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ESTABLISHED 1837

P. B. Mingle Co.

1919

Guide for Clover
Grass, Field and Garden
Seed Buyers

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Dealers in Brooder Stoves,
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103 Market and 4 North Front Street
PHILADELPHIA, PA.

MINGLE'S SEED

FOR

SPRING SEEDING, 1919

SPECIAL NOTICE

Circumstances beyond our control make it necessary to notify our customers that shortages of seed stocks, caused by European War trouble affecting both harvesting and shipping of crops or weather conditions in our own country causing blight and disease may make delays in deliveries.

Therefore all orders will be accepted subject to such conditions.

We also state that we purchase our seeds and other plants or bulbs from growers of known integrity and their representations for purity of seeds and etc., have always been accepted. We therefore wish to emphasize non-warranty of seeds noted below.

The firm of P. B. Mingle Co. has been engaged in the seed business in the same building, No. 103 Market Street and No. 4 North Front Street, uninterruptedly since 1837, and is well known among its patrons as

HEADQUARTERS FOR CLOVERS, GRASS AND VEGETABLE SEEDS, BULBS, ROOTS, AND PLANTS,

being one of the largest handlers in this State.

Strict, personal application to the details of so large a business has earned them a valuable reputation as thoroughly reliable seedsmen, whose representations as to the quality of the goods they offer can implicitly be relied upon.

TERMS OF SALE—Cash with order.

REMITTANCE—May be made by draft on New York or Philadelphia, postal money-order, check, or cash by Express or registered mail.

PERSONAL CHECKS from unknown patrons will be cashed before order is executed.

POSTAGE—We pay postage on 5c. and 10c. packets and ounces of Garden and flower seeds. Packages of 50 lbs. and under can be sent by parcel post. Postage in First Parcel Post zone (50 miles), is 5c. per lb., and 1c. extra for each additional pound. In Second Postal zone (100 miles), 5c. per lb., and 2c. extra for each additional

pound. When, owing to bulk or weight, seeds cannot be sent by mail, we deliver free to express or freight stations in Philadelphia, the purchaser paying all other transportation charges.

PROMPT ATTENTION—Anticipating the wishes of our customers, we give orders our prompt attention on the day they are received, and if for any reason, delay is unavoidable, we send prompt notice.

NON-WARRANTY OF SEEDS—It is a well-known fact that unfavorable weather (cold and wet, or hot and dry) has an unfavorable bearing on the germination of seeds, causing partial or complete failure of the crop; or the seeds may be, and frequently are, destroyed by insects of various kinds; therefore, while we exercise the greatest care to have all seeds pure, reliable and true to name, our seeds are sold without any warranty, expressed or implied, and without any responsibility on our part as to results of crop. If the purchaser does not agree to these terms the seeds are at once to be returned to us.

ORDER EARLY—We are prepared to fill your orders as soon as this catalog reaches you, so please order early. You will aid us and get quicker service by doing this.

USE THE ORDER SHEET—We place an order sheet in each catalog. Please use same in ordering. It will aid us considerably in getting up your orders.

Space in this catalog will not permit description of every article we sell, therefore, if there be anything you wish in our line write us for prices, if we don't have it we will get it and if we can't get it, it is not made.

CLOVER SEEDS

ALFALFA—Alfalfa is the most talked of and most widely planted of all the varieties of clover in the world.

The U. S. Department of Agriculture says: "In addition to the hay crop, Alfalfa at two years adds \$100 to the value of every acre on which it grows. There is no State in the Union in which Alfalfa cannot be successfully grown." This is saying a good deal but it has been proven true.

Alfalfa will produce 4 to 6 tons of hay to the acre each year and in money value is worth 45 per cent. more than other clovers and 60 per cent. more than Timothy hay. It will grow 4 crops a year and it does not exhaust the soil; it enriches the soil. Its long, branching roots penetrate far down, 15 to 20 feet, and so loosen the subsoil that it is a gigantic subsoiler, resists drought, and gets plant food where other crops would be a failure. When the plants are destroyed in order to raise other crops on Alfalfa Land, the large roots decay and produce a vast source of fertility to be used by following crops.

It is said that the feeding value of a ton of Alfalfa is equal to a ton of shelled corn.

Many other interesting facts might be given about Alfalfa. We can't say too much for it because it's a working plant which is changing the destiny of many farming sections. No farmer with stock can afford to let it go without trial.

Although fall sowing is preferable, good results can be obtained from early spring sowing. Give it care and attention, especially the first year, and your trial will show you that you cannot afford to be without it. Get it thoroughly established by first preparing your land, applying plenty of lime, and before seeding you should inoculate the seed. If your land has never had Alfalfa growing on it before be sure to inoculate the seed with nitrogen gathering bacteria for Alfalfa, for without inoculation your success is exceedingly doubtful. The Alfalfa bacteria, Mulford's Nitro Culture, is fully described on page 4.

When once established, Alfalfa is the most valuable permanent clover that can be grown. It is adapted to all parts of the United States and has the highest feeding value of any hay. Do not sow on wet ground, high and rather dry being preferable, and only cut when coming into bloom. Sow 20 lbs. per acre. Per bushel (60 lbs.) Market Price

ALSIKE, OR SWEDISH CLOVER—This is somewhat similar in growth and appearance to Red Clover, but it is hardier and stands cold weather better than Red Clover, and where conditions of soil and lateness of seeding make any possibility of winter-killing, it is advisable to sow Alsike Clover, or at least to sow it in mixtures with other clovers. It does well on stiff or clay soils. It is a perennial and possesses long fibrous roots, taking a deep hold on the soil. Sow in the Spring or Fall at the rate of 12 lbs. per acre. Per bushel (60 lbs.) Market Price

CRIMSON OR SCARLET CLOVER—Or more commonly called Scarlet, Italian or German Clover, is an annual of French origin, makes a growth from 20 to 30 inches high, has a bright crimson blossom from 1½ to 3 inches long, and when in full bloom with its luxuriant growth of green foliage and its crimson bloom, is a thing of beauty. It is a winter crop, and should be sown in July, August or September of each year. As a manurial crop it is worth in fertilizer value thirty to forty dollars per acre. Sow at rate of 15 lbs. per acre. Per bushel (60 lbs.) Market Price

MAMMOTH, SAPLING OR PEA VINE CLOVER—This is similar to Medium or Common Red Clover both in the appearance of the seed and its habit of growth, the difference being that it usually grows larger and is later maturing. It is

considered superior as an improver on account of the extra growth. It is a good variety for thin soils, or to seed with Timothy, meadow Fescue or Herds Grass or Red Top, as it matures about the same time as these grasses. Is best adapted for ploughing under as green manure; it grows five or six feet high, has large, coarse stalks, which are not liked by cattle. It is not ready to cut for hay until long after the common variety, and when cut leaves the ground bare, making no second growth. Sow about 12 lbs. per acre, if sown alone; or with Timothy sow 6 lbs. of the clover and 8 lbs. of Timothy, which should make a liberal seeding. Per bushel (60 lbs.) Market Price

MEDIUM, OR COMMON RED—This is the most important of all varieties of Clover for practical farm purposes; makes excellent pasturage, and fine hay crops when sown with Timothy, Orchard and other grasses, as the latter ripen about the same time. It is one of the best fodders for milch cows or sheep, and improves the land by adding humus to the soil.

It is a perennial, growing to a height of 1½ to 2 feet, yields crops several years from one seeding, and on good land, yields two to three cuttings annually. It should be cut for hay when in full bloom.

Sown by itself sow, either in Fall (July 1st to Sept. 5th) or in Spring (Feb. 1st to April 15th) at the rate of twelve to fifteen pounds per acre, according to nature of the soil. Per bushel (60 lbs.) Market Price

WHITE BLOSSOM, SWEET CLOVER OR BOKHARA—Is a hardy biennial plant of an erect and branching habit.

It starts up early in the Spring and in its second year it reaches a height of from 5 to 12 feet, blooms, matures its seed and dies.

However, there is usually enough seed scattered to reseed, and the crop is continuous unless cut before seed ripens.

When young it resembles Alfalfa. Sweet Clover has a peculiar bitter taste. The flowers and leaves possess an odor like vanilla. It is an excellent bee food. Grows well in all climates and soils, whether gravel, clay or sand.

Stands droughty weather equally as well as alfalfa, yet will grow in wet places.

Is a deep rooting legume, storing up Nitrogen like Cow Peas, thus possessing great fertilizing properties. Two crops can be cut in a season. It is a good silo feed.

Sow in Fall or Spring, 25 lbs. per acre. Per bushel (60 lbs.) Market Price

YELLOW ANNUAL SWEET—This being only an annual and much smaller in growth, is not so desirable. To be sown early in Spring at rate of 25 lbs. per acre. Per bushel (60 lbs.) Market Price.

WHITE DUTCH CLOVER—A small, low growing variety, with creeping stems; mixed with Blue grass or Perennial Rye Grass, or Timothy, it makes a permanent pasture of great value. It is very largely used in lawn and pasturage mixtures, and is indigenous to the soils throughout this section. It makes a small, close, compact growth, covering the ground like a carpet. Succeeds and does well all throughout the North. Its blossoms are round, white, tinged with red, and sweet scented; stems fine and palatable, with numerous leaves of bright green color, blotched with white. Sow either in the Spring or Fall. When sown by itself, sow at the rate of ten lbs. per acre. It is better, however, sown in mixture with other grasses. Per bushel (60 lbs.) Market Price

GRASS SEEDS

BLUE GRASS—Perennial. Height, 10 to 15 inches. This valuable grass is suited to a variety of soils, from an average dry one to moist meadows, and makes an excellent pasture grass, producing a most nourishing food for cattle, retaining its qualities till a late period in Winter and further South affording abundant food during the Winter. It is very productive, unusually early, and presents a beautiful green appearance in early Spring, while the other grasses are yet dormant. It makes a splendid lawn grass, when blended with other grasses. Sown by itself, either in Spring or Fall, 40 to 50 pounds per acre are required. Per bushel (14 lbs.) Market Price

TIMOTHY—This crop is cut for hay; probably surpasses any other grass in cultivation; it thrives best on moist, loamy soils, and is not well suited to light, sandy or gravelly soils; it should be cut just when the blossom falls. Sow either in Spring or Fall, at the rate of 12 lbs. per acre, if alone, but less if mixed with other grasses. Per bushel (45 lbs.) Market Price

CREeping BENT—This grass somewhat resembles the Herds or Red Top Grass in appearance and growth, and is considered by many as equal to or superior to the latter. Is excellent for moist locations. It has creeping roots holding tenaciously to the soil, and is therefore valuable in lawn mixtures, resisting tramping.

When sown alone use 25 to 30 lbs. per acre. Per bushel (16 lbs.) Market Price

EMBANKMENT GRASS—This mixture is intended for terraces, slopes and railway embankments, and is made up of the

best soil binding as well as slender rooted varieties, to secure a rich green and substantial turf. Per bushel (15 lbs.) Market Price

GREEN GRASS—This is the grass "par excellence" for lawns, making a fine close surface of dark green velvety color. It is very sensitive to good treatment, and will in most cases drive out the other grasses and take possession of the soil. Should be sown not less than two bushels per acre. Per bushel (15 lbs.) Market Price

HARD FESCUE—A sub-variety of Sheeps Fescue, growing about 2 feet high. It is a small, even, tuft-forming grass with narrow blades and still finer bottom leaves of a deep green color. It thrives on both medium and light soils, and is frequently used in lawn mixtures. Per bushel (12 lbs.) Market Price

HERD OR RED TOP GRASS—A permanent and very hardy native perennial grass, succeeding best on moist land, making a good pasture when fed close; is valuable for low, wet meadows, producing large crops of good hay. It accommodates itself to a variety of soils, however, even to quite dry situations, and stands our hot climate admirably. It is, perhaps, the most permanent grass we have. It remains green for the greater part of the year; sown with Timothy and Red Clover, its stems form a very close matting turf, not affected by tramping, and of fair quality when not allowed to go to seed. Sow 1½ to 2 bushels per acre. Per bushel (10 lbs.) Market Price

HERD OR RED TOP—Fancy Recleaned—This is the pure seed of Herd or Red Top with the lighter seeds and chaff screened out, and therefore sells at a much higher price. We furnish extra clean stock only. Per bushel (32 lbs.) Market Price

ITALIAN RYE GRASS—When sown alone early in Spring it thrives quickly and can be mowed twice the same year and produces fine fodder. The Italian Rye Grass, being an annual, is preferable to the Perennial, where a one year's stand only is required, but if the field is to stand over the second year we would prefer the Perennial, as it is stronger, but, on the other hand, the Italian gives larger yields, and is less hard and wiry. Per bushel (20 lbs.) Market Price

MILLET—GERMAN OR GOLDEN MILLET—A much improved variety, medium early, growing three to five feet high; the heads are closely condensed, though the spikes are very numerous. It is an enormous cropper; should be sown not less than one bushel per acre, if less will grow coarse and woody, in which state it is not relished by cattle. Millet is somewhat difficult to cure, and if it can be matured early enough to get the warm sun of August or September, it will be a decided advantage, but sixty days is usually long enough to grow it for hay. It should be cut for hay as soon as it comes into blossom.

It must be remembered that Tennessee German Millet is the best in the world, being sown and cultivated for seed and compared with seed grown elsewhere the Tennessee grown is purer and better in every way.

Sow one to one and a quarter bushel per acre. Per bushel (50 lbs.) Market Price

SUDAN GRASS—A forage grass of great possibilities. This grass possesses all the good qualities of Johnson Grass, but minus the bad feature of Johnson Grass, whose roots spread out from year to year, becoming a nuisance.

Sudan Grass is an annual and must be seeded each year. This makes it fit nicely into any system of rotation, and while it does not benefit the soil like legumes, it does afford changes in crops. It does not injure the ground.

Sudan Grass is tall, reaching a height of 7 to 9 feet. The stems are small, rarely thicker than a lead pencil. The plant stools wonderfully, sometimes producing as many as a hundred stalks from one root.

Yields a fine crop of hay of first class quality; all stock greatly relish and thrive on it. It yields under favorable conditions about 4 tons per acre.

Seeding time for Sudan Grass is when soil has become warm in Spring, about May 1st being a good time in this latitude.

Can be sown in drills, rows or broadcast. For sowing in drills or broadcast, 16 to 24 lbs. per acre. If seeded in rows 36 in. to 42 in. apart, 2 to 3 lbs. per acre. When put in rows should be cultivated like corn. Per lb.

MILLET—HUNGARIAN—This belongs to the millet family, growing less rank, with small stalks often yielding two to three tons of hay per acre; like millet it is an annual, and requires to be sown every season, but will produce a larger return than almost any other crop. Sow one bushel per acre and cultivate like millet; all kinds of stock eat it with avidity.

Per bushel (48 lbs.) Market Price

MILLET—JAPANESE, OR BARNYARD—Frequently called the Billion Dollar Grass. An excellent fodder plant, growing from 6 to 8 feet high, producing 12 to 20 tons of hay per acre.

It is more tender than most tall varieties of millet. Sow from May 15 to end of July. If broadcast, only 12 lbs. per acre; if drilled, 8 lbs., as it is a remarkable stooler.

It makes fine hay or green fodder, and is much relished by horses and cattle. Per bushel (32 lbs.) Market Price

ORCHARD GRASS—A most valuable grass for pasture or hay land, and on account of its earliness very valuable for permanent pastures. It furnishes the first green bite in the Spring two weeks earlier than most grasses, and when fed off is again ready for grazing in a week, and the last in the Fall, and is quick to recover from close cropping, and even thrives better

the more it is cropped. It is palatable and nutritious and stock eat it readily when green; it will also withstand severe drought, keeping green where many grasses wither, and will endure considerable shade as in orchards and groves.

Sow 1½ to 2 bushels per acre. Per bushel (12 lbs.) Market Price

PASTURE GRASS SEED (for permanent pastures)—Having given our attention to grasses for this purpose for many years, and after practical results and experience, we have succeeded in creating a mixture which we can highly recommend.

If there is any land you wish to set in permanent pasture, we can supply you with a mixture of any description required or a special mixture admirably suited for this purpose at a very reasonable cost. We are headquarters for all kinds of grass seeds and can save you money on your purchases. Of the ingredients in it, the Timothy and the Clovers come right along and give some feed the year of sowing and a good deal of it the next year, while it isn't till that year that the Blue Grass begins to show. But where the Red Clover begins to disappear and the Timothy gets thin the Blue Grass is just setting up in business and the other grasses are not missed. And when established the Blue Grass is a stayer, and it and the White Clover, which also sticks, makes a combination that is all right.

Sow 2½ to 3 bushels per acre. Per bushel (15 lbs.) Market Price

PERENNIAL RYE GRASS (or English Rye Grass)—A nutritious permanent grass for meadows and pasture, or for mixing with other grasses for lawns. Does well on sloping banks, as its roots are fibrous and mat-like. Is especially adapted for pastures, as it will endure close cropping, and is one of strong, quick and successive aftergrowth. It produces an abundance of foliage which remains bright and green throughout the season, and for this reason is also much used for lawn grass mixtures. It is also well adapted for permanent meadows, and yields large quantities of very nutritious hay, which is well liked by all kinds of stock. Does well on almost any land, but prefers rich or moist soil, such as will produce a good corn crop. Should be sown in the Spring in quantities of one and a half to two bushels per acre. Per bushel (20 lbs.) Market Price

RED FESCUE—A partly creeping, partly tuft-forming bottom grass, with sparse, narrow blades, useful for both grazing and hay-making purposes. It thrives on all soils, even on dry sandy bottoms, and forms a rather thickly covered turf, leaving very little room for weeds to come through. It is one of the earliest grasses, and comes to the front at a time when young fodder is most looked for. It is useful in small proportion in mixtures for permanent pastures on heavy soils. Its dark-green narrow blades make it useful grass for lawns under shade. Per bushel (12 lbs.) Market Price

RHODE ISLAND BENT—A creeping variety, but more tuft-forming than the Creeping Bent, and not quite so productive in fertile stems and foliage. Answers very well in lighter soils, but, unlike the Creeping Bent, it has a tendency to get hard and strawy, and when in this condition is not relished by cattle. It should be cut just before or during bloom.

Sow 4 bushels per acre. Per bushel (12 lbs.) Market Price

SHEEP'S FESCUE—A densely tuft-forming perennial grass, deep-rooted and growing 20 to 25 inches high, with very little small bottom and stalk-forming foliage. Grows well on both medium and light sandy soils, having a preference for the latter. It is of medium maturity, but secondary only in regard to yield and nutritive value.

It thrives in soils too light, or in want of sufficient rainfall for other grasses to make a permanent pasture, and is extremely well adapted for sheep grazing, hence its name. It should be borne in mind, however, that Sheep's Fescue grows hard and strawy very soon, and for best results should be cut just before or when the plants are in bloom.

Sow 2 to 3 bushels per acre. Per bushel (16 lbs.) Market Price

FIELD AND FORAGE SEEDS

BARLEY—SIX-ROWED—Finest sort for growing in Pennsylvania or New Jersey. Makes a good stiff straw, standing up well. Is the earliest among the beardless varieties, making a quick-growing crop of excellent and nutritious green fodder, and is growing in popularity wherever used, and will also make a good grain crop, although its principal value is as an early nutritious forage crop, to feed green or to cure as hay. If for the latter, it should be cut when in the milky state.

Sow 2½ bushels per acre. Per bushel (48 lbs.) Market Price

BROOM CORN—EARLY EVERGREEN—This variety is the most popular to sow for market. It is a very bright green color. Makes by far the best brooms of any corn grown, and commands the very highest prices. Height, 7 to 8 feet.

Sow in drills 12 lbs. per acre, or in rows 8 to 10 lbs. per acre. Per bushel (46 lbs.) Market Price

BUCKWHEAT—SILVER HULL—This variety has a large, plump, silvery grain. The plant continues to bloom longer than common Buckwheat, thus producing a larger crop. Per bushel (48 lbs.) Market Price

BUCKWHEAT (Japanese)—This variety of Buckwheat is a great improvement over the old kind in the following respects: The new Japanese grows with astonishing vigor and begins to mature its grains in about fifty days, its extreme earliness insuring safety from frosts, where the other kinds often get caught. 2d. A most valuable quality is its ability to withstand wind-storms and not lodge. 3d. It holds its grain in harvesting. It has been known to stand uncut a month after its proper time for ripening, and without apparent loss from lodging or grains separating. 4th. In yield it excels, one peck yielding from 36 to 52 bushels. Its flour is the whitest and finest of all Buckwheat. 5th. It will do well on soil too rich or too poor to support the old varieties. 6th. It will withstand sunlight almost perfectly.

Sow one bushel per acre. Per bushel (48 lbs.) Market Price

CANADA FIELD PEAS—When sown alone or with oats they have long been recognized as one of the best feeding and fattening forage crops for young stock and hogs to carry them during the midsummer and drought period of July and August. Sow 2½ bushels per acre alone; if sown with Oats sow 1½ bushel Peas to 1¼ bushels Oats. Per bushel (60 lbs.) Market Price

COW PEAS—The Southern Cow Pea (in reality a bean) has been cultivated in the South for many years, but only in recent years has it been demonstrated that most all varieties are adapted to cultivation throughout the entire United States. They now are one of our most valuable farm products.

As a fertilizer they come next to clover, to be plowed under when they commence to blossom; they will grow on land that will not produce clover.

As a fertilizer crop it excels all others, absorbing from the air more nitrogen than clover, and drawing from the subsoil large amounts of potash and phosphoric acid, depositing these fertilizer elements in the surface soil, just where needed for succeeding crops.

Cow peas afford excellent midsummer pasturage, but the best way for using green is to cut and feed to stock. Sow 1½ to 2 bushels per acre broadcast.

BLACK—A standard trailing variety; and very extensively grown. Very prolific; early to mature; somewhat later than Whippoorwill. Makes a fine growth of foliage. Per bushel (60 lbs.) Market Price

BLACK-EYE—(Black-eyed Susan, or Sand Pea)—Later than Whippoorwill. Vines erect. Fodder long. An excellent soil improver. Similar in growth of vine and action of roots upon the soil as the other Cow Peas. Per bushel (60 lbs.) Market Price

GRAY CROWDER, OR IMPROVED WHIPPOORWILL—Very early in maturity. The vines are not runners, but grow erect in bunches. The seed is brown speckled. Per bushel (60 lbs.) Market Price

NEW ERA—Upright in growth, quicker to mature than Whippoorwill, prolific in peas. The vines make a large growth, cure easily, and make fine, dry forage. The seeds are of a dull red color, and, being smaller than ordinary Cow Peas, less seed is required to sow an acre, 1 to 1½ bushels being ample.

Per bushel (60 lbs.) Market Price

WHIPPOORWILL—An early erect-growing bunch variety. The seed is brown speckled and more easily gathered than from the vine-growing sorts. Early in maturity and habit of growth. Good between corn.

Per bushel (60 lbs.) Market Price

VETCH—SPRING—(Vicia Sativa)—Culture same as for peas. Valuable as a cover crop. Sow 2 bushels per acre. It is quicker in growth than Winter Vetch, and makes a splendid forage and hay crop, and is an excellent soil improver. When sown with barley or oats use 1 bushel to 30 lbs. Spring Vetch to the acre. (60 lbs. per bushel) Market Price

VETCH—WINTER—(Vicia Villosa, Sand or Hairy Vetch)—Sand-Vetch is a very valuable forage plant and is rapidly becoming extremely popular as year after year the farmers of this country are learning more of its true value. It is noted for its extreme hardness, is highly valuable in the North as a Winter cover crop to prevent leaching; is also valuable for forage and fertilizing purposes. It withstands hard Winters, being harder than wheat. It is an annual, but drops its seed freely and will come up year after year on the same ground. It belongs to the pea family, but the vines are nearly twice as long and leafy as peas. It may be sown in the Spring or Fall with any crop of grain. It remains green all Winter and is valuable for early pasturing as well as for fertilizing. It is extremely early and has enormous value for feeding purposes. Drought, heat and cold do not affect it. It is eagerly eaten by all kinds of stock.

If sown in April or early May it can be cut in July. Yields 12 to 20 tons green fodder to the acre. Sow ½ bushel per acre. Per bushel (60 lbs.) Market Price

WHEAT—We carry a full line of all the principal varieties of Seed Wheat when in season. Our stock is all re-cleaned on our own premises, and customers can rely upon us to furnish the best and cleanest stock, true to name. Among the sorts offered are Fulcaster, Fultz, Longberry, Miracle, St. Louis Prize and others. Per bushel (60 lbs.) Market Price

FLAX—Farmers should not lose sight of the fact that Flax can be raised where Wheat is raised, and where tried has brought better returns for the amount of labor expended than Wheat.

Sow 30 to 40 lbs. per acre. Per bushel (56 lbs.) Market Price

HEMP—This is a crop that deserves more attention. The fibre is in demand in all markets, and the seed can be marketed for feed.

Sow 1 to 1½ bushels per acre broadcast, or ½ bushel in drills.

Per bushel (40 lbs.) Market Price

SORGHUM—Early Amber—The earliest in cultivation, black hulled, most suitable for hay; is a great hog feed. Sow from April to July at rate of 1 bushel per acre broadcast. In drills, 8 to 12 lbs. Per bushel (50 lbs.) Market Price

SOJA BEAN—Mammoth Yellow—Well adapted for improving poor soils. Is an immense yielder of excellent fodder relished by all cattle. Sow May 15th to June 15th. One-half bushel per acre in drills two and one-half feet apart. Per bushel (60 lbs.) Market Price

KAFFIR CORN—Is becoming more valuable every year because of its drought resisting qualities. Grows 4 to 5 feet high, is very stocky and leafy; valuable alike for forage and grain. Plant from March to July, in rows 3 feet apart, drilling seed thinly like sorghum. If wanted for grain, principally, let heads mature on the stalk and then the whole stalk may be cut for fodder after the seed heads have been cut. If wanted for fodder, mainly, cut down the stalks when first seed heads begin to appear, leaving 4 to 5 inches of stubble. From this stubble will spring a second growth, making an excellent crop of forage and a fair crop of grain. Stalks keep green and juicy to the last. For poultry feed and small grain it is unexcelled.

Sow 5 lbs. per acre in rows 3 feet apart and cultivate same as corn. For fodder 1 to 1½ bushels per acre broadcast or in drills. Per bushel (50 lbs.) Market Price

OATS—WELCOME—Very plump, heavy grain, and close husks. In favorable seasons they will weigh from 40 to 45 lbs. per bushel. This variety grows from 5 to 6 feet high in rich soil and cool locations. The heads branch freely on all sides, and are from 16 to 22 inches in length. The straw is straight.

This variety is well suited to the climate of Pennsylvania and New Jersey. In warmer localities it will not produce so heavily, nor make such heavy grain. It is early in maturity, ripening one week ahead of other sorts. It will yield good crops where other varieties cannot be grown profitably. Per bushel (32 lbs.) Market Price

ONION SETS—(See page 18)

RAPE—DWARF ESSEX—This plant is one of the most valuable forage crops ever introduced into this country and is highly recommended for succulent forage from early Spring to the Winter months. For sheep, swine or poultry it is unexcelled. The feeding value is very high; it is a great fattener.

This seed may be sown in many ways to suit conditions existing in various locations. It may be sown in early spring, or after the soil has produced an early maturing forage crop, or just before the last cultivation of corn. An acre of rape will be ready to pasture in six weeks from time of sowing.

Sow 3 lbs. to an acre in rows 2½ feet apart, or broadcast at rate of 6 lbs. to one acre. Our stock is the genuine Dwarf Essex and not the worthless annual. Per 1 lb. () ; per bushel (50 lbs.) price on application.

RYE—SPRING—This article has proved itself a good cropper and straw producer. It has come to stay. The growth is as tall as the Winter variety. It requires 1¾ to 2 bushels per acre, and the seed product being 20 to 25 bushels per acre. A great many people use it in preference to Winter rye, and think it pays better than oats. District from the Winter rye, grain of finer quality and more productive; and can be successfully grown in any latitude. It is now being largely sown in the North in the place of oats, being a more profitable crop on account of the production of nearly four times the straw. Per bushel (56 lbs.) Market Price

RYE—WINTER—This is one of the most important of farm crops. In the first place it is a sure crop, failures being almost unknown. Every farmer should have at least a few acres of it. It is usually sown in the Fall, and as it grows very vigorously, will furnish pasture till late in the Fall, and also early in the Spring, before other grasses have made a growth. So it is of great value to dairy farmers. If sown early in the Spring it makes an early and abundant pasture, but it makes no grain crop. Grown for the grain alone it will yield good returns. It is a good Spring soiling crop, giving the earliest bite of green stuff, makes fair hay if cut in bloom or before fully headed out. Useful also for a manuring crop if turned under in early Spring. Rye improves worn-out soils. Sow at last working of corn, or by itself from July to November, at the rate of 1¾ to 2 bushels per acre. Per bushels (56 lbs.) Market Price

MINGLE'S HIGH TEST CLOVER, TIMOTHY AND OTHER FARM SEEDS

For many years this firm has specialized in high grade re-cleaned seeds, maintaining a cleaning department for that purpose second to none.

We wish at this time to emphasize this point and to assure our old friends and all intending buyers that there will be no departure from the above rule.

There is an enormous amount of foul seed on the market, we wish to warn you

You don't want to sow buckhorn. It is a very troublesome weed and it is very common in Clover, and is not restricted to foreign seed only, but is found in American grown seed also.

In some states it is a violation of the law to sell untested and uncleaned seed, so beware.

We are continually buying and re-cleaning Timothy Seed of the best Western grown, and we are in a position to sell the best and purest seed at lowest possible prices.

If you don't want buckhorn in your Clover, neither do you want plantain, sorrel or pepper grass in your Timothy.

We are always willing to quote and submit samples.

Prices on all seeds are subject to market changes.

For a
Rich Velvety
Lawn
Sow Mingle's
Finest Velvet
Lawn Seed

Experience
has proven
that Mingle's
Shaded
Lawn Grass
meets all
requirements.

MINGLE'S FINEST VELVET LAWN GRASS—The making and keeping of a lawn depends largely upon the thorough preparation of the soil before the seed is sown, as a good soil foundation is one of the essentials. The soil should be well drained and the top soil should be worked to a depth of 4 to 6 inches and none of the sub-soil brought to the surface. Work it thoroughly with a fine steel rake or fine-toothed harrow, crossing and recrossing to obtain as fine a tilth as possible. After sowing gently rake seed in, following with roller, in order to compact the soil around the seeds to promote better germination.

If grading is necessary to secure an even surface, first remove and afterwards replace the top soil after the grading is completed. Tree and shrub planting, and laying out flower beds, should be done first. Lawns properly cared for, well fertilized and kept closely mowed, will improve year after year. Weeds should be removed as far as practicable, before sowing. Lawn grass, to produce a succession of verdure, must naturally consist of a mixture of several grasses, as some are more luxuriant in the Spring, others in Summer, and others again in Autumn. A proper combination of these various sorts is required to create and maintain a perfect, carpet-like lawn, and such is Mingle's Velvet Lawn Grass Mixture.

Sow 1 quart of seed for space 10 x 30 feet. Four to five bushels are required for one acre.

Per 1 quart, 30c. postpaid. By express or freight at purchaser's expense: 1 qt., 25c.; 2 qts., 45c.; 4 qts., 80c.; peck, \$1.00; bushel (15 lbs.), \$3.60.

TERRACE OR EMBANKMENT GRASS—We offer in this mixture a different blending of grasses which are more suitable for holding the soil and preventing washing from hard rains.

Per 1 quart, 30c. postpaid. By express or freight at purchaser's expense: 1 qt., 25c.; 2 qts., 45c.; 4 qts., 80c.; peck, \$1.00; bushel (15 lbs.), \$3.60.

SHADY LAWN GRASS—On many lawns are bare spots under the shade trees. Such spots are frequently sour, perhaps covered with a green scum or moss. In such cases apply hydrated lime, which is powdered fine, at the rate of one bushel per thousand square feet, removing all moss or scum first and then loosening the soil in same manner as already prescribed for regular lawn making. Our mixture of grass seed for shaded spots is one best adapted to the requirements of much shaded lawns and will grow perfectly where ordinary grass mixtures would fail. Sowing instructions same as for Velvet Lawn Grass.

Per 1 quart, 30c. postpaid. By express or freight at purchaser's expense: 1 qt., 25c.; 2 qts., 45c.; 4 qts., 80c.; peck, \$1.00; bushel (15 lbs.), \$3.60.

GOLF OR PUTTING GREENS MIXTURE—Our mixture of this grass is giving the best of satisfaction, being composed in proper proportions of the hardy and dense growing kinds best adapted for the purpose, standing heat and drought well and of deep rooting varieties which stand the wear and tear.

