from Extra Early Philadelphia, and we can in all confidence say that after a trial of nearly all Extra Early varieties offered to the

trade, we have not found one possessing more merit, hence its name. For the market gardener it has no superior. It is not only extremely early and prolific but it is of most luscious flavor. All the good qualities of the Extra Early are more nearly brought to perfection in the Challenge. Vines 18 inches. Qt. 40c; pk. \$2.10; bu. \$8.

McBeth's Pride—An improvement of the Kentish Invicta, being fully as early, and materially better, sustaining the same relation to that desirable variety as does the Challenge to the Extra Early. It matures its entire crop together, so that one picking is sufficient. For shipping this is a most valuable item. Height, 36 inches. Qt. 40c; pk. \$2.10; bu. \$8.

American Racer—This pea has proved very early, wonderfully productive and of the finest quality; an acquisition of high merit; height, two to two and one-half feet. Qt. 50c.

***Day's Early Sunrise**—A first early white pea, bearing a great profusion of large, well-filled pods. Each pod contains from seven to ten large wrinkled peas, of fine flavor. It is also a good sort to sow for main crop. Qt. 40c; pk. \$2.10.

***Telephone**—This grand new variety grows four feet high, of very robust habit, with long pods, each containing ten to twelve very large peas, of most exquisite flavor. It is without exception the most productive of any early kind. Qt. 40c; pk. \$2.10; bush. \$8.



PHILADELPHIA
EXTRA EARLY.

Carter's First Crop—Very productive; good flavor; height 30 inches. Qt. 25c; pk. \$1.50; bu. \$5.

***Laxton's Alpha**—Exquisite flavor; remarkable for its earliness and prolific bearing; pods large and well filled; height two and one-half feet. Qt. 40c; pk. \$2.10; bu. \$8.

Philadelphia Extra Early—Favorite market variety; very early; productive; fine flavor; height 27 inches. Qt. 25c; pk. \$1.50; bu. \$5.

***McLean's Little Gem**—Dwarf; delicious flavor; rich and sugary; very early. Height one foot. A standard favorite for both private and market gardens. Qt. 40c; pk. \$2.10; bush. \$8.

***Premium Gem**—Magnificent dwarf; very productive, and well liked by all; said to be an improvement over the Little Gem. Qt. 40c; pk. \$2.10; bu. \$8.

Early Kent—A fine pea; early and productive. Height thirty inches. Qt. 25c; pk. \$1.50; bu. \$5.

Tom Thumb—Very dwarf, not exceeding nine inches; an abundant bearer of good quality. Qt. 40c; pk. \$2.10; bu. \$8.

Improved Dan O'Rourke—A popular market variety. Height two feet. Qt. 25c; pk. \$1.50; bu. \$5.

Kentish Invicta—Earliest blue pea except McBeth's Pride in cultivation; quality first-class; very productive. Height two and one-half feet. Qt. 25c; pk. \$1.75; bu. \$6.

McLean's Blue Peter—Excellent quality; general habit like Tom Thumb, but more robust, almost as dwarf and immensely productive. Qt. 40c; pk. \$2.10; bu. \$8.

Bliss's Abundance—This new pea is introduced to the public claiming extraordinary productiveness, having produced 667 lbs. from 10 lbs. of seed. It is described by the introducer as "half dwarf, fifteen to eighteen inches high, foliage large, thick, full and dark green; pods three to three and a half inches long, roundish and well filled, containing six to eight large wrinkled peas of excellent quality; ripens second early, being fit for the table about one week after the earliest. The most striking feature of this variety is its remarkable tendency for branching directly from the roots, forming a veritable bush. Many plants throw out six and more branches, each of which becomes literally covered with blossoms and pods in such abundance that the quantity produced by each branch would be considered a beautiful yield for an entire plant of many varieties. Plants should stand six to eight inches apart in the rows. Pkt. 15c; pint 60c; Qt. \$1.

Cleveland's "Rural New Yorker."—The originator says of it: "It is the earliest, most even in growth and maturity of any pea ever introduced; is wonderfully productive, presenting the appearance of being stocked in the large, beautifully-shaped and well-filled pods it bears; eighty to ninety per cent. of which can be removed at one picking. Its hardy character enables it to successfully withstand unfavorable

weather: to which peas of a weaker nature would succumb. Its table qualities are superb; cannot but prove the market garden pea." Qt. 50c; pk. \$3.50.

VARIETIES FOR MAIN CROP.

***Stratagem**—A new English variety which is attracting much attention. It grows about two feet high; is very robust, heavy cropper, with large, well-filled pods. The *Gardner's Monthly* says: "Stratagem is the pea for everybody, whether rich or poor. It is a pea that will always pay, whether for the best table in the land or for the people's market. With one first early sort to start with and Stratagem to follow, a gardener will not need any or many more sorts." Try it. Qt. 50c; pk. \$3.50.

***Laxton's Marvel**—This is one of Mr. Laxton's latest and best introductions. Pods long, handsome and well filled with the richest and sweetest of peas; very productive; second early in season. Height two and one-half feet. Qt. 40c; pk. \$2.10; bu. \$8.

***John Bull**—One of the very best varieties ever sent out by the eminent English raiser, Mr. Laxton, who describes it as attaining a height of three feet, and as having proved to be one of the most valuable and best of main crop peas. It is a very heavy cropper and possesses an exceedingly rich flavor. It is what is known as a blue wrinkled variety. Packets only 25c; 5 packets for \$1.

***Horsford's Market Garden**—This new pea is introduced by those well-known growers of new vegetables and grain, Pringle & Horsford. They say of it: "This new wrinkled pea is the result of a cross between the 'Alpha' and 'American Wonder.' It grows from fifteen to thirty inches high, is very stocky, and requires no bushing. It is extremely prolific and bears its pods always in pairs. Each vine throws out from fifteen to twenty-five laterals, ten to fifteen inches long, and on some of the best plants over 150 pods have been counted. Twenty bushels have been grown from thirty-five pounds of seed. Its habit is such that a small amount of seed will plant a large plot of ground. It ripens about with 'McLean's Advancer,' and those who have eaten it pronounce it one of the sweetest they have tasted." Packets only 25c each, 5 packets for \$1.

***Bliss's Ever-Bearing**—A new pea, introduced to the public last season. The originator said of it: "The want of a reliable first-class pea for summer and Autumn use has long and seriously been felt by every one. With this new and remarkable variety, we are confident to place before the public a pea which will be recognized as the main dependence for a summer and winter crop. Season, medium to very late. Height 18 inches to two feet; foliage very large, firm and bright green; pods three to four inches long on the average, each pod producing six to eight peas, wrinkled; size of pods, very large, half an inch and over in diameter; quality, unsurpassed in sweetness as well as flavor; in fact, it possesses a peculiar richness and marrow flavor not found in any other variety. It partakes of the same branching habit mentioned with Abundance in a greater degree even. The individual branches are of extraordinary strength and substance. We recommend brushing when convenient, as the crop will be greatly increased by so doing. We do not hesitate to say that, for continuance of bearing, this variety is unexcelled, if equaled. After repeated pickings of quantities of full-sized pods, the vines continue to be covered with blossoms and buds, developing to maturity in turn, until cut down by frost. Pkt. 15c; pt. 60c; qt. \$1.

Dwarf White Marrow—Similar in quality to the tall variety, but much earlier, and does well without bushing. Good yielder, much prized by gardeners. Height three feet. Qt. 25c; pk. \$1.75; bush. \$6.

***Champion of England**—Universally admitted by all to be one of the richest and best flavored peas grown. It is very popular and will bring a higher price in the market than any other. Height four feet. Qt. 25c; pk. \$1.75; bu. \$6.

White Marrowfat—This is undoubtedly the greatest bearer and is cultivated more extensively than any other. It is excellent for summer use, but inferior in quality to some of the newer varieties. Height four feet. Qt. 20c; pk. \$1; bu. \$3.

Black-Eyed Marrowfat—Hardy and productive. Similar to above. Qt. 20c; pk. \$1; bu. \$3.

Dwarf Blue Imperial—Large, fine flavored; among the best either for market or private garden. Height three feet. Qt. 25c; pk. \$1.75; bu. \$6.

***McLean's Advancer**—A fine wrinkled marrow. Height two and a half feet. Qt. 40c; pk. \$2.10; bu. \$8.

Yorkshire Hero—Fine marrow; strong grower. Height four feet. Qt. 40c; pk. \$2.10; bu. \$8.

Dwarf Sugar—Edible pods, use like snap beans. Height two feet. Very fine quality. Qt. 50; pk. \$3.50.

Field Peas—See Field Seeds.

PEPPER.

Grown largely for pickles, also much used and highly esteemed for their seasoning qualities. Seeds germinate slow and require full as much heat as Egg Plant; set out in open ground when the ground becomes warm, in warm mellow soil, in rows eighteen inches apart and a foot apart in the row. As they mature early the seed may be sown in the open ground as soon as settled warm weather sets in.

Large Bell, or Bull Nose—A very large early variety rind thick and fleshy, less pungent than many other sorts; much used for making stuffed pickles. Pkt. 10 oz. 30c; ¼ lb. \$1.



LARGE BELL.

Sweet Mountain or Mammoth—Resembling the above, but somewhat larger. Pkt. 10c; oz. 30c; ½ lb. \$1.

Cherry Red—A small, smooth, round variety of dwarf growth. Fruit at maturity of a deep, rich, glossy scarlet color, remarkable for its intense piquancy. Pkt. 10c; oz. 30c; ¼ lb. \$1.



RED CAYENNE.

Squash, or Tomato-shaped—Skin smooth and glossy, when ripe of a coral red; flesh thick, mild and pleasant to the taste; an excellent sort for pickling. Pkt. 10c; oz. 30c; ¼ lb. \$1.

Red Cayenne—Long, red, tapering; hot for seasoning. Pkt. 10c; oz. 30c; ¼ lb. \$1.

Long Red—Fruit brilliant coral red, conical, from 3 to 4 inches in



LONG RED.

Chili—Pods pendent, sharply conical, about two inches in length, half an inch in diameter; very piquant. Pkt. 10c; oz. 30c; ¼ lb. \$1.

New Golden Dawn Mango—In shape and size this new mango is



NEW GOLDEN DAWN.

similar to the well known Sweet Mountain. In productiveness it surpasses any variety we ever grew. In color it is a bright golden yellow, very brilliant and handsome, especially showy when mixed with red sorts by way of contrast. But the quality which distinguishes it from all others, its crowning point of excellence is the fact that it is entirely exempt from fiery flavor. Even the seeds and pulp may be chewed without detecting the slightest smart taste. Ladies who have had trouble with burned hands, in stuffing so-called sweet mangoes, will appreciate this trait in their character. Pkt. 10c; oz. 30c; ¼ lb. \$1.

Ruby King—This new pepper attains a larger size than the Spanish Monstrous, and of different shape. The fruits are six to eight inches long by four inches through, of a bright ruby-red color; remarkably mild and pleasant in flavor, they can be sliced and eaten with vinegar like tomatoes, and make a very pleasant and appetizing salad. The Ruby King is an acquisition and will occupy a similar position among red peppers as Golden Dawn among the yellow sorts. The plant is bushy in growth and very ornamental, each plant producing from six to eight large handsome peppers. Pkt. 15c; oz. 50c.

PUMPKIN.

Plant in hills 8 feet apart in May, among potatoes or corn, or in open field.

Connecticut Field—This is the kind from which to make good old-fashioned Yankee pumpkin pies. Very productive; fine also for feeding stock. Pkt. 5c; oz. 10c; ¼ lb. 20c; lb. 50c.

Black Jack—In this we have a decided novelty of real merit. In shape it resembles an over-grown Bull Nose Pepper. Color very dark green or black; very thick meat; shell as hard as a Hubbard squash. It came from the Azores Islands, and has proved a remarkable success. It usually weighs from ten to twelve pounds, keeps well and is of splendid quality. Pkt. 15c; oz. 50c.

Large Cheese—Very desirable for cooking purposes. Pkt. 5c; oz. 10c; ¼ lb. 30c; lb. \$1.

Cushaw—Light cream color; flesh salmon color; resembling the winter Crook-Neck Squash in shape; somewhat tender. Pkt. 5c; oz. 10; ¼ lb. 30c; lb. \$1.

Sweet Pumpkin—Great favorite. Pkt. 5c; oz. 10c; ¼ lb. 30c; lb. \$1.

Mammoth Etampes—A new variety which grows to an enormous size. It is considerably flattened at both ends. Color bright red, presents a very handsome appearance, very thick meated and of excellent quality; very early and productive. Pkt. 10c; oz. 20c; ¼ lb. 60c; lb. \$2.

Possum Nose—Form large oval; color bluish gray with narrow stripes from stem to blossom grows readily to a weight of thirty-five to fifty pounds, with thick flesh of a rich yellow color, and a very fine quality; matures early and is a good keeper. It is said to rival the Hubbard Squash in fineness of grain and cooking qualities. Pkt. 10c; oz. 20c ¼ lb. 60c; lb. \$2.

RADISH.

For very early use, seed should be sown in hot beds in drills four or five inches apart and half an inch deep. As soon as the ground can be worked, sow in drills 12 inches apart on thoroughly enriched, light, warm, sandy soil, protected on the north and west if possible. For a succession, sow at intervals of two weeks until midsummer. Spring and summer varieties should always be eaten when quite young, as they are apt to become pithy and tough when full grown. The winter varieties should be sown about the time of turnip sowing. Good radishes cannot be raised on poor soil. They require quick growth. Our seed is imported direct from Europe and is the best to be had.

PER PACKET, FIVE CENTS.



EARLY SCARLET WHITE TIP.

Early Scarlet White Tip—A beautiful variety; quite ornamental, for table use, and is becoming quite popular. Turnip shaped. Oz, 10c; ¼ lb, 25c; lb, 75c.

Early Scarlet Turnip—Very early, rich colored, crisp and tender; flesh white. Oz, 10c; ¼ lb, 25c; lb, 75c.

Early White Turnip—Like the preceding except color, which is pure white. Oz, 10c; ¼ lb, 25c; lb, 75c.

Scarlet Olive Shaped—Early and well adapted for forcing or general crop. Skin fine scarlet; flesh rose colored, tender and crisp. Oz, 10c; ¼ lb, 25c; lb, 75c.

White Olive—Different from the other only in color. Oz, 10c; ¼ lb, 25c; lb, 75c.

Rose Olive—Similar to the others, except color, which is bright rose. Oz, 10c; ¼ lb, 25c; lb, 75c.



SCARLET OLIVE.

French Breakfast—Beautiful scarlet color tipped with white, which makes it very ornamental on the table. It is oval shaped, of quick growth, very tender and crisp. Oz, 10c; ¼ lb, 25c; lb, 75c.

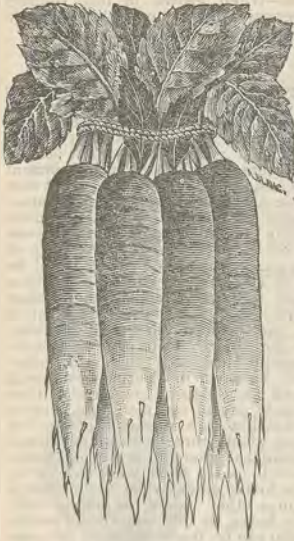
Wood's Early Frame—In shape between Olive and Long Scarlet; very early, splendid for forcing and should be more extensively used by market gardeners. Great favorite wherever used. Oz, 10c; ¼ lb, 25c; lb, 75c.

Early Long Scarlet, Short Top—Very extensively grown, and very tender when grown quickly. It is the best standard variety for market gardeners and private use. It is uniformly straight and smooth, bright scarlet. Oz, 10c; ¼ lb, 25c; lb, 75c.

Covent Garden Long Scarlet—An improved Long Scarlet. Oz, 10c; ¼ lb, 30c; lb, \$1.



LONG SCARLET.



IMPROVED CHARTIER.

Improved Chartist—This is said by the introducer (a market gardener) to be the handsomest and most valuable of all the radishes. In form it is not quite so long as the Long Scarlet and not so tapering, holding its size well down its full length. Not strong, but crisp and tender. Its great value lies in its being in fine market condition when quite small and continuing so until grown to large size, even when grown in hot weather. Market gardeners should try this. In packets only 25c; 5 for \$1.

Long White Naples—Clear white tinged with green at the top, fine grained and crisp; a late variety. Oz, 10c; $\frac{1}{4}$ lb, 30c; lb, \$1.

Golden Globe—Very handsome and excellent summer radish, tender and brittle, producing radishes of the best quality in the hottest seasons. Oz, 10c; $\frac{1}{4}$ lb, 30c; lb, \$1.



WHITE SUMMER.

White Summer—We highly recommend this to all as the best summer variety. It is of large size, quick growth, turnip-shaped; flesh white, semi-transparent, tender and crisp. They have brought the highest price of any of the radishes in our market for several years. Oz, 15c; $\frac{1}{4}$ lb, 50c; lb, \$1.50.

Chinese Rose Winter—Excellent; medium size; firm and tender; flesh bright rose color. This, and all the winter radishes should be sown about the same time as fall turnips, on light rich soil; cultivate often, thin to three inches; gather and store in cellar, in damp sand, before frost. Oz, 10c; $\frac{1}{4}$ lb, 30c; lb, \$1.

Black Spanish Winter—A standard variety of good quality. Oz, 10c; $\frac{1}{4}$ lb, 25c; lb, 75c.

Mammoth White Winter—An introduction from China. Oz, 15c; $\frac{1}{4}$ lb, 50c; lb, \$1.50.



BLACK SPANISH.

RHUBARB, or PIE PLANT.



No family garden should be without a bed of this. Succeeds best in deep, rich soil. Sow in spring in drills, cover one inch; thin plants to six inches apart. Transplant in autumn or spring to permanent beds, three feet apart each way. It is a strong feeder and will bear manuring heavily.

Victoria, or Mammoth—Very large and fine. Pkt, 5c; oz, 20c; $\frac{1}{4}$ lb, 60c.

Roots of Same—(See list of Vegetable Plants and Roots.)

SPINACH.

Extremely wholesome and palatable. Used for greens. For summer, sow early in spring, in deep, rich soil, in drills one foot apart, cover one inch; for succession sow every two weeks till June; plants should stand from four to six inches apart, the thinning may be partly done

by cutting for use. For very early spring use, sow the winter varieties last of August, and protect by covering with straw.

PER PACKET, FIVE CENTS.

Round—Equally good for spring or fall sowing. It is generally preferred for early sowing, and is the most popular variety with market gardeners; leaves large, thick and fleshy. Oz, 10c; $\frac{1}{4}$ lb, 20c; lb, 50c.

Flanders—Very productive, large, broad leaves. Oz, 10c; $\frac{1}{4}$ lb, 20c; lb, 50c.

Savoy Leaved—Leaves wrinkled, similar to Savoy cabbage, produces enormous crops, superior quality, very hardy. Oz, 10c; $\frac{1}{4}$ lb, 20c; lb, 50c.

Prickly—This is the hardest variety and is more generally used for fall sowing than any other; prickly seeded, arrow shaped leaves, sow in this latitude about the first of September. Oz, 10c, $\frac{1}{4}$ lb, 20c; lb, 50c.

Viroflay—A very extra variety of lettuce leaved spinach, leaves long, broad, thick, very fleshy, dark green, grows to an enormous size, and produces wonderful crops. Oz, 10c; $\frac{1}{4}$ lb, 20c; lb, 50c.

Long Standing—A new variety of spinach which has the valuable peculiarity of remaining a long time before running to seed. The leaves are very thick and of an excellent flavor. Said to be the best of all. Oz, 10c; $\frac{1}{4}$ lb, 25c; lb, 75c.



LONG STANDING.

SALSIFY, or VEGETABLE OYSTER.

Has a long, white tapering root, resembling a small parsnip, and is a delicious substitute for oysters in soups, much liked by all who have tried it. It should be more generally cultivated. It succeeds best in a light, well-enriched soil which should be plowed very deep. Cultivate same as parsnips; sow early. Like parsnips it is perfectly hardy and may be left out all winter, but must be dug early in spring, as they deteriorate rapidly after the frost goes out. Pkt, 5c; oz, 15c; $\frac{1}{4}$ lb, 50c; lb, \$1.50.



SQUASH.

Squashes are all quite tender, therefore no progress can be made in starting them until the weather becomes warm and settled, except as recommended for cucumbers; the winter varieties should, however, be planted as early as possible, and a rapid growth encouraged. Treatment the same as for melons and cucumbers. Plant bush varieties three feet apart, others eight. The fall and winter varieties are very valuable for feeding stock, one acre being worth about as much for this purpose as two acres of corn; the Hubbard is especially valuable for feeding milch cows.

PER PACKET, FIVE CENTS, EXCEPT WHERE NOTED.

Boston Marrow—This delicious variety is of a rich orange color all the way through; ovate in form; very thin rind; fine grained; exquisite flavor; although it is a fall sort it keeps well through the winter; unexcelled for cooking; it will boil as dry as a potato. Squashes raised from our seed have been shipped from Iowa to Boston by the car load, and sold there at the highest market prices. This fact we mention merely to give you an idea of the superiority of this squash. Oz, 10c; $\frac{1}{4}$ lb, 30c; lb, \$1.



BUSH SCOLLOP.

Early White Bush Scalloped—Differing from the above only in color. Oz, 10c; $\frac{1}{4}$ lb, 30c; lb, \$1.

Early Bush Crookneck—A favorite variety with all market gardeners. It is one of the best and richest summer sorts; very early and productive, color bright yellow. Oz, 10c; $\frac{1}{4}$ lb, 30c; lb, \$1.

New Golden Bush—The most magnificent summer squash yet brought out. It is thicker, larger and superior in every way to the old varieties. Very early, cannot fail to take the lead in market. Try it. Pkt, 15c; oz, 50c; $\frac{1}{4}$ lb, \$1.50.

Perfect Gem—This variety has proven to be a perfect gem for both winter and summer use. Early in the season they grow like the bush varieties, setting fruit



GOLDEN BUSH.



PERFECT GEM.

near the root but later sending out vigorous vines which bear profusely. Fruit small nearly round, slightly ribbed, skin thin, smooth and of a creamy white color; flesh fine grained, and when cooked is dry, very sweet, and has a delicious flavor, entirely free from that strong taste common to winter squashes. It is remarkable for its keeping qualities, in a dry, cool room, free from frost, they may be kept until spring. Wonderfully productive. Oz. 15c, $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Early Yellow Bush Scolloped, or Patty Pan—A very early flat scolloped variety, taking but little room and bearing abundantly. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Little Cocoon—Beautiful little fall variety; superior flavor, solid, very fine grain, extremely prolific, quite ornamental. Oz. 15c; $\frac{1}{4}$ lb. 50c. lb. \$1.50.

Hubbard—This old variety has for years stood the test of all rivals and is undoubtedly the best winter squash known, hard green shell; flesh bright orange yellow, fine grained, very dry, sweet and rich flavored; keeps in perfect condition throughout the winter. We believe our strain of this variety to be unsurpassed by any in the country, and recommend it with confidence. Oz. 10c, $\frac{1}{4}$ lb. 30c; lb. \$1.



HUBBARD.

Winter Crookneck—An old standard sort, quite hardy and the most certain to produce a crop of any; good keeper. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

American Turban—In form somewhat like a Turban; flesh deep, orange yellow in color, fine grained, very dry, sweet and of delicious flavor, unexcelled for fall and early Winter use. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Marblehead—A splendid Winter variety, only equaled by the Hubbard. Shell very hard, of a light blue color; flesh fully equal to the Hubbard in quality. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.



ESSEX HYBRID.

Essex Hybrid—Cross between the Turban and Hubbard, somewhat earlier than either, combines the shape of the Turban with the hard shell of the Hubbard and a better keeper than either. Flesh very thick, rich colored, solid and fine flavored. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.

Mammoth Chili—Immense size, frequently growing to the weight of 300 lbs. Good for stock and cooking. Pkt. 10c; oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.75.

White Pine Apple—This very desirable novelty originated in New Jersey, where it has attracted much attention and commanded very high prices. The skin and flesh are of a pure, creamy white color, very fine grained, and of excellent quality and flavor, resembling the cocoon when made into pies or custards, being superior to any other squash or pumpkin for this purpose. They can be used at anytime during growth and after maturing make a good fall and winter sort, being excellent keepers. They are remarkably strong growers and very productive. Pkt. 10c oz. 30c; $\frac{1}{4}$ lb. \$1.

TOBACCO.

Early in spring, burn a brush pile on the ground to be used for seed-bed. Then thoroughly pulverise the soil, digging and mixing in ashes. Sow seed very shallow. When plants are six inches high, transplant into rows four feet apart. Cultivate thoroughly.



CONNECTICUT SEED LEAF

a large quantity of manufacturing material. Pkt. 10c; oz. 40c.

Connecticut Seed Leaf—Best adapted to the climate of the Middle and Northern States, as it is more hardy and endures the cold better than the tender varieties grown south. In many of the Northern States, and in Canada, this variety is a staple crop. Pkt. 5c; oz. 25c.

White Burley—Especially desirable for the manufacture of cigars, as the leaf readily absorbs

Imported Havana—When grown in this country commands a higher price for cigar stock, than any other. Pkt. 10c; oz. 75c.

TOMATO.

This luscious vegetable is one of the most valuable and popular in the world. Its growth in favor is wonderful, when we stop to consider that but a few years ago the tomato, or love-apple as it was then called, was unknown as a table vegetable, and but seldom seen in the garden, where it was grown as an ornament only, and by many considered as poisonous. It is now produced in immense quantities, and is the most valuable canning vegetable in existence. When the Tomato first found its way into the dining room, it was a poor rough specimen. Not until within the last score of years was there a variety introduced which could be claimed as smooth or symmetrical, and only within a very few years have the radical improvements been brought about which bring the tomato to us in all of its improved types, such as form, size, solidity, color, &c. We attribute the improvements in the tomato more largely to careful selections than any other agency. Seed should be sown in February or March in the hot-bed, which should have greater heat than for any other vegetable, except egg plant and peppers—when two or three inches high transplant in hot-bed or cold-frame setting plants three inches apart each way. For private gardens, where no hot-bed is made, a good plan is to plant in boxes filled with fine earth, and keep quite warm by the stove, when fourth leaf is formed transplant into other boxes, or better still, flower pots or fruit boxes, in this way strong stocky plants will be had that can be transplanted to the open ground, without checking their growth, which is important if early fruit is desired. Transplant to open ground when all danger of frost is past, six feet apart each way. Well manured, light sandy soil is best. Our seed is saved from selected fruit, and is extra choice.

PER PACKET, FIVE CENTS, EXCEPT WHERE NOTED.

Golden Acme—In this we have a true sport of the Old Acme, now so favorably known throughout the country, it resembles its parent in everything except color, having a rich golden yellow skin, beautifully tinged. It possesses all the good qualities of the favorite Purple Acme, and is a decided acquisition. Pkt., 15c; oz. 75c.

The Mayflower—This new variety is one of the earliest of the large kinds in cultivation, at least one-third larger than the Early Acme; of a bright red color; ripens evenly up to the stem, and presents a beautiful appearance; shape globular, slightly flattened, perfectly smooth, flesh solid and unusually free from seeds, of rich flavor, very productive until killed by frost. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Favorite—Originated with Mr. Livingston, who also introduced the Acme, Paragon and Perfection, three of the best tomatoes on the list. It is large, handsome and of the finest quality; skin firm, smooth, and of a bright, glossy red; ripens evenly throughout, with no green or hard spots; remarkably smooth, solid, and has but few seeds; free from rot, cracks or blemishes; vine stout, healthy and vigorous; very productive, bearing full-sized fruit till frost; unequaled for shipping or canning. We have grown hundreds of pounds of seed of this variety, and pronounce it the very best tomato on this or any other list. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.



FAVORITE.

Perfection—One of the largest early varieties known, being as early as the Canada Victor, and differing from most early sorts in continuing to bear abundantly until frost. It is perfectly smooth; contains but few seeds and is very solid. Is somewhat larger than the Acme, of a glossy, blood-red color; never sunburns, but rather brightens from the effect of the sun. It ripens all over and through at the same time; is free from rot at the blossom end. Never becomes hollow late in the season; is a great yielder, and stands shipping exceedingly well. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Perfection Prize Taker—Selected from the prize tomatoes, sent in to compete for the cash prizes two years ago being the finest collection ever seen in the Northwest. In packets only; each, 25c; 5 for \$1.

New Precursor—A large extra early deep red variety; bears well. It is said to be ten days earlier than any other sort. Irregular shaped. Pkt. 10c.

Early Conqueror—One of the earliest and most productive varieties of medium size and beautiful crimson-scarlet color. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Canada Victor—Good size, symmetrical and handsome, fruit-heavy, well-meated, rich flavor and very early. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Essex Early Hybrid—A handsome new, light pink colored tomato; perfectly smooth, very solid, large size, rich flavor, ripens all through alike, very productive and highly profitable for market. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.



ESSEX HYBRID.

Acme—Among the earliest, medium size, very smooth, solid clear through, but few seeds, great bearer; vines stalky, color dark red tinged with purple, ripens evenly way up to the stem, delicious flavor, stands shipping exceedingly well. Extra selected seed. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.



PARAGON.

Paragon—Large, bright crimson, medium early, very smooth; great yielder, ripens evenly, few seeds. We consider this the best variety for canning. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Trophy—One of the largest and best, fine quality, medium early, heavy and solid. Great favorite. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Golden Trophy—Has all the good qualities of the red variety, from which it is a sport. Golden yellow. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Golden Rural—A new golden yellow, supposed to be a cross between Golden Trophy and Green Gage. Very early, round, smooth, prolific, exquisite flavor. Pkt. 10c; oz. 35c; $\frac{1}{4}$ lb. \$1.

General Grant—Very regular and symmetrical, firm and solid, fine flavor, a little more tart than other varieties, a favorite with some on that account. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Hathaway's Excelsior—Early, medium to large, smooth as an apple, excellent quality. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Large Smooth Red—Smooth, handsome, bright red. Oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.

Golden Queen—A new yellow variety of first-class quality. Is a hybrid between the Yellow Smooth Apple and the Paragon. Medium size, deep golden yellow in color, with generally a slight tinge of red at the blossom end, which imparts to it a beautiful appearance. Has a very good flavor and is excellent for preserving or slicing. Pkt. 15c.

Improved Feejee—A great improvement over the old Feejee, which was commonly called Beef Steak tomato. It is quite productive and one of the best; color maroon, flesh solid. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Emery—An early, smooth, solid tomato of fine red color. This is a great favorite with the Boston market gardeners. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Green Gage—Bright orange color, fine flavor, superior quality. Not large but very handsome. $\frac{1}{4}$ Oz. 25c; lb. 75c; lb. \$2.50.

Plum—Good for preserving and pickling, very solid and smooth. Oz. 30c.

Red Currant—Bright red, growing in long clusters. Oz. 30c.

Cherry—Small, round, red, very prolific, superior for pickles. Oz. 25c; $\frac{1}{4}$ lb. 75c.

Climax—One of the best and handsomest tomatoes on the list. They are of a deep, rich red color, always perfect in shape and smoothness, and uniform in size. Vines are strong and are completely laden with fruit, thickly set in clusters. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Strawberry, or Ground Cherry—A distinct variety, the fruit has a juicy pulp, of a pleasant, strawberry-like flavor, with a certain degree of sweetness and acidity intermixed; with the addition of lemon juice it is frequently preserved like plums, and is excellent for this purpose. Pkt. 10c; oz. 50c.

Mixed Varieties—Containing an assortment of the seeds of the four "Livingston" Tomatoes mixed together, namely: Favorite, Perfection, Acme and Paragon. Customers will find this a very desirable collection. Oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Tomato Plants—(See list of Vegetable Plants.)

TURNIP.

For early, sow in April. The Strap Leaved or Early Flat Dutch are the best for this purpose. For main crop sow during July or August, and just before or during a showery time if possible. Ruta-Bagas should be sown not later than June. The soil should be rich and mellow, and kept free from weeds. Sow in drills half an inch deep and twelve inches apart. Thin to six inches apart in the drill. Ruta-Bagas should be ten inches apart. Two pounds of seed is sufficient for an acre. To keep turnips through the winter, top them within one inch of the bulb. Store in cool cellar, cover with dry sand.

