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High Grade, Tested
SEEDS
That Grow Everywhere

OAKLEY-PATE
SEED CO.
JOPLIN, MO.

L. C. McDARN, THE PRINTER

TO OUR CUSTOMERS:

At prices quoted in this catalogue, we prepay postage on Garden and Flower Seeds within the 5th Zone.

Prices quoted on Field Seeds and Nursery Stock are net F. O. B. Joplin, and will be shipped at the purchaser's expense.

Remittance may be made by P. O. or Express Money Order, Bank Draft, or Registered Letter, and should always accompany the order.

NON-WARRANTY.—Sometimes, though not often, our seeds do not come up after planting. This may be due to one or more of several reasons, such as covering too deeply or not deeply enough; too much or too little water, too cold weather or a baking sun, which forms a crust too hard for the tender shoots to penetrate. Sometimes insects destroy plants at the surface before they are seen by the gardener. We cannot personally direct the use of our goods after they leave our hands; neither can we fully control anywhere or at any time the operation of natural law as it affects seeds; therefore, we give no warranty, express or implied, as to description, purity, productiveness, or any other matter of any seeds or bulbs we send out, and we will not be in any way responsible for the crop. If the purchaser can not accept the goods on these terms, we request their immediate return.

New Parcel Post Rates

based on DISTRICTS and ZONES. The DISTRICT includes office where mailed and the rural routes therefrom.

A DISTRICT RATE OF 5 CENTS for the first pound, and 1 cent for each additional two pounds or fraction thereof up to 70 lbs. (the district weight limit) is charged between points in this district.

First and Second Zones cover a radius of 200 miles from the point of mailing, having a weight limit of 70 pounds and a rate of 5 cents for the first pound, and 1 cent for each additional pound, or fraction thereof.

The Third Zone also has a weight limit of 70 pounds.

A weight limit of 50 pounds applies to the Fourth, Fifth, Sixth, Seventh, and Eighth Zones, with rates increasing with the distance. (See table.)

SIZE AND WEIGHT.—A Parcel Post package may weigh from 4 ounces to 70 pounds for the first, second and third zones—with a 50-pound weight limit for fourth to eighth zones, and must not exceed in size 84 inches in length and girth combined.

Four Ounces or less will be charged for at 1 cent per ounce or fraction thereof, except on Books, Seeds, Plants, Bulbs, etc., which are 1 cent for 2 ounces up to 8 ounces for any distance.

We have catalogued the weight of most items mailable by Parcel Post and, by reference to the table, you can always figure your postage.

Parcel Post Rates Apply to Seeds, Plants and Books Weighing Over 8 ounces. Other fourth-class matter Over 4 ozs. Charged at Pound Rate.	First Pound or Fraction Thereof.	Each Additional Pound or Fraction.	
Local or District Rate—Joplin Office and Rural Routes therefrom.....	\$0.05	½-cent	Wt. Limit 70 lbs.
1st Zone) up to and including a radius of 200 miles,			
2nd Zone) from the point of mailing.....	.05	\$0.01	Wt. Limit 70 lbs.
3rd Zone	.06	.02	Wt. Limit 70 lbs.
4th Zone	.07	.04	Wt. Limit 50 lbs.
5th Zone	.08	.06	Wt. Limit 50 lbs.
6th Zone	.09	.08	Wt. Limit 50 lbs.
7th Zone	.11	.10	Wt. Limit 50 lbs.
8th Zone	.12	.12	Wt. Limit 50 lbs.

GARDEN SEEDS

NEW CROP GARDEN, FLOWER AND FIELD SEED.

Recleaned and Tested for Germination
and Purity

☞ Owing to market fluctuations, we reserve the right to change the prices quoted herein without notice.

ASPARAGUS

CULTURE—Asparagus succeeds well in any good, rich soil, but a light, warm soil which has been heavily manured for previous crops is best. To grow asparagus, soak seeds in warm water for 24 hours; sow two inches deep in drills two feet apart. When the plants are well up, thin out one inch apart, and give frequent and thorough cultivation. The roots can be transplanted, either at one or two years old, in the fall or spring.

CONOVER'S COLOSSAL—A standard variety of large size and delicious quality. Certainly one of the best grown. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; 1 lb., \$1.25.

ASPARAGUS ROOTS—A saving of one to two years is effected by planting roots. We can supply strong two-year-olds, the proper size for planting. Doz., 25c; 100, \$1.75.

RHUBARB OR PIE PLANT

Rhubarb, also known as Pie Plant or Wine Plant, is the earliest Spring vegetable and is grown for its leaf stalks, which are extensively used for pies and sauce.

Rhubarb succeeds best in deep, rich soil. Sow in drills an inch deep and thin out the plants to six inches apart. In the Fall transplant into very highly manured and deeply stirred soil, setting them four feet apart each way, and give a dressing of coarse manure every spring. The stalks should not be plucked until the second year. When a blossom stalk appears, it should be cut back well into the ground, and the plant never allowed to exhaust itself by running to seed.

RHUBARB ROOTS—Three-year-old Subdivisions, per doz., \$1.25 postpaid; per 100, \$8.00, not prepaid.

RHUBARB SEED—Pkt., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.25.

HORSERADISH ROOTS—Per doz., 25c postpaid; per 100, \$1.50, not prepaid.

ENDIVE

CULTURE—For an early crop, sow in April in drills 15 inches apart, and later thin the plants to stand 12 inches apart in the row. The main sowings are made in June and July. When nearly full grown, gather up the leaves and tie them by their tips to blanch. One ounce of seed will sow 150 feet of drill.

FINE GREEN CURLED—Hardest variety; the most desirable for home use or market garden. Deep green leaves, beautifully cut and curled easily; blanched. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00.

KALE OR BORECOLE

KALE, OR GERMAN GREENS, do not form heads but furnish an abundance of pretty curled leaves that are highly prized as food. Sow from the middle of April to the beginning of May; transplant and cultivate like Cabbage. Will endure considerable frost without injury. Dwarf Green Curled, pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c

We Prepay Postage or Express on Bulbs, Garden and Flower Seeds, Within the Fifth Zone.

GARDEN PEAS

Peas marked (*) are wrinkled. Do not plant Wrinkled Peas until soil is warm.

The smooth, or first, early varieties may be sown as soon as the ground can be worked in the spring.

Wrinkled or Sugar Peas should not be sown until the ground gets warm, as cold, wet ground will cause them to rot.

THOMAS LAXTON.

in length. Broad and pointed at the ends. Fit for table use 61 days from planting. Pkt., 15c; lb., 40c; 3 lbs., \$1.05.

***THOMAS LAXTON**—A heavy and reliable cropper, bearing uniform, straight, square-ended, dark-green pods, containing 7 to 8 large, rich-flavored peas of a deep green color. 2 feet high. Pkt., 10c; lb., 35c; 3 lbs., 90c.

***TELEPHONE**—Extra large pods. Vine large, coarse leaves, height about 4 feet. The pods are very large and filled with immense peas. Tender, sweet, and of splendid quality and flavor. Pkt., 10c; lb., 35c; 3 lbs., 90c.

LARGE, WHITE MARROWFAT—The vines of this variety are about five feet high and of strong growth. The pods are large, long, cylindrical, surface somewhat roughened, light-colored and well-filled; seeds large, smooth, round, and light, creamy yellow. Pkt., 10c; lb., 30c; 3 lbs., 75c; 10 lbs., \$2.00.

Special Prices to Market Gardeners in Large Quantities.

We Prepay Postage or Express on Bulbs, Garden and Flower Seeds, Within the Fifth Zone.

EARLY ALASKA—Extra early. The vines are of strong, vigorous habit and bear from four to seven pods that are always filled with medium size peas of the most delicious flavor. Height, 2 to 2½ feet. lb., 30c; 3 lbs., 75c; 10 lbs., \$2.20.

FIRST AND BEST—Mature in from 40 to 45 days after germination. The peas are of medium size, round, smooth, and of splendid flavor. The vines are very hardy and seed may be sown as soon as the soil becomes mellow. Height, 2 feet. Pkt., 10c; lb., 30c; 3 lbs., 75c; 10 lbs., \$2.00.

***GRADUS**—A standard, early, large-podded variety, very popular with Market Gardeners. Vine and foliage green and moderately heavy. Pods 3¾ inches long, slightly curved at the tip. Bears 6 to 8 large Sweet Peas of good quality. Height, 2½ feet; sow 1½ lbs. to 100 feet of row in drill. Pkt. 10c; lb., 35c; 3 lbs., 90c.

***NOTT'S EXCELSIOR**—Foliage dark green and rather heavy, suggesting health and vigor. On good soil grows about one foot high. Pods one-third longer than American Wonder. Pods more often square than round. Pkt., 10c; lb., 35c; 3 lbs., 90c.

***POTLACH**—Strong, vigorous vines of even growth, 20 to 24 inches in height, with luxuriant dark foliage, bearing pods 3½ to 4 inches

BEANS—DWARF OR BUSH

CULTURE.—A succession of sowings can be made from the middle of March until September. These dates are for the latitude of Joplin. Plant in drills about two inches deep, and from 18 inches to two feet apart, according to the richness of the soil; the poorer the soil the closer they can be planted. The seeds should be dropped about two inches apart. If growing conditions are favorable, Bush variety will be ready to use six weeks from planting.

1 ¼ lbs. will plant 100 feet in drills, or 150 hills; 10 lbs. to the acre, in drills.

CURRIER'S RUST-PROOF WAX.

WAX PODDED VARIETIES.

ROUND BLACK WAX—Very early and productive, pods are 5½ to 6 inches long, round and straight; color, light yellow and attractive in market; has more or less fibre and string; seed black. Grown largely by market gardeners because of its earliness and hardness. Pkt., 10c; 1 lb., 35c; 3 lbs., \$1.00.

OAKLEY' - PATE'S STRINGLESS WAX BEAN—This is a wonderful variety, a prolific bearer of large golden yellow, truly RUST PROOF pods. It is stringless at all stages, and among the earliest varieties. Try them with your next planting. ¼ lb., 15c; ½ lb., 25c; 1 lb., 45c; 3 lbs., \$1.20.

GOLDEN WAX, IMPROVED RUST-PROOF—Closely resembles Golden Wax, differing only in having a shorter, stouter and more straight, flat pod. Plant a trifle shorter and apparently not as productive

GREEN PODDED.

BOUNTIFUL—Best of the flat-podded stringless varieties. Pods 6½ to 7 inches long, stout, flat and slightly curved, stringless, slightly fibrous when old, attractive light green; very early, vigorous.

Pkt., 10c; ½ lb., 20c; 1 lb., 30c.

BURPEE'S STRINGLESS GREEN POD—Early, hardy, vigorous, and productive. Pods large, 5 inches long, stout, round and creasebacked, dark-green, stringless at all stages of growth, tender and brittle. Pkt., 10c; lb., 35c; 3 lbs., 90c.

as in the Old Style. The brown mottled seed is darker in color than Golden Wax. Pkt., 10c; lb., 35c; 3 lbs., \$1.00.

GIANT STRINGLESS GREEN POD—Somewhat similar to Burpee's Stringless, but pod is a little longer, straighter and more slender, more depressed between beans and slightly lighter in color; early hardy and of highest quality. Pkt., 10c; lb., 30c; 3 lbs., 75c.

HORTICULTURAL DWARF—An old standard snap and shell sort. Pods about 5 inches long, almost stringless, greenish-yellow, splashed with carmine. Pkt., 10c; lb., 30c; 3 lbs., 75c.

IMPROVED EARLY RED VALENTINE—A very hardy, early and productive standard sort. Pods 4½ inches long, round and crease-backed, medium green, slightly stringy. Pkt., 10c; lb., 30c; 5 lbs., \$1.25.

BEANS

OAKLEY-PATE'S FAVORITE GREEN POD BUNCH BEAN.

OAKLEY-PATE'S GREEN POD BUNCH BEAN—A popular sort in the South.

Plant vigorous, hardy, mid-season and very productive. Pods extremely large, 6 to 7 inches long, very flat, irregular in shape, dark-green in color, exceptionally fine flavor, nearly stringless. Beans chocolate-brown... Pkt., 10c; 1 lb., 35c; 3 lbs., \$1.00; 5 lbs., \$1.50.

LONGFELLOW—A very excellent variety of French origin. Moderately early and moderately productive. Pods dark-green, 5½ to 6 inches long, very slender, straight and round; slightly stringy; tender, fine grained, good quality and attractive. Makes an excellent canning sort. Pkt., 10c; 1 lb., 30c; 5 lbs., \$1.35.

**USE FERTILIZER
ON YOUR BEANS
AND GET
BIGGER RESULTS**

DWARF OR BUSH LIMAS.

BURPEE'S IMPROVED BUSH—Both beans and pods larger than the old type; average one more bean to the pod; beans larger and thicker than in the old form. Pkt., 10c; 1 lb., 35c; 3 lbs., \$1.00.

FORDHOOK BUSH—A most excellent variety and exceedingly popular with market gardeners. Pods about 5 inches long, containing 4 to 5 large oval-shaped, very thick, white beans. Pkt., 15c; 1 lb., 40c; 3 lbs., \$1.10.

HENDERSON'S BUSH—A vigorous, hardy, very early and small type of Bush Lima; much in favor with canners. Pods small, about 3 inches long, containing three to four small, flat, white beans of good quality. Pkt., 10c; 1 lb., 30c; 3 lbs., 75c.

Protect your fruit and shrubs from disease and insects by using
the proper Spraying Materials—We have it.

BEANS—POLE OR RUNNING.

CULTURE—These are more tender, and require more care than the Bush Beans, and should be sown two weeks later. They succeed best in sandy loam, which should be liberally enriched with short manure in the hills, which are formed, according to the variety, from 3 to 4 feet apart. From five to six seeds are planted in each hill about 2 inches deep. As the matured bean is used mostly, the season is too short for succession crops. The season of growth is often from March to November. Poles about 7 or 8 feet high should be used for Pole Beans to climb on.

One lb. to 100 hills; 30 lbs. to the acre in drills.

BURGER'S GREEN POD, OR WHITE KENTUCKY WONDER—A very early, white seeded variety of German origin. Pods 6 to 7 inches long, round, slender, and straight; very tender, fleshy and stringless, splendid quality; color dark-green. Pkt., 15c; 1 lb., 40c; 3 lbs., \$1.10.

HORTICULTURAL POLE, OR CRANBERRY—An old, well-known, standard sort. Mid-season in maturity, hardy and productive. Pods 5 to 6 inches long; straight, flat, stringless and of good quality; color dark-green, splashed with bright red. Pkt., 15c; 1 lb., 35c; 3 lbs., \$1.10.

KENTUCKY WONDER, OR OLD HOMESTEAD—The most popular, green-podded climbing, or corn-hill bean; early and productive. Pods 8 to 9 inches long, very slender, decidedly curved, slightly stringy, tender, and good quality. Pkt., 10c; 1 lb., 30c; 3 lbs., 75c.

KENTUCKY WONDER WAX—One of the earliest of the pale wax sorts. Pods 8 to 9 inches long, thick, decidedly crease-backed, very fleshy, brittle, but stringy, attractive and fair quality; color, light yellow. Pkt., 15c; 1 lb., 40c.

LAZY WIFE—A late, productive, standard sort. Pods 5 to 6 inches long, broad, straight and flat, stringless, very fleshy, brittle, fine grained, attractive and excellent quality. Color medium green; dry beans, round and white. Pkt., 10c; 1 lb., 40c; 3 lbs., \$1.10.

RED SPECKLED, CUT-SHORT OR CORN-HILL. A well-known, hardy, late and productive sort. Pods $3\frac{1}{2}$ to four inches long, stout, straight and flat; stringy, fine-grained and fair quality; color light-green. Pkt., 10c; 1 lb., 35c; 3 lbs., 90c.

WHITE CREASEBACK—Very hardy, early and moderately productive. Pods 5 to 6 inches long; uniform, round and slender; slightly stringy, fleshy, brittle, and fine-grained; color dark-green. Beans small, oblong and white. Pkt., 10c; 1 lb., 30c; 3 lbs., 75c.

WHITE DUTCH CASEKNIFE—Green snap pods, 7 to 8 inches in length, very straight and flat, stringy, brittle and of

fair quality; mid-season; best as a shell bean. Beans very flat and ivory white. Pkt., 10c; 1 lb., 40c; 3 lbs., \$1.00.

POLE LIMAS.

FORD'S MAMMOTH PODDED—An exceedingly productive, large-seeded, fine quality Lima. Beans a trifle thicker than Large White Lima and maturing about the same time. Pkt., 15c; 1 lb., 40c; 3 lbs., \$1.10.

KING OF THE GARDEN—An improved strain of Large White Lima; pods about an inch longer, proportionately wider and uniformly four seeded. Pkt., 10c; 1 lb., 35c.

GARDEN BEETS

Beets grow best in moderately rich, light loam. Sow the seed as soon as the ground becomes fit to work, in drills 18 inches apart, 1 inch deep.

OAKLEY-PATE SEED CO.'S CRIMSON GLOBE—The root is of medium size, generally about three inches in diameter, very handsome in shape, being a little deeper than round, with a remarkably smooth surface. It has a very small taproot. Dark leaves are small and borne on slender stems. The interior color is very deep crimson, but is ringed or zoned in a most beautiful manner. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., 65c; 5 lbs., \$2.50.

CROSBY'S EGYPTIAN.

leaves. These leaves are carried on broad, thick stalks, about 12 inches long. Take the leafy portions of the plant and cook like spinach. Prepare the stalks as you would asparagus. Oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 70c; 3 lbs., \$1.75.

CROSBY'S EGYPTIAN—This beet is perfect in shape, and deepest red, almost black, in color. Equally good for early bunching as well as the fall market. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.25.

DETROIT DARK RED—Its small top, early maturing and splendid shape and color have made it a favorite. Top small upright growing, so that the rows may be close together; leaf, stem and veins dark red, blade green; root globular, and very smooth; color of skin dark blood-red; flesh deep bright red, zoned with a darker shade; very crisp, tender and sweet, remaining so for a long time. Uniform in shape color and quality. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.25.

EARLY ECLIPSE—One of the best of the table Beets. Has small tops and is smooth, fine-grained and tender. Color, bright red, sometimes with lighter zones. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.25.

EARLY BLOOD TURNIP—The old standard. A good summer and autumn variety. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.75.

SWISS CHARD—The plants grow from 2 to 2½ feet tall and consist when fully developed of about a dozen creamy white, attractively curled

STOCK AND SUGAR BEETS

CULTURE—These varieties are extensively grown for feeding stock, and are excellent food to increase the flow of milk. They grow much larger than the table varieties, therefore require more room. The seed should be sown about one inch deep in rows two feet apart; when large enough, thin to about 12 inches apart. The long varieties are best suited to deep soil, while the globe shapes do better in sandy soil. Six pounds will plant one acre.

LONG RED MAMMOTH PRIZE—Attains enormous size. Often producing thirty to fifty tons to the acre. Oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c.

GOLDEN TANKARD—Roots large, nearly cylindrical in shape; narrowing at both ends; skin deep orange yellow; flesh zoned yellow and white; very sweet and productive. Oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c.

GIANT HALF SUGAR ROSE (Feeding Sugar)—A most valuable yielding variety for feeding; skin, rose-colored; flesh white, oval shaped. Oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c.

LONG RED MANGEL—A large variety grown for stock feeding. It stands up well above the surface; color, light red; flesh white and rose-colored. Oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c.

EARLY AND LATE CABBAGE

CULTURE—Cabbage requires deep, rich, mellow soil, and good culture, to obtain firm, solid heads. For early use, plant in a box in the house, the last of January or early in February; transplant into open ground in April. For second early cabbage, sow in April and transplant in May. One ounce of seed produces 2,500 plants.

COPENHAGEN MARKET—A new early variety; very large, round, solid heads, often weighing ten to twelve lbs. Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 75c; lb. \$2.25.

LATE FLAT DUTCH—An old variety, but well and favorably known for its good keeping qualities; extensively used in making kraut. Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 75c; lb., \$2.00.

DANISH BALLHEAD OR HOLLANDER—Medium size round head, very prolific and firm. A good keeper and a splendid shipper. Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 75c; lb., \$2.00.

EARLY JERSEY WAKEFIELD—Small pointed heads, very popular on account of its extreme earliness. Pkt., 10c; oz., 20c; $\frac{1}{4}$ lb., 65c; lb., \$1.85.

WAKEFIELD.

HENDERSON'S EARLY SUMMER—A splendid sort, coming in just after the Wakefield. Makes large, fine, round heads. Pkt., 10c; oz., 30c; $\frac{1}{4}$ lb., 75c.

CHARLESTON WAKEFIELD—A selection from Early Jersey Wakefield, only it is about one week later than that popular early variety, and grows much larger. Pkt., 10c; $\frac{1}{2}$ oz., 15c; oz., 25c; $\frac{1}{4}$ lb., 75c; 1 lb., 2.25.

EARLY FLAT DUTCH—One of the most reliable medium-early varieties. Makes large, flat, solid heads. Pkt., 10c; $\frac{1}{2}$ oz., 15c; oz., 25c; $\frac{1}{4}$ lb., 75c; lb., \$2.50.

COLLARDS—Another plant belonging to the Cabbage family, used for GREENS ONLY, thriving under extreme heat; grown extensively in the South. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.20.

COPENHAGEN MARKET

CHARGES PREPAID

At prices quoted in this Catalogue, we prepay postage or express on Garden and Flower Seed. Also Plants and Bulbs within the Fifth Zone.

Cabbage sprayed with one oz. Salt Peter, dissolved in three gallons of water, will kill the GREEN WORMS.

CELERY

CULTURE—Seed should be sown in April in a hotbed or boxes, filled with mellow loam, and covered with about one-eighth inch of fine soil or sand, pressing it down firmly. Keep the soil moist constantly. When plants are fairly out of seed leaf, transplant or thin out 2 or 3 inches apart. Plant into the open ground the last of July.