Per 1 quart, 30c. postpaid. By express or freight at purchaser's expense: 1 qt., 25c.; 2 qts., 45c.; 4 qts., 80c.; peck, \$1.00; bushel (15 lbs.), \$3.60.

Small Cost
Easy to Use

Large Returns
No Labor Expense

Inoculate Your Alfalfa, Clovers, Cow Peas, Soy Beans, Vetches and all other legume crops with

Mulford Cultures

FOR LEGUMES

Mulford Cultures contain pure, tested strains of active, vigorous nitrogen-fixing bacteria for inoculating seeds of legumes or soil.

Mulford Cultures are "different" and should not be confused with other brands.

The color is different (they are dark, almost black, due to a special ingredient added to increase the growth and activity of the bacteria).

The count is different (bacterial counts show fully twice as many bacteria as in the old-form cultures).

The bottle is different (being sealed—an important feature which prevents all possibility of contamination from the outside air).

Legumes offer the best-known means of maintaining soil fertility and rejuvenating over-cropped and worn-out fields. They add both humus and nitrogen to your soil and thus increase your yield of wheat, cotton, corn and other non-legume crops.

The U. S. Department of Agriculture and many State Agricultural Experiment Stations recommend inoculation of legumes with nitrogen-fixing bacteria to induce a prompt "catch" and increase your yield.

Mulford Cultures are prepared for Alfalfa (Lucerne), Crimson Clover, Sweet Clover, Red Clover, Alsike Clover, Burr Clover, Cow Peas, Soy Beans, Peanuts, Vetch, Velvet Beans, Sweet Peas, Garden Peas, Garden Beans, Lima Beans, Lespedeza, Beggar Weed and others.

Be sure to specify the particular legume on which you desire to use the Mulford Cultures, otherwise we will not know how to fill your order.

PRICES

5-Acre Size ("A Dollar per Acre").....\$5.00
1-Acre Size 1.50

Garden Size (1/4 Acre)50

Trail Size, for use on Sweet Peas, Garden Peas, Garden Beans and Lima Beans, only 25c.

These prices include delivery on freight shipments.

FREE DESCRIPTIVE LITERATURE SENT UPON REQUEST

Uninoculated ALFALFA Inoculated

Photographed on same scale. Plant on left not inoculated—Plant on right inoculated with Mulford Culture for Alfalfa. All other conditions identical.

THE CONTRAST SPEAKS FOR ITSELF

HANDY REFERENCE CALENDAR AND USEFUL TABLES

Handy reference calendar and useful tables for the Farmer, Home Gardener or Florist, which may help to solve quickly all problems in the sowing or planting of seeds or plants in each

month from February to October, and is fairly accurate for the latitude of Philadelphia.

FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
Sow in Hotbed Early Beans Broccoli Early Cabbage Forcing Carrot Early Celery Cucumber Eggplant Early Lettuce Parsley Pepper Radish Tomato	Sow in Hotbed Early Beans Early Beets Brussels Sprouts Early Cabbage Forcing Carrot Cauliflower Celery Eggplant Kohlrabi Lettuce Parsley Pepper Radish Tomato In Open Ground Beans, B. Windsor Beets Carrot Leek Onion Peas Potatoes Radish Spinach Early Turnip	Sow in Hotbed Cucumber Eggplant Melon Pepper Tomato In Open Ground Asparagus English Beans Beets Brussels Sprouts Early Cabbage Carrot Cauliflower Celery Cress Cucumber Kohlrabi Leek Lettuce Melon Onion Parsley Parsnip Peas Potatoes Radish Spinach Early Turnip	In Open Ground Artichoke Asparagus Beans, Bush & Running Beets Brussels Sprouts Carrot Cauliflower Celery Sweet Corn Cress Cucumber Kohlrabi Leek Lettuce Melon Onion Parsley Parsnip Peas Potatoes Radish Salsify Spinach Early Turnip	In Open Ground Beans, Lima & all other sorts Beets Broccoli Brussels Sprouts Late Cabbage Carrot Cauliflower Sweet Corn Cress Cucumber Endive Kale Kohlrabi Lettuce Melon Nasturtium Okra Early Peas Potatoes Pumpkin Radish Salsify Spinach Squash Herbs All Herbs	In Open Ground Beans Beets Carrot Sweet Corn Corn Salad Cress Cucumber Endive Gherkin Kale Kohlrabi Lettuce Nasturtium Okra Early Peas Pumpkin Radish Spinach Squash White Fr. Turnip	In Open Ground Beans, Bush Tuberous Chervil Corn Salad Cucumber Endive Lettuce Welsh Onion Early Peas Radish Spinach Turnip Rutabaga	In Open Ground Cabbage for coldframes Cauliflower for coldframes Tuberous Chervil Corn Salad Cress Siberian Kale Lettuce Mustard Winter Radish Spinach Turnip Sweet Peas

Try the
Crimson Globe
Beet
this year
it is one
of the best.

A popular Potato
THE RED SKIN.
for planting late
in July, look on
page 20 for
description.

Quantity of Seed Usually Sown Upon an Acre.

Barley, broadcast	2 to 3 bushels
Beans, Dwarf, in drills	1½ bushels
Beans, pole, in hills	10 to 12 quarts
Beets in drills	5 to 6 pounds
Broom Corn, in hills	8 to 10 quarts
Buckwheat	1 bushel
Cabbage in beds, to transplant	¼ pound
Carrots, in drills	3 to 4 pounds
Corn, in hills	8 to 10 quarts
Corn, for Fodder	3 bushels
Cow Peas	½ to 2 bushels
Cucumber, in hills	2 pounds
Flax, broadcast	1½ bushels
Hemp	1½ bushels
Mustard, broadcast	½ bushel
Melon, Musk, in hills	2 to 3 pounds
Melon, Water, in hills	4 to 5 pounds
Mustard, broadcast	½ bushel
Oats, broadcast	2 to 3 bushels
Onion, in drills	5 to 6 pounds
Onion, for sets in drills	50 pounds
Onion sets, in drills	6 to 12 bushels
Parsnips, in drills	4 to 6 pounds
Peas, in drills	1½ bushels
Peas, broadcast	3 bushels
Potatoes, cut tubers	10 bushels
Pumpkin, in hills	4 to 6 pounds
Radish, in drills	8 to 10 pounds
Rye, broadcast	1½ to 2 bushels
Sage, in drills	8 to 10 pounds
Salsify, in drills	8 to 10 pounds
Spinach, in drills	10 to 12 pounds
Squash, bush varieties, in hills	4 to 6 pounds
Squash, running, in hills	3 to 4 pounds
Sugar Cane or Sorghum	10 to 12 pounds
Sudan Grass, broadcast	16 to 24 pounds
Sudan Grass, in rows	2 to 3 pounds
Tomato, to transplant	¼ pound
Turnip, in drills	½ to 2 pounds
Turnip, broadcast	3 to 4 pounds
Vetches, broadcast	30 pounds
Wheat, broadcast	1½ to 2 bushels

Grass Seeds to the Acre.

Red Clover	10 to 15 pounds
White Clover (Dutch)	10 pounds
Alfalfa or Lucerne	20 pounds
Alsike Clover	12 pounds
Sweet Clover, White Blossom	25 pounds
Sweet Clover, Yellow Annual	25 pounds
Crimson Clover	12 to 15 pounds
Timothy	12 pounds
Hungarian Grass	1 bushel
Pasture Grass	2½ to 3 bushels
Blue Grass	½ to 3 bushels
Rye Grass	1½ to 2 bushels
Orchard Grass	1½ to 2 bushels
Red Top Grass	1½ to 2 bushels
Mixed Lawn Grass	5 bushels
Millet	1 bushel

Table Showing the Weight of Various Articles.

Barley	per bushel,	48 lbs.
Beans	per bushel,	60 lbs.
Buckwheat	per bushel,	48 lbs.
Broom Corn	per bushel,	46 lbs.
Blue Grass	per bushel,	14 lbs.
Clover Seed	per bushel,	60 lbs.
Corn, shelled	per bushel,	56 lbs.
Corn, on the ear	per bushel,	70 lbs.
Flax Seed	per bushel,	56 lbs.
Hemp Seed	per bushel,	40 lbs.
Hungarian Grass Seed	per bushel,	48 lbs.
Millet, Japanese	per bushel,	30 lbs.
German Millet	per bushel,	50 lbs.
Oats	per bushel,	32 lbs.
Onion Sets	per bushel,	32 lbs.
Orchard Grass	per bushel,	12 lbs.
Perennial Rye Grass	per bushel,	20 lbs.
Peas	per bushel,	60 lbs.
Vetches	per bushel,	60 lbs.
Red Top Grass Seed	per bushel,	10 lbs.
Rye	per bushel,	56 lbs.
Spinach	per bushel,	40 lbs.
Timothy Seed	per bushel,	45 lbs.
Top Onions	per bushel,	28 lbs.
Turnips	per bushel,	55 lbs.
Wheat	per bushel,	60 lbs.

Number of Plants to the Acre.

Distance Apart	No. of Plants
1 foot by 1 foot	43,560
1½ foot by 1½ foot	19,360
2 feet by 2 feet	21,780
2½ feet by 2½ feet	10,890
3 feet by 3 feet	7,260
4 feet by 4 feet	4,840
5 feet by 5 feet	2,178
6 feet by 6 feet	1,210
8 feet by 8 feet	680
10 feet by 10 feet	435
12 feet by 12 feet	302
15 feet by 15 feet	193
18 feet by 18 feet	134
20 feet by 20 feet	109
25 feet by 25 feet	70
30 feet by 30 feet	48

Number of Plants Produced from an Ounce of Seed.

	Plants
Asparagus	about 300
Broccoli	" 2,000
Cabbage	" 2,000
Cauliflower	" 2,000
Celery	" 3,000
Egg Plant	" 1,000
Endive	" 3,000
Kale	" 2,000
Leek	" 1,000
Lettuce	" 3,000
Pepper	" 2,000
Tomato	" 3,000
Sage	" 1,000
Thyme	" 5,000

HANDY REFERENCE CALENDAR AND USEFUL TABLES (Continued)

Time Required for Maturity of Different Garden Crops Reckoned from Day of Planting the Seed.

Beans—String	35 to 65 days
Beans—Shell	65 to 75 days
Beets—Table	65 days
Beets—Stock	150 days
Cabbage—Early	105 days
Cabbage—Late	150 days
Cauliflower	110 days
Corn	75 days
Egg Plant	150 to 160 days
Lettuce—Heading	65 days
Melon—Water	120 to 140 days
Melon—Musk	120 to 140 days
Onion	135 to 150 days
Pepper	140 to 150 days
Radish	30 to 40 days
Squash—Summer	60 to 65 days
Squash—Winter	125 days
Tomato	150 days
Turnip	60 to 70 days

Average Time Required for Garden Seed to Germinate.

Beans	5 to 10 days
Beets	7 to 10 days
Cabbage	5 to 10 days
Carrot	12 to 18 days
Cauliflower	5 to 10 days
Corn	5 to 8 days
Cucumber	6 to 10 days
Endive	5 to 10 days
Lettuce	6 to 8 days
Onion	7 to 10 days
Pea	6 to 10 days
Parsnips	10 to 20 days
Parsley	15 to 21 days
Peppers	9 to 14 days
Radish	3 to 6 days
Salsify	7 to 12 days
Tomato	6 to 12 days
Turnip	4 to 8 days

Average Amount of Seed and Number of Plants for One Acre.

Asparagus plants @ 4 x ½ ft.	5000	Cucumbers in hills @ 3 x 4 ft.	2 lbs.	Pepper plants, 2¼ x 1 ft.	17,500
Barley	2½ bush.	Cucumbers in drills	5 lbs.	Pumpkin in hills, 8 x 8 ft.	4 qts.
Beans, Bush, in drills @ 2½ ft.	1½ bush.	Egg Plant, plants, 3 x 2 ft.	5 oz.	Parsley in drills @ 2 ft.	5 lbs.
Beans, Pole, Lima, @ 4 x 4 ft.	15 qts.	Endive in drills @ 2½ ft.	4 lbs.	Peas in drills, short varieties	2 bush.
Beans, Carolina, Prolific, etc., @ 4 x 3 ft.	10 qts.	Flax, broadcast	2 bush.	Peas in drills, tall varieties	1 to 1½ bush.
Beets and Mangolds in drills, @ 2½ ft.	6 lbs.	Grass, Timothy with Clover	6 qts.	Peas in drills, broadcast	3 bush.
Broom Corn in drills	12 lbs.	Grass, Timothy without Clover	8 qts.	Potatoes	10 bush.
Cabbage sown in outdoor beds for transplanting	16 oz.	Grass, Orchard	24 lbs.	Radish in drills @ 2 ft.	6 lbs.
Cabbage sown in frames	8 oz.	Grass, Red Top or Herds	40 lbs.	Rye, broadcast	2 bush.
Carrot in drills @ 2½ ft.	4 lbs.	Grass, Blue	40 lbs.	Rye, drilled	1½ bush.
Celery seed	8 oz.	Grass, Rye	30 lbs.	Salsify in drills @ 2½ ft.	15 lbs.
Celery plants @ 4 x ½ ft.	25,000	Grass, Millet	32 qts.	Spinach, broadcast	30 lbs.
Clover, White Dutch	10 lbs.	Kale, German Greens	5 lbs.	Squash, Bush, in hills, 4 x 4 ft.	4 lbs.
Clover, Lucerne	10 lbs.	Lettuce in rows @ 2½ ft.	3 lbs.	Squash, Running, in hills 8 x 8 ft.	3 lbs.
Clover, Alsike	12 lbs.	Leek in rows @ 2½ ft.	4 lbs.	Sorghum in drills	5 to 6 qts.
Clover, Large Red with Timothy	6 qts.	Lawn Grass	100 lbs.	Turnips in drills @ 2 ft.	2 lbs.
Clover, Large Red without Timothy	10 to 15 lbs.	Melons, Water, in hills 8 x 8 ft.	4 lbs.	Turnips, broadcast	3 lbs.
Corn, Sugar	10 qts.	Melons, Citron, in hills 5 x 5 ft.	4 lbs.	Tomatoes in frame	2 oz.
Corn, Field	9 qts.	Oats	2 bush.	Tomatoes, seed in hills 4 x 4 ft.	8 oz.
Corn Salad in drills @ 10 in., large seed	25 lbs.	Okra in drills, 2½ x ¼ ft.	25 lbs.	Tomatoes, plants	3800
		Onion in beds for sets	50 lbs.	Wheat in drills	1¼ bush.
		Onion in rows to make large bulbs	6 lbs.	Wheat, broadcast	2 bush.
		Parsnips in drills @ 2½ ft.	10 lbs.		

Quantity of Seed to Sow a Single Row of 100 Yards

Asparagus	8 oz.	Cress	4 oz.	Parsley	2 oz.
Beans, Bush	3 qts.	Cucumber	4 oz.	Peas	3 qts.
Beans, Lima	3 pts.	Egg Plant	1 oz.	Pepper	1 oz.
Beans, Pole	3 pts.	Endive	2 oz.	Pumpkin	2 oz.
Beet	5 oz.	Kohl	2 oz.	Radish	6 oz.
Broccoli	1 oz.	Leek	2 oz.	Rhubarb	4 oz.
Brussels Sprouts	1 oz.	Lettuce	2 oz.	Salsify	4 oz.
Cabbage	2 oz.	Melon, Water	3 oz.	Spinach	6 oz.
Carrot	3 oz.	Melon, Citron	2 oz.	Squash	3 oz.
Cauliflower	½ oz.	Mustard	4 oz.	Tomato	1 oz.
Celery	3 oz.	Okra	12 oz.	Turnips	3 oz.
Collards	2 oz.	Onion (for large bulbs)	2 oz.	Parsnip	3 oz.
Corn	1 pt.	Onion (for sets)	8 oz.

For
Plants, Lawns
and
Vegetable Garden

WHAT HUMUS IS

Humus is decayed vegetable matter enriched and mellowed by age. Similar to a heavy leaf mould, it is richer by far, because of untold years of ripening in Nature's storehouse.

Humus acts on soil much as yeast does in bread, and by its process of aeration makes a heavy soil light, and likewise adds body to a light soil. Humus is black in color and rich in the elements of plant food—namely, nitrogen, phosphoric acid and potash, while its natural lime content, about 10 per cent., serves to sweeten the soil.

As a top dressing for lawns and for plants, shrubs, trees and general gardening Humus is unequalled; not merely as a quick

stimulant, but as a permanent soil builder. For growing ferns, various bulbs and plants it has no equal.

Humus will absorb several times its own weight in moisture and release it gradually; thus, when used on lawns, will carry the grass through periods of drought.

Our Humus analyzes as follows:

HUMUS.		Per Cent.
Humus	41.25	
Ammonia	4.32	
Phosphoric Acid	0.73	
Potash	1.28	
Calcium Oxide	6.34	
Equivalent to Calcium Carbonate	4.32	
Silicates	4.11	
Iron and Alumina	1.20	
Moisture	25 to 50	

Humus is clean and odorless, and contains no weed seeds. Use it freely. Garden with it generally. One bag of Humus is equal to a load of manure. A trial will convince.

PRICES ON HUMUS.

5 lbs., 20c.; 10 lbs., 35c.; 25 lbs., 60c.; 50 lbs., \$1.00; 100 lbs., \$1.50; 500 lb., \$7.00; 1 ton, \$23.00.

Ten-pound carton, 35c.; 100 lb. bag, \$1.25 each; 500 lbs., 5 bags, \$5.75; 1 ton, 20 bags, \$18.00 per ton.

Prices on car-load lots sent on request.

Prices F. O. B. Philadelphia.

We especially call attention to our complete Garden and Farm Tools, (pages 40 to 48).
We are outfitters for the Gardener.

ILLUSTRATED CATALOGUE

—OF—

VEGETABLE SEEDS

With General Directions for Cultivation

Terms of sale, etc., see second page of cover.
Prices in this catalog are subject to change without notice.
For quantities required per acre see tables, pages 5 and 6.

ASPARAGUS

Culture—Soak the seed twenty-four hours in warm water, and sow in drills, one foot apart. When the plants are well up, thin to three or four inches in the row, and give frequent and thorough cultivation during the summer. The second season prepare a bed by deep spading or trenching, working in a large quantity of well-rotted manure. Dig trenches four feet apart and twelve to sixteen inches deep, and spade in at least four inches of well-rotted manure in the bottom. Set the plants in the trench eighteen inches apart, covering them with about two inches of fine soil. After the plants are up, gradually fill up the trenches, and give frequent and thorough cultivation. The second season, early in the spring, spade in a heavy dressing of manure and about two quarts of salt to the square rod. Cultivate well. The next season it may be cut for the table two or three times, taking care to cut all as fast as it appears. After the final cutting, spade in a liberal dressing of fine manure and sow one quart of salt to the square rod. The next season, and ever after that, the bed should give a full crop, but should be annually manured after the last cutting and well cultivated through the remainder of the summer. The tops should not be cut until dead ripe.

Conover's Colossal

Conover's Colossal—A mammoth variety of vigorous growth, sending up from fifteen to forty sprouts from one to two inches in diameter. Color deep green and crown very close. Pkt., 5c.; oz., 10c.; ¼ lb., 20c.; lb., 60c.

Columbian Mammoth White—Produces a very large pure white stalk. Pkt., 5c.; oz., 10c.; ¼ lb., 20c.; lb., 60c.

Asparagus Roots—Conover's Colossal, Columbia White, Palmetto and Giant Argenteuil, per 100, 75c.; per 1000, \$6.00.

BEANS

DWARF OR BUSH

Culture—Beans do best on light, warm soils, but will do well on almost any kind of soil. They do not require heavy manuring. For earliest crop they should be planted after all danger of freezing is past. For a succession they should be planted every two weeks. Plant 2 or 3 inches apart. Hoe often, but never when vines are wet.

Green-Podded Varieties

Burpee's Stringless Green Pod—Forty days—Early and very productive, with fine pods, of best quality. Should be planted at intervals for a succession. Pods medium green, straight and round, tender, brittle, and of fine flavor. Pt., 30c.; qt., 60c.; 4 qts., \$2.20; peck, \$4.00; bushel, \$15.00.

Extra Early Red Valentine—Thirty-five days—Pods light, green, round, and slightly curved; very prolific, stringless. Pt., 30c.; qt., 60c.; 4 qts., \$2.20; peck, \$4.00; bushel, \$15.00.

Giant Stringless Green—Earlier than Valentine. Pods much longer, round and stringless. Pt., 30c.; qt., 60c.; 4 qts., \$2.20; peck, \$4.00.

Black Valentine—A desirable sort for the market gardener, vigorous in growth, and of good quality. Pod long, round and slender. Pt., 30c.; qt., 60c.; 4 qts., \$2.20; peck, \$4.00; bushel, \$15.00.

Longfellow—Bears long green pods in profusion. Pods are of fine flavor, and very tender, straight and fleshy. Pt., 30c.; qt., 60c.; 4 qts., \$2.20; peck, \$4.00.

Round Yellow Six Weeks—A round, green, podded Bean. Pt., 30c.; qt., 60c.; 4 qts., \$2.20; peck, \$4.00.

Late Refugees or thousand to one. A heavy-bearing, popular truckers' beans. Pt., 30c.; qt., 60c.; 4 qts., \$2.20; peck, \$4.00.

Our place of business (103 Market Street) is the *first* Seed and Bulb Store one sees in the morning and the *last* one at night from either Pennsylvania or Reading Ferries making the most convenient Seed Store for all concerned.

BEANS—Continued

Wax Podded Varieties

Improved Golden Wax Bean—Thirty-five days—This bean has long been and still continues the standard wax variety for general use, and where many varieties have been introduced claiming to be superior in some respects and aiming to replace it, they have all sooner or later been forced to the rear as not possessing as many good qualities in as high degree. Vines medium size, erect, moderately spreading, hardy and productive, with small, smooth leaves, and small white blossoms; pods are long, nearly straight, broad, flat, golden yellow, very fleshy and wax-like, with short fleshy, green point, cooking quickly as snaps, shelling well when green, and of the highest quality in both conditions. Beans medium size, oval, white, more or less covered with two shades of purple red. Pt., 35c.; qt., 70c.; 4 qts., \$2.50; peck, \$4.50.

Improved Golden Wax Beans

Wardwell's Kidney Wax—The vines of this variety are very large, strong growing, but are peculiarly liable to blight, but when healthy, yield a large crop of long, nearly straight, handsome, very white and wax-like pods. They are of good quality and on this account, as well as their beauty of form and color, are easily sold. They ripen about the same time as the Golden Wax. The dry beans are large, kidney-shaped, white with dark markings about the eye. Market gardeners find this a profitable variety owing to the large size and handsome color of the pods. Pt., 35c.; qt., 70c.; 4 qts., \$2.50; peck, \$4.50.

Round Pod Kidney Wax—An improvement on Wardwell's Kidney Wax. Pods long and straight, a heavy bearer of good quality. Pt., 35c.; qt., 70c.; 4 qts., \$2.50; peck, \$4.50.

Davis' Kidney Wax—Pods large and showy, about 5 inches long, flat, wide and straight; seed white, kidney-shaped, and plant upright, height 14 inches. Pt., 35c.; qt., 70c.; 4 qts., \$2.60; peck, \$4.50.

Currie's Rust Proof Wax—This variety is claimed to be absolutely rust proof, and is as nearly rust proof as any good wax podded bean can be; vine vigorous and productive, about the same as Kidney Wax. Dry beans, bluish-black. Pt., 35c.; qt., 70c.; 4 qts., \$2.50; peck, \$4.50.

Webber Wax—A new wax bean of distinct character. The vine is strong, holding pods well up, good bearer, yellow seed, round in shape, very meaty. This bean merits a trial. Pt., 35c.; qt., 70c.; 4 qts., \$2.50; peck, \$4.50.

Dwarf Beans for Shelling (*Winter use*)

Dwarf Horticultural—The pod in form and color very much resembles that of the Horticultural Pole Bean, hence its name—but it is a dwarf, bush variety, and very attractive. Pt., 35c.; qt., 70c.; 4 qts., \$2.50; peck, \$4.50.

Royal Dwarf White Kidney—Forty days—One of the best late kinds; seed white, kidney-shaped; as a winter bean for shelling it has no superior. Pt., 25c.; qt., 50c.; 4 qts., \$1.75; peck, \$3.25.

Large White Marrow—Excellent quality, either shelled green or dry. Pt., 25c.; qt., 50c.; 4 qts., \$1.75; peck, \$3.25.

Dwarf, White Navy—Seeds small, round and oval; used exclusively for field culture. Pt., 25c.; qt., 50c.; 4 qts., \$1.75; peck, \$3.25.

Pole or Running

Culture—These are even more sensitive to cold and wet, as well as to drought and hot winds, than the dwarf varieties. After settled warm weather, set poles four to eight feet long in rows north and south four feet apart, the poles being three feet apart in the row, and set leaning to the north at an angle of 35 degrees. Set in this way, the vines climb better, bear earlier, and the pods are straighter and more easily seen. Around each hill plant five to eight beans, two inches deep. When well started, thin to four plants, and start any that fail to climb, around the pole in the same way as the others, for they will not grow well otherwise.

White Dutch Case Knife—Seventy-five days—The earliest variety of Pole Bean, excellent flavor, and good green or dry; seed broad, white, flat; can be used as a Snapshot or Lima when dry. Pt., 30c.; qt., 60c.; 4 qts., \$2.20; peck, \$4.00; bushel, \$15.00.

Kentucky Wonder—One of the earliest of the green podded pole beans; pods growing in clusters, light green in color and stringless, tender and melting when cooked. Pt., 30c.; qt., 60c.; 4 qts., \$2.20; peck, \$4.00.

Horticultural—Eighty days—The favorite, used green or dry. The dry beans are very superior for cooking. Pt., 30c.; qt., 60c.; 4 qts., \$2.20; peck, \$4.00; bushel, \$15.00.

Lazywife—A very productive sort, of fine quality. Pods are thick, broad and fleshy, about five inches long, growing in clusters, stringless when young. The dry beans are white, and used as a shell bean in winter. Pt., 35c.; qt., 70c.; 4 qts., \$2.50; peck, \$4.50.

POLE LIMA BEANS

Improved Extra Jersey Lima—Ninety days—Very superior quality, white seed much larger than the ordinary Lima, of greenish tinge; tender and sweet. Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.00.

Salem County Improved Large Lima—Ninety days—A favorite table variety, very prolific; pods borne in clusters, with five or six large beans to the pod. Far superior to other Pole Limas. Ripens early and bears until frost. Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.00.

Dreer's Pole Lima—Early and more prolific than Large Lima. Beans small, extra quality. Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.00.

Shotwell's Improved Thick Pole Lima—A well-known favorite introduced from New Jersey. Beans thick and large. A decided improvement on Dreer's Improved Lima in quality, earliness and productiveness. Highly recommended by all who have tried it. Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.00.

King of the Garden Lima—One of the best Pole Beans for use, shelled either green or dry. Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.00.

Challenger Lima—A very productive sort, maturing somewhat later than the flat varieties. The pods are produced in clusters and average 3 to 4 inches in length, containing 3 to 5 thick beans which crowd each other in the pods. Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.00.

BUSH LIMA BEANS

Burpee's Improved Bush Lima—A sort distinct from Burpee's Bush Lima in that it is about ten to fifteen days earlier, bears much larger and thicker pods, and larger greenish white beans than Burpee's Bush Lima. The plants are vigorous, with heavy foliage and are about 2 feet high and of upright growth. The yield is about one-third more, and the beans of a luscious flavor. Pt., 40c.; qt., 75c.; 4 qts., \$2.75; peck, \$5.00.

BUSH LIMA BEANS—Continued

Burpee's Bush Lima—Vine about 20 inches high, erect and vigorous in growth; very prolific in large green pods, filled with large white beans. Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.25.

Fordhook Bush Lima

Fordhook Bush Lima—The pods, borne in clusters of from four to eight, are much larger, and about six days earlier than Dreer's Bush Lima, which latter they otherwise resemble.

The green beans are large, and even when of full size, when cooked, are not dry, but tender, sweet, and luscious.

The bushes are decidedly erect in growth, with side branches well held up, and holding the pods from the ground, and thus protecting them from rust. A habit quite distinct from that of the low-growing growth of Dreer's Bush Lima. The foliage is large, like that of the Pole Lima. The leaves are large, smooth, and of a deep, rich green color.

The Fordhook is a one-third heavier cropper than Dreer's, and is destined to supersede it in every way. Pt., 40c.; qt., 75c.; 4 qts., \$2.75; peck, \$5.00.

BRUSSELS SPROUTS

Long Island Improved—This is a very desirable vegetable, though very little known in this country. It grows 2 or 3 feet high and produces from the sides of the stalk numerous little sprouts somewhat resembling cabbages; they are used for fall and winter greens. It can only be grown to perfection in a good soil and with a long season to complete its growth. The seed should be sown in March or April, in a frame, and the plants transplanted into the open ground and cultivated as cabbage. The plants should be watered and shaded for a week or ten days to give them a good start. Pkt., 10c.; lge., 20c.; oz., 50c.; ¼ lb., \$1.75; lb., \$6.00.

BEETS

All the varieties succeed best on a deep, rich, sandy loam. For early beets, sow as soon as the ground will admit, in drills fourteen inches apart, and thin to six inches in the row. For winter, sow about the middle of spring. Soak the seed twenty-four hours in luke-warm water before planting, and sow in freshly prepared ground.

The Sugar and Mangel Wurzel varieties are grown for feeding stock and should be sown from April to June in drills two feet apart, and afterwards thinned out to stand one foot apart in the rows; keep them well cultivated and you will have an abundant crop.

Crimson Globe Beet

Crimson Globe—This is one of the finest beets yet introduced. Roots are not large, but very handsome. Round, and a clean, smooth surface. Leaves very small, with slender stems. Give it a trial. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$1.75.

Detroit Dark Red Turnip—Forms a globular, smooth, dark-fleshed root with small top. Flesh dark red, with rings of alternate white and red; very tender and sweet, and a popular favorite. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.

Eclipse—A globular crimson sort of very rapid growth. Bright red in color, and of fine flavor. A great improvement on its parent, the Egyptian. Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.

Early Blood Turnip—Tops small, roots blood red, turnip-shaped and very tender. Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.

Crosby's Egyptian Beet

Crosby's Egyptian Blood Turnip—Forty days—This matures quicker than any other sort. Roots of fine form, medium size, smooth and dark in color, flesh dark red, fine grained, crisp and tender. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$1.75.

Bastians Half Long Blood—Sixty days—One of the very best, unsurpassed for its winter keeping qualities. Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.

Improved Long Dark Blood—Sixty-two days—The best winter variety, but apt to be tough when sown too early. Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.

Half Long Blood, Queen of the Blacks—A favorite half long early market and winter sort, equalling and frequently surpassing the Egyptian. Uniform in quality, and a good keeper, symmetrical in form, and a handsome table beet. Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.

Proven by test, our Seeds are best.

Remember, we pay postage on packets and ounces. Add 5c. per pound rate on larger quantities, also 5c. per pint and 10c. per quart for Beans when ordered by mail.

BEETS—Continued**Swiss Chard or Foliage Beet**

Glant Lucullus Swiss Chard—The new Swiss Chard, or Spinach Beet. The plants grow from two to two and one-half feet in height. The stalks are thick, broad and delicious when cooked and served in the same manner as asparagus. The Lucullus has large, pointed, crumpled leaves which, when cooked and served in the same manner as spinach, are tender and fine flavored. Pkt., 5c.; oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Large White Lyons—This variety possesses enormous white ribs, the leaf not being so crumpled as the Lucullus, but is equally as desirable. Pkt., 5c.; oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$1.75.

Spinach or Silver—A good one. Not quite as large as Lucullus. Pkt., 5c.; oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$1.75.

Sugar Beets and Stock Beets

White Silesian Sugar—Sixty-five days—Grown extensively for feeding stock; also for extraction of sugar. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.

Imperial White Sugar—Seventy days—A greatly improved variety of the White Silesian. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.

Long Red Mangel Wurzel Beet

Long Red Mangel Wurzel—A large, long variety, for stock feeding, color light red. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., \$1.00.

Golden Tankard—Large, round, orange-colored variety, of excellent quality, which keeps better than the Long Red, producing better crops on shallow soil. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., \$1.00.

Red Globe Mangel Wurzel—Similar to Yellow Globe, except in color, which is light red or pink. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., \$1.00.

Yellow Eckendorf—A handsome variety and heavy cropper; grows almost on surface of the ground, in shape broad with rounding top, flat bottom, good flavor, stock greatly relish this mangel. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., \$1.00.

