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MONEY CROPS FOR THE SOUTH

GORMAN'S MAMMOUTH YELLOW SOY BEAN, IS THE
SOUTH'S GREATEST SOIL RESTORER

GORMAN-GAMMILL SEED CO.

BIRMINGHAM, ALABAMA

GORMAN'S IMPROVED OCEOLA VELVET BEANS
"THEY HAVE NO STING."

TENTH ANNUAL CATALOGUE OF GORMAN-GAMMILL SEED CO.

Long Distance Telephone, Main 3236

2328-2330 Second Avenue, North BIRMINGHAM, ALABAMA
Between Twenty-Third and Twenty-Fourth Sts.

WE SHIP BY PARCEL POST ANYWHERE

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POUNDS	LOCAL	First Zone 1 to 50 Miles	Second Zone 51 to 150 Miles	Third Zone 151 to 300 Miles	Fourth Zone 301 to 600 Miles	Fifth Zone 601 to 1,000 Miles	Sixth Zone 1,001 to 1,400 Miles	Seventh Zone 1,401 to 1,800 Miles	Eighth Zone All over 1,800 Miles
1	\$.05	\$.05	\$.05	\$.06	\$.07	\$.08	\$.09	\$.11	\$.12
2	.06	.06	.06	.08	.11	.14	.17	.21	.24
3	.06	.07	.07	.10	.15	.20	.25	.31	.36
4	.07	.08	.08	.12	.19	.26	.33	.41	.48
5	.07	.09	.09	.14	.23	.32	.41	.51	.60
6	.08	.10	.10	.16	.27	.38	.49	.61	.72
7	.08	.11	.11	.18	.31	.44	.57	.71	.84
8	.09	.12	.12	.20	.35	.50	.65	.81	.96
9	.09	.13	.13	.22	.39	.56	.73	.91	1.08
10	.10	.14	.14	.24	.43	.62	.81	1.01	1.20
11	.10	.15	.15	.26	.47	.68	.89	1.11	1.32
12	.11	.16	.16	.28	.51	.74	.97	1.21	1.44
13	.11	.17	.17	.30	.55	.80	1.05	1.31	1.56
14	.12	.18	.18	.32	.59	.86	1.13	1.41	1.68
15	.12	.19	.19	.34	.63	.92	1.21	1.51	1.80
16	.13	.20	.20	.36	.67	.98	1.29	1.61	1.92
17	.13	.21	.21	.38	.71	1.04	1.37	1.71	2.04
18	.14	.22	.22	.40	.75	1.10	1.45	1.81	2.16
19	.14	.23	.23	.42	.79	1.16	1.53	1.91	2.28
20	.15	.24	.24	.44	.83	1.22	1.61	2.01	2.40
21	.15	.25	.25						
22	.16	.26	.26						
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42	.26	.46	.46						
43	.26	.47	.47						
44	.27	.48	.48						
45	.27	.49	.49						
46	.28	.50	.50						
47	.28	.51	.51						
48	.29	.52	.52						
49	.29	.53	.53						
50	.30	.54	.54						

Notes About Parcel Post

Poisons cannot be sent by mail.
Weight limit in first and second zones, 70 lbs.; in other zones, 20 lbs.
Liquids and goods packed in glass should be sent by express.

Customers Please Take Notice

Our Terms are Strictly Cash with Order. We prefer not to send seeds C. O. D., unless order is accompanied by at least one-third of the amount of the order.

How to Remit. Send postal money order, express money order, or check. Stamps will do if your order is for a small amount.

Free Delivery. We prepay postage on all seeds purchased by the packet, ounce, quarter - pound, half - pound,

pound, half-pint, pint, and quart, unless otherwise noted.

Lower Freight Rates and Quick Shipments. For large orders, shipments by freight are much cheaper than by express. Birmingham is one of the best distributing points in the South. The railroads radiate in every direction, giving prompt and efficient service.

Errors. We exercise every care in handling your orders, but should an error occur, kindly write us at once, and we will adjust it promptly.

You Run No Risk in sending cash with order. Our reputation as honest and reliable seedsmen is well known, while our financial standing may be learned from any merchant who subscribes for commercial-agency reports.

We Do Not Charge for Bags or Boxes.

All prices in this catalogue are subject to change without notice.

It makes no difference whether your order is large or small. The little fellows get the same good attention that the big orders get and are shipped just as promptly.

INTRODUCTORY

Dear Friends and Patrons:

This is our tenth visit to many of your homes. We come this time, urging you in the name of suffering humanity, to plant, plant, plant, every acre possible to food crops. The heartrending cries from across the Atlantic: America, America, feed us lest we perish, must be heeded. We cannot fail to answer these cries, with the biggest food crops for 1919 the world has ever seen. Don't delay a minute, but start now planning and planting. Prepare your lands well, this is your foundation for a bountiful harvest. Put a hill of Soy or Velvet Beans between each hill of corn. By practicing this method, rotation is not so necessary. These two wonderful plants will keep your soil well charged with nitrogen, and other necessary elements, and at the same time furnish an abundance of the very richest feed. Be sure to keep two or more brood sows. Plant a few acres to peanuts, and chufas. These

crops can be produced at less cost than any other crops, and will produce more growth, and fat in the same length of time than any one we might mention. It will be necessary to harden your meat a little by feeding these pigs ten or fifteen days on corn or corn meal. Don't sell your heifer calves. With a little for the first twelve months, they will grow more profit in the following twelve months, than any investment you can make. Watch the poultry yard. Eggs, and all kinds of poultry are soaring higher. This is one of the most profitable ends of the farm. Watch it. Last, but by no means least, we wish to impress upon you the importance of planting none but the very best SEEDS obtainable. We are making every effort possible to furnish you this class of seeds. We will appreciate your patronage.

GORMAN-GAMMILL SEED CO.

By J. B. GORMAN

Calendar for Monthly Operations in the South

What to Plant and When to Plant for Each Month in the Year

JANUARY

FOR THE GARDEN—Manure and prepare the soil. Top dress asparagus beds with manure, also give dressing of salt and kainit. Plant asparagus roots and cabbage plants. Plant early crop of English Peas. Plant onion sets, shallots, carrots, kale, radish, spinach, and turnips. Plant in hot beds or cold frames for late transplanting, early cabbage, collards, lettuce, beets and cauliflower. Prune vines, fruit trees, hedges, etc. Spray fruit trees with Willet's Insecticides. Sow pansy and other flower seed in hotbeds for later transplanting.

FOR THE FARM—Vetches, oats, and wheat can be sown, also rye and bearded barley for grazing or for green crop. Top dress fall sown grain. Use every effort to prepare land for spring crops. Send in orders for seed so as to have them on hand at the proper time for sowing.

FEBRUARY

FOR THE GARDEN—Plant asparagus roots and cabbage plants. Plant in hotbeds, egg plant, pepper and tomatoes for later transplanting. Plant artichokes, Irish potatoes, English peas, and onion sets. Later in the month, early corn. Asparagus, beets, cabbage, carrots, collards, celery, mustard, parsnip, parsley, radish, salsify, spinach, and turnips can be sown. Finish pruning and transplanting vines and trees. Spray. Transplant strawberries. Hardy flower seed can be forwarded by sowing in hotbeds or in pots, or boxes in the house, for later transplanting. Sow Willet's evergreen lawn grass.

FOR THE FARM—Bed sweet potatoes for slips. Sow Canada field peas, oats, rye, and bearded barley. Towards end of month grasses and clovers can be put in. Sow beardless barley; cut in April; makes an excellent crop for hay or grain, no danger in feeding, as it is free from beard. Comes off in time to plant cotton or corn. Sow Dwarf Essex rape for early green grazing. Early corn can be planted.

MARCH

FOR THE GARDEN—Active month for sowing all kinds of hardy seed. The sooner most are sown the better. Set out asparagus roots. Plant English peas. Transplant cauliflower, cabbage, lettuce from hotbeds. Sow your herbs. Plant asparagus, beets, early cabbage, corn, carrots, cauliflower, celery, collards, egg plant, Irish potatoes, kale, lettuce, mustard, okra, parsley, parsnips, pepper, radishes, spinach, spring turnips, tomatoes, and salsify. Late in month plant a few snap beans. Tomato plants may be transplanted if protected. Prepare land for cantaloupes, cucumbers and squash. Plant strawberries. Sow and transplant your hardy flower seed. Sow Willet's evergreen lawn grass.

FOR THE FARM—Sow spring oats, Canada field peas, clover and grasses of all kinds, the earlier the better. Sow beardless barley, an excellent crop, comes off in time for cotton or corn. Plant artichokes for hogs, also Dwarf Essex rape. Put in first crop Spanish peanuts. The month for planting corn. The majority of it should be put in by the 20th. Get land in condition for planting cotton.

APRIL

FOR THE GARDEN—Replant any seeds necessary to secure a good stand. Plant garden corn and snap beans every two or three weeks for succession. Transplant egg plant, pepper and tomatoes. Plant cantaloupes, muskmelons, squash, and cucumbers. Lawn grass can be planted, the earlier the better. Sow flower seed. Dahlias, Gladiolus and Canna bulbs can be set out. Plant sunflower seed in every vacant corner, not only beautifies, but makes valuable feed for poultry in the fall.

FOR THE FARM—The cotton planting month. Buy Willet's Cotton Planting Seed culled on our \$450.00 culling machine—Increases crop out-turn 15 per cent. Grasses and clovers can be planted early in the month. Plant corn, cotton, chufas, peanuts, rice, watermelons and all sorghums; millets and fodder corn can be planted during this month, likewise cow peas, velvet and soy beans. Plant sweet potato draws. Plant mangel wurzel for winter feeding. Kaffir corn, milo maize and shallu make fine feed for poultry in the fall. Plant Bermuda seeds or sets, bene for birds, feterita, sudan grass, dasheen, watermelons.

MAY

FOR THE GARDEN—Late this month transplant celery. Winter cabbage, tomatoes, etc., can be set out, well watered and protected from the sun. Plant corn and snap beans, table peas and running beans. Late cabbage and cauliflower can be sown for transplanting in fall.

FOR THE FARM—Plant mangel wurzel for winter feeding, also sorghums. Millets can be planted, likewise cow peas, corn, cotton, chufas, peanuts, rice and velvet beans and soy beans; also pumpkins. Get oats harvested and land in condition to plant corn and cotton seed. Plant sweet potato plants, sudan grass, kaffir and feterita, watermelons.

JUNE

FOR THE GARDEN—Continue to transplant winter cabbage, celery plants and tomatoes for late crop, water and protect

from the sun; continue to plant corn and snap beans; also plant running beans and table peas. Winter cabbage seed can be sown now if protected and watered. Plant okra, salsify, New Zealand spinach, and squash. Prepare ground for turnips.