PER PACKET, FIVE CENTS.

Extra Early Purple Top Munich—The chief value of this new variety consists in its earliness, being from two to three weeks earlier than any other variety in cultivation. It is, however, a very handsome turnip, with purplish red top, flesh as white as snow, and of the most delicate flavor. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Early White Six Weeks—Very early and excellent. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Early White Egg—Very early and particularly desirable for the table; flesh firm and fine grained, sweet and sugary, and of snowy whiteness; egg shaped. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Purple Top, Strap Leaved—The standard for this part of the country. Superior for early or late planting. Round, flat, good-sized, small top with but few leaves, flesh very fine grained, rich, delicate flavor. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Early White Flat Dutch or White Strap-Leaved—Medium size, grows quick, similar to above except the purple top, being all white. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.



PURPLE TOP, STRAP-LEAVED.



EARLY WHITE FLAT DUTCH.

Jersey Navet—Very desirable for table use, being a very delicate, sweet white turnip; grows long, somewhat like the parsnip. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

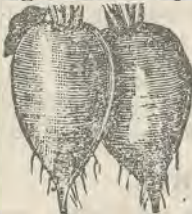
Purple Top Globe—Similar to Purple Top Strap-Leaved except shape, being globular; a good cropper and desirable for both table use and stock. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.



COWHORN.

Cowhorn—This is without question a delicate and good flavored sort, and is rapidly growing in favor, both for the market and family garden. It is long like a carrot, and generally crooked—hence its name, color white. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

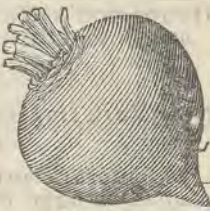
White German—The best keeping turnip we have found. It was a surprise to us to see solid, fine-grained turnips taken out of the



cellar in July in a perfect state of preservation, having been stored since October. Our trouble has been that turnips become pithy during the winter, but this is entirely overcome in the White German. The flesh is pure white, sweet and mild. Uncommonly solid, large size, oval form.

We recommend it very highly, either for table or stock, as it is an enormous yielder. Oz. 20c; $\frac{1}{4}$ lb. 60c; lb. \$2.

Large White Globe—Fine for field culture; a strong grower; pure white skin and flesh; very productive; oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.



WHITE GLOBE.

White Tankard—White flesh, very heavy yielder. The shape resembles a tankard. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Yellow Aberdeen—Roots round and of medium size, hardy, productive and keeps well. Excellent for cattle feeding. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Large White Norfolk—A popular variety for feeding. Similar in form to the Purple-Top Strap Leaved, but a stronger grower with larger leaves, not so fine grained, but sweet and a heavy cropper. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Yellow Stone—Rapid growing, round, yellow sort, medium size; a good keeper and of fine quality. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Golden Ball or Orange Jelly—Medium sized, bright golden yellow turnip, fine grained, hard, brittle and of unusually sweet and delicate flavor. It is hardy and one of the best of keepers. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Seven Top—The hardiest of all sorts; may be left standing in the open ground during winter as far north as Des Moines. Grown principally for the tops, which are much liked for greens. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

RUTA-BAGAS.

Carter's Improved Hardy Swede—Large size, excellent quality. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

East Lothian—An improved strain of one of the most popular English sorts. very desirable for field culture. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Improved American—Very solid fine quality, valuable for the table and feeding stock. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Laing's Improved—One of the earliest of the Ruta Bagas; forms a handsome bulb of good quality; keeps well, good for table use. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Skirving's Purple Top—An improved purple top variety; large. IMPROVED AMERICAN Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Sweet German—Flesh white, solid and sweet, keeps well. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

VEGETABLE MARROW.

Moore's Vegetable Cream—This is a favorite vegetable with all English people. It belongs to the Squash family. Skin greenish-yellow; flesh soft, white and fine flavored. This is one of the best varieties and we can recommend it to all. Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 30c.

WHITLOEF.

A most distinct and entirely new vegetable, somewhat resembling chickory in habit. It produces a moderate-sized and beautiful white heart, in shape similar to a Cos lettuce; and either eaten boiled or as a salad, it will be found a valuable acquisition to our short list of winter vegetables. Pkt. 5c; oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.50.



VEGETABLE PLANTS AND ROOTS.

We are prepared to furnish Vegetable Plants in large or small quantities, from our hot-beds at the following rates: Those quoted "By mail," are sent at our expense, "By express, at the purchasers'. By our system of packing they are sure to arrive in good condition when the time of transit does not exceed three days. No charge for either packing or boxes.

Prices for large quantities of any of these Plants or Roots will be given on application.

ARTICHOKE.

This is entirely different from the Green Globe Artichoke, being grown exclusively for its tubers, which somewhat resemble potatoes, and are cultivated in a similar manner. It is enormously productive and can be left in the ground through winter.

Jerusalem—White tubers. Pk. 75c; bu. \$2.00.

Red Brazilian—Purplish red tubers. Pk. 75c; bu. \$2.

ASPARAGUS ROOTS.

Our customers will find that it will pay better to buy Asparagus roots than to wait three years for them to grow from seeds. For directions for planting, etc, etc, see Asparagus seeds.

Conover's Colossal—1 year old roots, per 100, 75c; 1,000, \$5. 2 year old roots per 100, \$1; 1,000, \$7.

CABBAGE PLANTS.

Early Varieties (Ready May 1st)—Early York, Jersey Wakefield, Early Winningstadt, Henderson's Early Summer. By mail, 100, 75c. By express, 100, 50c; 1,000, \$4.

Late Varieties (Ready June 1st)—Excelsior Flat Dutch, Large Late Drumhead or Stone Mason Drumhead. By mail, 100, 75c; by express, 100, 40c; 1,000, \$3.

CAULIFLOWER PLANTS.

Erfurt, Favorite or Snowball—By mail, doz, 20c; 100, \$1; by express, 100, 85c; 1,000, \$6.

CELERY PLANTS.

Henderson's Half Dwarf, or Boston Market—By mail, doz, 20c; 100, \$1; by express, 100, 75c; 1,000, \$5.00.

EGG PLANTS.

New York Improved—By mail, doz, 25c.

GARLIC SETS.

Used for flavoring soups, stews, etc. Should be planted in light, rich soil early in the spring, in rows one foot apart and three inches apart in the row. Cultivate like onions; per lb, 50c; postpaid.

HORSE RADISH SETS.

One of the most important and profitable of our garden roots, and one which requires the least care. Sets may be planted at any time during spring in rows two feet apart and about eighteen inches apart in the rows. Can be left in the ground through winter. By mail per doz, 35c; by express per 100, 75c; per 1,000, \$6.

ONION SETS.

We always keep a nice stock of all the principal kinds of onion sets and top onions in their season. The following varieties are all sent by mail, postpaid at 50c per qt. By express, per qt. 30c; pk. \$1.50; bu. \$5.00.

Yellow Sets—From seed.

Red Sets—From seed.

White, or Silver Skin Sets—From seed.

Top or Button Onions.

Potato Onion Sets.

WINTER OR PERENNIAL ONION SETS.

These differ from those raised from seed or from the top onion sets, Potato Onion or Shallot, in the fact that when once set out, without the slightest winter protection it will come up year after year, as soon as frosts break ground and grow so rapidly that it is ready for market or home use two or three weeks before any of them. The bottoms divide, making several onions, like the old fashioned rare-ripe. For family use it is unsurpassed for sweetness and tenderness. The young sets grow on top of the stalks like tree onions. These should be planted in the fall. They will be sent out in August or September, as soon as ripened.

PEPPER PLANTS.

Large Bell, Sweet Mountain or Cayenne—By mail, doz, 25c; 100, \$1.25.

POTATOES.

Potatoes—See special list on another page.

Sweet Potato Plants (Ready May 10th)—We make a specialty of supplying first-class Sweet Potatoes and Sweet Potato Plants, and we take great pains to sup-

ply our customers with plants which are strong, vigorous, well rooted and hardy. The Yellow Nansemond is the favorite variety, but we can supply the White Southern Queen also when wanted. Price by mail, 100, 75c; 300, \$2; by express, \$3 per 1,000.

RHUBARB ROOTS.

These may be planted early in the spring or in the fall, setting the roots three feet apart each way. It

requires but little labor to plant, and when once planted in good rich soil it will remain in bearing condition several years. By express, each, 20c; doz, \$1.50; 100, \$10.

TOMATO PLANTS (Ready May 1st.)

Livingston's Perfection, Acme, Paragon or Trophy—By mail, doz, 20c; 100, \$1; by express, 100, 75c; 1,000, \$5.

AROMATIC, MEDICINAL AND POT HERBS.

ALL FIVE CENTS PER PACKET.

GENERAL CULTURAL DIRECTIONS.—Most of the varieties thrive best on rich, sandy soil, which should be carefully prepared and well cultivated as the young plants are for the most part delicate and easily choked out by weeds. Sow as early as the ground can be made ready, in drills sixteen to eighteen inches apart; or they may be planted as a second crop—the seed sown in beds in April, and the plants set out in June. Most of them should be cut when in bloom, wilted in the sun, and then thoroughly dried in the shade.

Anise—An annual herb, cultivated principally for its seeds, although its leaves are sometimes used for garnishing and flavoring. The seeds have a fragrant, agreeable smell, a sweetish, pleasant taste, and have the property of increasing the secretions of milk. They are also used for dyspepsia and colic, and as a corrective of griping and unpleasant medicines. Sow early in the spring, and thin the plants to three inches in a row. Oz. 10c.

Balm—A perennial herb. The leaves have a fragrant odor, similar to lemons, and are used for making balm tea for use of fevers and a pleasant beverage called Balm Wine. Plant early, and thin to ten inches apart. ½ oz. 25c.

Borage—A hardy annual used as a pot herb, and its beautiful blue flowers as a garnish. The leaves immersed in water give it an agreeable taste and flavor. It is also sown for pasturage, its abundant bloom furnishing a large amount of honey. Sow in April and thin to eight inches apart. Oz. 15c.

Caraway—Cultivated for its seeds, which are used in confectionery, cakes, etc., and the leaves are sometimes used in soups. Sow early, and thin to ten inches apart, or sow in August. The plant never seeds until the second year, but the August sown plants will give a fair crop the next season. Oz. 10c; Caraway for flavoring, lb. 50c.

Catnip—A hardy perennial, well-known as a valuable mild nervine for infants. The plant should be dug up by the roots when in full flower, and dried in the shade. The seed may be sown in drills twenty inches apart, either in fall or spring. ½ oz. 25c.

Coriander—A hardy annual cultivated for its seeds, which have an agreeable taste, and are used to disguise and correct the griping qualities of medicines. They are also used extensively in confectionery. Sow early in the spring, and gather on a dry day, bruising the stems and leaves as little as possible, as when injured they have a disagreeable odor which they impart to the seed. Oz. 10c; Coriander for flavoring, lb. 50c.

Dandelion—Those who only know the Dandelion as the persistent weed of our roadsides and lawns, know no more of its real value than one who has only seen the poisonous wild parsnip or carrot knows of the value of these vegetables. *The improved variety makes one of the earliest and best greens in cultivation.* For this purpose, sow early in the spring, on very warm, rich soil, in drills eighteen inches apart; thin the young plants to five inches in the row, and cultivate well, and they will be fit for cutting the next spring. It is also grown extensively for its roots; for this purpose, sow early in September, and cultivate well during the Fall and following season, and the roots will be fit to dig in October. Oz. 30c.

Dill—An annual, cultivated for its seeds which have an aromatic odor, and a warm pungent taste. They are good for flatulence and colic in infants, and are sometimes added to pickled cucumbers to heighten the flavor. Sow early in the spring, and keep clear of weeds. Oz. 10c.

Horehound—A perennial herb with a strong, aromatic smell, and a bitter, pungent taste. It is a tonic, and is useful in asthma, and a favorite remedy in pulmonary complaints, entering largely into the composition of cough syrups and lozenges. Will thrive in any soil, but is stronger if grown on light, poor land. ½ oz. 25c.

Hyssop—A hardy perennial with an aromatic flavor, and warm, pungent taste. It is a stimulant and expectorant, and is used in asthma and chronic catarrh. The flowering summits and leaves are the parts used. It likes a dry, sandy soil, and the plants should be thinned to eighteen inches apart. Oz. 25c.

Lavender—A hardy perennial, cultivated for its fragrance. Its long flower spikes are used for the distillation of lavender water, or are dried and used to perfume linen. The flowers should be picked before fading, and quickly dried. The plants are hardy and easily raised. Oz. 20c.

Rosemary—A hardy perennial with fragrant odor, and a warm, aromatic, bitter taste. May be easily raised from seed, but does not reach a size fit for use until the second season. ½ oz. 25c.

Rue—A hardy perennial with a peculiar smell. The leaves are bitter, and so acrid as to blister the skin. It is a stimulant and anti-spasmodic, but must be used with great caution, as its use sometimes results in serious injury. It must not be suffered to run to seed, and does best on poor soil. Oz. 15c.

Saffron—A hardy annual from Egypt, but which has become naturalized in many parts of the country. Cultivated for its flowers, which are used in dyeing and to make the cosmetic powder called *rouge*, also, to adulterate the valuable European saffron, which is the flower of the *Crocus sativus*, and has strong medicinal properties. Sow early, and gather the flowers before fading, drying them in the shade. Oz. 15c.



SAGE.

Sage—A hardy perennial, possessing some medicinal properties, but cultivated principally for use as a condiment, it being used more extensively than any other herb for flavoring and dressing. Sow early in spring, on very rich ground, cultivate often and thin the plants to sixteen inches apart. Cut the leaves and tender shoots just as the plant is coming into flower, and dry quickly in the shade. The plants will survive the winter, and may be divided, and will give a second crop of superior quality to the first. Oz. 25c; ¼ lb. 75c; lb. \$2.50.

Sweet Basil—A hardy annual from the East Indies. The seeds and stems are used in flavoring soups and sauces, and have the flavor of cloves. Oz. 25c.

Sweet Fennel—A hardy perennial. The leaves are largely used in Europe in soups, fish sauces, garnishes and salads, the seeds being sometimes used in confectionery. Sow and cultivate like Anise. Oz. 10c.

Sweet Marjoram—A perennial plant, but not hardy enough to endure the winter at the North. The young, tender tops are used green for flavoring, or they may be dried for winter use. Sow in drills as early as possible, and thin out the plants to ten inches. They will not bear transplanting. Oz. 25c.

Summer Savory—A hardy annual, the dried stems, leaves and flowers of which are extensively used for flavoring, particularly in dressings and soups. Culture the same as that of Sweet Marjoram. Oz. 20c.

Tansy—A hardy perennial plant from Europe; but growing wild in many parts of the country. The leaves, when green, have a peculiar aromatic odor which they lose in drying. Cultivated for its medicinal properties, which are those common to bitter herbs. ¼ oz. 25c.

Thyme—This herb is a perennial, and is both a medicinal and a culinary plant. The young leaves and tops are used for soups, dressing and sauce, and a tea is made of the leaves, which is a great remedy in nervous headache. Sow as early as the ground will permit. $\frac{1}{2}$ oz. 25c.

Wormwood—A perennial plant, of strong and fragrant odor, and aromatic, but intensely bitter taste.

the leaves are used as a tonic and vermifuge, and also for fresh bruises. Is raised from seed, and propagated by cuttings or dividing the roots. A dry, poor soil is best adapted to bring out the peculiar virtues of this plant. Oz. 30c.

Large packets of the above, all mixed, 25c. The entire collection (22 varieties) in separate packets, 75c.

Fruit Trees, Grape Vines, Small Fruits, etc.,

OF SUITABLE SIZE TO BE FORWARDED BY MAIL.

Orders in this department must amount to one dollar. We cannot afford to give our attention to orders of less amount. The office work on a small order is the same as on a larger one, and it also requires nearly as much time and material to pack it, and takes almost as much postage.

The best time for forwarding fruits is from the first of October to the first of June, as they are less liable to suffer from frost or from extreme heat.

DOLLAR COLLECTIONS.

BY MAIL POSTPAID.

It will be seen that where persons are not well acquainted with different varieties, so as to enable them to make judicious selections these sets offer great advantages for cheapness, and parties will usually get as good selections as they could make themselves, our aim being as far as possible to satisfy every customer that favors us with an order. The choice of varieties in these sets must be left entirely to us, as we positively cannot afford, at these collection prices, to permit customers to name the plants. But all who prefer their own selection of varieties, can make them at the price of single plants, which in all cases accompany the descriptions. These collections are subject to the following conditions: That persons ordering are only to name the number or numbers, designating the collection or collections wanted, as it takes too much valuable time to read long letters, giving detailed lists of plants in each collection desired. Simply the number of the collection or sets is all sufficient.

- Set No. 41—8 Apple Trees, 4 sorts, \$1.
 “ 42—3 Pear Trees, 3 sorts, \$1.
 “ 43—3 Cherry Trees, 3 sorts, \$1.
 “ 44—2 Pear, 2 sorts, 2 Quince, 2 sorts, \$1.
 “ 45—6 Peach Trees, 3 sorts, and 1 Russian Apricot, \$1.
 “ 46—1 Pear, 1 Cherry, 2 Peach, 2 Apple, \$1.
 “ 47—1 Apple, 1 Pear, 1 Russian Apricot, 1 Quince, 1 Peach, \$1.
 “ 48—8 Grape Vines, 2 each of Concord, Hartford, Ives' and Rogers' Hybrids, \$1.
 “ 49—12 Grape Vines, 4 sorts, entirely our choice, \$1.
 “ 50—20 Raspberries, 4 each Superb, Shaffer's Colossal, Gregg, Cuthbert and Highland Hardy, \$1.
 “ 51—30 Raspberries, 5 sorts, our choice exclusively, \$1.
 “ 52—12 Currants, 3 each Cherry, Victoria, Red Dutch and White Gondoin, \$1.
 “ 53—40 Choice Strawberry plants, 10 each James Vick, Old Iron Clad, Jersey Queen and Big Bob, \$1.
 “ 54—60 Strawberry Plants, 10 each Bidwell, James Vick, Satin Gloss, Manchester, Sharpless and Charles Downing, \$1.

- Set No. 55—75 Strawberry Plants, 15 each of Sharpless, Crescent, Wilson, Kentucky and Crystal City, \$1.
 “ 56—2 Grapes, 2 Currants, 4 Raspberries and 20 Strawberry Plants, \$1.
 “ 57—5 Sweet Chestnut, 1 Spanish Chestnut, 1 Butternut, 1 Black Walnut, and 1 Madeira Nut, \$1.
 “ 58—75 Catalpa Speciosa; hardy, rapid grower, very durable timber, \$1.
 “ 59—40 Sweet Chestnut Trees, \$1.
 “ 60—1 Spruce, 1 American Arbor Vitæ, 1 Pyramidalis, 1 Irish Juniper, 1 Retinospora, \$1.
 “ 61—30 Mulberries, 10 each Russian, Black English and White, \$1.
 “ 62—20 Blackberry Plants, 4 each Newman's Thornless and 3 other good sorts, our choice, \$1.
 “ 63—1 Kieffer Pear, 1 Champion Quince, 1 Russian Apricot, \$1.
 “ 64—1 Wilson Junior, 1 Early Harvest Blackberry, 1 Russian and 1 Black English Mulberry and 1 Moore's Arctic Plum, \$1.

We have frequent letters of inquiry similar to the following: “In your set of 10 Grape Vines for a dollar, please let me know what sorts you send; also, in your set of 25 Raspberry Plants for \$1, what varieties do you send?” In reply to all such inquiries, permit us to say that we are only enabled to offer so large a number for a dollar by retaining the privilege of selecting the varieties when we fill the order, and this excludes the possibility of naming in advance of filling the orders, what varieties will be used. But all sets will be filled with good sorts, such as are described in our Catalogues. In sets where the varieties are named, those, of course, will always be sent.

The following PREMIUMS apply to the list of Fruit Trees, Grape Vines, Small Fruits, Evergreens and Deciduous Trees, &c., only. DO NOT GET THIS MIXED WITH FLOWER PLANTS AND BULBS OR ANY OTHER DEPARTMENT. They commence with Apples and end with Deciduous Trees.

An inducement to persons to present the matter to neighbors and solicit club orders, we offer the following liberal premiums, enabling those who have not the money to spare, to procure an assortment of plants by spending a few hours' time.

MAIL CLUBBING RATES:—Persons sending \$2 may select plants valued at \$2.30; \$4, \$4.70; \$6, \$7.40; \$8, \$10.20; \$10, \$13.50; \$15, \$18.50; \$20, \$25.

And for all amounts remitted above \$20, 35 per cent. may be added to the order.

Individual orders for any of the preceding amounts will be entitled to the same premiums as Club Orders.

Those preferring to make their own selections are invited to do so from the following list:

APPLES—Standard.

Plant 30 feet apart each way, 48 trees to the acre. One year grafts finely rooted, cut back suitable for mailing. 10 cents each; \$1 for 12, six sorts two each, our choice of the following:

SUMMER.

Benoni,	Red Astrachan,
Early Harvest,	Sops of Wine,
Early Strawberry,	Sweet Bough.
Golden Sweet,	Tetofsky,
Holland Pippin,	Western Beauty,
Keswick Coldin,	

AUTUMN.

Autumn Swaar,	Flora Bellflower,
Autumn Strawberry,	Gravenstein.
Buckingham,	Lowell,
Colvert,	Maiden's Blush,
Cayuga Red Streak,	Munson Sweet,
Duchess of Oldenburg,	Sherwood's Favorite,
Fall Jenetting,	St. Lawrence,
Fall Pippin,	Trumbull Sweet.

WINTER.

Ben Davis,	Northern Spy,
Bailey's Sweet,	Peck's Pleasant,
Baldwin,	Rome Beauty,
Bellflower Yellow,	Russet Roxbury,
D. W. Sweet,	R. I. Greening,
Dominie,	Rawle's Janet,
Dutch Mignonne,	Rambo,
Fallwater,	Ribston Pippin,
Fameuse,	Seck-No-Further,
Grimes' Golden,	Smith's Cider,
Golden Russet,	Stark,
Haas,	Talman Sweet,
H. Nonsuch,	Wagener,
King of Tompkins Co.	White Pippin,
Limber Twig,	Wine Sap.

APPLES RUSSIAN AND OTHERS OF SPECIAL MERIT.

One year grafts cut back for mailing. Except noted, 20 cents each; \$1 for six, our choice.

Alexander, Emperor Alexander, Russian Emperor, Etc.—A large, beautiful red apple; September.

Arnold's Beauty—This fine new apple is a seedling of the Northern Spy crossed with the Wagener and Spitzenburg. Tree hardy; an excellent, upright grower and abundant bearer; fruit bright yellow, occasional shade of red, flesh firm, juicy, rich, aromatic. January to May.

Bottle Greening—Fruit medium; greenish yellow shaded with dull crimson, sub-acid, almost melting. January and February.

Corp's Favorite—A beautiful dessert apple of medium size; of deep red color and good quality; very productive, always fair, every way desirable. November to January.

Huntsman's Favorite—Large, pale yellow, sometimes shade of pale red or deep yellow in the sun; flesh pale yellow, crisp, tender, juicy, mild, rich, sub-acid. December to March.

Hyde's King of the West—Large to very large; handsome yellowish green; good quality; a remarkable keeper. Apples of 1880 and 1881 were exhibited side by side at the Winter meeting of the Ohio State Horticultural Society, held at Warren, in December of 1881, and attracted great attention. Time of keeping, all the year around. 40 cents each; \$1 for 3.

Lady Apple—A beautiful little dessert fruit; pale yellow with a brilliant red cheek; flesh crisp, juicy and pleasant.

McIntosh Red—A new, hardy variety of Canadian origin. Fruit medium, dark red; very handsome, fine grained, juicy, tender and mild. January.

Mann—A good-sized apple of the Greening type, keeping until June or July.

Missouri Pippin—Medium to large; pale whitish yellow, splashed with light and dark red; flesh whitish crisp, moderately juicy, sub-acid. January to April.

Ontario—This handsome and excellent apple was originated by Charles Arnold, Paris, Ontario. Fruit large; skin whitish yellow, nearly covered with bright, rich red; flesh fine, tender, juicy, sub-acid, refreshing, slightly aromatic. January to April.

Pewaukee—Medium size, bright yellow, splashed and striped dull red; sub-acid with rich aromatic flavor; perfectly hardy. December to March.

Red Bietigheimer—A handsome German apple; fruit large to very large; skin whitish yellow shaded with red; flesh white; juicy, with a brisk sub-acid flavor. September. 35 cents.

Seedless—Medium size, greenish yellow, dark carmine cheek in the sun, entirely seedless. November and December.

Shiawasse Beauty—Fruit medium, white marbled, striped and splashed with red; flesh firm, very white, tender, juicy, brisk, refreshing, sub-acid. October to January.

Wealthy—A native of Minnesota; perfectly hardy; fruit large, red, sub-acid. December to February.

Walbridge—Medium size; handsome, striped red; one of the hardiest. March to June.

Yellow Transparent—A new Russian variety imported in 1870, by the Department of Agriculture, and promises to be valuable as an early fruit, ripening before Tetofsky; skin clear white changing to pale yellow when fully ripe; flesh white, tender, juicy, sprightly, sub-acid; good to very good.

APPLES—Crab.

One year grafts cut back for mailing. 15 cents each; \$1 for 8, four sorts, 2 each, our choice.

General Grant,	Transcendent,
Hyslop,	Van Wyck's Sweet,
Montreal Beauty,	Whitney's No. 20.
Red Siberian,	Yellow Siberian,
	Power's Large Red.

PEARS—Standard and Dwarf.

All can be supplied as standards, and those starred can also be supplied as dwarfs, at same price as standards. Plant 20 feet apart each way, 108 trees to the acre. One year grafts cut back for mailing. 40 cents each; \$1 for 3.

SUMMER.

Bartlett,	*Clapp's Favorite,	*Tyson.
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AUTUMN.

*Belle Lucrative,	*Howell,
*Beurre d'Anjou.	*Louise Bonne de Jersey,
*Beurre Clairgeau,	
*Duchesse de Angouleme,	Sheldon,
Flemish Beauty,	*Seckel.

WINTER.

Beurre Easter,	*Lawrence,
	*Vicar of Winkfield.

PEARS—New.

PRICE 50 CENTS EACH.

Beurre de l'Assumption—Fruit large and melting, ripening early in August.

Brockworth Park—Large, pale yellow, flushed, streaked with red on the sunny side; flesh white, buttery, melting; very juicy, vinous and rich. September.

Duchess de Bordeaux—Medium to large; sweet and pleasant. December to February.

Frederick Clapp—Above medium size; clear lemon yellow; fine grained, juicy, melting, sprightly, rich and aromatic; very good to best.

Goodale—Fruit large; light yellow with a blush in the sun; juicy, melting, vinous. October.

Kieffer's Hybrid—This new and unique pear was raised from seed of the Chinese Sand Pear, accidentally crossed with the Bartlett or some other kind grown near it. Tree has large, dark green, glossy leaves, and is of itself very ornamental; an early and very prolific bearer. The fruit is of good quality, wonderfully showy, and is valuable for the table, canning and market.

Le Conte—This is another seedling of the Chinese Sand Pear and some one of our standard varieties. Resembles the Bartlett somewhat in fruit and time of ripening. Considered very promising. Has proved very profitable at the south.

ORIENTAL PEARS.

Are remarkable for their vigorous growth, luxuriant foliage, extreme hardiness and freedom from disease, and although their fruit is not of the best quality, it has a peculiar quince-like flavor, which, combined with firmness makes their hybrids superior for canning purposes.

Daimyo,	Sha Lee,
Mikado,	Smith's Hybrid,
Madam Von Siebold,	Garber.

CHERRIES.

Plant Hearts and Bigarreus (which are starred) twenty feet apart each way; 108 trees to the acre. Plant Dukes and Morellos ten to twelve feet apart; 363 trees to the acre. One year from bud, cut back for convenience in mailing to about one foot. Price 40 cents each; \$1 for three.

LEADING SORTS.

*Black Eagle,	English Morello,
Belle Magnifique,	*Gov. Wood,
*Black Tartarian,	May Duke,
Carnation,	*Napoleon,
Early Richmond,	*Ohio Beauty,
Early Purple Guigne,	*Rockport,
*Elton,	Reine Hortense,
	*Yellow Spanish.

NEWER CHERRIES.

Empress Eugenie—A new variety from France, of great excellence; a profuse bearer. 50 cents.
Montmorency Ordinaire—A sort of quite recent introduction of the Early Richmond class, but larger and later, and a prodigious bearer. 50 cents.
Olivet—Large, globular; a shiny, deep red sort, tender, rich and vinous; one of the largest of its class. 50 cents.
Louis Phillippe—Large; dark red, almost black; sprightly, mild acid; stone small; tree vigorous and very productive; ripens middle to last of July. 50c.
Dyehouse—This variety partakes of both the Morello and Duke in wood and fruit; a very early sure bearer; ripens a week before Early Richmond; of better quality and quite as productive. 50 cents.
Leib—A newly introduced Morello; one week later than Early Richmond and claimed to be very superior. 50 cents.
Lady of the Lake—Medium to large; light yellow, shaded and marbled with rich, dark crimson; flesh half tender, juicy sweet. Middle to last of June. 50c.
Nancy—Large, heart-shape; pale yellow, shaded and mottled with crimson; tender, juicy, rich and sweet. Last of June. 50 cents.

PLUMS.

One year buds cut back for convenience in mailing. Unless noted, 40 cents each; \$1 for three.

German Prune,	Magnum Bonum Yellow,
General Hand,	Pond's Seedling,
Italian Prune,	Prince's Imperial Gage,
Lombard,	Reagle's Union Purple,
Shropshire Damson,	Reine Claude,
	Smith's Orleans.

Geuii—Very large, dark purple, hardy, strong grower; an early and abundant bearer; ripens last of September. 50 cents.

Moore's Arctic—A new hardy plum, which originated in the Highlands of Aristook county, Maine, where, unprotected and exposed to Arctic colds, it has borne enormous crops. Skin purplish black, with a thin blue bloom; flesh greenish yellow, juicy, sweet, pleasant. September. 50 cents.

IMPROVED VARIETIES OF AMERICAN PLUMS ON PEACH STOCKS.

30 cents each; \$1 for four.

Bassett—A new American seedling said to be almost Curculio proof.

De Soto—A very hardy native variety, originating in Wisconsin; extremely productive and very profitable.

De Caradeuc—Medium, round, slightly flattened; skin yellow, nearly covered with red; flesh melting, sweet and vinous. End of June and first of July.

Newman—Medium oblong; skin a beautiful glossy red with a delicate purple bloom; flesh somewhat coarse, but juicy. August and September.

Wild Goose—Well adapted to peach stocks, an improved variety of the Chickasaw, large deep red, with purplish bloom; flesh melting and good.

Weaver—Fruit large, purple, very prolific; regular bearer. This tree is very hardy and will thrive in the very northern limits of the United States. Ripens in August.

APRICOTS.

There is no fruit that is more beautiful or desirable than the Apricot. Price, 30 cents each; \$1 for four.

Breda,	Moerpark,
Early Golden,	Purple or Black,
	Royal.

Russian—An extremely hardy Apricot introduced from Russia by the Nebraska Mennonites, and said to flourish as far north as the forty-ninth degree of latitude. They claim great superiority for it in early fruiting, hardness of tree and quality of fruit. 40 cents each; \$1.00 for three.

One customer writes under date of August 10, 1883: "I set out the Russian Apricot trees in a place high and dry for a test. Last Winter was terrible here—40° below zero. The Apricots are all right."

PEACH TREES.

One year buds cut back for mailing. 15 cents each; \$1 for 8; four sorts, our choice.

Allen's Early,	Heath Cling,
Amsden's June,	Large Early York,
Alexander Early,	Marshall's Late,
Bernard's Yellow Rare-ripe,	Mountain Rose,
Beers' Smock,	Old Mixon Cling,
Bilyeau's Late October,	Old Mixon Free,
Boss Queen,	Red Cheek Melocoton,
Bowers' Early,	Richmond,
Conklin,	Smock's Free,
Crawford's Early,	Smock's Cling,
Crawford's Late,	Steadley,
Cooledge Favorite,	Salway,
Chinese Cling,	Scott's Nonpareil,
Early Beatrice,	Stump the World,
Early Louise,	Susquehanna,
Early Rivers,	Saunders,
Foster,	Snow,
George the Fourth,	Ward's Late,
Hale's Early,	Wheatland,
Hill's Chili,	Wager,
Jacques' Rarieripe,	Waterloo,
	Yellow Rarieripe,
	Lemon Cling.