CABBAGE

Culture—For Cabbages the ground must be highly manured, deeply dug or plowed, and thoroughly worked to insure good full-sized heads. A heavy, moist and fresh loam is most suitable. The early sorts should be sown very early, in hot-beds, hardened off, and transplanted eighteen to twenty-four inches apart, early in the spring. In the South, sow from the middle of September to middle of October, and transplant into cold frames to preserve through winter, setting into open ground as early as possible. In transplanting, they must be set in the ground up to the first leaf no matter how long the stem may be.

The late autumn or winter varieties may be sown in a seed bed, from the middle to the last of spring, and transplanted when about six inches high, three feet apart each way. Shade and water the late sowings in dry weather to get them up. It is important that the plants should stand thinly in the seed-bed, or they will run up weak and slender, and be likely to make long stems. Cultivate frequently throughout the season.

First Early **Early Jersey Wakefield**

Early Jersey Wakefield—Heads very compact, of medium size, varying from nearly round to conical. An early, sure-heading sort, very popular with Eastern market gardeners. Pkt., 10c.; oz., 60c.; $\frac{1}{4}$ lb., \$2.25; lb., \$8.00.

Early Dwarf Flat Dutch—Ninety-five days—Heads of medium size, solid, flat, grows low on stump, and is of good flavor. Pkt., 10c.; oz., 60c.; $\frac{1}{4}$ lb., \$2.25; lb., \$8.00.

Early Summer—Large, very solid, round, flattened and compact heads of excellent quality. Pkt., 10c.; oz., 60c.; $\frac{1}{4}$ lb., \$2.25; lb., \$8.00.

Early Winnigstadt

Early Winnigstadt—One of the best for general use, being a sure header, and will grow a hard head under circumstances where most sorts would fail. Heads of regular conical shape, very hard and keep well winter and summer. Pkt., 10c.; oz., 60c.; $\frac{1}{4}$ lb., \$2.00; lb., \$7.00.

Copenhagen Market—A solid, round-headed extra early of Danish origin.

Is remarkably short stemmed, with heads of large size, and of excellent quality. The leaves are light green. It is the largest of the early round-headed variety, and admits of very close planting. The crop can be cut at one time, as it matures uniformly. Pkt., 15c.; oz., \$1.10; $\frac{1}{4}$ lb., \$4.00; lb., \$15.00.

Second Early

All Season—A fine second early cabbage, produces a large head, maturing with Chicago Market or Vandergaw. Pkt., 10c.; oz., 60c.; $\frac{1}{4}$ lb., \$2.25; lb., \$8.00.

Succession—A second early round-headed sort—very popular with truckers. A week earlier than Early Summer. Pkt., 10c.; oz., 60c.; $\frac{1}{4}$ lb., \$2.25; lb., \$8.00.

Early Large York—A very desirable sort. It is of large size, very robust, stands heat well, about 10 days later than Early Wakefield. Pkt., 10c.; oz., 60c.; $\frac{1}{4}$ lb., \$2.00; lb., \$7.00.

CABBAGE—Continued**Late** **Premium Large Late Flat Dutch**

Premium Large Late Flat Dutch—120 days—Superior to any late cabbage in cultivation. Our stock has been grown for us from carefully selected heads, and is equal to any other strain of this popular variety. Pkt., 10c.; oz., 50c.; $\frac{1}{4}$ lb., \$1.85; lb., \$7.00.

Premium Large Drumhead—120 days—A large Fall or Winter variety, broad, flat or roundhead, short stump, tender and good flavored, and is an excellent keeper. Pkt., 10c.; oz., 60c.; $\frac{1}{4}$ lb., \$2.00; lb., \$7.50.

Danish Round Head

Danish Round Head—Short Stem—Somewhat superior to the Long Stem. Heads are larger and growing close to the ground. Pkt., 10c.; oz., 80c.; $\frac{1}{4}$ lb., \$2.75; lb., \$10.00.

Danish Ball Head—Long Stem—A medium-sized, round, hard-heading variety of Danish origin. Medium to late in maturing, making an excellent Winter sort, and gaining favor among gardeners. Well worth trying. Pkt., 10c.; oz., 80c.; $\frac{1}{4}$ lb., \$2.75; lb., \$10.00.

All Head Savoy—A fine strain of the beautiful curled leaf variety, and is certainly entitled to a trial. Pkt., 10c.; oz., 60c.; $\frac{1}{4}$ lb., \$2.25; lb., \$8.00.

Improved Drumhead Savoy—The best of the Savoys for general market or home use. It has a short stump, grows to a large size, is compact and solid, and closely approaches the Cauliflower in delicacy and flavor. Pkt., 10c.; oz., 60c.; $\frac{1}{4}$ lb., \$2.25; lb., \$8.00.

Red Dutch, for Pickling—An esteemed sort for pickling; it forms very hard, oblong heads, round at the top, and when pure, of a dark red or purple color. Pkt., 10c.; oz., 60c.; $\frac{1}{4}$ lb., \$2.25; lb., \$8.00.

CABBAGE PLANTS**Ready May 1st**

Early Jersey Wakefield, Charleston Wakefield, Winnigstadt, Early Dwarf, Flat Dutch, Henderson's Succession, Early Sum-

mer, All Seasons, Drumhead Savoy, Premium Late Flat Dutch, Improved Late Drumhead, Volga or Russian, Danish Round Head, Danish Ball Head, Copenhagen Market.

By express (not prepaid): 500, \$2.50; 1,000, \$4.50.

Per doz. by mail, 20c.; per 100 by mail, 65c.

All plants will be packed in live moss, insuring long shipment. All express shipments guaranteed to reach their destination in good order. No plants shipped on Saturday.

CARROT

Culture—Sow in drills to 24 inches apart, using from 4 to 5 pounds to the acre, according to the distance between the rows.

It is necessary to sow carrots quite thickly, on account of the young plants not having sufficient strength to come through the ground when sown thinly. Cover one-fourth inch deep and see to it that the soil is well firmed about the seed. As soon as the plants appear use the cultivator or wheel hoe, and do not let the weeds get a start. Thin to 3 to 4 inches apart in the row as soon as the plants are large enough. Gather and store for Winter use like beets or turnips.

One ounce of seed will sow a row 100 feet long. Four to five pounds will sow an acre.

Danvers Half Long Carrot

Danvers Half Long—The most popular one; is a great producer and adapted to all kinds of soil. Its roots are orange red, very smooth and handsome, of medium length, tapering to a blunt point. The flesh is tender and crisp, fine for table use, and is a very desirable one for stock feeding. Pkt., 5c.; oz., 15c.; $\frac{1}{4}$ lb., 45c.; lb., \$1.50.

Early Half Long Scarlet (Stump Root)—45 days—A popular early variety, medium size, flesh bright scarlet, brittle and of good flavor. Pkt., 5c.; oz., 15c.; $\frac{1}{4}$ lb., 45c.; lb., \$1.50.

Chantenay Half Long—A very desirable variety. Smooth, short, thick, and stump rooted and of a rich orange color. Fine for the home garden. Pkt., 5c.; oz., 15c.; $\frac{1}{4}$ lb., 45c.; lb., \$1.50.

Chantenay Half Long **Improved Long Orange**

Improved Long Orange—The well-known standard; roots long, thickest near the crown, tapering regularly to a point, color deep orange. One of the best for field crop and table use. Pkt., 5c.; oz., 15c.; $\frac{1}{4}$ lb., 45c.; lb., \$1.50.

CAULIFLOWER

Culture—Sow for early use about middle September, in a bed of rich, clean earth. In about four or five weeks afterwards the plants should be pricked out into another bed, at a distance of four inches from each other each way; these should be encompassed with garden frames, covered with glazed sashes, and boards or shutters. The beds must be so secured, and the tops of the beds so covered as to keep out all frosts, giving them light and air every mild day throughout the Winter; transplant in April into a bed of the richest earth in the garden, at a distance of two feet and a half each way. Keep them well hoed, and bring the earth gradually up to the stems. The late variety matures in the Autumn, and is sown and managed similarly to Winter cabbage, but is not so certain to succeed in this climate.

Selected Extra Early Dwarf Erfurt

Selected Extra Early Dwarf Erfurt—Every grower of cauliflower should plant this strain especially recommended for forcing or open ground. Produces large compact heads of snowy whiteness on short stems. Pkt., 25c.; ¼ lb., 75c.; oz., \$2.00; ¼ lb., \$8.00.

Early White Snowball—90 to 100 days—The most highly flavored variety grown and always sure to head. Pkt., 25c.; ¼ oz., \$1.00; oz., \$3.50; ¼ lb., \$13.00.

Lenormands—Large, late, and short stemmed. Head swell formed. A superior variety. Pkt., 15c.; ¼ oz., 30c.; oz., 90c.; ¼ lb., \$3.25; lb., \$12.00.

Veitch's Autumn Giant—The best late variety; large, well-formed heads, extra quality, and the best late variety in cultivation. Pkt., 10c.; ¼ oz., 20c.; oz., 60c.; ¼ lb., \$2.00; lb., \$7.00.

CELERY PLANTS

Ready June 20th

White Plume, Giant Paschal, Winter Queen, Boston Market, Golden Self-Blanching, Golden Heart, Winter King.

By express (not prepaid): 500, \$2.25; 1,000, \$4.25.

Per doz. by mail, 20c.; per 100 by mail, 70c.

All plants will be packed in live moss to insure long shipment. All express shipments guaranteed to reach destination in good order. No plants shipped Saturday.

CELERY

Sow the seed, which is very slow to come up, early in the Spring, in rich, mellow ground, in a situation where it can be protected from the parching heat of the Summer sun; water freely in dry weather. When the plants are five to six inches high, transplant a portion in trenches well manured; the dwarf varieties three feet and the tall four feet between the rows; plant six inches apart in the rows, pressing the earth to the

plants. As they advance in growth blanch by earthing up, which should be performed gradually in fine weather, taking care not to bury the heart of the plants. A light dressing of salt applied when earthing up is beneficial.

Giant Pascal

Giant Pascal—This is a green-leaved variety and is an excellent sort for Fall and Winter use. It blanches to a beautiful yellowish white color, is very solid and crisp, having a fine nutty flavor. Pkt., 5c.; oz., 30c.; ¼ lb., 90c.; lb., \$3.00.

Golden Self-Blanching—A dwarf sort, with numerous heavy and solid stalks, easily blanched. Heart solid, and with the leaves of a beautiful golden yellow. Pkt., 10c.; oz., \$1.00; ¼ lb., \$3.25; lb., \$12.00.

White Plume—100 days—The stalks and heart are white, of good eating quality, crisp, solid, and of nutty flavor; is ornamental, resembling an ostrich feather. Pkt., 5c.; oz., 45c.; ¼ lb., \$1.50; lb., \$5.00.

Boston Market—One of the most popular varieties is the Boston Market. Is remarkably crisp and tender. A good variety for light soils. Pkt., 5c.; oz., 30c.; ¼ lb., 90c.; lb., \$3.00.

Dwarf Golden Heart

Dwarf Golden Heart—Very fine; when blanched the heart is of a waxy, golden yellow, rendering it a most striking and showy variety for either market or private use. Pkt., 5c.; oz., 30c.; ¼ lb., 90c.; lb., \$3.00.

Celeriac, or Turnip Rooted—The root is cooked and sliced, used with vinegar; makes an excellent salad. Pkt., 5c.; oz., 25c.; ¼ lb., 75c.; lb., \$2.50.

Soup, or Flavoring Celery—Old seed for flavoring soups, stews, etc., not for sowing. ¼ lb., 20c.; lb., 60c.

SUGAR CORN

Judging from the long and constantly increasing lists of corn which annually appear in the catalogues issued by the various seed houses throughout the country, the reader would be led to believe that they were in innumerable variety, more especially amongst the Early sweet and other kinds for table use. This, however, is not the case, as upon testing, most of them will be found identical, and the long lists will dwindle down to a few pronounced and distinct varieties; in fact, the difference exists more in name than in anything else. We have, therefore, in the present Catalogue confined ourselves to those distinct and standard varieties which the practical experience of market and family gardeners has decided to be the best for market and family use. Should other kinds appear which are really valuable they will be placed in stock.

Early Shaker Sugar

Early Shaker Sugar—Introduced by us to the Philadelphia market years ago; grows fine long ears for an early variety and is unsurpassed by any of the other early kinds. Pt., 25c.; qt., 45c.; 4 qts., \$1.40; peck, \$2.50.

Howling Mob—An excellent new variety, maturing about 5 days later than the first earlies; ears, 7 to 9 in. long, with 12 to 14 rows of grains. Pt., 25c.; qt., 45c.; 4 qts., \$1.40; peck, \$2.50.

Golden Bantam—A new introduction of merit—yellow, and very sweet. Small ears well filled out. Very desirable for first crop. Pt., 30c.; qt., 55c.; 4 qts., \$1.75; peck, \$3.25.

Early Evergreen—A week or ten days earlier than Stowell's Evergreen, and of as good a quality. Pt., 25c.; qt., 45c.; 4 qts., \$1.40; peck, \$2.50.

Kendel's Early Giant

Kendel's Early Giant—A second early variety, maturing in about 68 days. An improvement over the old Corey. Ears 6 to 8 inches, with large, broad, white grains of rich sugary flavor, stalks short, bearing one or two ears. A very desirable sort. Pt., 25c.; qt., 45c.; 4 qts., \$1.40; peck, \$2.50.

Burpee's White Evergreen—Similar to Stowell's Evergreen, ears fully as large, but about five days earlier in maturity. The grains remain tender considerably longer than Stowell's. It retains its whiteness when canned, having no yellow tinge as has the Stowells. Pt., 25c.; qt., 45c.; 4 qts., \$1.40; peck, \$2.50.

Country Gentleman—70 days—Resembles the Shoe Peg on a larger scale, surpassing it in superior qualities, viz.: deepness of grain, smallness of cob and richness of flavor. Will produce from three to four ears to the stalk. Much larger than the Shoe Peg. Pt., 25c.; qt., 50c.; 4 qts., \$1.65; peck, \$3.00.

Shoe Peg—The kernel is small and very long, white and exceedingly sweet and tender. Is becoming more popular every year. Pt., 25c.; qt., 50c.; 4 qts., \$1.65; peck, \$3.00.

Large Late Mammoth Sugar—85 days—The largest of all varieties, productive, fine flavor and sweet. A very desirable variety for the family garden. Pt., 25c.; qt., 45c.; 4 qts., \$1.40; peck, \$2.50.

Improved Stowell Evergreen

Improved Stowell Evergreen—80 days—Has no superior as a late table variety; ears large, and remains green longer than any other kind. Pt., 25c.; qt., 45c.; 4 qts., \$1.40; peck, \$2.50.

CORN—Field Varieties

Eight Rowed Yellow (Canada)—Ears large, and bright yellow color, generally used for re-planting, very early. Qt., 25c.; 4 qts., 75c.; peck, \$1.35; bushel, \$4.50.

Longfellow, Long Yellow—90 days—Ears averaging 13 inches. Very prolific. Narrow, small cob. Used quite frequently for re-planting. Qt., 25c.; 4 qts., 75c.; peck, \$1.35; bushel, \$4.50.

Mammoth Chester County—One of the very best for field culture, fine large ears, and producing a large quantity of fodder. Qt., 25c.; 4 qts., 75c.; peck, \$1.15; bushel, \$3.75.

Mammoth Golden Dent—A cross between the Mammoth Chester County and the Oregon; we think this the most productive variety grown. Qt., 25c.; 4 qts., 75c.; peck, \$1.15; bushel, \$3.75.

Mastodon—An early dent, of strong growth. Ears and grain large. A strong and quick grower, very productive, grains white and yellow. Qt., 25c.; 4 qts., 75c.; peck, \$1.15; bushel, \$3.75.

Golden Beauty—Matures as early as the Golden Dent, and surpasses it in size, beauty of grain and productiveness. Qt., 25c.; 4 qts., 75c.; peck, \$1.15; bushel, \$3.75.

Leaming Early Dent—An early, popular variety of Yellow Corn, medium ear, small grain, weighty and productive. Excellent for grinding. Qt., 25c.; 4 qts., 75c.; peck, \$1.15; bushel, \$3.75.

100 Day Bristol—A popular, light yellow colored, broad grain, thin cob, ears measure 8 to 10 inches in length. Qt., 25c.; 4 qts., 75c.; peck, \$1.15; bushel, \$3.75.

Hickory King or White Ensilage—Remarkable for its large grain and small cob. A vigorous grower, ears round and of good size, two to four ears to the stalk, grain pure white. Qt., 25c.; 4 qts., 75c.; peck, \$1.35; bushel, \$4.50.

Coal Tar—To protect sprouting corn from birds. Pt., 15c.; qt., 25c.

Remember, we pay postage on packets and ounces. Add 5c. per pint and 10c. per quart for corn when wanted by mail.

POP CORN

A few years ago Pop Corn was grown only in gardens, rather as a side issue from the main business of the farm. It was plentiful throughout New York and the New England States.

Now it is grown as a special crop, great quantities are raised in the Central Western States, and owing to the careful selection of seed and thorough cultivation covering a series of years, this district now produces a quality of Pop Corn superior to any heretofore raised, the White Rice Pop Corn being the most popular variety.

Who does not enjoy munching a snowy pop corn ball flavored with delicious syrup, or relish a bowl of crisp corn plentifully sprinkled with salt and butter? 1 lb., 18c.; 2 lbs., 35c.; 10 lbs., \$1.70.

Larger Lots—Prices on application.

POP CORN POPPERS

Small size (6 x 7 inches), 20c. each.

Large size (6½ x 9½ inches), 30c. each.

Handles included.

CORN SALAD

Broad Leaved—Used as a small salad throughout the Winter and Spring. Sow early in Spring in drills one foot apart and keep weeds down by frequent hoeing. For Winter and early Spring use, sow in drills in August and September. Cover with straw on approach of Winter. Oz., 15c.; ¼ lb., 50c.; lb., \$1.50.

CRESS—Pepper Grass

Curled—Used as a small salad. Sow very thickly in shallow drills, on a smooth surface, at short intervals throughout the season. Pkt., 5c.; oz., 10c.; ¼ lb., 30c.; lb., \$1.00.

Water—Used as a salad in Spring and Fall, or as a garnish during Winter. Start the seed in pans or moist earth and transplant to shallow water or a running brook. Pkt., 10c.; oz., 45c.; ¼ lb., \$1.35; lb., \$5.00.

CUCUMBER

The Cucumber can be grown by any one who has a few square yards of soil with an exposure to the sun. For early use, make rich hills of well rotted manure the latter part of Spring, planting a dozen or more seeds, covering one-half inch deep, pressing the earth firmly over them. When danger from insects is over, pull all but three or four of the strongest plants; make the hills from four to six feet apart. For pickles, plant as late as middle of July.

Improved Early White Spine

Improved Early White Spine—60 days—This is one of the best for table use now being grown. Vines vigorous, fruit straight and handsome, color light green, with few white prickles, tender and of excellent flavor. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Jersey Pickle (Selected Stock)—One of the very best of pickling cucumbers, vines vigorous and productive, fruit long, firm and crisp; when small used for pickles, when large for sweet pickles. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Japanese Climbing—A trellis variety used for shade as well as eating purposes. The vine is very ornamental, producing extra long light green fruits in abundance. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Improved Long Green

Improved Long Green—The best pickling variety, dark green color, tender, crisp and productive. Pkt., 5c.; oz., 20c.; ¼ lb., 50c.; lb., \$1.75.

Early Prolific—60 days—Earliest and hardiest productive variety, the fruit of small size and produced in pairs. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Early Frame—Fruit is straight and well formed, flesh tender; when young makes excellent pickles. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Short Green Pickle—50 days—This is the favorite Western pickling variety, and is growing in favor here every season. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Gherkin (or Burr)

Gherkin (Burr Pickle)—Small, oval shaped, prickly variety, used only for pickling. Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.

EGG PLANT

Sow in hot-beds early in March; transplant middle of May to first of June, in a rich, warm piece of ground, about 30 inches apart. Draw the earth up to their stems when about a foot high. Egg-plant seed will not vegetate freely without substantial heat, and if the plant gets the least chilled in the earlier stages of growth, they seldom recover. Repeated sowings are sometimes necessary. Care should be taken in cutting the fruit so as not to disturb the roots, which injures the plants. Matures for table in 120 days.

Early Long Purple—This is one of the earliest varieties, hardy and productive, fruit long and of superior quality. Pkt., 10c.; oz., 50c.; ¼ lb., \$1.75; lb., \$6.00.

Improved N. Y. Purple Egg Plant

Improved New York Purple—The best variety in cultivation; fruit large, deep purple color, occasional stripes of green around the stem; of very superior flavor. Pkt., 10c.; oz., 50c.; ¼ lb., \$1.75; lb., \$6.00.

Black Beauty—Fruit black, large, smooth and glossy. Round to globular. Pkt., 10c.; oz., 60c.; ¼ lb., \$2.00; lb., \$7.00.

EGG PLANT, PLANTS

Ready after May 1st. Pot grown stock only. 6c. each; 65c. dozen. Not mailable.

Prices in this Catalog are subject to change without notice.

ENDIVE

An excellent Fall and Winter salad, when Lettuce is getting scarce. Sow late in the Spring to middle of Summer in shallow drills, and thin out to a foot apart; blanch by tying the leaves together near the top.

Green Curled Endive

Green Curled—Is the hardest variety, with beautifully curled dark green leaves, which blanch white, and are very crisp and tender. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$1.75.

Broad Leaved Batavian—Has broad, thick, plain or slightly wrinkled leaves. It is principally used for cooking, and making a larger head, is preferred for stews and soups; if the outer leaves are gathered and tied on the top, the whole plant will blanch nicely, and make an excellent salad for the table. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$1.75.

HORSE RADISH ROOTS

Horse radish is not grown from seed, but from cuttings of the roots. We offer:

Maliner Kren—A quick-growing variety, producing large white roots. 20c. doz.; 100, 70c.; 1000, \$6.00.

Standard Variety—In strong cuttings. 15c. doz.; 100, 50c.; 1000, \$4.00. Add 10c. per 100 Parcel Post rate if wanted by mail.

KALE—Borecole

Sow from May to June, and set out the plants in July, in good, rich soil; cultivate same as cabbage. For Spring use sow in September; protect during Winter with covering of straw. It takes 50 days to produce a crop fit for cutting.

Siberian Curled or Late Seeding—About two feet high, leaves dark green, curled and wrinkled, stands Winter without protection. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.50.

Dwarf German Greens or Kale

Dwarf German Greens—Makes excellent greens for Winter use, dwarf and easily protected during the Winter. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.

KOHL-RABI

Turnip Rooted Cabbage—Grows on a stalk in the shape of a bulb 2 to 3 inches in diameter, the leaves protruding from the sides of the bulb. Requires a light, rich soil. Sow in Spring in rows 1½ feet apart, thinning down to 8 inches. For Fall, plant latter part of July. One ounce will plant 150 feet of drill. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

LETTUCE PLANTS—Ready May 1st

Big Boston, May King, Cos., etc.

By Express (not prepaid): 500, \$2.25; 1000, \$4.25.

Per doz. by mail, 20c.; per 100 by mail, 80c.

All plants will be packed in live moss to insure long shipment. All express shipments guaranteed to reach destination in good order. No plants shipped on Saturday.

LEEK

The Leek is hardy and of easy culture; sow early in Spring in trenches eight inches deep, and have the soil at the bottom fine and rich; thin six to eight inches apart, and when the plants are twelve inches high, gather the leaves together and fill the trench so as to blanch the lower part of the plant.

London Flag—90 days—This is the best variety, and succeeds better in this country than any other. Pkt., 5c.; oz., 30c.; ¼ lb., 90c.; lb., \$3.00.

Musselburgh—Foliage fan-shaped and strong in growth. Large in size and leaves broad. A fine market variety. Pkt., 5c.; oz., 30c.; ¼ lb., 90c.; lb., \$3.00.

LETTUCE

There is no vegetable which is more universally used than this. It is of easy culture, and thrives best in rich, moist soil. Its quality depends largely upon rapid and vigorous growth; to secure this, have the soil rich and mellow, with frequent surface cultivation and an abundant supply of water.

Early Curled Simpson (Black Seeded)

Early Curled Simpson—A very large loose-leaved sort, and larger than ordinary Simpson. Excellent for table. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$1.75.

Early Curled Silesian—An early variety of strong growth, leaves large, light yellow and wrinkled. It does not form a head, but is the best variety for cutting when young. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$1.75.

Romaine, Cos or Celery Lettuce—Quite distinct from the ordinary sorts in being erect in growth, crisp, tender and delicate in flavor. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.

May King Lettuce

May King Lettuce—Equal alike for forcing under glass or outdoor planting. The plants are of quick growth, practically all head and handsome. From early Spring plantings in the open ground they grow quickly to a diameter of six to seven inches, with the broad, light green outer leaves folding closely about the round solid head. In cool weather the edges of these outer leaves are lightly tinged with brown. The inner leaves are blanched to a rich golden yellow, and have a specially fine, rich, buttery flavor. The solid round heads are so firmly folded that they can be shipped to distant markets and arrive in the best of condition. It is the very best lettuce for early planting in the Spring, and again during August and September for Fall use. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.

LETTUCE—Continued

Big Boston—Heads large and very solid, stands heat of Summer, also excellent for Autumn. Color, light green. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.

White Dutch Butter—The best variety for cultivation in the latitude of Philadelphia: fine large heads, and stands the heat of Summer well. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.

Cabbage Head—Heads large and fine, pale green without, and white at centre; crisp and tender, fine Summer variety. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$1.75.

Imp. Salamander—One of the best compact headed sorts for outdoor use; will withstand the heat without running to seed. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.

MELON—Cantaloupe

Culture—Plant early in May, when the ground has become warm and dry, in hills six feet apart each way; use well rotted manure, and if plants grow very rank, finer fruit will be secured by trimming off the ends of the shoots when about three feet long. Do not plant near pumpkins, squashes or cucumbers, as they will mix with and injure the quality of the melons.

Burrells' Gem—The golden fleshed Rocky Ford. The Burrells' Gem, which is an improved Rocky Ford, averages 2 lbs. in weight, 6 inches in length and 4½ inches across. It is very solid and has a small seed cavity. The flesh is golden in color, very thick, fine-grained and spicy. An abundant yielder and a good shipper. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Small Jenny Lind—65 days—The earliest green fleshed melon, and the sweetest variety in cultivation; flesh green, quite small, slightly ribbed and well netted. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Netted Nutmeg—Oval in shape; netting rough. A melon of fine flavor. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Hackensack—A popular large sized melon, flattened at the poles, deeply netted and ribbed, flesh green and well flavored. One of the best for shipping, and is a favorite with market gardeners. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Montreal—Largest of the nutmeg varieties; averaging a weight of 15 lbs., nearly round, flattened at the ends, deeply ribbed, green, netted skin. Flesh green, thick, and of fine flavor. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Baltimore or Acme—The fruits are medium sized, oval or long oval, slightly pointed at stem end, slightly ribbed, and are covered when ripe with coarse netting. The flesh is thick, green, well flavored and sweet. This variety is a very productive, sure cropper of good quality. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Fordhook

Fordhook—A fine, large, early ripener. Skin dark green mixed with stripes of lighter green. Thin rind and tough skin, well adapted for shipping. Flesh bright red, crisp and sweet. Flavor one of the finest. Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.

Jenny Lind Improved—65 days—Resembles the old variety only that it matures earlier and is better filled out, roughing up better, and keeping fully a week longer than any other variety. Is a handsome green fleshed sort and invaluable for a first early; and of delicious quality. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Rocky Ford—70 days—The flesh is deep and thick, and light green in color, except next the seeds, where it inclines towards yellow. The flavor exceedingly fine. The skin is green, regularly ribbed and thickly netted. It is a firm, solid melon, and will carry in perfect condition for a week or more after its removal from the vine. It is a heavy cropper and is in wide favor as a market melon. Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.

MELON—Watermelon

Culture—Plant in hills eight to ten feet apart each way. Plant eight or ten seeds in a hill and finally, when danger of insects is past leave but three strong plants.

Mountain Sweet—An old sort still holding its own in the public favor. A first class productive melon, of large size, skin dark green, flesh a rich crimson, very sweet, and of fine flavor. Seeds gray. Pkt., 5c.; oz., 10c.; ¼ lb., 30c.; lb., \$1.00.

Tom Watson—An early, large, oblong, dark green melon, with thick netting. An introduction from one of the best melon districts in the South. Rind thin, but tough, making it a favorite shipping sort. The flesh is firm, and of a bright red color, delicious, sweet and melting. An excellent sort for the private or market gardener. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Light Icing—75 days—Very light green skin, flesh bright red, crisp and sugary, excellent quality. Pkt., 5c.; oz., 10c.; ¼ lb., 30c.; lb., \$1.00.

Dark Icing—Skin dark green; in other respects like the preceding melon. Pkt., 5c.; oz., 10c.; ¼ lb., 30c.; lb., \$1.00.

Kleckley's Sweets

Kleckley's Sweets—A handsome melon for both the private and market garden. Shape oblong, skin dark green, and slightly mottled, thin rind, flesh bright scarlet, very sweet, crisp and melting. Heart solid. One of the best melons grown. Pkt., 5c.; oz., 10c.; ¼ lb., 40c.; lb., \$1.25.

Citron Water Melon—This is the well known melon for making preserves or condiments. Pkt., 5c.; oz., 10c.; ¼ lb., 30c.; lb., \$1.00.

MUSTARD

Mustard is not only used as a condiment, but the green leaves are used as a salad, or cut and boiled like spinach. Matures in 30 to 35 days.

White English—This is the kind usually preferred for salad. The leaves are light green, mild and tender when young; seed light yellow. Pkt., 5c.; oz., 10c.; ¼ lb., 20c.; lb., 50c.

Brown Italian—This is a larger plant than the preceding, with much darker leaves; seed brown and more pungent. Pkt., 5c.; oz., 10c.; ¼ lb., 20c.; lb., 60c.

No matter what you may order from this catalog, you may rest assured of full value for your money.

The advancing of prices shall be only upon actual advances in costs. Deal with us and get a square deal.

MUSHROOM SPAWN

Culture — Mushrooms may be grown in cellars, under benches of green-houses, or in sheds, wherever the temperature of 50 degrees can be kept up through the Winter. The beds should be made from November to February, according to the time the mushrooms are wanted, and it requires about two months for them to begin bearing. Secure fresh horse

manure, free from straw and litter, and mix an equal bulk of loam from an old pasture with it. Keep this under cover, taking care to turn it every day to prevent heating, until the pile is large enough to make a bed the required size. Three to four feet wide, eight inches deep and any length desired are the proper proportions for a bed, but these may be varied. Prepare the mixture of loam and manure, making the bed in layers, and pounding down each with the back of the spade. Leave this to heat through for a few days, and as soon as the heat subsides to 90 degrees, make holes in the bed about a foot apart each way and about one inch deep, into which put pieces of the spawn two or three inches in diameter; fill up the holes with the compost, and at the expiration of a week or ten days the spawn will have thoroughly diffused itself through the bed. Spread a layer of fresh soil over the heap to the depth of two inches and cover with three or four inches of hay, straw or litter. Examine the bed often to see that it does not get dry. Take special care, however, when water is given, that it be at a temperature of about 100 degrees.

Brandywine Pure Culture Spawn—Per brick, 30c.; per brick (postpaid), 40c.; 5 bricks, \$1.25; 10 bricks, \$2.15. Larger lots, prices on application. **English Milltrack**, 15c. per brick; (post-paid) 25c. per brick; 1 doz., \$1.60. Larger lots, prices on application.

NASTURTIUM

Used as a pickle and highly esteemed. Sow in April and May, in drills two inches deep, five or six inches apart, and provide them with rods. It may also be grown to advantage as an ornamental climbing plant.

Dwarf—Very ornamental for the vegetable as well as the flower garden. Pkt., 5c.; oz., 15c.; ¼ lb., 60c.; lb., \$2.00.

Tall—The seed pods are used for pickling or for garnishing. Pkt., 5c.; oz., 10c.; ¼ lb., 35c.; lb., \$1.25.

OKRA, OR GOMBO

The green capsules of this plant are used in soups, stews, etc., to which they impart a rich flavor and are considered nutritious. Plant the seed about the middle of May, in hills or drills. Plant the seed thickly, as it is liable to rot in the ground; rich ground is necessary; 60 days from planting to maturity.

Perkins Mammoth Pod—A tall handsome plant producing very long, slender green pods; very prolific and a popular one. Pkt., 5c.; oz., 10c.; ¼ lb., 25c.; lb., 75c.