FOR THE FARM—Sow millets, sorghums, cow peas, soy beans, velvet beans, peanuts, and chufas. Plant your late corn and early cotton. Mangel wurzel beets can be sown. Plant sweet potato cuttings, sudan grass, feterita and kaffir corn, and beggar weed.

JULY

FOR THE GARDEN—Gather and store onions, shallots and Irish potatoes. Put in another crop of beets. Plant rutabagas and turnips. Replant cabbage and celery. Sow collards for transplanting in fall. Plant cucumbers for pickling.

FOR THE FARM—Sow German millet, cow peas and soy beans. Put in last crop Spanish peanuts. Plant Mexican June corn. Sow corn in drills for ensilage or fodder. Crimson and burr clovers can be sown in the last planting of corn or cotton, for winter grazing or as a soil improver. Sow dwarf Essex rape for greens and grazing. Plant Lookout Mountain potatoes and Second Crop Cold Storage potatoes for fall.

AUGUST

FOR THE GARDEN—Snap beans, lettuce, spinach, carrots, salsify, and turnips may be planted, also cucumbers for pickling. Set out your late crop of tomato plants and earth up your celery. Set out cabbage and collard plants for fall. Late in month English peas can be successfully planted.

FOR THE FARM—Crimson clover should be sown. Excellent hay crop for grazing, and a wonderful soil improver if turned under. Rye and bearded barley should be sown for fall and winter grazing. Rye can be planted as a cover crop and turned under. Beardless barley can be planted last of the month and cut in October and November, followed by other grain crops. Towards the end of the month sow vetches and rape. Grasses can be put in. Alfalfa and clovers can be successfully planted. August 1st sow amber sorghum and sudan grass. Sow burr clover in cotton and corn middles.

SEPTEMBER

FOR THE GARDEN—Carrots, kale, beets, chard, lettuce, spinach, radishes, turnips, salsify, parsnip, and parsley can be sown. Set out collards, winter cabbage. Put out onion sets for your early crop. Strawberry beds should be prepared and plants set out. Sow Willet's evergreen lawn grass. Early flowering bulbs can be planted.

FOR THE FARM—Sow beardless barley, cut in November. Cut in bloom makes excellent hay, or ripe makes fine grain for food; no beards, can be fed to stock without danger. Comes off in time to be followed by other grain or clover or early crops. Sow crimson clover. Sow burr clover in Bermuda fields and corn in cotton middles. Sow vetches, grass and clover seed. Winter turf and grazing oats do well sowed this month, as they get well rooted before the cold. Sow barley and rye for winter grazing. Plant dwarf Essex rape and Willet's grazing mixture.

OCTOBER

FOR THE GARDEN—Turnips can be planted for winter use, but it is almost too late to bring roots to much perfection. Collards, kale, lettuce, mustard, and spinach can be grown. Onion sets can be planted. Plant your strawberry beds. Plant hyacinth bulbs, tulips, narcissus, jonquils, crocus, freesias, and Chinese sacred lilies. Plant Willet's evergreen lawn grass.

FOR THE FARM—All kinds of grasses and clovers can be sown. Clovers should be put in early in the month. Sow barley and oats, wheat, rye and vetches.

NOVEMBER

FOR THE GARDEN—English peas may be planted this month. Strawberry beds planted. Onion sets and cabbage plants can be planted. Begin to get ready to start spraying. Sow lawn grass and flower bulbs—See October.

FOR THE FARM—Gather and bank sweet potatoes. Barley, oats, rye and wheat can be sown. Herd's grass. Sow Canada field peas, vetches and clover and Willet's grazing mixture. Sow rye on all vacant land for fall grazing and cover crop to improve the soil.

DECEMBER

FOR THE GARDEN—Prepare your hotbeds and cold frames. Plant onion sets, cabbage, and lettuce, and beets can be sown in hotbeds or cold frames for later transplanting. The winter growing of lettuce is very profitable. Prune your trees and vines and spray for scales with Willet's spray materials. Plant asparagus roots.

FOR THE FARM—Oats, wheat, vetches and clovers can be planted. Rye and barley for grazing and grain crops. Canada field peas can be sown, but must be planted deep.

A Field of Gorman's Improved Mammoth Yellow Soy Beans, the South's Most Wonderful Soil Builder, a Perfect Feed for all Farm Animals.

Soy Beans, the Great Soil Restorer

The soy bean is an erect leguminous plant introduced from Asia. In China and Japan it is grown extensively and used for human food, soil improvement, forage, and commercial purposes:

Soy beans are coming into general use throughout a much larger section of the United States than even cow peas. They have great properties for enriching the soil, in like manner to other leguminous plants. The plant is principally used in the South for fertilizing purposes, although considerable of it is made into hay, and no small quantity is cut and fed green. The hay is very nutritious, as likewise the bean when fully matured. Experience has proven that Soja Beans may be planted in like manner and at any time one would plant cow peas. Soja beans, however, are mostly planted in drills and given some cultivation. The vines are bushy and vigorous, entirely self-supporting. Plant in drills some three and a half feet apart, one and a half feet to the drill, using fifteen to twenty pounds per acre. When sown broadcast, sixty to seventy-five pounds to an acre.

A word or two in favor of the Soy bean as an oil producer: The writer recently saw an article in which it was stated that the Department of Agriculture had noted the importation of soy bean oil from Manchuria, and that the importation had recently grown in large proportions. The same article also stated that several of the cotton oil mills of North and South Carolina had been using soy beans, and

the amount of oil extracted was thirty gallons per ton, and 1,650 pounds of meal. The value of oil and meal was \$52.00. The soy bean meal is not only an excellent stock food, but it is a splendid fertilizing material, being the equal if not the superior of cotton seed meal.

There is no reason to doubt these statements with reference to soy beans, so while we are practicing diversification in this section, why not use soy beans as one of our crops, particularly when they are as valuable and as easily grown as experience has shown them to be. There is no doubt but what a rotation of legumes should be practiced just as much as rotation in other crops.

Soy bean land should be prepared in about the same manner as for cotton. If the land is well drained, the rows may be laid off and the seed planted on a level surface; but if it is poorly drained, the seed should be on a low bed.

Soy beans may follow winter grain, if the stubble is plowed promptly and the beans planted immediately. In those sections where many hogs are raised and the fields fenced for pasturing, the corn rows may be made six feet wide, and a row of beans planted in each corn middle. The corn and beans are cultivated together. After pulling the corn, the beans may be grazed by hogs and cattle. If it is desired to make hay of them, they may be cut with a scythe or sharp hoe.

CATALOG FOR GORMAN'S SPRING OF 1919

Farm and Garden Seeds

THE BEST SEEDS THAT ARE GROWN

A Good Vegetable Garden Will Reduce the High Cost of Living.

In the following pages, alphabetically arranged, we list only the cream of all the varieties of vegetable seeds which by actual test have proven themselves worthy. In making tests of seeds we have thrown out many varieties that have been superseded by better ones. From good seeds only can good crops be grown, and you should never risk planting an inferior grade of seed. It has oftentimes been said that in addition to planting good seeds, good gardeners are also necessary in producing a satisfactory crop. Seeds of the best quality sometimes fail through improper treatment.

Artichokes

Three ounces of seed to 100 yards of row.

Culture.—This plant can be grown from seed or from suckers cut from old established plants. Sow seed in beds and transplant seedlings to rows four feet apart, setting plants eighteen inches in the row.

GREEN GLOBE—The standard variety. It is cultivated for its flower-heads, which are cooked like asparagus. Plants set in any good soil, with slight covering in winter, will remain in bearing several years. Pkt., 10c; oz., 40c; $\frac{1}{4}$ lb., \$1.25.

Jerusalem or Ground Artichokes

A Wonderful Hog Food for the South.

Any Southern farmer who grows hogs and does not have some Jerusalem Artichokes to feed, is neglecting one of the most important hog-feed crops. It fattens hogs quickly, and it is said by many hog raisers that hogs fed on Jerusalem Artichokes have never been known to have cholera. Only a small quantity of seed is required to plant an acre. Three to four bushels per acre are sufficient. The tubers should be cut into small pieces, and not more than two of these should be put in a hill. The hills may be from two to four feet apart. Five hundred bushels have been yielded off an acre, and sometimes considerably more. Milk cows do well when fed on the roots and stalks. The crop is not a bit hard to eradicate. Plant in March and April during the spring of 1919 and your stock will improve in health. Prices: Postpaid, lb., 25c; 3 lb., 65c. By freight or express, not prepaid, pk., 75c; bu., \$2.00; barrel (of about 3 bus.), \$5.25.

ALL PRICES NAMED IN THIS BOOK ARE SUBJECT TO CHANGE WITHOUT NOTICE.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Asparagus

One of our finest early vegetables. May be grown in any good garden soil, but produces the largest shoots when given plenty of fertilizer and good cultivation. Sow the seed in March or April, in the open ground; when the plants are about two years old, set them in a permanent bed. The rows may be 3 feet apart, with a space of 18 inches between plants. In fall give the bed a covering of strawy manure as a fertilizer and mulch. An ounce of seed will sow about 40 feet of drill.

PALMETTO.—Thick, dark green shoots; early; uniform; disease-resisting. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 95c, postpaid.

Asparagus Roots

We always advocate using the Asparagus roots, for you save at least a year and a half by planting these large two-year-old plants. These may be put out in December, January, February or March. We handle the two-year-old Palmetto, which will produce fine Asparagus. Fertilize heavily. One hundred plants are sufficient for a bed 10 by 40 feet; five to seven thousand for an acre. Prices: 50 roots, 75c; \$1.50 per 100, postpaid. By express, not prepaid: 100, \$1.00; per 1,000, \$6.50.

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Brussels Sprouts.

Palmetto Asparagus.

Brussels Sprouts

Culture is the same as for cabbage. The sprouts grow around the upper part of the stem and are ready for use as soon as they have had a touch of frost.

LONG ISLAND HALF-DWARF. Oz., 25c; $\frac{1}{4}$ lb., 75c; lb., \$2.50.

Broccoli

Hardier than cauliflower, but not so fine-flavored. Can be sown in spring or fall same as cabbage. Give same culture as for cauliflower. One ounce will produce about 2,000 plants.

EARLY LARGE WHITE FRENCH—The best variety; compact, white heads. A hardy, vigorous and easily grown sort; excellent flavor; can be sown either in spring or fall. Oz., 35c; $\frac{1}{4}$ lb., \$1.00; lb., \$3.60.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

A Field of Gorman's Extra Early Round Pod Red Valentine.

Gorman's Improved Strains of Beans

2 pounds to 100 feet of drill; 60 to 90 lbs. per acre.