PEACH TREES—Newer Varieties.

Price, except noted, 25 cents each; \$1 for five sorts, our choice.

Beauty of Painesville—A fine large yellow peach of excellent quality, ripening in September.

Early Canada—Very early; a month before Crawford's Early, and unusually hardy, as its origin would indicate.

Gudgeon's Seedling—Large; white flesh with red cheek; fine quality; good shipper; highly prized by those who grow it; resembles Old Mixon Free. ripens early in October.

Lord Palmerston—Very large, creamy white, with a pink cheek; flesh firm, yet melting; very juicy and rich. Last of September.

Mrs. Brett—A white peach shaded with dark rich red when fully exposed; flesh white, red at the pit; juicy, melting, rich and sweet.

Prince of Wales—Large and beautiful, cream-colored with a rosy cheek; melting and rich; ripens with Late Crawford.

Stevens Rarieripe—In appearance it somewhat resembles an enlarged and remarkably high-colored Old Mixon Free; far surpassing in beauty any painted picture. In flavor, as well as appearance, it is superb. Free stone, white fleshed, juicy and high flavored. Follows Late Crawford in ripening.

William's Favorite—A seedling of Lemon Cling, but larger, sure bearer and very desirable for market. Parties who have it in bearing claim it as the most profitable variety in the list.

MULBERRIES.

Downing's Everbearing—Very large, handsome sweet, rich and excellent. 50 cents.

New American—This we consider equal to Downing's in all respects, continuing in bearing full as long, and a hardier tree. 50 cents.

Russian—See special description under heading of "Silk Culture."

White, Morus Alba—The common variety. Valued more for feeding silk worms than for its fruit. 12 to 15 cents each; \$1 for twenty; \$2 for 100; 6 to 8 inches, \$1 for 100.

Black or English—Fruit incomparably larger and finer than that of the red or white Mulberries; one and a half inches long, black and of good flavor. 12 to 15 inches, 10 cents each; \$1 for twenty; \$2 for 100; 6 to 8 inches, \$1 for 100.

NECTARINES.

These are in appearance the most wax-like and exquisite of all fruits for the dessert. Price, 35 cents each. Boston, Pitmaston's Orange.

QUINCES.

Angers—A free bearer of good-sized fruit, which keeps well, but not equal in quality to the following sorts. 25 cents each; \$1 for five.

Champion—A new variety originated in Connecticut. The tree is a prolific and constant bearer; fruit averaging larger than the Orange; more oval in shape; quality equally fine, and a longer keeper; bears extremely young, producing fine fruit on two-year trees in nursery rows. We anticipate that this will supersede all other kinds. 50 cents each; \$2 for five.

Orange—Fruit large; bright yellow; of excellent flavor. 25 cents each; \$1 for five.

Rea's Mammoth—A seedling of the Orange. Superior in size and equally as good in quality. 30 cents each; \$1 for four.

NUTS

Trees suitable size for mailing

American Sweet Chestnut—10 cents each; 40 cents per ten; \$2 per 100.

Spanish Chestnuts—25 cents each.

Butternut—20 cents each; 6 for \$1.

Black Walnut—20 cents each; 6 for \$1.

English Walnuts—25 cents each.

Almonds—Hard and soft shell. 50 cents each.

Pecans—50 cents each.

Japanese Sweet Chestnut—Of the novelties recently from Japan, nothing is more deserving of cultivation than the Japanese Sweet Chestnut. It is quite distinct from the European varieties, being more hardy and the fruit of superior flavor and sweetness; the leaf is long and narrow, like a peach leaf, deeply serrated at the edge; comes in bearing very young, the first in this country bearing at four years from seed, fruit larger than the largest of European sorts; shape, flavor and color like our best native. The enormous size and good quality of the fruit will undoubtedly make it a valuable article of commerce, while the ornamental character of the tree will recommend it for lawn planting. Apparently perfectly hardy. 50 cents.

GRAPES—Newer Varieties.

50 cents each; \$5 per 12, unless noted.

Alma—This variety is a fine healthy grower; foliage large, lobed with slight tomentose on the under side; perfectly hardy, as it has stood the test of 15° below zero, without injury. It resists the phylloxera splendidly, and has never shown the least trace of disease. Vine vigorous and healthy; bunch medium, compact, seldom shouldered; berry medium, black, with blue bloom, spicy and very sweet. Promising for light red wine, and a good table grape. Ripens with the Hartford Prolific, or soon after, and hangs well on the bunch, continues a long time in use. 75 cents.

Bacchus—Bunch medium, compact, shouldered; berry below medium, black with blue bloom; half tender, sprightly, juicy; an excellent wine grape. 25 cents each; \$1 for five.

Eldorado—Clear golden yellow; of the highest flavor with a decided aroma resembling pineapple. One of the very handsomest grapes grown.

Early Victor—This vigorous, hardy, healthy variety had its origin at Leavenworth, Kansas. It is a black grape of medium size, free from foxiness, abundantly juicy, and of good quality. It ripens with Moore's Early and Hartford and is better flavored than either, and will perfect its fruit where the Concord is a failure. Prof. J. Mathews, of Knoxville, Iowa, writes that "It proves much hardier than Concord; bears well and is of excellent quality. It is also reported as doing splendidly in Connecticut, and we have reports from Canada that it matured its fruit perfectly while the Concord was a failure. 75 cents.

Duchess—Bunch medium to large, shouldered, compact; berries medium, pale greenish yellow, with a whitish bloom; flesh tender, juicy, sweet; spicy, rich and of excellent quality, lasting a long time after being gathered. Ripens soon after Concord. 35c.

Golden Pocklington—Is a seedling from Concord. Originated and raised from seed by John Pocklington, Washington County, N. Y., an elevated cold, late locality. The vine is thoroughly hardy, both in wood

and foliage. Strong grower; never mildew in vines or foliage. Called a white grape, but the fruit is a light golden yellow, clear, juicy and sweet to the center, with little or no pulp; bunches very large, sometimes shouldered; berries round and very large and thickly set; *quality when fully ripe, much superior to Concord*. It will prove the white grape for the million, both for market and home use; ripens with the Concord. 25 cts. each; \$1 for 5.

Highland—Bunch large, long, compact. Berry large, round, black; flesh soft, juicy, sweet; somewhat vinous; ripens between Concord and Catawba. 35c.

Jefferson—A pure native. A cross between Concord and Iona; resembling Concord in growth, vigor and hardiness; with fruit much like Iona in color, texture and quality; ripening about with Concord. 75c.

Lady Washington—A showy and beautiful white grape; bunch and berry large; skin pale yellow, with a tinge of delicate pink; flesh soft, tender, juicy, sweet, very slightly vinous; of good quality. Ripens about with Concord, and continues a long time in use. A very promising variety for the table or market. 35 cents.

Jessica—One of the earliest to ripen, very hardy, and of high quality, equaling the Delaware, with larger bunch and berry and ironclad vine, enduring the cold of Canada where Concord perished, and it and Champion only resisting the trying ordeal unharmed. Fruit yellowish green in color, mellowing to clear amber, free of foxiness, pure, refined, sweet, melting sprightly and aromatic, with scarcely a trace of pulp; 75 cents.

Monroe—Bunch medium to large; berry large, black; flesh juicy, sweet, vinous and sprightly. Ripens with Hartford.

Naomi—New. One of J. H. Rickett's seedlings, and described by him as one of the very best table grapes in his collection. Vine very vigorous and productive; flesh tender, juicy, melting, rather crisp, sweet and sprightly, with a trace of Muscat flavor. Ripens with the Concord.

Prentiss—Bunch large, not often shouldered, compact; berry medium to large, yellowish green, sometimes with a rosy tint on side next to sun; skin thin but very firm; flesh tender, sweet, melting, juicy, with a very pleasant and musky aroma; free from foxiness; little if any pulp. Ripens with Concord. 35 cents.

Rochester—Bunch large, berry medium to large; dark purple; flesh very sweet and aromatic. Ripens first of September.

Vergennes—The Vergennes Grape originated in Vergennes, Vt., and is, without doubt, the Grape for the million.

First. It is a hardy vine and good grower.

Second. It is wonderfully productive, and has a broad, thick, hardy leaf.

Third. It ripens with the Hartford Prolific, and is the best shipping grape we know of.

Fourth. It keeps all winter in any ordinary cool room or cellar, and then can be dried into a perfect raisin.

Fifth. The bunch and berries are large, in color like the Catawba, only a shade lighter and very handsome.

Sixth. The flavor is delicious, and so like the Iona, that everyone familiar with that variety notices the same rich, vinous, sprightly, refreshing taste that makes one wish for just one more bunch. The pulp entirely dissolves in the mouth. The seeds are few and small.

For the family or for vineyardists, it will prove of the greatest value, and he who plants early of this variety plants wisely.

GRAPES—General Collection. Black.

Plant rows 8 feet apart and 6 to 10 feet in rows.

The following prices are for first class one year vines, two year vines being too heavy to forward by mail.

Price 15 cents each; \$1 for 10, unless noted.

Clinton—Bunches small and compact; berries round, black, pulpy, juicy, of medium quality; valuable for wine and culinary purposes.

Concord—A large, purplish black grape, ripening about the middle of September; vine remarkably vigorous and free from disease. It is now being planted over a greater extent of country than any other one variety. 10 cents each; \$1 for 12.

Hartford Prolific—Bunches large, berries large, round and dark, of medium quality. Ripens some three weeks earlier than the Isabella. Hardy and prolific,

Ives' Seedling—Bunches medium to large, compact, often shouldered; berries medium, slightly oblong, of a dark purple color.

Isabella—Bunch large, long and loose, berry large, oval, dark purple or black, pulp tender, juicy, sweet and rich when fully ripe. Ripens first of October.

Merrimac—(Rogers' No. 19.) Black, bunches large; berries very large, round; one of the most reliable varieties, ripening from the 10th to 15th of September. 20 cents each; \$1 for 6.

Moore's Early—Bunch large; berry large, round; color black, with heavy blue bloom; vine exceedingly hardy, entirely exempt from mildew or disease. Its earliness makes it desirable for an early crop, and its hardiness particularly adapts it to Canada and northern portions of the United States. 35 cents each; \$1 for 5.

Senasqua—Bunch large, often shouldered, compact; berry large, round; flesh firm but tender; juicy, sweet, rich; ripens about with the Concord. 35 cents each; \$1 for 3.

Wilder—(Rogers' No. 4.) Bunch and berry very large, black, round; flesh tolerably tender; sprightly, sweet and agreeable; one of the best of Mr. Rogers' Hybrids, ripening quite early. 20 cents each; \$1 for 6.

Worden—A splendid large black Grape, of the Concord type but earlier; large in bunch and berry, and of decidedly better quality; vine hardier than that old standby and every way as healthy. 20 cents each; \$1 for 6.

GRAPES—Red or Amber.

Agawam—(Rogers' No. 15.) Bunches large, compact, berries very large, with thick skin, pulp soft, sweet and sprightly; vine very vigorous; ripens early. 20 cents each; \$1 for 6.

Brighton—An excellent Grape; bunch large; well formed; berries above medium to large, round, Catawba color; excellent flavor and quality; one of the earliest in ripening. 25 cents each; \$1 for 5.

Catawba—Bunches of good size, rather loose; berries large, round; when fully ripe of a dark copper color, with a sweet, rich, musky flavor. Requires a long season to arrive at full maturity. Excellent both for table and wine.

Delaware—This is undoubtedly the best table Grape, ranking pre-eminently above all others in its pure, rich, sugary, wine-like juice. Bunches small, compact, shouldered; berries medium size, fine wine color, translucent; vine hardy, moderately vigorous and very productive; ripens 15th of September. 20 cents each; \$1 for 6.

Goethe—(Rogers' Hybrid No. 1.) A strong, healthy vine, producing large crops of beautiful bunches; berries very large, pale red; flesh tender and melting; ripens late; very valuable in the South. 20 cents each; \$1 for 6.

Lindley—(Rogers' No. 9.) Vine vigorous; berries medium to large, reddish in color; flesh tender, sweet and aromatic; ripens early. 20 cents each; \$1 for 6.

Massasoit—(Rogers' No. 3.) A vigorous vine; berries medium in size, brownish red; flesh tender and sweet; ripens early. 20 cents each; \$1 for 6.

Salem—(Rogers' No. 53.) A strong, vigorous vine. A hybrid between the native and Black Hamburg; berries large, Catawba color, thin skin, free from hard pulp, very sweet and sprightly; ripens as early as Hartford. 20 cents each; \$1 for 6.

GRAPES—White.

Croton—Vine moderately strong; berries medium size, yellowish green; flesh melting and sweet, ripens early. 35 cents each; \$1 for 3.

Elvira—Very vigorous, strong, healthy grower; white, bunch and berries medium size, very compact and productive, often growing four or five clusters on a single cane. Ripens about with Catawba, very hardy. 20 cents each; \$1 for 6.

Lady—A white grape, seedling of the Concord, possessing all the vigor of the parent vine; berries large, light greenish yellow, skin thin, pulp tender, sweet and rich; ripens earlier than Hartford; worthy of trial in all sections. 25 cents each; \$1 for 5.

Martha—Bunches and berries of medium size, greenish white, with a thin bloom, flesh tender, with very little pulp, juicy, sweet and rich; hardy and productive; ripens with Concord. 10 cents each; \$1 for 12.

STRAWBERRIES.

For field culture, plant one by four feet apart, 10,000 to the acre. For garden culture plant one by two feet apart. Any rich soil that will produce good corn or potatoes is suitable for the strawberry. Early in the winter cover the entire surface with litter of some kind to keep the plants from being injured by freezing. There is no danger of putting on too much between the rows, but the plants themselves must not be covered too deep; from two to three inches of coarse straw is probably the best covering. When growth commences remove the covering from directly over the plants and leave it between them for a mulch.

The blossoms of those marked with a letter (p) are destitute of stamens and are termed pistillates; and unless a row of a perfect flowered variety is planted at intervals not exceeding a rod, they will produce imperfect fruit, and but little of it; but when properly fertilized, as a rule, they are more prolific than those with perfect flowers.

STRAWBERRIES—Newer Varieties.

Price, unless noted, 10 cents each; 25 cents per 10; \$2 per 100.

Early Canada—Originated with A. M. Smith, of St. Catharines, Ont., ripens four to five days before Wilson, and is said to be equal to it in all respects: its earliness giving it great advantage in market.

Early Dawn—A remarkable early berry, ripening a week before Wilson.

Atlantic—Of very regular, conical shape; medium to large in size. Flesh, solid, juicy, dark glossy crimson, with little or no acidity when ripe; of good quality, unusually firm; valuable for home use or market. 10 cents each; \$1 for 15.

Neigh's Superb—Plant a very good grower, resembling Crescent Seedling in habit; fruit quite large, color light scarlet; of superb quality; ripens with the Wilson but remains longer in bearing and maintains its good size to the last.

Oliver Goldsmith—A very desirable variety, originating in Delaware, Ohio.

Prince of Berries—The originator, Mr. Durand, says of this variety: "Superior to any berry known in flavor or quality. Brilliant and beautiful in color, abundant in bearing, large size, texture exceedingly fine and melting; no hard or unripe spots on tips coloring evenly and perfectly, unsurpassed as a carrier and keeper, desirable in form, perfect in blossom, never scalds either in foliage or fruit; a vigorous and luxuriant grower." 10 cents each; \$1 per fifteen.

Woodruff's Seedling—A fine productive variety of large size, ripening late.

James Vick—This promising new variety we find a very vigorous grower, with large dark green foliage. Fruit bright scarlet, uniformly large, and very productive; it will stand after ripe a long time on the vine without becoming soft. It is very firm, of good form and quality.

Old Iron Clad—Fruit resembles the Sharpless greatly in size and shape; color bright scarlet; ripening four or five days before the Wilson. Plant very vigorous and hardy.

Big Bob (p)—Originated in Miami county, Ohio, and is highly esteemed in that locality for its size, productiveness and quality. Foliage large and healthy; fruit stalks long and stout; berries very large, nearly round, regular in shape; dark crimson; quite firm, of excellent quality; making big berries to the very end of the season.

STRAWBERRIES—General Collection.

Price, unless noted, 10 cents each; 25 cents per 10; \$1 for 75; \$1.25 per 100. Not less than 25 of a sort sold at hundred rates.

Bidwell—Bright glossy crimson, averaging as large as the Sharpless and more productive than the Wilson or Crescent; very firm and meaty in texture, and delicious in flavor.

Crystal City—The earliest variety in cultivation. Fruit of medium size; conical; color deep red; flesh moderately firm; good quality; very desirable for early home use.

Cetweyo (p)—Berries large, irregular in shape and wonderfully productive.

Crescent Seedling (p)—Medium size, bright light scarlet, not very firm; continues a long time in fruit; plant very vigorous and hardy, and will produce

good crops under greater neglect than any other Strawberry, and is a good paying variety for both family use and market.

Captain Jack—A most vigorous grower, healthy and productive. Berries large, handsome and solid.

Cumberland Triumph—A magnificent variety; berries immense, fine perfect form, and of fine flavor; plant very vigorous and productive.

Charles Downing—Fruit medium to large, conical; deep scarlet; fine flavor; productive.

Colonel Cheney (p)—Large, roundish ovate, bright scarlet; flesh rather firm; fine quality.

Cinderella—Large, conical, regularly formed; bright glossy scarlet; mild, rich, aromatic, vigorous and productive; very fine for home use.

Finch's Prolific—Supposed to be a cross between Russell's Prolific and Wilson and has great merit claimed for it as a market berry; said to be larger than the Wilson, of better quality; bright scarlet in color; fully as firm and equally as prolific. Plant a strong grower, with long, strong fruit stalks that hold the fruit well up from the ground.

Glendale—So far the best late market berry that has been tested; plant very thrifty, with tall, rank foliage, and very productive, succeeds well on both light and heavy soils; fruit of large size, regular, uniform, conical, bright scarlet color, fair quality; very firm, being fully equal to Wilson in shipping and keeping qualities.

Golden Defiance—Large, beautiful, bright scarlet; of good quality, very productive; late to very late.

Huddleston's Favorite—Large size beautiful shape; bright, glossy crimson; firm, with a rich, spicy flavor. An excellent shipping berry.

Hervey Davis—Fruit very large, holding its size well to the last. Deep, glossy red, ripening perfectly and of the highest flavor.

Jucunda—A Strawberry of the largest size, high color, holding its fruit well upon the vines, bringing the highest price in market. 10 cents each; 30 cents per ten; \$2 per 100.

Jersey Queen (p)—This is one of the very best late Strawberries and is claimed by many to be the nearest approach to the ideal Strawberry yet introduced. It is very productive, the fruit being large, broadly conical and of a fine shade of scarlet; the flesh is firm and melting, and is full of a rich, vinous juice, with a delicious aroma.

Kentucky—A strong, vigorous, productive variety, bearing its berries well up from the ground. Fruit large, bright scarlet, firm, juicy, rich and sweet.

Longfellow—A variety from Kentucky, producing large, late firm berries.

Manchester (p)—This variety has received many favorable encomiums from leading fruit growers; it has many desirable qualities; for family use as well as for market it stands pre-eminent.

Monarch of the West—This is a well-tested and truly worthy variety; will grow on almost any good soil; stands drouth and wet; berry large, firm, and of most delicious quality.

Mt. Vernon—A large, late, very productive variety; a strong, healthy grower, with strong fruit stalks; fruit conical, bright red, uniformly large and of excellent quality.

Pioneer—Very early, of large size, bright red; flesh firm and of excellent quality.

Satin Gloss—Medium to large, bright, glossy vermilion; very regular in size and form, firm, plant large and vigorous; exceedingly prolific; holding its size well to the end of the season.

Seneca Chief—Very large, conical, dark crimson, firm, very good, late, productive and vigorous.

Sharpless—The largest berry of the entire collection, and has maintained its high reputation for vigor of plant, size of berry, flavor and productiveness; flesh firm, sweet with a delicate aroma; of first quality; color clear light red, with a smooth shining surface.

Sucker State—Fruit medium to large, regular shape, conical but not pointed; color somewhat like Cumberland Triumph, but darker.

Springdale—Very dark crimson; of excellent quality; exceedingly productive and vigorous.

Windsor Chief (p)—A vigorous grower, with healthy foliage, and immensely productive; fruit of large size to the end of the season.

Wilson's Seedling—One of the most productive and profitable varieties for market culture.

RASPBERRIES.

The raspberry should be planted in good rich soil, in rows five feet apart, and three feet apart in the rows, with three to five canes to the hill. As soon as they have done bearing, cut out the old wood to give more vigor to the young canes.

Newer sorts, price, except noted, 10 cents each; \$1.00 per 15; \$6.00 per 100.

Hansell—The earliest of all Raspberries; medium to large; color of the brightest crimson; quality best, rich and refreshing, possessing a powerful aroma, imparting a delightful perfume and flavor; canes vigorous, productive and entirely hardy, having thus far withstood the Summer heat and Winter cold equal to the old iron-clad Turner.

Superb—A magnificent large berry; rich, dark scarlet; flavor remarkably spicy, with a refreshing tartness unequalled in any other Raspberry; vine vigorous and hardy; commences to ripen about the middle of June and continuing four to six weeks.

Shaffer's Colossal—"Plant very vigorous and as hardy as the Turner. Propagates from the tip; very prolific, fruit the largest of any berry in the world; ripens with Mammoth Cluster. It is not a black Raspberry, nor a red Raspberry, nor a purple Raspberry, but a reddish brown, growing brighter red on specimens not fully matured; quality inviting and refreshing but not equal to the best." We think this may prove very valuable for the family garden and local market. We have no hesitation in claiming that as it appears here, this is the largest Raspberry in the world, as it averages, gathered by the bushel from the field. We claim also that it is of the most vigorous in growth of cane, and that it is exceedingly productive. 10 cents each; \$1.00 for 20; \$4.00 per 100.

Souhegan—A week earlier than Doolittle; nearly as large as the Gregg, perfectly hardy and enormously productive. Mr. Manning, of Massachusetts, says of it: "That it justifies our claim of its superiority over all others of its class. It is again the very earliest—coming in just as the late strawberries are going out. With good culture it will grow three-quarters of an inch in diameter, often bearing twenty or thirty berries on a cluster, and carries well to market. It is of superior quality to eat, and makes a rich sauce, pie or pudding. A first-class certificate of merit was awarded for a display of the Souhegan Raspberry by the Fruit Committee of the Massachusetts Horticultural Society, where it was shown for the first time in 1882." There is no higher authority than the approval of the above society, where testimonials of fruit are desired. 10 cents each \$1 for 20; \$4 for 100.

Marlboro—This new red raspberry appears to combine the most valuable characteristics, canes very strong, healthy and vigorous, holding its foliage even on sandy soil until frost, and uninjured by the winter. Berries ripen very early. Among the earliest, large, bright, red color, good quality and good shipper. This new variety has not yet fruited on our grounds, but the plants are very vigorous and healthy, and wherever tested has done admirably, and is spoken of in the most glowing terms. Something of its value may be inferred from the fact that the originator was repeatedly offered \$4,000 for the whole stock, which he refused. The stock was finally divided into thirty shares at a high price, except a portion which the originator insisted upon reserving, refusing to part with the entire stock of so good a thing. 50 cents each; \$5 per 12; \$15.00 per 50.

RASPBERRIES—General Collection.

Price, unless noted, 10 cents each; 50 cents per 10; \$2.50 per 100.

Amazon—A very large and fine flavored berry, and one of the most vigorous growers.

Brandywine—A large and bright red berry of very beautiful appearance, which makes it a favorite market variety, although not of the highest quality. It does well on nearly all soils and endures the drouth and heat of the South better than most varieties.

Cuthbert, or Queen of the Market—A remarkably strong hardy variety, said to stand the northern winters and southern summers better than any other. Berries very large, measuring three inches around; conical; rich crimson; very handsome, and so firm they can be shipped hundreds of miles by rail in good condition; flavor is sweet, rich and luscious.

Clark—Large, conical, bright crimson, juicy, sweet and excellent, but rather soft for long shipment.

Caroline—A seedling from Brinckle's Orange that needs no winter protection; this fruit somewhat resembles its parent in appearance, and as the plant is vigorous and hardy it bids fair to supplant that old favorite variety. 10 cents each; \$1.00 for 15; \$4.00 per 100.

Davidson's Thornless—One of the earliest and best of the Black Caps, and nearly exempt from spines.

Doolittle's Improved Black Cap—Although one of the first introduced, it still holds its place as one of the most valuable.

Gregg—This is decidedly the largest and most prolific Black Cap that we have ever seen, far surpassing in size the famous Mammoth Cluster—averaging when grown side by side, with the same treatment, one-third to one-half larger.

Mammoth Cluster—One of the largest, latest and best of the Black Caps; juicy and sweet.

Ohio Black Cap—A very hardy and productive variety, ripening between the earliest and latest; it is a good shipper, and the most profitable of all for drying, taking but two and a half quarts to make a pound of dried fruit.

Philadelphia—Dark red; good size; flesh moderately firm; plants hardy and enormously productive. Valuable for market.

Turner—A beautiful red berry of fine size and excellent quality; said to be the hardiest and most productive throughout the entire West.

New Rochelle—Large, brownish red, flesh quite firm, juicy, with a rich, sub-acid flavor; valuable for table, culinary purposes or canning; continues a long time in use.

Sweet Home—A Black Cap of superior quality, nearly as large as the Gregg and more uniform, and so hardy as to have withstood 30 degrees below zero uninjured. Ripens 10 days later than Doolittle.

CURRENTS.

The currant has not hitherto received the attention its merit demands. It presents to us its annual offering of grateful, refreshing fruit, just at the time it is most needed. Price, unless noted, 10 cents each; \$1 for 12; \$5 for 100.

Black Naples—Very large. Fine for wine or jellies.

Cherry—One of the largest of all the red currants.

La Versailles—Very large, long bunches, deep red; productive.

Lee's Prolific—(Black.) Larger than Black Naples in berry and bunch, better in quality and vastly more productive. 15 cents.

Red Dutch—An old, well-known, thrifty, upright sort; very productive.

Victoria—Large, bright red, with very long bunches; late; a good bearer.

White Grape—An early and immense bearer. Very valuable.

White Gondoin—A large light colored sort, sweet; vigorous and productive.

White Dutch—Milder flavor than the common red, and preferable for the dessert.

FAY'S PROLIFIC CURRENTS.

Originated with Lincoln Fay, of Portland, N. Y., thirteen years ago, from a seedling of Cherry and Victoria Currents. The following is claimed for it: "Color red. As compared with the Cherry Currant, Fay's Prolific is equal in size, better in flavor, much less acid, and much more prolific, and from its peculiar stem, less expensive to pick," 50 cents each; \$5 for 12.

Boston, July 10, 1880.

DEAR SIR—The Currents arrived in good order. I infer from your note that the variety was raised from the Cherry Currant. If so, the bunches are longer, and its bearing qualities seem to be great, and its flavor in advance of its parent. With many thanks,

Yours truly, MARSHALL P. WILDER,
Pres't Am. Pomological Society.

GOOSEBERRIES—American Sorts.

Downing—Very large, handsome, pale green, and of splendid quality for both cooking and table use; bush a vigorous grower, and usually free from mildew. 15 cents each; \$1 for 8.

Houghton Seedling—Small to medium, roundish oval; pale red; sweet, tender, very good; plants spreading, shoots slender; enormously productive. 10 cents each; \$1 for 12.

Mountain Seedling—Large, roundish oval, pale red skin, thick; medium quality; plant a free grower and very productive. 20 cents each; \$1 for 6.

Smith's Improved—Large, pale greenish yellow; skin thin, of excellent quality, being unsurpassed by any other variety for table use or cooking; bush moderately vigorous and excessively productive. 20 cents each; \$1 for 6.

GOOSEBERRIES—English Varieties.

Fifteen leading sorts, strong, two-year plants. 30 cents each, \$1 for 4.

BLACKBERRIES.

Plant three to eight feet apart.

Early Harvest—This is the earliest blackberry in cultivation; a compact, dwarf grower; fruit medium size, and fine quality. An enormous bearer. 15 cents each; \$1 for 12.

"It is so early, and it bears so well, and eats so well, and ships so well, and sells so well, it is of very notable value for a large portion of our country."—*Parker Earle, President Mississippi Valley Horticultural Society.*

Lawton, Kittatinny, Snyder and Early Wilson—10 cents each; 3 for 25 cents; \$1 for 15.

Missouri Mammoth—15 cents each; \$1 for 10.

Newman's Thornless—This old variety still maintains its reputation as one of the best of the spineless. 10 cents each; \$1 for 15.

Taylor's Prolific—A new variety, said to be perfectly hardy. A very vigorous grower and exceedingly productive. Fruit large and of good quality. 15 cents each; \$1 for 10.

Wachusett Thornless—Medium size, oblong oval, sweet and good. A good keeper, rendering it valuable for market. Succeeds well on both light and heavy soils, bearing large crops. A hardy variety, free from thorns. 15 cents each; \$1 for 10.

Wilson, Jr.—This is claimed to be a pedigree blackberry raised in 1875, from selected seed of the old Wilson Early, and is the largest and most productive early blackberry known. Measures three and a quarter inches around crosswise, and three and three-fourths inches around lengthwise; produces its fruit in immense clusters; ripens evenly; becomes sweet as soon as black; holds its color well after being picked, and brings the highest price in the market. Ripens early in July. 30 cents each; \$3.00 per twelve.

Stone's Hardy—It is an upright and vigorous grower; the wood is stocky, short jointed, ripens early, turns dark red and is very hardy. The berry is black and glossy when ripe and has a delicious flavor. It commences to ripen its fruit about five days later than the Snyder and continues bearing ten days longer; the fruit is well protected by the thick, healthy foliage. J. S. Stickney says Stone's Hardy by the side of Snyder appears more productive and the quality better than Snyder. President J. M. Smith says: "If the bushes sent are a fair sample, they must indeed be a show worth seeing. All agree that the quality of Stone's Hardy is excellent." 15 cents each; \$1 for ten.

HARDY ORNAMENTAL SHRUBS.

No garden should be without a good selection of these permanent ornaments. Once carefully planted in suitable positions they increase in size and beauty from year to year, and require but little further care.

The season of bloom of the different sorts extends over nearly the whole season, though the greatest show is to be expected in Spring and early Summer.

ALTHEA FRUTEX—Rose of Sharon.

This is really one of the most showy and beautiful flowering shrubs; the flowers are of large size, very double and full, and of various brilliant and striking colors. It blooms freely during August and September when scarcely any other tree or shrub is in blossom.

Double Rose—15 cents.

Double Variegated—Pink and white. 15 cents.

Folia Variegata—Leaves conspicuously margined creamy white, flowers double purple. 25 cents.

AZALEA PONTICUM.

A fine hardy shrub, producing an abundance of bright yellow flowers in early Spring. 35 cents.

CORNUS SANGUINEA.

A strong-growing shrub, with clusters of fine white flowers; the stem and branches turning blood red in Winter. 20 cents.

CALYCANTHUS—Sweet-Scented Shrub.

Flowers purple, very double and deliciously fragrant; remains in bloom for a long time; a very desirable shrub. 20 cents.

CORCORUS JAPONICA.

A slender shrub four or five feet high, with beautiful double yellow blossoms from July to October. 15 cts.

CORCORUS JAPONICA—Variegata.

Similar to the preceding, with foliage variegated green and white. 15 cents.

DEUTZIAS.

Crenata (fl. pl.)—Flowers double white, tinged with pink. 15 cents.

Gracilis (Slender Branched)—A very desirable dwarf-growing variety. Flowers pure white. A valuable plant for Winter blooming. 15 cents.

Crenate Leaved (Crenata)—Strong grower, profuse bloomer. 15 cents.

Crenata (fl. alba pleno)—A very valuable variety of strong growth, producing its pure white double flowers in abundance. 15 cents.

EXOCHORDIA GRANDIFLORA.