GOLDEN SELF-BLANCHING—The stalks are much broader, grown from imported stock, and heavier than those of the white varieties, and greatly superior in quality. It is ready for use as early as any other sort. Stalks are crisp, tender and free from stringiness. Pkt., 10c; oz., 25c; ¼ lb., 75c.

GIANT PASHAL—Very large, often stands freezes which completely kill other varieties. Pkt., 10c; oz., 20c; ¼ lb., 60c.

WHITE PLUME—One of the most desirable varieties for either home or market use. It self-blanches beautifully, stalks crisp and of delicious flavor. Pkt., 10c; oz., 20c; ¼ lb., 60c.

CELERIAC OR TURNIP-ROOTED CELERY—Grown exclusively for its roots, which, when cooked, sliced and used with vinegar, make a fine salad. Pkt., 10c; ½ oz., 15c; oz., 25c; ¼ lb., 75c.

TABLE CARROTS

IMPROVED LONG ORANGE—An improved and pure strain, producing roots of the largest size and superior quality. Color a deep orange, fleshy, very tender. Pkt., 10c; oz., 15c; ¼ lb., 45c; lb., \$1.25.

DANVER'S HALF LONG—A rich red smooth and handsome, producing large crops. Tops are of medium size and coarsely divided. Roots taper to a blunt point. Flesh sweet, crisp and tender. Pkt., 10c; oz., 15c; ¼ lb., 45c; lb., \$1.25.

CHANTENAY—Very productive, medium early, of excellent quality. Uni-

formly half or stump rooted, but tapering slightly; orange red; crisp and tender. Pkt., 10c; oz., 15c; ¼ lb., 45c; lb., \$1.25.

LONG, WHITE BELGIAN—This variety is grown almost entirely for stock feeding; roots about 16 inches long and very thick, growing nearly one-third above the ground; green above the ground and white below. An ounce will sow 100 feet of row. Oz., 10c; ¼ lb., 25c; lb., 75c; 3 lb., \$2.00.

CAULIFLOWER

Cauliflower delights in a rich, moist soil and in dry seasons, should be abundantly watered, especially when heading. Sow the seed early in the hotbed and transplant two to three inches apart in boxes or in another hotbed until such time as they are safe to be planted in the open ground, which, in this latitude, is usually the first of April.

EARLY SNOWBALL—Produces large white heads in a very short time. Al-

ways tender and sweet. Pkt., 20c; ½ oz., \$1.00; oz., \$1.75.

CUCUMBERS

CULTURE—Do not plant Cucumbers before danger of frost has passed, as the plants are very tender and the least frost will damage or kill them. Plant in hills or rows four feet apart, 10 to 15 seeds to each hill; make soil very rich. For pickles, plant from June first to middle of July.

EVERBEARING.

EVERBEARING—Wonderfully prolific. Bears continually the entire season. Blossoms and cucumbers at all stages of growth are found on the same vine. The cucumbers will average about five inches in length and are of good form and color. Pkt., 10c; oz., 15c; ¼ lb., 40c; lb., \$1.20.

IMPROVED LONG GREEN—Vine is vigorous and productive. The fruits are very long, slender and of uniformly dark-green color. Pkt., 10c; oz., 15c; ¼ lb., 35c; lb., \$1.25.

EARLY GREEN CLUSTER—This is a short variety of a pale green color, which matures very early, is an excellent forcing kind. It is rather prickly and contains but few seeds. Pkt., 10c; oz., 15c; ¼ lb., 40c; lb., \$1.10.

DAVIS PERFECT—On account of its being such a strong grower, it is able to resist the cucumber disease. It is early as the earliest strain of White Spine. Pkt., 10c; oz., 15c; ¼ lb., 45c; lb., \$1.25.

SMALL GHERKIN—(For Pickles.—A very small, oval, prickly-fruited sort, quite distinct from all others, and grown exclusively for pickles. Should always be picked when young and tender. Pkt., 10c; oz., 15c; ¼ lb., 50c; lb., \$1.50.

EARLY WHITE SPINE—Very prolific—early, of good size, straight, well-formed and full at both ends. The fruit is from six to eight inches long and two to three inches in diameter, with flesh of

SUPERIOR DARK GREEN—In our estimation, this is the best cucumber grown. It can be aptly described as the perfect cucumber. The fruits are a glossy dark green. It is equally good as a pickle cucumber or for slicing for table use. The flesh is solid, tender and of excellent quality at all stages of growth. It has very prolific bearing fruits, of even size all through the season. Pkt., 10c; oz., 15c; ¼ lb., 45c; 1 lb., \$1.35.

KLONDIKE—A medium early, white spined cucumber of handsome, very dark-green color. The vines are very hardy and productive. The fruits when mature are about eight inches long, and uniform in size and shape. Color, dark-green, slightly striped at the ends. Pkt., 10c; oz., 15c; ¼ lb., 40c; lb., \$1.00.

excellent flavor, white, clear, crisp and very tender. Pkt., 10c; oz., 15c; ¼ lb., 40c; lb., \$1.25.

OKRA OR GUMBO

This is an annual from the West Indies cultivated for its green seed pods, which are used in soups. When young and tender, the pods may be sliced and strung on a thread and hung in the shade to cure. Like many other dried vegetables, it can be used any time. Sow the seed shallow and thinly in rows two feet apart. After the plants are up, thin to nine inches apart and cultivate like potatoes; 1½ oz. will plant 100 feet.

WHITE VELVET—Plants tall. Pods long, thick, round and smooth. Pkt., 10c; oz., 15c; ¼ lb., 30c; lb., 75c.

DWARF GREEN—Plants three to four feet high, a very early productive green-podded variety. Pkt., 10c; oz., 15c; ¼ lb., 30c; lb., 75c.

LONG GREEN—Pods long, green and ribbed—a tall growing variety. Pkt., 10c; oz., 15c; ¼ lb., 30c; lb., 75c.

We grow our own Cabbage, Tomato, Pepper and Sweet Potato Plants.

If the insects eat your Garden, Shrubs or Trees, write or telephone us. We have a preventive.

LETTUCE

PRIZE HEAD—Mammoth heads; even the outer leaves are crisp and tender; light-green, tinged with brownish red; superb flavor, very hardy; fine for home use. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.25.

SELECTED GRAND RAPIDS—Especially adapted for greenhouse culture in winter; also a good Lettuce to sow outside early in the Spring for family use. Grand Rapids does not form a head, but makes large bunches of light, attractively curled leaves. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.00.

BLACK-SEEDED SIMPSON—Is very popular among market gardeners, and fine for the home table. Forms a large, loose head. Its nearly white, curly leaves are large, thin, very tender and of good quality. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., 90c.

CALIFORNIA CREAM BUTTER—Stands the hot weather of the West and South better than most any other variety. Well-formed, large heads, with rich, yellow leaves that are thick, tender, and fine flavor. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.00.

EARLY CURLED SIMPSON—A leading early sort, does not head, but forms a compact mass of curly leaves of yellowish-green. Matures early, generally grown in cold frames and as an early crop. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.25.

IMPROVED HANSON—One of the best for growing during the hot summer months. The large heads weigh sometimes two or three pounds. They are tender, crisp and fine flavor. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.25.

CELERY LETTUCE, TRIANON COS—This variety is the finest of the Cos or blanching sorts. The long, narrow leaves which form solid heads, like Early Jersey Wakefield Cabbages, blanch and become snowy white. Excels in quality and crispness. The leaves, when blanched, are stiff like celery, and can be eaten in the same manner. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.25.

MUSTARD

OSTRICH PLUME—Leaves are finely cut and densely curled, resembling wavy ostrich plumes. Quick growth and mild flavor. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., 90c.

CHINESE GIANT—The leaves are twice the size of the ordinary White Mustard, while the flavor is sweet and pungent. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 40c; lb., 90c.

GIANT SOUTHERN CURLED—Grows about 2 feet in height, with very dark, large, green leaves, the edges of which are finely curled. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 40c; lb., 90c.

EGG PLANT

NEW YORK IMPROVED LARGE PURPLE—The standard variety everywhere. The eggs come early, are of large size, regular oval shape, and a fine, deep purple in color. Pkt., 10c; oz., 40c; $\frac{1}{4}$ lb., \$1.50.

MUSKMELON OR CANTALOUPE

CHAMPION MARKET.

**OAKLEY - PATE
SEED CO.'S CHAM-
PION MARKET —**
Champion Market is one of the sweetest and most luscious green - fleshed Cantaloupes. Distinctly ribbed and thickly netted; color of skin, green; vines are of luxuriant and vigorous growth, yielding bountifully..... Pkt. 10c; oz., 15c; ¼ lb., 45c; lb., 1.25.

RUST RESIST- ANT ROCKY-FORD

—This is the highest development yet attained in the Rocky Ford Cantaloupe, both in netting and rust-resistant qualities. The meat is light-green and very deep; it is

highly rust resistant. It yields a heavy crop, continuing long in bearing. Pkt., 10c; oz., 15c; ¼ lb., 35c; lb., \$1.10.

We are introducing a NEW and IMPROVED strain of the ROCKY FORD Cantaloupe known as Pollocks 10-25. This melon is recommended very highly and we would like to see every one of our customers try a packet this season. Pkt., 10c; oz., 15c; ¼ lb., 45c; lb., \$1.35.

TIP-TOP—Tip-Top in quality, Tip-Top in appearance. Tip-Top in productiveness. Sweet, juicy, finest flavor, firm-fleshed, and eatable to the outside coating. Fruit of large size, salmon in color; nearly round, evenly ribbed, moderately netted. Pkt., 10c; oz., 15c; ¼ lb., 45c; lb., \$1.25.

HONEY DEW MUSKMELON—A delicious New Melon, sweet as honey. The average size is about six inches in diameter, and they weigh five to six pounds. The skin is smooth with little netting, and of creamy yellow when ripe. The flesh is a beautiful green next to the outside rind, shading to light green at the center. The Honey Dew is not easily

bruised and stands shipping long distances. It is very prolific, crops of 8,000 to 10,000 melons per acre having been reported. It is easily pulled from the vine when fully ripe. Pkt. 10c; oz., 15c; ¼ lb., 45c; lb., \$1.35.

LARGE HACKENSACK—Fruit large, round, flattened at the ends, deeply and irregularly ribbed, and heavily netted; flesh green, thick and of fine quality. Pkt., 10c; oz., 15c; ¼ lb., 45c.

BANANA—Shaped somewhat as name indicates; grows about 2½ feet long; flesh deep salmon color, and of only fair quality. Pkt., 10c; oz., 15c; ¼ lb., 45c; lb., \$1.25.

OSAGE OR MILLERS CREAM—A rather large, main crop, oval melon of very superior quality; slightly ribbed and well covered with a shallow gray netting;; flesh rich orange-salmon, exceedingly thick, with a small seed cavity. One of the very best melons grown. Pkt., 10c; oz., 15c; ¼ lb., 45c; lb., \$1.25.

We Prepay Postage or Express on Bulbs, Garden and Flower Seeds, Within the Fifth Zone.

WATERMELONS

OAKLEY-PATE SEED CO.'S TOM WATSON.

THE NEW CHILEAN—Has the sweetest meat and thinnest rind of any melon we know. It is dark red inside, never gets tough, stringy or mealy. Grows to be about 12 inches in diameter each way—almost round. Being an early variety and heavy bearer makes it a profitable one to raise. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.35.

PEERLESS OR ICE CREAM—Not a large melon, but very early. One of the

best where the seasons are short. Oblong in shape, light-green mottled, thin rind; red, sweet meat, with white seeds. oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00.

GOLDEN HONEY—A beautiful, golden, yellow meat, very tender. It is medium early, of uniform large size, oblong shape. The rind is light-green, with mottled stripes. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00.

WELL-KNOWN STANDARD VARIETIES.

HALBERT'S HONEY—This is one of the best of all melons. Large, oblong, dark-green; very crisp, thin rind; sweet, red-meat and white-seeded.

KLECKLEY'S SWEET—Very much like Halbert's Honey, except that the rind is tougher and will stand shipping better.

FLORIDA FAVORITE—Medium size, oblong shape, light-green; red meat, white seed. Early. A good market variety.

SWEET HEART—Oval shape, yet not so long as many other varieties; weight 12 to 15 lbs. Light-green, mottled rind; crimson meat; will stand shipping.

TOM WATSON—This variety is too

well known among melon-growers to need description. On account of their size and good shipping qualities, there are more TOM WATSONS grown for market than any other variety.

OAKLEY-PATE'S NEW DELIGHT—

We believe this is one of the most popular melons of recent introduction. On good soil will grow 2 to 2½ feet long, 10 to 12 inches in diameter, varying in weight from 20 to 30 pounds. Very thin, light gray mottled rind. Sweet, deep crimson, luscious meat with white seed. A good shipping variety as well as for home use. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.35.

Any of These Well-Known Standard Varieties—Oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c; 3 lbs., \$2.00.

CITRONS

COLORADO PRESERVING—A large fruiting strain for preserving. Flesh clear, white and very solid; olive green skin. Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 45c.

RED SEEDED—Smaller, round, with clear, white flesh, very similar to Colorado Preserving. Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 45c.

ONION SEED

LARGE RED WETHERFIELD—The largest, most uniform and heaviest yield-er, and one of the best keeping of all the red onions; skin deep purplish red; form round, somewhat flattened; flesh purplish white. Pkt., 10c; oz., 20c; ¼ lb., 60c; lb., \$1.80.

SOUTHPORT WHITE GLOBE—The flesh is firm, fine-grained, quite mild in flavor, and is more attractive than the colored sorts when cooked. Bulbs globe shaped, full at the shoulder, rounded at the base, keep well and are desirable for shipping. Pkt., 10c; oz., 25c; ¼ lb., 75c; lb., \$2.25.

YELLOW GLOBE DANVERS ONION—Quite early, globular in shape, entirely free from thick necks. Pkt., 10c; oz., 20c; ¼ lb., 60c; lb., 1.80.

SOUTHPORT RED GLOBE — The bulbs are remarkably uniform in shape, of a rich, red color. They ripen early, are solid, good keeper, their beautiful appearance insures a ready market. Pkt., 10c; oz., 20c; ¼ lb., 60c; lb., \$1.80.

MAMMOTH YELLOW PRIZETAKER—This is the large, beautiful Spanish variety, 12 to 14 inches in circumference.

YELLOW GLOBE DANVER

Very hardy, and a good winter keeper, fine grained, mild. The outside skin is a rich yellow, while the flesh is white.

Pkt., 10c; oz., 20c; ¼ lb., 75c; lb., \$1.80.

ONION SETS—Red or Yellow bottom sets—one lb., 15c; 10 lbs., \$1.25, postpaid. One bushel, shipper's expense, \$2.75.

White bottom sets—15c per lb. straight postpaid. One bushel at shipper's expense, \$3.25.

BERMUDA ONION PLANTS—From four to six inches high; will make large onions in June.

Sweeter than other onions, and good yielders; in demand by all dealers.

100, 15c; 1,000, \$1.40; 3,000 for \$4.00.

SALSIFY OR OYSTER PLANT.

Sow early, in drills 18 inches apart. One ounce of seed will sow 50 feet of drill.

MAMMOTH SANDWICH ISLAND—Grows very large, resembling good-sized parsnips; well flavored, mild. Pkt., 10c; oz., 15c; ¼ lb., 50c; lb., \$1.50.

SPINACH.

BLOOMSDALE—Highly popular with market gardeners. A crop of this weighs much heavier than any other variety. It grows very quickly. Oz., 10c; ¼ lb., 25c; lb., 60c; 5 lbs., \$2.00.

FINE PEPPERS

PIMENTO PEPPERS.

RUBY KING—The old standby. Peppers 3 to 4 inches in diameter, of mild flavor, very desirable for mangoes. Pkt., 10c; half oz., 20c; oz., 35c; ¼ lb., \$1.25.

CHINESE GIANT—Its mammoth size and splendid shape, beautiful, rich, glossy flesh, and mild flavor, all lead us to speak of it in words of commendation. Its strong, bushy plants, which are literally loaded with the splendid, large fruits begin bearing quite early and continue to bear throughout the season. Has few seeds. Pkt., 10c; ½ oz., 20c; oz., 30c; ¼ lb., \$1.00.

GREAT WEST—The fruit of this variety is much larger and longer than other sweet Peppers; mild, thick-meated and sweet. Pkt., 10c; ½ oz., 20c; oz., 35c.

PERFECTION "PIMENTO"—The hull or meat is from two to three times as thick as that of the bell types, hence yields about twice as much. Pkt., 10c; oz., 40c.

PARSNIPS

LARGE SUGAR, OR HOLLOW CROWN—Smooth, white skin, uniform in shape, tender and of the best quality. Pkt., 10c; oz., 15c; ¼ lb., 45c.

PARSLEY

CHAMPION, MOSS CURLED — A handsome variety of quick, robust growth, forming compact, ornamental plants; densely furnished with strong-stemmed, graceful leaves, finely-cut, most beautifully curled and of that brilliant emerald green color so highly attractive when used for garnishing. Oz., 10c; ¼ lb., 30c; 1 lb., 75c.

We Prepay Postage or Express on Bulbs, Garden and Flower Seeds, Within the Fifth Zone.

SWEET OR SUGAR CORN

HOWLING MOB.

The Sugar in Sweet Corn causes it to ferment and rot when planted deep in cold, **wet ground**. Wait until the oak leaves are as large as squirrel's ears, then plant **about one inch deep**.

HOWLING MOB—In developing this Corn, the originator aimed to secure a large ear early in the season, and, at the same time, possessing the sweet flavor of the later varieties. The stalks are of strong, vigorous growth, four and one-half to five feet in height, have abundant foliage, and generally produce two fine ears to a stalk. Ears seven to nine inches in length, with twelve or fourteen rows of good-sized, pearly-white grains. The ears are covered with a heavy husk which extends well out from the tip and affords good protection from the green worms. Pkt., 15c; lb., 25c; 3 lbs., 65c; 10 lbs., \$1.85.

MAMMOTH LATE SUGAR—Produces larger ears than any other sugar corn, and of good quality; rich and very sweet. Pkt., 10c; lb., 25c; 3 lbs., 60c; 10 lbs., \$1.75.

EARLY ADAMS—An excellent early field variety used for table. Ears about eight inches long, 12 or 14 rowed; kernels white, rounded, somewhat deeper than broad, and indented at the outer end, which is whiter and less transparent than the inner. Pkt., 10c; lb., 20c; 3 lbs., 45c; 10 lbs., \$1.35.

GOLDEN BANTAM—A very early sweet corn, with golden yellow grain, tender and of excellent quality. Ears six to seven inches long. Pkt., 10c; lb., 25c; 3 lbs., 60c; 10 lbs., \$1.75.

SWEETHEART SUGAR CORN—Absolutely the Whitest and Sweetest Main Crop Sugar Corn. The ears are large, measuring 8 to 9 inches, with ten or more rows of plump, pure, white kernels that are of most delicious flavor. Stalks

tall, broad-leaved and strong; medium early. Pkt., 10c; lb., 25c; 3 lbs., 60c; 10 lbs., \$1.75.

COUNTRY GENTLEMAN—This variety has a small white cob, densely covered with irregular rows of long, slender, white grains of excellent quality. Pkt., 10c; lb., 25c; 3 lbs., 65c; 10 lbs., \$1.85.

STOWELL'S EVERGREEN—A favorite with canners and market gardeners, for late use and especially for the kitchen garden. Ears large, kernels, very deep, tender and of most delicious sweetness; very productive. Pkt., 10c; lb., 25c; 3 lbs., 60c; 10 lbs., \$1.75.

SQUASHES

WARTED HUBBARD—Vines vigorous and very productive. Fruit large, heavy, moderately warted, with very hard shell; skin uniformly dark bronze-green. Flesh bright orange-yellow, fine grained, thick, dry and richly flavored; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.35.

SUMMER CROOKNECK—Of a dwarf, bushy habit, and very productive; bears early and all Summer; true crookneck type; rich, golden yellow color; thickly warted. Oz., 15c; $\frac{1}{4}$ lb., 45c; 1 lb., \$1.35.

HUBBARD SQUASH

EARLY WHITE BUSH SCALLOP.—The white "Pattypan" or "Cympling," as it is called in the South. A very early and continuous bearer. Ships well. Color, light cream. Oz., 15c; $\frac{1}{4}$ lb., 40c; 1 lb., \$1.25.

FINE PUMPKINS

GENUINE MAMMOTH OR TRUE POTIRON—King of the Mammoths, Jumbo Pumpkins. The skin is of salmon-orange color; the flesh thick, bright yellow, fine-grained and of good quality. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.25.

STRIPED CUSHAW—Distinct mottled green, white striped. Fruit solid, average 15 to 25 pounds. Flesh yellow, fine grained, sweet. Oz., 15c; $\frac{1}{4}$ lb., 45c; lb. \$1.35.

LARGE SWEET, OR KENTUCKY FIELD—Large, round, flattened, hardy and productive. 1 to 2 feet in diameter. It has thick flesh, of extra fine quality. Oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 65c; 3 lbs., \$1.75.

TENNESSEE SWEET POTATO—Medium-sized, pear-shaped; striped white and green; thick flesh and of good flavor. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 75c.

LARGE SWEET CHEESE—Shape flat, skin mottled light green and yellow. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 75c.

SMALL SWEET OR SUGAR PUMPKIN—Used for making pies and canning. Orange yellow, fine grained and VERY SWEET. Oz., 10c; $\frac{1}{4}$ lb., 35c; lb., \$1.00.

RADISH SEED

ICICLE RADISH

WHITE ICICLE—A very early, tender, crisp, long, white radish; ready to use about 21 days after planting. Oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., 90c; 3 lbs., \$2.25.

EARLY SAXA—A forcing variety for indoor planting; has been produced ready for market in 18 days. Round, red, crisp, and good flavor. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.25.