Culture.—Beans can be planted in the South from January to May, and again September or latter part of August for fall crop. In gardens plant in rows about 18 inches apart, dropping beans four to six inches apart in the row. Field planting, rows $2\frac{1}{2}$ to 3 feet apart in the row. Cultivate often enough to keep clean until blooms appear, but not when vines are wet. Extra heavy manuring is not needed; a good commercial fertilizer is better, especially if it is well mixed with the soil in the furrow before planting.

Bush or Bunch Beans

GREEN PODDED

EXTRA-EARLY ROUND-POD RED VALENTINE—This is probably one of the oldest of the green-podded Beans, and is today as largely planted as any Bean on the market, on account of its excellent eating qualities, its earliness, and prolificness. We take great pride in our selected stock of this old favorite, and believe you cannot obtain better seed from anyone. We highly recommend this Bean. Pkt., 10c; $\frac{1}{2}$ pt., 35c; pt., 45c; qt., 75c, postpaid. By express or freight, not prepaid, pt., 35c; qt., 60c; $\frac{1}{2}$ pk., \$2.50; pk., \$4.50; bu., \$16.50.

BURPEE'S STRINGLESS GREEN-POD—The green pod is almost straight, from $4\frac{1}{2}$ to 5 inches long, is perfectly stringless, broad, and very meaty. It is just as early as the earliest type of Valentine. The dry Bean of this variety is large and brown, oblong in shape. Vines vigorous and the pods uniform in size. If seasons are favorable, it will outyield the Valentine, and the quality is undoubtedly superior. We recommend this Bean as being first-class. Pkt., 45c; qt., 75c, postpaid. By express or freight, not prepaid, pt., 35c; qt., 75c; pk., \$4.75; bu., \$17.00.

BLACK VALENTINE (38 days)—The choice of Southern market growers, because it resists blight and is vigorous and prolific. Beans long, straight and handsome. One of the most desirable for market. Pkt., 10c; 1 lb., 25c; 2 lb., 60c, postpaid.

Burpee's Stringless Green Pod Beans.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

BUSH BEANS—Continued.**GIANT STRINGLESS****GREEN-POD (42 days)—**

The pods of this variety are fully one-third longer than Valentine. Round, slightly curved, handsome and stringless. Early and very prolific. An excellent sort for either home use or market garden. Our stock of this bean comes from the best sources of supply in the country. Pkt., 10c; 1 lb., 35c; 2 lbs., 65c, postpaid.

TENNESSEE GREEN POD

(48 days)—Very prolific and tender. Has dark green foliage, leaves large and crumpled, matures slightly ahead of Hodson Green Pod. Pods are 5 to 5½ inches long, flat, light green in color and irregular in shape, but quality of bean is good. Seed are yellowish brown in color and kidney shape. Pkt., 10c; 1 lb., 35c; 2 lbs., 65c, postpaid.

All prices named in this book are subject to change without notice.

Tennessee Green Pod Bush Beans.

Yellow or Wax-Podded Beans

LONGFELLOW (48 days)—

A round-podded green Bean of great merit; is entirely stringless and of good flavor. Vines very prolific. A good Bean for early use. Showy and attractive pods, often 6 inches long. Pkt., 10c; 1 lb., 35c; 2 lbs., 65c, postpaid.

PROLIFIC BLACK WAX—This is a much improved strain of the old Black Wax. Its habit of growth is stronger, it has longer, straighter and more rounded pods and is far more productive. The pods are of handsome yellow color, fleshy and stringless. Quality the very best. Market gardeners consider it an exceptionally valuable sort. Pkt., 10c; carton, 12c; ½ pt., 15c; pt., 35c; qt., 65c. By mail, postpaid.

IMPROVED GOLDEN WAX—This is an improved strain of the old Golden Wax and is a standard variety for general use with market gardeners as well as for home gardens. The pods are straight and succulent, very flat and of a yellow color. The quality is unusually fine and the pods are thick. We recommend it to our customers as a superior wax bean in every respect. Pkt., 5c; carton, 12c; ½ pt., 20c; pt., 35c; qt., 65c. By mail, postpaid.

WARDWELL'S KIDNEY WAX—This variety matures a little later than the Golden Wax, yields a large crop of long, flat, straight, broad, golden yellow handsome pods of large size. About six inches long, and of the finest quality. Suitable for snaps for the home garden. Pkt., 5c; carton, 12c; ½ pt., 20c; pt., 35c; qt., 65c. By mail, postpaid.

Wardwell's Kidney Beans.

Improved Golden Wax Beans.

Everyone Should Have a Garden

The constantly increasing price of food products, and the necessity for conserving and adding to the nation's supply of food stuffs, should lead every person who has available ground, even though but a small patch, to plant a garden this year. To do so is a patriotic duty, as well as a measure of economy.

Kentucky Wonder or Texas Pole Beans.

Pole or Running Beans

Pole beans are more sensitive to cold than the bush kinds, and should not be planted before the ground is warm—in this latitude, after May 1. Set poles 6 to 8 feet long, 3 to 4 feet apart, in 4-foot rows and plant five or six beans 2 inches deep around each pole. They may also be planted in the cornfield and allowed to run up the stalk. One quart will plant two hundred hills, $\frac{1}{2}$ bushel to the acre.

TEXAS, KENTUCKY WONDER, or OLD HOMESTEAD

—This is more largely grown than any of the other varieties on account of its being very vigorous and productive. The pods are often 9 or 10 inches long, being borne in large clusters and are quite stringless when young. The plants will continue to bear for weeks if the Beans are gathered as fast as they come to a suitable size. It is early and the best general-purpose Bean in the list. Pkt., 10c; pt., 45c; qt., 75c, postpaid. By express or freight, not prepaid, pt., 35c; qt., 65c; pk., \$4.75; bu., \$17.50.

WHITE-SEEDED KENTUCKY WONDER—Similar to the above, except that the seed is white and pods not quite so large. It is desirable for shelling when green, also valuable as a dry Bean for winter use. Known also as Berger's Stringless Green Pod. Pkt., 10c; pint, 30c; qt., 50c, postpaid. By express or freight, not prepaid, pt., 35c; qt., 65c; pk., \$4.00; bu., \$15.00.

LAZY WIFE—One of the best of the later green-podded Pole Beans for snaps or shelled use. The medium green pods, borne in large clusters, are from 5 $\frac{1}{2}$ to 6 $\frac{1}{2}$ inches long, broad, thick, fleshy and entirely stringless. They have a rich, buttery flavor which is retained until they are nearly ripe. The dry Beans are excellent for winter use. Seed white, medium size, slightly oval or nearly round. Pkt., 35c; qt., 60c, postpaid. By express or freight, not prepaid, pkt., 10c; pt., 30c; qt., 50c; pk., \$4.00; bu., \$15.00.

TENNESSEE WONDER

—Undoubtedly the best Cornfield Bean ever grown.

Very prolific, bears continually until frost. Seeds when dry are large, flattish, and oval, incurved at eye. Color generally gray, but marked with many irregular stripes. The Department of Agriculture Bulletin, No. 100, states that the "green pods are largest and handsomest of all cultivated beans, the pods curved, double-barreled, tinged with purple and wrinkled and depressed between each of the eight or nine seeds." We have tested out this Bean and can frankly and truly say that it is not even approached in quality and quantity by any other variety. Pt., 40c; qt., 75c, postpaid. By express or freight, not prepaid, pt., 40c; qt., 65c; $\frac{1}{2}$ pk., \$2.00; pk., \$4.00; bu., \$15.00.

SOUTHERN WHITE CREASEBACK—Handsome green pods, 6 to 7 inches long, produced in clusters; meaty; almost stringless; splendid shipper. Pt., 40c; qt., 75c, postpaid. By express or freight, not prepaid, pt., 30c; qt., 65c; pk., \$4.75; bu., \$16.50.

Southern White Creaseback.

NOTE.—Owing to abnormal conditions both in the market and in the source of supply, the prices quoted in this catalog are subject to change without notice.

BUSH AND POLE Lima Beans

Culture.—Lima beans are not as hardy as snap beans and should not be planted before the ground is warm and frost is over. Plant bush limas in 3-foot rows, dropping 3 beans 15 inches apart in the row. For the tall varieties, set 6 to 8-foot poles firmly in the center of the hills 3 feet apart in 4 foot rows before the seeds are planted. Cover the beans 1½ inches deep. One quart of Burpee's Large Limas will plant 100 hills; one bushel to the acre. One quart of the smaller seeded varieties will plant 200 hills; ½ bushel to the acre.

BURPEE'S BUSH LIMA—A dwarf type of the large white Lima Bean, of splendid quality, but does not fill out well except on rich mellow soil. Pt., 40c; qt., 75c, postpaid. By express or freight, not prepaid, pt., 35c; qt., 65c; pk., \$5.00; bu., \$18.00.

HENDERSON'S BUSH LIMA—The original bush lima bean. Valuable for its extreme earliness, yet it continues to grow and set pods right up to frost. Of the true bush type, growing 18 to 20 inches high; very productive and a sure cropper. Pkt., 10c; pint, 35c; qt., 75c; postpaid. By express, pint, 40c; qt., 65c; peck, \$5.00; bushel, \$18.00.

Burpee's Bush Lima.

SMALL, WHITE LIMA, CAROLINA, or SIEVA—(Pole.) Vines vigorous, with many short branches, and sometimes grown without poles; very early, productive, with small, smooth, dark green leaves. Pods dark green, short, about 3 inches, curved, flat. Seed small, flat, white, with slight tinge of yellow. Pkt., 10c; ½ pt., 25c; pt., 40c; qt., 75c, postpaid. By express or freight, not prepaid, pt., 35c; qt., 70c; pk., \$5.00; bu., \$18.

LARGE WHITE LIMA—(Pole.) Vine tall, vigorous, but slender; leaves medium-sized, smooth, medium green. Pods 5 to 5½ inches long, borne in clusters, broad, very thin, medium green. Seed very large, oval, flat, white with slight tinge of green. Pkt., 10c; ½ pt., 35c; pt., 45c; qt., 75c, postpaid. By express or freight, prepaid, pt., 40c; qt., 70c; pk., \$5.00; bu., \$18.00.

Just as soon as you look this catalog through, sit right down and send us your order. There is an order blank here for your convenience. Don't wait until the last minute when you are in a hurry and we are hustling to fill orders as fast as they come in. Do it now and save yourself and us from worrying and waiting.

Henderson's Bush Lima.

Owing to conditions over which we have no control, the prices given in this catalog are subject to change without notice.

Large Pole Lima.

Upon the seed depends the success of your garden. If they are cheap, inferior seeds, you might just as well turn the hogs loose in your garden, for you are bound to get cheap results. You can't get something for nothing. You have to pay for Gorman's seeds, but you get "quality first."

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Table Beets

One ounce of seed to 100 feet, seven pounds to the acre.