A very beautiful and rare shrub, with large and distinct pure white flowers in May. 35 cents.

FORSYTHIA FORTUNI.

An upright growing shrub with bright green foliage; flowers bright yellow, dropping before the leaves appear. A fine early flowering shrub. 15 cents.

UPRIGHT HONEYSUCKLES.

Red Tartarian—Beautiful pink and rose color blossoms in June. 15 cents.

White Tartarian—Flowers white; blooms in May and June. 15 cents.

HAWTHORNS.

A well known family of moderate sized trees bearing a profusion of flowers in May. The double flowering varieties are especially beautiful.

Double Scarlet—Flowers deep crimson, with scarlet shade, very double. 50 cents.

Double White—Small double daisy-like flowers in clusters. 50 cents.

Double Pink—Double pink or rose flowers with white tips. 50 cents.

HYDRANGEA—Paniculata Grandiflora. Syn. H.**Deutziaefolia.**

This is one of the most valuable hardy shrubs in cultivation. It attains a height of three or four feet, and is perfectly hardy in all parts of the country. The flowers are white, borne in immense pyramidal panicles nearly a foot in length. The plants should be cut back every Spring at least one-half of the last season's growth, as the flowers are borne on new wood and are much finer when the plants are treated in this way. Fine for cemetery decoration. 25 cents.

PURPLE FRINGE.

A beautiful, distinct, large shrub, much admired for its long, feathery flower stalks, which give the tree the

appearance of being covered with a cloud of smoke. 20 cents.

LILACS.

White and purple. 15 cents.

PYRUS JAPONICA—Scarlet Japan Quince.

Blooms early in Spring; flowers bright scarlet; very hardy. 20 cents.

PYRUS JAPONICA ALBA—Blush Japan Quince.

A very beautiful variety of the Pyrus, with delicate white and blush flowers. 20 cents.

PHILADELPHUS or MOCK ORANGE —**Grandiflora.**

A large growing shrub; flowers snow-white in great profusion. June to July. 15 cents.

PHILADELPHUS—Flore Pleno.

A dwarf variety, with double cream-colored flowers. 20 cents.

RHODODENDRON, or ROSE BAY.

The most magnificent hardy evergreen shrub that grows, with broad, thick evergreen foliage of glossy richness which is almost hidden in May and June by a splendid array of beautiful flowers in clusters, each cluster large enough for a lady's bouquet.

Catawbiense Seedlings—9 to 10 inches, \$1.

Choice named sorts—9 to 10 inches, \$2.

SPIREAS.

Beautiful shrubs of the easiest culture; very desirable for shrubberies or the flower garden.

Billardii—Rose-colored flowers in spikes. 15 cents.

Callosa Alba—A white flowering variety, of dwarf habit, very fine. 15 cents.

Chamaedrifolia—One of the most desirable of the Spireas, with small wiry branches covered in June with clusters of white flowers. 20 cents.

Eximia—Spikes of bright rose-colored flowers, very free blooming. 15 cents.

Grandiflora—A very desirable variety, having large rose-colored flowers. 15 cents.

Profuse Flowering—Flowers white; a great bloomer. 15 cents.

Prunifolia—A beautiful Spirea; its flowers are like double, small white daisies; blooms early. 15 cents.

Reevesii (fl. pl.)—Double white flowers in clusters; very fine. 15 cents.

Thunbergia—A pretty white flowering variety with narrow linear leaves, valuable for forcing. 20 cents.

Van Houtte—A strong grower; flowers pure white, in clusters; fine. 15 cents.

VIBURNUM OPULUS—Snow Ball.

A well-known shrub; attains the height of 8 or 10 feet, produces its snowy-white flowers in large balls or masses in June. 10 cents.

VIBURNUM PLICATUM—Japan Snow Ball.

A beautiful shrub of moderate upright growth, with crinkled or plicated rich green leaves. The flowers are white, and are larger and more solid than those of the common Snow Ball. 15 cents.

WHITE FRINGE.

A tall growing shrub with large, deep green foliage, pure white, drooping, fringe-like flowers; extremely desirable. 35 cents.

WEIGELAS.

Hortensis Nivea—Flowers pure white, foliage large, habit vigorous, a very profuse bloomer. 35 cents.

Hortensis Rubra—Flowers deep red when in bud, and nearly white inside when fully open. 15 cents.

Hendersoni—Flowers rose color; fine. 15 cents.

Rosea—A beautiful shrub with rose-colored flowers, in May and June. 15 cents.

Rosea, Nana Variegata—One of the most conspicuous shrubs that we cultivate; leaves beautifully margined creamy white; flowers pink. It is a dwarf grower and admirably adapted to small lawns and gardens. 15 cents.

We will send 10 shrubs, each labeled, our selection of varieties, for \$1.

HARDY ORNAMENTAL CLIMBING VINES.

AMPELOPSIS.

- Quinquefolia** (American Ivy)—A perfectly hardy climber of rapid growth; fine for covering walls or unsightly objects. 15 cents.
- Tricolor**—A variety with leaves beautifully mottled creamy white. 25 cents.
- Veitchii**—A hardy climbing plant from Japan. It is a splendid plant for covering unsightly objects, as it clings to stone-work, etc., with the greatest tenacity. The foliage is a bright, glossy green, shaded with purple, changing in Fall to the brightest tints of scarlet, crimson and orange. 20 cents.

AKEBIA QUINATA.

A very beautiful, perfectly hardy, fast growing Japan vine, with magnificent foliage, producing flowers in large clusters of chocolate-purple color; possessing a most delicious perfume; unsurpassed for covering trellises and verandas, the foliage never being attacked by insects. 15 cents.

BIGNONIA—Radicans.

Trumpet Flower—A rapid growing climber, with large scarlet, trumpet-shaped flowers. 20 cents.

DUTCHMAN'S PIPE—Aristolochia Siphon.

A magnificent hardy vine of rapid growth, with very large heart shaped leaves and brownish flowers, resembling in shape a miniature pipe; splendid for archways or verandas. Strong plants, 75 cents each.

HONEYSUCKLES.

Aurea Reticulata—A variety with beautifully variegated foliage; the leaves are netted and veined with

- clear yellow; flowers yellow and fragrant. 10 cents.
- Chinese Twining**—Blossoms at intervals through the Summer, and retains its foliage late in Winter; flowers nearly white, quite distinct. 10 cents.
- Halliana**—Color white, changing to yellow, very fragrant; blossoms from June to November. 10 cents.
- Magnevillea**—Flowers yellowish white, fragrant; evergreen in Winter. 10 cents.
- Monthly Fragrant**—A fine, rapid growing variety; flowers large and very fragrant; color red and yellow; a constant bloomer. 15 cents.
- Scarlet Trumpet**—A strong rapid grower; blossoms very freely the entire season; bright red trumpet-shaped flowers. 10 cents.

WISTERIA.

This is one of the most popular of our hardy vines, growing very rapidly, climbing to a height of fifty feet or more, and when in bloom is truly magnificent. Its flowers in early spring, in long drooping racemes, resembling in size and shape a bunch of grapes.

- Brachybotria Rubra**—Flowers reddish purple. 25 cents.
- Chinese (Sinensis)**—Flowers in clusters, pale blue; sometimes gives a second crop of flowers in the Fall. 20 cents.
- Sinensis Alba**—Flowers borne in long drooping clusters, as in the blue variety; pure white in color, making a most striking and elegant contrast. 75 cents.
- Magnifica**—Flowers in dense drooping racemes of pale lilac; of the same size as the Chinese; vigorous and perfectly hardy. 20 cents.
- We will send eight climbing vines, each labeled, our selection of varieties, for \$1.

HARDY ORNAMENTAL TREES.

EVERGREENS.

In the following list we quote only such sizes as can be sent by mail.

- Norway Spruce**—When planted alone on the lawn makes a majestic pyramid of living green from base to summit, perfectly hardy to withstand the severest cold of our Northern Winters or the greatest heat of Summer. Unrivalled as a screen or wind-break. No evergreen excels it in safety of transplanting, in close, compact habit of growth and in endurance of close pruning from year to year without injury. Two years, 3 to 4 inches, 10 cents each; 50 cents per 10; \$2 per 100; 4 years, 4 to 6 inches, 20 cents each; 75 cents per 10; \$4 per 100.
- Arbor Vitæ (Golden)**—A beautiful variety of Chinese, compact and globular in form; color a lively yellowish green; not quite hardy at the North; should be planted in a shady situation. 4 to 6 inches, 75 cents.
- American Arbor Vitæ**—A hardy pyramidal tree when grown singly and properly sheared, a handsome object; planted closely it makes a compact and beautiful hedge of light green. 4 to 6 inches, 15 cents each; 75 cents per 10; \$6 per 100.
- Arbor Vitæ (Semper Aurea)**—A variety of the Aurea of dwarf habit, but free growth, retaining its golden tint all the year round. One of the very best of the golden variegated Evergreens. 75 cents.
- Arbor Vitæ Ericoides** (Heath Leaved Arbor Vitæ)—A very pretty dense little shrub, of the Tom Thumb type. 25 cents.
- Arbor Vitæ (Pumila)**—A little dwarf, very fine both in color and form. 5 to 6 inches, 35 cents.
- Arbor Vitæ (Pyramidalis)**—An exceedingly beautiful, bright variety, resembling the Irish Juniper in form; foliage deep green, color well retained in Winter; perfectly hardy. Should have a place in every collection. 6 to 8 inches, 35 cents.

- Arbor Vitæ (Tom Thumb)**—A very small, compact little Evergreen; very fine foliage. Makes a beautiful ornament for a small yard or cemetery lot; fine for low hedges. 4 to 6 inches, 25 cents.
- Arbor Vitæ (Compacta)**, "Parson's."—A very compact variety; hardy and desirable. 5 to 6 inches, 25 cents.
- Arbor Vitæ (Hoveyi)**—A small tree, globular in form; foliage light green with a golden tinge, and very compact, hardy. 4 to 5 inches, 35 cents.
- Cupressus Nutkensis**—A very fine Evergreen from Nootka Sound. One of the best; foliage dark green; perfectly hardy. 6 to 8 inches, 50 cents.
- Holly (English)**—Deep green, glossy, shining leaves with bright red berries through the Winter. Largely used in Christmas decorations. 50 cents.
- Lawson's Cypress**—A most desirable tree from California, with elegant drooping branches, and feathery foliage of a dark glossy green hue. 5 to 6 inches, 35 cents.
- Irish Juniper**—Erect and formal in habit; foliage deep green and very compact, making splendid column, sometimes 15 or 20 feet high. Much used in cemeteries. 4 to 6 inches; 25 cents.
- Swedish Juniper**—Not quite so erect in growth as the Irish; foliage light yellowish green. It attains a height of 10 or 15 feet, perfectly hardy. 4 to 6 inches; 25 cents each.
- Juniperus Suedica Nana**—A dwarf variety, compact habit of growth, foliage light, not changing in winter; perfectly hardy. 4 to 5 inches, 35 cents.
- Pine (Austrian)**—A strong hardy grower, fine for wind-breaks; grows rapidly on light, sandy soils; hardy. 4 to 6 inches, 25 cents.
- Pine (Scotch)**—Like the preceding, its quick, strong growth makes it valuable for protective screens; very hardy. 4 to 6 inches, 25 cents.

Podocarpus Nubigenis—A rare Evergreen from Japan; erect like the Irish Yew, with heavier and denser foliage. 4 to 5 inches, 50 cents.

Retinospora Plumosa Aurea—An exceedingly handsome, small Evergreen from Japan, with feathery, light green foliage. 4 to 5 inches, 35 cents.

Retinospora Plumosa Aurea—Like the preceding, a plant of great beauty, soft, plume-like foliage, of a golden color, close and compact habit; should be in every amateur collection. 4 to 5 inches, 35 cents.

Yew (Elegantissima)—An erect little tree with variegated leaves; valuable at the South. 4 to 5 inches, 50 cents.

Yew (Irish)—Upright in growth, with dense foliage, of a dark somber hue; not quite hardy here; valuable at the South for cemeteries or small yards 3 to 4 inches, 35 cents.

Box Tree—A fine, small Evergreen, with pale green leaves. Can be trained in any desirable form by shearing. 3 to 4 inches, 20 cents, 4 to 6 inches, 25 cents.

CATALPA SPECIOSA—(Hardy, or Western Catalpa.

This remarkable and valuable variety of the Catalpa is a native of the Mississippi Valley. It differs distinctly from the common Catalpa Bignonioides. It was discovered by Dr. J. A. Warder, N. Y., and J. C. Teas, at Dayton, Ohio, in 1853. The two varieties there growing side by side, their flowers differing so widely in time of blooming showed their difference. But at Dayton the tender varieties stood their Winters, and they did not know that their favorite tree was so much more hardy than the old common variety to stand the Winters of our bleak prairies. This remained for us, here in Iowa, to give it the test of hardiness. It has a record of standing from fifty to one hundred years in the ground in the shape of stockades, gate posts, fence posts, foot logs, etc., without rotting in the least.

The following is from the report of John C. Teas, who Mr. Barney of Dayton, O., sent out in 1878, in company with Dr. Warder, to explore the woods of the Mississippi Valley, to learn its native place and habits of growth. "Of all the trees that have been suggested as adapted to the formation of timber plantations, the Catalpa Speciosa stands pre-eminent. Its exceedingly rapid growth; its adaptation to almost all soils and situations; its wide range of latitude, extending from Canada to the Gulf of Mexico; its extraordinary success on the western and north-western prairies; the ease and certainty with which it is transplanted; its strong vitality and freedom from disease and insects; the incomparable value of its timber for the most important as well as minor uses for which the timber is needed; the almost imperishable nature of the wood when used for posts, railroad cross-ties and in other exposed situations; to say nothing of the handsome and stately appearance of the tree and the unrivalled beauty of its flowers, all point to the Catalpa Speciosa, as the tree to plant."

Mr. Suel Foster of Iowa, says: "My experience for twenty-five years with the Hardy Catalpa (they give me the credit of giving it the name of *Hardy*), assures me that it is by far the most valuable tree the farmer can plant, for post timber, and for almost all the uses timber and wood is used for on the farm, or for railroad ties, and for commercial purposes. Set a line of trees where you want a permanent fence, for posts to attach the wire to, and for wind-breaks.

The Catalpa planted in a rich soil and well-cultivated will in five years grow large enough for fence posts. In ten years for telegraph poles. In twenty years for railroad ties, piles or bridge timbers. In from thirty to forty years for saw logs. It takes on as smooth a polish for cabinet-making purposes as black walnut or black cherry, and in time, it will take the place of these valuable varieties of timber, which will soon become exhausted at the present rate of consumption. The Catalpa, having a leaf as large as the sunflower, is a disinfectant, and will draw malarial diseases from the atmosphere and make our country more healthy than it now is. The Western Hardy Catalpa is hardy enough to stand the climate as far north as the cottonwood, elm, and, soft maple or box elder will succeed. Catalpa

seed germinates very readily. It should be planted in early Spring, about the time of corn planting, in drills about three feet apart; sow rather thin in drill, say one seed to the inch of drill, COVER NOT OVER ONE-HALF AN INCH DEEP, and if the season is dry, walk along the drills heel and toe, so as to press every inch of the soil down. In this way the seed will produce about 80 per cent of plants. Cultivate the same as you would a row of corn, and at the end of the season they will be from one to three feet high. Prices of seedlings by mail, 6 to 8 inches, ten cents each; 30 cents per 10; 75 for \$1. Large 3 year old seedlings by freight or express, 100, \$5; 1,000, \$35. Prices of seed, pkt, 10c; oz, 20c; ¼ lb, 50; lb, \$1.50, 4lbs, \$5; 10 lbs, \$10.

DECIDUOUS TREES.

Ash-Leaved Maple—A distinct variety, making a handsome lawn tree. 6 to 10 inches, 15 cents; \$1.00 for 12; \$2.00 for 100.

Norway Maple—A native of Europe. A large, handsome tree, with broad, deep green shining foliage; very desirable for street, park or lawn. 10 to 12 inches, 25 cents.

Sycamore Maple—A handsome tree from Europe, of rapid, upright, growth and large foliage. 10 to 12 inches, 25 cents.

Silver Leaved Maple—A hardy, rapid-growing native tree of large size. Valuable for producing a quick shade. Excellent for street planting. 15 cents. \$1 for 12; \$2 for 100.

American Linden or Basswood—A rapid-growing, beautiful tree, with very large leaves and fragrant flowers. 10 to 12 inches, 25 cents.

European Linden—A very fine pyramidal tree with large leaves and fragrant flowers. 10 to 12 inches, 25 cents.

Mountain Ash (European)—A fine hardy tree; head dense and regular; covered from July till Winter with great clusters of bright red berries. 8 to 12 inches, 25 cents.

Magnolia Acuminata (Cucumber Magnolia)—A beautiful pyramidal tree, attaining height from 50 to 80 feet; has bluish green leaves 6 to 9 inches long. 4 to 6 inches, 25 cents.

White Flowering Horse Chestnut—The well-known European species; very handsome; has magnificent spikes of white flowers. As a lawn tree or for the street, it has no superior. One year, 25 cents.

Tulip Tree (Whitewood)—One of our largest native trees, with broad, glossy, fiddle-shaped leaves and beautiful tulip-like flowers. 25 cents.

White Ash—A rapid growing native tree, of fine symmetrical outline. A valuable street or park tree, and should be extensively planted for timber, as the demand for it is very great for the manufacture of agricultural implements, railway cars, etc. One year 15 cents; \$1 for 12; \$2 for 100.

Lombardy Poplar—A native of Europe. Remarkable for its erect growth and tall spire-like form. 25 cents.

Silver-Leaved Poplar—A tree of rapid growth and spreading habit. Leaves glossy green above, and white as snow beneath. 25 cents.

Laurel Leaved Willow—A splendid ornamental small tree, with large, glossy laurel-like leaves. Whence its name. 25 cents.

Balsam Poplar, or Balm of Gilead—A remarkable rapid growing tree, with luxuriant, glossy foliage. 25 cents.

Birch, Cut-Leaved Weeping—Beyond question one of the most elegant of all weeping or pendulous trees. Its tall, slender, yet vigorous growth, graceful, drooping habit, silvery white bark and delicately cut foliage, presents a combination of attractive characteristics rarely met with in a single tree. 75 cents.

Weeping Willow (Babylonica)—A well-known and most graceful tree of large size. Its fresh, bright green tint, and its long, wavy branchlets make it very attractive. 25 cents.

Wisconsin Weeping Willow—A fine, drooping habit in the style of Babylonica with the additional merit of being entirely hardy as far North as Wisconsin. 25 cents.

TREES, PLANTS AND SHRUBS

By Express or Freight Only.

Trees, shrubs, or plants from this list can be sent only by freight or express. They are all strong and healthy from open ground, as early as the ground can be worked in spring. Stock in this list is supplied by a reliable nurseryman, and will be shipped direct from the nursery in Des Moines about April 15th.

Of apples we offer about 150 varieties and can generally supply any kind ordered. We can most cordially recommend all to try these. They are A 1 in quality and you will see that our prices are below those of many other nurserymen. There are no premiums or discounts on this list. Twenty-five or over sold at 100 rates.

	Each.	Per Doz.	Per 100.
Apple Trees—No. 1, 4 to 6 feet, select.....	\$ 30		\$20 00
Second selection, 4 to 5 feet.....	20		15 00
Crab Apples—Transcendent, Hys- lop, Quaker Beauty and many others.....	40		4 00
Cherries—Early Richmond, English Morello, Gov. Wood and Mont- morency, 4 to 6 feet.....	75	7 50	
Plums—4 to 6 feet, a fine assortment.	75	7 50	
Pears—Bartlett, Clapp's, Duchess, Vicar, Keiffer and many others, both standard and dwarf, 4 to 6 feet.....	75	7 50	
Mulberry—Leading varieties.....	50	5 00	
Grapes—Concord, 1 year, No. 1.....		1 25	10 00
Concord, 2 year, No. 1.....		1 50	12 00
Worden, best early, hardy as Con- cord, 2 years.....		2 50	17 00
Martha, Elvira, and Roger's Hybrids and many other kinds, 2 years....		2 50	17 00
Prentiss and Pocklington, white, new.....	1 00	10 00	
Currants—Best sorts, 2 years.....		1 50	10 00
Gooseberries—Two years, Houghton		1 50	10 00
Two years, Downing.....		2 00	12 00
Raspberries—Mammoth Cluster, Turner, etc.....		1 00	6 00
Gregg, Cuthbert and Thwack.....		1 25	7 00
Blackberries—Snyder, hardy, abun- dant bearer; best.....		1 00	6 00
Strawberry—Wilson, Crescent, Cum- berland, Triumph, Chas. Down- ing, Kentucky, Seth Boyden and Downer's Prolific.....		35	1 50
Huckleberry.....	2 50		
Evergreens—Scotch Pine, 2 feet....	30		
Austrian Pine, 18 inches.....	25		
Norway Spruce.....	25		
Norway Spruce, 2 to 5 feet, per foot, 20 cts.....			
Riga Pine, 6 to 9 inches.....	25		
Red Cedar, 10 to 14 inches.....	25		
Red Cedar, for lawns, 3 to 4 feet...	75		

	Each.
Balsam Fir, 10 to 14 inches.....	25
Siberian Arbor Vitæ, 2 feet.....	60
American White Spruce, 2 feet, fine	50
Silver Spruce and Douglass Fir, from Colorado, 10 to 14 inches, each.....	50
Deciduous Ornamental Trees—	
Catalpa and Silver Birch, 6 to 8 feet, each.....	50
Catalpa and Silver Birch, 4 to 6 feet	40
Mountain Ash, 3 to 5 feet.....	60
Weeping Trees—Kilmarnock Wil- low and Cut-leaved Weeping Birch, 4 feet, each.....	1 00
Weeping Mountain Ash, fine, 5 feet.	1 50
Wisconsin Weeping Willow and Silver Maple, 5 to 6 feet each....	75
Shrubs—Weigelia, Snowball, Flowering Almond, Hydrangea, Lilac, Dogwood, Barberry, Tree Honeysuckle, Rose Acacia, a large collection of the finest Spireas.....	50
Vines and Creepers—Ampelopsis, Bignonia, Honeysuckle, Wisteria, Bittersweet, etc.....	50
Peonias—Dielytras.....	50

HARDY ROSES.

All should have some of these beautiful outdoor
Roses. The following are the best varieties

Prairie Queen—Bright pink, climbing, each.....	75
Baltimore Belle—Pale blush, variegated, climb- ing, each.....	75
Augusta Mie—Large, clear, bright pink, very fragrant, each.....	75
Gen. Washington—Bright vermilion rose; large, fine form, perfectly double, and a very free bloomer, each.....	75
Madame Plantier—Pure white flower of most perfect form; blooms only in spring; but is liter- ally covered with flowers then; beautiful for cem- etery decoration, each.....	75
Barberry Plants—Per 100.....	4 00

FLOWER PLANT AND BULB DEPARTMENT.

We have recently purchased two well-stocked greenhouses, and are better prepared than ever before to supply the great demand for plants and cut flowers.

During the past year we have filled an immense number of orders for plants, and sent them by mail and express to all parts of the United States. Our system of packing is so very complete that plants arrive in as perfect condition after traveling many hundred miles, as they are when packed. Our plants are all grown for the mail trade, and growing them in the immense quantities we do, for this purpose, we are enabled to keep our stock more complete and the plants in better condition than many other dealers. They are all strong, healthy and vigorous. They are sent by mail, post paid, at the prices named, provided the order is not less than \$1.00, or if less than \$1.00 is ordered, 10 cents extra must accompany each order, for extra work and postage. Suppose you send only 10 cents or 15 cents for a plant; it takes nearly that in time and postage to fill your order, and we have nothing left. Sending for part of the dollar in seeds or something else, and then making out with plants from this department, *will not do*. The order must be for \$1.00 in flower plants or bulbs, or the ten cents extra must be sent. We would advise all who want many plants to have them sent by express, as we will then send much larger plants than can be sent by mail, and enough extras to cover your express charges.

Customers wishing plants in the fall are requested to send for our special list of winter blooming plants and bulbs, which will be issued about Sept. 1st.

ABUTILONS, OR FLOWERING MAPLES.

Beautiful greenhouse shrubs, blooming almost the entire year. Well adapted and popular for house culture or bedding.

	Each.
Abutilon Boule de Neige—Pure white.....	20
Arthur Belsham—Dark crimson.....	20
Thompsoni—Leaves mottled, golden yellow...	20
Mesopotamicum—Trailing; flower scarlet and yellow.....	20
Achania Malvaviscus—Similar to above; bright scarlet flowers; always in bloom.....	20
Achryanthus—Bright leaved bedding plants; used largely in ribbon beds; four fine sorts. Per doz. \$1.00.....	10
Ageratum—Well known favorites, free blooming; pretty for bouquets; three varieties.....	15
Alternanthera—Beautiful, bright leaved, variegated foliage plants, almost indispensable for ribbon beds and borders. Per doz. \$1.00.....	10
Aloysia Citriodora—The well known Lemon Verbena; leaves have a delightful fragrance.....	20
Alyssum (Sweet)—New variegated leaved double. —Double White and Giganteum, each...	15
Aspidistra Lurida Var.—Dark, glossy, green leaves, with broad stripes of white; remarkable for producing its flowers under the surface of the earth; easily grown.....	25
Astilbe Japonica (Spirea Japonica)—.....	20
Agave (Century Plant)—Plain and variegated, large plants \$1 to \$5; small size.....	25
Anthericum, Variegatum—Leaves variegated, white and green stripes, a splendid basket or pot plant.....	20

BEGONIAS—Flowering.

This beautiful class of plants are deservedly popular, the beauty of foliage combined with their graceful flowers and free blooming qualities lead to make them one of the most desirable classes of plants grown and should be found in every collection of window plants.

	Each.
Begonia Rubra—Large, bright, scarlet flowers...	20
Hybrida Multiflora—Rosy, pink flowers, one of the best for winter blooming.....	10
Richardsoni—Flowers white, very pretty.....	15
Saundersoni—Flowers bright scarlet.....	10
Zebrina—Foliage very dark green, veins marked silvery white; flowers white.....	10
Weltoniensis—One of the best; pink flowers	10
Washingtoniana—Similar to above; white flowers.....	15
Metallica—A free flowering variety.....	25
Rex—Ornamental leaved; grown for the beauty of their foliage.....	20
Tuberous Rooted.....	50
Browallia Elata—A valuable winter flowering plant; blue flowers.....	10
Bryophyllum—Curious from its manner of leaf rooting.....	15
Bouvardia—One of our most useful winter blooming plants.....	20
Calla Ethiopica (Lily of the Nile)—A favorite wherever known. Large, white flowers; excellent for aquariums.....	35
Calla, Spotted-Leaved or Richardia.....	35
Cactus—A very large variety.....	25
Crasulas—Winter-blooming plants; star-shaped flowers.....	15
Carnations—One of the best plants for bedding out in summer, and if taken up in fall and potted will bloom well during winter; \$2 per doz.....	20
Cuphea Platycentra or Cigar Plant.....	10
Centaurea—White foliage plants, commonly called Dusty Miller. Nothing excels this for borders or use in cemeteries; two sorts; \$1.50 per doz.....	15
Clabosia—Yellow flowering shrub.....	35
Chrysanthemum—Blooms during November and December, when there are but few other plants in bloom. Nothing excels it.....	15
Coleus—The best, cheapest and most popular ornamental-leaved bedding plants grown. There is almost an endless variety in their colors and markings; per doz., \$1.....	10
Cereus Grandiflorus—(Night-Blooming Cereus)—Large-size plants.....	100
Cinerarias—White foliage plants; two sorts.....	15
Coccoloba Platyclada—Curious flat stem.....	10
Cyperus Alternifolius, or Umbrella plant.....	20
Cyclamen Persicum—This plant is well adapted	

	Each.
for window culture and will give more flowers for less culture than almost any plant that we know of. The leaves are as beautiful as the flowers; winter blooming.....	20
Daisies, Double—All colors mixed; per doz., \$1..	10
Euphorbia Splendens—Curious plant, covered with thorns one-half inch long. Blossoms freely the year round; scarlet flowers.....	30
Echeveria—An interesting class of plants now attracting considerable attention; useful for rockeries, etc.....	20
Epiphyllum Truncatum—(Lobster-leaved Cactus).....	15
Eupatorium Riparium—Winter blooming plants, bearing clusters of white flowers.....	15
Euonymus—Evergreen shrubs; three varieties...	15
Eucharis Amazonica (Lily of the Amazon)—Pure white, star-shaped flowers, four inches in diameter; fragrant.....	50c. and 1 00
Fabiania Imbricata.....	15
Feverfew, Double White—Produces an abundance of white flowers all summer.....	10
Golden Feather—Useful for ribbon beds and borders.....	10

FUCHSIAS.

Universally acknowledged to be the most elegant of all flowers. Nothing can surpass them in beauty, as they are always delicate in coloring and exquisitely graceful in form.

Fuchsia Avalanche—Crimson sepals, double purple corolla.....	15
Black Prince—Splendid; large expanded reddish rose corolla; waxy, carmine sepals; constant bloomer.....	15
Carl Holt—Sepals white; corolla crimson-striped white.....	15
Earl of Beaconsfield—Long tube; single, carmine.....	15
Mad. Van Der Strass—Scarlet sepals; large, double white corolla; excellent.....	15
Model—Pink sepals; double white corolla.....	15
Speciosa—Best blooming variety; tube and sepals blue; corolla bright crimson.....	10
And many other varieties.	

Ficus Repens—A plant of trailing habit.....	15
Festuca—Ornamental grass for baskets.....	10
Ferns—In variety.....	15 to 50
Funkia Alba (Day Lily)—White.....	25
Farfugium Grandes—Thick, leathery, dark green leaves, with yellow spots.....	35
Gloxinias—Summer-blooming greenhouse plants..	50

GERANIUMS

Are the most useful and popular plants in cultivation. We have a very large variety of the best single and double sorts, comprising all colors known in Geraniums. We name a few of the leading varieties:

SINGLE FLOWERING VARIETIES.

Gen. Grant—Clear bright scarlet.....	10
Guinea—Orange yellow.....	15
Gen. Garfield—Bright scarlet, large eye.....	10
I've Got It—New, pure white.....	20
Jealousy—Orange scarlet, with a yellowish hue..	15
New Life—Scarlet, distinctly striped white.....	20
Orange Bower or Peach Blossom—Center of flower bright orange, variegated white.....	15
Queen of the West—Orange rose.....	10
William Cullen Bryant—Rich pure scarlet.....	10
Wellington—Crimson maroon.....	10

DOUBLE FLOWERING VARIETIES.

Asa Gray—Clear salmon.....	10
Asteroid—Crimson.....	10
Bishop Wood—Carmine scarlet and vermilion..	10
Candissima Plena—Double, pure white.....	20
E. Lauth—Violet crimson.....	10
Falcon de Neige—New, white.....	20
Hazel Kirke—Rich purple crimson.....	10
Henry Cannell—Brilliant scarlet.....	10
James A. Garfield—Clear pink.....	15
Jewell—Full double, bright red.....	10
Mad. Baltet—White, changing to pink.....	10
Mons. Lowagie—Scarlet shaded orange.....	10
Mad. Thibaut—Rose shaded carmine violet.....	10
M. Pasteur—Red shaded orange.....	10
Naomi—Bluish pink, white center.....	15

BRONZE, SILVER AND TRI-COLOR GERANIUM.

Crystal Palace Gem.....	15
Mt. of Snow.....	15
Mad. Pollock and Sunset—Each.....	25
Happy Thought and Distinction—Each.....	15
Freak of Nature—Ne.....	20
Mad. Salleri—New, silver, variegated.....	20
Magician.....	15
Golden Circle.....	15

IVY-LEAVED OR CLIMBING GERANIUM.

Le Elegant—Leaves margined white.....	10
Candeur—Double pure white.....	10
Dolly Varden—Single flowers.....	15
Common Varieties.....	10

SCENTED GERANIUMS.

Nutmeg, Lemon, Balm and Rose—Each.....	10
Shrubland Pet and Skeleton-Leaved—Each.....	15
Mrs. Taylor—Scarlet-flowering rose.....	20

(See also Pelargoniums.)