Tall White—About four feet high; pods eight to ten inches long. Pkt., 5c.; oz., 10c.; ¼ lb., 25c.; lb., 75c.

Dwarf White—Two and a half feet high; pods five inches long; very productive. Pkt., 5c.; oz., 10c.; ¼ lb., 25c.; lb., 75c.

ONION

Culture—Onion seed should be sown as soon as possible in the Spring, even if the weather is cold, so the soil works up well. This gives them a good start ahead of the weeds, and before dry weather sets in. After thoroughly pulverizing the soil, sow thinly, four or five pounds to the acre, in drills, 14 to 16 inches apart, and about one-quarter inch deep, in strong land, well manured, keeping them well hoed and free from weeds.

The Silver-skin and Yellow Danvers are principally grown (for sets) in this vicinity. Sow the seed early in the Spring, very thickly in beds or drills. As soon as the tops die off in the Summer, remove them to a dry, airy place, and early in the following Spring replant in rows about two inches apart, the rows wide enough apart to admit of hoeing. The onions by this process are obtained of a large size early in the season. We can also supply the sets themselves early in Spring, at current market prices.

The **Prizetaker** may be grown to large size by sowing in drills early in March, in strong land, and thinning them out to stand two or three inches apart, keeping them well hoed.

Extra Early White Pearl—A transparent, waxy, early variety, flat, and of very mild flavor. In some sections attaining a size 5 to 6 inches in diameter. Pkt., 5c.; oz., 40c.; ¼ lb., \$1.25; lb., \$4.50.

Silver Skin—85 days—Large white flat onion of mild flavor; fine for early Winter use, and very desirable for pickling. It is the best keeper of the white varieties. Pkt., 5c.; oz., 40c.; ¼ lb., \$1.25; lb., \$4.50.

Queen—A silver-skinned variety, of mild flavor, early, a good keeper, and an excellent pickling onion. Pkt., 5c.; oz., 40c.; ¼ lb., \$1.25; lb., \$4.50.

White Portugal—Grows to good size, mild and sweet, resembling the ordinary Silver Skin. When sown thickly very desirable for pickling. Pkt., 5c.; oz., 40c.; ¼ lb., \$1.25; lb., \$4.50.

Southport White Globe—In shape same as Yellow or Red Globe, but milder—not so good a keeper. Pkt., 5c.; oz., 40c.; ¼ lb., \$1.25; lb., \$4.50.

Yellow Strasburg—The old popular Philadelphia variety; not as strong flavored as the Red; a first rate keeper, and valuable for shipping. Pkt., 5c.; oz., 25c.; ¼ lb., 90c.; lb., \$3.00.

Yellow Globe Danvers—115 days—A fine variety, originating in Danvers, Mass.; above the medium size, oval shaped; skin yellowish brown; flesh white, mild and well flavored; very productive. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

Large Red Wethersfield—110 days—The standard Eastern variety. Grows to large size directly from the seed; skin deep purplish red; form round, flat; flesh purplish white and stronger flavored than any of the other kinds. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

Prizetaker

Prizetaker—One of the best and most popular among the Yellow Globes. Of a bright clear straw color, thin-necked, and very attractive. Fine in flavor and a desirable sort. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.35; lb., \$4.00.

ONION SETS

The Onion sets grown in the vicinity of Philadelphia are recognized everywhere as the best in the country; they are more solid and brighter, and their keeping qualities much better than those grown elsewhere. The best varieties are named below. Onions grown from sets come into market long before those grown directly from the seeds, and in consequence much higher prices are realized from them.

Extra Early Red. Strasburg. Yellow Danvers. Silver Skin. (Market Price.)

Winter Onions—(Egyptian, Perennial, or Tree Onions)—An unusually hardy variety in the colder States, remaining in the ground with safety all winter. It starts early in the Spring and may be bunched and marketed several weeks before any other variety. The quality is inferior, but the bulbs find a ready sale when other varieties of onions are wanting. **Qt., 25c.; peck, 85c.; bushel (of 28 lbs.), \$3.00.**

PARSLEY

Sow early in April in rows. Soak the seed a few hours in warm water before sowing, or it may lay two or three weeks in the ground before vegetating. A few Radish Seed mixed with the seed when sowing will mark the rows and facilitate weeding. One ounce to 150 feet of drill. Make open air sowing in April.

Plain or Single—Dark green color, and very hardy. **Pkt., 5c.; oz., 10c.; ¼ lb., 30c.; lb., \$1.00.**

Double Curled Parsley

Double Curled—A dark green market variety of dwarf habit. Stands the Winter better than other varieties, but is less curled. **Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.**

Moss Curled—Leaves bright green, curled and crested like fern or moss, very ornamental for garnishing or garden decoration. **Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.**

Hamburg Rooted—The standard rooted sort. The leaves are used for soup greens, and the roots when sliced are much esteemed. **Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.**

PARSNIP

This well-known culinary vegetable does best on a deep, rich, sandy soil; fresh manure should not be used, as it is apt to make the roots coarse and ill-shaped. The seed is sometimes slow to germinate; it should be sown early as possible, covering half an inch deep, and the soil pressed firmly over the seed; thin out so that the plants will stand four inches apart.

Sugar Parsnip

Sugar or Hollow Crowned—80 days—The very best for table use, very productive. **Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.**

PEAS

The Pea is so generally known that it is needless to give any description of it. There are many new varieties coming out every year, most of which turn out to be no better than the older sorts. We have carefully culled them over, and our list will be found to contain all that are really valuable. The Pea matures earliest in a light, rich soil; but for general crop, a rich, deep loam will be found best. The Extra Early varieties should be sown as soon as the ground can be worked in the Spring, and continue every two weeks for a succession. The tall varieties require brush stuck in between rows. The wrinkled varieties are superior, more delicate in flavor, and remain longer in season than the smooth sorts, but are not so hardy.

The dwarf varieties suit best for small gardens, and can be planted in rows one foot apart. One quart for 75 feet of drill, two to three bushels to the acre.

First Early

Mingle's Extra Early—48 days—For family use this is probably equal to the Improved Premier; it does not ripen so evenly, but keeps in bearing longer. **Pt., 25c.; qt., 50c.; 4 qts., \$1.65; peck, \$3.00.**

Mingle's Extra Early

First and Best—A desirable Extra Early. Vine 3 feet, and a strong grower, continues in bearing as long as other Extra Early sorts. **Pt., 25c.; qt., 50c.; 4 qts., \$1.65; peck, \$3.00.**

Nott's Excelsior—50 days—A fine dwarf wrinkled sort, maturing as early as most smooth varieties. Very tender and of fine flavor. Pods 2½ inches. Vines 14 inches. **Pt., 30c.; qt., 55c.; 4 qts., \$1.75; peck, \$3.25.**

American Wonder—52 days—A hybrid between Champion of England and Little Gem; it is an enormous cropper, and ripens in about fifty days from germination. Pods 2½ inches. Vine 10 inches. **Pt., 30c.; qt., 55c.; 4 qts., \$1.75; peck, \$3.25.**

Gradus—No other pea introduced for years has met with so extensive sale and commanded so high a price. Very quick to germinate and matures with the earliest sorts; with quick, rich, warm soil and favorable conditions fairly productive. Foliage large and luxuriant, pale green in color; pods long, straight, slightly rounded at the point; seed large, wrinkled, cream color, tinged with green; height 3 feet. **Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.00.**

Pilot—A new pea of English origin very similar to Gradus as to earliness, color of vine and pod as well as quality. Vines grow to a height of 3 to 4 feet with foliage medium to dark green color. Pods are large, pointed at end and broad. Dark green in color. Is fit for table use 60 days from planting. Seed yellow and green mixed, medium sized and nearly smooth. **Pt., 25c.; qt., 50c.; 4 qts., \$1.65; peck, \$3.00.**

Laxton's Prolific—Height 3 feet, an extra early. Pods 3¼ inches and blunt, very prolific and well filled; seed wrinkled, cream color tinged with green. Vine 3 feet. **Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.00.**

PEAS—Continued

Alaska

Alaska—An extra early, vine about 2 feet high, seed green and round, in well filled pods, produced in abundance. Excellent for market or family use. Pt., 25c.; qt., 50c.; 4 qts., \$1.65; peck, \$3.00.

Ameer—Similar to Alaska, but not quite so early. Vine a little longer, pods well filled and somewhat light green dented. Pt., 25c.; qt., 50c.; 4 qts., \$1.65; peck, \$3.00.

Sutton's Excelsior—A marked improvement in the dwarf wrinkled class. Similar in habit of growth to Nott's Excelsior, but bearing very large, broad pods filled with large peas, tender and of exquisite flavor. As a wrinkled sort it leads in earliness, with much larger and handsomer pods than any dwarf early wrinkled pea yet introduced. It is a pea of first-class merit, and a good cropper. Pods 3 inches long, broad, straight and well filled. Seed pale green, wrinkled. Vine 15 inches. Pt., 30c.; qt., 60c.; 4 qts., \$2.00; peck, \$3.50.

Second Early

McLean's Premium Gem—An improvement on the Little Gem, being larger and more productive. Does not ripen quite so early, is very luscious in flavor, and is a general favorite. Pods 2½ inches. Vine 14 to 16 inches. Green wrinkled seed. Pt., 30c.; qt., 55c.; 4 qts., \$1.75; peck, \$3.25.

Laxtonian—Of vigorous growing habit, luxuriant foliage of dark green color. Large seed, white and green. Pods 3½ inches long, broad and pointed at the ends. This is a fine half-dwarf wrinkled sort. Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.00.

Potlatch—A vigorous growing, half-dwarf variety of luxuriant, strong foliage of dark green color. Pods 3½ inches long, of medium green color, broad, and pointed at the ends. Seed large green and wrinkled. Straw 24 inches long. Pt., 25c.; qt., 50c.; 4 qts., \$1.65; peck, \$3.00.

Fillbasket—Height 30 inches, of branching habit; pods well filled and therefore indispensable to the market gardener, and large croppers. Pt., 30c.; qt., 60c.; 4 qts., \$2.00; peck, \$3.50.

Late

Dwarf Champion—44 days—very much liked by those who have tried it. In quality and flavor equal to Champion of England, and the vine only 2 feet. Equal to Little Gem. Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.00.

Everbearing—A fine wrinkled pea, about 2 feet high, well adapted for late Summer and Autumn. A continuous bearer, as its name indicates. Pt., 30c.; qt., 55c.; 4 qts., \$1.75; peck, \$3.25.

Daisy or Dwarf Telephone—Among the medium early dwarf sorts, ripening a week ahead of Stratagem. It is a most desirable pea on account of the large size, beautiful shape and fine quality of its well-filled pods, containing six to nine tender sweet peas. Seed green, wrinkled. Pods 4 inches. Vine 18 inches—very vigorous and quite prolific. Pt., 30c.; qt., 60c.; 4 qts., \$2.25; peck, \$4.00.

Improved Telephone—One of the recent introductions from England, where it is highly prized; grows about 3 feet high, and is the best tall pea in existence, an enormous bearer, producing straight, showy pods, containing from nine to ten peas in a pod. Pt., 30c.; qt., 60c.; 4 qts., \$2.00; peck, \$3.50.

Long Island Mammoth—Very popular with the farmers in most sections who want a large, handsome pod of deep green color that carries well. Is becoming more popular every year. Height 3 feet. Pt., 30c.; qt., 60c.; 4 qts., \$2.00; peck, \$3.50.

Prince Edward Peas—The largest podded, late, long-vined sort; pods 6 to 8 inches long. Splendid quality and immense yield. Pt., 30c.; qt., 60c.; 4 qts., \$2.00; peck, \$3.50.

Dwarf Gray Sugar—Seed gray, pods purple; large and eaten like string beans. Vine 18 inches. Pt., 25c.; qt., 50c.; 4 qts., \$1.65; peck, \$3.00.

PEPPER

Sow in hot-beds in March, or in a warm border early in May, transplant and thin out to stand 16 or 18 inches apart; hoe frequently, to keep down the weeds. Edible in 100 to 120 days.

Bull-Nose—A large sort, of square form, hot, thick and hard; suitable for filling with cabbage, and for a mixed pickle. It is, notwithstanding its size, one of the earliest varieties. Pkt., 10c.; oz., 45c.; ½ lb., \$1.40; lb., \$5.00.

Giant Sweet Bull-Nose—One of the earliest of large peppers; very sweet, similar in shape to Large Bell, only much larger. Very prolific. Pkt., 10c.; oz., 45c.; ¼ lb., \$1.40; lb., \$5.00.

Large Sweet Spanish or Bell—Somewhat resembling Bull-Nose, but much sweeter. Early and desirable. Pkt., 5c.; oz., 45c.; ¼ lb., \$1.40; lb., \$5.00.

Long Red Cayenne—Pod long, slim and pointed; color, bright red and very pungent. Pkt., 10c.; oz., 45c.; ¼ lb., \$1.35; lb., \$5.00.

Large Sweet Spanish (or Bell) Pepper

New Neapolitan—A great market variety on account of its earliness and productiveness. Two weeks earlier than Bull Nose. The fruit is of good size growing on a vigorous stalky plant. The flesh is quite thick and sweet as an apple. Color a light green changing to a bright red when ripe. Pkt., 10c.; oz., 45c.; ¼ lb., \$1.40; lb., \$5.00.

Ruby King—Fruit 5½ x 3½, bright red in color and of distinctively mild flavor. Pkt., 10c.; oz., 45c.; ¼ lb., \$1.50; lb., \$5.50.

Sweet Mountain—Nearly identical with the Bull-Nose; perhaps somewhat larger. Pkt., 10c.; oz., 45c.; ¼ lb., \$1.40; lb., \$5.00.

PEPPER PLANTS

READY IN MAY.

Pot Grown Plants—Doz., 65c.; 100, \$5.00.

Hot-Bed Grown—Doz., 20c.; 100, \$1.00.

Pot grown plants are not available.

All plants will be packed in live moss, insuring long shipment. All express shipments guaranteed to reach destination in good order. No plants shipped Saturday.

Our satisfied customers are our best advertisement. Join the ranks.

We pay postage on packets and ounces. Add 5c. per pint and 10c. per quart for peas when ordered by mail.

PUMPKIN

Culture—Sow in hills 8 or 10 feet apart each way, or in fields of corn, about every fourth hill; avoid planting near melon or squash vines, as they will hybridize.

Sweet or Sugar—A handsome variety and very popular. Does not grow as large as the field varieties. The skin is a deep orange yellow, flesh fine grained and sweet. The most famous in Boston for pies. Pkt., 5c.; oz., 15c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.50.

Sweet or Sugar Pumpkin

King of Mammoths—Has been grown to weigh 200 pounds, surpassing any other variety for size. The flesh and skin are both bright yellow and of excellent quality. The Mammoth is one of the best pie pumpkins grown, also a splendid keeper and valuable for feeding purposes. Pkt., 5c.; oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Cashaw (Crook Neck)

Cashaw—Long Yellow Crook Neck, one of the best among pumpkins; sometimes weigh as much as 60 to 80 pounds. Pkt., 5c.; oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$1.75.

Large Cheese or Kentucky Field—A very productive variety, broad and flat in shape, rich green color, flesh is very tender, good for table or stock feeding. Pkt., 5c.; oz., 15c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.50.

Connecticut Field—Best for cattle feeding. Oz., 15c.; $\frac{1}{4}$ lb., 45c.; lb., \$1.35.

POTATOES

Potatoes—The soil best suited to the potato is a rich sandy loam, but it seems to thrive in almost any soil and climate. Plant as early in the Spring as the ground can be worked thoroughly, covering about 4 inches in warm soil, and in wet soil 3 inches deep, cultivate to keep down weeds, and draw earth to the plants as they advance in growth.

We make a specialty of handling only first-class stock of the popular Maine-grown varieties, suited to this locality, at the proper season, March 1st to May 15th.

They are put up in original sacks of 165 pounds (or 2 3-4 bushels) each. Prices varying according to the market.

We will have to offer Sir Walter Raleigh, Early Rose, Beauty of Hebron, Carman No. 1, Irish Cobbler, State of Maine, Red Bliss, Green Mountain, Gold Coin, Red Skins.

Red Skin or Cape May County Goodie—

We wish to call attention to this variety of potato which is planted long after all others are in the ground and growing up. Plantings are made of this variety from about July 15th to August 10th: it is late in maturing.

This potato is not planted in the early Spring; it will do well in most any soil, though light soil is preferable. Since this variety sets abundantly it requires plenty of plant food to produce potatoes of good size.

They are good keepers and are most excellent for table purposes, especially in the late Winter and early Spring. It is a most valuable addition to the potato crop.

RADISH

Culture—Radishes must make a rapid growth to be crisp and tender. For early use seed should be sown in the hot-bed in drills 4 or 5 inches apart and half an inch deep. For an early crop in the open ground select a sandy soil and a warm south border, under the shelter of a fence, or building, if possible. A load of fresh sandy loam from the woods is better for the radish crop. As soon as the first leaves appear sprinkle with soot or ashes to save from the little turnip fly. One ounce will sow 150 feet of row.

The secret in sowing good radishes consists chiefly in the observance on the part of the grower of three points. First, they should be grown on light, quick soil. Second, they should be given plenty of water, and last, but not by any means least, the right kind of seed should be sown. Radishes grow very quickly, and if not supplied with plenty of water are apt to be pithy.

Early Deep Scarlet Turnip Rooted—19 days—An improvement on the Red, very smooth and rich dark color. Pkt., 5c.; oz., 20c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.75.

Early Deep Scarlet Turnip Rooted

Early Scarlet Globe—Somewhat larger than the early turnip-shaped varieties, being globular in form, and more of a medium between the early button and the later long sorts.

Is heat-resisting and of a brilliant scarlet color. Very showy. Pkt., 5c.; oz., 20c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.75.

Early Red Turnip Rooted—This is the old favorite and there are few that are better. Pkt., 5c.; oz., 20c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.75.

White Tipped Scarlet Turnip—18 days—Fine French variety; scarlet bulb with white tip, very showy and ornamental. An extra early forcing sort. Pkt., 5c.; oz., 20c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.75.

White Box Radish

White Box—17 days—Fine for forcing or planting in the open ground, has short top, mild and sweet, a great favorite with Philadelphia market gardeners. Pkt., 5c.; oz., 20c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.75.

Half Long Scarlet—This variety, appreciated by many, is just the right size for table use, not too large, always tender and crisp. Pkt., 5c.; oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.

White Summer—A favorite turnip-shaped variety for the family garden. Round, smooth, crisp and mild. Pkt., 5c.; oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.

White Ladyfinger—25 days—In shape similar to Long Scarlet Short Top, sweet, mild, and brittle. Annually in greater demand as one of the best long radishes. Pkt., 5c.; oz., 20c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.75.

RADISHES—Continued **White Ladyfinger**

Iceberg—An extremely early white sort, well adapted for either forcing or open ground; slender and tapering in shape, very mild. Pkt., 5c.; oz., 20c.; ¼ lb., 50c.; lb., \$1.75.

White Strasburgh—A very popular variety. Pure white. Of tender quality and remains good for a long while. Matures in 30 to 35 days. Pkt., 5c.; oz., 20c.; ¼ lb., 50c.; lb., \$1.75.

Long Scarlet Short Top (Improved)

Early Long Scarlet Short Top (Improved)—The best standard variety for private gardens or market use, is brittle and crisp, and of quick growth; color bright scarlet, small top and is uniformly straight and smooth. Pkt., 5c.; oz., 10c.; ¼ lb., 35c.; lb., \$1.15.

WINTER RADISHES

(50 to 75 days, according to variety.)

Winter Radishes are not appreciated as much as their merit warrants. They are easily grown, have few insect enemies and can be easily preserved through the Winter, and there is no vegetable which furnishes a more acceptable relish. While quick growth is not so essential for these as for the earlier sorts, they do best on a rich soil which has been made as fine and friable as possible. Sow late in Spring or during the Summer in rows 2 feet apart and thin the plants about four to the foot.

Half Long Gray Black—One of the latest as well as one of the hardest of radishes, and is one of the best for Winter use; roots oblong, black, of large size and firm texture. Pkt., 5c.; oz., 20c.; ¼ lb., 50c.; lb., \$1.75.

Round Black Spanish—An excellent Round Black Winter variety. Popular among Germans. Pkt., 5c.; oz., 20c.; ¼ lb., 50c.; lb., \$1.75.

Scarlet China Winter—Form conical, of a bright rose color, flesh firm and pungent flavor. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.

White China Winter—Similar in shape to the preceding. Flesh piquant, solid and brittle, an excellent sort for late Fall or Winter use. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$1.75.

Scarlet China Winter Radish**RHUBARB ROOTS (Victoria)**

(Ready from October to May 15th.)

Large Clumps—Each, 10c.; doz., \$1.00.

Extra Large Clumps—Each, 20c.; doz., \$2.25.

in lots of 100 or more, price on application.

SALSIFY OR VEGETABLE OYSTER

Sow early in the Spring, in deeply dug and richly manured soil, in drills 18 inches apart. Keep clear of weeds, and when up a few inches, thin out, so as to stand 4 or 5 inches apart. This is a hardy vegetable and can remain in the ground all Winter for early Spring use, but should be taken out before they start growing.

French—Produces a tapering straight root about a foot long. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

Sandwich Island—Preferred on account of its larger size, and absence of stringiness. Resembles a good-sized parsnip and is very mild and delicately flavored. Pkt., 5c.; oz., 30c.; ¼ lb., 90c.; lb., \$3.25.

SPINACH

The spinach is very hardy, wholesome and palatable, and makes a delicious dish for greens. Should be planted in rich ground. Sow in drills one foot apart, and commence thinning out when the leaves are an inch wide. For early Spring use, the seed should be sown middle of Autumn, and will require through the Winter a slight protection of leaves or straw. For Spring and early Summer use, sow as early as the ground can be tilled and at short intervals, if a succession is desired. Edible in 40 to 60 days.

Bloomsdale—Savoy Leaf

Bloomsdale—A superior variety of Savoy-leaved spinach, having a heavy re-curved bloated leaf of symmetrical form. Fine for outdoor planting in Spring or Fall, or under glass. Pkt., 5c.; oz., 10c.; ¼ lb., 30c.; lb., \$1.00.

Norfolk—(Savoy)—Has a very erect habit of growth, and preferred by many on that account. Pkt., 5c.; oz., 10c.; ¼ lb., 30c.; lb., \$1.00.

Our Garden Tools Department, started three years ago, is a very successful branch of our business. Also the Flower Seeds Department, which includes Bulbs, Roots and Plants.

SPINACH—Continued

Long Standing—New large crimped fleshy leaved variety; stands two weeks longer than any other variety before running to seed. Best kind of seed sowing. Pkt., 5c.; oz., 10c.; ¼ lb., 30c.; lb., \$1.00.

New Zealand—This variety endures heat and drought; excellent for Summer use; the leaves are small and thick. It is an enormous yielder, growing upright, one sowing can be picked from the entire Summer, a very distinct variety. Pkt., 5c.; oz., 15c.; ¼ lb., 45c.; lb., \$1.50.

SQUASH

Cultivate same as cucumbers or melons. The Summer varieties should be planted 4 or 6 feet apart each way, and the Winter sorts 8 feet. Three plants are sufficient for a hill.

Early White Bush (or Patty Pan)

Early White Bush, or Patty Pan—50 days—The earliest in maturing, and very productive. Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.

Early Golden Scallop Bush—Like the preceding, except being of a golden color. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Golden Summer Crookneck

Golden Summer Crook-Neck—40 days—The best of the Summer squashes, gold color, profusely covered with warty excrescences and of very superior flavor. Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.

Italian Vegetable Marrow (or Cocozella)—A large fruited, light green and yellow mottled variety, of oblong shape. Fine for frying, like egg plant. Pkt., 5c.; oz., 20c.; ¼ lb., 50c.; lb., \$1.75.

Boston Marrow (or Squash Pumpkin)—A Fall and Winter variety, very popular, oval form, thin reddish skin, when ripe, bright orange color. Excellent for pies, very sweet, and a heavy cropper. Pkt., 5c.; oz., 10c.; ¼ lb., 30c.; lb., \$1.10.

Golden Hubbard—A very superior variety, flesh bright orange yellow; dry sweet and rich flavored, good keeper, boils or bakes exceedingly dry. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.

Hubbard

Warted Hubbard—Larger than the Golden, with deep green skin heavily warted. Very handsome in appearance, and an excellent keeper. It has the hardest shell of all the Hubbards. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.

Fordhook—A superb variety for pies; it cannot be excelled. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.

TOMATO

Culture—Tomatoes do best on light, warm, not over rich soil, and success depends upon securing a rapid, vigorous, unchecked growth during the early part of the season. To have them very early the plants should be started in a hot-bed; transplant carefully, and cultivate well as long as the vines will permit. Tying to a trellis or stakes improves the quality. Ripen in 85 to 115 days, according to variety.

Earliana—One of the new standards of recent introduction, ripening ahead of other and later varieties, medium in size, fruit growing in clusters. Very solid, and a good acquisition. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

Chalk's Early Jewel—The largest, smoothest and finest flavored, extra early bright red tomato. It is a heavy cropper, with tomatoes of large size and sweet flavor, producing throughout the season. The plants are of bushy, compact growth, heavily loaded with fruit. The tomatoes are of good size, just right for market; are very solid and deep through, being almost round; color bright scarlet, ripening to stem without cracks or green core. The flesh is thick, solid, of fine flavor, with few seeds. The skin is strong enough to make it a good shipping variety. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.15; lb., \$4.00.

Bonny Best—This is a superior early variety, over a week earlier than Earliana, and immensely productive, producing smooth, even-sized, globular-shaped fruit, of a rich bright scarlet color. Ripens evenly without spots or cracks, and is a valuable addition to the family or market garden. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

Matchless—Quite early, vigorous growth, vines large, and productive throughout the season. Fruit dark rich color, slightly below medium size, but always round and smooth. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

John Baer—A few days earlier than Earliana, it yields a much heavier crop of larger, more uniform and more attractive fruits—generally returns the biggest profits of any extra early variety. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

Acme—105 days—One of the most popular varieties; vines large, and produce abundantly until frost. Fruit in clusters, color maroon or reddish, with slight tinge of purple, invariably smooth and round, of good size and unusually solid, is a good shipper. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

Paragon—Vines large, liberal and productive; fruit large, round, of a dark crimson color, occasionally tinged with purple. The flesh is thick and fine flavored, and taken altogether, it is one of the best varieties yet produced. Pkt., 5c.; oz., 30c.; ¼ lb., 90c.; lb., \$3.00.

Livingston's Perfection—A handsome new tomato, so nearly identical with the preceding as to be interchangeable with it. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

Red Stone

Red Stone—115 days—A well known and favorite variety, rich color, solid flesh, and desirable in every way. Pkt., 5c.; oz., 30c.; ¼ lb., 90c.; lb., \$3.00.

Dwarf Stone (Tree Tomato)—Large, red, smooth and solid; the stalk is upright with very dense foliage protecting fruit from heat of sun. A most desirable tomato. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

Livingston's Beauty—115 days—The very latest production of Mr. Livingston, and claimed to be the best; color a bright glossy crimson, slightly tinged with purple, grows in clusters of four or five large fruits, and retains its size until late in the season, and will average more pounds of fruit to the acre than any other variety. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

Livingston's Favorite—This is the most perfect shaped tomato in cultivation, is smoother than the Paragon. It ripens evenly, and as early as any good variety; very prolific, good flavor, few seeds, solid and a good shipper. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.

Red Queen—Well known as one of the best; vines of medium size, but producing large quantities of fruit, which is large, smooth, and bright red in color. Pkt., 5c.; oz., 30c.; ¼ lb., 90c.; lb., \$3.00.

TOMATO—Continued

Beefsteak or Ponderosa—One of the best; color maroon, solid flesh, very productive. Pkt., 5c.; oz., 50c.; ¼ lb., \$1.75; lb., \$6.00.

Pear Shaped—Yellow or Yellow Plum. Used for preserves and pickles; is extraordinarily productive. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.15; lb., \$4.00.

Red Rock—A very solid, large, late red variety. Pkt., 5c.; oz., 30c.; ¼ lb., 90c.; lb., \$3.00.

TOMATO PLANTS

Ready about May 1st.

Large quantities matter of correspondence.

Improved Stone, Bonny Best, Greater Baltimore, Chalk's Early Jewel Dwarf Stone, Sparks' Earliana, Livingston's Beauty, Yellow Egg.

Pot Grown—Doz., 65c.; 100, \$5.00.

Hot-Bed Grown—Doz., 20c.; 100, \$1.00.

All plants packed in live moss, to insure long shipment. All express shipments guaranteed to reach destination in good order. No plants shipped on Saturday.

TURNIP

(Maturing from 60 to 90 days, according to variety and season.)

Early Flat Dutch—This is a quick growing, strap-leaved, white variety, resembling the Flat Red Top excepting that its top is white. A favorite sort for either the market or family garden. Has a mild, pleasant flavor, and is as desirable in every way as the Red Top Flat. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Early Flat Red or Purple Top

Early Flat Red or Purple Top—(Strap Leaved)—Very similar to the preceding except in color, being purple or dark red on top; form round, flat, with but few leaves, which are of upright growth. This is the standard variety, and there is none better for general purposes. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Cow Horn—This variety is carrot-shaped, and grows nearly half out of the ground; is pure white, except slight shade of green at top. It is well flavored, of rapid growth, and seems to be increasing in favor every year. Oz., 20c.; ¼ lb., 50c.; lb., \$1.75.

Large Purple Top Globe

Large Purple, or Red Top Globe—An excellent variety, globe shaped and heavy cropper; this variety is rapidly taking the lead among growers for market garden purposes; it is also a good one for stock. Pkt., 5c.; oz., 20c.; ¼ lb., 50c.; lb., \$1.75.

Yellow, or Amber Globe—(Strap Leaved)—This is one of the best of the rough leaved sorts, for either table use or for stock; yellow, fine grained and sweet; hardy, keeps well, is a good cropper, and grows to a very large size. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Golden Ball—A small yellow turnip of second size. Early, and a good keeper. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Yellow Aberdeen (Green Top)—This is a very nutritious turnip; flesh pale yellow, tender and sugary; is a good keeper, hardy and productive. It is an old favorite, and for stock purposes hard to beat. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

Yellow Aberdeen (Purple Top)—Very hardy and productive, a good keeper; globe shaped. Color pale yellow, with purple top. Very firm in texture, and closely resembling the rutabaga in good keeping qualities. Good either for table or stock. Pkt., 5c.; oz., 15c.; ¼ lb., 40c.; lb., \$1.25.

**RUTABAGAS
SWEDISH TURNIP**

Ruta Baga

Kelway's Perfect Model—We cannot speak too highly of this new but justly celebrated Swede brought out by Kelway, being a fresh selection of a heavy cropping rutabaga with a small purple top, free from that stringiness found in some. Tender and sweet, the absolute acme of perfection.

Although a long keeping variety, it is remarkable for being the first in coming to maturity.

Market gardeners should not neglect the opportunity to secure this money maker. Pkt., 10c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.75.

Improved Purple Top Yellow Swede—This is the standard and most important now cultivated for stock purposes; noted for rapid growth, large size and nutritious quality, and cannot be too highly recommended. Pkt., 5c.; oz., 15c.; ¼ lb., 45c.; lb., \$1.50.

White Fleshed Purple Top Rutabaga—This differs mainly from the preceding in color; possesses most of the good qualities of the yellow, but is of slightly milder flavor, is not as valuable for stock as the yellow. Pkt., 5c.; oz., 15c.; ¼ lb., 45c.; lb., \$1.50.

AROMATIC AND SWEET HERBS

- Basil, Sweet. Pkt., 5c.; oz., 20c.; ¼ lb., 60c.; lb., \$2.00.
 Dill. Pkt., 5c.; oz., 15c.; ¼ lb., 50c.; lb., \$1.50.
 Marjoram, Sweet. Pkt., 5c.; oz., 40c.; ¼ lb., \$1.25; lb., \$4.50.
 *Sage. Pkt., 10c.; oz., 45c.; ¼ lb., \$1.50; lb., \$5.00.
 *Savory, Summer. Pkt., 5c.; oz., 35c.; ¼ lb., \$1.00; lb., \$3.50.
 *Thyme. Pkt., 10c.; oz., 45c.; ¼ lb., \$1.50; lb., \$5.00.

Those marked with (*) are perennial, and when once obtained in the garden, may be preserved for years with a little attention. Most of the varieties thrive best on rich, sandy soil, which should be carefully prepared and 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 16 to 18 inches apart, or sow in beds in April, and set plants out in June, they should be cut when in bloom, wilted in the sun, and then thoroughly dried in the shade.