Culture.—Beets should be sown in well manured soil that has been well prepared by deep plowing or spading. Rows 2 feet apart, sowing thinly in the row. We advise seed to be soaked before planting to soften the bur and assist in germination. If too thick in row thin out to 5 or 6 inches apart. Cover seed one to two inches deep and firm soil around seed to keep them from drying out before germinating.

GORMAN'S BEST—We have named this new Beet Gorman's Best, because we think in it we have a combination of more good qualities than can be found in any other variety. The roots are dark red, grow quickly, are very tender and of the highest quality. The leaves are dark red and beautiful. If you plant Gorman's Best, you will have the finest Beets that can be produced. They are of that smooth turnip-shape which is desirable. If planted early they mature for early market. When planted late they make excellent Beets for winter use. Pkt., 10c; oz., 15c; ¼ lb., 50c; lb., \$1.75.

CROSBY'S EGYPTIAN (44 days)—One of the most popular early varieties of fine shape and good quality. It matures very quickly, is smooth and of a dark color. Top medium size. Shape very desirable. A fine variety for market gardeners. Pkt., 5c; oz., 10c; ¼ lb., 35c; 1 lb., \$1.00.

DETROIT DARK RED (50 days)—One of the most popular second early, or main crop sorts. Roots round, smooth, dark blood red, and of fine quality. We recommend it very highly. Pkt., 5c; oz., 10c; ¼ lb., 35c; 1 lb., \$1.50.

Detroit Dark Red Beets.

IMPROVED EARLY BLOOD TURNIP (47 days)—A dark red Beet, smooth and of uniform size. It keeps well, thus making it one of the best sorts for main crop. The quality is excellent. Pkt., 5c; oz., 10c; ¼ lb., 30c; 1 lb., \$1.00.

EARLY ECLIPSE (44 days)—We regard this as one of the most valuable varieties for either market or private gardens; it is remarkable for its very rapid growth, perfection of form, beautiful crimson flesh, and for its dwarf foliage; the roots are of a bright, glossy red, very fine grained and of delicious flavor. Pkt., 5c; oz., 10c; ¼ lb., 35c; 1 lb., \$1.00.

IMPROVED LONG BLOOD (70 days)—Grows from 12 to 14 inches long, and from 3 to 5 inches thick; quite productive, but not of such good flavor as the Red Turnip. Pkt., 5c; oz., 10c; ¼ lb., 35c; 1 lb., \$1.00.

Mangel-Wurzel

Every farmer knows the value of the Mangels for stock-feed, and every year an increasing number of farmers are raising an acre or more of the roots. The roots may be stored for winter use, and they make a desirable change in the feed for dairy cattle, improving their condition and increasing the milk-flow.

MAMMOTH LONG RED—Grows to an enormous size in deep, rich soil; is an excellent keeper. Yields about 1,500 bushels per acre. Pkt., 5c; oz., 10c; ¼ lb., 15c; lb., 50c, postpaid. Five lbs., by express, \$1.75.

GOLDEN TANKARD—Another enormous cropper; very rich in sugar; skin and flesh deep orange-yellow; round. Large pkt., 5c; oz., 10c; ¼ lb., 15c; lb., 50c, postpaid. Five lbs., by express, \$1.75.

Swiss Chard

Sometimes called Sea Kale, Silver Beet, and Celery Beet. The leaves only are used, the midrib being cooked like asparagus; the outer portion is used as greens.

LUCULLUS—It grows from 2 to 2½ feet tall. The leaves are crumpled; the stalks are thick, somewhat resembling rhubarb in appearance. Both the leaves and stalks are very crisp and tender and of the finest quality. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.10.

Crosby's Egyptian Beets.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Field of Cabbage Grown from Gorman's Reliable Cabbage Seed.

Gorman's Reliable Cabbage Seed

One ounce of seed will sow 300 feet of drill; 6 ounces will provide plants enough for one acre.

Have the soil in your bed in the best possible condition. Do not make it too rich or your plants will grow quickly and consequently be weak. Such plants will not stand the shock of transplanting. Soil that has been manured the previous year is to be preferred. Seed should be drilled 6 inches apart, and not too thick; cover lightly and press the soil down firmly around seed. Keep plants watered and free from weeds. Plant during February and March, again in July and August. For spring and summer crop, sow from August 15 to November 1. Cabbage needs constant cultivation to succeed best, and we advise rows 2½ feet apart with plants 18 inches apart in the row. The varieties of Cabbage we list are those we know will give the greatest satisfaction to Southern growers, especially to the market gardeners who wish the best varieties to grow for quick profits, also best for home or private gardens.

EARLY JERSEY WAKEFIELD (72 days)—This is a favorite sort for market gardeners and truckers to grow for earliest Cabbage, both for home market and for shipping. Makes compact, solid, blunt-pointed heads; its small leaves permit close planting. Pkt., 10c; oz., 75c; ¼ lb., \$2.50; lb., \$8.50.

EARLY DWARF FLAT DUTCH (100 days)—Continued experience confirms our belief that this is the most

valuable second-early sort. The plant is short-stemmed, upright and having comparatively few and short leaves, the rows can be set close together. Head large, nearly round or slightly flattened, very solid and uniform in size and shape. Practically every plant will form a good, solid head. Pkt., 10c; oz., 60c; ¼ lb., \$1.60; lb., \$6.00.

SUCCESSION (115 days)—Largely a market gardener's variety in many parts of the South being used almost exclusively for shipping crops. Of rather large size, well flattened on top. In maturity, it is several days later than Early Summer and Early Flat Dutch. Is firm and solid, a very sure header and stands shipment well, arriving in good condition and color. Pkt., 10c; oz., 65c; ¼ lb., \$1.75; 1 lb., \$6.50.

CHARLESTON WAKEFIELD (80 days)—One of the leading varieties among market gardeners in the South and it deserves its popularity, for its merits are many. Heads are large, conical in shape, though heads are not quite so pointed as Jersey. Makes hard compact heads that carry well and usually sold at highest prices. The strain we offer is first class in every particular and sure to give perfect satisfaction. Pkt., 10c; oz., 75c; ¼ lb., \$2.25; 1 lb., \$8.50.

Late Cabbage

LARGE LATE DRUMHEAD—We especially recommend this sort as a large, deep, solid-headed variety. Will do better on poor soil than any other late Cabbage; a good keeper and shipper. The heads can be kept in good condition a long time. The plant has a short stem, rather large outer leaves, and is very sure heading. This strain of Drumhead cabbage is the result of much care in developing to maintain good qualities. Pkt., 10c; oz., 65c; ¼ lb., \$1.75; lb., \$7.00.

GREEN GLAZED CABBAGE—A Cabbage of similar habits to the collard, a worm-proof and very desirable sort. Vigorous in growth and stands the cold well; not a tight header. Pkt., 10c; oz., 75c; ¼ lb., \$2.00; lb., \$7.50.

Early Jersey Wakefield.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Succession.

Frost-Proof Cabbage Plants

The Cabbage plants supplied by us are raised on the coast of South Carolina, in the open ground. They are stocky, will stand our climate, and make you Cabbage from three to six weeks earlier than home-grown plants. They are of as good grade as can be had, as they are raised from the highest quality of American-grown seed. You cannot afford to take chances with weak, home-grown plants. Order today a quantity of these plants, and be sure of a nice crop of Cabbage. This season we are prepared to furnish the following: Early Jersey Wakefield, Charleston Wakefield, Henderson's Early Summer, Succession, Early Flat Dutch, Late Drumhead.

PLANTS POSTPAID BY PARCEL POST.—We are prepared to deliver to your door, plants by mail, as follows: To Alabama, Florida, Tennessee, and Mississippi, 500 postpaid for \$2.00; 1,000 postpaid for \$3.75. To North and South Carolina and Georgia, 500 postpaid for \$2.00; 1,000 postpaid for \$3.75. 100 plants to any address for 50 cents. To other states not mentioned, we shall be pleased to quote plants postpaid upon request.

CABBAGE PLANTS BY EXPRESS COLLECT.—500 plants for \$3.15; 1,000 to 5,000 lots, \$3.25 per 1,000; 5,000 to 9,000 lots, \$2.75 per 1,000; 10,000 and over, \$2.50 per 1,000. Packed in crates of 500, 1,000 and 2,000 each, one variety in each crate. We do not ship plants C. O. D.

Gorman's Frost Proof Large Drumhead.

LATE CABBAGE—Continued.

GORMAN'S FROST-PROOF LARGE DRUMHEAD (120 days)—A sort which stands out in the open fields all winter without the slightest protection. High, cold winds do not kill it, nor does snow or ice. It is by far the hardiest of any Cabbages grown by us, and has proved of exceeding value in localities of variable winter temperatures, as rapid fluctuations do not hurt it in the least. The Frost-proof has a short stem, little useless foliage, and makes deep blue and wide leaves, which fold over in opposite pairs, making a broad, flat, hard head, all very uniform in size. This Cabbage we recommend for use in districts where Cabbage-growers run risks of early and late frosts. Pkt., 10c; oz., 65c; $\frac{1}{4}$ lb., \$1.75; lb., \$7.00.

AMERICAN DRUMHEAD SAVOY—Winter Cabbage. It takes a remarkably hard spell of cold weather to kill this Cabbage. Its growth is very much like a collard, being greatly improved by frost, rendering it tender and delicious; heads large, leaves crinkly but compact. All the Savoyes are adapted to Southern planting, giving good crops. Pkt., 10c; oz., 65c; $\frac{1}{4}$ lb., \$1.85; lb., \$7.00.

LARGE LATE FLAT DUTCH—This is the leader in late flat-headed sorts. No other variety is quite so sure a header. The most popular sort in all sections for fall shipping; large-leaved and short-stemmed. Market-growers and buyers in general consider this one of the best varieties in cultivation for winter use. It keeps well, ships well, and best of all brings a good price in local and Northern markets. Pkt., 10c; oz., 65c; $\frac{1}{4}$ lb., \$1.75; lb., \$7.00.

Danish Ball Head.

Carrots

Select rich soil that is worked deep. To produce the finest crop, the land should be thoroughly manured the previous season; forked roots will result if the seed is sown on freshly manured soil. Sow the early sorts in March and April, in drills 1 inch deep and 14 inches apart; thin out to 6 inches. For main crop sow in May or beginning of June. Care should be taken at all times, to see that the soil is firm over the seeds, either by means of the feet, roller or garden drill. One ounce will sow 100 feet of drill.

DANVERS HALF-LONG—One of the most productive, and suits all kinds of soils. The roots are smooth and handsome, deep orange color, medium length, tapering to a blunt point. The flesh is sweet, crisp, and tender. The best variety for general purposes and the most largely used, not only for stock raising, but for table use as well. Pkt., 5c; oz., 15c; ¼ lb., 40c; lb., \$1.25, postpaid. By express, lb., \$1.15.