Goldfussia Anisophilla—Choice window plant for Winter; flowers very abundant.....	15
Grass Pink.....	10
Gazania Splendens.....	15
Honeysuckle, Japanese—Beautiful variegated-leaved vine; fine for hanging baskets.....	20
Hoya Carnosa (Wax Plant)—A climbing plant, with thick, fleshy leaves, bearing umbels of flesh-colored, star-shaped flowers. Splendid for house culture.....	20
Hibiscus—Splendid bedding plants, bloom freely during summer; several varieties.....	25
Heliotropes—Universal favorites on account of their delightful fragrance; flowering equally well in Summer or Winter.....	5
Habrothamus Elegans—Winter blooming.....	15
Hydrangea, Thomas Hogg—White.....	20
Hortensis—Pink.....	20
Iberis, Sempervirens—Perennial candytuft.....	15
Ice Plant, Variegated—Pretty for hanging baskets.....	10
Plain-leaved.....	10
Ivies, English—No vine excels this for house culture. Elegant the year round.....	20
German or Parlor—A rapid grower; light green leaves.....	10
Kenilworth—Fine for hanging baskets.....	10
Ground.....	10
Justicia, Carnea.....	20
Purpurea.....	20
Jasminum, Grandiflorum—Fine foliage; white flowers.....	25
Revolution—Yellow flowers; very fragrant.....	25
Night Blooming.....	25
Lantanas—Profuse summer bloomers, excellent for bedding or pot culture; four varieties.....	15
Libonia—Winter blooming; two varieties.....	15
Lobelia—Splendid basket plant.....	10
Lopesia Rosea—Profuse winter bloomer.....	20
Lycopodium or Selaginella—For ferneries.....	20
Mahernia Odorata (Honey Bell)—Fragrant yellow flowers in Winter.....	20
Mimulus—The well-known Musk plant.....	15
Maurandia Vine—Pretty for hanging baskets.....	15
Myosotis (Forget-Me-Not)—Two varieties.....	10
Myrtle—Hardy running.....	15
Moneywort.....	10
Nierembergia Gracilis—Good for bedding, pot plants or hanging baskets; lilac flowers.....	10
Oleander (Nerium), Double Pink and Single White.....	20
Oxalis—Fine pot or basket plants.....	15
Othonna—One of the best basket plants; flowers bright yellow.....	10

Petunias, Double—Choice varieties.....	15
Passiflora—The noted Passion Vine.....	25
Plumbago—Produces beautiful shades of light and dark blue flowers, constantly in bloom; two varieties.....	20
Pansies—Are truly indispensable to every flower garden, and produce more flowers than almost any other plant during the spring, summer and fall.	
Choice Mixed Varieties, includes about 75 different colors and markings. Per doz.....	50
New German—The finest strain of pansies in existence; exquisite colors. Per doz.....	75
Peristrophe Augustifolia—Nice for baskets.....	20
Pilea Arborea (A. Allery Plant)—Splendid pot or basket plant; graceful habit; fine foliage.....	10
Repens—Trailing variety.....	10
Pomgranates.....	20
Primula (Chinese Primrose)—Great bloomers.....	25
Polyanthus (English Primrose or Cowslip)—A splendid hardy dwarf perennial, early spring flowering; quite showy.....	25
Pelargoniums—Often called Lady Washington Geraniums; a splendid variety.....	25
Palms—Eight good varieties, each.....	50
Peperomia.....	25
Roses—The rose has been very properly named the queen of flowers, and every one admits that the title is very deservedly and fittingly given. The ever-blooming or monthly roses are the most constant bloomers, beginning to bloom early in the season and continuing all through the summer and fall, and until stopped by frost. We have a very large variety of these, comprising all varieties and shades known in roses, but for lack of room we do not give a list of them. We request our customers to give a list of the colors and varieties which they wish, and we are sure we can please them; per doz, \$1.50; each.....	15
Ravena, Humilis.....	25
Russelia, Juncea—Rush-like plant; scarlet flowers; splendid basket plant.....	20
Salvia—Scarlet and white, each.....	15
Saxifraga Sarmetosa—Strawberry Geranium.....	10
Santalina Tomentosa—Silvery white foliage, splendid pot, basket or border plant.....	10
Solanum, Jasminoides—Vine, white flowers.....	15
Hendersonii—(Jerusalem Cherries).....	10
Stevia, Serrata—Winter blooming plant; white flowers; indispensable for bouquets.....	15
Variegata.....	15
Sedum or Stone Crop—Much used for baskets and rockeries; some varieties are very pretty.....	10
Smilax—Prettiest vine in cultivation for cut flowers; young plants.....	15
Sempervirens.....	25
Sea Onions.....	10
Tradescantia or Wandering Jew—Is much used, and the variegated foliaged varieties are really fine for hanging baskets and vases.	
Plain Green.....	10
Variegatum.....	10
Zebrina.....	10
Multicolor.....	15
Torenia—A plant of quite recent introduction; good bloomer and attracts much attention.....	20
Veronicas—The prettiest and most popular of all the flowering plants suitable for bedding out. We have a large stock of almost all varieties, which are good healthy plants; per 100, \$5; per dozen, 75c.....	10
Vincas—In variety.....	15
Violets, Sweet Scented.....	15
Yucca.....	15

Customers wanting larger plants of any of these kinds, or wanting plants not on this list, will do well to write for prices.

To meet the very popular demand for \$1.00 collections we have arranged the following. These collections cannot be divided or changed, but will be mailed on receipt of price. Or if you wish to pay the express charges, we will send any six collections for \$5.00, or any thirteen for \$10.00. In ordering simply say "Collections 3 or 5, (as the case may be), Flower Plants." The choice of varieties in these collections must be left entirely to us. We recommend these \$1.00 collections and feel sure that they will please you. Price, \$1.00 for each collection. No discounts.

For description of varieties see general list.
Col. 1—12 Choice Hanging Basket Plants; different sorts.
Col. 2—Fifteen choice Coleus. A variety.
Col. 3—25 choice transplanted Pansies, mixed colors.

Col. 4—20 Splendid Verbenas; 10 different sorts.
Col. 5—12 Geraniums, Double, Single, Scented, etc., all different and desirable.
Col. 6—2 Begonias (flowering), 2 Fuchsias, 3 Geraniums and 2 Heliotropes. All different sorts.

- Col. 7—4 Achyranthes, 4 Coleus and 3 White Centaureas; all good bedding plants.
- Col. 8—3 Ageratum, 4 Alyssum and 4 Alternanthera; All good border plants.
- Col. 9—1 Begonia Rex, 3 Carnations, 1 Aubition and 2 Lantanas; for house culture; all different.
- Col. 10—3 Boston Smilax, 3 Tradescantias, 3 Lobelias, and 1 Bouvardia.
- Col. 11—1 Lemon Verbena, 2 Chrysanthemums, 2 Echevarias, 2 Lobelias and 2 Fuchias; all different sorts.
- Col. 12—3 Geraniums, 2 Heliotropes, 2 Salvias and 1 Hibiscus; all different sorts.
- Col. 13—12 Pansies, 5 Verbenas and 2 Geraniums; a splendid bedding collection.
- Col. 14—4 Tea Roses, 1 Abutilon and 3 Salvias; all different sorts.
- Col. 15—10 Roses, good blooming varieties; all different.
- Col. 16—Our selection of 12 different splendid house plants. This collection always gives satisfaction.
- Col. 17—Our selection of 12 splendid Bedding plants, all different; best bedding sorts.
- Col. 18—Our collection of 10 splendid Climbing plants; 6 sorts.
- Col. 19—Our selection of 15 splendid Foliage plants; consists of 8 Coleus, 3 Achyranthes, 2 Alternantheras, 1 Centaurea and 1 Cineraria.
- Col. 20—8 Hybrid Perpetual Roses; 8 sorts.
- Col. 21—12 Gladiolus, mixed colors, and 6 Tuberose.
- Col. 22—2 Caladiums, 1 Amaryllis (Atamasco), 1 Dahlia, and 1 Canna; a popular collection.
- Col. 23—1 Amaryllis (Formosissima), 2 Extra Large Double Tuberose, 2 Pearl Tuberose, 1 Dahlia and 2 Madeira Vines.
- Col. 24 (ready Oct. 1st)—3 Hyacinths, 10 Tulips, 12 Crocus; all mixed colors.

BULBS FOR SPRING PLANTING.

Amaryllis—Bulbs may be potted any time in spring; they bloom year after year must not be allowed to freeze.

Formosissima (Jacobean Lily)—Dark velvety crimson.....	40
Atamasco—Pink and white.....	25
Vitata—Extra fine; red ground, striped with white.....	I 25
Johnsoni—Scarlet striped with white; flowers very large.....	I 00
Caladium, Esculentum—Roots should be planted in the spring, taken up in the fall and stored in a dry cellar. The Caladium is highly ornamental and very showy, the leaves frequently growing three feet in length. 25 and.....	50
Canna—Beautiful foliage, plants growing from 3 to 6 feet high. In fall store in a dry cellar. Good mixed.....	25
Dahlias—Especial attention is called to our large collection of these exceedingly showy and grand fall flowers, of which we grew last season nearly two acres of fully two hundred distinct varieties, comprising all the gorgeous shades and colors imaginable. Plant roots as soon as the weather is warm. Before severe frost, take up the roots, cut off the tops, and when dry store in a cellar, packed in dry sand. Mixed colors. Dry bulbs per dozen, \$1.50.....	15
Gladiolus—Very beautiful and showy; tall spikes	

of flowers of many colors; bloom all summer. Plant in spring 3 or 4 inches deep, 6 inches apart in the rows; before severe frost, take up the bulbs and as soon as dry, store in a cool place till spring.

Fine Mixed Varieties,	many shades of red, per	
"	dozen, 50 cents.....	5
"	light and white, per 100,	
	\$5.50; per dozen, \$1....	10
"	all colors, mixed, per 100,	
	\$3; per dozen, 50c....	5

Hyacinthus Candicans—Beautiful summer blooming plants, having large spikes of large flowers resembling the Hyacinth; per doz. \$1.50..... 15

Madreira Vine—Ornamental climber of very rapid growth; thick, light green, glossy leaves; the most elegant vine for out-door culture. Keep roots in cellar over winter.

Small roots per dozen, 50 cents.....	5
Large " " \$1.....	10

Double Tuberoses—The roots of this delightfully fragrant, pure white, wax-like double flower, may be planted from February to July. Before planting remove the small offsets; use good, rich

flowering roots, per 100, \$5; per dozen, \$1.00.... 10

Extra large size, per 100, \$8; per dozen, \$1.50....	15
New Double Dwarf Pearl, per 100, \$8; per dozen, \$1.50	15

Tigridus—Bulbs bearing large spotted flowers, per dozen, \$1;.....	10
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FALL BULBS, Ready Oct. 1st.

Hyacinths—The best and most popular of all bulbs either for winter blooming in the house, or for early spring blooming when bedded out.

Double, or Single Red, Blue and White and Single Yellow, per dozen, \$2.....	20
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Double Yellow, per dozen, \$2.50	25
All colors mixed either double or single, per	

dozen, \$1.50.....	15
Early Romans, per dozen, \$1.50.....	15

Tulips—Double Mixed Colors per dozen, 50 cents.	5
Single " " " 50 "	5

Parrot	"	"	"	50	"	5
Parrot	"	"	"	50	"	5
Toucan—All colors mixed, per dozen, 20 cents.....						

Crocus—All colors mixed, per dozen, 20 cents.....

CUT FLOWERS AND FLORAL WORK.

We are now prepared to fill all orders for Cut flowers, Bouquets, Baskets and all kinds of Floral Designs for parties, weddings, funerals, &c. All work done in the very best manner. Orders by mail or telegraph will receive prompt attention. We should have as much time as possible on floral work. And all orders should be very explicit, stating as near as possible, exactly what is wanted and for what purpose they are used. **TERMS STRICTLY CASH.**

Button-hole bouquets	\$	10 to	\$	25
Hand Bouquets	1	00	"	3 00
Brides and Bridesmaids' Bouquets.....	2	00	"	5 00
Baskets filled.....	1	00	"	10 00
Wreaths, Crosses, Stars, etc.....	1	00	"	5 00
Anchor, Pillows, Crowns, Harps, etc....	3	00	"	15 00

Other designs from \$1 to \$25. Prices vary according to size, quality of flowers and the season when ordered.

Write for prices before ordering elsewhere.

DORR'S CHOICE SEED POTATOES

We pay as much or more attention to the cultivation, improvement, introduction and dissemination of the Potato, as to any other one branch of our business. It is our purpose to fully keep up with the times in this department. We, therefore, spend considerable money each season in testing new varieties, many of which we never offer for sale, not considering them worthy; but, on the other hand, there are numerous new sorts brought to notice nearly every year possessing special points of value, which are well worth a trial. Remarkable improvements have been made in the potato during the past few years, and every gardener and farmer is standing in his own light who refuses or neglects to test the newer varieties.

It will be noticed that our list is not so long as formerly. We are gradually "weeding out" and dropping all that have not been found, by continued experiments, to have special merit to recommend them; We have, in the past five years, grown and pretty thoroughly tested several hundred varieties, and have made our selections from actual experience. It is possible that there may be some few varieties that will do well in other localities which prove unsatisfactory here, but from extended correspondence and observation we conclude that any potato that

cannot be grown successfully in central Iowa cannot be unusually *valuable* anywhere. We believe that a small, well-selected list of the best will be more satisfactory to our customers than the long lists of worthless sorts.

Our descriptions are from our own observations and note books, as our potatoes are grown by ourselves under the careful supervision of one of the closest observers and most successful cultivators in the country. We are particular not to *overestimate* any variety we offer. Our experiments during the past season have caused us to discard several varieties of high-sounding names. In our judgment it will pay any farmer to buy new potatoes, if it only be to change the seed, as it is a well recognized fact that it requires careful cultivation to perpetuate any vegetable which is so susceptible to variations, "sporting" and deteriorations as the potato. Our experience is, that any potato will deteriorate if grown on the same soil for a number of successive years. So well do the Rhode Island market gardeners recognize the force of this that they renew their seeds from other States, *each year*. This we know to be a *positive fact*.

Our seed potatoes are pure, true to name and of fine quality.

Those quoted by the "pound" are sent by mail post-paid; those quoted by the peck or bushel are to be sent by express or freight, at the purchaser's expense.

All those quoted at \$1.50 per bushel are \$4 per barrel. All those quoted at \$2 per bushel are \$5 per barrel.

Early Ohio—Another year's experience has confirmed us in the high estimation we already held this magnificent potato, and after the most critical experiments we are perfectly free to say that as a first early potato it is second to none in cultivation. So far as we have been able to learn, it has given entire satisfaction wherever grown. In the fall of 1881 we made extensive inquiries of the farmers and gardeners in various parts of the country, to ascertain which was the most popular extra early potato; the aggregate reports exhibited show, conclusively, that the Early Ohio was the most popular sort, and was very closely followed by the Early Beauty of Hebron. The Early Ohio vines make the most vigorous growth of any early potato we have ever seen; they are extremely stocky and upright, and very easily cultivated. Tubers medium size and very even, remarkably free from small ones; color nearly white, tinged with purple; oval form. Flesh pure white, unusually fine quality. Matures at least ten days in advance of the Early Rose and keeps till July, if wanted. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Beauty of Hebron, Early—Tubers similar in shape to the Early Rose, very smooth and solid to the center; slightly tinged with pink about the eyes; ten days earlier than the Early Rose; yields well, tubers lying very close together in the hill. Its mealy qualities and rich, delicate flavor are the highest recommends. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Beauty of Hebron, Late, or White Elephant—This new late variety was first discovered in a field of the Early Beauty of Hebron, and stands in the same relation to that variety as the Late Rose and Late Snowflake do to their respective prototypes. It is remarkably productive; tubers oblong and of extra size; flesh and skin white; table properties of the very highest order, and keeps well. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Telephone—In this we have a valuable potato for general crop; it ripens with the Early Rose and keeps remarkably solid and firm for twelve months, making it desirable for both early and late crop. It was produced by a cross of the Snowflake and Peachblow; is a strong and vigorous grower, perfectly healthy in both vine and tuber, shape oblong-oval, skin white, slightly russeted, smooth and handsome; very attractive in appearance, being very even in size and a bountiful yielder. Flesh pure white, bakes or boils dry and floury without breaking, flavor exceedingly delicate. Lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.

Brownell's Best—Mr. Brownell originated this new seedling in 1875. In general appearance it somewhat resembles the Snowflake; it is very smooth and has but few eyes. The eating qualities are very high; flesh very white, fine and mealy. It is a fair yielder and good keeper. Lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.

Early Mayflower—Originated by Mr. E. S. Brownell; a cross between the Snowflake and Peachblow, combining the superior table qualities of both with extra earliness and great productiveness. It is an excellent keeper and does not start readily in the spring, and needs *high culture and rich soil*. It is of medium size, the crop running very evenly, with scarcely any very large or very small potatoes, slightly flattened oval shape, light lemon color, with smooth skin well covered with *very fine* netting. Eyes few, small and nearly even with the surface; flesh white, solid; cooks evenly and thoroughly without falling to pieces, and has no hard center or spots so common to many of the modern varieties, and is entirely free from any strong or earthy flavor. The London Horticultural Society, of London, England, awarded it a certificate of the

highest merit in 1881, and the same year the Massachusetts Horticultural Society, of Boston, awarded it a silver medal. Lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.

Extra Early Vermont—Very similar in general appearance to the Early Rose, but is more hardy and a somewhat better keeper; very early, splendid quality. It was awarded a first-class certificate in 1873 by the Royal Horticultural Society of London. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Early Rose—The well-known standard early sort. Pure seed. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Early Household—A very early new seedling, raised from Mr. Pringle's hybridized potato seed. Good yielder and remarkably fine quality. Tubers are quite round, flattened on the sides; skin and flesh both white, the former slightly tinged with russet. Another year's trial proves this to be fully up to the standard in all good qualities except yield, which is a fair average. Lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.

Chicago Market—This new variety came very highly recommended for productiveness and good quality. We have grown it three years and pronounce it a first-class market variety. It ripens with the Early Rose; skin very smooth and glossy; the quality is the very best. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Perfection—As the name indicates, is certainly one of the handsomest potatoes we have ever grown. The tubers are oblong, round, very symmetrical; very smooth, shallow eyes. Rose-colored skin; flesh extremely white. Altogether, it is a very fine early variety. Lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.

Early Snow Flake—Among the earliest, ripening with the Early Rose; it keeps equal to any of the late sorts. The tubers are white, very slightly tinged with russet; symmetrical and uniform in shape, medium size; eyes entirely flat on the base, and but slightly depressed at the seed end. Its mealiness, pure delicate flavor, and the evenness with which it cooks, have never been eclipsed; grows in very compact clusters around the base of the stalk in the hill. It needs good soil and thorough cultivation when it never fails to produce large crops of handsome potatoes, very uniform in size. Large potatoes cut into four pieces for seed produce the best results. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Late Snowflake—A sport of Early Snowflake, and fully equal to that favorite variety in quality and appearance, ripening three weeks later; very productive. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Am. Magnum Bonum—In both yield and quality *first class*. Fairly early, skin white, eyes slightly sunken. Resists dry weather and bugs remarkably well. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Clark's No. 1—This variety reminds us of the Early Rose in its palmy days, which it very closely resembles; is a much better cropper; ripens about the same time. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Adirondack—One of the handsomest potatoes we have ever seen. Round as an orange, sometimes slightly depressed at the seed end; eyes close to the surface; skin is copper colored, slightly russety; flesh pure white and mealy. Its table qualities are strictly *first class*. One of the very best of keepers and one of the very last to sprout in the spring. It is medium late. The tubers grow very compactly in the hill. It is a heavy cropper; we highly recommend it. Lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.

Dunmore—White skin and flesh, fine quality, great yielder, one of the very best late sorts for profit. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

St. Patrick—Introduced in 1879, since when it has become quite popular. The best result of twelve years'

careful experimenting by the originator, and is a direct descendant of the Garnet Chili and Early Rose. Has smooth, white skin, few and shallow eyes, oblong in shape, white flesh, fine quality, heavy yield, medium late. A very handsome potato and one of the best sellers on the list. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Belle—One of the finest croppers we have ever tested, and for so large a potato it is unexcelled in quality. The skin is flesh color; flesh pure white; medium late. eyes are somewhat sunken in the larger ones. The enormous size is all that can be said against the Belle; but when we consider its great yielding, splendid keeping and superior eating qualities, it is certainly one of the most promising late potatoes in cultivation. The editor of the *American Agriculturist* writes: "A trial on the table was made to-day, and the whole family endorse my verdict of *splendid in every respect*. I do not now recollect a better potato." We planted the 19th day of June, and the yield was immense. Do not fail to try the Belle. Lb. 50c; 3 lbs. \$1. pk. 50c; bu. \$1.50.

Boyd—A notice of the Boyd from the pen of one of the best agricultural writers in Iowa first attracted our notice three years ago, and in reply to a note to that gentleman, he wrote us as follows: "The facts are simply these: Mr. Boyd has been trying to produce a perfect potato by inoculation; he had as he thought, about accomplished it; he had a potato, hardy, good at all times of the year, never as yet known to rot, and what seemed peculiar, was exempt as far as tried, from the attacks of bugs, while other kinds in the same field would be badly eaten. It yields finely. The only fault I can find with it is, it is a little rough. The old gentleman was designing to remedy this by one more inoculation with a smooth potato, but death prevented. As it is, I think I would choose it for a standard potato in preference to any one I know. It is dry and mealy, either boiled or baked. I have had it five years and am much pleased with it, and thought it worthy public mention." The Boyd originated in the northern part of Iowa, and is well worthy a trial. Lb. 50c; 3 lbs. \$1; pk. \$1.

White Star—Our experience with this variety has been very gratifying. Its snowy-white skin and delicate flesh, and superior table qualities are the highest recommends. The tubers are long and round; medium late; very good cropper. One of the best

baking potatoes we ever tested. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Vermont Champion—A new seedling propagated by Mr. Raud, of Vermont. Rather large size, oval form, silvery-white skin and flesh fine flavor and good cropper, producing but few small tubers, and keeps well till the following summer. The vines grow upright and vigorous, have never shown signs of blight. Lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$1.50.

Wall's Orange—This new potato originated in the season of 1879, with Mr. Lyman Wall, one of the most careful and progressive farmers of Monroe county, New York. Its color differs from any known variety, being of a decided orange hue, hence its name. Beautiful in form and color, a strong grower and nearly bug proof; eating qualities superb. An immense cropper when highly cultivated on good soil; worthy a trial on every farm. Lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$1.50.

Rural Blush—A new variety introduced in 1883 by the *Rural New Yorker*. Tubers of medium size and uniform, not growing very large or yielding small ones. The vines bear small leaves and the stems are characterized by their branching habit and steadiness. Skin nearly white, except at seed end where it is of a rosy color. Quality *first rate*. The eyes are rather too prominent, but it is destined to become very popular, owing to its ability to withstand blight and drouth. Lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.

Manhattan—This new excellent late potato has by some been erroneously called the Victor; although similar they differ in shape and color; the Manhattan showing more white on the skin, and the Victor is more inclined to flattish oval, whereas the Manhattan is oblong, and in quality we find it far superior and a better cropper, although both are excellent in this respect. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

Mammoth Pearl—We have found this a remarkable yielder, and in every respect one of the most desirable potatoes we have ever grown. The Mammoth Pearl was originated in Ohio, and was selected as the best variety out of 2,500 seedlings. The aim of the originator being to produce a potato which was bug proof, combined with the best table qualities, handsome appearance and freshness of disease. The skin and flesh are white; never hollow; ripens medium early; keeps and cooks splendidly. Lb. 50c; 3 lbs. \$1; pk. 50c; bu. \$1.50.

PARSONS' PROLIFIC.

(For Cuts See Cover.)

We introduced this splendid potato to the public in 1882. We then sent it out as the best late potato we had ever grown, and are pleased to say, that after further and more critical tests by ourselves, and also by many other potato experts, by the side of the most noted and extravagantly praised potatoes in America, we find no reason to retract anything we have said in its favor, and on the other hand there is much to add. We know of other variety which possesses the combined valuable qualities so desirable for a market potato. The Parsons' Prolific was originated in Iowa, by Mr. George W. Parsons, who propagated it from the seed ball of the Prince Albert, in 1877. It was sent to us by the originator, in 1880 (the third year from seed). Mr. Parsons then said: "They exceed any potato I ever saw." Our four years' careful experience has thoroughly convinced us that the remark was undoubtedly well founded. As stated, the Parsons' Prolific is a seedling of the old Prince Albert, which will be remembered as a remarkable potato in its day. This new seedling not only perpetuates its parental good qualities, but develops new ones, not eclipsed by any late potato. In 1881, in our trial plot, with thirty-five of the best varieties, it outstripped them all, enduring the drouth exceedingly well.

It has since maintained its well-earned reputation in our own fields, and given general satisfaction to all who have grown it. The vines are vigorous and rank, with strong roots extending deep into the soil; dark green foliage; tubers medium large (the best market size, not overly large), and very uniform; skin pure white and smooth; oval form, slightly flattening on the sides; eyes very near the surface. They grow compact in the hill; have very few small ones. The yield is among the best. Flesh pure white, fine-grained and splendid flavor; a first-class cooking potato. *We have never found a hollow one.* Free from rot. They are very solid and heavy; and will keep a year if wanted. It is medium late, ripening about with the Late Rose. It was awarded the first premium at our State Fair in 1882: *for the best new potato*, in competition with the finest collection of potatoes ever exhibited in Iowa. The Hon. R. P. Spear being the Judge.

In the official report of the Iowa Agricultural College farm experiments for 1882, the Parsons' Prolific is recorded as having produced the heaviest yield of any of the sixty-four prominent varieties tested. The Professor of Agriculture says in his report of the experiments with potatoes for 1882:

"The object of the following experiment was to test the varieties of potatoes best adapted to Iowa. For that purpose eight acres of land was selected with all the conditions as nearly equal as practicable, and the result is a fair representation of the relative product of the varieties under given conditions. The season was favorable; the soil was not highly manured; the management was such as any ordinary farmer could give his crops. It should be noted that this entire list is composed of varieties selected for valuable qualities from over 400 varieties tested upon the College farm during the past five years; hence there are no inferior potatoes in the list."

The following is the record of the Parsons' Prolific, showing, as stated above, the largest yield of any variety tested:

NAME OF VARIETY.	Date of planting...	Date of blooming...	Amount of seed planted per acre.....		Yield per acre in bushels.....
			bu.	lbs.	
Am. Magnum Bonum.....	April 20	July 1	7	52	188
Adirondaek.....	" 20	" 21	8	25	327
Belle.....	" 17	" 1	6	42	177
Beauty of Hebron.....	" 14	June 28	9	20	131
Dunmore.....	" 20	July 26	9	19	260
Early Snowflake.....	" 14	" 1	15	0	203
Early Ohio.....	" 17	" 1	7	22	177
Early Telephone.....	" 25	" 6	6	0	256
Mammoth Pearl.....	" 14	July 21	9	25	264
PARSONS' PROLIFIC.....	" 25	" 6	6	0	498
Peerless.....	" 20	July 6	6	0	300
White Star.....	" 20	" 6	7	19	294
White Elephant.....	" 20	June 22	10	42	316

NOTE.—In the above table, which is copied from the College record, we show only the thirteen best sorts.

Prices: Lb. 75c; 3 lbs. \$2; pk. \$1; bu. \$3; bbl. \$6.50.

Collections of Potatoes, carefully packed and all correctly labeled, by express or freight. Two good tubers of each.

Your selection of any ten of the above varieties, except Parsons' Prolific, \$3.

Your selection of any twenty-five of the above varieties, \$6.

SWEET POTATOES.

Yellow Nansemond—The standard sort for this country. Pk. 75c; bu. \$2; bbl. \$4.

Southern Queen—Large, white, very early variety. Pk. 75c; bu. \$2; bbl. \$4.

Sweet Potato Plants—See vegetable plants.

SILK CULTURE.

A brief history of the industry of silk culture, description of the Russian Mulberry and price list of Trees and Silk Worm Eggs.

With the vast natural resources, and beautiful climate, that nature has given to America, it seems perfectly fitting that this industry which heretofore has been prosecuted almost exclusively in foreign countries should be gaining a strong foothold in our land.

It is not a new industry to our country, and yet, practically, new, from the fact that it has never grown into substantial and permanent proportions enough to be considered an American industry.

As early as 1522, Cortez, the conqueror of Mexico, introduced silk culture in North America. From this date up to the present time it has continued to have a varied existence on our continent. Before the revolutionary war, under King James I., of England, a number of American colonists produced quite a large quantity of raw silk for the English looms.

The silk culture was then encouraged in Virginia and other colonies by the liberal offering of premiums under the urgent solicitation of the king.

In 1656, four hundred pounds tobacco, to any planter who should continue in the business of silk culture, was offered by the Colonial Legislature of Virginia.

In 1657, 10,000 pounds of tobacco to any planter who should raise and send to England £200 worth of raw silk. Also 5,000 pounds of tobacco to any one producing 1,000 pounds wound silk.

In 1662, 50 pounds tobacco was offered for every pound of raw silk.

The Colonies of North and South Carolina in 1693 were engaged in silk culture, and out of this grew the town of Silk Hope, where the industry gave considerable promise of success. In 1718 the attention of the people of Mississippi was invited to this subject, but the result does not seem to be a matter on record.

In 1726 Pennsylvania sent to England a quantity of beautiful silk. In that state the industry found favor at quite an early date, and it has been maintained with more or less varied success up to the present time.

In 1732 the residents of Georgia were required to plant 100 white mulberry trees on every ten acres of cleared land; very encouraging success was attained in that state.

In 1735, on the occasion of the King's birthday, Queen Caroline is said to have worn a dress made entirely from Georgia grown silk.

From 1732 to the close of the last century silk culture was prosecuted on a small scale in Connecticut. Pres. Stiles, of Yale College, with a few mulberry trees, made numerous experiments in the art of silk raising for several years. A quarto volume written by him, entitled "The Care, Treatment and Product of the Silk Worm," is still in preservation in the college library.

Records of our colonial period show that the silk culture found favor almost everywhere on the Atlantic coast, and along the Gulf of Mexico, and, in fact, as far inland as the population at that time extended. But the industry failed to become permanently established. The great secret of this failure seems to have been from the fact that the European governments were hostile to silk manufacture in America, to such an extreme was this hostility carried on by England that she imposed heavy penalties on any shipmaster who should be guilty of bringing any skilled mechanic, or any implements for the use of silk manufacturing to this country.

England's object was to obtain all the raw silk from our country for her home factories, she sought to build them up at the expense of our colonies.

The result of this policy was, as can readily be imagined, disastrous to the silk culture of America, for when the revolutionary war came the market for our raw silk was cut off, thus ruining the industry, as there was no communication between the silk culturist and the manufacturer. It can almost be said that the revolution completely destroyed the silk culture in America, which was up to that time fast assuming successful proportions. For fifty years after this war silk culture in the United States was almost or entirely neglected.

In 1825 Hon. Mr. Miner, of Pennsylvania, brought the subject before Congress in a resolution of inquiry, which was referred to the Committee on Agriculture. The report of the committee was so favorable that 6,000 copies were printed by Congress for free distribution.

During the next fifteen years the industry grew rapidly in favor, many people becoming excited and almost wild over it, in many cases forsaking their common pursuits and going into crazy speculation in silk growing.

Numerous stock companies, with officers who knew nothing at all about the art, except to draw fancy salaries, were organized and failed; this period of speculation was a serious shock to the permanent growth and building up of the business.

It has been carried on, however, by numerous people in various parts of the country ever since, the true friends of the industry remaining by it, and profiting thereby.

Congress has once more recognized the importance of encouraging silk culture in America, and recently made appropriations to this effect. The state of California by its Legislature passed an act, which was approved March 15th, 1883, appropriating money for the establishment of a State Board of Silk Culture, which consists of nine persons; also for the establishment of silk reeling schools or filatures. Since then considerable interest has been created in that state by this important measure. California being the first of our states to recognize the importance of encouraging the industry, is therefore making rapid progress. The first annual report of the State Board of California has been issued, and is a very interesting volume. From this report one can readily see the advantages not only to that but to any state that may accrue from the cultivation of the silk worm.