WHITE STRASBURG SUMMER—When fully grown the roots are about five inches long, and very thick at the shoulder. It never becomes tough or pithy. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 90c; 3 lbs., \$2.10.

EARLY SCARLET TURNIP, White Tip—Round shape, and flesh pure-white, and, as a result of its quick growth, very crisp, mild and tender. Pkt., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c; 5 lbs., \$3.00.

CRIMSON GIANT—Large, oblong, and red, mid-season; will grow larger and stay in the ground longer before getting pithy than any other radish we know. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 90c.

LONG BRIGHT SCARLET—Of course it's red—just a good, old-fashioned kind. Oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c; 3 lbs., \$2.00.

CHARTIER—A summer variety, with bright red skin; grows long and large; does not get pithy quickly. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 75c.

FRENCH BREAKFAST—Half long, scarlet, white-tipped—a favorite among high-class eating houses. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 90c.

CRIMSON GLOBE—Large, medium early, globe-shaped, crimson radish; does not get pithy as soon as some early varieties. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 90c.

CRIMSON GLOBE

Mail Orders should always be accompanied with the full amount of the purchase price.

TOMATOES

BURPEE'S DWARF GIANT.

BURPEE'S DWARF GIANT was originated by crossing the Dwarf Champion Tomato with the Ponderosa, making a tree variety. It is the largest of its kind. We have seen single specimens weigh 32 ounces. Besides being large, it is solid, having both small seed cavities and seeds. The dark, pink color is retained throughout the fleshy part of the tomato. Dwarf Giant plants are very vigorous, with dark-green foliage, ripening about ten days earlier than the Ponderosa, and continuing to bear until frost. Pkt., 15c; $\frac{1}{4}$ oz., 40c; $\frac{1}{2}$ oz., 70c; 1 oz., \$1.20.

SPARKS EARLIANA—The vines are small, but vigorous and productive; the fruit is bright scarlet, medium to large, nearly round and exceptionally smooth. The tomatoes are borne in clusters at the base of the plant. The bulk of the crop ripens very early. Pkt., 10c; oz., 40c; $\frac{1}{4}$ lb., \$1.10; lb., \$3.75.

JUNE PINK—In habit of growth, productiveness, and size of fruit, identical with Earliana, differing only in having purple fruit. The best extra early purple-fruited variety. Pkt., 10c; oz., 40c; $\frac{1}{4}$ lb., \$1.10; lb., \$3.75.

DWARF CHAMPION—Its stiff, upright stocks are so sturdy as to hold the fruit well above the soil. It is earlier than large sorts. Pkt., 10c; oz., 35c; $\frac{1}{4}$ lb., \$1.00; 1 lb., \$3.75.

EARLY DETROIT—This splendid variety is the largest and best of the early purplish-pink tomatoes. The vines are

vigorous and very productive. The fruits are very smooth, uniform in size, nearly globe-shaped, firm, and of excellent quality. Early Detroit is one of the most valuable shipping tomatoes yet produced. It is also desirable for the home garden and near markets. Pkt., 10c; oz., 30c; $\frac{1}{4}$ lb., \$1.00; lb., \$3.50.

BONNIE BEST—A new, but very popular variety, both for home use and market; fruit medium large, round, red, smooth and solid. Try a packet with your next order. Pkt., 10c; oz., 35c; $\frac{1}{4}$ lb., \$1.00.

PONDOROSA—Our seed is genuine, true stock. This is the largest and one of the most popular of all tomatoes. The vines are of strong growth; fruits oblong in form and generally ridged or ribbed; deep purple in color. They are solidly fleshy, with small seed cells; of fine flavor. Pkt., 10c; oz., 40c; $\frac{1}{4}$ lb., \$1.35; lb., \$4.00.

TOMATOES—(Continued)

LIVINGSTON'S BEAUTY—Our special strain seed of this variety cannot be excelled. Of a very glowing crimson in color, with a tinge of purple. It attains its size later in the season than other good sorts. Pkt., 10c; oz., 30c; ¼ lb., 90c; 1 lb., \$3.00.

NEW STONE—This is the most popular of all varieties, for canning; some of the canneries will not buy any other kind. The New Stone is large, round, smooth, red, and solid. It is a main crop variety, bearing heavily until frost kills the vines. Pkt., 10c; oz., 30c; ¼ lb., \$1; 1 lb., \$3.50.

SMALL FRUITED TOMATOES—Excellent for preserves, pickles and pies, etc. Red Cherry, Yellow Plum, Red Pear-Shaped, Yellow Cherry, Yellow Pear-Shaped. Pkt., 10c; oz., 40c; ¼ lb., \$1.25.

GOLDEN QUEEN—The fruit is large and smooth, bright, golden-yellow, with

a blush of red inside when cut; superior in flavor to many of the red varieties. Pkt., 10c; oz., 40c; ¼ lb., \$1.10.

The Burbank Tomato

Luther Burbank's Marvelous New Creation

The following is Mr. Burbank's personal introductory claims:

The Earliest Tomato in the World, The "Burbank."

"By far the earliest, smoothest, solidest, most productive, and best of all early tomatoes; resists wilt and other tomato diseases better than most others. The 'Burbank' is so much earlier than other tomatoes that from the seed of the tomatoes which ripened here in June, a second crop has been again and again grown and ripened the same season, something probably never before known. This extreme earliness means millions of dollars to America tomato growers, as one-half of the tomatoes grown in the United States, even in California, are taken by frost instead of by the grower.

"Fruit, bright crimson; thick, solid, heavy, smooth, firm, medium to large in size, superior quality, unusually heavy and continuous bearer through the season; best keeper and shipper. The 'Burbank' has one other unique and most remarkable quality which will be appreciated

THE BURBANK TOMATO

Pkts. of about 200 seeds.....15c

ed by those who like fresh sliced tomatoes for the table. Unlike other tomatoes, the skin peels freely from the rich, firm flesh."

Price—Per pkt., 15c; 2 pkts., 25c; 10 pkts., \$1.00. In bulk, ¼ oz., 50c; ½ oz., 80c; 1 oz., \$1.50.

TURNIPS

SPRING AND SUMMER VARIETIES.

EXTRA EARLY PURPLE TOP MILAN—One of the earliest sorts in cultivation. Bulb very flat, medium size, quite smooth, with a bright, purple top; leaves few, short and light color; grows compact and makes exceedingly small strap-leaved top. Oz., 10c; ¼ lb., 25c; lb., 65c; 5 lbs., \$2.75.

WHITE EGG—An early, oval or egg-shaped variety with smooth, clear, white roots of medium size, which grow half out of the ground. The tops are small, with leaves distinctly cut. The flesh is clear, white, firm, fine, and sweet. The roots of this quick-growing garden sort, when in best condition for use, are usually about two inches in diameter and about three and one-half inches long. Oz., 10c; ¼ lb., 25c; lb., 75c; 3 lbs., \$2.00.

PURPLE TOP STRAP LEAF—A well-known variety, either for family or market use; large size, white-purple above ground; flesh fine-grained; grows quickly and is as good for winter use or late planting as it is early. Oz., 10c; ¼ lb., 30c; lb., 75c; 5 lbs., \$2.50.

RED TOP WHITE GLOBE—One of the handsomest and most profitable Turnips, unsurpassed for either home or market use. It is a large, rapid-growing sort, with globe-shaped roots, purple at the top and white underneath. It is of the same character and habit as the Purple Top Flat, but, owing to its great size, will produce twice as much to the acre. Oz., 10c; ¼ lb., 30c; lb., 75c.

AMBER GLOBE—A medium-sized, round, late-maturing, yellow-fleshed Turnip. The roots are yellow with purple top. The flesh is pale yellow in color, of very firm texture, approaching the Rutabaga in this regard, but tender and sweet. The variety is hardy, productive and especially valuable for stock feeding. Unequaled for its long keeping qualities and, therefore, particularly desirable for late winter and spring use. Oz., 10c; ¼ lb., 25c; lb., 75c; 5 lbs., \$3.00.

WINTER RADISHES

May be sown in rows or broadcast, from July until September. They can be put away like turnips, and will keep sweet and crisp all winter. We have three varieties.

LONG BLACK SPANISH. MAMMOTH CALIFORNIA WHITE, AND CHINA ROSE—Oz., 10c; ¼ lb., 30c; lb., 90c; 3 lbs., \$2.25.

KOHL RABI

CULTURE—For early use, sow in hotbed, transplant and cultivate like Early Cabbage. For winter use, plant the middle of June or first of July, outdoors, in rows 18 inches apart, transplanting or thinning out to 8 inches apart in the rows. One ounce of seed sows 200 feet of drill.

EARLY WHITE VIENNA—Pkt., 10c; oz., 15c; ¼ lb., 45c; lb., \$1.35.

EARLY PURPLE VIENNA—Same in every respect as the Early White Vienna except in color. Pkt., 10c; oz., 15c; ¼ lb., 45c; lb., \$1.35.

VEGETABLE PLANTS

CABBAGE, TOMATO, CAULIFLOWER, MANGO, AND EGG-PLANT.

Our plants are good size, strong and hardy, having been started early indoors, in order to be of good planting size for early setting.

After having attained sufficient size, they are put outside to be hardened off. This prepares them both in size and toughness to withstand the sudden changes of early spring.

We grow only the best varieties adapted to this climate, any of which we can recommend, though sometimes we are out of a certain variety that might be ordered. For this reason we kindly ask that a second choice be made in ordering plants where there is more than one variety mentioned.

EARLY CABBAGE PLANTS.

Henderson's Early Summer.
Copenhagen Market.
Early Jersey Wakefield.

LATE CABBAGE PLANTS.

Late Flat Dutch.
Drumhead or Hollander.
Copenhagen Market.

(For description of cabbage, see page 10)

25 Plants—40c.
50 Plants—60c.
100 Plants—\$1.00—Postpaid.
Will be ready after March 15th.

CAULIFLOWER—Henderson's Early Summer.

25 for 40c; 50 for 60c; 100 for \$1.10.
After March 15th.

EGG-PLANT—Black Beauty or New York Spineless.

25 for 45c.
50 for 75c.
100 for \$1.25.
Postpaid.
Ready after April 15th.

(See description on page 10.)

EARLY TOMATOES.

THE BURBANK.
Earliana.
June Pink.
Dwarf Champion (Tree).
Early Detroit.

MAIN CROP VARIETIES.

The New Stone.
Pondorosa.
Bonnie Best.
Livingston's Beauty.
Burpee's Dwarf Giant.

(See description on Pages 18 and 19.)

25 Plants—40c.
50 Plants—60c.
100 Plants—\$1.00.
Will be ready after March 25th.

MANGOES.

Chinese Giant.
Ruby King.
Pimentos.
Long Red-Hot Peppers.
25 for 45c.
50 for 75c.
100 for \$1.25. Postpaid.
After April 15th.

(See description on page 14.)

SWEET POTATO PLANTS

PORTO RICO

100—50c.
1,000—\$4.00.
3,000—\$11.00.

NANCY HALL.

100—45c.
1,000—\$3.50.
3,000—\$10.00.

RED BERMUDA.

100—50c.
1,000—\$3.50.
3,000—\$10.00.

Postpaid within the Fifth Zone.

A Descriptive List of Choice Flower Seeds

WITH GENERAL DIRECTIONS FOR CULTIVATION.

MOST flowering plants will live in almost any soil, but to give them a fair chance to develop, some care should be taken to make the ground suited to their needs. The soil best adapted for flowering plants generally is a light, friable loam, containing a sufficient amount of sand to render it porous. Many flowers are better if produced on plants of vigorous growth, hence a portion of the garden should be prepared by deep digging, thorough pulverization and liberal enriching with large quantities of well-rotted manure. Since some other varieties produce the largest and finest-colored flowers when grown on rather light, poor soil, a portion of the garden should not be enriched.

Cultural directions are given on the packets, and we urge purchasers to study them carefully. While some seeds need special treatment, the following general rules will apply to all. Make the surface of the soil as fine, smooth and level as possible; do not plant when the ground is wet; cover each lot of seeds to a uniform depth, which should not be more than four to six times the diameter of the seed; press the soil firmly over the seed; plant in rows so that the starting plants can be seen easily; thin out the young plants to prevent crowding and keep entirely free from weeds.

Plants are usually divided into three classes: Annuals, Biennials, and Perennials. Annuals are plants which normally live but a single season. Biennials are plants living two years; particularly those which do not bear flowers and fruit until the second season. Perennials tend to live from year to year.

ALL FLOWER SEEDS SENT POSTPAID ON RECEIPT OF PRICE.

SWEET PEAS

RAINBOW MIXTURE OF SWEET PEAS—Is all the name implies. In making this blende, it was our intention to have all the colors of the rainbow. There are many of the newest and rarest of the Spencer varieties; also the best grandifloras. In all, there are more than fifty varieties and colors. We heartily recommend these to all lovers of Sweet Peas. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; 1 lb., \$1 35.

SPENCER SWEET PEA MIXTURE—This special mixture of Giant Spencer Sweet Peas is made from separate sorts, giving our customers the cream of the Spencer; in all colors, including many of the latest varieties, as well as superb seedlings of exquisite colors and shades. The vigorous plants produce extremely large flowers most beautifully waved and frilled, on long and erect stems. Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 75c; 1 lb., \$2.50.

SPENCER'S NAMED VARIETIES AND SEPARATE COLORS.

BARBARA—Salmon Pink.
KING EDWARD 7th—The best pure red.
ROYAL PURPLE—A rich purple.
ASTHA OHN—A soft pinkish lavender.

HERCULES—Pale, rosy pink of giant size.
KING WHITE—Gigantic flowers of pure white.
STERLING STENT—Deep Salmon.
DOBBIES CREAM—A distinctly-fluted primrose.

$\frac{1}{4}$ oz. of any of the above varieties, 15c; oz., 50c;

CHOICE FLOWER SEEDS (Continued)

MEXICANUM COERULEUM—Beautiful lavender, eighteen inches high. Pkt., 5c; $\frac{1}{8}$ oz., 10c.

ALBUM—White. Pkt., 5c; $\frac{1}{8}$ oz. 10c.

SWEET ALYSSUM—Little Gem, snow white, six inches tall; good for borders.

LILAC QUEEN—Gold Dust. Pkts. each, 10c; $\frac{1}{8}$ oz., 15c.

AMARANTHUS—Tri-Colored.

JOSEPH'S COAT.

CAUDATUS (Love Lies Bleeding). Red. Pkts., 10c; $\frac{1}{8}$ oz., 15c.

ANTIRRHINUM (Snap Dragon)—A new strain, having long spikes; large, fragrant, gorgeous-colored flowers, easily raised. Semi-Tall and Majus Grandiflorum, tall, mixed colors. Pkts., 10c; $\frac{1}{8}$ oz., 20c.

BALSAM—(Oakley-Pate's Special Mixture)—An old favorite garden flower, producing masses of double, brilliant blossoms; with plenty of water they will thrive under extreme heat. Pkt., 15c; $\frac{1}{8}$ oz., 25c.

DOUBLE ROSE AND CAMELIA FLOWERED—Mixed. Pkt., 10c; $\frac{1}{8}$ oz., 25c.

DELPHINIUM (Annual Larkspur)—Effective in borders or when planted among shrubs. Sow seed in open border in early Spring or late Fall, so germination may take place early. Giant Hyacinth Flowered Mixed—resembles flowers of the Hyacinth; delicate colors. Pkt., 5c; $\frac{1}{8}$ oz., 15c.

CANDITUFT—Plants of fine, compact growth, ranging in color from Rose, Salmon, Coral, Pink, Delicate Pink to Lilac and Purple Crimson. Valuable for borders and cutting. Pkt., 10c; $\frac{1}{4}$ oz., 25c.

Oakley-Pate's Large Early-Flowering Aster.

ASTERS

The most popular of all annual flowers and justly so. Valuable for garden decorations or cutting. A hardy annual that should be started early. Plant in rich soil and water freely.

OAKLEY-PATE'S LARGE EARLY FLOWERING ASTERS—Mixed, Pkt., 15c; 2 pkts., 25c.

KING ASTER—Flowers large, petals long, narrow and curled; mixed, all colors. Pkt., 10c.

GIANT CREGO—Immensely large flowers, borne on long stems; desirable for cut flowers. Pkt., 10c; $\frac{1}{8}$ oz., 25c.

CALENDULA (Pot Marigold)—Grows in any good garden soil, producing a fine effect in beds or mixed borders; particularly bright in late fall; blooms until frost.

OFFICINALIS — (Orange King)—Mixed all colors, for perennial borders. Pkt., 5c; $\frac{1}{8}$ oz., 15c.

CALLIOPSIS—Very graceful plants of elegant, showy flowers; long stems, thrive on any soil, double mixed, all colors. Pkt., 5c; $\frac{1}{8}$ oz., 15c.

CHINESE WOOL FLOWER (Celosia Childsii)—Plants grow two to three feet high, bloom starting early with a central head, round and globular. Scores of branches are thrown out, each bearing a ball of scarlet wool. All these branches support numerous laterals, with small heads of bloom, mixed with green foliage. They resemble an immense bouquet.

Pkt—15c.

CHINESE WOOL FLOWER.

THE ROYAL ASTER—Makes beautiful beds of large, early flowers. Try one; Pkt. 10c

CHOICE FLOWER SEEDS (Continued)

OAKLEY-PATE'S MIXTURE OF GIANT FLOWERING PANSIES—
Pkt., 15c; $\frac{1}{8}$ oz., 60c; $\frac{1}{2}$ oz., \$2.

CHICAGO PARKS BEDDING—
Great diversity of colors, free flok-
ering, blossoms slightly smaller
than the Giant sorts. Pkt., 10c;
 $\frac{1}{8}$ oz., 40c; $\frac{1}{4}$ oz., 60c.

VERBENIA (Hybridia Gigantea)
—A wonderful mixture of large
flowering varieties. They are, as
the name implies, gigantic with
white eyes. The red is particular-
ly attractive. Pkt., 10c; $\frac{1}{8}$ oz.,
35c.

Dwarf Hybridia Mixed—Pkt.,
10c $\frac{1}{8}$ oz., 25c.

Italian Striped—Pkt., 10c.

Pansy Plants—Mixed, all colors.
Good, strong plants; will bloom in
March and April. Per doz., 75c; 3
doz. for \$2; postpaid.

ZINNIA—New Giant Flowered
Colossal, three feet high. The flow-

**OAKLEY-PATE'S CHOICE MIXED
MARGARET CARNATION**

Oakley-Pate's Margaret Carnation is al-
ways in demand and easy to grow. They
have a vast variety of delicately-colored,
fragrant flowers; will blossom in four
months after seeding and continue until cold
weather kills them. Pkt., 10c; $\frac{1}{8}$ oz., 25c.

White, Orange, Violet, Yellow, Scarlet,
Purple, Pink Shades, Flesh Color.

Pkts. of any of the above separate colors,
10c; $\frac{1}{8}$ oz., 25c.

One pkt. each of 8 different colors, 65c.

DOUBLE CURLED AND CRESTED—
Petals twisted and curved into most grace-
ful forms. They have all the brilliant shades
of colors. Pkt., 10c; $\frac{1}{4}$ oz., 25c.

LITTLE RED RIDING HOOD—Compact
form and covered the entire season with lit-
tle button-like, intense scarlet flowers, not
more than one inch across. Highly effective
for border plants. Pkt., 10c.

Dahlia Flowered Zennias—Pkt., 15c.

PANSIES.

ers are of enormous size, thickly
set with velvet peals. Plants are
healthy, vigorous, branching freely.
They are excellent for groups and
cutting. Mixed, all coolrs. Pkt., 10c.

CHOICE FLOWER SEEDS (Continued)

PHLOX DRUMMONDII—

The Phloxes are the showiest and easiest raised of all annuals. All the tints of the rainbow are represented, with all possible variations of stripes, veins and eyes of contrasting shades. Sow as soon as danger of frost is over. Fine Mixed—Pkt., 10c; $\frac{1}{8}$ oz., 20c.

STAR OF QUEBLING BURG (Star Phlox)—Mixed colors. Pkt., 10c; $\frac{1}{8}$ oz., 25c.

CECELIA MIXED—All colors. Flowers of immense size, the coloring very bright. Nearly all the flowers display a white eye. Pkt., 15c; $\frac{1}{8}$ oz., 25c.

CENTHUREA CAYANUS—(Bachelor Buttons)—Known as Ragged Sailor or Corn Flower. Re-seeds itself. Single, mixed colors. Pkt., 5c; $\frac{1}{4}$ oz., 15c.

Double Mixed Colors—Pkt., 10c; $\frac{1}{4}$ oz., 20c.

CENTAUREA IMPERIALIS (Giant Sweet Sultan)—

This class is undoubtedly the finest of all Sweet Sultan for cut flower purposes. Beautiful, sweet-scented blossoms, borne on long, strong stems. Double mixed, all colors. Pkt., 5c; $\frac{1}{8}$ oz., 15c.

CHRYSANTHEMUM—Double flowering varieties, dwarf re-selected strains, of compact habit; fine double flowers for borders and bedding. Special mixture, Pkt., 10c; $\frac{1}{2}$ oz., 25c.

COLEUS—The handsomest foliage plant grown from seed. Heart-shaped, and handsomely crimped, toothed and frilled leaf; mammoth rainbow mixture of remarkable, rich colors, and combination of colors. Pkt., 20c.

COSMOS—4 to 6 feet. This beautiful annual is one of the most showy plants. Very husky, long-stemmed flowers, resembling single Dahlias; foliage finely cut. Early Mammoth Flowering Mixed, all colors. Pkt., 10c; $\frac{1}{4}$ oz., 20c.

Late or Giant Flowering Mixed—Pkt., 5c; $\frac{1}{4}$ oz., 15c.

KLONDIKE—A very gorgeous yellow. Pkt., 10c.

Double, Crowned and Crested—Pkt., 15c.