IMPROVED LONG ORANGE—A very heavy cropper. Roots are long and thick. An old favorite. Very handsome and uniform in shape; roots are of a deep orange; good flavor; yields very heavily. Requires a deep soil. The roots are smooth, fine-grained and very large. For feeding milch cows it is very valuable. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.00, postpaid.

Corn Salad

Sow Corn Salad in the spring, setting the seed in drills about a foot apart. For winter and early spring use, sow in August or September. Ready to eat six weeks after planting.

LARGE ROUND-LEAVED—Frequently used during winter as a substitute for lettuce or for cooking like spinach; if sown in late fall it will be ready for use early in spring. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 85c, postpaid.

Danvers Half Long.

Collards

One of the most popular Southern vegetables; largely used in the place of cabbage. It is hardier and easier to grow than cabbage, can be grown on poorer soil and withstands insects better. Although often sown during the spring and summer, the principal sowings are made in June, July, and August, transplanted a foot apart in the row and given frequent cultivation. They make a most excellent vegetable for the late fall, winter, and early spring. The flavor is improved by frost. Cultivate like late cabbage.

NORTH CAROLINA SHORT STEM—A decided improvement and has proved very popular wherever grown. Has short stem, large spreading leaves; very hardy, notwithstanding drought in summer and cold in winter. Its flavor and cooking qualities are the very best. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid. By express, not prepaid, lb., \$1.15.

IMPROVED GEORGIA WHITE—Called "Cabbage Collard" in some parts because of its close-bunching habit and general resemblance to a cabbage. Extremely hardy and grows on the poorest soils; as white and crisp as cabbage. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid. By express, not prepaid, lb., \$1.15.

TRUE GEORGIA, or SOUTHERN—The well-known and popular Collard that has been grown for generations in the South. This variety is hardy in our climate, and stands all sorts of conditions. On soils too poor to grow even cabbage, True Georgia Collard will produce an excellent crop. You should plant it for either home or market use. Pkt., 3c; oz., 8c; ¼ lb., 35c; lb., \$1.25, postpaid. By express, not prepaid, lb., \$1.15.

Ox Heart Carrots.

The section of this catalog which is devoted to dairy supplies and implements will be of great interest to the up-to-date dairyman. Look it over carefully and see where you can increase the efficiency of your plant.

Golden Self-Blanching Celery.

Cauliflower

Cauliflower requires very high cultivation, even more so than cabbage, and plenty of moisture. Coldframe plants are probably the best and hardiest for early crops; the frames, however, need rather more protection during cold nights than is required for cabbage plants. Seed sown in hotbeds in February will produce plants that are not inferior to coldframe plants. They should be transplanted once before setting in the open ground, and also should be gradually hardened by exposure; in this way they may be in condition to set out as early in April as the ground will permit. Set the early sorts about 2 feet by 15 inches, and cultivate the same as cabbage. Where irrigation is practicable, great advantage is thus obtained during a drought. For late Cauliflower, sow seed in open ground, from the middle of May to the middle of June, in hills the same as directed for late cabbages. When the heads are forming, tie the leaves together at the top, thus avoiding the discoloration by exposure to the sun. One ounce of seed produces about 2,000 plants.

EARLY SNOWBALL—The earliest variety and the surest to head. It is probably more largely grown than all other varieties combined, not only for early use but late as well, and has to a great extent displaced all of the once popular late sorts. Owing to its compact habit and few, narrow, upright leaves, it is the most desirable for forcing and, for the same reason, can be set much closer in the field than others. Pkt., 25c; $\frac{1}{4}$ oz., \$1.00; $\frac{1}{2}$ oz., \$1.75; 1 oz., \$3.50, postpaid.

Early Snowball Cauliflower.

Celery

One ounce of seed will produce about 2,000 plants.

Culture.—Celery should be planted in a moist, fertile soil. In preparing for celery use heavy applications of either well-rotted manure or high-grade commercial fertilizer. In the South celery can be planted in the spring and again in the fall, though the latter planting must be in the extreme South. Seed for Fall crop should be sown in August or September in beds that are well shaded, seed covered about $\frac{1}{4}$ inch deep, and as plants grow, shear the tops to force a stocky growth. When six inches or more high, transplant into field and either hill up with soil or blanch or use the board method as they do in Florida and other sections that supply large quantities to the markets.

Of the Self-Blanching Early Varieties, the **Golden Self-Blanching** is the finest and most generally known. The plants are of strong, stocky growth, with broad, thick stalks, which blanch readily to a clear, waxy yellow.

White Plume is distinct from the **Golden Self-Blanching** in being taller in growth, more slender in stalk and blanches to a pure, snowy whiteness. It is a valuable market sort on account of its extreme earliness.

Giant Pascal is the best for winter use, but not for shipping.

GOLDEN SELF-BLANCHING (115 days)—This is the most popular variety grown in the South. It is in condition earlier than others and we doubt if you will find a strain that is better than the one we offer, for the reason that we import direct from a French grower and the quality and appearance of our Golden Self-Blanching is unsurpassed. The plants are medium size, of stocky, compact growth, with yellowish green foliage. Its crispness, tenderness, freedom from stringiness, and fine flavor have a reputation among market gardeners who make a business of growing Celery. There is not a superior sort for first early planting. Pkt., 10c; oz., \$1.00; $\frac{1}{4}$ lb., \$3.75.

GIANT PASCAL (135 days)—This is a green leaved variety, and is an excellent sort for fall and winter use. It blanches to a beautiful yellowish-white color, is very solid and crisp and of a fine nutty flavor. Pkt., 10c; oz., \$1.00; $\frac{1}{4}$ lb., \$1.75.

WHITE PLUME (110 days)—A fine home use variety, and popular with some for shipment to market. It is very early, and attractive in appearance. Blanching very quickly to a perfectly white waxy color, with green leaves, tipped with white. Pkt., 5c; oz., 25c; $\frac{1}{4}$ lb., 75c; 1 lb., \$2.75.

Sweet Corn

Culture.—Sweet Corn should be planted as soon as danger of frost is over, using one of the early sorts and one of the medium or late varieties so as to have them mature in succession. You can continue to plant the two varieties at intervals of two weeks until about middle of July and you will have fresh corn until Fall season. Soil should be rich and cultivated often. Plant in hills 3 feet each way, dropping three to four seeds to the hill and thinning to two when up. Adams early and other dwarf varieties can be planted closer or in rows, dropping seed 12 to 18 inches apart in the row. One quart will plant 200 hills; one peck will plant one acre. Priced by measure.

STOWELL'S EVERGREEN (85 days)

—A late variety that is very popular among market gardeners and also for home use on account of its wonderful keeping qualities. It will hold its fresh, tender, sweet condition longer than other sorts. Makes fine large ears and has become very popular as a shipper. Pkt., 5c; qt., 30c.

COUNTRY GENTLEMAN (75 days)—

This we might call an intermediate as it is often used as a second early following Adams Early. It is one of the best of sweet corns and our strain will be found true to type, making ears 8 to 9 inches long with grains that are true "shoe peg" in shape. Pkt., 5c; qt., 30c.

GORMAN'S SNOWFLAKE, or TRUCKER'S FAVORITE

—For a second-early to follow the Adams' Early, this is unquestionable one of the best; or for planting late to mature quickly, it is equally valuable. It is a white Corn, with a good depth of grain, tender and sweet, and makes a most desirable size for roasting. Ears average 8 to 10 inches long. Besides being a fine garden Corn, it makes a splendid field Corn for late planting. Pkt., 5c; qt., 40c, postpaid. By express, or freight, not prepaid, qt., 30c; ½ pk., 50c; pk., \$1.25; bu., \$4.00.

Stowell's Evergreen.

The seeds that we list in this catalog are grown specially for us, and are under the constant care of experts who have made seed-growing a constant study. We know that you will not get better seeds, no matter where you buy.

Pop Corn

Pop Corn requires about the same care as Sweet Corn. The seed may be planted a little earlier, and, as the stalks are smaller, the hills may be closer together. About four pounds of seed are required for an acre.

MONARCH WHITE

RICE—Very productive; ears true to type; grains tender, white, sweet, and very large when popped; three to six ears per stalk. Pkt., 5c; ½ pt., 10c; pt., 18c; qt., 30c, by mail, postpaid. By express or freight, not prepaid, pt., 25c; qt., 40c.

Ask for Quantity Prices on Corn of All kinds.

Country Gentleman.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

GOLDEN BANTAM (75 days)—

An extra early that has been introduced only a short time, but on account of its delicious flavor, early habits and rich color, it has become one of the most popular sweet corns of the entire list. Pkt., 5c; qt., 35c.

EARLY ADAMS (70 days)—

This is not a sweet corn but on account of its extreme earliness and soft white grains, which are very tender and used as roasting ears, it has become one of the favorite first early sorts. Pkt., 5c; qt., 30c.

Cucumbers

One ounce of seed will plant about 50 hills; 2 to 3 pounds will plant an acre.

Culture.—For general use, sow in open ground as soon as weather is sufficiently settled. Plant in hills 4 feet apart each way, putting a shovel of well-rotted manure in each hill. Drop 5 to 7 seeds in each hill and when vines start to run thin out to 2 plants. If wanted very early, sow two or three seeds in a 4-inch pot and transplant to open ground when danger of frost is past. Gather the cucumbers when ripe enough for use, whether required or not; if left to ripen, the vines stop bearing. Give frequent but shallow cultivation until the plants make runners so long that this is impracticable. This is one of the vegetables that can be grown to perfection by anyone who can control a few square yards of reasonably good soil that is fully exposed to the sun. Every family should be supplied from its own garden. The striped cucumber beetles which attack the plants may be cut off by frequent dusting with air-slaked lime, root or sifted ashes with fine road earth.

EARLY GREEN CLUSTER—Early to mature, bearing clusters, very vigorous and prolific. Excellent early kind. Fruits are short, thick, bright green, shading lighter at the blossom end, crisp and tender. Packet, 3c; oz., 6c; ¼ lb., 35c; ½ lb., 60c; lb., \$1.10.

GORMAN'S LONG GREEN—A standard sort, producing long, straight, smooth fruits, sometimes growing 18 inches in length. The flesh is fine-grained and of the most refreshing and delicious flavor. Pkt., 5c; oz., 10c; ¼ lb., 40c; lb., \$1.20.

IMPROVED WHITE SPINE—The vines are hardy, of strong, vigorous growth, and fruiting very freely. The fruit is thickly set with small spines. The straight young fruits possess the distinctly roughened surface so much desired for small pickles. Pkt., 5c; oz., 10c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25.