Away back, before the revolutionary war, when our colonists were growing raw silk for England, there were no manufactories in this country; this is not the case now, as the American silk factories at present consume a million and a half dollars' worth of raw silk per month. This amount is rapidly increasing, it being estimated that before long at least fifty million dollars' worth per year of raw silk will be needed. This silk is almost entirely imported from foreign lands, our country is sending abroad one and a half million dollars every month which might just as well remain in the hands of our American people. Therefore it will be seen that the condition of affairs with us, being greatly changed during the present century, cannot cut off our market for the raw silk this market is absolutely necessary, as can readily be seen, and it is now firmly established.

The writer sees no good reason why this vast amount of money may not just as well be saved here as sent abroad. It is a demonstrated fact that silk can be successfully grown in every state in the Union.

The Russian Mulberry (*Morus Moretti*); which affords the most valuable food for the silk worm, grows and thrives wherever the apple tree can be raised. This valuable fruit, timber and ornamental tree was brought to this country from latitude 49 degrees, western Russia, by the Mennonites nine years ago. It is perfectly hardy, and is claimed to be a cross between the *Morus Nigra*, or Black Mulberry of Persia, and the Tartaca, a native Russian variety. But there is a diversity of opinion as to the origin, it being claimed by equally good authority that it is a sub-division of the *M. Alba*, this being the opinion of Hesse, of Berlin, president of the Brandenburg Silk Culture Society. Mr. L. Crozier, of Mississippi, an eminent French grower, also holds to this view. Mr. Thiessen says the Moretti tree is from the garden of Count Moretti at Para, Italy, but has been cultivated for over a century in the rigorous climate of Russia, and where other varieties have been frozen to the ground in this country the Russian mulberry has gone through the most severe winters, and that it is hardy enough to grow in almost any climate.

He further says:

"I have shipped trees as far west as Washington Territory and Oregon, as far south as Texas and north to Dakota, to New York and several New England states east, and the best proof I have of their doing well is the fact that those who have bought are continually sending in larger orders."

The tree is a very rapid grower. Trees from seed which was planted six years ago are now twenty feet in height and from six to eight inches in diameter. The trees grow to be very large, often reaching the height of fifty feet, and from three to five feet in diameter. The timber is hard and durable, and is used in the manufacture of cabinet-ware and proves as lasting for fence posts as catalpa or red cedar. It commences to bear when it is two years old and is a prolific bearer, the fruit being about the size of Kittatiny blackberries. From three-year-old trees, raised from seed planted near Des Moines, we had an abundance of fine fruit this year. A large per cent. of the berries are a jet black, the balance a reddish white. They have a fine aromatic flavor and sub-acid sweet taste, and are used for dessert as we use blackberries, or raspberries; they also make a pleasant light wine. The trees are sometimes so densely loaded as to exclude leaves. The leaves are mostly lobed or cut with from five to twelve lobes, and are valuable food for silk worms. The bark is grayish white, branches drooping, and the beauty of this as a lawn tree is quite enough to commend it, but in addition to these merits it yields an abundant supply of its refreshing berries. The Mennonites use it as a hedge plant, it makes a beautiful hedge, and stands shearing as well as any hedge tree.

That the silk industry then is still in its infancy is evident. The following brief compilation will illustrate its profitability.

Raw silk commands from \$4 to \$8 per pound, according to its quality, and cocoons and floss silk \$1 to \$1.50 per pound; 640 mulberry trees will grow well on two acres of land, which will yield about 30,000 pounds of leaves. About sixteen pounds of leaves are required to make one pound of fresh cocoons, which would yield about 1,765 pounds. Dried cocoons of good quality are worth \$2 per pound, or \$1,765, and the Bivoltin silk worm produces two crops a year. The expenses of producing a crop are as follows: Labor, \$129; other expenses, \$31; all not exceeding \$160; deducting this from \$1,765 would leave \$1,605, on two acres of land in one month's time, and two crops a year can be produced.

The above figures are taken from the reports of those who have had actual experience in the business, but of course these figures are the most favorable, and it must not be expected that such large sums can at once be made out of the business.

That the silk industry can be successfully carried on in Iowa there seems no room for doubt, when we consider that the Russian mulberry can be as readily grown as apple trees.

Price list, by mail postpaid, Russian Mulberry trees.

2 to 4 inches high, 40 for \$1; 100 for \$2.00.

4 to 6 inches high, 25 for \$1; 100 for \$3.

6 to 12 inches high, 15 for \$1; 100 for \$4.

12 to 18 inches high, 12 for \$1; 100 for \$5.

Price list by express or freight, purchaser to pay charges.

6 to 12 inches high, per 1,000 \$20.

12 to 24 inches high, per 1,000 \$35.

3 to 5 feet high, per 100 \$35.

Silk worm eggs, best varieties, per 1,000 50c; $\frac{1}{2}$ oz. \$3; oz. \$5; by mail postpaid.

Complete text book on Silk Culture, giving simple and plain rules for all the work needed to produce the best silk ready for market, 25c by mail.

TWO DOLLAR COLLECTION "S."

We make the following splendid offer: 40 Mulberry Trees, 4 to 6 inch; 100 silk worm eggs; complete text book, and the *Racine Agriculturist*, a splendid monthly paper, for one year, all fully prepaid to any address for \$2. This offer is made to encourage the new American industry, by giving all the needed information and materials at a trifling expense.

The *Agriculturist* will contain 12 good articles, interesting and instructive, on the subject of silk culture. It will be worth alone more than \$2 to anyone interested in the industry of silk raising. Address all orders plainly to C. W. Dorr & Co., Des Moines, Iowa.

MISCELLANEOUS FARM SEEDS.

We desire to call the especial attention of the farmers of Iowa and the Northwest to our superior facilities for supplying them with Blue Grass, Timothy, Clover, &c., of the best quality. This branch of our trade has made a remarkable growth, which we attribute to our great care and close attention in the handling of farm seeds. Where we used to handle grass seed by the bag only, we now buy and sell by the car-load. With improved machinery for cleaning and carrying, as we do, the largest stock of farm seeds in Iowa, together with the shipping facilities of our city, which are unequaled by any other point in Iowa, we are confident it will be greatly to your advantage to send us your orders for what you may need, be it a large or small quantity. We cannot, and it would be unreasonable to expect us to, sell a peck or a bushel of seed at as low a rate as we can afford large lots, as the expense of packing, handling and delivering to the depot is proportionately much higher, and as the prices of grains and seeds, like hogs and corn, fluctuate with the market, it is impossible for us to make close quotations for any great length of time ahead. We, therefore, request our friends requiring larger lots of grass seeds, &c., than the quantities quoted in this list, to send us a list of what is wanted, naming about the quantity of each, when we shall at all times take pleasure in quoting you the lowest prices possible, and will send samples if desired.

SHIPPING.

In this department everything which is quoted *by the packet or pound* is sent by mail *postpaid*; all larger quantities, unless specially noted, are sent by express or freight, at the expense of the purchaser. No extra charge for bags or delivering at depots. The prices quoted by the bushel are subject to any important change in the market, without notice.

SEED CORN.

The season of 1884 has been especially favorable for growing, maturing and curing the corn crop, and an abundance of good seed—so far as germinating qualities are concerned—is no doubt assured, but to meet the rapidly increasing demand for improved varieties we have grown a large supply of *superior high-bred* sorts. These were all grown under extreme care and can be relied on for purity. That the average of the corn crop can be largely increased by the general dissemination of improved varieties is as susceptible of proof as that the weight of the crop of pork has been increased by the introduction of the Berkshire, Poland China and other improved breeds of hogs. The farmer does not hesitate to pay high, and even extravagant, prices for thoroughbred cattle, hogs or horses. Why should he not be as anxious to substitute thoroughbred grain and vegetables for the common varieties? It certainly would be as much to his financial advantage. The value of the corn crop in Iowa alone would be increased two million dollars by an average increase of only one bushel per acre, and it has been demonstrated that five to seven bushels can be added to the average crop by planting the improved kinds—while in many cases the crop can be nearly doubled.

The necessity of testing seed corn before planting has been so thoroughly demonstrated during the past three or four years that a word of caution would seem entirely uncalled for, still so many unlooked for contingencies arise that we will state that it is *our* custom to test *all* seeds before sending them out, or planting them ourselves, and our experience has been that failures will *sometimes* occur where least looked for; hence we believe that the plan of testing seed corn should be the *universal* practice. Do not rely on the "general impression" that corn from any crib will grow this year, but rather let the planter know that the seed that *he* must use will grow, from actual experiment.

Prices given by the pound include charges *prepaid* by us, while at the price given by the peck and bushel freight or express charges are to be paid by the purchaser.

GENERAL LIST OF CORN.

The Profit—This is an entirely new corn, which we offered three years ago for the first time, the result of over ten years' careful experiments on Iowa soil, in which it has been the purpose to fix a type of field corn for profit, superior to any in cultivation, and profit in corn raising, as we understand it, means the largest yield of *shelled* corn (not cobs) maturing in the shortest time; and of the best quality, and these are the points we claim for this variety; we do not claim that it produces enormous large ears, and stalks twenty feet high, for this is not the case, but we do claim that it will *shell* more than any other variety with which we are acquainted; has the deepest grain and the smallest cob, in proportion to the size of the ear; it is medium early, very straight rowed; the color is variegated from light sulphur to bright orange, being agreeably diversified, making it particularly striking in appearance. We introduced this variety of field corn three years ago, and so

great was the demand that our supply was exhausted long before the close of the season. So far as we have learned "The Profit" has given splendid satisfaction. It is *the* corn to plant, and we want every one of our customers to give it a fair trial. We have never had a quarter enough to supply the demand, but this season we have a reasonably good supply. We, however, request our customers to send in their order early. Pkt. 10c; 1 lb. 50c; 3 lbs. \$1; 1/2 pk. \$1; 1 pk. \$1.50; 1 bu. \$5.

Farmer's Favorite—A very handsome bright, golden-dent corn; ears medium to large in size and very uniform in appearance, being somewhat pointed, but well filled to the end; kernels deep and even in color; ripens medium early, and, being a very strong and vigorous grower, will produce good crops, even on light soils. Has yielded with ordinary cultivation ninety and one hundred bushels of shelled corn per acre. A bushel of ears will make six or eight quarts more than a bushel of shelled corn. It does not get hard for feeding and is very nutritious; a fine variety for market or feeding; 1 lb. 50c. 3 lbs. \$1; pk. 75c; bu. \$2.50; 2 bu. \$4.

Golden Beauty—This new variety was first sent out in 1884, and was said to be the largest grained and handsomest of all yellow corn. Ears of perfect shape with from ten to fourteen straight rows of brightest golden-yellow grains of remarkable size and filled out completely to the extreme end of the cob. The cobs are unusually small; when broken in half the grains will reach across. The grains are not of a hard, flinty type; neither are they so soft as to be greatly shriveled. The stalks take a strong hold in the ground, grow vigorously to a height of eight or ten feet; ripens in one hundred to one hundred and ten days from planting; 1 lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.50; 2 bu. \$4.

The Leaming—The Leaming, in character, is somewhat of a Dent variety; ears are of good size, set low down, and nearly always two good ears to each stalk. Small, red cob, with a medium deep, long grain, of a rich, golden color. Notwithstanding the hard drouth of 1882 this variety (on the same farms where other kinds almost entirely failed) made a splendid crop. This we attribute to its earliness in maturing, strong and vigorous growth, and its stocky and leafy nature, which enables it to stand up until ripe, thereby protecting the soil from dryness caused by the heat of the sun. The Leaming corn matures early and will, if planted by the first of June, under ordinary culture, grow, ripen and be fit to husk and crib early in September, making it one of the most valuable sorts to plant when it is desired to remove it in time to seed the ground for fall crops. Has been known to yield 100 bushels per acre.

The Leaming was introduced into Iowa during the unfavorable seasons of 1882 and 1883, and much unfavorable criticism followed, it being condemned by many as too late to mature in this State. This resulted from the fact that some of the seed first sold came from points too far South. The Leaming has produced in this section some of the largest and handsomest crops we have ever seen. Our seed came

directly from Mr. Leaming in 1882. It has been grown on Iowa soil each year since, never failing to mature a perfect crop of splendid corn. We were somewhat slow to recommend this corn in our State owing to the adverse criticisms of parties who obtained their stock in Pennsylvania, but we are thoroughly convinced that the trouble came from seed growing too far south for this climate. Our present crop grew in Northern Iowa, and we offer it with the fullest confidence that it will give entire satisfaction, and we can cheerfully recommend it to mature any place in this State; lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.50; 2 bu. \$4.

Chester Co. Mammoth—The largest, most prolific and, where it will mature, one of the best yellow dent sorts in cultivation; ears sixteen to twenty-four rowed, holding their size well to the tip, kernels very deep and large, usually growing completely over the end of the cob, stalks large strong and thrifty. The seed we offer was grown in Iowa, is fully acclimated and we believe will ripen anywhere south of 49° 30' Lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.50; 2 bu. \$4.

Pride of the North (Ninety-day Yellow Dent)—This new variety has been grown and improved for the past eight years, in the extreme northern part of Iowa, by a practical farmer and seedgrower of over thirty years' experience. The ears are eight to ten inches long with small cob and deep kernel; seventy pounds of ears will make sixty pounds of shelled corn; color bright orange and very uniform. Grows strong and thrifty and will mature in this latitude when planted in June. Lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.50; 2 bu. \$4.00.

Blount's White Prolific—This is an eight to ten-rowed white flint corn, with short, well-shaped ears and small cob. The stalks bear from two to six ears; the ears are small in size and the kernels are hard, well-shaped and compactly placed on the cob. Like other flint varieties it matures early. In the *Country Gentleman* Mr. Blount says: "The average number of ears to the stalk is six, good-sized ears, and fourteen the largest number on any one stalk. I selected 100 stalks that made a little over three bushels shelled corn." This season our stock of White Prolific Corn is the finest sample of the variety that we have ever seen. In Massachusetts this corn is also known under the name of **MAMMOTH ENSILAGE**. Our stock was grown in northern Iowa and is very fine. Pkt. 10c; lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.50; 2 bu. \$4.

Compton's Early Yellow Flint—The earliest known yellow field variety, ripening in seventy-six to ninety days from time of planting, and very productive. It will produce a good crop if planted as late as the first of July, and thrive well on light soil, as well as localities where the season is short. It is a yellow, flint variety; ears of good size, with ten to twelve rows. Pkt. 10c; lb. 50c; 3 lbs. \$1; pk. \$1; bu. \$3.

Sweet Corn for Fodder—Sweet corn contains more albuminoids and fat than the field varieties, hence makes much better food for stock. It is especially valuable for feeding hogs and milch cows; for this purpose it should be planted near the feed lot; commence feeding as soon as it will do for roasting ears, and continue till the corn becomes too dry, which will not be till winter sets in. For milch cows it should be cut and wilted from twelve to twenty-four hours before feeding. Pk. 75c; bu. \$2.

SUNDRIES.

Broom Corn, Black Spanish—The finest early corn. Grows six to eight feet high with long fine straight brush of a light green color, which it holds without becoming spotted or red. Pkt. 10c; lb. 50c; 3 lbs. \$1; pk. \$1; bu. \$3.

Tall Evergreen—A standard variety, brush bright green fine and straight; this variety gives universal satisfaction on account of its holding its bright color and not knitting or growing crooked. Pkt. 10c; lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.50.

Dwarf Evergreen—Similar to the tall except in height. Pkt. 10c; lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.50.

California Golden—In growth somewhat similar to the tall Evergreen but more vigorous with longer brush; which, when ripe, is of a bright golden yellow color, straight and handsome. Very desirable for heavy brooms. Lb. 50c; 3 lbs. \$1; pk. \$1; bu. \$3.50.

Wilson's Improved Evergreen—Grows about eight to ten feet high, stands up well, and is entirely free from crooked brush; the fibre is long and fine. It has been tested by well-known men, who have been

in the broom corn business for over twenty years, and all pronounce it to be first-class. Its greatest value to growers is in the fact that it will not get red in the field before it is cut, but is strictly a green variety of brush, and will always command the highest price. Pkt. 10c; lb. 50c; 3 lbs. \$1; pk. \$1; bu. \$3.50.

Common—Pkt. 10c; lb. 40c; 3 lbs. \$1; bu. \$2.

Buckwheat, Gray or Black—Buckwheat should be sown about the 20th of June, broadcast, at the rate of about three-fourths of a bushel per acre. The average yield is from twenty-five to thirty bushels per acre. It should be threshed as soon as dry, on the ground or barn floor. If allowed to stand in mass it quickly gathers moisture. Pkt. 10c; lb. 40c; 3 lbs. \$1; bu. \$1.50.

Buckwheat, Silver Hull—This improved variety is said to be much better than the old sort. It is in bloom longer, yielding more honey, a fact that will be appreciated by bee keepers, matures sooner and yields double the quantity per acre. The husk is thinner, the corners less prominent, and the grain of beautiful light gray color. The flour is also said to be better and more nutritious; pkt. 10c; lb. 50c; 3 lbs. \$1; pk. 75c; bu. \$2.50.

Field Beans—The best crops are raised on light soil manured and highly cultivated, but with good culture very good crops can be raised on any soil. Plant after the weather becomes warm and settled in drills two and a half to three feet apart dropping the beans two inches apart in the row, or they may be planted in hills one foot apart in the row; cultivate often, but never when wet.

White Navy—A small nearly round bean, a good cropper and always brings the highest price in market. Pk. \$1; bu. \$3.50.

White Medium—Beans good size, round and handsome; a strong grower and good yielder. Pk. \$1; bu. \$3.50.

California Branch or Mexican Tree Bean—See description with garden varieties.

Field Peas—These are grown for fodder or marketing dry. They make excellent food for hogs, being usually cut green for this purpose and fed like sweet corn. They may be sown broadcast or in drills, at the rate of three bushels per acre, should be sown early in spring, and for a succession till the first of June; they are sometimes sown with oats at the rate of one and a half bushels of each per acre, and cut green, when well cured in this condition they make valuable fodder. Pk. 75c; bu. \$2.50.

CLOVER SEEDS.

The soils best adapted to Clover are tenacious or stiff loams. It is a fertilizer, as its long, powerful tap roots loosen the soil, admit air, and, when the roots decay, add largely to the black mass of earth. It helps destroy annual weeds by the luxuriant foliage, and, by shading the surface of the soil, increases its fertility. Clover seed is sown in spring or fall, though there is a growing sentiment that the spring is a better season to grow it, especially in the Eastern, Middle and Western states, on account of its liability to freeze out during the winter. It is often sown upon the late snows of March and April, and soon finds its way down to the soil, where, aided by the moisture of early spring, it quickly germinates and rapidly shoots up its leafy stalk.

Mammoth, or Large Red Clover—*Trifolium pratense*. This variety is the best for plowing under for manure. It grows five or six feet high, and its stalks are so coarse and large that stock will eat only the leaves. By its judicious use, lands which have been exhausted can be reclaimed, and unexhausted lands preserved. Green manuring has rarely or never failed of producing satisfactory results. Sow at the rate of about fifteen pounds per acre; sixty pounds per bushel. Lb. 40c; 3 lbs. \$1; pk. \$1.50; bu. \$8.50.

Medium, Red or June Clover—*Trifolium pratense*. This is by far the most important of all the varieties for the practical purposes of agriculture. It is grown for hay or for pasture, and for milch cows it is better than timothy, while it improves the lands on which it is grown. It has become an indispensable ingredient of all mixed grasses. Sow in spring or fall, and when no other grasses are used, at the rate of six to eight quarts per acre, more being required on old, stiff soils than on new and lighter ones. Sixty pounds per bushel. Lb. 40c; 3 lbs. \$1; pk. \$2.25; bu. \$8.

Alsike, or Swedish Clover—*Trifolium hybridum*. This valuable variety is comparatively new, but is

fast gaining great popularity. It is the most hardy of all the varieties, perennial, and absolutely refuses to winter-kill; is alike capable of resisting the extremes of drouth and wet. The roots are fibrous and heads globular, resembling more the white than the red clover, with flesh-colored heads. It is very sweet and fragrant, being much liked by the Italian bees. It yields an enormous quantity of hay or pasture, and may be mowed several times in a season, on good, rich land. It is excellent for sowing on hillsides or sloping lands that are liable to wash and gully, as it has a great mass of long, strong, fibrous roots, which take firm, deep and widespread hold into the soil, and prevent washing; farmers can hardly raise a better hay or forage crop. Sow in spring or fall, at the rate of six pounds per acre, where used alone. Sixty pounds per bushel. Lb. 50c; 3 lbs. \$1.25; pk. \$5; bu. \$15.

Crimson Trefoil, or Scarlet Italian Clover—*Trifolium incarnatum*. This is an annual variety, in common use in Italy and the south of France for feeding green. Indeed, it may be said the stock in these countries are largely sustained during the summer months by this and a few other sorts. The yield in fodder is immense, and after cutting it at once commences growing again, and continues till severe cold, freezing weather. In warm climates four or five cuttings are made during the season. It grows about one foot high; the roots are nearly black, leaves long; blossoms long, pointed and of a very deep red or carmine color; makes good hay. Sow in April or May; ten pounds of seed per acre. Lb. 50c; 3 lbs. \$1.25; pk. \$5.

White Dutch Clover—*Trifolium repens*. A small, creeping, spreading, perennial variety, with white, very fragrant blossoms. Its chief value is as a pasture grass, for which purpose it is as invaluable as the larger varieties for hay or soiling. It accommodates itself to a variety of soils, but prefers moist ground. In conjunction with blue grass, it forms the most nutritious food for sheep or cows. Sow in spring, at the rate of six pounds per acre, or when used with other grasses, half that amount will be sufficient. Lb. 65c; 3 lbs. \$1.50; pk. \$5; bu. \$15.

Lucerne, or Alfalfa Clover—*Medicago sativa*. This is perhaps the most valuable variety for permeable subsoils, consisting of loam, sand or gravel, as its roots penetrate to a great depth, far below the average of other plants. It is more difficult to establish the first year, requiring a fine, mellow soil, but it will then produce a profitable crop from five to twelve years. It yields a prodigious amount of green fodder for cattle, and should be cut when first commencing to bloom. It is no sooner cut than it pushes out fresh shoots, and the after-growth is something wonderful. In the driest and most sultry weather, when every blade of grass withers, Lucerne is as fresh and green as in spring, because the roots go down to the moisture in the ground. It may be cut and used green, or cut and used like ordinary clover hay. Although such a prodigious yielder, it does not exhaust the soil, but rather improves it. It should not be sown on compact, clay soils, even with a light subsoil. Three cuttings can easily be made in one season, after it is well established. It grows two or three feet high, and has purple blossoms. Lb. 50c; 3 lbs. \$1.25; pk. \$5; bu. \$15.

GRASS SEEDS.

Timothy—*Phleum pratense*. As a crop to cut for hay, this is probably unsurpassed by any grass in cultivation. Thrives best on moist, loamy soils, of medium tenacity, and is not suited to light, sandy or gravelly soils. It should be cut just as the blossom falls. Sow either in spring or fall, at the rate of twelve pounds per acre, if alone, but less if mixed with other grasses; forty-five pounds per bushel. Lb. 40c; 3 lbs. \$1.20; pk. 75c; bu. \$2.

Orchard Grass, or Cock's Foot—*Dactylis glomerata*. One of the most valuable of pasture grasses, on account of its quick growth and luxuriant aftermath. It is ready for grazing in spring two weeks sooner than most grasses, and when fed off is again ready for grazing in a week. It is palatable and nutritious and stock eat it greedily when green. It stands a severe drouth, keeping green when many grasses wither, and will endure considerable shade. It is less exhausting to the soil than timothy, and will grow more in one day in summer than timothy will in a week. When sown with clover, it makes excellent hay, as it blossoms at the same time, and they should

be cut together. It has a tendency to grow in tufts, which can be prevented by close cropping. For early spring and summer grazing it has no equal, and should be used more than it is. When sown alone two bushels are required per acre; if sown with clover, half the amount. It ought not to be sown alone, except for seed. It is perennial, and will last for years, but its habit of growth unites it for lawns; fourteen pounds per bushel. Lb. 50c; 3 lbs. \$1.25; pk. \$1; bu. \$3.

Red Top—*Agrotis vulgaris*.—In some sections this is called Rhode Island Bent Grass. In Pennsylvania and states farther south it is known as Herd's Grass, a name applied in New England and New York to timothy. It is a good, permanent grass, standing our climate well, and makes a good pasture when fed close. Is valuable for low, wet meadows producing a large return in good hay. If sown in the sloughs and low, flat places in prairie countries it will kill out the coarse wild grass. Sow in spring or fall, in wet places it may be sown at any time at the rate of one bushel per acre; fourteen pounds per bushel. Lb. 40c; 3 lbs. \$1; pk. 75c; bu. \$2.50.

Fowl Meadow, or False Red Top—*Poa serotina*.—Grows tall and thick, and makes more pliable hay than timothy, and is more fit for pressing in bales, to ship. It yields well when sown in low, moist land, and will not suffer if not cut at the exact time. It can be mowed almost any time from July to October. When three feet high it falls down or lodges, and after a little time every joint puts forth new branches. The stalk is always sweet and tender, and cattle and sheep are fond of it. It thrives best when mixed with other grasses. Though resembling red top in some respects, it is distinct, and we think superior in every respect. Requires about the same amount of seed per acre as red top, sown in spring or fall; twelve pounds per bushel. Lb. 50c; 3 lbs. \$1.25; pk. \$5; bu. \$3.25.

Kentucky Blue Grass—*Poa pratensis*.—This is known in some sections as Green Meadow Grass, and June Grass, but should not be confounded with *Poa compressa*, called by some June Grass or Wire Grass. It makes excellent pasture grass for our soil and climate, succeeding finely on our hill lands, and producing the most nourishing food for cattle, retaining its qualities till a late period in winter, and farther south affording abundant food through the winter. Two bushels of clean, or one bushel of extra clean seed should be sown per acre. In conjunction with white clover, it forms the finest and closest of lawns; for this purpose an extra quantity of seed should be used: say four bushels of blue grass and six pounds of white clover per acre. Fourteen pounds per bushel. Lb. 40c; 3 lbs. \$1; pk. 75c; bu. \$2.50.

English Blue Grass, or Meadow Fescue—*Festuca pratensis*.—This is one of the most valuable pasture grasses we are acquainted with, as its long and tender leaves are much relished by stock of all kinds. It succeeds well, even in a poor soil, and as its roots penetrate the earth twelve or fifteen inches, it is not affected except by exceedingly dry weather, and is as valuable a fertilizer as red clover. When cured like timothy, it yields a fine quality of hay. It affords an earlier and later pasturage than Kentucky blue grass, makes a denser sod and is more vigorous in growth. Notwithstanding its acknowledged merits, this grass has been sown only to a limited extent in this country. It is deserving of much more attention than it has hitherto received from American farmers. Sow one bushel per acre, in spring or fall. September is the best season for sowing south of the Ohio river. Twenty-four pounds per bushel. Lb. 50c; 3 lbs. \$1.25; pk. \$1.25; bu. \$4.

Perennial Rye Grass—*Lolium Perenne*.—A very valuable variety for permanent pasture, and makes a large return in hay; very nutritious and stock are very fond of it. Succeeds best on moderately moist land, for which it is peculiarly adapted. Large quantities are raised in England, and nearly all of Europe. It is also largely used for lawns, in connection with other grasses. One and a half to two bushels per acre should be sown in the spring; twenty pounds per bushel. Lb. 50c; 3 lbs. \$1.25; pk. \$1.25; bu. \$4.

Italian Rye Grass—Excellent for lawns, pastures and hay, not permanent, however, in this latitude, and the seed should be allowed to ripen, when it will reseed itself, or seed should be sown each alternate season; its quick and rapid growth, either from seed or after cutting, makes it very desirable. Fifteen

pounds per bushel. Lb. 50c; 3 lbs. \$1.25; pk. \$1.25; bu. \$4.

Wood Meadow Grass—*Poa nemoralis*—Grows from one and a half to two feet high; has a perennial creeping root, and an erect, slender, smooth stem. Its chief value is in that it will produce a good crop of hay in moist, shady situations, where it frequently grows quite tall. Cattle are fond of it; it is succulent and nutritious, and is perhaps the best variety for sowing in orchards, under trees and shaded situations, either for hay or pasturage, and for parks and pleasure grounds; about fourteen pounds per bushel. Lb. 50c; 3 lbs. \$1.25; pk. \$1.25; bu. \$4.

Sweet Vernal Grass—*Anthoxanthum odoratum*—One of the earliest grasses in spring, as well as the latest in autumn, and about the only grass that is fragrant. As a pasture grass, mixed with other species, it is valuable on account of its earliness, and mixed with blue grass and white clover, it is an invaluable adjunct for lawns, presenting a beautiful appearance, and exhaling a delightful fragrance when in blossom. Should form a part of the mixed grasses in every lawn and door yard; about ten pounds per bushel. Lb. 75c; 3 lbs. \$2.

Tall Meadow Oat Grass—*Avena elatior*—A fibrous rooted perennial; most valuable for pastures on account of its luxuriant and rapid growth; makes a crop the first season from seed; matures about the same time as red clover, and hence makes an excellent mixture for hay, while its early and late growth adds great value to the clover field as a pasture. The "Report of experiments upon the Iowa Agricultural College Farm" says of it: "Granting that it is perfectly hardy, which would appear to be the case, it is an extremely valuable grass for Iowa." Two bushels per acre should be sown. Seven pounds per bushel. Lb. 75c; 2 lbs. \$2; pk. \$1; bu. \$3.50.

Common Millet—*Panicum Miliaceum*—Requires a dry, light, rich soil, and grows two and a half to four feet high, with a fine bulk of stalks and leaves, and is excellent foraging. Sow in drills or broadcast, from May 1st to June 20th, if for seed, or until the last of July if for hay. For grain, sow in drills, one-quarter bushel per acre; if for hay, sow broadcast, one bushel per acre; forty eight pounds per bushel. Lb. 30c; 4 lbs. \$1; pk. 75c; bu. \$2.

German, or Golden Millet—*An improved variety*, medium early, growing three to five feet high. The heads are closely condensed, though the spikes are very numerous. The seeds are contained in rough, bristly sheaths, and are round, golden yellow and beautiful in appearance; produces very heavy crops; should be cut when in the bloom, and will then make the very best of fodder for young cattle. Lb. 40c; 3 lbs. \$1; pk. 75c; bu. \$2.

Fine Mixed Lawn Grass—The essentials for a fine lawn are proper drainage, a careful preparation of the soil, thorough rolling and a selection of the seeds of such grasses as will present a luxuriant verdure from early spring till late in autumn; and then frequent mowings with a lawn mower. However much care is bestowed on the soil and seed, no lawn will be beautiful without frequent mowing and rolling. Too much care cannot be bestowed, however, on the selection of grasses, as some varieties are the most

luxuriant in spring, others in summer and others again in autumn, and a combination of the proper sort is required for a perfect, carpet-like lawn. These we can supply ready mixed, in proper proportions of each. The quality sown varies, according to the variety of grasses, from twenty to sixty pounds per acre, much more being required than for hay or pasturage. The seed can be sown in spring or autumn. Lb. 40c; 3 lbs. \$1; pk. 75c; bu. \$2.50. Central Park Mixture, lb. 50c; 3 lbs. \$1.25; pk. \$1.25; bu. \$4.

Hungarian Grass—*Panicum Germanicum*—This is a species of millet, growing less rank, with smaller stalks, often yielding two or three tons of hay per acre. It is very popular, and in the Western States is used extensively. Like the millet, it is an annual, and requires to be sown every season, but will produce a larger return than almost any other crop. Sow and cultivate like millet; forty-eight pounds per bushel. Lb. 30c; 4 lbs. \$1; pk. 75c; bu. \$2.

Johnson Grass—*Sorghum Halapense*—A perennial grass belonging to the sorghum family, a rapid grower, very nutritious, superior both for hay and grazing; comes very early in spring and will grow till cut down by frost. The roots will stand our winters, and as they penetrate very deep in the ground are not effected by drought; in fact, it seems to do best in dry weather. Two or three crops can be cut in a season. In the South this grass is becoming very popular, and is grown by the hundreds of tons for shipping. Of clean seed sow one bushel per acre. South of the Iowa line sow in August or September; north of that sow in spring that it may get well rooted before winter sets in. Lb. 60c; 3 lbs. \$1.50; pk. \$2; bush. \$6.