PHLOX DRUMMONDII

NASTURTIUM

One of the most popular early flowering annuals; can be grown anywhere except in the shade. They make splendid bouquets grow on any kind of soil. The tall variety makes a good covering for fences, walls, trellises, old stumps, porch boxes or hanging baskets. The dwarf variety may be planted in beds or along walks and driveways.

Oakley-Pate's Mixture is made from the best field-grown separate colors.

Tall or Dwarf Mixed, Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c.

GOMPHRENA (Globe Amaranth)—A showy annual everlasting, with clover-like heads. Mixed, all colors. Pkt., 5c; $\frac{1}{4}$ oz., 15c.

HELICHRYSUM (Straw Flower)—Ornamental when growing, but used for winter decoration and vases. Flowers intended for drying should be cut when partially unfolded, and suspended upside down in a cool place. Mixed, all colors—Pkt., 5c; $\frac{1}{8}$ oz., 10c.

DAHLIA SEED—Double Cactus Flowering Mixed. Pkt., 15c. Show or fancy sorts, double mixed, Pkt., 15c.

CHOICE FLOWER SEEDS (Continued)

ESCHOLTZIA (Calf Poppy)—A bright, free-flowering plant, with finely-cut, silvery foliage. The poppy-like flowers in shades of yellow, orange, and crimson, are produced from early Spring until frost. Single mixed, Pkt., 5c; double mixed, Pkt., 10c.

GAILLARDIA (Blanket Flower)—Produces brilliant red and yellow flowers from early Spring to late Fall. Sow in a permanent bed. *Lorenziana* Double Perfection Mixed—Pkt., 5c.

OAKLEY-PATE'S Special Mixture—Selections of the best Double Pinks in cultivation—all the brightest and best shades. Pkt., 10c; $\frac{1}{4}$ oz., 30c.

KOCHIA (Summer Cypress, or Burning Bush)—A globe-shape or Pyramidal bushes, are close and compact; pleasing right-green. In Autumn the whole bush becomes blood-red—whence the name, Mexican Fire Plant. The beauty of the bush is in its shape and color. Pkt., 5c; $\frac{1}{8}$ oz., 10c.

MARIGOLD (Teges)—Afford a wealth of color in late Summer, when many plants are past their prime. Tall Double *Eldorado*—Pkt., 5c; $\frac{1}{8}$ oz., 10c.

Lemon, or Orange Queen—Pkt., 10c.

Dwarf French Double Mixed—Pkt., 10c; $\frac{1}{4}$ oz., 15c.

MIRABILIS (Marvel of Peru)—Height two feet. Another good, old-fashioned flower of bush habit, bearing hundreds of flowers during the season, of white, yellow, crimson, and violet. Some varieties combine two or more of these colors in spots, flakes, and splashes. Mixed Pkt., 10c; $\frac{1}{8}$ oz., 20c.

PETUNIA—For freedom of bloom, variety of color and effectiveness, these have no equal. If only a little care is bestowed on them, Petunias will produce their delicate and gorgeous colors throughout the season. Pkt., 10c.

PORTULACA (Rose Moss)—Will grow and bloom profusely in dry, hot places, where almost any other plant would die. Easily transplanted. Sow in May after the ground has warmed thoroughly. Large Flowering Double Mixed. Pkt., 10c; $\frac{1}{8}$ oz., 30c.

POPPY—Carnation Flowered Mixture of Double Poppies. Large-sized flowers of all shades, many striped. Pkt., 5c; oz., 25c.

PEONY FLOWERED—Double ball-shaped flowers of gigantic size. Pkt., 5c; oz., 45c.

SALVIA (Scarlet Sage)—A gorgeous, bush-like plant, with numerous spikes of intensely vivid red flowers, ten to twelve inches long. Continue to bloom from May until frost. Pkt., 10c; $\frac{1}{4}$ oz., 75c; oz., \$2.00.

SCABIOSCIA (Morning Bride)—Many shades and colors of large blossoms on long stems, very desirable for cut flowers. If given plenty of room, and seed pods are picked off regularly, they will bloom all season. Mixed, all colors. Pkt., 10c; $\frac{1}{4}$ oz., 25c.

DWARF MIXED—Pkt., 10c; $\frac{1}{4}$ oz., 25c.

PERENNIAL FLOWER SEED

When perennials are planted early, they sometimes blossom the first season.

AQUILEGIA (Columbine)—Graceful, spurred flowers; mixed colors.

CARNATION (Hardy)—An old-fashioned sort of many colors.

CAMPANULA—Bell-shaped flowers; used for borders.

DAISY (Shasta Alaska)—Large, white, showy flower; blooms all summer.

DOLPHENIUM (Hardy Larkspur)—

Flowers of white and blue, borne on long spikes.

SWEET WILLIAM—Flowers of all colors; grow in compact bunches; an old homestead variety.

HARDY PULLOX—Flowers of all colors; bloom from June until frost.

HOLLYHOCK—Plants tall, flowers large and double.

Pkt., 10c. One Pkt. from each of these varieties.....60c

PERENNIAL FLOWER SEED MIXTURE—Large packet, containing seed from each of the nine varieties—25c.

CLIMBING VINES

IMPERIAL JAPANESE MORNING-GLORY—Flowers much larger than the common sorts. They vary in color from rich purple to pure white. Pkt., 10c; ¼ oz., 20c.

CYPRESS VINE—A beautiful, rapidly growing vine, with delicate, dark-green, fern-like foliage, with masses of brilliant, star-shaped flowers. Pkt., 5c; ¼ oz., 10c.

BALSAM APPLE AND PEAR—Ornamental climbers with pretty foliage and flowers. Fruit, golden yellow; when ripe will burst open. Pkt., 5c; ¼ oz., 15c.

HYACINTH BEAN (Dilochos)—A rapid-growing vine, with very dense foliage and hyacinth-like flowers of purple and white. Especially good for porches, lattice, and fence covering; will blossom from July until frost. Doz., 10c; 3 doz., 25c.

MOON VINE (Pomoea)—Beautiful annual climbers, with very dense, dark-green foliage. Flowers very fragrant, opening only of evenings or cloudy days. The seeds are very hard and should be soaked in hot water for 24 hours before planting. Doz. beans, 10c; 3 doz., 25c.

HUMULUS JAPONICUS (Japanese Hop)—Rapid summer climber; the foliage is luxuriant, making a dense covering. It is one of the best plants for covering verandas, trellises; strongly resists heat, drought and insects. Pkt., 5c; ¼ oz., 15c.

CANARY BIRD VINE—15 to 20 feet. A dainty vine with beautifully cut leaves, and beautiful, delicate flowers of a clear canary yellow; does best in the shade. Pkt., 5c; ¼ oz., 15c.

CARDINAL CLIMBER—Often grows 20 to 30 feet long. Leaves somewhat resemble a Japanese Morning-Glory. A very profuse bloomer of scarlet flowers. Plant after the ground gets warm, where it has plenty of sunshine. Pkt., 10c.

WILD CUCUMBER—This is the quickest climber in our list. It is thickly dotted with pretty, white, fragrant flowers, followed by small, prickly fruit, resembling the cucumber. Doz. seed, 5c; ½ oz., 10c.

PACKETS OF ABOVE SEEDS—10 CENTS EACH.

TOBACCO SEED

The importance of this crop in many sections makes the use of the very best seed an urgent necessity. We feel safe in stating that the quality of seed offered below is absolutely unsurpassed.

CONNECTICUT SEED LEAF—A stocky plant; leaves not very long, but

a good width; suitable for cigar fillers. Grown all over the United States. Pkt., 10c; oz., 50c; ¼ lb., \$1.60.

MISSOURI BROAD LEAF—A well-known standard sort; very large yielder; an ideal sort for home use. Pkt., 10c; oz., 50c; ¼ lb., \$1.60.

MAIL ORDERS

should always be accompanied with the full amount of purchase price. At the prices quoted in this Catalogue, we prepay postage or express on Garden and Flower Seeds, also bulbs, within the Fifth Zone Only.

Summer Flowering Bulbs

PEONIES

Very hardy, require no special care—may be planted either in the Fall or Spring. Often planted along walks and fences or other out-of-the-way places; bear a profusion of large, delicately-colored flowers that bloom about Decoration Day.

EDULIUS SUPERBA—Pink.

FESTIVA MAXIMA—White dotted with carmine spots.

FELIX CROUSSE—Dark red.

Each, 40c; 3 for \$1.00. Dozen, \$3.00.

CANNAS

The Canna is grown by more people than any other of its class. They are used both in large beds and in rows for hedging. Stalks are lily-like growth, from three to six feet high; flowers large and brilliant.

FIREBIRD—Large, deep red. Each, 15c; doz., \$1.50.

FLORENCE VAUGHN—Golden yellow. Each, 15c; doz., \$1.50.

KING HUMBERT—4 ft., bright red and yellow, bronze leaves. Each 15c; doz., \$1.40.

YELLOW KING HUMBERT—In size and habit of growth very much like the King Humbert, but bearing large, yellow flower. Each, 15c; doz., \$1.50.

HUNGARIA—Flowers rose-pink, foliage green; height about 3½ feet. One that will be appreciated by every planter of Cannas. Each, 15c; doz., \$1.25.

SPECIAL BULB COLLECTION

1 dozen Dahlias, named varieties, assorted colors. Retail value, \$3.00.

1 dozen very best Cannas, assorted colors, retail value, \$1.50.

1 dozen Gladiolas, beautiful assorted colors, retail value, \$1.00.

2 large size Caladiums, or Elephant Ears, retail value, 50c—

This entire collection for.....\$4.50

CALADIUM, OR ELEPHANT EAR.

This is very large, tropical plant, but may be grown nearly anywhere in the United States. It often has six or more immensely large elephant-ear shaped leaves, two to three feet long and nearly as wide. Soil should be fairly rich. Plenty of water should be given to obtain the largest growth. Large bulbs, 9 to 11 inches in circumference—each, 25c; 7 to 9-inch bulbs—each, 15c.

TUBEROSE

EXCELSIOR PEARL TALL—Short, stout stems, covered with large, double, pure, waxy-white blossoms; very fragrant. Each, 10c; doz., \$1.00.

ELEPHANT EAR

DAHLIAS

Grown from the roots or bulbs; blossom early, make lots of them, and continue until frost. We have three varieties.

DECORATIVE—Large, double flowers, with full centers; broad, loosely arranged floral petals, slightly rounded at the points.

MRS. WILLS—Dark orange red, curved petals. Each—15c.

DARK BEAUTY—Very dark red. Each—15c.

GRAND DUKE ALEXIS—White, with edge of petals tipped lavender. Each, 15c.

VIOLETTA—Large flower, with beautiful violet-colored petals, yellow center. Each—15c.

CACTUS.

Double flowers, sometimes six to eight inches in diameter, petals longer and more curled.

F. W. FELLOWS—Immense, large flowers, free bloomer, dark-orange yellow, and bronze. Each—15c.

J. H. JACKSON—Deep velvet, blackish maroon. Each—15c.

SNOW DAHLIA.

The oldest, but the hardiest, of the Dahlia family. This includes the little POM-POMS. They vary from two to five inches in diameter; flowers very double and compact; petals short and quill-shaped.

ADLIVONI—Beautiful shell-pink, and about four inches in diameter. Each, 15c.

LE COLOSSE—Very dark-red, with red center. Each, 15c.

CRIMSON BEAUTY—Bright-red flowers, medium to large. Each, 15c.

BRUTTON — Bright lemon-yellow. Each, 15c.

One dozen, your choice, assorted varieties.....\$1.50

DAHLIA BULB ASSORTMENT.

GLADIOLA

In addition to the above-named varieties, we have a good assortment in separate colors. Each, 10c; doz. 90c.

GLADIOLAS.

GLADIOLAS—Are the most attractive for cut flowers of all the Summer flowering bulbs. They produce giant spikes of perfect flowers, with wonderful colors in fascinating profusion. The long spikes often carry 20 or more buds.

Large bulbs, in separate colors—Red, White Pink, Lilac or Violet—Each, 10c; doz., \$1.00.

Special Mixture of Gladiolas—doz., 50c; 100, \$3.50.

We prepay postage or express on bulbs, garden and flower seeds within the Fifth Zone.

FIELD SEEDS

SUBJECT TO CHANGE—At the time this Catalogue goes to press, February 1, on account of unsettled market conditions on Field Seeds, we cannot guarantee the prices beyond thirty days, therefore, we reserve the right to change any or all prices without notice.

We do not pay freight on Field Seeds, Nursery Stock, or Plants. All prices named herein are net F. O. B. Joplin, and should be accompanied with remittance to cover the full amount of the order.

In common with other seed houses, we have discontinued the use of the words bushels, pecks, quarts and pints. All Field Seeds listed in this Catalogue are quoted by the pound, but, for the convenience of those who have been accustomed to buying by measure, we have printed on page 64 a Table of Standard Weights and Measures.

OAKLEY-PATE SEED COMPANY.

RED RUST-PROOF SEED OATS

BU. 80c

NORTHERN WHITE OATS

BU. 75c

Japanese Buckwheat

The best sort for the West. It matures seed early, resists drouth better, and is more vigorous and hardy than the old sorts. The grains and yield are much larger. It should be sown about the first of July, broadcast, at the rate of one-half bushel per acre. This sort will yield on an average 20 bushels per acre. It quickly gathers moisture when left standing in the field and, for this reason, should be threshed as soon as dry. Unequaled as a plant for bees. 4 lbs., 30c; 100 lbs., \$6.00.

POTATOES

Northern-Grown, Certified-Seed Potatoes.

At the time this catalogue goes to press, the potato market is very unsettled. If large quantities are wanted, please write for prices.

BLISS TRIUMPH—This variety has long been a favorite on account of its extreme earliness. Matures ten days to two weeks ahead of any other variety. Two crops often are raised in one season. Medium to large, round, light red, flesh white; mealy when cooked. 15 lbs., 45c; 100 lbs., \$2.25.

THE BURBANK—Produces medium to large, oblong, smooth, white tubers, with very shallow eyes; a good cooker and a splendid winter keeper. 15 lbs., 40c; 100 lbs., \$2.00.

IRISH COBLER—This potato has grown in popularity faster than any other variety; is good for either early or late planting. Both the skin and meat is creamy white, a heavy yielder of large, round, smooth potatoes, uniform in size. A good keeper. With all its good qualities, we believe this to be the most profitable variety for a main crop.

15 lbs., 45c; 100 lbs., \$2.25.

EARLY OHIO—Our stock of this well-known variety is grown in the famous Red River Valley of the North. Tubers larger than most early varieties, very productive.

15 lbs., 40c; 100 lbs., \$2.00.

IRISH COBLER

SEED SWEET POTATOES

NANCY HALL—Probably no other variety of Sweet Potato has become so popular in as short a time as the Nancy Hall. It is due to good yielding quality, fine flavor, and certainty of always making a crop. Nancy Hall has a creamy pink skin, flesh cream yellow, very sweet and firm. We recommend this variety in the fullest terms. 10 lbs., 50c; 50 lbs., \$2.25; 100 lbs., \$4.00.

SOUTHERN QUEEN—A large, white potato of good flavor, and a good yielder. 10 lbs., 50c; 50 lbs., \$2.25; 100 lbs., \$4.00.

RED BERMUDA—This is the old standby as an early, quick maturing variety. The outside color is pinkish red, while the meat is creamy yellow. 10 lbs., 50c; 50 lbs., \$2.25.

THE PORTO RICO—A new variety originated in the South; medium to large, golden-yellow tubers, tapering toward both ends. Very juicy, and the sweetest of all Sweet Potatoes. 10 lbs., \$1.00; 50 lbs., \$4.00.

OAKLEY-PATE'S SEED CORN

Is Selected, Nubbed, Tipped, Recleaned and Tested

GOLD MINE OR MORTGAGE LIFTER—This variety is well and truly named a mortgage lifter. We have personally known of fields planted to this variety in the past that made 60 bushels to the acre when other varieties were failures. The ear is large, medium long, cob red with very long, well-filled, deep grains, maturing to the tip of the ears. 3 lbs., 25c; 10 lbs., 60c; 100 lbs., \$5.00.

REID'S YELLOW DENT—Medium to early; maturing in from 100 to 110 days. Stalks seven to eight feet high, ears large, round and about 10 to 11 inches long. The grains are long, medium wide, slightly wedge-shaped. A beautiful lemon yellow. 3 lbs., 25c; 10 lbs., 60c; 100 lbs., \$4.50.

GOLDEN BEAUTY—Ears long, medium size, with short, wide, heavy, yellow grain. Stalks 10 to 12 feet high, bearing in most cases two well-developed ears; a good feeding sort, either shelled or on the cob. Yields well even on moderately rich soil. 3 lbs., 25c; 10 lbs., 65c; 100 lbs., \$5.25.

LONGFELLOW FLINT—This is an eight-rowed, yellow flint variety, very much like Hickory King, with the exception of the grain being smaller and yellow in color. The ears are exceptionally long, slender and well-filled. Matures in 90 days. 1 lb., 10c; 10 lbs., 80c; 100 lbs., \$7.00.

LIBERTY OR CALICO—A good strain of an old variety, too well known to need description. 3 lbs., 25c; 10 lbs., 55c; 100 lbs., \$5.00.

IOWA GOLD MINE—95 to 100 days. Deep golden yellow grains, small cob, 12 to 16 rows of grains. One of the best for late planting. 3 lbs., 25c; 10 lbs., 60c; 100 lbs., \$4.50.

IOWA SILVER MINE—This has been a standard of white varieties among corn growers for many years. It is pure white, a good cropper; has a deep grain and a large ear; an abundance of foliage and matures early. 3 lbs., 25c; 10 lbs., 60c; 100 lbs., \$5.00.

BOON COUNTY WHITE—The most popular white dent corn. It has been very highly bred, ears large, stalks grow 10 to 12 feet, with an abundance of fodder. Ears 10 to 12 inches long, with small, white cob. Matures in this locality in about 100 days. 3 lbs., 25c; 10 lbs., 60c; 100 lbs., \$4.50.

BLOODY BUTCHER—A 90-day variety, especially adapted to short-growing seasons, a splendid yielder of good-sized ears, grains red-tipped with white. We recommend this variety for prairie ground. 3 lbs., 25c; 10 lbs., 60c; 100 lbs., \$4.50.

EARLY GARTNER—This is in a class by itself, being earlier than other kinds, it often matures in advance of the hot, dry weather that cuts the corn crop short so many times. Early Gartner has a sound, medium-sized ear, with short grains. Good for feeding or making cornmeal; also a favorite for roasting ears. Matures in 80 days. 1 lb., 10c; 10 lbs., 75c; 100 lbs., \$5.50.

SEED CORN—(Continued)

Hickory King

Hickory King is a long, slender ear, small cob, large grain, eight row, white corn. It is best adapted to the Middle West and Southern States.

The stalks often grow 12 to 14 feet high, nearly always producing two well-matured ears.

While it is rather hard for feeding stock, it makes splendid meal and hominy, and is the best of all field varieties for roasting ears.

Does well on upland and thin soil.

Lb., 10c; 10 lbs., 90c; 100 lbs., \$7.50.

KAFFIR

Four Sure Croppers For Dry Seasons

These four kinds of small grains are very similar in size of stalk, head, and grain also in habit of growth. They should not be planted as early as our Indian Corn—usually in May, after the ground has become thoroughly warmed. They are wonderfully drouth-resisting, quick maturing, and heavy yielding.

They may be threshed the same as wheat or oats. They can be fed as whole grain, or crushed.

According to analysis, the feeding value is about the same as corn.

Plant 6 lbs to the acre in drills, far enough apart to be cultivated.

BLACK HULL WHITE KAFFIR—2 lbs., 25c; 25 lbs., \$1.25; 100 lbs., \$3.00.

MILO MAIZE—3 lbs., 25c; 25 lbs., \$1.50; 100 lbs., \$4.00.

RED KAFFIR—3 lbs., 25c; 25 lbs., \$1.50; 100 lbs., \$4.00.

FETERITA—4 lbs., 25c; 25 lbs., \$1.50; 100 lbs., \$4.50.

Broom Corn

OKLAHOMA DWARF—Height 5 feet, brush long and well-fibred; drouth-resisting. lb., 20c; 2 lbs., 35c; 10 lbs., \$1.

We Prepay Postage or Express on Bulbs, Garden and Flower Seeds, Within the Fifth Zone.

CANE OR SORGHUM SEED

Sow after the ground warms up, usually May and June; 6 lbs. to an acre in drills or 100 lbs. broadcast.

TEXAS RIBBON—Stalks tall and large, full of juice. Sorghum-makers like this variety on account of the excellent quality of molasses it makes. lb., 10c; 10 lbs., 90c; 100 lbs., \$8.00.

BLACK AMBER—An early maturing variety, sown almost entirely for feed. It makes an abundance of nutritious fodder, especially good for dairy cows. Write for Prices.

CANE AND COW PEA MIXTURE—Any of these varieties of Cane sown at the rate of 50 lbs. per acre broadcast, together with 25 lbs. of Cow Peas will produce one of the heaviest and best hay crops for dairy cows one can grow. This experiment is worth trying.

EARLY ORANGE—Earlier than Tex-

as Ribbon, but not so large; also used for making Sorghum, as well as for roughness for stock. Write for Prices.

SUDAN GRASS—A non-saccharine sorghum, introduced into this country from Egypt in 1909, by the Department of Agriculture. Since that time the acreage has increased very rapidly. Those who have raised it recommend it very highly. The stalks are small, but stool heavily, sometimes as many as thirty stalks to a bunch. It grows from 7 to 9 feet high, and may be cut as often as three times, frequently making three tons of good hay to the cutting. We have seen cows that preferred it to all other kinds of hay. Write for Prices.