JERSEY PICKLING—This variety is between the long and the short green, forming a long, slender pickle which is very crisp and tender. The vines are very vigorous and productive. This sort is excellent for slicing as well as for pickling. Pkt., 5c; oz., 10c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25.

Early Green Cluster.

Cultivation

The necessity for constant and thorough cultivation of the garden cannot be over-emphasized. Too many gardeners neglect their gardens, allow the weeds to choke out the vegetables, and permit the ground to become baked and then complain that their failure was caused by poor seed. Give the seed a chance — and your garden will be a source of profit and satisfaction.

Gorman's Improved Long Green Cucumbers.

BOSTON PICKLING—A very productive variety, extensively grown for pickles. Vines are vigorous. Fruits bright green, of medium size, very smooth; flesh crisp and tender. Pkt., 4c; oz., 8c; ¼ lb., 35c; ½ lb., 60c; lb., \$1.00.

Selected Early White Spine.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Egg Plant

One ounce of seed produces 100 plants.

Culture.—Eggplant seed germinates slowly and should be started in a hotbed. The soil should be one part leaf-mold and one part sandy loam. It is important to secure a rapid and continuous growth. Set 30 inches apart, pinch off the larger leaves when transplanting. Four ounces of seed will supply enough plants to set an acre. It is desirable to shade young plants from very hot sun. It is a good policy to pinch off the ends of the branches after they begin to bloom, so that only three or four fruits will set. Hoe frequently and hill up gradually until the plants begin to bloom.

IMPROVED N. Y. PURPLE (125 days)—This is the most popular variety among market gardeners in the South and quite a favorite for home gardens as well. A standard sort both in the North and the South. The large size and fine quality of fruit and its extreme productiveness make it most profitable. Plants large, spreading; fruit very large, oval; color a splendid dark purple. It is spineless, makes large fruit of fine quality. Considered very productive, usually bearing four to six fruits to the plant. Pkt., 10c; oz., 65c; ¼ lb., \$2.00; 1 lb., \$7.50.

BLACK BEAUTY (125 days)—This variety bears large, well-formed, dark purple fruit, that ripens several days earlier than N. Y. Purple. We have a particularly fine strain of this and we feel sure that a trial will convince you of its merits. It is really a "Beauty." Pkt., 10c; oz., 65c; ¼ lb., \$2.00; 1 lb., \$7.50.

Improved New York Purple.

Endive

One ounce will sow 150 feet of drill and produce about 2,000 plants.

Culture.—The first sowing should be made in early spring, drill seed and when well up thin out as you would Lettuce, leaving plants about twelve inches apart. Second sowing can be made in July or August for early winter heading. If you desire to bleach the heads, tie the leaves together at the top when nearly full grown.

GREEN CURLED (48 days)—Hardest variety; the most desirable for home use or market garden. Deep green leaves, beautifully cut and curled; easily blanched. The most popular sort with Southern growers. Pkt., 5c; oz., 10c; ¼ lb., 35c; 1 lb., \$1.25.

WHITE CURLED (50 days)—A very beautiful variety. Plants moderately dense; leaves coarser than those of Green Curled; the midrib is yellow and the leaves white. This does not need blanching. Pkt., 5c; oz., 10c; ¼ lb., 35c; 1 lb., \$1.25.

BROAD-LEAVED BATAVIAN (Escarolle) (50 days)—Broad, thick and slightly wrinkled leaves; forms very large heads, which are much used in soups. The most popular variety around New Orleans. Pkt., 5c; oz., 15c; ¼ lb., 40c; 1 lb., \$1.50.

Kale or Borecole

One ounce of seed sows 200 feet of drill.

Culture.—Same as for cabbage. Can be sown from April to June and again in August or September. Makes excellent greens and is improved by frost.

DWARF GREEN CURLED SCOTCH (50 days)—As indicated by its name this variety does not grow very tall, only about 15 to 18 inches. Leaves are curly, tender and of fine flavor. Pkt., 10c; oz., 20c; ¼ lb., 75c; 1 lb., \$2.50.

TALL GREEN CURLED SCOTCH (65 days)—Grows about two feet high, leaves very curly, bright green in color and very attractive, good quality. Pkt., 10c; oz., 20c; ¼ lb., 75c; 1 lb., \$2.75.

SIBERIAN (65 days)—Larger than Scotch Kale, leaves bluish green in color, quality fine and very popular in some sections. Pkt., 10c; oz., 15c; ¼ lb., 60c; 1 lb., \$2.00.

If you are interested in dairies, you should not fail to inspect our line of dairy equipment. We handle up-to-date supplies, everything needed for the operation of a first-class, modern dairy.

Kale or Borecole.

Herbs, Sweet and Medicinal

No garden is complete without herbs for medicinal and culinary purposes. Cut just before they bloom, dry quickly in the shade and pack closely in tight boxes. They retain their medicinal or other properties for an indefinite period if cared for in this way, and will give you seasoning material at all times.

	Pkt.	Oz.
Anise. Seeds aromatic and medicinal....	\$0.05	\$0.10
*Balm. Used for tea; medicinal.....	.05	.20
Borage. For bee-feed and salad.....	.05	.10
*Caraway. Seeds used in cakes and candy..	.05	.10
*Catnip. Medicinal	.05	.30
Coriander. Seeds used for confectionery..	.05	.15
Dill. Seeds aromatic	.05	.15
Horehound. Medicinal	.05	.20
*Lavender. Aromatic, medicinal.....	.05	.20
Marjoram, Sweet. Used for seasoning....	.05	.15
Pennyroyal. Medicinal	.10	
Peppermint. Used for seasoning	.20	
*Rosemary. Aromatic; seasoning	.05	.20
*Rue. For medicinal purposes.....	.05	.20
*Sage. Seasoning and medicinal, $\frac{1}{4}$ lb., 27c	.05	.20
Summer Savory. Seasoning	.05	.20
Basil. For seasoning	.05	.20
*Thyme. Seasoning and medicinal.....	.05	.20
*Wormwood. Medicinal	.05	.20

Those marked * are perennials, and when once established, will remain for years with little care.

Dill.

Sweet Marjoram.

Horse Radish Roots

Horse Radish.

Horse Radish produces no seed but is grown from pieces of the roots. Mark off rows, two and one-half feet apart in rich, moist, well-prepared ground, and set the pieces of roots eighteen inches apart in the rows, vertically, the small end down, and the top, one to two inches below the surface. Cultivate thoroughly until the tops cover the ground, when their shade will keep down the weeds. Horse Radish makes a most appetizing condiment to be used with meats. It is also very good boiled with a cream dressing. The tops make fine "greens." Every part of the plant possessing food value.

An acre requires about 11,000 roots. Small roots, dozen, 15c; per 100, 60c; per 1,000, \$5.00.

Be Sure to Order Early

Just as soon as you look this catalog through, sit right down and send us your order. There's an order blank here for your convenience. Use it—that's what it's for. Don't wait until the last minute when you are in a hurry and we are hustling to fill orders as fast as they come in.

Be particular to order early this year. Too much care can not be given after the seeds and plants are in the ground. Every atom of foodstuff will be needed during this critical time.

Leek

One ounce will produce 1,000 plants.

Culture.—Sow early in the spring, in drills 6 inches apart; thin out to 2 inches apart. When 7 inches high transplant to rows 12 inches apart, setting as deeply as possible without covering your center leaves. Hill up as they grow.

LONDON FLAG (95 days)—This well known broad leaved leek is hardy, productive, of good quality, and is extensively cultivated in this country. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.15.

LARGE AMERICAN FLAG (95 days)—A desirable strong growing, broad leaved leek, hardy and productive. It is a favorite with many market gardeners and is also extensively used for home garden. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c; 1 lb., \$1.25.

Kohl Rabi

One ounce will sow 200 feet of drill.

A peculiar vegetable belonging to the Cabbage family and forming a turnip-shaped bulb above the ground, which is used in the same manner as turnips. For garden cultivation give same treatment as Cabbage. Sown in June or July for fall use. Kohl Rabi is an excellent vegetable and is becoming more popular each year.

EARLY WHITE VIENNA—A very satisfactory variety of good quality. Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 60c; 1 lb., \$2.

Kohl Rabi.

Lettuce

One ounce of seed sows 120 feet of row, produces 3,000 plants. .

One of the finest salad plants that we have. Thousands of pounds are grown in the South and shipped to Northern markets. For extra-early crops it is customary to start the plants in a hotbed or coldframe, and then transplant to the open ground where there will be sufficient room for the plants to head. The customary method is to make the rows 14 to 16 inches apart, setting the plants about 10 inches apart in the row. This allows ample space for cultivation. The soil should be well fertilized before setting the plants, and thorough cultivation is the prime requisite if large heads are desired. The seed we offer this season we believe to be of the very highest percentage of germination.

IMPROVED BIG BOSTON—Too much praise cannot be given our strain of this splendid Lettuce. It has steadily gained in popularity until now, throughout the large trucking sections of the South, it is more extensively grown than all other varieties. It may be grown in the open ground for summer and fall use, or in frames under canvas, and always makes large, fine, buttery heads with thoroughly blanched hearts, crisp, tender, white, and sweet. It gives the best satisfaction under all possible conditions. A splendid market variety. We do not hesitate to recommend Big Boston for any purpose. Pkt., 5c; oz., 20c; ¼ lb., 75c; lb., \$2.50.

Field of Big Boston Lettuce in Jefferson Co.

BLACK SEEDED SIMPSON (45 days)—May be planted outdoors very early; good for the amateur who does not transplant or thin his crop. Leaves thin, tender, large and very light green. Pkt., 5c; oz., 10c; ¼ lb., 25c; 1 lb., 90c.

HANSON—This is a standard crisp-headed Lettuce, growing to a very large size; is uniformly a sure header; heads solid, beautifully blanched; the inside is crisp, mild, and tender. It is one of the finest varieties grown for market during midsummer. Splendid for filling the barrel quickly. Pkt., 5c; oz., 10c; ¼ lb., 40c; lb., \$1.25.

CALIFORNIA CREAM BUTTER—Heads large, round and of a beautiful appearance. The outer leaves are glossy green, marked with small brown spots; the inner leaves are of a rich cream-color; medium early, and makes a good sort for summer use. Very thick, tender and of buttery flavor. Pkt., 5c; oz., 15c; ¼ lb., 50c; lb., \$1.35.

PRIZE HEAD—A large-heading, medium dark green variety. A splendid summer or general-crop sort. We believe our Prize Head Lettuce is one of the largest loose-heading sorts in existence. Not recommended as a shipper. Pkt., 5c; oz., 15c; ¼ lb., 30c; lb., \$1.00.

PARIS WHITE COS—A popular old variety, growing to a large size, with long, conical, compact heads, blanching well when tied. Pkt., 5c; oz., 15c; ¼ lb., 50c; lb., \$1.60.