NURSERY STOCK

We supply from reliable nurseries:

- Large and small fruit and ornamental trees, vines and plants.
 Space forbids further description of variety names. Prices on application.
 Strawberries—early and late varieties.
 Blackberries—In strong plants, rust-proof.
 Gooseberries—All varieties, in one and two-year plants.
 Currants—Many varieties, including Boskoop Black Giant.
 Raspberries—The Ranere or St. Regis and various other kinds.
 Grapes—All colors, early and late, including the Caco, one of the best for the vineyard.
 Hedge plants—California Privet, Amoor River Privet, Berberis Thunbergis.
 Evergreens, Roses, Shade Trees, etc.

DISEASED LAND AND HOW TO CURE IT, WITH FINAL WORD REGARDING NATURAL HUMUS

We have had this question put to us so often that we feel justified in saying a few words on the subject, based on our own observations and testimony of others.

A productive soil is not a dead body, but a living one, and as such is, like human life, animal and plant life, subject to many diseases, and a practical farmer should know what kind of medicine to apply to cure the various ailments—for instance:

We Have Land Suffering From Consumption—

Sickly looking and pale in color—such land will not hold water; it is poor in vegetable matter—humus—and some farmers will claim that such land cannot be made to hold manure or fertilizer, and consequently cannot be cured. This is wrong; consumptive land can be cured by increasing the water holding capacity of same.

Try This Experiment—

Fill a funnel with this consumptive sandy soil, pour some water on this soil in funnel, note how quickly the water will filter through soil and funnel, also note the small amount of water retained in soil; now take same quantity of same soil, mix with one-third quantity of clay, put in funnel and pour water on it as before, and you will find the soil will hold nearly double the quantity of water as in the first sample before running through the funnel; now again, take the same soil with the one-third clay, and add one-third quantity of vegetable matter or humus, add water as before, and you will note that this soil will hold nearly three times as much water as the first sample, and about twice as much as the second; and when you remember that plants cannot take solid foods—plant foods must be soluble in water—you can readily see how important it is to increase the water holding capacity of your soil, as before mentioned. If, in curing your consumptive land, you cannot obtain the clay mixture through deep plowing, give the land

plenty of humus through cow peas and german clover, and should it get sour through an over abundance of vegetable matter, give an application of from one to two thousand pounds of lime, and same will promptly correct the acidity.

Other Lands Suffer From Torpid Liver—

This is generally a heavy clay soil, with little sand and no humus, and always a closed surface after a rain; plants in this land die from suffocation, because the air cannot penetrate to the roots. Doctors prescribe calomel for human beings suffering from this disease—the farmer should use the subsoil plow, plenty of lime, german clover and cow peas, and if his bank account allows, he should tile drain such land and make of it a most productive grass and clover land. In sowing grains, grass or clover on such land the surface should not be finely pulverized, but left open in a lumpy condition, to prevent the surface becoming hard and shining after the rain.

Remember that land, being a live body, must breathe, the pores must be kept open, and a closed surface on soil is as detrimental to its physical condition as closed pores are to the human body. By allowing the surface of your land to bake and get hard, you destroy the capillary attraction of the soil, the pulsating action of its breathing, which means its capacity and ability to breathe and draw the moisture, not only from the atmosphere, but from the subsoil as well.

WHAT HUMUS DOES FOR FLOWERS

The most recent tests with various mixtures of soil and humus have given highly satisfactory results.

Humus has no odor.

Mix it at rate of three parts soil to one of humus.

Flowers potted for house blooming should have mixture like above and will have a richness of bloom and vigor of foliage such as every enthusiast strives to secure.

CLASSIFIED LIST OF EDGING, BORDER AND CLIMBING PLANTS

There are no more satisfactory flowers grown than those from seed, especially the easily grown and brilliant flowered ones, fully listed on following pages. Shrubbery and other hardy plants have their place, but a paper of seed, costing but a very small sum will furnish a large number of plants giving the greatest amount of bloom for the minimum of cost. We give a list of those best suited for either—Edging or Border Plants, Bedding or Grouping and Climbing Plants or Vines.

Cannas do well in almost any kind of soil, but they well repay liberal treatment. For the best results they should be planted in good loam that has been well mixed with an abundant supply of well rotted stable or other manure. The beds should be spaded 2 feet deep, or more, and the soil well pulverized. Water should be applied abundantly at all times, but good drainage is essential.

Cannas are most effective when planted in masses, either alone or in combination with salvia (scarlet sage) and bordered with coleus or other dwarf-growing bedding plants. They are also frequently used with some of the tall-growing ornamental grasses, with which striking combinations can often be secured. They do best in sunny situations, and should be set out about 2 feet apart each way.

Edging or Border Plants

Aquilegia
 Ageratum—(Dwarf)
 Alyssum—Little Gem
 Candytuft
 Mignonette
 Myosotis
 Nasturtium (Dwarf)
 Pansy
 Portulaca
 Snap Dragon
 Sweet William

Bedding or Grouping

Autirrhinum—(Tall)
 Asters

Centaurea—Bachelor's But-

ton
 Balsam—(Lady Slipper)
 Calendula—Pot Marigold
 Calliopsis
 Campanula
 Castor Oil
 Carnations
 Cosmos—Dwarf or Tall
 Coxcomb
 Delphinium
 Digitalis
 Eschscholtzia
 Four O'Clock
 Gaillardia
 Heliotrope
 Helichrysum

Hollyhocks

Kochia
 Larkspur
 Mignonette
 Marigold—(Dwarf or Tall)
 Phlox
 Petunia
 Pinks
 Poppy
 Salvia
 Stocks
 Sweet Sultan
 Sweet William
 Verbena
 Wallflower
 Zinnia

Climbing Plants or Vines

Balloon Vine
 Balsam Apple
 Canary Birdflower
 Clematis
 Cypress Vine
 Echinocystis
 Gourds
 Japanese M. Glory
 Convolvulus M. Glory
 Hyacinth Bean
 Ipomea—Moon Flower
 Nasturtium—Tall
 Sweet Peas

MINGLE'S SEEDS

1837-1919

TRIED AND TRUE

SELECTED
FLOWER SEEDS

Every year we carefully revise our list of flower seeds, retaining the superior varieties and rejecting the undesirable ones. Annuals attain full growth from seed, flower and die in one year. Biennials grow from seed one year, bloom and die the next; though some varieties bloom the first season when sown early. Perennials last for several years, blooming annually after the first season. Some varieties flower the first season if planted early in gentle heat.

The letter "A" following variety designates the Annuals; "B," the Biennials; "P," the Perennials; "H.A.," Hardy Annuals. P. A. denotes Perennials which can be treated as Annuals.

Prices on Flower Seeds include postage. Every flower seed is priced according to general rule of all seed houses, in either 5c. or 10c. packets. On larger lots we quote on application, such as ounce, ¼ lb. and 1 lb. quantities. We make a special price, however, on Sweet Peas and Nasturtiums, per notation found on page 27. Dahlias, Gladiolus, Lilies, Cannas, Paeonies and various other bulbous and root plants are fully described on following pages.

Ageratum (Floss Flower)—One of the very best bedding plants from early Summer till frost; used also for borders, or planted with geraniums, coleus and cannas. Imperial Dwarf Blue. "H.A." Pkt., 5c.; ¼ oz., 15c.

Alyssum (Little Gem)—The dwarf variety; fine for beds or edging in Summer, or pots and boxes in Winter. Will bloom the entire season, until hard frost. "A." Pkt., c.; large pkt., 5c.; ¼ oz., 25c.; oz., 75c.

Antirrhinum (Snap Dragon)—This is one of our finest perennials. If planted early, will flower the first year as an annual. The flowers are brilliant and beautifully marked; fine for cutting. Giant Flowering Mixed. "P.A." Pkt., 10c.; ¼ oz., 25c.

Aquilegia (Columbine)—Flowers beautifully in Spring, the flowers rising two feet above the fernlike foliage. Used for cut flowers. Single Fine Mixed. "P." Pkt., 5c.; oz., 50c.

Aster (Semple's Branching)—Easily raised from seed and make attractive Autumn-flowering border plants. This superb strain is of American origin, and is especially adapted to our climatic condition. Mingle's Special Mixed. "A." Pkt., 5c.; large pkt., 10c.; ¼ oz., 90c.; oz., \$1.75.

Balsam or Lady Slipper—One of the oldest and best known summer-blooming annuals, of easy culture. Desirable for garden or pot culture. The soil should be of the richest and best quality. Set them about 15 inches apart, and give them plenty of manure-water. Tender annuals. Double Camelia Flowered Mixed. "A." Pkt., 5c.; ¼ oz., 25c.

Balloon Vine—A rapid climbing ornamental plant, bearing pretty white flowers, whose seed pods swell in shape like balloons. "A." Pkt., 5c.; oz., 25c.

Calendula (Scotch Marigold)—Showy, free-flowering hardy annuals, growing in any good garden soil, producing a fine effect in beds or mixed borders and continuing in bloom until killed by frost; valuable also for pot culture; 1 foot. Double Fine Mixed. "A." Pkt., 5c.; oz., 25c.

Calliopsis—This hardy annual is another of the garden's great forces in yellow, strengthened with rich red-maroons and browns. Sow in the open ground in spring, and, in thinning or transplanting, give the plants plenty of room to spread. Their tall, slender habit makes neat staking and tying necessary. Fine for cutting. Tall Fine Mixed. Pkt., 5c.; oz., 30c.

Celosia (Cockscomb)—We prize and plant the Cockscomb as an odd and picturesque decorative feature of the garden. Annuals of easy culture, the bright red and crimson varieties are most effective, both in gardens and in winter bouquets, for which they are cut before fully ripe and dried in the house. The dwarf varieties make novel and attractive borders; the tall ones form striking groups. Transplanting into rich soil about the time the combs begin to form makes the flower-heads much larger. They are bright from midsummer until frost. Cristata. Giant Mixed. "A." Pkt., 10c.; ¼ oz., 40c.

Campanula (Canterbury Bell)—Red, White and Rose. An old-fashioned favorite with all. Of easy growth and showy. A hardy biennial. Double Fine Mixed. Pkt., 5c.; ¼ oz., 30c.

Candytuft (Iberis)—The Candytufts are among our best hardy annuals for edgings, bedding, massing or rockeries, and for cutting. Several of the varieties are fragrant, and all are profuse in bloom. Sow outdoors in April, and thin well when the plants grow about an inch. Sow again in a month, and late in July for fall flowers. Give rich soil, and water freely. Fine Quality Mixed. "H.A." Pkt., 5c.; oz., 20c.

Canary Bird Vine—A rapid-growing summer-climbing annual, 10 to 15 feet high; it will cover trellis work in the most graceful manner, producing hundreds of pretty winged, bright yellow flowers. "A." Pkt., 5c.; oz., 25c.

Carnation—Always in demand and not hard to grow. Have a delightful clove fragrance. Half-hardy perennials, flowering the second year from seed, with exception of the "Marguerite" variety, which will bloom in four months from time of sowing the seed. Should not be planted where water stands in Winter. Mingle's Fine Mixed "Marguerites." Pkt., 10c.; ¼ oz., 40c.

Centaurea (Cornflower)—Of easy culture. Abundant bright flowers. Sow early outdoors and thin plants to 6 or 8 inches, or raise in boxes indoors and transplant when large enough. Imperialis Gigantea. Finest Mixed. "A." Pkt., 5c.; ¼ oz., 20c.

Cosmos—Beautiful Summer and Autumn blooming plants. Flowers a beautiful pure white, pink and crimson, furnishing an abundance of cut blooms. Late Mammoth Flowering, Mixed. Pkt., 5c. Early Dwarf Flowering, Mixed. Pkt., 10c.; ¼ oz., 20c.

Clematis—Hardy perennial climbers; fine for arbors, verandas, etc., bearing clusters of beautiful fragrant white flowers. Paniculata. "H." Pkt., 10c.; ¼ oz., 50c.

Cypress Vine (Ipomoea Quamoclit)—A half-hardy, very beautiful, delicate, fern-like foliage plant, and masses of bright crimson and white flowers. Plant about the 10th of May; 15 feet. Pkt., 5c.; ¼ oz., 20c.

Castor Oil Bean (Ricinus)—Tall majestic plants with palm-like leaves. Fine for backgrounds and centers for beds of foliage plants. All the best sorts, including the bronze, copper-brown, green and purple leaved kinds. Zanzibariensis, Splendid Mixed. Pkt., 5c.; oz., 20c. All Sorts, Mixed. Pkt., 5c.; oz., 20c.

Delphinium (Larkspur)—This is one of the best known garden flowers. By careful attention to selection and cultivation much improvement has been made in color and size. Chinese Blue. "P.A." Pkt., 5c.; ¼ oz., 20c.

Dianthus (Garden Pink)—These flowers are without a superior among annual garden plants. Bloom continually all summer long, and are most beautiful and lasting cut flowers. Of easy culture and bloom the first year from seed. Very fragrant. Chinensis. Double Fine Mixed. "A." Pkt., 5c.; ¼ oz., 15c.

Digitalis (Foxglove)—Highly ornamental and handsome plants, of stately growth. Thrives best in half shady places. Height, three to five feet. Gloxiniflora. Mixed. "P." Pkt., 5c.; ¼ oz., 25c.

Echinocystis (Wild Cucumber Vine)—The fastest-growing annual vine in existence; will grow 20 feet in six weeks; pretty foliage and inconspicuous white flowers; soak seed in water over night before planting in dry weather. Lobata. "A." Pkt., 5c.; oz., 25c.

Eschscholtzia—Commonly called California Poppy. The state flower of California. This much esteemed hardy annual is very bright and rich in its pure tints of yellow, orange, etc. The plants average about a foot in height, with silvery foliage, and produce their large, poppy-like flowers from early spring until frost. They are most effective when grown in beds of considerable size, over which the seed may be sown broadcast thinly and lightly. All colors. Fine Mixed. "A." Pkt., 5c.; oz., 30c.

Gaillardia—One of the most showy and brilliant of garden flowers, fine for bedding and cutting, producing large flowers of rich shades throughout the summer. Lorenziana. Double Mixed. "A." Pkt., 5c.; oz., 80c.

Gourd (Ornamental)—Rapid growing annual climbers for covering arbors, fences, etc., with ornamental foliage and curious shaped fruit.

Calabash or Dipper—Very useful. Pkt., 5c.; oz., 25c.

Egg-Shaped—White like an egg. Pkt., 5c.; oz., 20c.

Hercules Club—Club shaped; 4 feet long. Pkt., 5c.; oz., 30c.

Luffa (Dish Rag or Bonnet Gourd)—Pkt., 5c.; oz., 20c.

Orange-Shaped Mock Oranges—Pkt., 5c.; oz., 20c.

Pear-Shaped—Striped; very showy. Pkt., 5c.; oz., 25c.

Helianthus (Sunflower)—The single annual Sunflowers are indispensable for cutting and a bright display of yellow flowers in the garden, borders or among shrubs. Plant early in a sunny place and they will come into bloom early in the summer and keep up a constant supply of flowers until cut down by severe frosts in the fall. Single and Double Mixed. Pkt., 5c.; oz., 25c.

We Pay Postage on Flower Seeds.

Helichrysum (Eternal Flowers)—A most popular, hardy annual; the flowers are large and the colors bright; highly prized for winter bouquets. Flowers intended for drying should be gathered when partially unfolded, and suspended with heads downward in a cool and airy place; 1 to 2 ft. Monstrosum. Mixed. Pkt., 5c.; ¼ oz., 50c.

Hollyhock—A most majestic hardy plant, giving a pleasing effect in any garden. Usually planted among shrubbery, or to give a background for other flowers. The strain we offer is considered the very best. Chaters. Superb Double Mixed. "P." Pkt., 10c.; ¼ oz., 40c.

Hyacinth Bean (Dolichos)—Very rapid-growing, hardy annual climber, bearing pea-shaped blossoms and ornamental seed pods. Fine for covering screens, etc.; 10 ft. Lablab. White and Purple. Pkt., 5c.; oz., 20c.

Kochia (Summer Cypress or Mexican Fire Bush)—An easily grown annual, which grows into a cypress-like hedge, with feathery green foliage; at the approach of autumn the foliage turns to a deep red color; 2 to 3 feet. "A." Pkt., 5c.; ¼ oz., 25c.

Larkspur—See Delphinium, page 26.

Marvel of Peru or Four O'Clock—Mixed Dwarf (white and yellow). A popular free flowering garden sort. Thrives in every garden. Plant 1 to 1½ feet apart. Jalapa. Fine Mixed. "A." Pkt., 5c.; oz., 20c.

Marigold—A hardy annual, shrubby plant, in dwarf and tall varieties, growing from 6 inches to 3 feet high. Foliage bright green, deeply cut, and graceful. The flowers are various shades of yellow and brown. The tall varieties are very valuable for large bedding or background work, and the dwarf varieties for borders. No flower garden seems complete without this fine old-fashioned plant. "A." African. The best tall variety with large double blossoms. Pkt., 5c.; oz., 50c. Dwarf French. Double Mixed. Pkt., 5c.; oz., 40c.

Mignonette (Reseda Odorata)—Seed of this popular hardy annual can be sown at any time, and if successive sowings are made, its fragrant, modest-colored flowers may be gathered outdoors until November. Sow in pots or boxes under glass in February or March, and thin or pot off the seedlings to make good plants for bedding out in April. Choice Mixed. "A." Pkt., 5c.; ¼ oz., 20c.

Moonflower (Ipomoea mexicana)—Of all climbers for garden and greenhouse these are the quickest and most luxuriant in growth. Ipomoeas grow so easily from annual sowings that it is no longer thought necessary to winter over roots or young-cutting plants under glass. The large, thorny seeds of some varieties should be soaked in hot water before planting. For early flowers sow in hotbeds or pots and boxes under glass, and transplant to rich, deep soil in summer quarters as soon as danger of frost is over, when sowings may also be made in the open ground. Nothing finer for porches, trellises, etc.

These are very hard-seeded, and, in order to hasten germination, a notch should be filed in the seed before planting. Grandiflora Superba. Pkt., 5c.; oz., 35c.

Morning Glory (Ipomoea)—The tall varieties are popular, well known, rapid-growing climbers of the easiest cultivation; very fine for covering arbors, trellises, porches, etc.

Convolvulus Major—Tall, choice, single mixed; all colors. "A.C." Pkt., 5c.; oz., 15c.

Imperial Japanese—These have very large fringed flowers in a great variety of the most exquisite colorings; handsome foliage. Pkt., 5c.; large pkt., 10c.; oz., 25c.

Momordica (Balsam Apple)—A climbing annual, growing about 10 feet long. Has graceful and ornamental foliage, yellow flowers and warted golden yellow fruit, with large carmine-red seeds. Balsam Apple and Balsam Pear are climbers which thrive. Balsamina, Apple Shape. Pkt., 5c.; oz., 35c.

Charantia or Balsam Pear—Same as the Balsam Apple, but fruit is pear-shaped. Pkt., 5c.; oz., 35c.

Myosotis (Forget-Me-Not)—Blue and white. Succeeds best in a shady, moist situation. Permanent and hardy, if given a slight protection through the winter. Finest Mixed. "P." Pkt., 5c.; ¼ oz., 20c.

Nasturtium—Our Dwarf varieties are selected from the largest and most beautiful flowering stock. Our tall varieties

cannot be excelled as handsome climbers for trellises and verandas. The seed when still green may be used for pickling.

Dwarf Mixed, per lb., \$1.75; ¼ lb., 50c.; oz., 15c.; pkt., 5c.

Tall Mixed, per lb., \$1.25; ¼ lb., 35c.; oz., 10c.; pkt., 5c.

Petunia—A beautiful flowering plant well adapted either for outdoor or house culture. Begins to flower early, and continues so the whole season. Finest Single Mixed. "A." Pkt., 5c.; ¼ oz., 30c.

Pansy—No description is needed of these little favorites, and it would be hard to find a garden whose charm is not in a large measure dependent upon their marvelous coloring.

Giant French Mixed—The largest flowering type of Pansy called the French strain. The top petals are larger than the three lower ones and are beautifully marked. The plants are vigorous, compact growth, with immense, three-blotched flowers. "P." Pkt., 5c.; large pkt., 10c.

Phlox—One of the best known garden plants. Brilliantly colored flowers, selected from the best strains. Will grow anywhere in a sunny location. Drummond. Tall Mixed. "A." Pkt., c. Decussati. Tall Fine Mixed. "P." Pkt., 5c.; ¼ oz., 50c.

Poppies—Showy, large, brilliant colored flowers, growing freely in any garden soil. Produce a fine effect in clumps or beds. Shirley. The finest single. "A." Pkt., 5c. Paeony-flowered. The finest double. Pkt., 5c.; ¼ oz., 10c.

Portulaca—Low-growing or creeping tender annual, 6 to 8 inches high, and bearing glossy, cup-shaped blossoms in very brilliant and gorgeous colors. The seed germinates slowly and should be started under glass or when the weather is hot. These flowers love the sunshine and do best on rather dry ground.

Select Single Mixed—This is an extra fine strain with very large blossoms and splendid colors. "A." Pkt., 5c.; oz., 60c.

Choice Double Mixed—Flowers perfectly double; of the most brilliant shades of color. Pkt., 10c.; ¼ oz., 30c.

Ricinus—See Castor Oil Bean.

Salvia (Flowering Sage)—The well known scarlet flowered bedding plant, blooms from July till frost. Blooms the first year from seed sown early in hotbeds or indoors, and transplanted when the weather becomes warm enough. Splendeus. A fine strain. Pkt., 10c.; ¼ oz., 50c.

Sweet Peas (Lathyrus Odoratus)—Mixed. The flowers of the Sweet Peas are among the most useful and beautiful of our hardy annuals. We offer our Special Selections of seed of these popular flowers, including only seeds of the brightest and largest flowering, free blooming, long stemmed sorts. All colors mixed.

Choice Selection, per lb., \$1.00; ¼ lb., 35c.; oz., 10c.; pkt., 5c.

Extra Selection, per lb., \$2.00; ¼ lb., 60c.; oz., 20c.; pkt., 10c.

Stock (Ten Weeks)—An annual, used largely for bedding purposes, and grown in pots for Spring flowers. Has long spikes of bloom. White, pink and crimson; single and double. Very fragrant. Giant Early Flowering Mixed. "A." Pkt., 10c.; ¼ oz., 90c.

Sweet William—A beautiful class of hardy, free blooming plants of extreme richness and diversity of colors. Produces a fine effect in beds or mixed flower borders. Choice Single Mixed. "B." Pkt., 5c.; ¼ oz., 20c.

Verbena Hybrida—Yellow, blue and white. Flowers large and brilliant. Selected seed, from the best blooming sorts. Sow early indoors or in hotbed, and transplant in May, or sow in the open in May, for July blooming. Extra Choice Single Mixed. "A." Pkt., 10c.; ¼ oz., 50c.

Wallflower—This is a fine bedding plant, but it is more often grown as a pot-plant and for this purpose is well adapted. The flowers are very fragrant and usually of various shades of yellow, brown and reddish brown. An old-fashioned flower which is always popular. Sow early in the year in boxes and transplant. Special Fine Mixed. "P.A." Pkt., 5c.; oz., 25c.

Zinnia (Youth and Old Age)—An annual of handsome and brilliant appearance. Sow early, indoors or in hotbed, and transplant. The bloom continues throughout the Summer. Giant Flowering. Extra Mixed. Pkt., 10c.; oz., 90c. Dwarf Flowering. Fine Mixed. Pkt., 5c.; oz., 50c.

LARGE FLOWERING CANNAS

Tall and Dwarf, Large Flowering French, all varieties, Each, 10c., Doz., \$1.00, 100, \$6.00
Not less than 6 of a kind at dozen rate, 25 at the 100 rate. If wanted by mail add 10 cts. per dozen for postage

Cannas do well in almost any kind of soil, but they well repay liberal treatment. For the best results they should be planted in good loam that has been well mixed with an abundant supply of well rotted stable or other manure. The beds should be spaded 2 feet deep, or more, and the soil well pulverized. Water should be applied abundantly at all times, but good drainage is essential.

Cannas are most effective when planted in masses, either alone or in combination with salvia (scarlet sage) and bordered with coleus or other dwarf-growing bedding plants. They are also frequently used with some of the tall-growing ornamental grasses, with which striking combinations can often be secured. They do best in sunny situations, and should be set out about 2 feet apart each way.

All of the Following Are Dormant Roots.

Bronze-Foliaged Cannas

Wyoming—7 feet. Immense umbels of massive orange flowers; bronze-purple foliage. A splendid bedder.

Koros—4 to 4½ feet. Orange-scarlet color, very attractive, streaked with carmine.

King Humbert. 4 feet. Bears immense, brilliant orange-scarlet flowers, streaked with crimson, in gigantic trusses. A massive sturdy grower of stately habit.

Louis Reverchon—4½ to 5 feet. This is one of the best dark leaved varieties in popular favor. Its flowers are large cochineal red color.

Green-Foliaged Cannas

Pink—White

Allemania—Deep salmon, marked with gold; of the orchid type of flower; very popular.

Arc-en-ciel—Rose color, with salmon tinge; very heavy bloomer; a most attractive flower.

Maros—The best white Canna; very free flowering.

Venus—4 feet. This is one of the prettiest Cannas in existence. The flowers are a gay rosy pink with a well defined border of creamy yellow; blooms all the time, with heads erect and flowers bright.

Red Colors

Pennsylvania—6 feet. Vermilion scarlet, with shading of orange. This is of the orchid flowering class. Free bloomer.

Alphonse Bouvier—5 feet. Deep crimson color; a handsome large flower.

Feuermeer—A brilliant fiery scarlet of medium size; exceptionally free-flowering; very effective for massing; 4 feet.

Yellow Colors

Austria—A variety with gigantic blooms of a satiny texture, pure golden yellow; 6 feet high.

Gladiator—One of the finest bedders, color deep yellow freely dotted with red; 4½ feet.

Johanna Kanzleiter—Light amber-yellow, changing to creamy-white as it matures; very free and attractive; 3½ to 4 feet.

Madam Crozy—3½ feet. Vermilion, with gold border; very pretty.

DAHLIAS

All varieties 15c. each, \$1.50 doz., in large clumps.

Dahlias will grow in almost any kind of soil, but it should not be too rich. The soil should be plowed or spaded deeply as early as possible and then again just before planting. If it is already fertile, use no manure or fertilizer. If it is poor, broadcast any kind of manure before the first spading. If manure is not obtainable, use some good fertilizer, not too rich in Ammonia or Nitrogen. Apply this at the rate of one-half ton to the acre.

There is a good deal of difference in opinion as to the proper time to plant. Formerly everybody planted Dahlias as early as possible. Lately many authorities recommend planting as late as July 1st. It is often difficult, however, to keep the roots in good condition so late. Plant the roots four to six inches deep and two to four feet apart. Allow but one stalk to the root; cut the others off. If you wish, you can make new plants from these sprouts, as they root in soil very readily.

The soil around the roots of Dahlias should never be allowed to crust. Cultivate deeply until the buds begin to open. After this, one to two inches. By this method plants may be successfully carried through very dry summers.

The roots should be stored in cool cellars away from furnace heat.

Cactus Dahlia

J. H. Jackson—Dark maroon, a handsome flower; accounted one of the best dark ones.

Countess of Lonsdale—This is one of the most easily grown and freest blooming of the Cactus Dahlias. The flowers are very large and double of perfect form. The color is a rich salmon pink.

Faunus—A pure white, fine bloomer, stiff stem. Good for cutting.

Country Girl—Golden yellow, suffused salmon pink, a grand cut flower variety.

Standard Bearer—Bright, clear scarlet; free bloomer.

Rene Cayeux—Rich red, produced with wonderful freedom. One of the best of the Cactus varieties.

Ida—Clear canary yellow.

Type of Show Dahlia

SHOW DAHLIA

Susan—A beautiful, delicate, soft pink, of splendid form, remarkably early and free-flowering, with long stems; splendid for cutting.

Arabella—Light sulphur-yellow, shaded peach-blossom on edges; a fine flower.

Queen Victoria—Pleasing shade of canary yellow; quilled petals. Plants tall.

Miss L. L. Williams—A fine deep red, prettily shaped petals, very attractive.

Lavender Beauty—Dark shaded lilac; a beautiful flower; dwarf habit and a profuse bloomer.

Cuban Giant—Immense ball-shaped blooms of bright maroon; free and early.

Chang—A beautiful shaped quilled petal; red and white striped; very fancy.

Emily—Delicate lavender, daintily tinged with white; an exceptionally fine flower, long, stiff stems.

Add 3 cents to each clump if wanted by mail, if by express at purchaser's expense.

DECORATIVE DAHLIAS

All varieties, 15c. each; \$1.50 doz.

Crimson Giant—Very large; deep crimson, with a high, full centre.

Sylvia—White, shaded soft pink toward centre; a pretty combination.

Clifford W. Bruton—Very large; clear canary-yellow; an ever popular flower.

Henry Patrick—A very beautiful Dahlia. The flowers are large snow white and of great substance.

Jack Rose—This is a splendid variety. The flowers are very large, produced in the greatest profusion, the color of the rose of the same name. 15c.

Souvenir de Gustave Doazon—Of mammoth proportions, which, under ordinary cultivation, will produce flowers 6 inches across, and can be grown to measure full 9 inches. It is of free growth, profuse flowering and pure red in color.

Miss Bessie Brown—A lovely, intense buff color; very large flowers; quite prolific bloomer. This is a new one.

Enterprise—Burnt orange color, a very large flower and very popular; a desirable cut flower.

GIANT SINGLE DAHLIAS

Twentieth Century—Rosy crimson, shaded white. Towards end of the season is almost pure white, with a pink shading.

Whippoorwill—Pure canary color; a fine specimen of single Dahlia; stiff stems; a good bloomer.

DOUBLE HERBACEOUS PAEONIES

All varieties—each, 25c.; doz., \$2.50.

Double Paeonies are too well known to require description. Their present popularity is due to the great improvement in them in recent years, their easy culture, the handsome appearance of the plant, and the brilliant and striking effect of their massive, finely formed, and richly colored flowers. The attention given to them, in Europe and in America, has resulted in the production of many notably fine new varieties. Among hardy, herbaceous perennials, the Chinese Paeonies rank about first for lawn or flower-border, or shrubby decoration.

Our assortment includes some of the best and most distinct sorts, new and old.

Selected Double Queen Victoria (Whitleyi)—White with cream center, changing to pure white.

Andre Lauries—Fragrant. A fine late Tyrian rose color.

Baroness Rothschild—Handsome large pink and full flowered.

Louis Van Houttei—Rich, deep crimson; one of the finest late bloomers.

MISCELLANEOUS BULBS AND PLANTS

GLADIOLI.

Augusta—A lovely flower, pure white with blue anthers. It is a free bloomer, producing many side branches. Each, 5c.; doz., 50c.; 100 at \$3.00.

America—This is the most popular Gladiolus in cultivation, and is conceded to be the most beautiful and valuable variety in the world. It has received a Certificate of Merit wherever exhibited. It is a vigorous grower, with luxuriant dark green foliage. The flower spikes are from 2 to 3 feet long, erect, with great numbers of the large, splendid flowers all facing one way. In color it is exquisite soft lavender pink, so delicate as to be almost a tinted white. There is no color like it in any other variety. Each, 5c.; doz., 50c.; 100 at \$3.00.

Branchleyensis—A fine old vermilion scarlet variety; a good forcer. Each, 3c.; doz., 30c.; 100 at \$2.00.

Mingle's Mixture—A fine assortment of the grand flowering kinds; extra large size bulbs; mostly the light colors. Each, 3c.; doz., 30c.; 100 at \$2.00.

ISMENE CALATHINA.

(Pancratium Lily or Peruvian Daffodil).

One of the choicest of our summer flowering bulbs, blooming profusely during the season; flowers a beautiful waxy white and deliciously fragrant. Bulbs are not hardy and should be removed to the house in October. If desired, they can be flowered indoors by starting the bulbs about January 1st and treating somewhat like an Amaryllis. Large bulbs. 15c. each; doz., \$1.50; \$10.00 per 100. If desired by mail add 3c. per bulb, and 20c. per doz. for postage.

CALADIUM (Elephant's Ear).

A very effective plant, and suitable for a single plant on the lawn, masses in beds, or for margins of water, its leaves often attaining the length of 3 feet by 20 inches wide. First size, 20c. each; \$2.00 per dozen; second size, 15c. each; \$1.50 per doz., postpaid; extra large bulbs, too large to mail, 30c. each; \$2.50 per doz., by express.

MADEIRA OR MEXICAN VINE (Hardy).