DURRA.

Sorghum Vulgare—This plant has been offered at various times under the different names of Indian or Great Millet, Guinea or Negro Guinea, Corn, Chocolate Corn, Ivory Wheat and Pampas Rice. It is a valuable forage plant, growing from eight to ten feet in height and yielding an abundance of grayish green foliage greatly relished by stock. It is frequently grown for grain and yields largely. One grower in California reports having harvested as high as 200 bushels per acre. The culture is very simple; when grown for grain it is to be planted in hills and given plenty of room; the space given to common corn is not any too much. For fodder sow in drills from two to three feet apart, dropping the seed from three to four inches apart in the drills; when six or eight inches high thin to eight or nine inches apart; and when it has attained a height of four or five feet it may be cut for forage, which can be continued every third or fourth week until frost. Oz. 10c; lb. 65c.

Flax—*Linum usitatissimum*—Sow late enough in the spring to avoid frost, and early enough to secure the early rains. A fair average quantity of seed to be sown on an acre is one half-bushel, when cultivated for seed; if for the fiber a larger quantity should be sown; cut before quite ripe, and, if the weather is dry, let it lie on the swath a few hours; when it should be raked, bound, and secured from the weather; thresh early in the fall and in dry weather. Lb. 30c; 4 lbs. \$1; pk. 75c; bu. \$2.50.

OATS.

RUSSIAN GREEN.

This remarkable variety of oats was first sent out by us in 1884. The entire stock in this country came from one quart of seed, which was imported from Moscow in 1880, by the Iowa Agricultural College. In the report of experiments and investigations upon the College farm, we find the following official statement:

"The following condensed statement of the field oats grown upon the farm requires this explanation only: That ten days prior to the time of harvesting there was quite a heavy rain fall, and the oats which stood very straight to that time, nearly all fell, except the *Russian Green*."

"This variety was imported by the College from Moscow, in 1880, and has stood up and produced well in each of the remarkably trying seasons since that time. The oats are not as large in straw or grain as the Russian White, but more reliable. This variety covered nearly five acres of land which had been under cultivation for thirteen years, and there is no record that any manure has been drawn to it during that time."

1882. NAME OF VARIETY.	Date of Seeding.	Date of Harvesting.	Number bush. of seed sown per acre.....	Yield of straw per acre in lbs.....	Yield of oats 32 lbs. per bush.....	Weight per bush. U. S. grain test from machine....
			BU. LBS.			
Russian Green.....	April 26	August 3.....	2 15	2,004	54.8	32½
Russian White.....	April 29	August 5.....	3 20	2,809	50.9	32½
Challenge.....	April 29.....	July 28.....	4 12	4,670	45.2	32½
Surprise.....	April 29.....	August 12.....	3 29	3,760	44.5	28½
Black Oats.....	May 1	August 11.....	3 1	3,348	33.9	22½
Scotch.....	May 1.....	August 11.....	3 1	3,550	32.0	20
Probestier.....	April 27.....	August 10.....	3½ ..	3,650	41.9	32½

In a private note from Prof. Knapp, the President of the College, he writes as follows:

AMES, Iowa, Jan. 8, 1884.

C. W. DORR & CO.—GENTS:

The Green Russian Oats were imported from the Agricultural College at Moscow, Russia, by the Iowa State Agricultural College in 1880 and tested upon the College farm that year. The head is peniculate, or branching, tall but not wide; the head is frequently one-half the entire length of the unthreshed bundle; the oats are greenish white, plump, medium size; straw short, fine, very stiff. They yield well and stand up when all other oats fall. Their excellence consists in the production of a good crop in all seasons, and on a great variety of soil.

Respectfully,

S. A. KNAPP.

We consider the Russian Green the most profitable variety of oats to raise ever introduced. They are two weeks earlier than the White Russian, and sure to always produce a good crop, and stand up where all other varieties lodge. We have all the seed there is for sale in this country, and have made the price very reasonable that they may be generally disseminated this season. Do not fail to try them. From six bushels of seed last year 242½ bushels of Russian Green Oats were threshed by Melvin Brooks, of Story county, Iowa. 1 lb. 40c; 3 lbs. \$1; pk. 65c; bu. \$2.

American Triumph Oats—This variety is a cross between the Excelsior and Waterloo oats, combining in a remarkable degree the excellent qualities of both. The average height, as the grain stands in the field, is six feet, yet the straw is so strong and firm that it holds up well, without lodging, the tall, luxuriant heads filled with plump, heavy grains. The quality and productiveness of the grain are wonderful, yielding from 50 to 100 bushels per acre, according to the condition and state of fertility of the land. The crop from which our seed was obtained was examined by many experienced oat growers, all of whom declared that they never had seen anything to equal the "American Triumph Oats" in health and vigor of straw nor in yield and weight of grain. Lb. 40c; 3 lbs. \$1; pk. 65c; bu. \$2.

The Welcome Oats—These new oats are characterized by their great vigor of growth and remarkable cropping. They were tested last season in small packages by over a thousand persons, over a great extent of territory, and the verdict was strikingly in their favor. In many instances the straw grew six feet tall. In one instance 76 stalks grew from a single seed. The yield of the two-ounce packages of seed was in a number of instances over seven bushels, and Mr. Alfred Rose raised nearly 15 bushels by weight from one package. One of the most attractive features of the Welcome Oat is the plumpness of the grain. In some instances it reached the great weight of over fifty pounds to the measured bushel, and in one instance the crop of two bushels weighed 111 pounds. Lb. 40c; 3 lbs. \$1; pk. 65c; bu. \$2.

Russian White Oats—This new variety of oats has already been tested in nearly all portions of the country from Maine to California, and the reports from almost all the states of the Union are unanimous in its commendation as the heaviest yielder in cultivation. One hundred and fifty-seven pounds of clean oats were harvested from a single ounce of seed. In nine-tenths of the reports the yield exceeded 500-fold increase. They are extremely hardy, enduring the coldest climate in our country without injury, and are absolutely rust proof. Each kernel planted will produce twenty-five to forty heads from sixteen to twenty-two inches in length. The straw is large and strong enough to support the enormous heads of this variety. The grain is heavy and the chaff light, so that a measured bushel weighs considerable more than a bushel of ordinary oats. All things considered, this is one of the most valuable varieties of oats now grown, and is destined, when known more widely, to become a standard sort. Lb. 40c; 3 lbs. \$1; pk. 65c; bu. \$2.

WINTER WHEAT.

Complete list, with prices, will be sent to all applicants at seeding time next fall.

SPRING WHEAT.

White Russian—The White Russian, introduced in 1879, is a bald, white chaff wheat, of a much lighter color than most varieties of spring wheat. The straw is long, strong, healthy, and stands upright several days after ripening. The heads are long, open, well-filled, the variety frequently yielding a good crop where other sorts are a complete failure. All who have tried it are more than satisfied, and it is rapidly becoming the standard spring wheat of the United States. Lb. 40c; 3 lbs. \$1; pk. 65c; bu. \$2.

Pringle's Green Mountain—A new beardless variety of spring wheat. Straw four feet in height and heads average four to five inches in length. Kernels white, hard and plump; very hardy and productive. Pkt. 10c; lb. 50c; 3 lbs. \$1.25; pk. \$2; bu. \$7.

Velvet Chaff—This new wheat is a bald, white chaff wheat, and the chaff has a velvet-like surface, peculiarly distinct from other wheats. The stem, just below the head, when green, has a beautiful blue bloom on it, similar to the bloom on the grape, which can be removed by a slight rub of the finger. This bloom entirely disappears as the wheat ripens, and then the stem and straw assume a golden yellow, entirely free from rust. The wheat kernel is of quite a hard variety, similar to the Scotch Fife, but more productive. It is a good milling wheat; it fills out finely. Lb. 50c; 3 lbs. \$1; pk. \$1.25; bu. \$4.

Early White Fife—Is a strictly hard spring wheat of a lighter color than the hard Scotch Fife. Although it has not been widely distributed, it has been thoroughly tried by millers, who speak of it as being especially suitable for making the roller process patent flour of the best quality. The White Fife spring wheat is a bald, white chaff variety of medium height and very stiff, erect straw. It is a very early ripening wheat, and has filled out finely where some of the more generally grown varieties have failed. Lb. 50c; 3 lbs. \$1; pk. \$1.25; bu. \$4.

French Imperial—Mr. Houston, of Wisconsin, describes this as follows: "This wheat, above all other wheats, has the quality of filling out plump, hard extra No. 1 wheat, weighing 62 to 64 pounds per measured bushel. This weight was attained in Wisconsin, where all other varieties have filled poorly during the same seasons. We have found the French Imperial spring wheat well adapted to soils where other wheats fail to fill well; and, further, it will fill in any season, for we found that seasons that have shrunk all other varieties of spring wheat have failed to effect the French Imperial. There was such a demand for the French Imperial spring wheat last season that every bushel obtainable was taken, and this wheat will be very scarce this season also. The kernel of the French Imperial spring wheat is very large, full a half larger than a plump kernel of any

other kind of spring wheat. The French Imperial spring wheat grades extra heavy No. 1 hard, and it is decidedly a good wheat to grow where other kinds do badly, and it will outyield any other variety of spring wheat in a poor wheat season. It does well on rather poor soil; in fact, it is best adapted to soils of ordinary richness, as a very rich soil will tend to make too much straw, and we advise to sow the French Imperial spring wheat on soil of ordinary quality, and a crop then of good No. 1 hard wheat is certain to follow." Lb. 50c; 3 lbs. \$1; pk. \$1.25; bu. \$4.

IMPERIAL BARLEY.

A new hybrid, originated by crossing the Canadian six-rowed on the two-rowed Chevalier, by Mr. F. N. Horsford, of Vermont, described as "a magnificent six-rowed sort, with long and full head, beard of medium length, tillers more freely than the common sort." Considered a great acquisition; 90 bushels were grown from 28 quarts of seed; in another instance 35 bushels from 9 quarts. Pkt. 10c; lb. 60c; 3 lbs. \$1.50; pk. \$2.50; bu. \$8.

SUGAR CANE.

Early Minnesota Amber—This variety, after severe tests with all others, has become the standard, being less affected by the variability of the seasons; producing uniformly more and better syrup than any other. North of the latitude of St. Louis it is now grown almost to the exclusion of all other sorts. The syrup is of a beautiful clear amber color and exquis-

ite flavor, being entirely free from that disagreeable odor, unpleasant taste and cloudy appearance that characterizes sorghum. It yields on an average about 200 gallons of syrup per acre, which readily granulates. Mr. Miller, of Minnesota, reports an average yield of nine hundred pounds of sugar per acre, while some other parties report a much larger yield. Expert judges of raw sugars pronounce the sugar made from Early Amber cane fully equal to the best Louisiana cane sugar. It ripens early, and is successfully grown as far north as latitude 44-30. Cut green it makes a valuable fodder for stock, which are very fond of it; the seed, which is produced in abundance, is highly nutritious and makes excellent food for both stock and poultry. A sandy loam will produce the heaviest crop, but any good corn land will produce a profitable crop. Ground should be well prepared and the seed put in immediately after plowing, as it grows slow at first and must be kept free from weeds. Do not plant until the ground becomes warm and cultivate same as corn, but not too late, as the roots are liable to be injured by late plowing. Plant in shallow drills four feet apart, thin to about six inches in the drill, or it may be planted in hills twenty inches apart in the row, leaving three to five plants in a hill. It should be cut as soon as the seed ripens, and go direct from the field to the mill. Strip the leaves off while standing, immediately before cutting the cane. The leaves make superior fodder for stock. Our seed is strictly pure and reliable in every respect. Lb. 40c; 3 lbs. \$1; 10 lbs. or more, 20c. per lb.

TREE AND HEDGE SEEDS.

The soil for planting tree seeds should be rich and plowed or spaded deep, that the roots may strike down readily. Generally it is best to plant in seed beds and transplant to permanent location. As a rule, cover about half the depth you would garden seeds of the same size; water often but not too copiously; keep free from weeds, but disturb the ground in the row as little as possible, as they are liable to come up very unevenly, some seeds lying dormant a whole season—coming up the second. Thin the bed by transplanting the largest.

It is generally conceded by the best authorities on tree planting that it is best to plant several varieties, as groves and forests of mixed timber are healthier and grow more thrifty and rapid.

Alder, European—A rapid grower, especially in rich, damp soils. Oz. 10c; ¼ lb. 35c; lb. \$1.25.

Ash, American White—A very valuable timber, adapted to a wide range of soil and climate. Easily grown from seed, transplants with safety and grows very rapidly. A part of the seed will not come up till the second season. Oz. 10c; ¼ lb. 30c; lb. \$1.

Arbor Vitæ, American—Hardy evergreen, useful for hedges. Oz. 30c; ¼ lb. 90c; lb. \$3.

Beech, American—The wood is fine grained, compact and hard; is used in cabinet work and for fuel. Oz. 10c; ¼ lb. 30c; lb. \$1.

Beech, European—Hardy, well adapted for high, gravelly soils. Oz. 10c; ¼ lb. 30c; lb. \$1.

Birch, Yellow—A large tree of rapid growth, wood hard and durable, splendid fuel, while for cabinet work it is more valuable than cherry. Oz. 25c; ¼ lb. 85c; lb. \$2.50.

Box Elder—Makes a handsome shade tree, also good wind brake, as it is a rapid grower. Stands dry weather extremely well. Oz. 10c; ¼ lb. 30c; lb. 75c.

Catalpa Speciosa, or Hardy Catalpa—This is perhaps the most valuable tree on the list for our western prairies. See full description under head of "Hardy Ornamental Trees." Oz. 20c; ¼ lb. 50c; lb. \$1.50.

Elm, European—A beautiful tree for lawns and streets; a rapid grower and makes valuable lumber. Oz. 25c; ¼ lb. 75c; lb. \$2.

Larch, European—The committee on forestry of the Iowa Horticultural Society recommend this tree for prairie plantings, interspersed with pine. Their estimate is 2,100 larch and 700 pine per acre. The larch is very valuable for fence posts and poles. Oz. 20c; ¼ lb. 50c; lb. \$1.75.

Lime or Linden—Soft wood, of very rapid growth. Oz. 10c; ¼ lb. 35c; lb. \$1.25.

Maple, Sugar—A beautiful shade tree in open situations, while in the timber it makes a strong, rapid growth; valuable for sugar, fuel and manufacturing purposes. Oz. 25c; ¼ lb. 75c; lb. \$2.

Maple, Soft—This is being extensively planted in forests, groves and timber belts on account of its rapid growth. Oz. 20c; ¼ lb. 50c; lb. \$1.50.

Mulberry, Russian—See special description on another page. Oz. 50c; ¼ lb. \$1.75; lb. \$5.

Plane or Sycamore—One of our native trees, and attains, on some of the rich river bottoms, an enormous size. Oz. 10c; ¼ lb. 30c; lb. \$1.

Pine, Austrian—The pines are all valuable timber trees, the Austrian is perhaps the best for ornamental purposes, being stocky and deeper green. Perfectly hardy and a rapid grower. Oz. 20c; ¼ lb. 50c; lb. \$1.50.

Pine, Scotch—This variety seems to stand the hot blasts of summer and cold blizzards of winter on our northwestern prairies without flinching, hence is very desirable for timber belts and valuable for its lumber. Oz. 25c; ¼ lb. 85c; lb. \$2.50.

Pine, White—Equally hardy with the Scotch Pine, while for lumber it is probably more valuable. It is a very rapid grower, adapted to a great variety of soil and climate; it will thrive on land which is apparently too poor to grow anything. Oz. 30c; ¼ lb. \$1; lb. \$3.50.

Spruce, Hemlock—A very handsome evergreen, rapid in its growth and very valuable as a wind break. The bark is in demand for tanning. Oz. 50c; ¼ lb. \$1.50.

Spruce, Norway—A foreign variety that proves hardy and thrifty in this country. Valuable for timber belts, or for lawns. Oz. 10c; ¼ lb. 35c; lb. \$1.25.

Tree of Heaven—Introduced from Japan. It has become quite popular in some localities on account of its rapid growth and tropical appearance. Hardy on our prairies. Oz. 25c; ¼ lb. 85c; lb. \$2.50.

HEDGE SEEDS.

DIRECTIONS FOR SPROUTING OSAGE.

Osage Orange—Cover the seed with water as warm as you can bear your hand in; keep the vessel near the stove, change the water once a day, and soak the seed about five days, after which turn off the water, and keep the vessel covered with a damp cloth; stir occasionally, and in about one week more, if kept warm, it will begin to start, and should then be planted in ground well prepared to receive the seed.

If convenient, it is just as well, and much less trouble to put the seed in a running stream or pond and let it soak from four to six weeks being careful to see that all the seed is covered with water. Lb. 50c; 3 lbs. \$1.25; pk. \$2.50; bu. \$8.

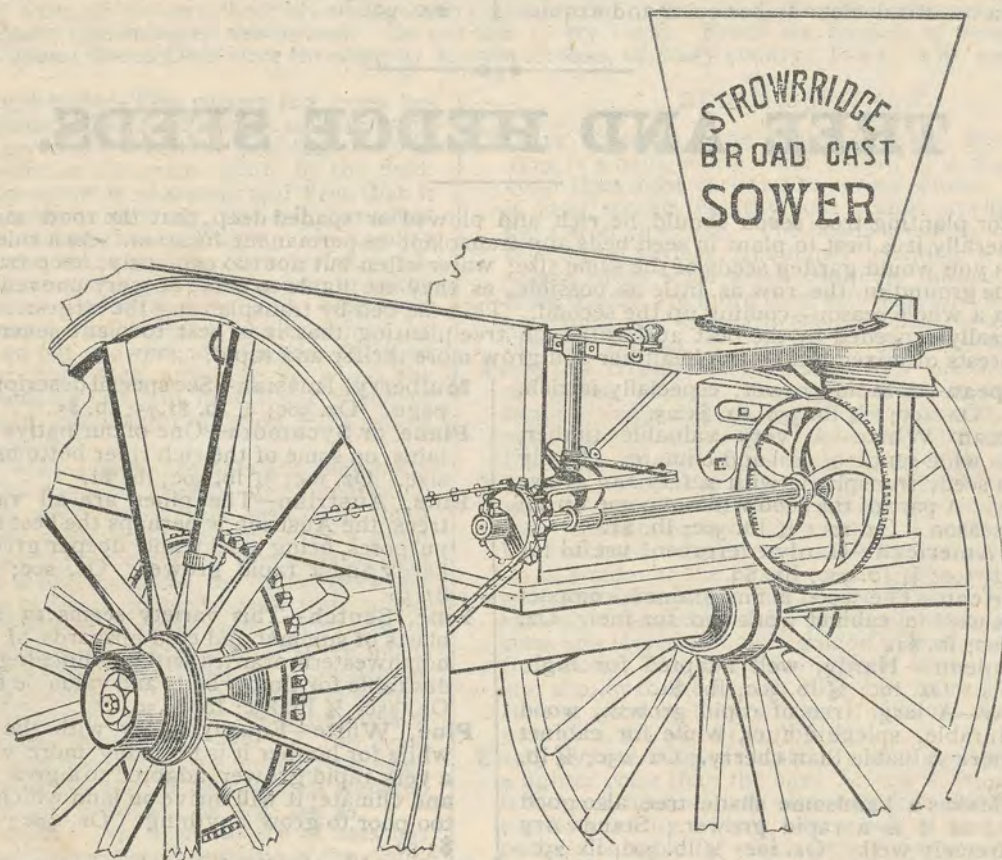
Osage Hedge Plants—By express or freight, \$3 per 1,000.

Honey Locust (*Gledetschia triacanthos*)—On account of its rapidity of growth and the value of its timber for fuel, posts, furniture, etc., we regard this as one of the most valuable of our native trees. It is not so liable to injury by the borer as the common locust, and does not sprout from the root to a greater extent than do most of our forest trees. Before planting

pour boiling water over the seed, and let it stand until cool, when a part of the seed will have swelled; pick these out and scald the rest again, and continue to do so until all have swollen. Another method is to put the seed in a box or barrel in alternate layers of seed and sand, say two inches of each, topping out with sand, pour over this boiling hot water once a day; let there be drainage enough to let the water soak away. In three days the seed will be ready for planting. Cover as soon as dropped. Without this preparation, the seed may lie from one to three years in the ground without sprouting. After the first season they are perfectly hardy. Lb. 60c; 10 lbs. or more by freight or express, 35c. per pound,

IMPLEMENT DEPARTMENT.

All goods in this department are packed and delivered at express or freight depots, ready for shipment. The transportation charges to be paid by the purchaser.



STROWBRIDGE BROADCAST SOWER.

Sows all Grains, Grass Seeds, Plaster, Salt, Ashes, Commercial Fertilizers—everything requiring broadcast, any quantity per acre, better and faster than any other method. Saves Seed by sowing perfectly even. Not affected by wind as seed is not thrown upwards. Sows half or full cast, on either or both sides of wagon. Readily attached to any wagon or cart without injury, and used wherever they can be driven. Lasts a lifetime. Sows 80 acres wheat per day. Crop one-fourth larger than when drilled. Only perfect Broadcaster made. Most accurate agricultural implement in the world. Endorsed and recommended by Agricultural colleges and best farmers in the United States.

**FULLY WARRANTED. PERFECTLY SIMPLE
CASH PRICE, \$25.00.**

Send stamp for complete catalogue of 32 pages, containing carefully written description of the Strowbridge, and hundreds of testimonials from the best farmers and Agricultural colleges.

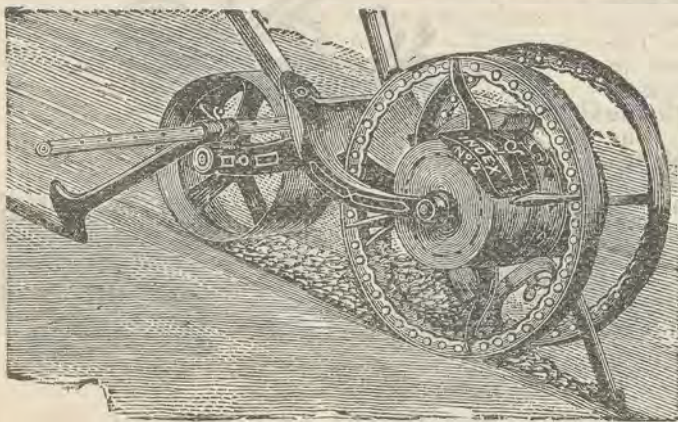
C. W. DORR & CO., Des Moines, Iowa.

"PLANET JR." AND "FIREFLY" IMPLEMENTS.

These implements combine more points of *practical* merit than can be found in any other similar tools in the world, among which are beauty of design with usefulness; lightness with strength, adjustability with firmness, simplicity with perfection of work and ease of management. The line is so complete that the product of every farm and garden in the land would be increased at a *profit* by the use of one or more of these tools.

In this catalogue we give a condensed description of these implements, but a COMPLETE DESCRIPTIVE CATALOGUE, illustrated with over forty engravings, showing the tools at work, will be mailed free upon application by enclosing postage.

THE PLANET JR. No. 2 DRILL.

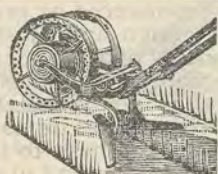


A seed drill to insure satisfactory results must possess a number of important qualities. The seed must be discharged regularly and without injury, the adjustability of the dropping device must be simple and *positive*, the index reliable, the seed deposited in a straight line and covered the desired depth with exactness, the ground rolled light or heavy at the pleasure of the operator; it should have a good marker and a cleaner for foul ground. All these we have in the "Planet Jr." to perfection. It holds two and one-half quarts and will sow with equal accuracy a single paper of seed or a full hopper; with the greatest exactness it will cover, roll down, and mark the next row at a single passage. It is noiseless, automatic, self-cleaning, and always reliable. It is light, strong, durable and handsome; the material used in its manufacture is of the finest quality and the workmanship of the highest order; no belts, brushes, levers or gearing of any kind is used. The opening plow is adjustable and placed directly between

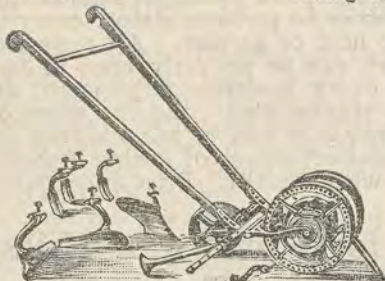
the wheels, thus ensuring an even depth, whether the ground be level or uneven. The covering is done by the wheels with the dirt thrown out by the opening plow and followed immediately by the roller. By this method an evenness of planting is attained not possible by any other drill. The hopper *revolving* with the wheels prevents clogging or choking without the possibility of injuring the seed; the openings, twelve in number, in the hopper are covered by an adjustable spring brass band with corresponding openings so that they may be changed to any size, a hair's breadth at a time if necessary. The marker can be changed instantly and is of sufficient weight to insure a plain mark. The cleaner is an important improvement, found only on the "Planet Jr.," as it insures the same evenness of seeding on land covered with straw, roots or clods, as upon a fine smooth surface. The seed index is upon the cover, and contains the names of the most important seeds to be sown, to each of which is attached a number, with corresponding numbers on a German silver gauge, which is made with great care and can be relied on. Price, \$10, boxed.



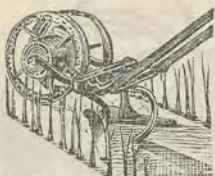
As a Plow.



Hoeing Both Sides.



The "Planet Jr." Combined Drill, Cultivator and Plow.



Hoeing Between Rows.



As a Cultivator.

The Planet, Jr. Combined Drill, Wheel Hoe, Wheel Cultivator and Wheel Plow.

This is the most popular tool we have ever sold. As a combined garden implement we have never found its equal in capacity for work, ease of management, lightness, durability, graceful appearance and perfection of finish. As a drill it is exactly similar and equal to the No. 2, except in size. It holds one quart. As a *Plow* it opens furrows, covers them, hills, plows to and from, etc. As a *Hoe* it works safely and closely to and from both sides of the row at once at the critical time when plants are small and weeds abundant, or between rows as plants grow larger, working all rows from eight to sixteen inches wide at one passage. As a *Cultivator* it is admirably adapted to deep mellowing of the soil. The blades are *tempered* and *polished steel*. It has a finely adjusted spring brass seed reservoir, an adjustable plow—two carrying and covering wheels; the new permanent *seed index*, the *cleaner* and *marker*, all combining to make a perfect tool. It sows all garden seeds accurately at the desired thickness or depth, opening, dropping, covering, rolling down and marking down the next row all at one passage, in the most reliable and perfect manner. Each machine is sent out with the tools shown in the cut, and by removing the roller and one bolt is ready to be used as a Wheel Hoe, Cultivator or Garden Plow. Price \$12.00, boxed.

I have used your tools for five years, and am well pleased with them. Several of my neighbors to order, and they have all been pleased.

WALDO, Fla., Sept. 10, 1883.

NED. E. FARRELL.

Have tried the "Planet Jr." Horse-Hoe. Send two more. They are money in my pocket. Have cultivated one hundred and ten acres of cotton with two of them, and my mules were as fat at the end of the season as when I commenced.

MACON, Ga., Sept. 20, 1883.

WILLIAM BURG.

I consider the "Planet Jr." Horse-Hoe the best farming implement I have ever seen. Can do more and better work, in corn and cotton with it than with any plow I ever handled. If I could not get another I would not exchange it for the best mule ever raised in Kentucky.

LEXINGTON, S. C., Aug. 4, 1883.

WEST B. ROBERTS.

The "Planet Jr." Double Wheel Hoe, Wheel Cultivator and Wheel Plow.

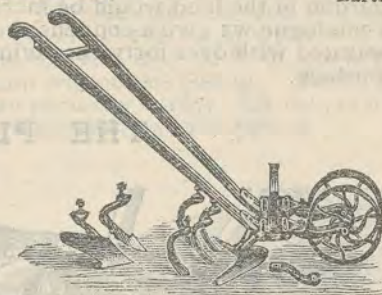
Will do the work of from six to ten men with the common hand hoe among market garden and root crops, nursery stock, etc., and is especially adapted to onion culture. It is light, firm, strong, quickly set and easily managed. Each one is sent out with all the tools shown in the cut; all the blades are tempered and polished steel. The tool is light and graceful, made of the best material and highly finished, and nothing can exceed the perfection and variety of work it performs. The hoes cut from six to sixteen inches wide, and can be used to throw to or from the row, working both sides of the row at once, far closer, faster and better than is possible with the most perfect tool made for hoeing only between rows. The four cultivator teeth work beautifully among larger plants, mellowing the soil thoroughly. The plows are useful in weedy crops, in opening furrows and covering, and in hilling large plants. The wheels are adjustable in height and can be set seven to ten inches apart, or for working between crops as a Single Wheel Hoe at four inches apart. Price \$8.00 boxed.



Cultivating Two Rows.



Earthing Up.



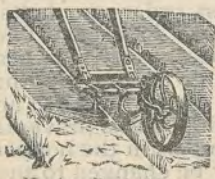
The "Planet Jr." Double Wheel Hoe, Cultivator and Plow.



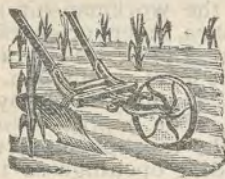
Hoeing Between Rows.



Hoeing Both Sides.



Hoeing Both Sides.



As a Plow.

The "Planet Jr." Single Wheel Hoe, Wheel Cultivator and Wheel Plow Combined.

In improving this tool care has been taken to combine extreme lightness, strength, variety of tools, and great adjustability. It has *one pair of long and one pair of short exchangeable hoes*, a set of *three reversible cultivator teeth*, and a *steel garden plow*. All the blades are tempered and polished steel. This tool is pronounced by practical men as without an equal in beauty of design and finish, ease of operation, quality of work and variety of adjustment, and in this improved form it is, unquestionably, the lightest running, the most convenient and practical Single Wheel Hoe known. The form of the blades has proved superior to all other shapes, insuring a forward, slanting cut next to the plant, and consequent close work *without danger*, and at the same time thorough *cultivation of the soil*. The cultivator teeth, in combination with the hoes, enable the operator to perform almost every variety of work, either in the field or garden. All rows from *six to eighteen inches apart*, can be perfectly hoed at *one passage*. The frame allows every desirable adjustment, is quickly raised or lowered to regular depth, and the wheel can be attached centrally or to *either side of the machine*, giving the operator the *important advantage* of hoeing both sides of the row at one passage, when desired. Price \$6.00, boxed.



The "Planet Jr." Single Wheel Hoe, Cultivator and Plow.



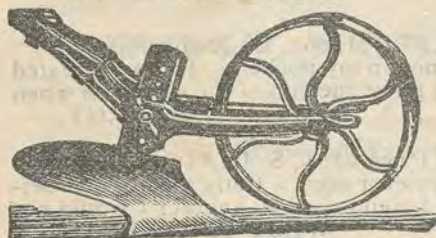
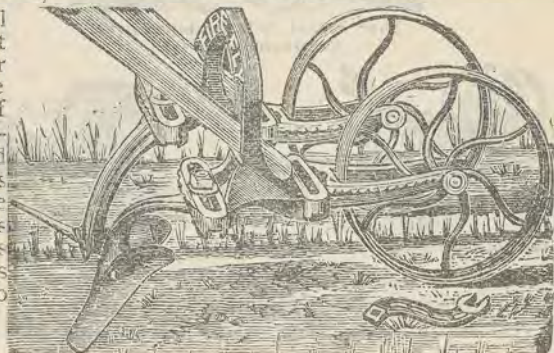
Hoeing To.



As a Cultivator.

The "Fire-Fly" Double Wheel Hoe, for Rows and Hills.