GRASS SEED

ALFALFA

Alfalfa should be cut for hay when the shoots of the next crop appear at the base of the plants. The hay is especially valuable for dairy cows. As soon as cut it immediately commences to grow, and during the hottest and driest weather, when other grasses are parched and withered, it remains fresh and green, and grows as rapidly as ever. On the low lands, it is not unusual thing to harvest three or four crops of hay from the same field in one season without irrigation, and the same result is obtained on high, dry lands where irrigation is resorted to. It will not succeed on hard, clayey soils. Its roots, in seeking moisture, penetrate to incredible depths. The seed should be sown in the Spring, after danger from freezing the young plants is over, or in the Fall, early enough to give it a good stand before frost. 1 lb., 30c; 10 lbs., \$2.80; 100 lbs., \$25.00.

RED CLOVER

Often two crops or more may be cut in a single season. Clover pasture and hay are both good milk producers. There is no kind of a crop we know of that will reduce the cost of keeping cows more than a few acres sown to clover. It is also one of the best fertilizers one can put on land. Recent experiments have shown that a crop of clover plowed under is equal to 20 tons of stable manure to the acre. Inasmuch as it serves three purposes: pasture, hay and fertilizer, one may readily see the value of this

crop. We have two grades, both tested for purity and germination.

Best Grade, 1 lb., 30c; 10 lbs., \$2.80; 100 lbs., \$27.00.

No. 2 Grade, 1 lb., 25c; 10 lbs., \$2.25; 100 lbs., \$20.00.

WHITE CLOVER

A small-headed, white species, exceedingly desirable for mixing with lawn grass seeds. Although it is not a heavy producer, it is of great value for use in permanent pastures, as it affords a most nutritious food for sheep and cattle. This variety will succeed in almost any soil. About six pounds are sown to the acre. 1 lb., 80c; 10 lbs., \$7.50; 100 lbs., \$65.00.

GRASS SEED—(Continued)

SWEET CLOVER

Sweet Clover resembles Alfalfa both as to appearance and habit of growth when young. It grows much larger than Alfalfa—often four to six feet high, and is a great drought resister. It makes a very vigorous growth and is much used to plow under as a green fertilizer. Is valuable in the bringing up of old waste and worn-out soils, and thrives well even on extremely poor soil.

Sow during August and September, and from February to April 15, without nurse crops, at the rate of 10 to 20 lbs. per acre.

We have both the white and yellow blossom.

1 lb., 25c; 10 lbs., \$2.20; 100 lbs., \$20.

KENTUCKY BLUEGRASS

Too well known for its quality, both as a lawn and pasture grass, to need comment. We have 21 lb. seed, the heaviest to be had this season. 1 lb., 50c; 10 lbs., \$4.50.

TIMOTHY

MAKE-MORE LAWN GRASS SEED.

Lawn Mixtures and Bluegrass Seed are higher this year than we have ever known them to be. Still, we bought the same high-grade seeds as always before. While we expect the quantity we sell this year to be much smaller than usual, we want our customers to be pleased with what they do buy, and come again when we hope it may be cheaper.

Lawn Grass Seed Mixture is a blend of a number of different kinds of hardy grasses, proven by trials to make more permanent lawns. lb., 50c; 10 lbs., \$4.50.

QUANTITIES TO USE.

Many seed houses recommend one lb. of Bluegrass or Lawn Grass to each 300 feet square. On account of our seed being of heavier weight and better quality, one lb. is sufficient for 400 square feet, where there has not been a previous sowing.

BERMUDA GRASS

Our stock of this was purchased direct from a Southern grower, which is the home of the Bermuda Grass. It is unlike other Grasses inasmuch as it is of a running habit, takes root as each joint comes in contact with the earth, readily forming a heavy sod.

Splendid for sowing on dams or retaining wall to prevent them from washing. Turns brown after the first frost, but will come out green with the appearance of warm weather. Once a sod is formed, it is the hardest of all grasses to kill. lb., 50c; 5 lbs., \$2.40.

ORCHARD GRASS

One of the most valuable of all the cultivated grasses, blooming with Red Clover, and making with it admirable hay. As a pasture grass it is more productive than any other, and does best under close feeding. Sow 15 to 25 lbs. per acre 1 lb., 25c; 14 lbs., a bu., \$3.00; 100 lbs., \$20.00.

TIMOTHY

No grass is better known than this nor more generally grown, as it produces the best hay of all grasses. It produces good hay on almost any class of land, but in this section is best suited to bottom lands or good, rich, well-drained soil. It yields about 1½ to 2 tons of hay per acre which is always in demand. If used alone, sow 15 lbs. per acre. 1 lb., 20c; 10 lbs., \$1.50; 100 lbs., \$10.00.

RED TOP OR HERDS GRASS (Continued)

Succeeds better on more soils than any other grass and in all sections of the United States. Grows slowly, but becomes very vigorous later and spreads rapidly into a compact sod. Suitable to stiff soils, and in low situations subject to overflow, producing luxuriant growth, attaining a height of 3 to 3½ feet. For the best quality hay, it should be cut when in bloom; ripens about the same as Timothy. 1 lb., 25c; 10 lbs., \$2.25; 100 lbs., \$20.00.

PEANUTS

Do best in light, sandy soil, about 10 lbs., of shell nuts will plant an acre; plant in April or May. Two peas to a hill, in rows like corn, so they can be cultivated. Hills should be about two feet apart.

TENNESSEE RED—Three to four large peas to a shell, or hull. Vines grow upright, very productive. Best variety for black, loamy soil. Lb., 30c; 3 lbs., 75c; 10 lbs., \$2.00.

Jumbo or Virginia Mammoth—the largest of all Peanuts—lb., 25c; 3 lbs., 65c.

SPANISH PEANUTS—These have small, thin shells, but medium-size, well-flavored peas. They are early maturing and very productive. In the Southern States, farmers plant them for fattening hogs, as they are very rich in food value. 1 lb., 30c; 3 lbs., 75c.

SOJA OR SOY BEAN.

The Soy Bean is a late introduction, but is rapidly being planted in larger acreage. It does not vine, but grows a very compact, upright bush, 2½ to 3 ft. high. Pods short, but set on thick and fill well with peas that are very rich in food value. On account of the good quality and yield of vines for hay, this is considered a profitable crop to raise. Sow any time from May until the 15th of July, at the rate of 30 lbs. per acre in drills 2½ to 3 feet apart, or 100 lbs. to the acre broadcast. 1 lb., 10c; 10 lbs., 75c; 100 lbs., \$5.00.

BLACK-EYED PEAS.

(Sometimes Called Black-Eyed Susans.)

The Black-Eyed Peas grow a longer vine, more pods and larger ones than other varieties. They are also used more extensively for the table. They are also a good fertilizer and yield an abundance of rich, succulent cow feed. Include enough of these in your next seed order for a trial. 1 lb., 15c; 10 lbs., \$1.25; 100 lbs., \$10.00.

COW PEAS.

Until recent years the cultivation of Cow Peas for a food crop was confined to the Southern States. Having learned they were one of the best crop fertilizers as well as being valuable for feed, they are being planted generally throughout the Middle West.

WHIP-POOR-WILLS.

A well-known bush variety. On account of its maturing quickly, it may be planted as late as the 15th of July. Sow 25 to 30 lbs. per acre in drills, 50 lbs. broadcast. 10 lbs., 85c; 25 lbs., \$1.50; 100 lbs., \$5.00.

NEW EAR.

Peas smaller, vines more erect, and about two weeks earlier than the Whip-Poor-Wills, the most desirable variety for planting where the season is short. 10 lbs., 85c; 25 lbs., \$1.50; 100 lbs., \$5.00.

FERTILIZE AND GROW BIGGER AND BETTER CROPS.

APPLES

In listing fruits, we have taken great care in selecting only the varieties that have special merit—in productiveness, eating, cooking and keeping quality.

Until a few years ago, fruit trees were sold by the age—as a one, two or three-year-old. Now the selling price is based on the size of the tree in diameter, which is measured about two inches above the graft, or bud. We quote two sizes: $\frac{5}{8}$ -inch and 11-16 inch and up. The latter corresponds to the largest size two-year-old trees, while the former may represent the large one-year-old—also the undersized two-year old.

11-16 in. and up—each, 75c; 10 for \$7.00.

$\frac{5}{8}$ to 11-16 in.—each, 65c; 10 for \$6.00.

SUMMER VARIETIES

YELLOW TRANSPARENT—Ripens in June; good flavor, very juicy; desirable for early market.

MAIDEN-BLUSH—A splendid variety for early use; yellow, with red cheek; thrifty grower and early bearer.

AUTUMN VARIETIES.

WEALTHY—One of the most desirable varieties. It is gaining in popularity. Productive, dark-red in color. Fall variety, but keeps well in cold storage.

DUCHESS—Russian variety... Tree hardy, vigorous and good bearer.

ROME BEAUTY—Large, with red stripes, tender and juicy. A fine variety for either home or market.

WINTER VARIETIES

BEN DAVIS—Too well known to need description.

McINTOSH RED—Dark red, best quality, juicy and refreshing. A good annual bearer of handsome fruit.

JONATHAN—One of the best commercial varieties, young and productive bearer.

MAMMOTH BLACK TWIG—Very large, flat-shaped, dark-red, good quality, valuable for market.

GANO—Of the Ben Davis type, large red apple, hardy and a fine market apple.

ROME BEAUTY—Large, yellow, shaded with bright red; flesh yellowish, tender, juicy, sub-acid; moderate grower, November to February.

STAYMAN—(Stayman's Winesap)—Is a dark, rich red, with rather indistinct striping. This apple is not only larger than the old Winesap, but it is even juicier. The tree is very productive, and a drouth resister which will

thrive on thin soils where the Winesap would soon starve.

DELICIOUS—Large, oblong, obtuse, conical, with characteristic protuberances about the calyx. Color dark brilliant red, blended golden yellow toward the tip. Quality exquisitely fine. Keeping and carrying qualities unsurpassed. Each, 80c; 10 for \$7.50.

BALDWIN—Large, roundish, deep bright red; crisp; sub-acid. good flavor. Tree vigorous, upright and very productive of fair handsome fruit; one of the best and most popular winter apples. January to April.

GRIMES GOLDEN—Medium size; regular; rich, golden yellow; flesh yellow, firm, crisp, aromatic, rich; quality very best. Top-notch in market. Tree hardy and productive; bears early; blossoms late in spring, frost seldom catches them. One of the best sorts. November to January.

STRAWBERRIES

THE SUPERB, — A
Perfect, Ever-Bearing
Strawberry. Doz., 30c;
100, \$1.50; 1,000, \$10.

SPRING BEARING VARIETIES.

AROMA — 60c per
100; 1,000, \$5.00.

SENATOR DUNLAP
—100, 60c; 1,000, \$5.00.

PEACHES

7-16th to 11-16th 60c; 10 for \$5.50.
11-16 h and up 65c; 10 for \$6.00.

CRAWFORD EARLY—A magnificent, large yellow peach of good quality. Tree vigorous and very productive. Its fine size, beauty and productiveness make it one of the most popular sorts; no other variety has been so extensively planted.

CRAWFORD'S LATE (Late Crawford)—Fruit of large size; skin yellow, or greenish-yellow, with dull red cheek; flesh yellow. Tree vigorous, moderately productive; one of the finest late sorts. Last of September.

ELBERTA — Very large; red blush; flesh yellow with pale yellow, tender and juicy; the great market peach of the country. Rank, vigorous grower, does well in all peach growing sections. Middle of September.

HEATH CLING (White Heath Cling)—Originated in Maryland, where it is much esteemed. Of large size and good quality.

PEARS

11-16th and up—each, 85c; 10 for \$8.00.
9-16th to 11-16th—each, 75c; 10 for \$7.00.

BARTLETT—Large size, often with a beautiful blush next the sun; buttery, very juicy and high flavored. Tree a strong grower, bearing early and abundantly. Very popular. Last of August and first of September.

DUCHESSE—Very large; greenish-yellow, sometimes a little russeted. Makes

a beautiful tree. Does best on quince. One of the best. October and November. Dwarf.

WINTER NELLIS—Medium in size; best winter pears. Tree straggly, slender grower, but very productive. December. Standard.

PLUMS

11-16th up—each 85c; 10 for \$8.00.
7-16th to 9-16th—each 75c; 10 for \$7.00.

SHIPPER'S PRIDE—Large, dark purple; very showy, often measuring 2 inches in diameter; fine, juicy and sweet. September.

LOMBARD—Medium, round, oval, violet-red; juicy, pleasant and good; adheres to the stone. Tree vigorous and productive. Last of August. A valuable market variety; one of the most hardy and popular.

WILD GOOSE—An improved variety of the Chickasaw, evident in the great vigor of the tree and increased size of

the fruit which is nearly as large as the Green Gage. Skin purple, with a bloom; flesh juicy, sweet and adheres to the stone. Last of July.

DAMSON—Well known and very productive. Season, September.

YELLOW EGG (White Magnum Bonum, White Egg Plum)—Fruit of the very largest size; skin yellow, with numerous white dots; flesh yellow, rather coarse, sub-acid; fine for cooking. Tree vigorous and productive. Last of August.

CHERRIES

11-16 and Up—Each, \$1.00; 10 for \$9.50.

$\frac{5}{8}$ to 11-16—Each, 90c; 10 for \$8.50.

EARLY RICHMOND—An early red, acid cherry; very valuable for cooking, early in the season. Ripens through June. A free grower, hardy, healthy, and very productive.

LARGE MONTMORENCY—A beautiful, large, red, acid cherry; larger and finer than Early Richmond, and fully ten days later. Being extraordinarily prolific and very hardy; it can be recommended as a variety of great value for

canning and preserving. A free grower.

MORELLO ENGLISH—Large; dark red, nearly black, tender, juicy, acid, rich. Dwarf and slender. August.

TARTARIAN — (Black Tartarian)—Very large, purplish-black, heart-shaped; flesh mild and sweet and, quality considered, the very best for the market and dessert. Tree is a vigorous, upright grower, and immense bearer. July.

GRAPES

Well-Rooted, One-Year-Old Vines—Each, 15c; 10 for \$1.25; 100, \$7.50.

CONCORD (Black)—The most popular grape in America. They grow in full clusters of large berries, with a thin skin, the flesh tender, sweet and juicy, and the vines a vigorous grower. They are very hardy and productive, and succeed everywhere.

NIAGARA (White)—This is possibly the most popular white grape in existence; the fruit is large and vines very productive.

MOORE'S EARLY BLACK—An extra large grape of extraordinary, fine, sweet flavor. Excellent for home use, and one of the hardiest for the far North, ripening about two weeks ahead of the Concord. Berries of large size; succeeds everywhere. A fine market grape.

DELAWARE (Red)—One of the finest table grapes. Bunches not large, compact and well-shouldered. Berries rather small, juicy and sweet, without any hard pulp; spicy.

BLACKBERRIES

3 for 25c; 10 for 75c; 100 for \$5.00.

EARLY HARVEST—Very prolific; ripens early. An unequalled variety for market.

ELDORADO—Large, black, and do not turn red on exposure to sun; sweet and melting. having no hard cores, and good keeper. Vines hardy and vigorous.

We Prepay Postage or Express on Bulbs, Garden and Flower Seeds, Within the Fifth Zone.

GOOSEBERRIES

GOOSEBERRIES ARE EASILY GROWN.

One-year-old—each, 20c; 12 for \$2.25; Two-year-old—each, 25c; 12 for \$2.50.

Gooseberries — always in great demand by canneries, and on markets — are sure croppers.

They can be shipped long distances and they keep well. Often are planted between the rows of trees in a young orchard. Bear second and third year.

DOWNING—A popular variety with bushes that grow very stocky. Immensely productive of medium to large size, pale green fruits, about 50 per cent. larger than the Houghton.

HOUGHTON—A pale red Gooseberry of fine quality, medium-sized and smooth. The bushes are very hardy, vigorous and productive. Especially fine for home use.

CURRANTS

Two-year-old, 30c Each—10 for \$2.50.

FAY'S PROLIFIC—True to its name, it is very prolific, with fruit of very large size. Popular with most growers, and does particularly well on light soils.

RED DUTCH—An old, well-known and popular red currant, with berries of medium size, dark red. A strong, tall, upright grower.

PERFECTION—A new variety of great merit. One of the best on the market, being productive, extremely large, and easy to pick. The flavor is very fine. In size, it even exceeds the Fay. One of the most popular varieties, having won medals and diplomas wherever placed on exhibition.

RASPBERRIES

Each 10c—10 for 80c; 100, \$6.00; 1,000, \$35.00.

BLACK RASPBERRIES.

CUMBERLAND—The largest Raspberry grown; fruit frequently seven-eighths to fifteen-seventeenths of an inch in diameter. Its immense size, firmness and great productiveness entitle it to first consideration; unusually strong grower, throwing up stout, stock canes, perfectly hardy.

KANSAS—Very large, black; a berry of splendid quality for general use and popular on the market. In many sections it is the leading sort for extensive planting on account of its vigorous and healthy growth, and prolific bearing. Mid-season.

ST. REGIS EVERBEARING RED

RASPBERRY—Raspberries for four months. The new everbearing variety. It gives a crop of fruit all summer and autumn fruiting on the old canes in generous quantities until late in August. By this date berries begin to ripen on the young canes and continue until late in autumn. Berries are a bright crimson, of large size, and of surpassing quality, rich, sugary with full raspberry flavor. It succeeds upon all soils, whether light and sandy or cold, heavy clay, and the canes are absolutely hardy. Each, 20c; 10 for \$1.75.

DEWBERRIES

LUCRETIA—Large, jet-black, highly favored and hardy; berries ripen before raspberries are gone; sweet and luscious throughout, with no core. The best, most dependable and profitable of all Dewberries grown. The Lucretia Dewberry has received the highest praise from the best horticulturists in the country. Each, 10c; 12 for 90c; 100, \$6.00.

HARDY MONTHLY BLOOMING ROSES

THE AMERICAN BEAUTY—Queen of the rose garden, our patriotic flower. Makes rapid growth, immense flowers; blooms freely throughout the entire summer. Color deep red. Each, 90c.

FRAU KARL DRUSCHKI (or White American Beauty)—This superb, new, white rose is of foreign origin, and has only been recently introduced. It makes a rapid growth, is a hardy bush and an exceptional good bloomer of very large snow-white flowers. Each, \$1.00.

PAUL NEYRON—One of the largest of roses; deep, shining rose color, double; very fragrant, frequent bloomer. 75c.

KILLARNEY—An exquisite shade of shell-pink, lightened with silvery pink; hardy and prolific. Each 75c.

CLEMATIS—The different varieties and species of Clematis now in cultivation are of the highest beauty and utility. They vary greatly in their foliage and flowers, and are adapted to various uses.

CLEMATIS, JACKMANII—A very profuse blooming variety with flowers from four to six inches in diameter, of an intense violet purple color, borne in continuous masses on the summer shoots. Each, 75c.

CLEMATIS, HENRYII—Fine bloomer, flowers large, of a beautiful creamy white, consisting generally of from six to eight sepals. June to October. Each 75c.

CLEMATIS MADAME EDOUARD DRE—Flowers large of a beautiful bright velvety red; very free flowering and continuous bloomer. Each 75c.

CLEMATIS PANICULATA—A great novelty. One of the most desirable, useful and beautiful of hardy garden vines; a luxuriant grower, profuse bloomer with fine foliage. Flowers of medium size, very pretty and fragrant, produced in the greatest profusion in late summer. Each, 75c.

BABY RAMBLER—Its large clusters of bright crimson flowers almost hide the bushes the entire season; much smaller than other varieties of the ramblers, growing only about 18 inches high. Each, 60c.

DOROTHY PERKINS—Polyanthus type, a beautiful shell-pink; large double flowers. Each, 75c.

CLIMBING AMERICAN BEAUTY—Rich crimson color, delightfully fragrant, free bloomer. Each, 75c.

PRAIRIE QUEEN—This has been a favorite among our ancestors. One of the largest flowering of the climbers; pink, sometimes striped petals. Each, 75c.

HYDRANGEA, Paniculata Grandiflora—These plants are absolutely hardy, grow in any soil and bloom the same year they are set out. They flower abundantly, bearing hundreds of immense panicles of bloom. White turning to rose in autumn. An annual shortening of branches tends to increase the size of the flowers. Very fine and valuable for cemetery planting. Each, 75c.

HYDRANGEA, PANI. GRANDI.

Hudson Perfection Compressed Air Sprayer

For Potato Spraying, Whitewashing, Disinfectants, Cold Water Paints.

A High-Pressure Sprayer.

The Hudson Perfection Sprayer has a tank made like a steam boiler. The riveted seams give the necessary strength for developing a high pressure. The brass pump inside the tank is easily removed.

Pump—1¾ inches diameter, 15 inches long, seamless brass tubing. The plunger is equipped with special plunger leathers. The valve is brass. We claim great advantage and distinction in the design of our top and the handle for the pump.

Tank—7½ inches diameter, 20 inches long; capacity, 4 gallons.

No. 110G Galvanized Tank—Price...Each \$6.50

No. 110B Brass Tank—Price.....Each \$9.00

New Easy Spray

NEW EASY SPRAY—Is a one-gallon, galvanized tank, compressed air sprayer, made especially for the person desiring a larger one than the small hand sprayer, and not so large as the regular compressed air type.

Each—\$3.50.

The Hudson Modoc

THE HUDSON MODOC—A bucket pump that may be used for a variety of purposes. It is double acting, and will develop 150 lbs. nozzle pressure. Made of brass throughout.

Each—\$4.50.

The Junior

THE JUNIOR—Like the Hudson Perfection, is a compressed air sprayer with heavy galvanized tank and brass pump—just the thing for small gardens, dairy barns and poultry houses.

Each—\$5.00.

Ground Lime Fertilizer takes the acid out of sour soil, and makes better lawns. 150 lbs., \$1.00.

We Prepay Postage or Express on Bulbs, Garden and Flower Seeds, Within the Fifth Zone.