The tubers if planted deep and protected during the winter are hardy. The leaf is a very deep green, and grows very dense; the flower is very small, white in color. Strong roots, 5c. each; single roots mailed free; per doz., 40c. (by mail, 50c. doz.); \$3.00 per 100.

JAPANESE IRIS.

Japanese Iris—In mixture; a splendid assortment of large clumps; home-grown stock. Each, 10c.; doz., \$1.00.

DOUBLE PEARL TUBEROSES.

One of the most delightfully fragrant and beautiful of the summer flowering bulbs. For early flowers they can be started in February or March in the greenhouse or hotbed, and for a succession they can be planted at intervals as late as July. For flowering in the open border plant about the middle of May, or as soon as the ground becomes warm. Extra large bulbs, 3 for 15c.; per doz., 50c.; per 100, \$2.75.

Don't fail to send your name for catalog of Bulbs for Fall planting.

We import direct from Holland only the most attractive varieties—Hyacinths, Tulips, Daffodils, Crocus, Iris, Lilliums, etc. Our past season sale of bulbs doubled the year previous. (Unable to get bulbs fall of 1918.)

Our list of satisfied customers speaks for itself. It is the best advertisement we have.

Lawn Mowers and Various Lawn Requisites

THE COLDWELL BALL BEARING OR PARK MOWER

THE CADET

This is a good lawn mower at a medium low price, and gives the purchaser full value for his money. It has brass bushings and the same ratchets and adjustments that are used on many of the high grade mowers. The gears are fine cut, and it is in every respect what is needed at the present time, viz., a mower that will do good service and at a cost but little higher than the poor trash that is put out so freely.

Diameter of Drive Wheels: 8 inches.

Number of Blades: Three.

12 in. Cut, \$5.25; 14 in. Cut, \$5.75; 16 in. Cut, \$6.00; 18 in. Cut, \$6.25.

COLDWELL'S DUCHESS MOWER

is a specially good mower. It is made on thoroughly practical lines and is so constructed that it cannot easily be disarranged. The drive wheels are 9 inches in diameter with the gears raised up from the ground, fully protected from the dirt and cut grass. The revolving cutter is 6 inches in diameter and has four crucible steel blades highly tempered and ground true their entire length. It is carried on our patented adjustable ball bearings. The simplicity and convenience of the adjustment of these bearings is appreciated by every one familiar with them. The ratchet has a flat steel sliding pawl, placed in the revolving cutter gear.

Made in 14, 16 and 18 in. sizes.

14 in. Cut, \$8.50; 16 in. Cut, \$9.00; 18 in. Cut, \$10.00.

COLDWELL'S FULTON MOWER

is of exceptionally good value; it has three blades in the revolving cutter. In offering it to the trade we have no hesitancy in saying that it is the best moderate priced mower on the market. The drive wheels are 9 inches in diameter and have a wide tread which gives it good traction and prevents the mower from sinking in soft ground. The gears are fine cut and fully protected from the cut grass and dirt. The revolving cutter is 6 inches in diameter and is carried on ball bearings of the same size, material and design as is used on our more expensive grades of mowers. The bottom or stationary knife is a highly tempered steel blade, heavier than those used on other makes of mowers of this grade. The ratchet has a flat steel pawl placed in the revolving cutter gear and acting with it. It is strong and reliable. It is far superior to any other of its class in material, workmanship and design. It cannot fail to give satisfaction.

Made in 14, 16 and 18 inch sizes.

14 in. Cut, \$7.50; 16 in. Cut, \$8.00; 18 in. Cut, \$9.00.

RUBBER HOSE

Mingle's Seamless or Mold-	Per ft.
ed, 3/4 in.	\$0.15
Special Lehigh 6 ply, 3/4 in.	.14
Special Lehigh 5 ply, 3/4 in.	.12
Revero Spray Pump Hose...	.12
25 ft. lengths and upward,	
Coupled free, smaller sec-	
tions couplings, per pair	.20
Brass Hose Menders, each	.05
Brass Couplings, per pair..	.25
Hose Band, Caldwell, dozen	.20
Gem Graduating Nozzles...	.50
Hydrant Attachments	.50
Whiz Lawn Mower Oil, cans	.10

A vast improvement over other makes of rollers. Particular features: Round edge drums; no tearing up of sod; handle always off the ground. Ball bearing, easy running; can be filled with sand or water.

	Length
No. 601	20 inches
No. 602	24 inches

COLDWELL'S BALL-BEARING LAWN MOWER

is particularly adapted for large lawns. It has large diameter drive wheels (10 1/4 inches) which together with the "rear drive" principle upon which it is built makes it particularly adapted where long, tough grass is encountered. The revolving cutter is 6 inches in diameter and is furnished with 4 blades. The revolving cutter bearings are equipped with Coldwell's patent self-adjusting ball bearings, which assures them staying adjusted a long time without requiring any attention from the operator. All the material used in the construction of this machine is of the best and nothing in this respect or in workmanship has been slighted. It is finished in white with red and gold trimmings, equipped with our patent terrace mowing arrangement, and can be supplied with grass catchers when desired.

14-in. Cut, \$13.50; 16 in. Cut, \$15.00; 18 in. Cut, \$16.50; 20 in. Cut, \$18.50.

THE CADET

BUCH'S WATER BALLAST ROLLER

Weight with Sand	With Water
350 lbs.	260 lbs.
475 lbs.	330 lbs.

Price, \$10.50-
Price, \$12.25.

MAYTREE RUBBER SAUCERS

VULCANIZED, MOISTURE-PROOF
NON-BREAKABLE
FLOWER POT SAUCERS

MAYTREE MOISTURE-PROOF
FLOWER POT SAUCERS

are guaranteed to always remain
absolutely moisture-proof.

NON-BREAKABLE

MAYTREE flower-pot saucers are superior in every way to all other kinds of flower-pot saucers—are practically non-destructible and should last forever.

HAVE A SOFT FINISH

that will not wear off and will not mar or scratch the finest surface.

NOT AFFECTED BY PLANT WATER ARE LARGE AND DEEP

Larger sizes are ideal for bulb saucers.

Retail Price List.			
Size.	Each.	Doz.	
4 inch	\$.12	\$1.30	
5 inch	.14	1.50	
6 inch	.16	1.70	
7 inch	.19	2.05	
8 inch	.23	2.45	
9 inch	.27	2.90	
10 inch	.46	4.95	
11 inch	.52	5.60	
12 inch	.58	6.25	

SQUARE PLANT STAKES

These are painted green and nicely tapered and finished.

	Each	Doz.	100
1½ ft.	\$.02	\$0.20	\$1.35
2 ft.	.03	.30	2.10
2½ ft.	.05	.45	3.15
3 ft.	.07	.65	5.25
3½ ft.	.08	.80	6.25
4 ft.	.09	.95	7.25
5 ft.	.11	1.15	9.70
6 ft.	.14	1.35	11.25

POT LABELS

Plain, pointed wood for flowers and all plants.

	100	1000
4 inches	\$.10	\$0.70
4½ "	.12	.85
5 "	.15	1.00
6 "	.20	1.25

Garden Size

	100	1000
8 inches	\$.35	\$3.00
10 inches	.50	4.25

NEPONSET

For transplanting and shipping potted plants, and for starting many kinds of hotbed plants.

	Doz.	100	1000
2¼ in Pots	\$.08	\$0.45	\$3.00
2½ in. Pots	.10	.50	3.75
3 in. Pots	.15	.70	5.75
3½ in. Pots	.18	1.05	7.00
4 in. Pots	.22	1.15	8.60

SIMPLEX GRASS CATCHER

No. 1—12 to 16 in. mower, inclusive..\$1.30
No. 2—16 to 20 in. mower, inclusive.. 1.50

COLDWELL'S LAWN TRIMMER

This machine meets the demand for a real first-class lawn edge or border trimmer. Made of best material throughout, ball bearings, single screw adjustment, bottom knife of finest tool steel; cuts a swath of 8 in. Price, \$8.50.

Tree Tanglefoot is a sticky compound similar to that used in making Tanglefoot Fly Paper and is especially adapted for protecting trees from the attack of climbing and creeping insects, particularly gypsy, brown-tail and tussock caterpillars, canker worms, climbing cut worms and ants. On matured fruit trees and all shade trees it is applied directly to trunks, but on young fruit trees we recommend application over strips of manila paper.

One pound makes 9 to 10 lineal feet of band. One application remains sticky three months and longer or 10 to 20 times as long as any other known substance. On account of this great superiority it has practically displaced all other banding compounds in the United States and in many foreign countries. Tree Tanglefoot works alike in rain, sun, winds, etc. Does not soften, run or melt, yet is always elastic, expanding with growth of tree. No mixing required; simply open can and use. Applied with wooden paddle. Will not injure trees.

For tree surgery, Tree Tanglefoot is superior to anything on the market. It is the best application after pruning or trimming—it will waterproof the crotch of a tree, or a wound or cavity in a tree when nothing else will do it. For this purpose one application lasts several years, all the time wholly impervious to air and water.

Guaranteed to keep perfectly many years in original packages. Price, 1 lb., 50c.

BENT NECK RUBBER SPRAYER

For spraying small plants; an ideal one for house use. Price—6 oz., 75c.; 10 oz., \$1.25.

PLANT TUBS

Mingle's Everlasting.
Made of White Cedar,
painted Green, electric
welded heavy wire
hoop without handles.
We sell handles, sep-
arate, 10c. pair.

No.	Inside Top Diam.	Inside Bottom Diam.	Inside Depth	Each
1	6 in.	5 in.	6 in.	\$0.50
2	7 in.	5 in.	7 in.	.55
3	8 in.	6 in.	8 in.	.65
4	9 in.	7 in.	9 in.	.70
5	10 in.	7½ in.	9 in.	.80
6	11 in.	8½ in.	10 in.	.95
7	12 in.	9 in.	11 in.	1.10
8	13 in.	10 in.	12 in.	1.40
9	14 in.	11 in.	13 in.	1.55
10	15 in.	11½ in.	14 in.	1.75

CEDAR TREE TUBS

New York Pattern.

Made of
choicest sea-
soned White
Cedar. Highly
finished, iron
hoops, iron feet,
drop handles.

No.	Inside Top Diam.	Inside Bottom Diam.	Inside Depth	Each
1	12 in.	9¾ in.	10½ in.	\$2.15
2	13 in.	10¾ in.	12¾ in.	2.65
3	14½ in.	12 in.	14¾ in.	3.35
3½	16½ in.	14½ in.	14¾ in.	4.10
4	19½ in.	17½ in.	16¾ in.	4.75

FAN TRELLIS

A very popular style for Roses made of
wood, painted green.

	Each
18 in.	\$0.21
24 in.	.25
30 in.	.38
3 ft.	.70
3½ ft.	.80
4 ft.	1.00
5 ft.	1.30
6 ft.	1.50

EARTHENWARE SAUCERS

These cannot be sent by Parcel Post.

Size	Each	Doz.	100
3 inches	\$0.02	\$0.18	\$1.40
4 inches	.02	.20	1.60
5 inches	.03	.30	2.25
6 inches	.05	.45	3.40
7 inches	.06	.60	4.40
8 inches	.08	.82	6.25
9 inches	.11	1.10	9.40
10 inches	.14	1.25	9.90
11 inches	.17	1.60	12.50
12 inches	.20	1.95	15.80
14 inches	.30	3.30	24.50

WIRTS' HOSE REEL

All tubular—capacity.

No. 2—7 in. wheel, 100 ft.	\$2.00
No. 10—21 in. wheel, 100 ft.	2.75
No. 20—24 in. wheel, 150 ft.	3.25

LAWN SPRINKLERS

"Rainfall." Equipped with iron
base; works perfectly on low water
pressure. The latest thing in
sprinklers. Price, \$1.35.

Peninsular, an old favorite	\$1.25
Large Ring Brass	.85
Small Ring Brass	.60
Little Wonder All Iron Sled Base	.30

EARTHEN
FLOWER
POTS

These can-
not be sent
by Parcel
Post.

Size	Each	Doz.	100	1000
1 inch	\$0.03	\$0.14	\$1.00	\$9.50
2 "	.02	.12	.88	8.10
2½ "	.03	.14	.95	9.15
3 "	.03	.16	1.15	10.50
3½ "	.03	.20	1.50	14.10
4 "	.03	.25	1.88	17.15
4½ "	.04	.30	2.10	21.60
5 "	.05	.40	3.05	29.00
5½ "	.06	.55	4.20	39.00
6 "	.07	.68	5.25	49.00
6½ "	.09	.80	6.25	58.90
7 "	.11	1.00	8.33	78.00
8 "	.14	1.25	9.90	95.00
9 "	.20	1.95	15.00	138.00
10 "	.30	2.90	22.00	
11 "	.40	4.00	32.00	
12 "	.55	5.85	45.00	
14 "	.80	8.20	62.00	
	1.35	13.85	102.00	

EARTHEN
BULB
POTS

These can-
not be sent
by Parcel
Post.

These are fine for planting with bulbs,
for ferns and other compact plants.

Size	Each	Doz.	100
6 inches	\$0.09	\$0.80	\$6.35
6½ "	.12	1.05	9.50
7 "	.14	1.25	10.60
8 "	.20	1.90	14.85
9 "	.30	2.95	22.50
10 "	.40	3.85	30.00
11 "	.50	5.65	42.00
12 "	.80	8.40	64.00
14 "	1.25	13.50	105.00

SPRINKLING POTS

Heavy Galvanized Iron.

4 qt. size	\$0.75
6 qt. size	.90
8 qt. size	1.15

Rainfall.

Peninsular.

POULTRY AND PIGEON FEEDS

"OUR RULE --- Absolute freedom from all dirt and foreign matter"

Coarse Cut Alfalfa—An excellent and invigorating green food for fowls, very easily digested, and calculated to keep them in fine condition. Our preparation is specially re-cleaned from all foreign matter before being cut to edible size. 10 lbs., 40c.; sack (100 lbs.), \$3.50.

Alfalfa Meal—For feeding dry or mixing in mash; excellent for the little chicks. 10 lbs., ; 100 lbs., .

Barley—The great muscle and bone builder. Our grade of this grain is no exception to our rule—"absolute freedom from all dirt and foreign matter." (48 lbs.) bus. Price, qt., 15c.; bus., \$2.40.

Bone (Granulated Poultry Size)—Contains the necessary Phosphoric Acid and Lime so essential to laying hens. It has all the nutritive ingredients essential to good egg production. 5 lbs., 35c.; 10 lbs., 65c.; sack (100 lbs.), \$5.25.

Buckwheat—Very useful, and giving poultry a variety in the way of feed. Per bus., \$2.25.

Chick Feed (Pratt's Baby Chick)—A perfect food for young chicks, ducks and turkeys. So ground and bolted that it is mechanically pre-digested. Furnishes the same nutriment, in the same proportion, as the mother hen. Pkg. (1 lb.), 15c.; pkg. (3 lbs.), 30c.; pkg. (6½ lbs.), 60c.; sack (100 lbs.), \$8.00.

Chick Feed (Red Comb)—Too much attention cannot be given the quality and preparation of the ingredients of which chick feed is made, for, if impure grain is used, the mass soon tends to become mouldy, and the chicks will suffer. We offer only the best 5 lbs., 30c.; 10 lbs., 60c.; sack (100 lbs.), \$4.80.

Chick (Developing Red Comb)—Prepared especially for properly matured young chicks, after they are ready to have the chick food, and so carry them along to the age when they are ready to feed on the whole grain. Chicks should be given Developing food when from 8 to 10 weeks old. 5 lbs., 30c.; 10 lbs., 60c.; sack (100 lbs.), \$4.75.

Chick Manna (F. P. C.)—A very desirable preparation for young chicks under 10 days old. Promotes health, quick growth and strong development. Especially valuable for raising chicks in winter and early spring. 1 lb. pkgs., 15c.; 3 lb. pkgs., 30c.

Corn (Cracked)—Our Cracked Corn is made from sound, well matured and well cured grain. It is fresh and sweet. 10 lbs., 50c.

Corn (Whole Small Flint)—Our flint corn is the best obtainable. It is clean, sweet and free from foreign matter. 4 qts., 45c.; peck, 75c.; bus., \$2.80.

Charcoal (Granulated)—Excellent for young and old chicks; should be kept constantly in reach of all chicks. Prevents sour crop. It is of uniform grade, carefully screened and free from dust. It aids digestion and promotes the health of fowls in every way. Fine, medium, coarse. Pkgs. (2 lb.), 15c.; sack (50 lbs.), \$1.60.

Flax Seed (Or Linseed Meal)—Tends to produce a fine, glossy plumage. Should be fed occasionally in small quantities, with other soft feed. 5 lbs., 40c.; 10 lbs., 70c.; sack (100 lbs.), \$5.00.

Grit (Mica Crystal)—To aid digestion it is necessary to feed some gritty material. Mica Crystal supplies this want better than any other article known. We supply this in three grades, fine, for small chicks and birds; medium and coarse, for larger fowl. Fine, medium, coarse, 5 lbs., 15c.; sack (100 lbs.), \$1.10.

Gluten Meal—For feeding poultry and stock; is an excellent addition to all mash feeds and a good fattening agent. 5 lbs., 25c.; 10 lbs., 45c.; larger lots on application.

Hemp—A healthful feed, noted for its fattening properties. 1 qt., 15c.; 4 qts., 60c.; bus. (40 lbs.), \$4.40.

Kaffir Corn—Our Kaffir Corn is the white, and the best procurable for feeding purposes. We offer only fresh, re-cleaned seed, absolutely free from dust or other foreign matter. 10 lbs., 55c.; 25 lbs., \$1.20; 100 lbs., \$4.50.

Meat Mash (Red Comb)—A feed for chick development. Also an egg-producing feed. Hens fed upon it are laying when others are laying off. Poultry raisers everywhere, some of wide reputation, have enthusiastically given credit to it for phenomenal winnings in egg competitions and in the show rooms. And results are of greatest importance to the average poultryman. 10 lbs., 50c.; 100 lbs., \$4.30.

"XX" Red Cross Pigeon Health Grit is superior to the other Red Cross brands by reason of its having more concentrated Pure Bone Ash, and tonic properties, and costs more than any other Health Grit to prepare. The analysis of the droppings from the birds fed on the "XX" shows 62 per cent. less waste of protein than that from birds not fed with it, proving conclusively the great waste of food that goes in the droppings that should be used, adding flesh more quickly, giving more vigor and strength to the birds, and a great saving on feed. The price may seem high in proportion

to that of ordinary grits, but as the manufacturers make it in immense quantities, the price has been reduced to a minimum at per sack of 100 lbs. Sack (100 lbs.), \$1.75.

Meat Scraps (Or Poultry Meat)—Manufactured for us by a reliable firm. Nothing but pure materials are used, and no deleterious preservatives. Our stock is strictly fresh at all times. It is a great egg producer. 5 lbs., 35c.; 10 lbs., 65c.; sack (100 lbs.), \$5.50.

Millet (Bird)—Best imported seed. Large size, bright colored grain. Scattered in fine litter it "provides" more exercise than any other grain food, making the "wee wee babies" get right down to hard work to get their "daily bread." 1 qt., 20c.; 4 qts., 65c.; (50 lbs.), \$3.00.

Mustard (For Poultry)—A good tonic; heats the blood; a stimulant mostly fed in the cold weather in mash feeds. 1½ lb. pkgs., ; 3 lbs., ; 5 lbs., .

Oats—Our stock of this food is extra heavy; fine for sprouting or dry feeding. 4 qts., 50c.; 8 qts., 90c.

Oyster Shell (Prepared)—Manufactured from shells in a pure condition. The lime contained in the shells assists in the formation of the egg shell and contributes to the general health of the fowls. Fine, medium, coarse, 5 lbs., 10c.; 20 lbs., 30c.; fine, medium, coarse, sack (100 lbs.), \$1.00.

Canada Peas—Most preferable for feeding pigeons, being perfectly round and very small. We are offering especially fine grade (60 lbs.) bus., \$4.50.

Pigeon Feed—To meet the requirements of the discriminating pigeon fancier, who may raise birds either on a large or on a small scale, we have prepared, and find ready sale for, the mixtures that will here follow:

No. 1—A mixture of grains most suitable for homers and all fancy birds.

If you want your birds to fly fast, feed No. 1. It is a speed maker; does not contain any corn. 10 lbs., 70c.; 50 lbs., \$3.00; 100 lbs., \$5.70.

"Special"—Is one specially mixed for those who want a feed with corn in the mixture; it is very similar in other respects to No. 1. Fancy birds greatly relish this food. 10 lbs., 65c.; 50 lbs., \$2.85; 100 lbs., \$5.40.

"Squab Maker"—This mixture contains the same grains as "Special," but in varied proportions. This mixture is quite popular with large pigeon ranchers. 10 lbs., ; 50 lbs., ; 100 lbs., .

Scratch Feed (Red Comb)—We are the local agents for the largest Western house manufacturing this kind of feed. It is a popular sort and has an immense sale, because of its excellent feeding qualities. 5 lbs., 30c.; 10 lbs., 50c.; sack (100 lbs.), \$4.25.

Rice (Broken)—Used with other feed, lightens digestion; improves the birds. 5 lbs., ; sack (100 lbs.), lb., c.; bus., .

Rape (Dwarf Essex)—Why not plant some of this seed early in the spring. It makes quick growth and is one of the best forage plants known for poultry. (50 lbs.) bus. Price per lb., 20c.; bus., \$7.50.

Salt Cat (For Pigeons)—A mixture of aromatic herbs and tonic remedies. Sold in compressed brick form. 10c per brick; 3 for 25c.

Sunflower (Large and Small)—For chickens. Clean seed and well-filled grades. 1 qt., 15c.; 2 qts., 30c.; 4 qts., 55c.; peck, 90c.; bus. (25 lbs.), \$3.00.

Tobacco Stems—For making nests for pigeons or poultry. 5 lbs., 25c.; bbl. sack, \$1.15; bale, \$2.00.

Vetches (For Pigeons)—A most excellent food for pigeons. 10 lbs., 60c.; 100 lbs., \$4.75.

Wheat (Feeding)—The quality of our feeding wheat will be found all that can be desired. 4 qts., ; peck, ; bus. (60 lbs.), .

Our many customers express great satisfaction with the quick service and quality of goods sold them. Deal with us and get a square deal.

BIRD AND DOG FOOD

Canary (Plain)—The canary seed we import is large, Spanish, heavy, and free from dust or other impurities. Canary raisers appreciate the fact that it does not pay to feed dusty and fermented seeds. 1 qt., 50c.; 10 lbs., \$2.40.

Canary (Mixed)—A mixture of canary and bird rape, very beneficial to cage birds, to which may be added any of the seeds enumerated below, at the option of the customer. 1 qt., 45c.; 10 lbs., \$2.25.

Bird Rape—Some canaries prefer a large proportion of Rape Seed, others less. We supply it separately at the prices following. 1 qt., 35c.; 10 lbs., \$1.50.

Bird Lettuce—A slight sprinkle of this is much relished by canaries, and should be given only occasionally, as lettuce contains a slight trace of opium, which is, however, not harmful. 1 oz., 5c.; ¼ lb., 10c.; 1 lb., 25c.

Bird Millet (German)—This is especially well adapted for mixture with canary and rape for feeding canaries, as it gives variety. 1 qt., 20c.; 4 qts., 65c.; peck, 90c.; bus. (50 lbs.), \$3.00.

Cuttle Bone—The bone of the cuttle fish, an indispensable adjunct to the canary bird. 2 for c.; per lb., c.

Hemp—Hemp seed has a tendency to fatten the birds, and should therefore be fed only in small quantities occasionally. 1 qt., 15c.; 4 qts., 60c.; bus. (40 lbs.), \$4.40.

Maw Seed—Calculated to improve the song of canaries, etc. Also used as a condiment. Per lb.,

Spratt's Patent Meat Fibrine Vegetable Dog Biscuits—The standard dog food. Used at the leading kennels and dog shows throughout the world. A staple and constant food for all breeds of dogs. 100 lbs., \$9.50; 25 lbs., \$2.75; 3 lbs., 35c.; per lb., 12c.

Spratt's Patent Puppy Biscuits—The standard puppy food. A perfect and whole food for puppies of all breeds. Puppies should be started on these biscuits when about a month old, and then should be continued until such time as their teeth become sound and strong, usually when they are about six months old. 100 lbs., \$10.00; 25 lbs., \$2.90; 3 lbs., 35c.; per lb., 12c.

Sunflower (Large, for Parrots)—Extra large, well-filled seed, very acceptable to discriminating parrots. 1 qt., 15c.; 4 qts., 55c.; peck, 90c.; bus. (25 lbs.), \$3.00.

Sand (Red and Silver)—Fine. 5c. pkg.; 45c. doz.

Pebbles—Qt., 5c.; peck, 30c.; bushel, \$1.00.

Stock and Poultry Remedies and Necessities

Rat Corn—Will exterminate Rats, Mice and Gophers from your premises in a safe, sane and sanitary manner. No odors or smells. It mummifies them. No matter where they die, they simply DRY UP. Positively do not smell. Rat Corn is a new and scientific discovery, and without a doubt the greatest rat destroyer in the world; the only one that kills rats without any bad, dangerous or disagreeable effects. A trial will convince you. 25c. per can. Postage, 5c. extra.

Kow Kure, the Great Cow Medicine—We recommend Kow Kure for Scouring, Lost Appetite, Bunches or Red Water; especially for possible or threatened Abortion, for Barrenness, for Retained Afterbirth, for Milk Fever. Hundreds of users testify that it helps increase the flow of milk from 10 to 20 per cent. It is a remedy made only for cows. Costs a cent a day per cow. Postage extra, according to Parcel Post Regulations, which your Postmaster can give you. Small size, per can, 1½ lbs., 60c.; large size, per can, 3¼ lbs., \$

Bag Balm—We recommend Bag Balm for all diseases of udder and teats; Caked Bag, Sore Teats, Bunches, Chapping, Cuts, Inflammation, etc. It makes easy milkers of hard ones, keeps all the parts in a sanitary, healthful condition. Per box, 60c.

Grange Garget Cure—We recommend Grange Garget Cure for that peculiar disorder so peculiar to cows, the hardening of the udder or garget. Inexperienced people often mistake it for caked bag, bunches in bag, etc. Remember, it is a separate disease, with its own peculiarities, causes, etc. Twenty-three years' use by dairymen and farmers proves its economy and value. Per can, 60c.

Green Mt. Hoof Softener and Grower—We recommend Green Mt. Hoof Softener and Grower for Thrush, Pinched or Contracted Hoofs, Brittleness of the Hoof, and, in fact, for every disease that attacks the hoofs of horses. It not only cures, but its frequent use will keep the hoof in a healthy condition. Per box, 60c.

American Horse Tonic—We recommend American Horse Tonic as a general improver for Horses. Hundreds of users tell us that horses look better, feel better, act livelier, are full of snap and ginger when they are given it. Besides this, we recommend it as a Worm Expeller, for Lost Appetite, Rough Hair, Coughs, Inflammation of Lungs and Bowels, Stoppage of Water, Recent Founders, Distemper, etc. Small pkgs., 30c.; large pkgs., 60c.

Horse Comfort—We recommend Horse Comfort for all Flesh Wounds, Wire Cuts, Galls and Sores of long standing, for Blood Poison, Proud Flesh, Scratches, Mud Fever, for Snag Wounds, Sore Shoulders, Grease Heel, Malignant Ulcers, Fistula, Poll Evil, Corns in Horses, etc. We claim that Horse Comfort has won the right to the name—"The World's Greatest Healer." Small bottle, in pkg., 30c.

Fly-Spray (Target Brand)—Is an Insecticide, Germicide and Disinfectant. It is non-poisonous and may be used with safety and effectiveness on Cattle, Horses, Hogs, Dogs and other domestic animals.

It will protect cows from flies and mosquitoes and prevent the loss in yield of milk which always occurs during the fly season.

It will kill all flies that it reaches.

It will destroy their eggs.

It will not gum the hair or make it brittle.

It will not irritate the skin.

It can be used at milking time and will not taint the milk.

It will protect horses from flies if applied before a drive, or before turning out to pasture.

If applied to dogs will rid them of fleas. 1 qt. can, 40c.; 1 gal., \$1.75.

White Rock Hoof Packing—A natural absorbent and antiseptic, possessing wonderful healing power; very penetrating, relieves all soreness in the hoof. Pkg., 25c.

Lice Killer (Powdered Form)—Non-poisonous and non-explosive. Being stronger, has greater disinfecting qualities than similar preparations. Quickly and thoroughly kills lice on ducks and chickens. Rids horses, cattle, hogs, dogs and cats of lice. Destroys ticks on sheep, insects and bugs infesting shrubbery, closets, carpets and clothing. Hess & Clark's pkgs., 30c and 60c.

vine and plants. Drives out moths and bugs from furniture,

Lice Killer—An excellent exterminator of lice on young chicks, setting hens, incubator chicks. For lice on horses, cattle and ticks on sheep. International Pkg., 30c.

Panacea (Hess & Clark)—This is not a stimulant, but a digestive tonic, which produces eggs in nature's way. Panacea fed in winter will wonderfully increase the egg production. It is fed with other foods, and enables the system to appropriate egg-making material from the feed fed. Pkgs., 1½ lbs., 30c.; 5 lbs., 75c.

Pine Tar—For stock of all kinds; used by dairymen and others as a healing agent in dehorning cattle; also cures distemper. Pt., 15c.; qt., 25c.

Roup Remedy—An excellent remedy for cold, or Roup, diphtheria and all catarrhal diseases, as well as for Canker. It is an oily preparation, having antiseptic emollient or healing properties, and is non-irritant. Is also used as a preventive. Hess & Clark's (In liquid form), per can, 25c.

Pratts ANIMAL AND POULTRY REGULATORS AND REMEDIES

Satisfaction Guaranteed or Money Refunded.

Healthy birds and lots of eggs, the two big things in poultry raising, are made certain by giving

Pratts, POULTRY REGULATOR

100 lb. bags, \$10.00; 25 lb. pail, \$3.00; 12 lb. pail, \$1.75; packages, 30c. and 60c.

It builds up vitality, insures sound digestion, sharpens appetite and prevents disease, thus putting birds in condition for heavy egg laying or winning blue ribbons.

Pratts is the original Poultry Regulator of America and is in use by the most successful poultry raisers everywhere.

When regularly used, hens lay throughout the year.

It will prevent chicken cholera, gapes, roup, rheumatism, expel worms, prevent leg weakness and egg eating. It will greatly improve turkeys, geese, ducks, pigeons and guineas—insuring quick growth and keeping them free from disease.

Get rid of lice on your poultry, in nests, dust-baths, incubators and elsewhere in a day's time by using

Pratts, Powdered LICE Killer

30c. and 60c.

Effective, non-poisonous, non-irritating. May be used wherever a powder is suitable. A splendid deodorizer.

It quickly and thoroughly kills all lice on little chicks, big chicks, setting hens and incubator chicks. It rids horses, cattle, hogs, dogs and cats of lice and destroys ticks on sheep. It destroys insects and bugs on vines, plants and flowers. A valuable deodorizer and disinfectant for all poultry houses, barns, stables and dwellings. Drives out moths from closets, furniture, carpets and clothing.

Don't let ROUP cut your profits. The sure and easy "ounce of prevention" against this dangerously contagious disease is

Pratts, ROUP Remedy

Tablets or Powder, 25c., 50c., \$1.10.

Quickly absorbed by the blood, purifies the system, reduces fever, allays inflammation. The safe remedy for roups, colds, catarrh, and all bad weather diseases.

Pratts, Poultry Disinfectant and Liquid Lice Killer

If poultry owners would regularly spray the chicken houses, roosts, drooping boards and utensils with Pratts Poultry Disinfectant, most all their troubles would vanish. This great Disinfectant is a real wonder-worker in the poultry yard. Put up in 1 qt., 50c., and 1-gallon cans, \$1.50.

To protect your chicks from white diarrhoea, the most destructive of all chick diseases, it is only necessary to give

Pratts, White Diarrhoea Remedy

25c. and 50c.

in the drinking water from the first drink. This remedy has saved many dollars' worth of chicks for poultry raisers. You can depend on it.

More work out of your horses, more milk from your cows, fatter hogs—these are a few of the benefits which come from using

Pratts, ANIMAL Regulator

Always sold on a guarantee that it will satisfy you or money back.

25 lb. pails, \$4.00, are popular with our customers. Packages at 30c., 60c. and \$1.20. Get prices on 50 lb. and 100 lb. sacks.

When baby chicks come, keep them healthy and growing and bring even the weak ones along by feeding

Pratts, BABY Chick Food

14 lbs., for \$1.35. Packages, 30c., 60c. 100 lb. packages, \$8.00.