Hanson Lettuce.

Paris White Cos.

Important Notice

Owing to existing conditions we cannot guarantee prices as quoted in this catalog, and same are subject to change without notice. You should order seeds at the earliest possible moment.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Mustard

One ounce will sow 75 feet of drill.

Used as a condiment, and the green leaves are used as a salad or cut and boiled like spinach. For early salad, sow thickly in a gentle hotbed in February and March, and for general crop, at intervals during spring, in very fine soil, in rows 6 inches apart; it should be cut when about 1 inch high. A mixture of Mustard and Cress makes a very delightful salad. For a succession sow every few weeks till autumn.

SOUTHERN GIANT CURLED

—The true curled-leaf variety so popular in the South for planting in the fall, to furnish an early spring salad. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.00.

OSTRICH-PLUME CURLED—This is a fine variety, very ornamental in appearance, producing large, beautiful, curled leaves. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.00.

Ostrich Plume Mustard.

CHINESE BROAD LEAF—The leaves are twice the size of the ordinary White Mustard, while the flavor is sweet and pungent. Plant of very quick growth and fairly upright. This sort is preferred by many, as it is more easily prepared for the table than the rougher leaved variety. Pkt., 4c; oz., 8c; ¼ lb., 25c.

Okra or Gumbo

One ounce will sow 30 feet of drill.

Culture.—When the ground has become warm, sow thickly in drills 3 feet apart, and when large enough, thin out to a foot apart in the rows. The young seed pods are used in soups, stews and catsups. Cultivate and keep free from weeds. The pods are in best condition for use when from 2 to 3 inches long.

WHITE VELVET (60 days)—The pods are extra long, round, white and smooth. Pkt., 5c; oz., 10c; ¼ lb., 20c; 1 lb., 50c.

DWARF GREEN PROLIFIC (55 days)—Short podded but very prolific. Pkt., 5c; oz., 10c; ¼ lb., 20c; 1 lb., 50c.

PERKIN'S MAMMOTH POD (60 days)—Extra large pods, deep green in color and fine flavor. Pkt., 5c; oz., 10c; ¼ lb., 20c; 1 lb., 50c.

FRENCH MARKET (60 days)—Very prolific, long podded, tender and of excellent quality. Pkt., 5c; oz., 10c; ¼ lb., 20c; 1 lb., 50c.

Notice We aim to give our trade the best prices prevailing at the time they are in the market. At the present time prices are advancing constantly, so we advise all our customers to place their orders at once. Besides the wonderful saving, by ordering early you get your seeds when you want them, and we are able to give you the best of service.

Have a Garden This Year

Don't depend on somebody else for the fresh vegetables you eat. Be independent. Plant your own garden. If you keep all you grow, you will save money. If you sell your surplus crop, you will make money. A good garden pays for itself many times in the course of a season.

Okra.

Giant Southern Curled Mustard.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Muskmelons

The Most Delicious of Selected Varieties

One ounce will plant about 75 hills; 3 to 4 pounds will plant an acre.

Culture.—A rich, deep, sandy loam, well worked and highly manured, is of the first importance. Plant when all danger of frost is over, in hills 5 to 6 feet apart each way; scatter a dozen seeds to a hill, and, after they are out of danger from bugs, thin to three or four plants. When they have four or five rough leaves pinch off the end of the main shoot, which will cause the lateral branches to put forth sooner. This will strengthen the growth of the vines, and the fruit will come earlier to maturity. A mixture of lime and tobacco dust scattered on plants while dew is on will help keep down the bugs.

OUR IMPROVED ROCKY FORD (72 days)—We consider this type the highest development, both as to **netting** and **rust-resistant** qualities, yet attained in the Rocky Ford Cantaloupe. The melons run uniform standard size, the exceptionally heavy netting being laced over the entire surface of the melon, making it an ideal shipper. It is green fleshed, shading to salmon about the seed cavity, which is unusually small. The flesh is solid and fine grained, flavor unexcelled. Plant our improved **Rust Resistant** the coming season. You will get results. It will not disappoint you. The seeds we offer you were especially grown for seed and of the finest possible selection. Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 40c; 1 lb., \$1.25.

Gorman's Improved Rocky Ford.

Eden Gem.

EDEN GEM (75 days)
—This is an almost perfectly round, solid netted variety, with extra small seed cavity. Flesh very firm, thick and of excellent quality. A fine shipper as well as good home garden sort. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.10.

EXTRA EARLY HACKENSACK (72 days)—This early green-fleshed variety is popular in many sections as a market melon and is also extensively used as a home garden sort. The fruits are nearly two weeks earlier than Hackensack, medium to large sized, nearly round or somewhat flattened, evenly and deeply ribbed and with very coarse netting. The skin is green, slightly tinged with yellow as the fruits mature. The flesh is green, a little coarse but juicy and sweet. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 90c.

EMERALD GEM—For home or market use there is no better variety. No other variety is uniformly of such rich flavor and sweetness. The flesh, which is thicker than in any other melon of equal size, is of a beautiful rich salmon color, and sweet and luscious beyond expression. Emerald Gem is of medium size, prolific and very early. Skin smooth, of a deep emerald green color. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.10.

Hackensack.

Insect Destroyers

Keep the insects off your plants. We carry the best insect destroyers in the market. See our list on page 57.

Watermelons

One ounce will plant about 50 hills; four pounds will plant an acre.

Alabama, Georgia, and Florida seem to be the home of the Watermelons. They are grown for private consumption, for the local market, and are shipped by the carload to the North. On a hot day, in summer there isn't anything that can quite take the place of a nice, sweet, juicy melon. They grow best in a white, sandy soil. They can also be grown to advantage in a clay soil if it is made light and fertile. Stable manure is generally considered the best fertilizer, although commercial fertilizers are largely used. About a dozen seeds should be planted in hills, which are made

Tom Watson.

from 8 to 10 feet apart each way. After the plants get their second or third pair of leaves, or after the bugs have practically disappeared, some plants can be pulled out. When fertilizer is applied during the growing season it should be well spread out two feet or more from the center of the hill, as the roots are wide-spreading rather than going deep into the ground. The first planting of seed can be made as soon as the ground gets warm, usually about the middle of April. The cultivation should be shallow but quite thorough; it is better to cut off weeds rather than to pull them up, as the latter disturbs the vine roots. In a small garden an ounce of seed will be sufficient for 25 hills.

FLORIDA FAVORITE (95 days)—This variety hardly needs an introduction; it has been a favorite with growers in this section for years and it deserves its popularity. Oblong in shape, rind dark green with lighter green stripes; flesh red, solid and very sweet. When ripened properly the flavor is delicious. This melon is one of the very best varieties on our list and one which will always give eminent satisfaction. Don't fail to include it when ordering seeds. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 80c.

Alabama Sweet.

TOM WATSON—This variety has just about monopolized the melon markets of the country, owing to its size and quality. We have seen solid carloads forty-five pounds per melon, and few cars are shipped that do not average more than 20 pounds. In color it is green, mottled with lighter shades; rind thin, but tough; flesh of a peculiar deep but bright red, very sweet. Seed medium size, white and brown. We have choice selected stock to offer. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00.

GYPSY, or GEORGIA RATTLESNAKE—One of the largest, oldest and most popular sorts in the South. Fruit oblong, of light green, distinctly striped and blotched with a darker shade; the flesh is bright scarlet and very sweet. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 90c.

ALABAMA SWEET (95 days)—This deserves more attention from market growers than many varieties offered. It is large in size, has fine flavor, flesh bright red, and quality not surpassed by any other variety on the market. It is very desirable as a shipper, carries well and usually brings good prices. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 90c.

AUGUSTA RATTLESNAKE (90 days)—A variety which has gained great popularity throughout the country for its size and fine shipping qualities, oblong shape, of light green color, and beautifully mottled and striped with a lighter shade; flesh scarlet, rind thin, very solid, and both sweet and delicious. Stands shipment well. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00.

See Our List of Insect Destroyers, Page 57

Harvesting the Melon Crop.

Gorman's Southport Yellow Globe.

Onions

One ounce will sow 100 feet of drill, 5 to 6 pounds in drills for an acre.

Culture.—Sow thinly in drill about $\frac{1}{4}$ inch deep and 1 foot apart; cover with fine soil and press down with the back of a spade or a light roller. When the young plants are strong enough thin gradually so that they stand 3 or 4 inches apart. Keep the surface of the ground open and free from weeds by frequent hoeing, taking care not to stir the soil too deeply or to collect it about the growing bulbs. In order to have good success with Onions, the soil must be properly prepared and richly fertilized, and they must be constantly, skillfully and thoroughly cultivated.

SOUTHPORT YELLOW GLOBE—(115 days).

A very hardy and exceedingly prolific late or main crop variety of the same general character and quality as the Southport Red Globe but the color is a rich yellow. The bulbs are large, globe-shaped, with rather full shoulder, ripening down very evenly, keep well and are suitable for shipping. The flesh is creamy-white, fine grained and of excellent flavor. Pkt., 10c; oz., 35c; $\frac{1}{2}$ lb., \$1.90; lb., \$3.50.

YELLOW GLOBE DANVERS—We have an unusually fine strain of this old and well known standard sort. Pkt., 10c; oz., 35c; $\frac{1}{2}$ lb., \$1.90; lb., \$3.50.

WETHERSFIELD, LARGE RED—Popular for market and home use; sure and heavy cropper; long keeper; grows to an immense size; of flattened form; skin purplish-red; flesh white, slightly tinged with pink. Generally cultivated for main crop. Pkt., 10c; oz., 35c; $\frac{1}{2}$ lb., \$1.90; lb., \$3.50.

WHITE PORTUGAL, or SILVERSKIN—An excellent and popular Onion for the family garden; of medium size, flat, symmetrical, very early, good keeper; skin and flesh white, fine-grained, and unusually mild and delicate; also largely used for pickles. Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 80c; lb., \$3.00.

PRIZETAKER—Grows to a large size; mild flavor and of exceedingly handsome appearance, but not a good keeper. Specially desirable for the home garden. Oz., 30c; $\frac{1}{4}$ lb., \$1.00; lb., \$3.00.

WHITE BERMUDA—This is a very early imported variety. Outer skin a pale yellow; size medium, shape flat, no neck; flavor very mild. A great yielder. Should be planted only in fall and transplanted later. Pkt., 10c; oz., 35c; $\frac{1}{4}$ lb., \$1.25; lb., \$4.00.

RED BERMUDA—The same as White Bermuda, only the outer skin is a light purplish red. Quality fine; flavor is good. Pkt., 5c; oz., 35c; $\frac{1}{4}$ lb., \$1.25; lb., \$3.50.

NOTE—All prices quoted in catalog are subject to change without notice.

Yellow Globe Danvers.