THE HUDSON BARREL PUMP

Our Barrel Pump has a seamless brass cylinder seven inches long, 1½ inches in diameter. It will develop and maintain a pressure of 200 lbs. This is sufficient to operate two lines of hose at one time, if so desired.

The handle is long enough to make it easily operated.

It is equipped with 10 feet of ⅜-inch Spray Hose, two four-foot sections of ¼-inch iron pipe extensions, a good fog nozzle and shut-off.

Price—\$10.00.

HUDSON BARREL SPRAY

Misty Spray

MISTY SPRAY

MISTY SPRAY—One quart capacity, all-purpose hand spray, made of heavy tin; used for spraying plants, stock, and poultry houses. Each, 50c.

MIDGET SPRAY

Very similar to the one-quart Misty Spray, except it only holds one pint.

Each—35c.

MIDGET SPRAY

It's Double Acting

The Same Spray With Half The Labor

THE NO. 105 DOUBLE ACTING SPRAY PUMP is designed for the convenience of Poultry Raisers, Home and Truck Gardeners, and Small Orchardists. This sprayer may be used in a bucket or on a knapsack tank. It has three discs, which are interchangeable, and will produce a stream of very fine mist. It also has the largest spread of any of the Hand Pumps.

Price—\$4.50.

If the insects bother your trees, shrubs, or flowers, write or call. We have a remedy.

OAKLEY-PATE'S BUTTERMILK STARTER FOR BABY CHICKS

Helps prevent disease and promotes a more rapid growth.

**The Measure of Results from
SPRAYING**

depends upon the material used. It must be harmless to the trees and plants but deadly to the attacking insects. There is a scientific certainty about

SHERWIN-WILLIAMS Dry Powdered
Arsenate of Lead—Tuber-Tonic—

In powdered form these insecticides and fungicides save weight and prevent freezing. Simple to use—just add water and spray. They cling to the foliage, kill insects, check fungus growths and insure big yields. Try them.

Send for Spraying Literature

THE SHERWIN-WILLIAMS Co.
Insecticide and Fungicide Makers
Canal Road, Cleveland, O.

INSECT DESTROYERS

BORDEAUX MIXTURE—(Dry)—The best fungicide for curing and preventing black rot, mildew, blight, leaf curl, scab or other fungoid diseases on fruits and plants. 1 lb. will make 5 gallons liquid. Lb., 40c; 5 lbs., \$1.75; 25-lb. kegs, \$6.50.

TO PREVENT THE BLACK TURNIP FLEA From eating cabbage and cauliflower, spray with tobacco dust or hydrated lime as soon as the plants are above the ground.

NICOTINE—Used extensively by florists for killing all plant lice. 1 oz. bottle, 35c; half lb., can, \$1.25; 2-lb. cans, \$3.75.

TOBACCO DUST—Fine, dark powder, of good strength, will keep bugs off of melon vines, cucumbers and pumpkins. Lb., 10 ; 10 lbs., 90c.

DRY LIME SULPHUR—Dissolves readily in water. Put 10 lbs., Dry Lime Sulphur to 50 gallons of water and use same as Lime Sulphur Solution. Lb., 35c; 5 lbs., \$1.10; 10 lbs., \$2.00.

TOBACCO STEMS—Make a good mulch and fertilizer. Highly recommended for keeping insects away from low-growing plants. They will also prevent borers from working on young trees. 100 lbs., \$1.50; 500 lbs., \$6.50.

DEMAND INCREASING SECURE YOUR SUPPLY

ARSENATE OF LEAD (Dry)—For dusting and spraying. Solves the problem of controlling practically all leaf-eating insects in a particularly efficient manner. 1 lb., 50c; 5 lbs., \$2.25; 10 lbs., \$4.00.

PARIS GREEN—A poisonous insecticide in a powder form, for insects which chew. When applied as a powder, use one part Paris Green to 100 parts plaster or flour. As a liquid, one pound of Paris Green in 150 to 300 gallons water; if used on fruit trees, add one pound quick-lime. Changes with market. $\frac{1}{4}$ lb., 25c; $\frac{1}{2}$ lb., 45c; 1 lb., 80c.

TREE TANGLEFOOT—Perfect safeguard for trees. Lb., 50c; 3 lbs., \$1.45.

GARDITE—Is excellent for certain bugs and worms on melons, cucumbers, and pumpkin vines, cabbage, rosebushes and some other plants. It will also kill fleas and lice on dogs, horses, cattle, sheep, hogs, and poultry. 1lb., sifter ton can, 50c.

HOFSTRA—One of the most effective of all powders for killing flies. We heartily recommend this to every home. Small bellows, each, 15c. Pkg., 30c—60c—\$1.20.

INSECTICIDES CONTAINING POISON CANNOT BE SENT BY MAIL.

GARDEN INSECTS AND THEIR DESCRIPTION TOGETHER WITH TREATMENT.

CABBAGE WORM

Cabbage Worm—These green caterpillars hatch from eggs laid by the common white butterfly. There are several broods produced each season. The most effective means of control is by spraying or dusting with arsenate of lead or Sure Noxum.

Tussock Moth—A handsome, redheaded yellow and black tufted caterpillar, about one inch long, which devours the foliage of both shade and fruit trees. To control this pest, the cotton-like egg masses should be collected in both fall and winter, and trees banded with Tree Tanglefoot. Spray often with Arsenate of Lead.

CUCUMBER BEETLE

Natural Size— $\frac{1}{4}$ Inch.

Cucumber Beetle—These striped black and yellow beetles appear in great numbers and attack the young plants as soon as up. Protect the vines with screens until they begin to run. Spray or dust with Bordeaux Mixture, Arsenate of Lead, Tobacco Dust, covering underside of foliage.

Aphides—Plant Lice, Green Fly, Bark Lice, etc., are minute insects feeding upon the sap in the tender parts of plants, both indoor and out. Can be successfully destroyed by use of Nicotine or Tobacco Dust. Be sure to cover the underside of the leaves.

POTATO BEETLE

Potato Beetle—These striped yellow and black beetles appear in numbers in early Spring and as soon as young plants are up. They commence depositing eggs on the underside of leaves, meanwhile feeding upon the tender foliage. In about one week these hatch a horde of hungry larvæ, who destroy the foliage rapidly, attaining full size in from $2\frac{1}{2}$ to 3 weeks. Spray or dust with Arsenate of Lead or Paris Green.

TOMATO WORM

Tomato Worm—The moths appear in May or June and deposit the eggs singly upon the lower surface of the leaves from which the caterpillars hatch in 4 to 8 days. As they feed voraciously, they become full grown in three weeks' time. There are sometimes two broods in a season. The most successful remedies are Arsenate of Lead and Sure Noxum.

QUEEN INCUBATORS

STOP HATCHING WEAK CHICKS

with cheap incubators. A Queen costs but little more, and the extra chicks that live and grow soon pay the difference.

REMEMBER, it is not how many chicks you **HATCH** that counts, but how many you **RAISE**. Chicks that hatch out weak and wobbly, and live but a few days, mean nothing to you but trouble and loss. They make one sick of the poultry business.

Most of the chicks lost the first few weeks die because they did not have enough strength for a good start.

QUEEN LINE, STYLE K, INCUBATORS.

No. 0—65-Egg—\$15.00.

No. 21—130-Egg—\$27.50.

QUEEN INCUBATORS.

No. 1—85-Egg—\$19.50.

No. 2—135-Egg—\$37.50.

No. 3—180-Egg—\$44.50.

No. 4—275-Egg—\$68.00.

FEED OAKLEY-PATE'S BUTTERMILK STARTING FOOD FOR BABY CHICKS. QUEEN CHICKS LIVE AND GROW.

Queen Incubators are famous the country over for big hatches of strong, healthy chicks that live and grow. The Queen is accurately regulated, keeping the temperature just right for the hatching chicks. No hot and cold changes to weaken the chick's system. The Queen is properly insulated—two layers of wood and one of corrugated strawboard, with dead air space. This also helps to maintain an even temperature for the entire hatching period. Both Queen walls are built of genuine California Redwood.

QUEEN BROODER STOVES.

The Queen Brooder Stove is just what is needed to keep the house comfortable for the early chicks. It is the only Brooder Stove in which both fire and amount of heat are automatically controlled by one thermostat, and one connecting rod.

Damper indicated by arrow regulates the check draft and the direct draft to the fire. Gas controlled above deflector. No gas can escape below to injure chicks. Hover is collapsible, made in sections, and easy to put together and take apart. Holds enough coal to last 40 to 48 hours.

Queen Brooder Stoves

No. 1—600-chick—\$21.50.

No. 2—1200-chick—\$26.50.

How and What to Feed Baby Chicks

OAKLEY-PATE'S BUTTERMILK STARTING FOOD STARTS 'EM RIGHT!

Feeding Directions and Analysis On Each Sack.

5 lbs., 35c; 10 lbs., 60c; 25 lbs., \$1.25; 50 lbs., \$2.15; 100 lbs., \$4.00.

For the first 24 to 48 hours after hatching, feed nothing but Fine Grit, Fine Charcoal and fresh water. After this, and until they are three weeks old, give in addition to the above OAKLEY-PATE'S BUTTERMILK STARTER FOR BABY CHICKS, either dry or slightly moistened with milk.

At the end of three weeks, gradually change to OAKLEY-PATE'S DEVELOPING MASH, given like the BUTTERMILK STARTER, and OAKLEY-PATE'S BABY CHICK SCRATCH, given in a litter. Continue the Chick Feed until they are large enough to eat whole grain, and the Developing Mash until they are fully matured.

If these directions are followed, chickens will mature from three to six weeks earlier than if fed in a haphazard way.

Baby Chick Scratch Feed

After chicks are about three weeks old, they need finely-granulated particles of grain thrown into a litter of ground alfalfa or cut straw to induce exercise and help promote growth. OAKLEY-PATE'S CHICK FEED is made from steel-cut oats, and millet, together with corn, wheat and kaffir-corn, ground to the proper size for feeding young chicks. Analysis on each sack.

10 lbs., 35c; 25 lbs., 75c; 50 lbs., \$1.35; 100 lbs., \$2.50.

**Oakley-Pate's
Developing Mash
Keeps Them
Healthy and
Growing**

25 lbs., 90c.
50 lbs., \$1.70.
100 lbs., \$3.25.

**All Food
No Waste
Give it
in Connection
With
Oakley-Pate's
Baby Chick
Scratch Feed**

Oakley-Pate's Poultry Food

Since success in the poultry business depends largely on the feed used, we can not put too much emphasis on using the right kind.

The average hen in the farm flock fed on grain only, or left to rustle

what she can, will lay about $5\frac{1}{2}$ dozen eggs a year.

Ingredients and Analysis
on Each Sack.

100 lbs., \$3.25.

50 lbs., \$1.70.

Hens properly cared for and fed on Oakley - Pate's Mashes and Mixed Hen Feed will lay between 150 and 180 eggs a year per hen. In doing this, each hen will consume about 42 lbs. of Mash and the same of Hen Feed,

Ingredients and Analysis
On Each Sack.

100 lbs., \$2.75.

50 lbs., \$1.50.

or a total of 84 lbs. a year. From these figures, one may estimate the costs and results from prices actually paid for feed and received for eggs.

Oakley-Pate's Mixed Hen Feed

is made of sound, re-cleaned, whole wheat, kaffir corn, and sunflower, and the best coarse, yellow cracked corn, with the meal extracted.

98 lbs.—\$2.30.

49 lbs.—\$1.20.

25 lbs.—65c.

Our Poultry Feeds Are Past the Experimental Stage

Some of our customers have used them for the past seven years.

To those who have never used it, we kindly ask you for the next order.

Poultry Food that Gets Results

Oats and Oat Feeds should form a portion of every poultry ration. They are good for laying hens; also for fattening broilers, and good for baby chicks. We have them in all their forms.

WHOLE OATS—For sprouting; always at market. Today, bu., 32 lbs., 65c.

WHOLE GROUND OATS—Hull and all, very finely ground, splendid for mixing in either growing or laying mash. Small quantities, 2½c per lb. 100 lbs., \$2.10.

OAT FLOWER—So called because it is the heart of the oat ground into a powder, like flower; indispensable in the mixing of mash for baby chicks, fattening of broilers and fryers or laying hens. 12 lbs., 50c; 100 lbs., \$3.50.

ROLLED OATS—No hull, same as Table Oats; often used for starting baby chicks. 12 lbs. for 50c; 100 lbs., \$3.50.

OAT GROATS—The whole grain with the hull extracted, steel-cut oats, the same as oat groats except the grain is cut into several particles. These have the same feeding value. They are splendid to feed baby chicks. 10 lbs., 45c; 100 lbs., \$3.75.

OAKLEY-PATE'S

MEAT AND MILK MASH

MAKES HENS LAY TWO EGGS,
WHERE THEY LAID BUT ONE BEFORE.

—TRY A SACK.

Pratts

Poultry Regulator and Compound Baby Chick Food with Buttermilk

PRATTS POULTRY REGULATOR.

Healthy birds and lots of eggs, the two big things in poultry-raising, usually follow the use of Pratt's Poultry Regulator. It builds up vitality, promotes sound digestion, sharpens appetite, thus helping to put birds into condition for heavy egg-laying or winning blue ribbons.

Given to breeding stock, it increases the fertility of eggs, strong in vitality, that will hatch chicks that will grow. Use it if you want big batches of healthy chicks that will develop into husky pullets and cockerels.

PRATTS is the original Poultry Regulator of America and is in use

by the most successful poultry raisers everywhere. It will help prevent many of the common poultry ailments. It will greatly improve turkeys, geese, ducks, pigeons, and guineas.

Packages, 25c, 50c, \$1.10; 12-lb. pails, \$1.65; 25-lb. pails, \$2.50; 100-lb. drums, \$10.00.

PRATT ROUP TABLETS OR POWDER.

Don't let Roup cut your profits. The sure and easy "ounce of prevention" against this dangerously contagious disease is Pratt's Roup Tablets, or Powder. Quickly absorbed by the blood, purifies the system, reduces fever, allays inflammation. The safe remedy for roup, colds, catarrh, and many bad weather diseases.

25c and 50c.

PRATTS WHITE DIARRHEA TABLETS.

To help protect your chicks from white diarrhea, the most destructive of all chick diseases, we recommend the use of Pratt's White Diarrhea Tablets. 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.

25c and 50c.

PRATTS POWDERED LICE KILLER.

Get rid of lice on your poultry, in nests, dust-baths, incubators and elsewhere by using Pratt's Powdered Lice Killer. Effective, non-irritating. It quickly kills 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 many insects and bugs on vines, plants and flowers. Drives out moths, from closets, furniture, carpets, and clothing.

15-oz. can—25c.

PRATTS BRONCHITIS TABLETS.

Bronchitis is very fatal within a few days unless promptly checked with Pratt's Bronchitis Tablets. This is safe, and quick, and will usually save your birds. Improvement is almost immediate, the suffering being relieved in a short time. This remedy is put up in tablet form so that individual treatment can be given when desired.

25c and 50c.

PRATTS POULTRY DISINFECTANT.

If poultry keepers would regularly spray the chicken-houses, roosts, the dropping-boards and utensils with Pratt's Poultry Disinfectant, most all their troubles would vanish. Three times as powerful as carbolic acid. A sure deodorizer, germicide, and liquid lice killer. Use it for roup, colds, and other contagious diseases.

1 qt., 55c; 2 qts., 95c.
1 gal., \$1.60.

PRATTS SPECIAL COM- POUND.

A treatment for ailments sometimes mistakenly confused with "cholera," and a "guaranteed or money-back" article is Pratt's Special Compound. It is administered in the drinking water and will be found of great value in aiding in the relief of indigestion, sour crop, dysentery, diarrhea, and bowel trouble.

25c and 50c.

Pratt's ANIMAL REGULATOR Veterinary Preparations

PRATT'S SORE-HEAD AND CHICKEN-POX PREPARATION.

From gratifying experience, poultrymen have learned that the disgusting disease known as Sore-Head or Chicken-Pox can be successfully treated with Pratt's Sore-Head and Chicken-Pox Preparation. It acts quickly, checking the spread of the contagion, and healing the sores. We guarantee Pratt's Sore-Head (or Chicken-Pox) Preparation.

35c and 70c.

PRATT'S ANIMAL REGULATOR.

More work out of your horses, more milk from your cows, fatter hogs—these are a few of the benefits which come from using Pratt's Animal Regulator. This is the original and pioneer stock regulator of America. Tested thorough for nearly half a century, its worth is known and recognized the world over. Always sold on a guarantee that it will satisfy you or your money back.

25-lb. pails, \$3.40, are popular with our customers. Packages, 25c, 50c; \$1. Get prices on 50-lb. and 100-lb. sacks.

PRATT'S HOG TONIC.

A hog's a sure money-maker—when healthy. So keep disease away. Prevent Cholera and other ailments by using Pratt's Hog Tonic.

Its use means more pounds of pork from each bushel of feed and the full market weight in 30 days less time for every hog that gets Pratt's Hog Tonic.

In 25-lb. bags.

PRATT'S SCALY LEG OINTMENT

PRATT'S SCALY LEG OINTMENT.

Scaly leg is an annoying disease, impairing vitality, and speedily ruining the appearance of affected birds.

Usually affords relief in a few days. It kills the parasites which cause the trouble and promotes a new, healthy growth of skin to take the place of the diseased parts.

Price—35c and 70c.

PRATT'S RED MITE SPECIAL.

Get rid of red mites, those destructive pests, that weaken a fowl by sucking its blood, thus making it an easy prey to disease, by using Pratt's Red Mite Special—quart, 60c.

PRATT'S

FLY CHASER.

Give comfort to the horses, cows and all other live stock in fly time by spraying them with Pratt's Fly Chaser—it is guaranteed to be unequalled as a fly repellent. It has long efficiency, will not blister, er remove the hair or damage the hide. Insures comfort at milking time for cow and safety for the milker. Does not taint the milk or gum the hair.

1/2-gal., 85c; gal. \$1.35.

PRATT'S COW TONIC.

Keep your cows thrifty while forcing milk production without increased cost for feeding or care by giving them Pratt's Cow Tonic.

Insures healthy appetite, good digestion, increased vigor, greater milk production. A wonderful all-around tonic. 60c, \$1.20, sold in 12-lb. tins, at \$2.75 and 25-lb. tins at \$5.00.

PRATT'S DIP AND DISINFECTANT.

As a dip, spray and highly superior germ destroyer, and deodorizer for home and the farm, use Pratt's Dip and Disinfectant. Checks contagion, destroys germs, unpleasant odors, and helps maintain sanitary conditions for the horses, cattle, hogs, sheep, and poultry.

Quarts, 55c; half-gallon, 95c; gallon, \$1.60.

PRATT'S HEAD LICE OINTMENT.

Kill the head lice—or the head lice will kill your baby chicks. Even if by chance the chicks survive, they are sure to be left in a weakened condition, a prey to many other diseases. Pratt's Head Lice Ointment kills head lice instantly. It soothes, heals, is safe to use on all parasitic diseases. 35c tins.

OUR LINE OF POULTRY SUPPLIES HAVE DECLINED ABOUT 20 %
KEEP THE DRINKING WATER FRESH

**BABY CHICK
 WATER FOUNTAIN.**

will fit any Mason jar.
 Without jar, each, 15c;
 dozen, \$1.50.

No. 1

No. 2

IMPROVED DROP-BOTTOM FOUNTAINS
 Made of Heavy, Galvanized Iron.

No. 1—1-gal. capacity, each.....	\$1.10
No. 2—2-gal. capacity, each.....	\$1.45

HANDY HOPPERS SAVE FEED.

12-inch—40c.
 20-inch—50c.
 30-inch—75c.

The Improved Handy Hopper is made of heavy, galvanized iron, all parts are welded. Hinged lid over both hopper and trough make it rat, mouse and dirt-proof. In four sizes:

No. 1—12 inches long—\$1.60.
 No. 2—15 inches long—\$1.85.

No. 3—24 inches long—\$2.25.
 No. 4—36 inches long—\$3.40.

**BABY CHICK
 FEEDER.**

Made of heavy, galvanized iron, with roller on top to prevent chicks roosting on it. Three sizes:

Baby Chick Grit and
 Shell Box—each 75c.

PETTEY'S POULTRY PUNCH.

Each25c

POULTRY LEG BANDS.

SPIRALETTES, OR CELLULOID Leg
 Bands for Poultry. all sizes. Doz., 15c;
 25 for 30c; 100 for 90c.

1 up. Doz., 15c; 25 for 30c; 100 for 90c.

VICTOR BANDS—With large, celluloid-colored numbers, used largely for trap-nesting and exhibition purposes. Doz., 50c; 25 for \$1.00; 100 for \$3.75.

ALUMINUM BANDS, numbered from

We Sell and Recommend Burrell-Dugger Guaranteed Poultry Remedies

DON SUNG Makes Hens Lay!

We Guarantee you--More Eggs or No Pay
 "Hens won't lay in Fall and Winter," used to be accepted as a fact. But anyone who has tried Don Sung knows that hens will lay right through the zero spells of winter, and all other cold or wet seasons.

Some may doubt this—and you may be one of them. But if you don't at least try Don Sung, you are missing some sure, easy profits from extra eggs.

A Mineral Compound that Scientifically Helps Nature

Don Sung doesn't force or hurt the hen in any way. It is a balanced mineral conditioner. It improves the hen's health, tones up her egg-laying organs, and makes her stronger and more productive. It helps supply, during Fall and Winter, those mineral elements, lacking in the feed at that time.

Costs Nothing to Try—Give

Don Sung to 15 hens for 30 days. If it doesn't show you a big increase in eggs, if it doesn't pay for itself and a good profit, your money will be promptly refunded. Prices: Trial size, 50c; Large size, \$1, holds 3 times the 50c size; SPECIAL SIZE (6 times the \$1 size)—\$5.