A largely predigested baby food for baby chicks. Guaranteed to raise every livable chick. Costs a cent a chick for three weeks. Prevents leg weakness, white diarrhoea, "pasting up" and other chick diseases.

A Guaranteed Pratt Remedy for practically every Stock and Poultry Ailment,

PRATT FOOD COMPANY

Philadelphia

Chicago

Toronto

SPECIAL NOTICE

Owing to unusual market conditions, prices are subject to change without notice, though we will do our utmost to avoid advancing prices.

Preserve your Eggs with Liquid Water Glass

Preserve your Eggs with Liquid Water Glass. Simply add nine parts water and pour over eggs.

Price—1 pt.	\$0.25
1 qt.	.40
½ gal.	.70
1 gal.	1.15

Wire Hens Nest

Wire Hens Nest, strongly made, sanitary, easily cleaned and convenient to handle.

Price 20 cents each

RED COMB CHICK MASH WITH DRIED BUTTERMILK

NO trace of White Diarrhoea when you feed RED COMB CHICK MASH WITH DRIED BUTTERMILK. The lactic acid bacilli found in the buttermilk builds tissue faster than the bacteria destroys it and eliminates bowel troubles. It is a perfect chick mash that builds bone, tissue, fat and muscle and maintains health.

It is made from Corn Feed Meal, Old Process Oil Meal, Barley Flour, Dried Buttermilk, Alfalfa Meal, Oat Flour, Wheat Middlings and not over 1% Calcium Carbonate and ½ of 1% Salt.

Guaranteed Analysis

PROTEIN 16% CARBOHYDRATES 50% CRUDE FIBRE 9% FAT 4%
PRICES ON APPLICATION.

**Reducing
Baby Chick
Mortality**

THE FAMOUS
MAGIC BROODER

Built by a man who has made good. This brooder is like a good mother; it never tires; it works while the little ones sleep, and not only broods but raises the chicks. Capacity 100 to 500 chicks. All cast iron. Write for catalogue; mailed free on application. Made in one size only. Price, \$23.50.

THE EUREKA COLONY
BROODER STOVE

This Brooder Stove is one of the most economical ones on the market. Made in two sizes. Foreword: The capacity of Brooder Stoves can only be determined by amount of floor space given them, and not by size of stoves. For full description of this stove, call or write for descriptive catalog. Mailed free to all who apply. No. 10 size—limit of floor space 8x8 feet. Price, \$19.00. No. 20 size—limit of floor space 14x14 feet. Price, \$23.50.

FEEDING FOR EGGS

There is nothing complicated about getting eggs in winter. Pullets have got to be well matured and the hens finished in molt before they will produce eggs. A hen cannot grow feathers and make eggs at the same time, as each or both require too much protein. Good health, exercise and proper feeding, in addition to clean, comfortable quarters, are all that are necessary. Remember a fowl will stand considerable cold provided it is dry, but it will not stand a damp cold, nor damp quarters and keep in good health. With well ventilated quarters (there is no better way to keep a house dry than by good ventilation) that admit sunshine, feed the Red Comb Scratch in deep litter, for exercise, the Red Comb Mash Feed with Dried Buttermilk in a wall hopper, green food at noon, three times a week at least, and every day if possible; plenty of fresh water, some shell and grit and you are bound to get eggs. This is bound to be true if you have selected your layers and are not trying to get eggs from a lot of culls. You cannot get eggs from such culls any more than you can get sawdust from a stone.

SPECIAL PARTS FOR THE INTERNATIONAL SANITARY HOVERS.

Canvas Curtain, double	\$.85
Curtain Rings	.35
Draft Pipe	.50
Felt Curtains	.75
Felt Lamp Wicks	.07
Hover Bodies	7.00
Lamp with Burner and Chimney....	1.25
Lamp Burner	.40
Lamp Chimney	.35
Lamp Fount	.65
Lamp Frame	2.50
Mica Disk for Peep Hole	.10
Set Screw for Burner	.05
Thermometers	.65

INTERNATIONAL
SANITARY HOVER

The International Sanitary Hovers have stood every climatic test from Panama to Quebec. Practical poultrymen, state experiment stations and poultry judges indorse them. You can raise chicks anywhere with International Sanitary Hovers. No specially constructed houses are necessary. There is no better place than in your regular hen houses.

Sanitary Hovers are as practical for the small back-yard poultry raiser as for the large poultry farms. They are fireproof and vermin-proof, warmest at the curtain, radiate heat downward on the backs of the chicks, and in this way prevent leg weakness—usable anywhere—ready for business, wherever placed. To set them up, you simply set them down. No crowding or smothering of chicks—no kneeling in mud to get at the lamp—no cutting of holes or building of platforms. You want the best brooding device—you will get it in the Sanitary Hovers. Price, \$12.00 each.

DRINKING FOUNTAINS AND FEEDERS

Mingle's "Thermos" Fountain

In our Improved Double Wall Fountain the two cylinders are connected and sealed water tight, making a dead air space of one-fourth inch between them. This construction is similar to the thermos bottle, and gives the very best protection from both heat and cold. This fountain therefore keeps the water cool and fresh in summer, and prevents freezing for a considerable length of time in winter. This fountain has made good. Call and see it.

Price.

1 gal. size\$1.40
2 gal. size 1.75

SQUARE DROP BOTTOM DRINKING FOUNTAINS.

These drop-bottom drinking founts are new, and made of No. 28-gauge galvanized steel. The bottom can be swung open with one hand, as it is secured by one spring in the front, while most founts have a spring on each side, requiring both hands to open; even then they are opened with considerable trouble. The rod which extends through the hinge of the drop bottom is made of solid brass, preventing possibility of rust or of breaking off.

2 qt., 60c.; 1 gal., 80c.; 2 gal., \$1.20.

TWO-PIECE DRINKING FOUNTS.

Furnishes a constant supply of fresh water which chicks cannot overturn and get into. Fount is well made of 28-gauge black iron, galvanized after fount is completed; this protects all edges from rusting. No parts to get out of order. The most simply constructed drinking fountain made.

Small, 35c.; Medium, 45c.; Large, 90c.

Round-Bottom Grit and Shell Box

Most grit and shell boxes have square bottoms, while this grit and shell box has a round bottom, which prevents the fine particles of shell and grit clogging the corners. Can be set on floor, or hung on wall.

Price, \$1.10.

Keystone Fountains

Either Galvanized or Grey Granite.

Easy to fill; easy to clean; a popular fountain. These Fountains have been tried by many prominent poultry raisers, and increasing business on them is evidence that they are all that is claimed for them.

1 qt. size, 30c.; 2 qt., 50c.; 1 gal., 65c.

Straight Front Dry Food Hopper

Having a perfectly straight front, the feed positively cannot clog. There is a lip in front to prevent fowls from wasting the feed, and iron rods prevent them from throwing it side-wise. Can be set on floor or hung on wall. Has handle, or ball, for carrying. A big value for the money.

Price, 90 cents.

Favorite Dry Mash Hopper

Years of experience with this type of Hopper, with changes from time to time to improve it, has enabled us to put on the market a Dry-Mash Hopper that fulfills every need. The wire grid is raised or lowered as required for coarse or fine mash. The curved bottom of the hopper always keeps the feed within easy reach of the birds. The

flange at the edge prevents any possibility of waste and the small wires extending from the flange to the wire grid prevents the birds from throwing the feed side-wise out of the hopper. The most distinctive feature about this Favorite Dry-Mash Hopper is the fact that it is an inch wider at the lower side than at the top, thus making it utterly impossible for the food to clog.

12 in., 12 qt., price.....\$1.30
18 in., 18 qt., price..... 1.75
24 in., 24 qt., price..... 2.25

Chick Feed Troughs

The bottom of the trough being round in shape, makes it superior to all others, as it can be easily cleaned and prevents food from becoming stale in corners. The grate slides easily on and off—a feature not found in any other chick trough. In carrying the trough the grate may also be used as a handle, and is so slanted that chicks cannot roost on it.

10-inch size, 50c.; 20-inch size, 70c.

Mingle's Round Hopper

This hopper is very popular with pigeon breeders, and is equally good for young chicks; made of finest grade galvanized steel; possesses eight sub-divisions (only four shown in cut); a neat, practical waste-proof hopper; holds 12 lbs. feed; movable or sliding hood. Price, \$2.00.

Cage Cup

Ideal for small brood coops, 20c.

MOE'S STAR JAR FOUNTAIN AND FEEDER

TO SNAP ON
A MASON JAR

The simplest jar fount on the market; fits any size jar.

Price15 cents

REPLACE BOTTOM, TURN
OVER, THEN READY
FOR USE

6 in 1 Exerciser and Feeder

The Exerciser and Feeder is just what its name implies. It is a large hopper supported on four strong iron legs and devised to hold all the food necessary for poultry. The center hopper holds the mixed grain food of cracked corn,

wheat, Kaffir corn, oats, etc. A little agitator, containing whole corn as bait, is worked by the fowl so it scatters broadcast a small amount each time of the dry grain mixture. The hens hunt and scratch for the grains, thereby getting exercise. Surrounding center hopper are six compartments made to contain dry mash, beef scrap, grit, charcoal, oyster shell, etc. All are easily accessible for the fowls, and machine is so constructed that none of the food can be wasted. This Exerciser Feeder is a time and money saver, for it eliminates all other feeding devices. Price, 40 qt., \$4.75; 20 qt., \$4.00.

Wall Chick Feeder

Sloping top prevents the chicks from roosting on it, and a wire screen prevents them from wasting the food. Made in two sizes, 10 inches long and 20 inches long, of 28-gauge galvanized steel. Absolutely will not rust, for all turned edges are carefully painted. This is an entirely new invention, and has proved its worth and efficiency among the largest chick raisers in the world.

10 inch, 60 cents; 20 inch, 85 cents.

MOE'S FEEDER AND EXERCISER

USE CORN AT BOTH ENDS OF THE BATE BAR

The best low priced exerciser. Results show it.

Price, \$1.35.

We also offer one of this style having a bracket to fasten to side of coop. Just the thing for low coops.

Price, \$1.65.

Round Baby Chick Feeder

Has sliding top, center of feeder is raised. All food slides to the holes, around edge of feeder. Made in two sizes only.

No. 12—12 hole..... 20c.
No. 11—8 hole..... 35c.

1-2-3 Poultry Feeder

A very convenient size for a pen of fowl. Will serve for one, two or three kinds of feed by using the separator. Price, \$1.15.

Banner Root Cutter No. 7

The Banner Root Cutters cut beets, turnips, carrots, onions, potatoes, cabbage, mangels and all other roots and vegetables; they cut fast, fine and are easy running; leaves the feed in fine ribbon-like strips that make choking impossible. The knives are adjustable and are made of the very best of steel. An iron grate in bottom of hoppers lets dirt and gravel escape before reaching the knives.

No. 7, Poultry Size, \$5.50.

No. 20—Poultry and Stock. Capacity 30 to 50 bushels, per hour, \$12.50.

Banner Root Cutter No. 20

Mann's Green Bone Cutter

Green cut bone is one of the best foods for winter egg producing; we offer three sizes of this cutter.

No. 5C—To bolt to table, has crank handle, only, \$9.00.

No. 5B—To bolt to table, has flywheel (see cut), \$12.00.

No. 5 B. M.—Has iron stand and flywheel, \$14.50.

No freight allowed on these cutters.

The most popular Band for poultry; made in ten distinct shades and colors; Blue, Pink, Amber, Black, Red, White, Green, Dark Blue, Yellow, Purple; pigeon and chick size; medium, Mediterranean, Large, American and Asiatic. Doz., 15c.; 100, 75c.; 1000, \$5.75. Price postpaid.

CHAMPION ALUMINUM Adjustable Leg Bands.

Adjusted to fit the leg of any size fowl. It locks with a double clamp, fits the leg perfectly, and, once on, stays until you remove it. They are sold in sets and numbered consecutively. The numbers are always clear and distinct. Trap-nesters and show bird breeders will readily recognize the value of this numbered band.

Prices, Postpaid.

Sets Numbered.	Price per Set.
1 to 12	\$0.15
1 to 25	.20
1 to 50	.40
1 to 100	.70

**MINGLE'S No. 0 FAMILY
GRIST MILL**

Price, \$5.50.

Weight 29 lbs.

To bolt to bench
or table.

This mill is made to grind Graham Flour, Rice, Cornmeal, or any cereal for table use. Can be adjusted for cracking grain also.

TRAP NEST FRONT

We have added this useful device to meet a popular demand. Easily attached to any square box. Works like a charm. Price, 50c.

MINGLE'S No. 1 GRINDING MILL

Price, \$5.50.

Weight 33 lbs.

Especially made to grind or granulate Dry Bones, Shells, Charcoal, Corn, etc. All grinding surfaces in these mills are extremely hard.

THREE POPULAR POULTRY PUNCHES OR TOE MARKERS

Philadelphia Punch, 30c.

Moes, 25c.

Model, Nickel Plated, 50c.

MOE'S NEVER FAIL TRAP NEST

DELICATE TRIGGER HOLDING
TRAP RELEASED BY HENS
ENTRANCE FALLING SILENTLY

The solution of all trap nest troubles. It never fails and is practical and inexpensive. One foot square. Price, 75c.

TRIGGER LOCKS TRAP AND
HEN THEN THERE TO STAY
UNTIL RELEASED

CAPONIZING SET

Do your own caponizing, made easy with these tools. To caponize is to make the finest meat grown under feathers.
Farmer's Set, \$2.75.
Phila. Set, \$3.25.

POULTRY AND SQUAB KILLING KNIVES

Mingle's Swift Sure, 40c.

French Squab Killer, 65c.

Pilling's Poultry Killer, 65c.

Progressive, 65c.

The quickest and most humane manner of killing poultry and squabs.

Price, \$3.50.
Weight, 17 lbs.

BLACK HAWK GRIST MILL

Bolts to table or bench. A good machine; grinds fine or coarse any kind of cereal. All bearings are chilled.

RED CHIEF CORN SHELLER

This sheller is an excellent one for small poultry farms. Fastens to box or barrel. Shelled corn drops in box, cob thrown outside.

Price\$2.50

Baby Chicks and Hatching Eggs we are prepared to furnish in season. Prices and other information on Page 51.

THE EYRIE SHIPPING COOP.

The top and bottom are strongly constructed of wood. The body is made of extra heavy fibre board. One of the cheapest, best and convenient coops. Shipped to you folded flat.

	Each.	Doz.
No. A. Size 12x16x18.....	\$0.40	\$4.00
No. B. Size 12x18x22.....	.50	5.00
No C. Siz. 12x22x22.....	55	5.50
No D. Size 20x22x22.....	65	6.50
No E. Size 20x24x22.....	70	7.00

SEFTON'S LIVE CHICK SHIPPING BOXES.

Made of heavy reinforced fibre board; perfectly safe; can send chicks any distance. Sent knocked down.

Capacity.	Each.	Doz.
25 chicks	\$0.12	\$2.00
50 chicks	.16	2.60
100 chicks	..	4.25

PARCEL POST EGG BOXES.

The former drawback of the egg shipping business by mail was not only by inefficient character of box, but its high price. We have overcome such troubles in this carrier. Sent to you folded flat.

	Price.	Each.	Doz.
12 egg size	\$0.12		\$1.35
15 egg size	.15		1.65
24 egg size	.20		2.10
30 egg size	.25		2.70
36 egg size	.30		2.80
50 egg size	.40		4.35

LOCAL OR PLAIN EGG BOXES.

3 x 4 style.

Strong cardboard; all right for local use. Price, doz., 15c.; 3 doz., 40c.; 100, 90c.

2 x 6 style.

Made to suit a more exclusive trade, who want a fancy carrier. Extra quality. Price, doz., 18c.; 3 doz., 50c.; 100, \$1.10.

HUMPTY DUMPTY EGG CRATE.

The handiest and strongest carrier on the market. It is collapsible and occupies little room when not in use.

Capacity.	Each.	Doz.
36 eggs	\$0.35	\$3.50
72 eggs	.40	3.75
108 eggs	.45	4.25
144 eggs	.50	5.00

PIGEON NESTING BOWLS.
Earthen.

The best kind; won't upset.

	Price.	Each.	Doz.
8 inches	\$0.15		\$1.40
9 inches	.17		1.60

NESTING EGGS.

China or Opal.

Per dozen	\$0.25
Per gross	2.25
Medicated, per dozen	.50

EGG TESTERS.
Hand Lamp Tester.

Can be used on any ordinary lamp; made of tin and felt.

Postpaid, 25c.

PROTECTING CLOTH OR CURTAIN FRONTS.

To be used in place of sash in poultry houses; prevents drafts, but allows ventilation.

Medium weight, 25c. yd.

Heavy weight, 30c. yd.

HOVER OR BROODER FELT.

We carry an excellent quality of this material.

Price, 60c. yd. 2 yds. wide.

WAFER THERMOSTATS.

Used in many Incubators and Brooders.

3 inch Single	\$0.55
3 inch Double	.80
4 inch Single	.80
4 inch Double	1.10

Moisture and ventilation have heretofore been a matter of guesswork almost entirely, and even the experienced operators cannot always guess right, there being such a great difference in conditions, such as high and low altitude, cold and hot weather. All these conditions make moisture regulation quite difficult unless you have a reliable Hygrometer, such as our Tyco's Hygrometer. This instrument will work in any incubator and will give satisfaction. Price, \$1.75.

THERMOMETERS.

We carry a full line of tested Thermometers.

Dairy	\$0.25
Brooder	.65
Incubator	.75
Hotbed reliable	
Quality	.35
Also	.60
Hotbed Finest	
Brass Point .	2.00

Hover.

Brooder.

Household.

Incubator.

HOUSEHOLD.

In assortment from plain Japanned at 35c. to finest copper cases, \$2.25.

INCUBATOR HYGROMETER.

PLANET JR. FARM AND GARDEN TOOLS

Planet Jr. tools are the most carefully designed and constructed; built of the finest materials, and are the most economical because they outlast others and do better work. 72 page catalog, nearly 200 illustrations, free. Send a postal.

No. 4 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow.

Price, Complete, \$18.75.

As a Seeder only, \$15.00.

Holds $2\frac{1}{2}$ Quarts of Seed.

Soon pays for itself in the family garden as well as in the larger acreage. Sows all garden seeds (in drills or in hills), plows, opens furrows and covers them, hoes and cultivates quickly and easily all through the season.

No. 25 Planet Jr. Combined Hill and Drill Seeder, Double Wheel Hoe.

Price, \$22.00.

Holds $2\frac{1}{2}$ Quarts of Seed

Steel Frame

No. 25 is for gardeners, who have enough acreage for a double-wheel hoe to be used, and yet prefer not to buy seeders and wheel hoes separately; also for onion growers and for the large family garden where both a single and double-wheel hoe can be used to advantage. Is a perfect seeder, and combined double and single-wheel hoe. Unbreakable steel frame. Capacity—2 acres a day.

No. 31 Combined Seeder and Wheel Hoe.

Price, complete, \$12.00.

As a Seeder only (No. 32), \$9.75.

As a Wheel Hoe only (No. 33), \$5.25.

Holds one quart

The ideal tool for small gardens—combining a reliable seeder for all garden seeds from the smallest up to peas and beans, with a light running Wheel Hoe. Practical for men, women or growing boys. Sold at a price that will make it pay to use even if your garden is a very small one. Stop in and see them. It's worth your while.

No. 12 Planet Jr. Double and Single Wheel Hoe.

Price, \$12.00.

New steel wheels
Steel frames

Price with hoe only (No. 13), \$7.25.

Planet Jr. Wheel Hoes have been greatly improved for 1916, but we have not advanced the price. No. 12 has new 14 in. steel wheels, steel frames, steel arch, steel leaf lifters. The Hoe's cultivator teeth and plows are specially hardened to give longer wear, scour better and run easier.

The greatest hand-cultivating tool in the world.

No. 17 Planet Jr. Single Wheel Hoe.

Price, \$8.00.

Price with hoes only (No. 18),
Price, \$6.25.

New 15 in.
steel wheel

The highest type of Single Wheel Hoe made. Light, but strong, and can be used by man, woman or boy. Will do all the cultivation in your garden in the easiest, quickest and best way.

Indestructible steel frame. New steel wheel, specially hardened attachments will do better work and last longer.

Fire-Fly Garden Plow.

Price, \$3.75.

Especially useful to owners of small gardens, and to chicken raisers for plowing up scratching-yards. Its light weight makes it easy for man, woman or boy to use. Enables the owner of a family garden to do all the work in spare minutes.

No. 101 Planet Jr. Cultivator. Price with wheel, \$11.25.
Without wheel, \$11.50.

A new and improved cultivator sold at a low price. Stop in and see it. It will please you.

We are Headquarters for Planet Jr. Tools. Come get yours.

IRON AGE Garden Seed Drills, Wheel Hoes and Cultivators

No. 6 Drill and Wheel Hoe, Price Complete, \$21.00.

No. 6 sows all kinds of small garden and flower seeds accurately, in rows or in hills 4 to 24 inches apart. Opens furrow, sows seed, covers, packs and marks next row in one operation. Then this tool can be used to hoe, cultivate, weed, level ground, open furrows and cover them, ridge growing crops, etc. As a wheel hoe can be used astride young plants or between the rows. Worked with a push ahead, a step at a time. A woman, boy or girl

can do it. 16 inch steel wheels ride rough ground easily. Steel tube frame.

No. 1 is the wheel part of No. 6. The seed attachment can be applied any time, and can be put on in three minutes.

No. 1 Wheel Hoe, Price, \$12.50.

Price, \$11.50.
Advance Drill.

The best low-priced fertilizer distributor on the market. Also, a first class tool for drilling corn, beans and peas. Galvanized disc and lining. 18 quart hopper. Gear feed makes it positive. High wheel runs easy. Can be used with a horse.

No. 20.

A small tool, suitable for kitchen garden. The tools include a landside plow. Does all the necessary work in a small garden.

A seeder can be attached at any time.

No. 20 Wheel Hoe. Price, \$9.50.

No. 19C.
24 inch wheel.
Price, \$6.00.

No. 19C. This tool will do all the necessary plowing in some soils, open furrows for seed or fertilizer and covers on the return trip. Has special teeth for work between narrow rows. Size of the wheel makes it easy to push ahead a step at a time.

No. 11 Wheel Plow, Price, \$4.75.

No. 11 Wheel Plow.
A light, low-priced tool that can be used as a wheel plow anywhere, but is especially recommended for use in poultry yards. Scatter some oats and turn them under so the chicks will scratch

for them. Also keep the yard clean and sweet.

Gem Single Wheel Hoe.

Light, strongly built tool with smaller wheel, scuffle hoes for work between rows, pair of plows and five teeth.

Gem Single Wheel Hoe.
Price, \$8.25.

8 1/2 in.

4 in.

Plain Dixie Jr. Cultivator, \$6.50.

A light weight tool, built for use in light sandy soils. Opens to 20 inches and closes to 9 inches with a clamp expander.

Dixie Jr. 5-tooth Cultivator.
Without wheel in front,
With wheel, \$6.90.

Ask for IRON AGE Booklets describing each line complete.

IRON AGE Small Tools, Bucket, Knapsack and Barrel Sprayers

Fig. 42. Corn Knife. Price, 70c.

Oil hardened and temper drawn. Wood handle. You will find this a first-class tool and dependable.

Fig. 43. Vine Cutter. Price, \$1.00.

For cutting sweet potato vines, etc. Saves the back.

Fig. 45. Flat Asparagus Knife. Price, 35c.

An asparagus knife is a necessity for large or small growers. Crop will be gathered in better shape and time saved.

Fig. 210. Concave Asparagus Knife. Price, 45c.

Some growers think the concave knife takes hold better.

Fig. 399. Fishtail Asparagus Knife. Price, 45c.

10 inch blade, drop forged, well ground, enameled shank. A handy tool, also, for cutting out weeds on the lawn.

Fig. 168. Dandelion Puller. Price, 40c.

For opening furrows for seed and manure, for covering and for tending the crop. Steel mold board. Side handle.

Fig. 39. Hand Plow. Price, \$2.25.

For garden work, we show three useful tools. The small trowel will do for most transplanting. The larger one is designed for long stemmed tomato plants. The best rule is that holes should be same depth and plants supported against the slanting side of the hole.

Fig. 128. Garden Dibble. Price, 60c.

Fig. 41. Transplanting Hoe. Price, \$1.10.

Fig. 40. Transplanting Trowel. Price, 65c.

No. 199. Galvanized steel body, double strength tested. A few strokes changes it. Carry in horizontal position. Pump and all couplings brass. Nozzle throws round or flat spray. Self-cleaning.

Price, complete, \$13.00.

No. 195. Bucket Sprayer.

Brass pump, bronze ball valves, wick packing—all easy to get at. Pump easily detached if you want to use it in a half barrel. 100 lbs. constant pressure.

No. 199. Knapsack Sprayer. Price, galvanized, \$7.00. Price, brass, \$9.50.

No. 197. Barrel Sprayer.

Price, \$26.50.

No. 97 is simply our bucket sprayer pump set in a barrel and mounted on a truck. Can be removed easily when wanted for use in a bucket. This outfit can be operated by one man. It is recommended for small estates, in public parks, around railroad stations, on chicken farms, etc.

SMITH JR. NO. 1 HAND SPRAY.

Tin, painted red, a continuous fine spray.

Price, \$1.00.

No. 194. Vertical Barrel Pump. Price, \$17.00.

This pump is sold with or without the barrel. Will fit any barrel. Is fastened to the side of the barrel where the most strength is. Has bronze ball valves and hemp packing with lead core, all easily gotten at. 100 pounds pressure maintained with two nozzles. Can be used with one or two leads of hose.

20 gallons

No. 194.

Ask for Iron Age Booklets, covering each line fully.

SPRAYERS

Hand — Compressed Air — Bucket and Barrel

NO. 30 IDEAL SPRAYER

One of the most popular "one man" machines made. All working parts made of brass. Capacity, 15 gallons. Equipped with 10 foot, $\frac{3}{8}$ -inch spray hose, $\frac{1}{4}$ -inch. iron pipe extension, 8 feet long. Fog nozzle and leakless shutoff.

Price, \$20.00.

BRASS AUTO SPRAYER.

Convenient Durable Efficient

Will do better work than most any other. Made in Brass or Galvanized Iron. A few strokes of the plunger compresses enough air to exhaust contents of sprayer.

No. 1A Brass Tank with stop cock	\$11.50
No. 1B Brass Tank with auto spray	12.00
No. 1C Galvanized Tank with stop cock	7.50
No. 1D Galvanized Tank with Auto Spray	8.00

BROWN'S NO. 5 BRASS AUTO SPRAY PUMP.

Not mounted on tank with length of hose and strainer. Price, \$5.50.

Galvanized reservoir or knapsack....\$4.00
Extension pipe, brass70

One of the latest in knapsack line. Can be used without the reservoir if barrel or bucket is more convenient.

We sell all parts for Brown's Sprayers. Send for booklet giving prices.

BRASS AUTO SPRAY.

A continuous fine spray, just the thing for house and garden use. Price, \$1.50.

AUTO-SPRAY NO. 6

..Is equipped with malleable iron foot-rest, with a clearance of 16 inches, big, easy-grip iron handle. Brass suction strainer is made of brass casting and screen of large surface. The hose is 3 feet in length and is of extra quality.

Each pump is furnished with two nozzles, one for solid stream and the other for throwing a fine mist spray. The mist-spraying nozzle is fitted with a screen to prevent clogging.

Price, complete, \$5.50.

AUTO-POP

AUTO-SPRAY

BRASS-ELBOW

MYERS BUCKET PUMP.

This is a good quality sprayer, made of heavy brass tubing, has brass ball valves, is double acting. Two sizes of nozzles, 3 ft. of good hose. Patent agitator.

For any kind of spraying or white-washing this pump excels.

Price, \$6.00.

FAULTLESS TIN SPRAYER.

Made of good quality tin; useful for spraying chicken houses, plants, etc.

One quart\$0.50
One pint35

SPRAY NOZZLES AND FITTINGS.

Auto Spray (see cut)	\$0.80
Auto-Pop (see cut)	2.00
Non-Clog Jr.	.70
Fembro or Power	.85
Imperial	.60
Graduating Vermorel	.95
Bordeaux	1.00
Brass Male End Coupling	.35
Brass Female End Coupling	.35
Brass Elbow (see cut)	.35
Brass Bend, either $\frac{1}{8}$ or $\frac{1}{4}$ in.	.40

RICHMOND CEDAR BUTTER CHURNS.

One of
the best;
easy to
clean.

No. 1—3 gal.	\$3.00
No. 2—4 gal.	3.50
No. 3—7 gal.	4.00

BUTTER PRINTS.

Made of Hard Maple Wood, three pieces
to set, square. 1 lb. size, 65c.

CIDER OR WINE PRESSES.

These presses are very substantially
built of hard wood and well bolted to-
gether.

No. 1	\$6.00
No. 2	7.00
No. 2½	8.75
No. 3	10.50
No. 4	21.00
No. 2½, Hinged Tub	11.50
No. 3, Hinged Tub	12.00
No. 4, Hinged Tub	22.00

Combined Grinders and Presses.

Little Boss	\$15.40
Junior No. 1	22.00
Senior	31.00
Senior—Power	34.00

CANVAS GLOVES.

Suitable for all kinds of outdoor work.	
Plain Canvas, pair	15c.
Leather Tips, pair	20c.

OHIO OR BANNER FODDER CUTTER.

Has 11 in. oil-tempered steel knife; pos-
sesses adjustment to take up wear. Can
be set to cut any length desired. Shipped
knocked down. Weight, 50 lbs.
Price, \$5.50.

FRUIT GRINDERS.

Made of hard wood, first class in every
particular. Grinds any kind of berries,
apples or grapes. Price, \$4.50.

ERADO—WEED KILLER.

It KILLS
Erado
WEEDS

Price, \$1.25.

Erado does away
with the old fashioned
laborious and back-
breaking method of
digging up dandelions
and weeds of all kinds
by hand.

It makes obsolete
all implements that
only pull the tops off
of the plants. Before
Erado was introduced
there was no weed-
killer that absolutely
killed the roots of
noxious weeds as well
as destroyed the tops.
With this handy tool
the dandelion or weed
is completely killed.
An amount of weed-
killing solution is drop-
ped on the root; then
by turning the tool
the top of the plant is
cut off. Erado has two
knives so placed that the top of a plant
is cut off by only one-half turn of the
tool. Weed-killers that have only one
knife necessitate a complete turn that
makes it necessary to change the grip
on the handle of the tool because a per-
son's wrist will not allow the implement
to be turned completely around without
changing the hand.

It is a simple matter to refill Erado.
Remove the handle by a half turn. The
solution is then put in the tube and han-
dle is easily replaced. Erado is then
ready for work. Push the plunger into
the center of the plant. The solution is
automatically allowed to run down on
to the roots of the plant. Then give
Erado a quick half turn and the top of
the plant is cut off. A weed treated in
this manner can never spring up again.
The roots as well as the top of the plant
are destroyed.

Various solutions can be used. We
advise using Target Brand Weed Killer.
1 qt. cans, 60c. ½ gal., \$1.00; 1 gal., \$1.75.

PROTECTING CLOTH FOR HOTBEDS.

We sell medium brown color at 18c.
yard; heavy brown cloth at 20c. yard.

CAHOON SEED SOWER.

For sowing all kinds of seeds; has very
perfect regulator. Sows from four to
eight acres per hour. A superior ma-
chine. Price, \$3.50.

HAND CORN PLANTER.

The American. The best hand dropper;
possesses automatic metal cut off, easy
to set. Price, \$3.25.

VIRGINIA CEDAR MEASURES.

¼ peck, 40c.; ½ peck, 50c.; 1 peck, 75c.
½ bushel, 90c.; 1 bushel, \$1.80.

GRAPE BAGS.

For protecting growing grapes.
Plain paper, 2 lb. size.....20c. per 100
Wired paper, 2 lb. size.....25c. per 100

SMITH DRY POWDER DUSTER.

Made of heavy tin, nicely painted; hold in reservoir over 1 qt. or 4 lbs. Paris Green; has fan blower; will dust one or two rows fast as operator can walk. Price, complete, all attachments, \$9.00

MOLE TRAPS.

One of the most successful traps; never misses.

How to Catch Moles.

Always press down the mound when setting the trap so that the lever which gets off the trap is level with the ground. Set the trap in the evening, as moles usually stir around early in the morning.

Reddick,
90 cents.

HATCHETS.

Extra Quality Steel\$1.00
Medium Quality Steel30

AXES.

Fine tempered steel.