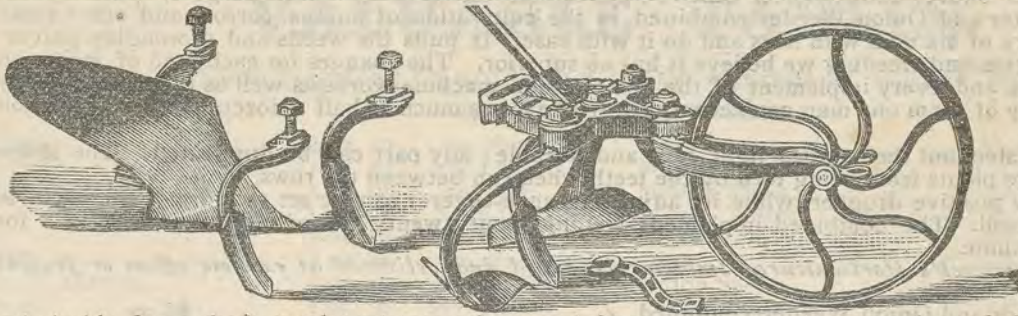
Is still another new tool, this one bound to be the special favorite of onion growers, for though we recommend the "Planet Jr." Double Wheel Hoe, Cultivator and Plow, as unexcelled for variety of tools and perfection of adjustment, this more simple hoe costs proportionately less, while answering perfectly the wants of those who need a hoe only. It is a beautiful piece of workmanship, its two finely polished hoes being adjustable for width, and to throw slightly either toward or from the row, while the handles are adjustable to suit a boy or the tallest man. A special feature in addition is an arrangement of the frame by which the hoes, as shown in the cut, are adapted to perfect hoeing of plants in hills with as little fatigue and almost as rapidly as when in drills. This is an admirable feature, and we have never offered anything so entirely practical and perfect. Price \$5.00, boxed.



The "Fire-Fly" Wheel Garden Plow.

Makes the care of a vegetable garden a pleasure, and 10,000 families who could not find time to keep a garden, if attempting its cultivation with the ordinary hand hoe, can raise their own vegetables successfully with the "Fire-Fly." It takes the place of the horse and plow, or cultivator, requiring no wide headlands to turn on, and is invaluable during all the gardening season. The price is reduced to \$3.00.

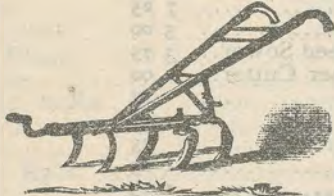
The "Fire-Fly" Single Wheel Hoe, Cultivator and Plow Combined.



This is a new claimant for public favor, and is sure to receive a large share of it, for it combines lightness and strength with the greatest adjustability, while its highly polished and tempered steel tools make gardening comparatively a pleasure. The tools are all made after the most perfect models, and the first, a pair of

admirable *hoes* which can be set to work to and from the row and to any desired depth. Next a set of *three reversible cultivator teeth* to be used together, or singly, or in conjunction with the hoes. Third, a *large excellent garden plow*. The handle is made of stiff iron, and the whole tool is light and strong, attractive in appearance and capable of standing hard usage for years, while the price is final recommendation. \$4.50, boxed.

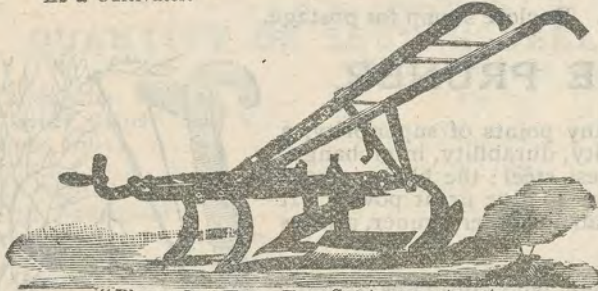
The Best Crop Tender in the World.



As a Cultivator.



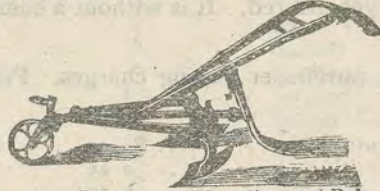
As a Furrower or Hiller.



"Planet Jr." Horse Hoe, Cultivator, etc., etc.



As a Coverer, with Roller.



As a Coverer, with Leveling and Pulverizing Rake.



The "Planet Jr." Combined Horse-Hoe, Cultivator and Plow.

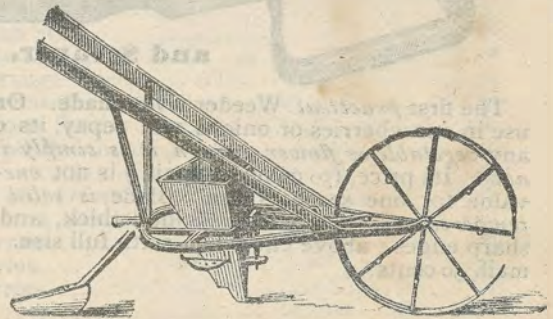
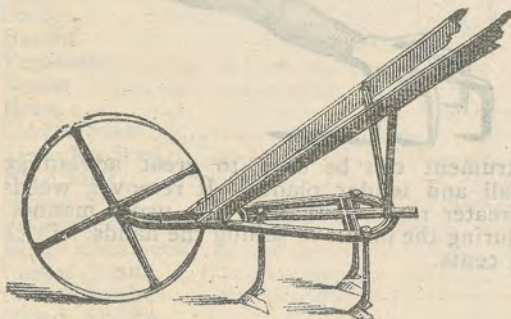
Invented by a practical farmer and improved by years of patient experiment, it stands unrivaled and beyond competition by any similar tool. Made with extra high steel standards, at once stronger and more satisfactory than the old style iron. It is excellent in design, workmanship and finish, and capable of the greatest number of combinations, all of which are useful to every farmer, and admirable for the purpose intended. The tool, except the handles, is made entirely of wrought and malleable iron and steel, and has the standing clevis with locking pin, the stirrup clamp, the frame adjustable in width, the handles changeable in height, teeth adjustable to depth or angle, and reversible points.

For all crops that are hoed by hand it is valuable, preceding the hand hoe, and saving three-fourths of the work. For all crops that are hilled, and very few are not, nothing can exceed the perfection and ease with which this tool performs the work, breaking up the soil perfectly, and hilling the crop much or little as desired. For "level culture" so desirable for some soils, it is equally well adapted. Every complete machine has a set of fine $1\frac{1}{4}$ inch teeth and a set of eight other attachments adapted to all kinds of work.

As an opening plow it is invaluable for making furrows for potatoes, corn and all other crops. As a coverer it has no equal for corn, broom-corn, potatoes, and in fact, every kind of covering, as it covers and rolls down the ground at one operation, in ordinary field work, or fits for setting out plants or for using the garden seed drill and wheel hoe.

The "Planet Jr." has, from its first introduction taken front rank and so rapidly has it gained in favor that it is fast taking the place of all others. Price \$15.00, boxed.

COMSTOCK'S HORTICULTURAL IMPLEMENTS.



These implements comprise, in simple combinations, a Wheel Seed Sower, Wheel Cultivator, Wheel Rake, Wheel Shuffle Hoe, Wheel Shovel Plow, Wheel Strawberry Runner Cutter and Wheel Verge or Turf Cutter, Comstock's Hand Cultivator and Onion Weeder combined, in the cultivation of onions, carrots and other small drill crops, will do the work of six men with hoes and do it with ease. It pulls the weeds and thoroughly pulverizes the soil. For cultivation and weeding we believe it has no superior. The changes for each kind of work can be made in a few minutes, and every implement of the combination machine works as well as if made specially for the purpose. With any of them one man can accomplish with ease as much as half a dozen men with common tools and do better work.

They are all iron and steel but the handles, light, neat and durable; any part can be duplicated. The shape of the frame protects large plants from being torn by the teeth when run between the rows.

As a seeder it is a very positive dropper, while its adjustable shoe-coverer can be set to "firm" the earth to suit the condition of the soil. The combined implement weighs about twenty pounds. Full instructions for using sent with every machine.

Reduced Prices of Comstock's Horticultural Implements, boxed and delivered at express offices or freight depots

Hand Cultivator and Onion Weeder combined.....	\$6 00
Seed Sower, Hand Cultivator and Weeder combined.....	10 50
Seed Sower only.....	7 00

EXTRA ATTACHMENTS.

To make up the price of any combined implement add price of attachment wanted to \$6, the price of the Cultivator and Weeder—thus, for the Verge Cutter add \$1.25, making.....	7 25
Hopper and Coverer, to make a Seed Sower of a Cultivator.....	5 00
Set of two rakes and three teeth to make a Cultivator and Weeder of a Seed Sower..	3 75
Wheel and knife to be fixed to the Cultivator to make a Strawberry Runner Cutter..	2 00
Extra Steel Plates, for replating teeth when worn, each.....	17
Shovel Plows, the set of three.....	1 50
Mole Plow.....	75
Verge or Turf Cutter.....	1 25
Scuffle Hoe.....	1 25

☞ Complete Illustrated Circular sent on application. Enclose stamp for postage.

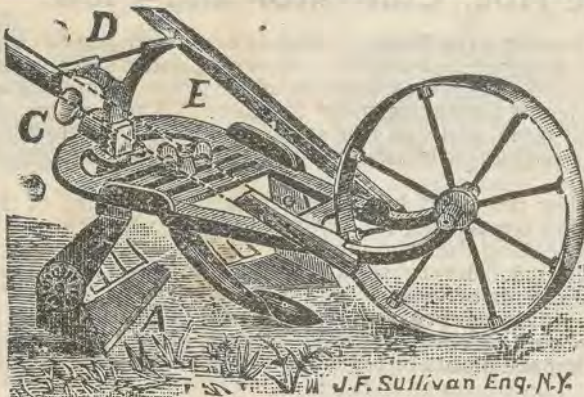
WATER'S IMPROVED TREE PRUNER.

This Pruner is unsurpassed by any made. It has many points of superiority, a few only of which we will enumerate: Lightness, simplicity, durability, interchangeable parts and cheapness. It is constructed of the very best steel; the blade is constructed with the lever at the lower end, in such a manner as to give great power. It cuts the smallest twig perfectly and a larger limb better than any other Pruner, always making a very smooth cut.

A good Pruner is an indispensable article to everyone who cultivates a single fruit tree, and the Water's Pruner is the best one yet offered. It is without a competitor for public favor.

These Pruners can only be sent by express, purchaser paying charges. Prices, delivered free at express office here, as follows:

Length of pole—4 feet; weight 2 1/4 pounds.....	\$2 00
" " 6 " " 2 3/4 ".....	2 25
" " 8 " " 3 1/2 ".....	2 50
" " 10 " " 4 1/4 ".....	2 75
Extra knives, prepaid, each.....	35



Haseltine's Hand Weeder



and Scraper.

The first practical Weeder ever made. One hour's use in strawberries or onions will repay its costs. In any vegetable or flower garden it is simply indispensable. Its price, (50 cents, prepaid,) is not one-tenth its value for one season's use. Blade is solid steel, oil tempered, 7/8 inch wide, 1/8 inch thick, and has five sharp edges; above cut is one-sixth full size. Price by mail, 50 cents.

RUHLMAN'S WHEEL HOE.

No tool that we have ever sold has given better satisfaction than this. Extremely simple in construction, it is compact, firm, strong and durable, doing to perfection the work for which it is designed. The handles can be raised to suit, knife blades set to any pitch, and from seven to sixteen inches in width; can be run within half an inch of the row without injury to the plants. One man, with this implement, will do more and better work than half a dozen with common hoes. This fact will commend this tool to the farmer who is so crowded with the general work of the farm that he has little time to bestow on the garden—that little, neglected patch of ground, the real value of which is so slightly realized. Price, \$5; boxed and delivered at freight or express office.

EXCELSIOR WEEDING HOOK.



This instrument can be used to great advantage among small and tender plants. It removes weeds with far greater rapidity than in the usual manner, without injuring the plants or soiling the hands. Price by mail, 35 cents.

VALUABLE TABLES.

Quantity of Seed required to produce a given number of Plants, or sow a given quantity of ground.

Artichoke.....	1 oz. to	500 plants.	Marjoram.....	1 oz. to	10,000 plants.
Asparagus.....	1 oz. to	60 feet drill.	Martynia.....	1 oz. to	30 feet drill.
Beans, Dwarf.....	1 qt. to	300 hills.	Melon, Musk.....	1 oz. to	150 hills.
Pole.....	1 qt. to	200 hills.	Water.....	1 oz. to	50 hills.
Beet.....	1 oz. to	150 feet drill.	Nasturtium.....	1 oz. to	30 feet drill.
Brocoli.....	1 oz. to	3000 plants.	Okra.....	1 oz. to	50 feet drill.
Brussels Sprouts.....	1 oz. to	3000 plants.	Onion Seed.....	1 oz. to	100 feet drill.
Cabbage.....	1 oz. to	3000 plants.	Tops.....	1 qt. to	20 feet drill.
Carrot.....	1 oz. to	150 feet drill.	Sets.....	1 qt. to	20 feet drill.
Cauliflower.....	1 oz. to	3000 plants.	Parsnip.....	1 oz. to	200 feet drill.
Celery.....	1 oz. to	8000 plants.	Parsley.....	1 oz. to	150 feet drill.
Chicory.....	1 oz. to	100 feet drill.	Peas.....	1 qt. to	150 feet drill.
Collards.....	1 oz. to	3000 plants.	Pepper.....	1 oz. to	2000 plants.
Corn.....	1 qt. to	400 hills.	Pumpkin.....	1 qt. to	200 hills.
Cress.....	1 oz. to	100 feet drill.	Radish.....	1 oz. to	100 feet drill.
Cucumber.....	1 oz. to	200 hills.	Salsify.....	1 oz. to	80 feet drill.
Egg Plant.....	1 oz. to	2000 plants.	Sage.....	1 oz. to	200 feet drill.
Endive.....	1 oz. to	150 feet drill.	Spinage.....	1 oz. to	100 feet drill.
Garlic, bulbs.....	1 lb. to	10 feet drill.	Savory.....	1 oz. to	300 feet drill.
Gourd.....	1 oz. to	50 hills.	Squash, Summer.....	1 oz. to	50 hills.
Kale.....	1 oz. to	3000 plants.	Winter.....	1 oz. to	10 hills.
Kohl Rabi.....	1 oz. to	3000 plants.	Tomato.....	1 oz. to	5000 plants.
Leek.....	1 oz. to	150 feet drill.	Tobacco.....	1 oz. to	10,000 plants.
Lettuce.....	1 oz. to	5000 plants.	Turnip.....	1 oz. to	150 feet drill.

QUANTITY OF SEED USUALLY SOWN UPON ONE ACRE.

(PROVIDED YOU USE DORR'S IOWA SEEDS.)

Barley, broadcast.....	2½ bu.	Mustard, broadcast.....	6 lbs.
Beans, Dwarf, drills.....	1 "	Oats, broadcast.....	2½ bu.
Pole, hills.....	¼ "	Onion, drills.....	5 lbs.
Beet, drills.....	4 lbs.	" for sets.....	30 "
Broom Corn, drills.....	10 "	Parsnip, drills.....	5 "
Buckwheat, broadcast.....	¾ bu.	Peas, drills.....	1½ bu.
Cabbage, in beds, to transplant.....	¼ lb.	broadcast.....	3 "
Carrot, drills.....	2 lbs.	Potatoes, hills.....	8 "
Clover, Alsike.....	6 "	Radish, drills.....	8 lbs.
Lucerne, or Alfalfa.....	8 "	Rye, broadcast.....	1½ bu.
Large Red.....	8 "	Sage, in beds, to transplant.....	1 lb.
Medium Red.....	8 "	Salsify, drills.....	8 lbs.
White Dutch.....	6 "	Spinage, drills.....	10 "
Crimson Trefoil.....	10 "	Squash, hills.....	2 "
Bokhara.....	4 "	Sugar Cane, drills.....	10 "
Corn Salad.....	5 "	Tomato, in beds, to transplant.....	2 oz.
Corn, field, hills.....	6 qts.	Turnip, drills.....	1 lb.
sweet, hills.....	8 "	Vetches, broadcast.....	2 bu.
" for fodder.....	2½ bu.	Wheat, broadcast.....	2 lbs.
Cucumber, hills.....	1½ lbs.	drills.....	1½ "
Flax, broadcast.....	½ bu.		
Grass, Kentucky Blue.....	2 "		
Hungarian.....	½ "		
Millet.....	½ "		
Mixed Lawn.....	3 "		
Orchard.....	2 "		
Perennial Rye.....	2 "		
Red Top.....	2 "		
Timothy.....	12 lbs.		
Fowl Meadow.....	2 bu.		
Wood Meadow.....	2 "		
Hemp.....	½ "		
Melon, Musk, hills.....	2 lbs.		
Water, hills.....	1½ "		

GRASS SEED, FOR MOWING.

Clover.....	{ Together }	{ 5 lbs. or 7 lbs. }	Clover.....	6 lbs.
Timothy.....			Timothy.....	6 "
Red Top.....			Red Top.....	6 "

GRASSES, FOR LAWNS.

Blue Grass, alone.....	3 bu.
Red Top, alone.....	3 "
Perennial Rye Grass.....	3 "
Mixed Lawn, Central Park Mixture.....	6 "

Much larger quantities of Seed are required to make an elegant lawn, than for other purposes.

LEGAL WEIGHTS—(Revised Code of Iowa.)

SEC. 2049. A bushel of the respective articles hereafter mentioned will mean the amount of weight in this section specified: That is to say:

	Lbs.		Lbs.
Of Wheat.....	60	Of Salt.....	50
Of Corn, shelled.....	56	Of Stone Coal.....	80
Of Corn in cob.....	70	Of Sweet Potatoes.....	46
Of Rye.....	56	Of Lime.....	80
Of Oats.....	32	Of Bushel of Sand.....	130
Of Barley.....	48	Of Hungarian Seed.....	48
Of Potatoes.....	60	Of Millet Seed.....	48
Of Beans.....	60	Of Osage Orange Seed.....	32
Of Bran.....	20	Of Sorghum Sacch. Seed.....	30
Of Clover Seed.....	60	Of Broom Corn Seed.....	30
Of Timothy Seed.....	45	Of Apples and Peaches.....	48
Of Flax Seed.....	56	Of Quinces.....	48
Of Hemp Seed.....	44	Of Cherries and Grapes.....	40
Of Buckwheat.....	52	Of Currants and Gooseberries.....	40
Of Blue Grass Seed.....	14	Of Strawberries.....	32
Of Castor Beans.....	16	Of Raspberries.....	32
Of Dried Peaches.....	33	Of Blackberries.....	32
Of Dried Apples.....	24	Of Coke.....	38
Of Onions.....	57	Of Charcoal.....	20

NUMBER OF PLANTS OR TREES TO THE ACRE AT GIVEN DISTANCES.

Dis. apart.	No. plants.	Dis. apart.	No. plants.
$\frac{1}{2}$ foot.....	174,240	8 feet.....	680
$\frac{1}{4}$ ".....	43,560	9 ".....	573
$1\frac{1}{2}$ feet.....	19,360	10 ".....	435
$1\frac{1}{4}$ ".....	10,890	11 ".....	360
$2\frac{1}{2}$ ".....	6,969	12 ".....	302
$2\frac{1}{4}$ ".....	4,840	15 ".....	198
3 ".....	2,722	18 ".....	134
4 ".....	1,742	20 ".....	100
5 ".....	1,210	25 ".....	69
6 ".....	889	30 ".....	49
7 ".....			

Valuable Agricultural Books for Sale by C. W. Dorr & Co.

MAILED, POST-PAID AT THE FOLLOWING PRICES:

Farm and Garden.

Allen's New American Farm Book.....	\$2 50
Barry's Fruit Garden.....	2 50
Brill's Farm Gardening and Seed Growing.....	1 00
Broom-Corn and Brooms; paper, 50c; cloth.....	75
Flax Culture. By seven practical growers.....	30
Fitz's Sweet Potato Culture.....	40
Gregory on Squashes.....	30
Harris on Gardening for Young and Old.....	1 25
Henderson's Gardening for Pleasure.....	1 50
Henderson's Gardening for Profit.....	1 50
Hop Culture. By nine experienced cultivators.....	30
Johnson's How Crops Feed.....	2 00
Johnson's How Crops Grow.....	2 00
Oemler's Truck Farming at the South.....	1 50
Onions—How to Raise Them Profitably.....	20
Our Farm of Four Acres; paper, 30c; cloth.....	60
Quinn's Money in the Garden.....	1 50
Riley's Potato Pests; paper, 50c; cloth.....	75
Roe's Play and Profit in My Garden.....	1 50
Silos and Ensilage.....	50
Stewart's Irrigation for the Farm.....	1 50
The Soil of the Farm.....	1 00
Thomas's Farm Implements and Machinery.....	1 50
Tobacco Culture. By 14 experienced Cultivators.....	25
Warrington's Chemistry of the Farm.....	1 00
White's Gardening for the South.....	2 00

Fruits and Flowers.

A Fern Book for Everybody. Colored plates.....	50
American Rose Culturist.....	30
American Weeds and Useful plants.....	1 75
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FORMATION AND MANAGEMENT OF VEGETABLE GARDENS.

SITUATION AND EXPOSURE.—The vegetable garden should never be in an orchard, or have trees or shrubs within it. If the space must accommodate both fruit and vegetables, it is better to set the fruit at one end so as to leave the portion for vegetables unbroken and unshaded, even if it is much smaller. On the farm, it should be so placed as to be easily reached from the barn, to facilitate horse cultivation. Abrupt slopes in any direction are to be avoided. A gentle inclination to the south and east is the warmest, will give the earliest vegetables and be best for Corn, Melons, Tomatoes, etc., but it suffers more from a Spring or early Fall frost, because of receiving the direct rays of the morning sun. An inclination to the north and west is later, suffers less in a drought, and is the best for Pear, Cabbage, Luttuce, etc. So it is an advantage in a large garden, to have both these exposures, but for small gardens a gentle inclination to the south or east, or a level surface, is the best.

SOIL.—A good garden *can* be made on *any soil*, but that best suited to the purpose, is a deep, rich, friable loam—and the more nearly other soils can be made to approach this the better. This may be accomplished in tenacious clays (and must be for a good garden), by good drainage, deep and judicious cultivation, use of coarse manure, and liberal applications of leached ashes, sand, and in some cases of peat. If the soil is naturally too light and sandy, it may be improved by rolling and the use of large quantities of well composted manure and muck, and dressings of clay.

SIZE AND FORM.—A single bed ten feet square well manured, well spaded, and thoroughly cultivated and cared for will produce more *good* vegetables, be more profitable, and give better satisfaction, than an acre unmanured, half prepared and poorly cared for. Our golden rule for size is, make your garden *no larger* than you can prepare and care for in the best possible manner. If it has all to be done by hand, it will take the entire time of one man to keep in good order a garden of one acre, but if it is so arranged that the horse cultivator can be used, he can care for four times that area. In village gardens, the form is usually determined by that of the lot, but where there is a choice, a rectangle several times longer than wide, the sides running from north to south, is the most economical; if this can be so placed that a space eight feet wide at both ends or along both sides can be left for a horse to turn in, it will be a great advantage.

DRAINAGE.—Nothing is more essential for a good garden than good drainage. It is impossible to raise a supply of fine vegetables without it. If the soil is at all wet, it should be well drained with tile, but if this is not possible, something can be gained by plowing or throwing the soil up into beds from six to thirty feet wide, with smooth bottomed trenches between them to collect and carry off the surface water.

MANURES.—For garden purposes there is nothing better than well-rotted stable manure, with which tobacco stems, bones (which after a few weeks in fermenting manure will crumble to powder), leaves, or any refuse vegetable or animal matter may be composted with advantage. This should be plowed in unless the soil is quite sandy and the manure very fine, when it may be applied on the surface and simply harrowed or raked in. Plaster, salt, wood ashes, guano, ground bone, all are valuable and can be used to advantage in connection with the stable manure. Plaster should not be applied until the plants are well up. Ashes and salt should not be mixed with the other manures, and may be sown broadcast and raked in just before planting. Guano, ground bone, and superphosphate give better results if only one-half is sown broadcast at planting and the balance when the vegetables are half-grown. In some cases, sand, leached ashes and peat on clay soils, and clay and muck on sandy soils will prove as valuable as manures. (Occasionally a spot which has been used for a garden for many years will become unproductive in spite of liberal manurings. We know of no other remedy than to abandon it for a garden, seed down to clover and allow it to remain for two years, when it may be plowed under, and the garden will be found to have regained its original fertility.

PREPARATION OF THE GROUND.—Thorough preparation of the ground is of vital importance in raising good vegetables; if this work is well done, all that follows will be easier. The garden should be *well* plowed or spaded, taking care if it is a clay soil that the work is not done when it is too wet. If a handful from the bottom of the furrow moulds with slight pressure into a ball which cannot be easily crumbled into fine earth again, the soil is too wet, and if plowed then will be hard to work all Summer. The surface should be made as fine and smooth as possible with the harrow or rake, and in the case of sandy soils, it should be rolled with a heavy roller. It is generally necessary to plow the whole garden at once, and to do this in time for the earliest crops, but the part which is not planted for some weeks should be kept mellow by frequent cultivation. Stiff clay soils are frequently wonderfully improved by trenching, that is spading two feet deep in such a way as to leave the surface soil on top. This is accomplished by digging a trench two feet wide across one side and a second one adjoining and parallel with it, one spade deep. The remaining earth of the second trench is then thrown into the first and covered with the surface soil from a third trench; the balance of the third is then thrown into the second and covered with the surface of the fourth; and so on until all is worked over, when the soil from the first trench is used to fill the last. This is quite expensive, but frequently changes a soil upon which nothing can be grown, into one producing the finest vegetables, and its effects last for several years.

The number of rows of each vegetable and the relative proportion of each may be varied according to the wants of the family, but the proportion given here will be found to suit most families who depend upon the garden for both Winter and Summer Vegetables.

If necessary, the turning ground at both ends may be filled with Winter Squashes, as these are planted so late and at such a distance apart that they would not seriously hinder the turning of a steady horse with a careful driver. Whatever the arrangement followed may be, we earnestly urge that every effort be made to secure

straight and perfect rows. There is perhaps no one thing that will make the subsequent cultivation easier, or contribute more to the owner's satisfaction in his garden than this, and a little extra effort in this respect at the first will give pleasure all through the season.

SOWING THE SEED.—There is no more prolific source of disappointment and failure among amateur gardeners than hasty, careless or improper sowing of the seed. A seed consists of a minute plant minus the roots, with a sufficient amount of food stowed in or around it to sustain it until it can expand its leaves, form roots and provide for itself, the whole inclosed in a hard and more or less impenetrable shell. To secure germination moisture, heat and a certain amount of air are necessary. The first steps are the softening of the hard, outer shell, the developing of the leaves of the plant from the absorption of water, and the changing of the plant food from the form of starch to that of sugar. In the first condition the food was easily preserved unchanged, but the plant with its undeveloped leaves and no root was incapable of using it, while in its sugary condition it is easily appropriated; but if not used it speedily decays itself and induces decay in the plant. A seed then may retain its vitality and remain unchanged for years, while after germination has commenced, a check of a day or two in the process may be fatal. There is no time from that when the seed falls from the parent plant until it in turn produces seed, ripens and dies when the plant is so susceptible of fatal injury from the overabundance or want of heat and moisture as that between the commencement of germination and the formation of the first true leaves, and it is just then that it needs the aid of the gardener to secure favorable conditions. These are:

First—A proper and constant degree of moisture without being soaked with water. This is secured by making the surface of freshly dug soil so fine that the smallest seeds may come in immediate contact on all sides with the particles from which they are to absorb the required moisture, and the pressing of the soil over the seeds so firmly with the feet or the back of the hoe, that the degree of moisture may remain as nearly as possible the same until the plants are up.

Second—A proper degree of heat, secured by sowing each variety of seed when the average temperature of the locality is that most favorable for its germination. This may be learned from a careful study of the following pages and the experience of the most successful gardeners of your vicinity.

Third—Covering the seed to such a depth that while it is preserved at a uniform degree of heat and moisture, the necessary air can readily reach it, and the tiny stem push the forming leaves into the light and air. This depth will vary with different seeds and conditions of the soil, and can be learned only from practical experience. In general, seeds the size of the Turnip should be covered with half an inch of earth pressed down, while Corn may be an inch, Beans two or three, and Peas two to six inches deep.

Fourth—Such condition of soil that the ascending stem can easily penetrate it, and the young roots speedily find suitable food. We can usually secure this by thorough preparation of the ground, and taking care *never to sow fine seeds when the ground is wet*. Occasionally a heavy or long continued rain followed by a bright sun will so bake and crust the surface that it is impossible for the young plant to find its way through it, or a few days of strong wind will so dry the surface that no seed can germinate. In such cases our only remedy is to try again.

CULTIVATION.—Every weed should be removed as soon as it appears, especially while the plants are young; this will require almost daily attention, but if well done early in the season, the later work will be light, but mere destruction of weeds is by no means the only object of cultivation. A. J. Downing, who was perhaps the best horticulturist America has known, said: "If I were to preach a sermon on horticulture, I should take as my text, 'STIR THE SOIL,'" and certainly the text would contain much of the gospel of successful gardening; frequent and deep stirring will enable one to grow fine vegetables on comparatively poor and slightly manured soil, while without it one fails to gain much advantage from the richest and finest soil. Care should be taken that the cultivation is not done when the soil is wet, or Peas, Beans and Melons stirred when the leaves are wet with dew, as such disturbance is liable to injure the leaves, and make them susceptible to injury from rust. With this exception cultivate as often and as thoroughly as possible.

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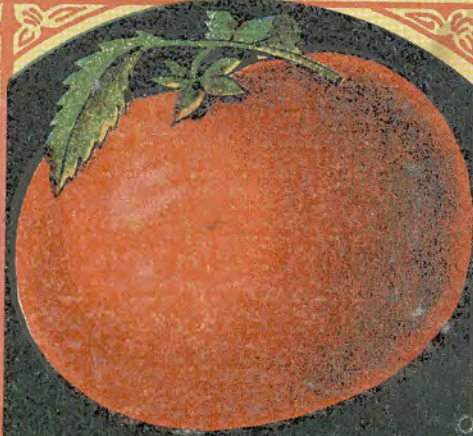
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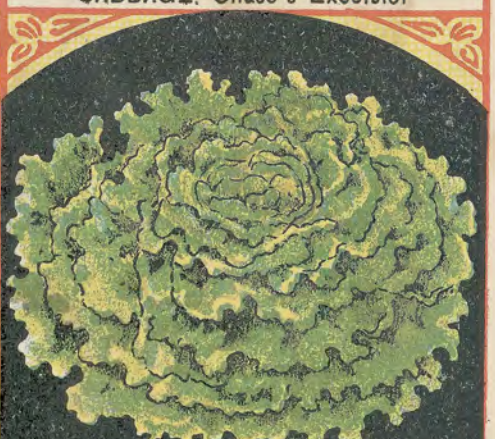
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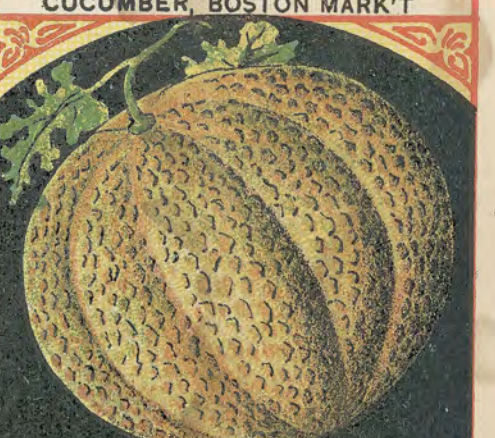
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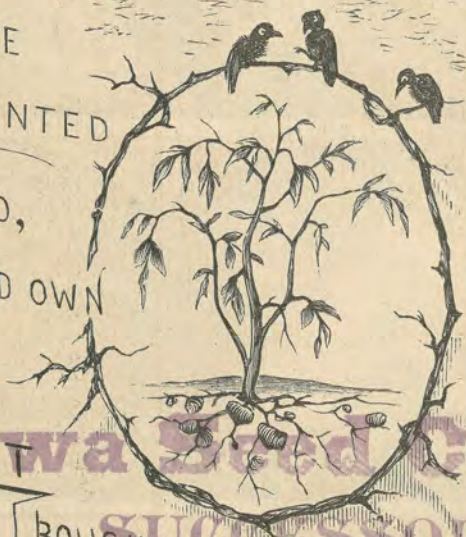


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