To Kill Chicken Lice!

The U. S. Dept. of Agriculture says, "Nothing is as satisfactory as Sodium Fluoride. It kills both old and young lice, including the young which hatch from the eggs present on the fowl at time of treatment." Talcimized Sodium Fluoride is the form for poultrymen to use. Here it is, Ready to Use.

Here is T. S. F., specially made for poultry. It is less irritating, and is so light and fluffy that it penetrates the plumage. It is in a handy sifter-top can that keeps it protected. Carries the Government's directions for use by the "dusting," "dip" and "pinch" method.

Prices of T. S. F. Delivered
 Small Size (enough for 40 chickens) 40c
 Large Size (Twice as much) 70c
 Special Size (Five times the large size) \$2.65

**TALCIMIZED
SODIUM FLUORIDE**
(Called "T.S.F.")

(All these prices include packing and postage.)

Stops Chicks Dying The Wonder Remedy for WHITE DIARRHOEA or Cholera in chicks, and Black-Head in Turkeys Does work in 48 Hours

White Diarrhoea kills half of nearly every hatch of chicks. The strange thing is that so many people think this loss can't be stopped. But it can be stopped, without extra work, without troublesome dosing, and at almost no cost. For years, thousands have saved their sick chicks and raised nearly every chick in every hatch, by keeping Avicol in the drinking water.

Avicol is a bowel antiseptic. It makes chickens healthy and keeps them healthy. Costs less than a cent a day for an ordinary flock. Guaranteed.

Price 50c; Large Size (Almost 3 times as much) \$1.

Roup-Over

"The Over-Night Roup Remedy"

A New Prompt and Positive Guaranteed Treatment for Roup, Canker and Colds in Poultry

Roup works fast. It usually begins with a cold. After that, the disease progresses rapidly. It is very contagious and can soon kill every chicken you own. Roup is one of the most serious of poultry diseases.

Keep Roup-Over on hand and at the first symptoms of a cold in your flock, give it to every affected bird. It clears the air passages and brings relief with magic quickness. Easily given. Comes in a liquid form and a few drops does the work. Fully guaranteed.

Price 50c; Large Size \$1 (Three times 50c size)

For Gapes in Chicks!

When gapes starts in your flock, get the best of it promptly or it may kill all your chicks. Get Trakol and watch it quickly master the situation. Easily given in the drinking water. Guaranteed. Price 50c.

Trakol
For Gapes
In Chicks

Scientifically made in the Laboratories of the Burrell-Dugger Company

USE FERTILIZER AND GET BETTER CROPS

SWIFT'S DIGESTER TANKAGE

GUARANTEED 60% PROTEIN.

Most Economical High
Protein Feed on the
Market.

Shortens the Feeding
Period, and Saves
Your Grain Ration.

"MAKES PIGS H-O-G-S"

Established and past experimental stage. Tried! Tested! and found satisfactory by Experiment Stations and large hog raisers—that's the history of DIGESTER TANKAGE—12 years of experimenting has perfected a product HIGH IN PROTEIN AND PHOSPHATES. One that grows BIG-BONED HOGS, RUGGED HOGS, and MARKET TOPPERS! 100 lbs., \$3.50; ton lots, 10c per 100 lbs. less.

SWIFT'S MEAT SCRAPS.

**"HENS THAT LAY,
ARE HENS THAT PAY!"**

Supply Protein and Phosphates in proper proportion for economical growth and egg production.

Feed MEAT SCRAPS and take your place among SUCCESSFUL Poultry-Raisers.

100 lbs., \$4 25; 50 lbs., \$2.25.

Smaller quantities, 5c per lb.

SWIFT'S POULTRY BONE.

(In Two Sizes)

Coarse, medium, for hens and chicks—
25% Protein, 2% Fat, 50% Phosphate.

100 lbs., \$3.50; 50 lbs., \$1.85.

Smaller quantities, 5c per lb.

SWIFT'S BLOOD MEAL

80% Protein.

SWIFT'S BLOOD FLOUR

80% Protein.

100 lbs., \$6.00; 50 lbs., \$3.20.

Smaller quantities, 7c per lb.

Send Us Your Orders. We Carry a Full Line of Swift's Animal and Poultry Feed.

Important Things We Can Furnish the Poultryman

See Special Display Page in this Catalogue for
Meat Scrap, Digestive Tankage and Poultry Bone.

LINSEED MEAL.

(Old Process.)

A good conditioner for either stock or poultry.

10 lbs., 45c; 50 lbs., \$1.75. 100 lbs., \$3.25.

DRIED BUTTERMILK.

The feeding of Dried Buttermilk is increasing rapidly among poultry and hog raisers. It is especially good for young chicks and pigs.

1 lb., 15c; 10 lbs., \$1.40; 100 lbs., \$12.50.

GROUND CHARCOAL.

Absorbs acids in sour food. Two sizes—hen and chick.

10 lbs., 50c; 50 lbs., \$2.25; 100 lbs., \$4.25.

LIMA SHELL, OR LIME GRIT.

Hen size—100 lbs., \$1.00.

Chick size—10 lbs., 20c; 50 lbs., 75c; 100 lbs., \$1.25.

PIGEON GRIT.

Dalton's Pigeon Health Grit prevents sore mouth and canker so commonly known among pigeon raisers.

100 lbs., \$2.25.

ALFALFA MEAL.

Best grade finely ground, bright green Alfalfa Meal—a substitute for green feed.

10 lbs., 30c; 50 lbs., \$1.35; 100 lbs., \$2.50.

POULTRY MEDICINAL DEPARTMENT

In addition to handling Pratts, Conkey's International, Geo. H. Lee's, and Dr. LeGear's Remedies and Foods, we have the following, which will be found useful and economical to every poultry man:

SODIUM FLUORIDE.

A powder, highly recommended by the U. S. Bulletins for killing lice on chickens, canary birds, hogs or cattle. In warm weather, may also be used as a dip. 1 lb. to five gallons of water.

1 lb., 40c; 10 lbs., \$3.50.

PERMANGANATE OF POTASH.

Given occasionally in the drinking water often prevents many diseases.

Oz., 10c; ¼ lb., 35c; lb., \$1.00.

CRUDE CARBOLIC ACID.

Many prefer this as a disinfectant and deodorant for all poultry houses and out-buildings. Kills lice, mites and disease germs. The most economical and effective spray we have.

Qt., 35c; ½ gal., 60c; 1 gal., \$1.00.

HILLCREST LOUSE PASTE.

Will kill every louse on a chicken, and keep them free. Hillcrest Louse Paste applied every six months will positively keep the fowls free from lice. Full directions on each can, easily applied.

Per can—50c.

EPSOM SALTS.

Occasionally a dose of salts should be given to poultry and stock. This may be given in the drinking water with good results.

Lb., 10c; 10 lbs., 75c.

SULPHUR.

For those who desire to feed a little Flowers of Sulphur in their mash occasionally, we have it.

Lb., 10c; 10 lbs., 75c; 100 lbs., \$5.00.

OAKLEY-PATE'S BUTTERMILK STARTER FOR BABY CHICKS HELPS PREVENT DISEASE AND PROMOTES A MORE RAPID GROWTH.

***Blatchford's* CALF MEAL**

First on the Market—

First in Quality—

—First in Results.

BLATCHFORD'S CALF MEAL is the ORIGINAL milk-substitute. It was the **FIRST** on the market. For over a third of a century it has been most successfully used in raising calves by the most progressive farmers and dairymen in this country. It is the **ONLY** calf meal backed by so remarkable a record.

Blatchford's Calf Meal raises calves from babyhood. It is extremely palatable. It is easy to feed. It saves both milk and money. It will **PAY** you to use it.

Satisfaction Guaranteed
With Every Bag.

25-lb. Bags—\$1.50.

CARBOLA

is a white paint in powder form, combined with a disinfectant many times stronger than carbolic acid. It is non-poisonous and non-caustic, harmless to chicks or stock. It kills lice, mites, fly eggs, and helps prevent contagious diseases.

CARBOLA is turned into a smooth-spreading liquid paint by mixing with water. It can be applied to wood, brick, stone or cement surfaces, or over whitewash, with either a brush or spray. It will not clog the sprayer, and does not flake, blister or peel off. It dries a clear, snow-white. One gallon (less than 10c worth of powder) paints, and disinfects 200 square feet. It does not spoil by standing, and has no disagreeable odor to taint milk or feed products.

Trial Pkt., 30c; 10 lb. pkg., \$1.25; 50-lb. sack, \$5.00—Not Prepaid.

CANARY BIRDS, CAGES AND FEED

WHITE ENAMEL BIRD CAGES

Without Guards

No. 31—	9½x6½ inches—each	\$2.00
No. 33—	10¾x7¾ inches—each	\$2.55
No. 34—	11¼x8¾ inches—each	\$2.90

With Guards

No. 221—	9½x6½ inches—each	\$3.75
No. 232—	10¾x7¾ inches—each	\$3.75
No. 233—	10¾x7¾ inches—each	\$4.15

BIRD MANNA

A positive necessity to every canary. Keeps them in constant song, improves their plumage and prevents disease. A cure for loss of song.

Pkg., 15c.

BIRD BITTERS OR TONIC

Ten drops of Bird Bitters in the drinking water daily will carry the birds through moulting without the loss of song. 2 oz. bottle, 25c.

MIXED BIRD SEED

We buy our Bird Seed from the importers in original packages, thereby securing fresh, clean seed at all times. Our mixture is a formula used by a man who raised canaries for market. It is a well-balanced food, without too much hemp.

Lb., 15c; 10 lbs., \$1.25.

CUTTLEBONE

Cuttlebone is as essential to canaries as oyster shell to chickens.

Large pieces—10c; lb., \$1.00.

BIRD SAND—Kiln-dried Bird Sand, lb., 5c.

LICE POWDER for Canary Birds—oz., 5c.

CANARY SEED

New crop, recleaned seed.

Lb., 15c; 10 lbs., \$1.25.

HEMP—Large, plump, clean grains; lb., 15c; 10 lbs., \$1.25.

RAPE—We do not handle miscellaneous seeds, commonly called Bird Rape, but have the best selected Dwarf Essex for seed purposes. Lb., 15c; 10 lbs., \$1.25.

No.	Diam.	Price.
888-W—	10 in.....	\$4.15
888-C—	10½ in.....	4.90
888-L—	11 in.....	5.65
No. 2—	8½ in.....	2.60
No. 3—	9 in.....	2.90
No. 4—	9½ in.....	3.20

“KEEP IT IN STONEWARE”

MAPLE LEAF STONE JUGS.

Stoneware is the ideal container for all foodstuffs and provisions. Every kitchen, pantry and storeroom should have a complete equipment of types and sizes of stoneware, jars, crocks, and jugs.

No other containers have the advantages of Stoneware. No others preserve the quality and flavor of food so well. No others afford such a guarantee against spoilage, or deterioration and waste. A complete equipment of stoneware means constant savings, better food at less expense. These are the reasons for Stoneware's superiority:

1. Stoneware keeps moisture in or out, as necessary. Keeps moist foods moist, or dry foods crisp and dry.
2. Retains flavors perfectly.
3. Protects against light exposure, which often affects quality, flavor, and color.
4. Resists temperature changes.
5. Protects against fermentation.
6. Is absolutely sanitary—easily cleaned.
7. Is impervious to all acid and chemical reactions.
8. Never wears out.
9. Ideal for baking purposes.

$\frac{3}{4}$ Gal. Jug—each.....	10c	1 Gal. Syrup Jugs.....	22c
$\frac{1}{2}$ Gal. Jug—each.....	17c	1 Gal. Wide Mouth Jugs.....	22c
1 and 2 Gal. Jug—per Gal.....	22c	2 to 6 Gal. Water Jars.....	23c
3 to 5 Gal. Jug—per Gal.....	23c	6 to 12 Gal. Water Jars.....	24c

Gray Stoneware Combinetts, or Slop Jars, With Bale and Cover—each.....\$1.00
Doz.....\$8.00

Bowls and Pitchers—Each.....\$1.50 Dozen \$15.00

FOR PACKING.

Large stoneware jars are particularly desirable for packed or pickled meats. Their sanitary character, their resistance, to all acid and chemical reactions, and their permanency, make them incomparable to barrels, wooden tubs or other containers.

Because of the characteristics already explained meats, vegetables, pickles and fruits keep better when packed in stoneware.

The cost of eggs can be very much reduced by packing them when they are cheap in stone jars.

- $\frac{1}{4}$ Gal.—10c each.
- 1 to 6 Gal Jars—21c per gal.
- 8 to 12 Gal. Jars—22c per gal.
- 15 to 20 Gal. Jars—23c per gal.
- 25 to 30 Gal. Jars—24c per gal.

STONE JARS

STONEWARE--(Continued)

"SANITARY FOOD CONTAINERS"

SMOOTH, HARD-BURNED, BRISTOL-GLAZED MILK PANS.

Make excellent mixing bowls. They will not absorb. Strong clay body, not easily broken. Sizes, $\frac{1}{4}$ gal to 3 gal.

$\frac{1}{4}$ gal., each—10c. $\frac{1}{2}$ gal., each—17c. 1 to 3 gal., per gal—22c.

THE OLD-FASHIONED "BARREL-SHAPED, BRISTOL-GLAZED CHURN.

Hard-burned and exceptionally well glazed. Easily cleaned. Good fitting covers. Churns and Covers make excellent pickle containers; also used in which to pack eggs. Dashers can be supplied at a low price. Sizes, 1 to 6 gal.

1 to 6 gal. Churns, per gal., 22c.

Lids and Dashers—each, 22c.

WHITE FLUTED FLOWER POTS

AND SAUCERS

In All Sizes.

The best all-around selling Pot on the market. Are very serviceable and ornamental.

In addition to the above, we carry a full and complete line of all Maple Leaf Stoneware products. Buying in car-lots, we respectfully solicit the dealer's patronage.

Size, inches in diameter—	2½	3	4	5	6	7	8	9	10	12	14
Price	3c,	5c,	8c,	15c,	20c,	30c,	40c,	60c,	75c,	\$1.25,	\$2.25.

HIGH WHEEL GARDEN CULTIVATORS

Hardwood handles; steel frame and wheel. Neatly finished in black and red.

Adjustable to three different heights.

Complete with crucible steel shovel; calf tongue; one combined weeder and cultivator, with three teeth; one mould-board and wrench.

Each—\$4.00.

GARDEN SEEDERS AND CULTIVATORS.

STANDARD.

Combination Hill and Drill Seeder, Cultivator, Hoe, Plow, and Rake.

will pull it back to position. Complete as shown, four shovels, one pair hoes, one pair diamonds, one pair rakes, two leaf guards and wrench. Each.....\$17.00

Hopper, frame, and wheels painted black; attachments painted green. This combination tool is easily changed from a double to a single wheel cultivator, and, with the hill and drill seeder attachment combines three practical tools in one.

Will plant seed in hills 4, 6, 8, 12, and 24 inches apart or drill in a continuous row. The index for regulating the flow of seed in plain view and easily adjusted with a brass thumb screw. The flow of seed may be instantly stopped by pulling out seed side as far as it

NORCROSS

HAND WEEDERS

PRICES:

5-prong, 4-ft. handle,	
weight, 3 lbs.....	\$1.15
3-prong, 4-ft. handle,	
weight, 2 lbs.....	85c
"Midget," 9-inch handle,	
weight, 12 oz.....	45c

In addition to the articles shown on this page, we handle One-Horse Turning Plows and Cultivators, Spading Forks, Hoes, Rakes, Corn Planters, and Broadcast Seeders.

Rubber Hose, Nozzles, and Sprinklers. Prices on application.

**GARDENERS AND
TRUCK GROWERS
SAVE
Time—Labor—Money
AND MAKE
Better Quality Crops
BY USING**

MASTER'S RAPID PLANT SETTER

For Transplanting

Cabbage, Tomatoes, Sweet Potatoes, Tobacco,
Cauliflower, Strawberries and All Similar Plants.

A PRACTICAL LABOR-SAVING TOOL

Any ordinary man with this Setter will set more plants
in a day than three men can do by hand—and he will
do it better and easier.

**You Can Set Out Your Crop
Just When You Are Ready—**

You do not have to wait for rain. Each plant is set,
watered and covered in **ONE OPERATION**. The shock
of transplanting is reduced to a minimum. Every plant
will start growing at once—even in the hottest, driest
weather.

No Resetting—No Blanks

Your crop will mature evenly—you can be sure of your
crop right from the start.

Satisfaction Guaranteed
or your money back

Price—\$6.00 Each.

OAKLEY-PATE SEED CO.

JOPLIN, MO.

HUDSON CULTIVATOR HOE.

The Cultivator Hoe is light, well balanced and instantly adjustable to cultivate rows from 6 to 12 inches apart. The teeth are high carbon steel, reinforced by heavy channeling and convexed so as to scour well. They work at a uniform depth in the soil, insuring thorough cultivation.

No. PE5. Cultivator Hoe.....\$1.25

HUDSON CULTIVATOR RAKE

A range of adjustment from 6 inches—suitable for the narrowest rows—to 18 inches, the maximum width, gives the Cultivator Rake a wide range of service. It has 9 teeth of high carbon steel, so shaped as to penetrate the ground, stir it up, and pulverize it thoroughly without any downward pressure on the handle. Middle tooth may be removed to cultivate both sides of the row at the same time.

No. PE9. Cultivator Rake\$1.60

CYCLONE SEEDER

Sows Clover, Timothy, Alfalfa, Oats, Rye, Wheat, Buckwheat, Red Top, Millet, Turnip, Corn, Cotton, Bone Dust, Land Plaster, Fertilizer, etc., accurately and as heavily as desired. Such features as a slope feed board, automatic feed adjustment, distributing wheel to insure uniform spread, etc., make it unusually popular.

Each\$2.00

HUDSON HAND SEEDER.

A very satisfactory pattern and a leader in its class. Of very durable construction, yet so easily adjusted and controlled that operator uses it with perfect freedom. Flow of seed is obtained by use of a gate which can be adjusted instantly to fit seed to be used. Sows Oats, Wheat, Barley, Rye, and all other grains and grass seeds at a saving of at least one-third of seed used by other methods.

Packed one in fibre carton. Weight, 10 pounds.

No. 9 Hand Seeder.....Price, each, \$4.00

We Prepay Postage or Express on Bulbs, Garden and Flower Seeds, Within the Fifth Zone.

THE LITTLE PUTNAM STOVE PUTNAM BROODER HEATERS

Keep the drinking water in the Poultry House from freezing with a

LITTLE PUTNAM STOVE.

Holds three and one-half pints of oil and burns a MONTH without Refilling or Trimming.

Full directions how to make an OAT SPROUTER and heat it with a PUTNAM HEATER.

Complete, with directions—each, \$2.50.

If by mail, postage 8c.

make good or we do.

Putnam Brooder Heater.

These little heaters are designed to meet the needs of the small poultry raiser for an economical, yet efficient brooder.

Price—\$4.75.

Full instructions with each Heater how to make a Broodetr.

WARM DRINKS AT ALL HOURS OF THE DAY

from one of our lamp-heated Water Fountains. The bottom of the Fountain forms the bowl or oil tank, which holds a gallon of coal oil, enough to burn for one week.

It has been demonstrated that hot water given to chickens in cold weather greatly increases the egg production, which also increases the profits. Order NOW. Made in three sizes.

2 Gal., \$3.50. 4 Gal., \$5.00. 10 Gal., \$7.

PULL THE WEEDS AND SAVE THE GRASS

The Simplex Weed Puller.

THE SIMPLEX WEED PULLER will pull them—root and all—without disturbing the grass.

Try one—only \$1.25.

PAPER CARTONS

For shipping eggs and baby chicks.

15-Egg size	15c
30-Egg size	25c
50-Chick size	35c
100-Chick size	50c

REFERENCE TABLES

Legal and Customary Weights Per Bushel and Quantities Usually Sown Per Acre.

	Quantity Per Acre.	Lbs. Per Bu.		Quantity Per Acre.	Lbs. Per Bu.
Alfalfa	15 to 20 lbs.	60	Lawn Grass.....	1 lb. to 200 sq. ft.	
Buckwheat	30 to 60 lbs.	50	Millet—German & Corn.....	30 to 50 lbs.	50
Bluegrass—Kentucky	30 to 40 lbs.	14	Millet—Pearl or Cat-tail.....	10 to 12 lbs.	56
Beans—Garden	1 bu.	60	Mustard	10 to 12 lbs.	58
Beans—Soja	40 to 60 lbs.	60	Milo Maize—in drills	8 to 12 lbs.	56
Beans—Castor	4 to 5 lbs.	46	Onion Sets—Bottom	224 lbs.	32
Beans—Lima	40 to 60 lbs.	56	Onion Sets—Bottom	224 bu.	32
Beans—Navy	30 lbs.	60	Onion Sets—Top		28
Bermuda Grass	5 lbs.	30	Orchard Grass	30 to 40 lbs.	14
Broom Corn	8 to 12 lbs.	46	Peas, broadcast	120 to 150 lbs.	60
Clover—White	6 to 8 lbs.	60	Peas—Garden	120 to 150 lbs.	60
Clover—Red	8 to 12 lbs.	60	Peanuts	6 lbs.	22
Clover—Alsike	8 to 10 lbs.	60	Potatoes—White or Irish.....	480 lbs.	60
Clover—Crimson	10 to 15 lbs.	60	Potatoes—Sweet, 11,000 to 15,000 plants.....		50
Clover—Mammoth	30 to 60 lbs.	60	Red Top, fancy, solid seed.....	10 to 12 lbs.	14
Cow Peas	30 to 60 lbs.	60	Red Top, chaff, solid seed.....	30 to 40 lbs.	14
Corn—Shelled	7 lbs.	56	Rape, Dwarf Essex, broadcast.....	5 lbs.	50
Corn—Pop	6 to 8 lbs.		Rye	80 to 100 lbs.	56
Cane or Sorghum, drills.....	8 to 12 lbs.	50	Ryegrass, English or per.....	30 to 40 lbs.	24
Cane or Sorghum, broadcast.....	75 to 100 lbs.	50	Ryegrass, Italian	30 to 40 lbs.	24
Fescue—Meadow	1 to 1½ bu.	48	Sorghum—Drills	8 to 12 lbs.	56
Hungarian Millet	½ to 1 bu.	48	Sorghum—broadcast	60 to 100 lbs.	56
Johnson Grass	1 bu.	25	Sweet Corn	10 lbs.	
Jerusalem Corn, in drills.....	8 to 12 lbs.	56	Timothy	12 to 20 lbs.	45
Kaffir Corn, in drills.....	8 to 12 lbs.	56	Wheat	90 to 120 lbs.	60
Kaffir Corn, broadcast	7 to 100 lbs.	56			

Quantity of Seed Required to Produce a Given Number of Plants, Giving Length of Rows and Number of Hills.