Kelly, with handle\$2.25
Red Warrior, with handle 2.00
Plumb—Without handle 1.75

LEGGETT'S CHAMPION DRY POWDER GUN.

One of the most popular Dry Powder Dusters; very accurate in distribution; does one or two rows.

Price, \$9.00.

GRAFTING WAX.

The one easiest to apply and put in convenient packages.

¼ lb., 15c.; ½ lb., 25c.; 1 lb., 35c.; 5 lbs., \$1.25.

Grafting Tools, 75c. and 90c.

ACME POWDER BELLOW.

For dusting any dry powder; use either straight or bent neck.

Price, \$1.50

TREE PRUNERS

CLYDE TREE LOPPERS.

WATERS—TREE PRUNER.

Complete with handle and blade.

4 ft.\$0.90
6 ft. 1.15
8 ft. 1.40
10 ft. 1.60
12 ft. 1.85

Extra blades,
25c.

20 in. Plain Style\$1.00
24 in. Compound Leverage 2.25

HAND PRUNERS.

No. 55, Fine Polished\$0.80
No. 50, California Style, 9 in.65
No. 0, Medium Grade35
No. R50, California Style, Ratchet Nut .80

ONE-ACRE-AN-HOUR SIFTER.

This is an ideal sifter for applying Bug Death dry. It is of the very latest pattern, remarkably effective and distinctly economical. Easy to operate, and gives quick covering to all plants and vines requiring a top application. The price of this very useful implement is 65 cents.

PATENTED
SEPT. 14, 1909

THE HOLD 'EM RAT AND MOUSE TRAPS.

The best selling Traps. Double metal. Ribs prevent wires from slipping.

Price, Mouse\$0.30 Rat\$0.85

Prices in this catalogue subject to change without notice.

**HOE AND
RAKE
COMBINED.**

An excellent tool for the garden. Made of the very best steel.

Price, 4
prong, 80c.;
6 prong, 90c.

ACME ASPARAGUS BUNCHER.

The most popular
of all makes.

Price with knife guard, \$3.00.
Parcel Post weight, 7 lbs.

ASPARAGUS KNIVES.
(See page 42).

Asparagus tape, 1000 yd. spools,
Asparagus twine—Jute, c. ball.
In quantity—price on application.

SCYTHES.

Double ribbed backs. Extra strong heel.

Bush	\$1.45
Weed	1.45
Grass	1.35
Handles, No. 50, Medium Weight	1.00
Handles, No. 105, Heavy Weight	1.10
Handle Rings	.15

SCYTHE STONE.

The old reliable Darby Creek, 15c.

MAGIC WEEDERS.

Style A.

These two little Magic Weeders should be in every garden outfit. They fulfill their name wonderfully.

Style A, length over all, 9 1/4 in. Price, 15c.

Style B, length over all, 22 in. Price, 25c.

Style B.

GARDEN REEL

Made of wrought iron; strongest reel made.

Large Double.....	\$2.25
Large Single.....	1.80

GARDEN SET.

A popular combination of three tools, used by ladies, children and for special uses where small tools are required.

No. 3 P. F., per set\$1.50

NORCROSS CULTIVATOR.

An excellent tool, adjustable teeth for spanning the row by removing centre tooth, or between rows using any number of teeth. We carry two sizes.

5'-prong, price	\$1.00
3'-prong, price	.80

SPADING FORKS.

Fine quality steel. Strapped shank. D handle.

Four prong	\$1.50
Boys' or ladies'	1.00
Five prong, extra quality	2.00

TURF EDGERS.

For trimming paths.

No. 040 True Temper\$0.85

GRASS HOOKS.

Little Giant	\$0.75
Economy	.45

HEDGE SHEARS (ENGLISH MADE).

8 in.	\$1.80
9 in.	2.00
10 in.	2.25

GARDEN TROWELS

We have them in variety.

Johnson D. S. J. Steel Socket.....	\$0.75
Red Socket, fine steel	.35
Extra Quality Shank	.30
Good Quality Shank	.15

**GARDEN
SPADES**

Polished Steel—D handle.

Dye	\$1.00
Pfeiffer	1.40
Floral Spades	.70

GRASS SHEARS.

Polished, fine steel	\$0.65
Good quality	.50

WHEELBARROWS, GARDEN AND FARM.

These Barrows are made from well seasoned lumber, very strongly bolted together, extra braced, with high finish. If you want a barrow to give service—one that will stand not only use but abuse—then this is the one—"the Buch."

No. 1—Large Farm Barrow, 3 inch tread	\$7.00
No. 2—Small Farm Barrow, 2¾ inch tread	6.25
No. 3—Garden Size, 2¼ inch tread	6.00
No. 3—Garden Size, 1½ inch tread	5.75
No. 4—Small Garden Size, 1¼ inch tread	5.00

FRUIT PICKER.

Wire made to fit on end of pole handle, 45c.

SLAW OR CABBAGE CUTTER.

Made of hard maple. Heavy construction, adjustable, best knife steel. Two blades. Price, 50c. Postpaid, 60c.

THE MARKET GARDENER'S "BOSS" PLOW.

This plow is fitted with three moldboards, one very small for plowing cut root crops, and two larger ones.

Price, \$8.50.

Includes three moldboards and one extra share.

List of Parts.

Double moldboard and share.....	\$1.65	Standard, complete	\$2.50
No. 2½ Moldboard	.90	Cabbage Moldboard	.45
No. 2 Moldboard	.70	Landside	.40
No. 1½ Moldboard	.60	Shares	.30
Beam with clevis	1.15	Beam without clevis	.85
Handles complete	1.15		

BATEMAN HOE

A hoe for cutting corn stubble or digging potatoes. An old reliable tool.

No. 1, 5½".....	\$2.00
No. 2, 6½".....	2.25
No. 3, 8".....	2.50

KRAUT CUTTER.

One of the best; has three steel knives, adjustable separately. Hard maple, well finished.

Price\$2.25
Postpaid 2.50

GIBBS POST HOLE DIGGER.

Digs a hole 3½ feet deep. A positively good tool.
Price\$2.75

GARDEN MATTOCK.

True shapes (as in cut)	\$1.00
Long Cutter or Axe, pointed	1.25
Half Mattock or Grub	1.10
Heavy Stub or Accomac	1.00

All the above include handles.

Picks, double pointed, either cutter pointed or regular style with handle,

No matter what you may order from this catalog, you may rest assured of full value for your money. The advancing of prices shall be only upon actual advances in costs. Deal with us and you get a square deal.

SUPERIOR GARDEN PLOW

The Superior Garden Plow has two bent wood handles. The frame and tools are constructed of steel, and are mechanically correct, making it one of the neatest and lightest-running plows on the market.

The handles can be raised or lowered to suit operator. This plow is equipped with shovel hoe, plow, two cultivator steels and weeder; also one wrench. Height of wheel, 24 in. Price, complete, \$4.50.

MANURE FORKS.

- No. 04D—4 tine, strapped shank, D handle\$1.75
 No. 04DZ—4 tine, strapped shank, D handle 1.50
 No. 04½Z—4 tine, plain ferrule, bent handle 1.40

HAY FORKS.

Strapped Shanks.

- 2 tine\$1.20
 3 tine 1.30

GARDEN HOES.

The Warren or Pointed, a quite popular style. No. W. 790c.

Baby Warren Hoe. A good transplant-er, same shape as above; very short handle. Price45c.

GARDEN HOES.

- All kinds, both medium and high grade.
 Jersey truck, 7½ in.\$0.80
 No. G6X, 6 in.75
 No. G7X, 7 in.80
 Half Moon.
 Extra quality.
 H. M. O.—4 in.\$0.80
 H. M. O.—5 in.85
 H. M. O.—7 in.90
 Scuffle Hoe.
 No. XGS, 8 in.90

ONION HOE.

Two prong, very useful in working narrow rows, price, 45c.

EUREKA FORK.

For potting flowers, etc. Good quality steel.

Price, 35c.

EUREKA WEEDER.

A good tool for scratching about plants. Price, 35c.

MINGLE'S SPECIAL WEEDER.

Five teeth, good quality. Price, 15c.

PROTECTING CLOTH FOR HOTBEDS.

We sell medium brown color at yard; heavy brown cloth at a yard.

SIDEWALK CLEANER.

American.

- 7 in. blade—4 ft. handle.....45c.
 Good quality—4 ft. handle.....35c.

STEEL BOW RAKE.

The teeth have a slight curve as shown in cut. Some people prefer this style.

- B 10—10 tooth, 85c. B 12—12 tooth, \$0.95
 B 11—11 tooth, 90c. B 14—14 tooth, 1.00

STRAIGHT TOOTH GARDEN RAKE.

- 10 tooth, malleable\$0.40
 12 tooth, malleable45
 12 tooth, extra quality steel..... .70
 14 tooth, extra quality steel..... .75

MANURE DRAGS.

For working manures, digging out potatoes, etc.

- No. 4 B. O. L., 4 tine.....\$0.75
 No. 4 B. O. H., 4 tine..... .90
 No. 5 B. O. L., 5 tine..... .90
 No. 5 Batchellor 1.10

LAWN QUEEN WIRE RAKE.

The most popular rake for the lawn. Does not tear up the grass.

- 24 teeth, price\$0.60

OLE OLSEN LAWN RAKE.

Rake head slightly curved from centre to each end which does not allow any material that has been caught by the teeth to slip around the edges. 26 tooth Hickory wood. Price, 75c.

Spray Calendar and Formulas

We give below, in short concise form, the principal diseases and remedies for various trees, fruits, and shrubs. The information is necessarily limited, but we can send catalogue more complete on request.

Insects are both biting and sucking. The first eat leaves and plants and can generally be controlled by poisons such as Arsenicals. Sucking insects can only be destroyed through the use of contact sprays, which close the breathing pores.

BITING INSECTS—Best controlled with 2 lbs. Arsenate of Lead paste to 50 gallons water. Asparagus Beetles, Bean Leaf Beetles, Spring Canker Worms, Caterpillars, Codling Moth, Curculio, Flea Beetles, Cherry Fruit Fly, Currant Worms, Locusts, Grasshoppers, Tomato Worms.

BITING INSECTS—Best controlled with Paris Green, Dry Arsenate of Lead, either dry or sprayed. We also recommend Tuber Tonic for Potato Bugs. Potato Bugs, Tobacco Worms.

SUCKING INSECTS—Fish Oil Soap sprayed 20 to 50 parts water is effective on Aphis, some Scale Insects, Cabbage Flea Beetles, Chinch Bugs, Bark Lice.

ANTS—Make holes by driving a stake down six inches deep, then pour in about a tablespoonful of Bisulphide of Carbon. Ants on rose bushes and chrysanthemums are not doing any harm to the plant. They are usually going after Aphis, which they milk. The Aphis should be destroyed.

APPLE—San Jose Scale, Oyster Shell Scale—Use Lime-Sulphur Solution one gallon to ten gallons of water in the Fall or Winter, preferably in the Fall; if badly infested apply twice. Apple Scab, Bud Moth, Curculio and Canker Worm—Spray with Lime-Sulphur one gallon to 40 gallons of water and add two to three pounds of Arsenate of Lead to each 50 gallons. Apply when the color shows in the bloom but before the bloom opens. For Codling Moth spray just after the bloom has fallen with Lime-Sulphur one gallon to 40 gallons of water, and add two pounds of Arsenate of Lead to each 50 gallons. The worms enter the apple at the blossom end and each cup must be filled with spray. Do the work thoroughly. Spray again in 40 to 50 days for the second brood of Codling Moths, which appear at this time. If Bitter Rot or Black Rot should show in the orchard, spray with Lime-Sulphur 1 to 40 pounds in 50 gallons of water.

BLACKBERRIES—Anthracnose and Rust. Cut out and burn any diseased canes. Spray with Lime-Sulphur 1 to 40 or with Fungi Bordo.

CHERRY—Forbes or Cherry Scale—Spray with Lime-Sulphur in the Fall and Winter. For Brown Rot spray with Lime-Sulphur 1 gallon to 40 gallons of water, and add two to three pounds of Arsenate of Lead to poison the Curculios. Spray again about ten days after the fruit has set. Slugs often eat the surface of the leaves early in June; spray the trees with Paris Green or Arsenate of Lead.

CHRYSANTHEMUM—Aphis—Use Tobacco Dust or spray with Tobacco Tea very dilute. For Blight use Bordeaux.

CURRENT—Leaf-blight—Apply Sulphate of Copper Solution when injury first appears. After fruit is harvested apply Bordeaux Mixture. Green Currant Worm—Use Arsenate of Lead. Borers—Cut out and burn infested stems early in the Spring.

GOOSEBERRY—Mildew—Before buds break, Bordeaux Mixture. For Worms, dust with Arsenate of Lead.

GRAPES—In the Spring gather and burn all dead wood and dried fruit of the previous season. Spray with Bordeaux Mixture as the buds are swelling. About ten days later spray with Bordeaux. Spray again after the fruit has set and every two weeks until fruit is nearly full grown.

MAPLE—Caterpillars—Collect and burn egg rings in Fall and Winter. If practical, spray Arsenate of Lead after first leaves appear. Borers—Insert wire in holes and kill, or inject Bisulphide of Carbon in the hole and close with putty or sticky clay.

HARDY SHRUBS—Where affected with Blight, use Bordeaux Mixture two or three times in the Spring. For Leaf-

eating insects, Bordeaux Lead. Scale—Lime-Sulphur Solution in Fall or Winter.

SHADE TREES—For Scale insects spray in Fall or Winter with Lime-Sulphur 1 gallon to 10 gallons of water. For Fungous diseases use Lime-Sulphur or Fungi Bordo; add Arsenate of Lead for leaf-eating caterpillars. For Borers use a wire and pole through burrows, or pour Bisulphide of Carbon in the hole and stop up with mud or putty to keep in the fumes.

ONION—Maggot—Destroy the young plants affected as soon as noticed, digging up maggots with the roots. Use Fish Oil Soap in dilution over plants.

PEACH, APRICOT, AND PLUM—For Peach-leaf Curl—Spray in the Spring before the buds open with Lime-Sulphur 1 gallon to 15 gallons of water. For Brown Rot and Peach Scab spray with 1 gallon of Lime-Sulphur to 75 gallons. Spray before bloom opens and again about ten days after it has fallen. Spray again in 30 days with the Lime-Sulphur 1 to 75.

PEAR—Blight—Cut out and burn all affected branches and twigs as soon as the Blight appears; if possible cut about six inches below blighted part. For Pear Scab and Codling Moth spray as recommended for the apple.

QUINCE—If twigs blight, cut out and burn all those affected. Spray with Lime-Sulphur and Arsenate of Lead as for apple after bloom has fallen.

ROSES—Leaf-Curl and Blight—Bordo Lead, apply twice. For Green-fly or Aphis—Arsenate of Lead before the buds form; afterwards Lemon Oil Insecticide or Tobacco Solution. For Slugs—Arsenate of Lead.

STRAWBERRIES—Leaf-blight, Mildew—When growth begins in Spring, Bordo Lead. When first fruits are set, repeat. After fruit is harvested, repeat every two weeks.

TOMATO—Leaf-blight—As soon as disease is discovered, Fungi Bordo; repeat every week or ten days. Rot—Train the vines, giving as much sunlight as possible. Sow seed at different times, so as to have two or three plantings. Pick infested fruit.

SAN JOSE SCALE—This pest is becoming so serious that it behooves every farmer, whether he be a fruit grower or not, to help destroy it. The insect unfortunately is little understood and hardly noticeable until the trees are practically killed. On young twigs and veins of the leaves of trees thickly infested, small spots of a reddish discoloration appear around the scales. On the trunk and branches there is a rough grayish appearance as if it had been coated with dark ashes. These insects multiply so rapidly that it has been estimated at Washington, D. C., that the progeny of a single female would number 3,216,080,400 by Fall if all were to survive. They are transferred from tree to tree by wind, crawling on the feet of birds and in other ways. At first they seemed to confine their efforts in temperate latitudes to stone fruits, but have spread to apple, pear, and other fruit trees, besides oak, maple, and various shade trees, shrubs, and small fruits. When first born the females move around freely from twelve to thirty-six hours, then thrust their beaks into the bark or fruit of the tree and do not move again. The scaly filaments form over it and they procreate about every thirty days in Summer, the last brood living over until Spring. It is imperative that all farmers take up the question of the San Jose Scale. They can be controlled by spraying Lime-Sulphur Solution in the Fall, Winter, and early Spring months while the tree is dormant, 1 gallon to 10 gallons water, and it is best to spray twice. In the Summer this strong solution cannot be used on account of the injury to foliage and fruit, but even weaker solution, 1 gallon to 30 or 40 gallons of water, seems to have beneficial effect.

INSECTICIDES AND FUNGICIDES

STERLINGWORTH ANT DRIVER

One of the best preparations made to drive all kinds of ants from houses. It is a non-poisonous powder for sprinkling along baseboards of rooms or any place you desire to be kept free from them. Price in sprinkler boxes, 25c.

The lawn saver.

The ant is a very persistent pest. Use Ant-I-Cide which is in powder form in order to protect your lawn from destruction by the ant pest.

Directions on 1 lb. box, price 25c.

Sent by mail at purchaser's expense. Mailing weight, 2 lbs.

STERLINGWORTH ANT-I-CIDE

ARSENATE OF LEAD (Dry Powder Form)—Being the more popular form of this destroyer, owing to its economical ways of being applied (can be used either as dusting powder or diluted in water.)

Dusting directions, 1 to 2 lbs. per acre.

Diluted in water, 1 lb. to 50 gals.

Price, ½ lb. can, 30c.; 1 lb. can, 60c.; 5 lb. can, \$2.50; 10 lb. can, \$5.00; 25 lb. can, \$11.50; 100 lb. can, \$40.00.

ARSENATE OF LEAD PASTE—Has attained a wide reputation as a reliable and economical insecticide and is particularly destructive to leaf-eating insects.

It is in paste form and should be sprayed in the proportion of 1 oz. to 1 gallon of water. 1 lb. can, 40c.

"Black Leaf 40" is a concentrated solution of nicotine sulphate, is used as a safe and effective spray for plant lice; contains 40 per cent. nicotine by weight; can be combined and applied with other insecticides and fungicides. Per 1 oz. bottle, 25c.; ½ lb., 75c.; 2 lb., \$2.50; 10 lb., \$10.75.

BORDEAUX (Dry Bordeaux Mixture)—The perfect Dry Bordeaux Mixture Concentrate is a dry powder, no danger of freezing, no freight to pay for water; use 8 lbs. to 50 gals. of water.

Price, 1 lb. can, 35c.; 5 lb. can, \$1.50; 10 lb. can, \$2.75; 25 lb. can, \$6.25; 100 lb. can, \$18.00.

Barrel prices on application. Write for leaflet describing this preparation.

BORDEAUX LEAD (Paste)—Used for same purposes as dry powder for spraying against mildew and blight.

1 lb. jar, 40c.; 5 lb. cans, \$1.65; 25 lb. cans, \$7.75.

Pat. March 16 and Nov. 9, 1897.

It contains no Arsenic nor Arsenical poison of any name or nature. Does not harm birds, animals or foliage, no matter how freely it is applied. In addition to killing the bugs or germs and preventing blight, it nourishes the plant. 1 lb. cans, 25c.; 3 lb. pkgs., 50c.; 5 lb. pkgs., 70c.; 12½ lb., \$1.40; 100 lb. keg, \$8.25.

BUG DEATH—Is a very fine powder, so exceptionally tenacious that it does not wash off. If used when the tender shoots come from the ground you never will be bothered, but even if the bugs and worms have got the upper hand, it is not too late by any means to use Bug Death right now, for it will kill any bug or worm that eats the leaf, blossom, or flower of any plant. It is ideal for use on Potato, Squash, Cucumber, Currant, Gooseberry and Tomato plants and vines; for house plants and "that little vegetable garden" it is unexcelled.

STERLINGWORTH CUT WORM KILLER

The Cut Worm helps to make the cost of living higher. Use

the means at hand to destroy this pest and get a good crop from your protected plants.

Directions on 1 lb. sprinkler boxes, 25c.

Sent by mail at purchaser's expense. Mailing weight, 2 lbs.

HELLEBORE—One of the best insecticides for all around garden use. Destroys almost all leaf and flower-eating insects. Can be applied dry or in powder form. Price, ¼ lb., 25c.; ½ lb., 40c.; 1 lb., 75c.

LEMON OIL CO.—Standard Insecticide has been on the market some time and is largely used by florists and nurserymen for destroying plant lice, Scale, Mealy Bug, Spiders, Aphids, Thrip and many other pests. Non-poisonous, odorless and safe. ½ pt. can, 30c.; pt., 50c.; qt., 90c.

LIME-SULPHUR SOLUTION—A liquid preparation. Our brand stays in suspension perfectly; always ready for use. Directions: For destroying Scale, 1 gal. to 8 gals. of water; for destroying Fungus, 1 gal. to 35 gals.

Price, 1 qt., 55c.; 2 qts., 90c.; 1 gal., \$1.20; 5 gals., \$3.75; bbls. (50 gals.), \$15.00.

PARIS GREEN—The old time Potato Bug destroyer. Use care in applying on account of its burning properties. Use 2 lbs. to 50 gals. of water or 2 lbs. to 100 lbs. of Land Plaster. Can use in same proportions with Limoid instead of Land Plaster. Price, ¼ lb. pkg., 20c.; ½ lb., 35c.; 1 lb., 65c.

STERLINGWORTH PLANT LICE KILLER

This preparation is put up expressly for

destroying

Aphis, plant lice or spiders on house plants.

Save your ferns and other tender flowering plants by using this well-tried remedy.

Directions on cans 1 pt. size, 25c.

Sent by mail at purchaser's expense. Mailing weight, 3 lbs.

PYROX—A paste used for all leaf-biting insects. Is really a Bordeaux and Arsenate of Lead mixture. Dilute 1 lb. to 5 gals. water. Price, 1 lb., 40c.; 5 lbs., \$1.50.

SLUG SHOT—One of the old and well known remedies for destroying slugs, currant worms, cabbage worms and all of the soft shelled insects which trouble vegetation. 5 lb. pkg., 50; 10 lb. pkg., 95c.

SOLUBLE SULPHUR COMPOUND—Reduces the cost of spraying by fighting three different classes of pests and diseases, with the same weapon at the same time.

It is used for the control of San Jose Scale, Oyster Shellbark Louse and other Scale Insects; Apple Scab, Peach Leaf Curl and other fungous diseases; Pear Psylla, Leaf Blister Mite and Aphids.

It is put up in air-tight cans, in powder form, and will keep indefinitely.

1 lb. can, 25c.; 5 lb. can, \$1.00; 10 lb. can, \$1.75; 25 lb. can, \$3.25.

SULPHUR CANDLES—For fumigating. Large size, each, 15c.

TOBACCO DUST—Used for dusting delicate plants, especially good for the soft shell pests which infest flowers. Also for all low growing or trailing varieties of vegetables. Price per 1 lb. pkg., 10c.; 5 lb. pkg., 35c.; 10 lb. pkg., 60c.. Larger quantities, price on application.

TOBACCO STEMS—Used for fumigating. Also soaked in water makes a spray. Much used by florists upon tender plants. 5 lb. pkg., 25c.; bbl. sack, \$1.15; bale, \$2.00.

TREE TANGLEFOOT—An absolute safeguard against all creeping insects on trees. Apply with paddle, making a band around the tree 3 in. wide. Vermin can not get over it. 1 lb. can, 50c.; 3 lb. can, \$1.45. See Page 30.

TUBER TONIC (Dry Powder)—A most satisfactory combination of Paris Green and Bordeaux Mixture possessing great adhesive properties and retains all the qualities of Paris Green and Bordeaux without the burning property of Paris Green. Used for destroying Potato Bugs and for any plant or vine troubled with leaf-biting insects. A fine Fungicide also.

Directions: 1½ to 3 lbs. to 50 gallons of water. Price, 1 lb., 60c.; 5 lb. can, \$2.50; 10 lb. can, \$4.50.

WHALE OIL SOAP (Soft Soap)—An old reliable remedy for spraying against scale and other pests. Can be used in varying proportions dissolved in water. ½ lb., 15c.; 1 lb. pkg., 25c.; 5 lb. pkg., \$1.00.

FERTILIZERS

ASHES (Domestic Hard Wood)—This article is very rich in Potash (a very scarce article at this time). Excellent for lawns or grass fields, or for mixing with potting soil. Not less than 50 lbs. sold. 50 lb., \$1.00; 100 lb., \$1.60; 200 lb., \$2.60; 1000 lb., \$12.00; ton, \$23.00.

MINGLES SPECIAL—Very high in potash; fine for top dressing lawns—mixture of high grade fertilizers—makes an excellent fertilizer for all purposes. 5 lb., 25c.; 10 lb., 45c.; 25 lb., \$1.10; 50 lb., \$1.80; 100 lb., \$2.60. Larger lots—price on application. 1000 lbs. to 1500 lbs. necessary for one acre.

BONE MEAL (Extra Fine)—This fertilizer we recommend for lawns, rose bushes, grape vines, especially where a moderately slow fertilizer is needed, for the deep rooted shrubbery and where a perfectly safe fertilizer is wanted. 3 lb., 25c.; 5 lb., 35c.; 10 lb., 60c.; 25 lb., \$1.15; 50 lb., \$2.00; 100 lb., \$3.75; bag, 200 lb., \$7.00. Apply at rate of 1000 lbs. to an acre.

HUMUS—(See page 6).

LAND PLASTER—Very useful for top dressing. Is a good medium for retaining the fluids and ammoniates when mixed with manures. Mixed with Paris Green is used for dusting plants to destroy vermin. 5 lb., 25c.; 25 lb., 60c.; 50 lb., \$1.00; 100 lb., \$1.60; bag, 200 lb., \$2.60.

LIMOID (Hydrated Lime)—The good qualities of this lime are generally underestimated, rather than exaggerated. Used for correcting sour ground, to disinfect chicken runs and houses, for whitewashing. Apply one ton per acre. Price, 4 lb., 15c.; 10 lb., 30c.; 50 lb., \$1.00; 100 lb., \$1.60. Larger lots—price on application.

NITRATE OF SODA—A very powerful, but incomplete fertilizer; only recommended to hasten the crop previous to harvesting. Best form to apply is in solution, two or three ounces to one gallon water. 1 lb., 15c.; 5 lb., 60c. Larger lots—price on application.

NITRO GERM—MULFORD'S—See page 4.

SHEEP MANURE (Pulverized)—This natural fertilizer does not need any recommendation. "It shows for itself" wherever used. Is one of the best of natural fertilizers for the truck patch, around flower beds and for the lawn, and it is hard to find its equal. Apply at rate 1200 lbs. per acre. Price—2 lb., 20c.; 5 lb., 30c.; 10 lb., 55c.; 25 lb., \$1.10; 50 lb., \$1.65; 100 lb., \$3.00; 150 lb. bag, \$4.10; 500 lb., \$12.50; 1000 lbs., \$23.00.

SPHAGNUM MOSS (Dry)—Barrel size, \$1.00; pk., 20c.; bus., 50c.

EGGS FOR HATCHING

We can furnish eggs for hatching from either exhibition or finest utility strains.

Setting of 15 eggs, finest utility \$2.00
In lots of 100 eggs, finest utility 12.50

Exhibition stock a matter of correspondence.

Guarantee of fertility does not mean every egg must hatch; conditions beyond control prevent such results very often. We assure you, however, 60 per cent. in early settings (January, February and March); 70 per cent. in balance of season. All claims of infertility must be accompanied by affidavit.

BABY CHICKS

From pure bred stock of finest utility strains:

25 Chicks \$7.75
50 Chicks 15.00
100 Chicks 28 00

RELIABLE POULTRY

We recommend and sell Rhode Island Reds, Barred Rocks, Wyandottes and Leghorns as being the most satisfactory fowls for the purposes wanted, as good layers and hardy or to fatten quickly for market. We also can procure any other breed desired. Price a matter of correspondence.

PARCEL POST RATES FOR HATCHING EGGS

Weight	Zone Rate 50 Miles	2nd Zone Rate	3rd Zone Rate	4th Zone Rate	5th Zone Rate	6th Zone Rate	7th Zone Rate	8th Zone Rate
4 pounds, 1 setting	\$0.14	\$0.18	\$0.22	\$0.26	\$0.30	\$0.37	\$0.41	\$0.48
7 pounds, 2 settings.....	.23	.30	.37	.44	.51	.64	.71	.84
9 pounds, 3 settings.....	.29	.38	.47	.56	.65	.82	.91	1.08
11 pounds, 4 settings.....	.35	.46	.57	.68	.79	1.00	1.11	1.32

Baby Chicks are shipped by express, at purchaser's expense. We use best of care in putting up shipments and all chicks should reach destination safely. Hatching eggs are also sent by express. We think this the best method of shipping them.

Poultry Business and Who Should Engage In It

Man has a natural desire to own the soil. Herding and agriculture are primary human occupations, and countless ages of practice in these pursuits have bred the habit into instinct.

For the country dweller the matter is simple. The question depends merely upon a choice of the various methods, any of which he may easily adopt. The urbanite finds the difficulty much more serious. Conditions are more complicated and the way not always obvious. What shall he do? How may he indulge the inheritance of desire handed down through ages?

There are two things to consider when deciding to go into poultry raising, whether it is to be for pleasure or for profit, as the conditions differ according to the branch followed.

Those who engage in it for pleasure are usually the head of the family, who wishes to be supplied with fresh eggs and poultry of his own production, thus assuring himself of the freshness of the products eaten; or one who delights in the appearance of fine fowls and grow them for pleasure of seeing pure bred birds in his yard and blue ribbon premiums as the result of his labors; or it may be some member of the family, perhaps a semi-invalid, to whom the light exercise and the being out in the open air which poultry keeping induces, will be beneficial; or some of the younger members of the family whose fancies run that way, or who have been interested to keep them out of mischief and to teach them industrious habits and the love of animal life which daily care of poultry requires.

Many young boys and girls on the farm or those in villages and towns may profitably engage in poultry raising. The extras, such as bicycles, fishing tackle, rifle or money for a vacation trip for the boys and extras for the girls, for which they do not feel like calling upon their parents, may be easily earned in spare moments, as well as a goodly addition to the bank account, which so many of our American boys and girls possess.

Those who engage in this industry for profit are men who have worked hard in shops, factories and offices, and having saved enough from their earnings, feel in a position to buy a small place in the suburbs of a large city or near a good sized busy town; or young men to whom the out-of-door life appeals and who feel that there is a better opportunity in this than in other lines, and engage in the raising of poultry for a living, combining it with small fruits like strawberries and raspberries, etc., and perhaps flowers or the furnishing of garden plants such as tomatoes, cabbage, cauliflower or celery to those in towns who have back yard gardens.

To women also this industry offers a good opening. The work is not hard, the chicks seem to respond unusually well to a woman's care, and taken in connection with floriculture it is very profitable. There are many women who are making a nice income from their poultry whether handled in connection with their household duties, as do many farmers' wives or as a business, taking practically all of their time, assigning to some other members of the family the work within doors.

With the present improvements in incubators and brooders and feed boxes, drinking founts, coops and houses, the labor of hatching and raising has been greatly lessened, and to those seeking out-of-door employment, poultry-raising appeals strongly.

To the investor who wishes to equip and run a commercial poultry plant on a large scale and on a practical basis we would say there are many such plants in successful operation in this country.

With a good practical poultryman as manager or superintendent, one who understands the management of help as well as the care and management of poultry, such a farm is a good proposition. The increasing price of eggs and poultry, the demand for a better class of goods and for which first-class hotels and restaurants and also private trade offers a premium over market prices, enables the large farms to place contracts for their entire output at a very satisfactory figure.

Every year adds to the ease in getting out and away from the large centres of population. Improved methods of transportation have given readier access to the land, and modern methods of poultry culture have provided the means to use it advantageously.

Within the last decade both the theory and practice of poultry keeping have undergone a complete change. This change and consequent improvement, while it has revolutionized the methods in use on many of the big poultry plants, have been largely helpful to the owner of a few hens.

Artificial incubation was in its infancy. Incubators were crude in design and poor in construction. Brooders were still more undesirable and results generally far from happy. The temperature of both incubators and brooders went up and down, and the chicks went down and out. Chaos frequently reigned.

Now, as then, wrong methods bring wrong results. There is no doubt, however, that success is now the rule rather than the exception. No one who will give reasonable attention to the primary essentials of poultry culture need fail.

What are the essentials? Briefly, proper house, good tools, good feeds and cleanliness. Of these four only the first and the latter two are necessary for success with small flocks.

Expensive buildings are not desirable.

Take our advice; get land; get hens, and enjoy life. The way is easy, and the result is good.

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