Asparagus, 1 oz. to 500 plants.
 Beans, Dwarf, 1 qt. to 100 feet of row.
 Beans, Pole, 1 pt. to 100 hills.
 Beets, Garden, 1 oz. to 50 feet of row.
 Beets, Mangel or Stock, 1 oz. to 100 feet of row.
 Cabbage, 1 oz. to 4000 plants.
 Beets, Garden, 1 oz. to 50 feet of row.
 Cauliflower 1 oz. to 3000 to 4000 plants.
 Celery, 1 oz to 6000 to 8000 plants.
 Collards, 1 oz. to 5000 plants.
 Corn, Sweet, 1 pt. to 100 hills.
 Cucumber, 1 oz. to 50 hills.
 Egg Plant, 1 oz. to 1500 plants.
 Endive, 1-3 oz. to 100 feet of row.
 Horse Radish Roots, 10,000 to 15,000 plants.
 Kale, 1 oz. to 4000 plants.
 Kohl Rabi, 1 oz. to 3000 plants.
 Lettuce, 1 oz. to 2000 plants.
 Melon, Water, 1 oz. to 30 hills.

Melon, Musk, 1 oz. to 50 hills.
 Mustard, 1 oz. to 100 feet of row.
 Okra, 1 oz. to 100 feet of row.
 Onion Seed, ½ oz. to 100 feet of row.
 Onion Sets, bottom, 1 qt. to 30 feet of row.
 Onion Sets, top, 1 qt. to 40 feet of row.
 Parsnips, ½ oz. to 100 feet of row.
 Parsley, ½ oz. to 100 feet of row.
 Peas, Garden, 1 qt. to 100 feet of row.
 Peas, field, broadcast.
 Pepper, 1 oz. to 1000 plants.
 Pumpkin, ½ lb. to 100 hills.
 Radish, 1 oz. to 100 feet of row.
 Salsify, 1 oz. to 50 feet of row.
 Spinach, 1 oz. to 50 feet of row.
 Squash, 1 oz. to 25 hills.
 Tomato, 1 oz. to 3000 plants.
 Tobacco, 1 oz. to 4500 plants.
 Turnip, 1 oz. to 200 feet of row.

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WE CARRY A COMPLETE LINE OF SPRAYERS AND
 SPRAYING MATERIALS, WITH FULL INSTRUCTION
 OF WHAT TO USE AND WHEN TO USE IT.

Transplanting Directions

ISSUED BY

OAKLEY-PATE SEED CO.

Successors to Reding & Clark

Dealers in

GARDEN, FIELD AND FLOWER SEEDS

PLANTS, BULBS AND NURSERY STOCK

SPRAYS AND SPRAYING MATERIALS

JOPLIN, MISSOURI

If presenting these instructions to our patrons, we would earnestly request that they give the most careful attention to the details. They have been compiled with a view to making them as simple as possible; and having fulfilled our part of the contract by delivering first-class stock in good condition, also giving all necessary instructions how to care for it, if any of our customers should lose a portion of their stock, the fault cannot be on our side. We allude to this because years of experience have taught us that the public lose nursery stock because they neglect it; and we have taken the precaution to send a copy of our Transplanting Directions to every customer, so that none may claim that they do not know how to plant and care for their stock.

We guarantee to deliver the stock in *good condition*, and could we plant and care for it for the first three months, would willingly insure the growth of every tree and shrub sent out. We seldom ever lose a plant, even when we import them from Europe, and grow them here during the summer for fall delivery, and the stock is out of the ground for many weeks. Our agents report that *very few* of the people pay any attention to transplanting directions. *Anything that has to be cultivated in the earth can no more live without nourishment and care than a human being!*

PREPARING THE GROUND.

Before planting fruit trees, the soil (excepting new grounds) should be made mellow by repeated plowing, and, where the soil is densely packed, a sub-soil plow should be used, and the ground stirred up from ten to twelve inches deep. If this is neglected the roots are soon surrounded by an almost impenetrable wall, and can not be expected to live many years; wherever this system has been practiced, healthy, vigorous trees and fine fruit has been the result.

PREPARING THE TREES FOR PLANTING.

The broken or mutilated portions of the roots must be cut off, so as to leave the ends smooth and sound, and the ends of the other roots should be pruned. From these ends the new fibrous roots usually start.

PLANTING.

Dig a hole about the same size required for tree, fill it to about six inches of the top with water, then fill in with fine soil and stir it into a pretty thick puddle. The hole being filled with good, mellow soil to within five or six inches of the top; place the tree in position, and arrange it to the proper depth, then fill in fine mellow soil, arranging all the roots in their natural position; when the roots are barely covered, sprinkle on not less than half a bucket of water, then fill to the top, throw a bucket of water around each tree and scatter a little soil on top to prevent baking. Use long manure, litter, straw, grass, or hay spread on the

surface around the tree for a space of from four to five feet, and three to six inches deep.

MULCHING.

When the tree is planted, throw mulch around it, as far as the roots extend, and a foot beyond. It prevents the ground from baking or cracking, and maintains an equal temperature about the roots. Do not fail to mulch.

PRUNING.

The stems should now be put in condition for the formation of the top by removing all the limbs to the point where it is desired to have the top; then cut back each remaining limb, leaving from four to six buds of last season's growth. In the absence of any limbs suitable to form a top, cut the tree down to the requisite height, leaving the dormant buds to make the top.

The necessity of pruning vigorously at time of setting is generally a very ungrateful one to the planter, as it injures for a time the appearance of the tree to an unpracticed eye. It should, however, be unhesitatingly performed, all the branches to the extent of at least one-half the length of the previous year's growth being removed. Care should also be used to give the proper form to the tree. The head may be left high or low, as the taste of the planter may prefer, or as the nature of the tree in some cases may require.

No stock planted in the fall should be pruned until the hard frost has left in the

Fig. 1.**Fig. 2.**

Top left without Pruning
and Roots crowded
together

Sure to Die.

Top properly Pruned and
Cut Back, and Roots
carefully spread out.

Sure to Live.

Improperly Planted Properly Planted

NOTICE.—The above show the right and wrong way to plant trees. Plant and trim according to Fig. 2 and you will have no trouble in making your trees grow.

THIS IS THE SECRET OF SUCCESS.

Be sure and remove label before tree begins to grow or it will be fatally injured through strangulation.

The above illustration presents vividly the difference between correct and incorrect planting. In Fig. 1 too small a hole has been dug, and the roots have been crowded into it in such a way that if the tree lives at all it will be at the cost of a great effort and loss of vitality.

This is the method which is *commonly practiced*, and we cannot therefore too strongly warn our customers against it.

The roots must have plenty of room, and great care should be exercised to have them as nearly as possible in the same position which they occupied in the nursery.

In Fig. 2 the roots occupy this position, being carefully arranged, and the top has been properly trimmed, regardless of the great injury to the *present appearance* of the tree. In transplanting under the most careful management, so many of the fibrous roots which carry nourishment are destroyed that it is very essential that the top be correspondingly removed.

Fall Planting

When set in autumn, a mound of earth, a foot or more in height, must be raised about the trees. This is *very essential*, as it keeps them from being swayed by the winds or thrown out by the frost during the winter. It should be removed in the spring.

In sections where the winters are extremely severe, trees procured in the fall can be best cared for by covering the roots with earth during the winter and planting them in the spring.

To insure success, select a spot where no water will stand during the winter, having no grass near to invite mice. Dig a trench deep enough to admit one layer of roots, and sloping enough to permit the trees to lie at an angle of not more than 30° with the ground. Having placed one layer of the roots in this trench, cover them with mellow earth, extending well up on the bodies and see *that this is firmly packed*. Then add another layer of trees, overlapping the first, and continuing as at first until all are heeled in. As soon as this is done, cover the tops so well with evergreen boughs that they will be thoroughly protected from winds.

REQUEST for FREE CALF FEEDING CHART

BLATCHFORD CALF MEAL COMPANY

Waukegan, Illinois

Gentlemen:—Without cost or obligation send me at once your large colored Chart of Instructions No. C-3, for raising and feeding calves.

Name _____

Post Office _____

Box _____

State _____

Number of Calves Grown Annually _____

Value of Whole Milk Per Hundred _____

Value of Butter Fat Per Pound _____

Do You Sell Whole Milk? ☐ Or Butter Fat? ☐

(Indicate by X in square)

TRADE MARK REG. U. S. PAT. OFF.

FILL OUT
AND MAIL
FOR YOUR
COPY

Feeding Directions

Follow them carefully

Blatchford's Calf Meal

—to raise good calves

Only

tablespoonfuls
at the start

The same high standard of quality is maintained in these other Blatchford Products. TRY THEM!

Blatchford's Chick Mash Should be every chick's first feed. It builds sturdy bodies and (Formerly Blatchford's Milk Mash) promotes early maturity. Keeps them in condition all the time. In 100-, 25- and 10-pound bags and 4-pound cartons.

Blatchford's "Fill-the-Basket" Egg Mash Makes hens lay winter and summer. Contains a variety of materials which provides the hen with the surplus nourishment she requires for maximum egg production. In 100- and 25-pound bags.

Blatchford's Pig Meal Endorsed by prominent swine-breeders everywhere as the best feed on the market for weaning and developing pigs. In 100-, 50- and 25-pound bags.

Blatchford's Lamb Meal and Blatchford's Colt Meal For young and motherless lambs and colts. In 100-, 50- and 25-pound bags.

Blatchford's "Bar-Nun" Poultry Food Hopper (Patented) Makes feeding easy and saves the feed.

HOW TO AVOID TROUBLE—Over-feeding is the chief cause of indigestion. The continued feeding of calf meal in too large a quantity may produce scours. When such a condition has developed all feed should be withheld from the calf for a period of ten to twelve hours and a purgative of two or three ounces of Castor Oil administered. After complete elimination, feeding may be begun again, using only such feeds as whole milk and eggs until health is again established (feed three or four times daily).

HOW TO CURE SCOURS—Scours are neglected cases of indigestion. Their presence is usually due to careless feeding rather than to the feed itself. When such a condition has become established, cleanse the calf's digestive tract with a purgative such as Castor Oil (two ounces) and place calf on a one-half ration of whole milk together with a teaspoonful three times per day of the following mixture; one ounce of Bismuth Subnitrate, one-half ounce of Salol, and two ounces of Bicarbonate of Soda. When scours have subsided, gradually resume normal feeding of whole milk, slowly shifting to calf meal as health and strength become established.

Instruction Chart For Feeding Calves

Keep With Cow for the first four to seven days. This is very important.

Whole Milk feeding should begin at from four to seven days of age. Feed one pound per day for each ten pounds of weight of calf. Feed in two or three feedings.

More complete information given on large chart. Send for it.

Skim Milk feeding should begin at close of second week and whole milk feeding gradually reduced. Feed skim milk at same rate whole milk was fed. Increase quantity fed as calf increases in weight. If skim milk is not available continue feeding whole milk over this period.

Calf Meal feeding should begin at the same time the change from whole milk to skim milk is begun. Mix one tablespoonful of the meal with the milk at each feeding. Follow this method until close of the fifth week. You should then mix the calf meal with water, one part calf meal to eight parts of water. This mixture, or gruel, as we will call it, is to be mixed with the skim milk portion of the ration before feeding.

The gruel should be gradually increased from the beginning of the sixth week until it entirely replaces the milk portion at the end of the ninth week.

Gruel should then be fed exclusively until the calf is twenty-six weeks, or six months, of age.

It will require approximately two hundred pounds of calf meal to develop a calf in this manner.

More complete information given on big chart—sent free.

Pounds to Feed Daily
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

1st Week With Cow

2nd Week Whole Milk

3rd Week Change to Skim Milk

4th Week Discontinue whole milk

5th Week Skim milk

6th Week Introduce Calf Meal

7th Week Skim milk and Calf Meal

8th Week Skim milk and Calf Meal

9th Week Calf Meal Gruel

10th Week Calf Meal Gruel

11th Week Calf Meal Gruel

12th Week Calf Meal Gruel

13th Week Calf Meal Gruel

14th Week Calf Meal Gruel

15th Week Calf Meal Gruel

16th Week Calf Meal Gruel

17th Week Calf Meal Gruel

18th Week Calf Meal Gruel

19th Week Calf Meal Gruel

20th Week Calf Meal Gruel

21st Week Calf Meal Gruel

22nd Week Calf Meal Gruel

23rd Week Calf Meal Gruel

24th Week Calf Meal Gruel

25th Week Calf Meal Gruel

26th Week Calf Meal Gruel

How to Use This Chart

THE four-colored column at the left represents a period of twenty-six weeks, or six months' time. The color divisions show the kind of feed to supply calves at various ages during this period as well as the time required to make changes from one feed to another. At the left of the colored column are descriptive statements of each of the four feeds used. The photographs below show two calves grown according to this chart, together with detailed information regarding their growth and amount of feed consumed. The simplicity and convenience of this table will soon become very apparent and indispensable to you in growing calves economically.

This table is arranged for the feeding of a ninety-pound calf. When small calves are fed reduce the entire ration accordingly, in proportion to the weight of calf. Feed on the basis of one-tenth of the calf's weight each day.

Send for Free Chart for more complete information. Use coupon.

Calf Meal is as efficient for Beef Calves as it is for Dairy Calves

HOLSTEIN BULL CALF GROWN ON BLATCHFORD'S CALF MEAL AS IT APPLIED WHEN SIX MONTHS OF AGE

HOLSTEIN HEIFER CALF GROWN ON BLATCHFORD'S CALF MEAL AS IT APPLIED WHEN SIX MONTHS OF AGE

Read the Story of These Two Calves.—These two calves were grown upon Calf Meal as outlined in this chart. Note their splendid growth and vigor, also the limited amount of milk which they consumed. If you will follow this chart as your feeding guide you can grow just as good calves as these and sell your milk also. Study these figures:

	Bull Calf, Lbs.	Heifer Calf, Lbs.
Birth Weight of Calves	92.0	102.0
Weight of Calves at 170 days	342.0	351.0
Average Daily Gain of Calves	1.48	1.47
Total Amount of Whole Milk Fed	99.9	109.8
Total Amount of Skim Milk Fed	313.0	228.0
Total Amount of Calf Meal Fed	212.07	244.9

Why Use Blatchford's Calf Meal?—No mention has been made in the above regarding the kind of calf meal to use. We now desire to call your attention to the importance of using BLATCHFORD'S CALF MEAL. Blatchford's Calf Meal is a product universally known, used and recognized as the calf meal par excellence. It is made to produce results. Its quality is uniform, and your results are assured only through its use. It is handled by dealers everywhere; however, if you are unable to obtain it locally, write directly to this company at the address given below. Read our guarantee.

Other Necessary Feeds. In addition to the milk and gruel ration, feed a good quality of hay (clover or alfalfa, if possible) and a dry grain mash made up of one part ground oats, one part ground corn, and one part of Calf Meal, by weight. All dry feed should be placed before the calf as soon as bucket feeding begins. It is important that the feeder encourage the early consumption of a dry grain ration.

Important Rules For Feeding. Feed liquid ration at blood temperature (100 degrees Fahrenheit).

Keep feeding pails clean. They should be washed and sterilized after each feeding. Weigh or measure all feeds accurately. Don't guess.

Provide a clean, dry, warm bed for all calves under six months of age.

Watch condition of the bowels. The same feeder should attend to calves at all times.

Calves should receive calf meal in maximum quantities until at least six months old. For best development, continue gruel feeding until calves are 6 to 12 months old.

Over-feeding is the chief cause of indigestion. The feeding of Calf Meal or milk in too large a quantity may produce scours. When such a condition has developed, all feed should be withheld from the calf for a period of ten to twelve hours and a purgative of two or three ounces of Castor Oil administered. After action of the Castor Oil has been complete, feeding may be begun again using only such feeds as whole milk and eggs until health is again established.

Your Responsibility. The responsibility for the well-being of the calf or calves that are being fed depends largely upon the feeder's powers of observation and his ability to adjust the ration to meet the ever-changing needs of each individual calf. No set of rules, or tables, can be given that will carry the details of how to feed fully enough for a feeder to secure maximum performance with his herd.

Guarantee. We guarantee BLATCHFORD'S CALF MEAL for all gruel feeding suggested in this chart when fed as directed to a normal calf. It will produce satisfactory results or money will be refunded.

ORIGINAL PLANT, EST. 1862, LITCHFIELD, ENGLAND, IN 1890

Over one hundred and twenty years of honorable business dealing backs this guarantee.

PRESENT PLANT, WAUKEGAN, ILL.
BLATCHFORD CALF MEAL COMPANY, WAUKEGAN, ILLINOIS
In business over 120 years

FREE
This Calf Feeding Chart, Enlarged to Four Times the Size Shown Here, and Beautifully Lithographed in Five Colors.

It makes a valuable chart to hang in a convenient place for ready reference. The size, 15x22½ inches, makes the type large and easily read. The use of colors makes it very attractive.

You'll Be Proud of It

The back of this wall chart is filled with additional suggestions and information pertaining to the rearing of calves, so that when matured they make profitable stock as breeders and at the milk pail.

No Cost—No Obligation

No expense has been spared to make this chart highly valuable and useful to you. There's no cost to you. We want you to have it. Your copy is waiting for you.

Use Coupon on other Side

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BLATCHFORD CALF MEAL COMPANY
WAUKEGAN (In Business over 120 Years) ILLINOIS

DIRECTIONS

How to Raise Good Calves on **BLATCHFORD'S** **CALF MEAL**

Read Directions Carefully Before Beginning Feeding

HOW TO START RIGHT—Do not start the hand-feeding of calves until they are four or five days old. The colostrum, or first milk from the dam, is essential in order that the calf's digestive system begin functioning properly.

Teach the calf to drink whole milk. Three feedings should be given per day, if possible, during the first two or three weeks. The quantity of milk fed each day should equal approximately one-tenth of the body weight of the calf. For example, a 90-pound calf should receive nine pounds of milk per day and a 60-pound calf six pounds per day.

HOW TO SUBSTITUTE CALF MEAL GRUEL FOR MILK—Begin feeding **Blatchford's Calf Meal** together with whole milk when the calf reaches the age of 14 days. This should be fed in a quantity not to exceed two tablespoonfuls per day for the next 21 days. During this period the milk ration should continue to be one-tenth of the body weight of the calf. When calf is 35 days old begin the gradual reduction of milk until the milk portion of the ration has been entirely replaced by calf meal gruel at the age of 63 days or close of 9th week (see chart opposite side). After calf has reached the age of 35 days the calf meal should be mixed with hot water in the proportion of one part meal to eight parts water, and the gruel so formed should be mixed with the milk.

Better results from **Blatchford's Calf Meal** are secured when the meal and boiling-hot water (one to eight proportion) have been mixed together for eight or ten hours prior to feeding; or if a fireless cooker is available it is strongly recommended that the gruel mixture be cooked rather than soaked between feeding periods.

When it is desired to change a six, eight, or ten-week old calf on to a ration of calf meal, the ration previously received being whole milk, it is recommended that the calf meal ration be substituted at the rate of one ounce per day, which, when mixed with the proper amount of water, makes up a mixture of nine ounces. In substituting a gruel so prepared the whole milk ration should be reduced one-half pound per day to admit the addition of the gruel and at the same time maintain a constant or uniform volume of liquid in the ration. In other words, in changing an eight to ten-week old calf on to a calf meal gruel it is desirable that the change from whole milk to calf meal occupy a period of eighteen to twenty days.

HOW TO FEED CALF MEAL WHEN LITTLE OR NO MILK IS AVAILABLE—If the supply of milk available for calf feeding is greatly limited, calf meal may be substituted at a much earlier age than above outlined. Start the calf on whole milk for four or five days and then change to gruel feeding by the time the calf is fifteen days old. Soak or cook the gruel (eight to one proportion, as directed) and begin substituting the gruel for the milk, using one ounce (dry measure) or nine ounces (liquid measure) the first day and increase so as to make the substitution complete by the time the calf is fifteen days old. For example, a 90-pound calf should be receiving nine pounds of the cooked gruel at this age (fifteen days). The growth produced through the early use of an exclusive calf meal ration may not always entirely equal that obtained from a milk ration, nevertheless, thousands of users of **Blatchford's Calf Meal** report highly satisfactory results in substituting calf meal exclusively for milk when calves are but ten or fifteen days old. In order to be successful with this method of feeding it is an advantage to the feeder if he has had considerable experience in using a milk-substitute feed and is a keen observer of all factors affecting the general well-being of the calves under his charge.

HOW TO FEED DRY FEEDS—In addition to the milk and calf meal ration, feed a good quality of hay (clover or alfalfa, if possible) and a dry-grain mash made up of one part calf meal, one part ground corn, one part ground oats, by weight. All dry feed should be placed before the calf as soon as bucket-feeding begins (ten days old). It is important that the feeder encourage the early consumption of dry-grain mash.

Use coupon to obtain large colored feeding chart.

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