Prizetaker.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Onion Sets

We can supply Red, White, and Yellow Sets every month in the year, except during a short period in June and July. These are grown from the very highest quality of seed, and will produce excellent results. The Set is the proper thing for the home gardener to buy, because most of the Onions are pulled up and eaten green.

We do not guarantee prices on Sets. Write for special Prices.

WHITE SILVERSKIN—Pt., 10c; qt., 20c; ½ pk., 65c; pk., \$1.25; bu., \$4.00.

YELLOW DANVERS—Qt., 20c; ½ pk., 60c; pk., \$1.00; bu., \$3.50.

DARK RED—Pt., 10c; qt., 20c; ½ pk., 65c; pk., \$1.00; bu., \$3.75.

If Sets are ordered by mail, add 10c per qt. for postage.

Onion Sets.

Parsley

Culture.—One ounce to 125 feet of drill. Soak the seed a few hours in lukewarm water and sow early in the spring in drills one foot apart. Thin out to six inches. A few seeds sown in onion rows use no space. To preserve in winter transplant to a light cellar or glass frames. Used extensively for garnishing and seasoning.

CHAMPION MOSS CURLED—The most popular variety. We have a choice selected strain, with beautifully crimped and curled leaves. Prices, by mail, postpaid: Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00.

PLAIN—Leaves flat and deeply cut; often preferred to others on account of the very dark color, the hardness of the plant and its superiority for flavoring. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 75c, prepaid.

Parsley.

Parsnips

Culture.—Parsnips do the best in deep, rich, sandy soil. As the seed is slow to germinate, it should be sown as early as possible in drills two or three feet apart; cover one-half inch deep, and press the soil firmly over the seed; give frequent cultivation and thin the plants six or eight to the foot. One ounce of seed will sow 125 feet of drill; five to six pounds of seed to the acre.

HOLLOW CROWN, or LONG SMOOTH—A great cropper; long, white roots, tender, sugary and considered the best for general cultivation. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 65c, prepaid.

GUERNSEY—The roots do not grow as long as those of the Hollow Crown, but are of greater diameter and are more easily gathered. They are very smooth and have fine grained flesh of most excellent quality. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 65c, prepaid.

Hollow Crown Parsnips.

GORMAN'S SEEDS ARE DIFFERENT.

Some people put price ahead of quality with the result that they get seeds that are minus the quality. The seeds that we list in this catalog are grown specially for us, and are under the constant care of experts who have made seed-growing a constant study. We know that you will not get better seeds, no matter where you buy. It's always good judgment to plant Gorman's "Seeds That Never Disappoint."

Do You Keep Cows?

Or do your cows keep you? Help your cows to keep you by using up-to-date dairy equipment. We have a big line of supplies this year, in addition to everything you need in gardening.

Early Alaska.

Garden Peas

Two pounds sow 100 feet of row; 90 pounds for an acre.

Culture.—Peas succeed best on light, rich, loamy soil, which has been manured the previous season. Plant the smooth varieties in the spring, as soon as the ground can be worked, in rows 3 or 4 feet apart, planting seed two inches deep, giving the taller varieties more room between the rows. For succession plant every two weeks. The dwarf varieties can be planted in rows 2½ to 3 feet apart. Peas grown as a market crop are rarely staked, but when the taller varieties are grown for private use, a good plan is to sow them in double rows and stake with brush. They should be kept clean and the earth worked toward them two or three times during the growth.

EARLY ALASKA—(50 days). One of the most popular of the extra early sorts. Grows 2½ feet high, pods dark green, carries well regardless of distance. Its extreme earliness combined with productiveness makes it very profitable for market garden growers. Pkt., 10c; lb., 35c; 2 lbs., 60c, postpaid. 60 lbs., \$11.00, not prepaid.

LARGE-PODDED ALASKA—(50 days). As early as Alaska, with pods and peas almost double the size. More vigorous and productive. A greatly improved variety. Pkt., 10c; lb., 35c; 2 lbs., 65c, postpaid. 60 lbs., \$12.00, not prepaid.

FIRST AND BEST—(52 days). This variety has quite a good reputation and many growers still prefer it to other strains of extra earlies. Our stock of First and Best will give perfect satisfaction in every respect. Pkt., 10c; lb., 35c; 2 lbs., 65c, postpaid. 60 lbs., \$10.00, not prepaid.

TELEPHONE—(70 days). This has become very popular with market gardeners whose trade appreciates fine appearance and high quality. The vines are tall and vigorous, growing 4 feet high, with large, coarse, light-colored leaves and producing an abundance of pointed pods of largest size, often 4½ to 5 inches long, attractive bright green, filled with very large peas which are tender, sweet and of excellent flavor. Pkt., 10c; ½ pt., 20c; pt., 35c; qt., 65c; pk., \$3.50; bu., \$12.00.

PREMIUM GEM—(Improved strain of McLean's Little Gem). A very fine, extra early dwarf wrinkled pea for market and family use, growing 12 to 15 inches high and needing no brush. Pods large and crowded with six to nine very large peas of fine quality. Prices, by mail, postpaid: Pkt., 10c; pt., 35c; qt., 65c. Not prepaid: Qt., 50c; 4 qts., \$1.60; pk., \$3.00.

NOTT'S EXCELSIOR—(53 days). This variety is midway in character of vines and pod between the American Wonder and McLean's Little Gem, and combines the good qualities of each. One of the very best for the family garden. Pkt., 10c; lb., 30c; 2 lbs., 50c, postpaid; 56 lbs., \$12.00 not prepaid.

Telephone Peas.

PEAS—Continued.

BLISS' EVERBEARING—(70 days). The vines are stout, of medium height, about 2½ to 3 feet, bearing at the top six to ten good sized pods, about 2½ to 3 inches long. The peas are large and wrinkled, cook very quickly, are tender, of superior flavor, and are preferred by many to any other sort. Pkt., 10c; lb., 35c; 2 lbs., 65c, postpaid. 56 lbs., \$12.00, not prepaid.

GRADUS, or PROSPERITY—(55 days). This extra fine variety combines earliness with large size. It closely follows the Extra Earlies in maturing. It grows about 2½ feet high, very vigorous and bears handsome large pods in greater quantities than other large podded wrinkled sorts. It has attracted more attention from market gardeners than any other variety of recent years. Pods are 4 to 4½ inches long, nearly round, and filled out well with large, handsome peas. Pkt., 10c; lb., 35c; 2 lbs., 65c, postpaid. 56 lbs., \$12.00, not prepaid.

MELTING SUGAR, or SALAD PEA—A good sort; early, prolific and very sweet. The seed is round, slightly wrinkled, and hardy of germination. Pkt., 35c; qt., 65c; pk., \$3.00. By mail, postpaid: Pt., 40c; qt., 65c.

Large Podded Alaska.

LARGE WHITE MARROWFAT—(75 days). About five feet high; of strong growth. Pods large, round and well filled. Seed large and excellent for summer use. Undoubtedly one of the most productive of garden varieties and a favorite for market. Pkt., 10c; lb., 35c; 2 lbs., 65c, postpaid. 60 lbs., \$8.00, not prepaid.

BLACK EYE MARROWFAT—(75 days). Very hardy, strong and vigorous, bears broad, thick, leathery pods, about three inches long, set near the top of the vines; pods contain four to five large peas of only fair quality. This sort only used in a small way as there are many varieties now that are improvements. Pkt., 10c; lb., 35c; 2 lbs., 60c, prepaid. 60 lbs., \$8.00, not prepaid.

From year to year our business shows a considerable increase over that of the previous season. This is not the result of putting out cheap, low-priced seeds; on the contrary, our patrons find our seeds to be a quality product, which alone can build up a permanent and increasing business.

Peppers

Pepper seed requires a temperature of about 65 degrees for successful germination, therefore the seed should be started in a hotbed or else the planting should be delayed until the ground is thoroughly warm. It is customary to make the first sowing early in April, and when the plants have reached a height of 3 to 4 inches, transplant them into flats and then harden them off into coldframes before transplanting to the open ground, which should be done about the first of June. Space should be allowed between plants for thorough and careful cultivation. Commercial fertilizers seem to induce more rapid growth than manure. For the early spring planting an ounce of seed will produce about 1,000 plants. For later plantings from 1,400 to 1,800 plants can be secured from the same amount of seed. One-half pound of good Pepper seed will produce enough plants for an acre of ground.

LARGE BELL, or BULL NOSE—A large, early, bright red variety of mild flavor, with tender flesh; a favorite for pickling and "mangoes" when green. Pkt., 10c; oz., 90c; $\frac{1}{4}$ lb., \$2.00; lb., \$7.00.

Ruby King Peppers.

CHINESE GIANT—It is fully twice as large as the Large Bell, or Bull Nose, being 4 to 5 inches thick at the top and about 6 inches long. The fruits ripen early, first a rich green then turning to a glossy scarlet. Flesh thick, solid and mild. Pkt., 10c; oz., 90c; $\frac{1}{4}$ lb., \$3.00; lb., \$10.00.

RUBY KING—The most popular, large-fruited Pepper; a prolific bearer of ruby-red pods, 5 to 6 inches long by 3 to 4 inches in diameter; flesh exceedingly thick, sweet, and mild. Pkt., 10c; oz., 65c; $\frac{1}{4}$ lb., \$2.00; lb., \$7.00.

Success in Gardening

The three essentials to success in gardening are: First, good seed; second, good soil; third, good care. Gorman-Gammill Company will assume the responsibility of supplying the first essential; the other two are in the hands of the gardener. Enrich the soil, keep the weeds out, and cultivate frequently, and a good garden will surely result.

Pumpkins

One pound will plant 200 to 300 hills; four to six pounds to an acre.

Culture.—Plant in the spring with field corn, in hills 10 or more feet apart, four seeds in a hill, or for garden planting, in hills 6 feet apart. Do not plant near melon or squash vines, as they mix. The Pumpkin more properly belongs to the farm than the garden, and they make splendid feed for sheep when the pasture begins to fail in the fall.

KING OF THE MAMMOTHS (115 days)—The great big Pumpkins you see at the fair are nearly always grown from this seed. The skin is light, and the flesh is thick, bright yellow, fine grained, and of excellent quality. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., \$1.25.

LARGE CHEESE (75 days)—Creamy buff colored, round and flattened, averaging 20 inches to 2 feet in diameter. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; 1 lb., \$1.25.

GREEN-STRIPED CUSHAW (75 days)—Striped green and white. Rich yellow flesh. Best garden variety. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 85c.

KENTUCKY FIELD (100 days)—Grows large and is adapted for cooking purposes and feeding stock. They are variable in shape, some being flattened at the end, others round or long. Of deep yellow color. Fine grain and of excellent flavor. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c; 1 lb., \$1.00.

Kentucky Field Pumpkin.

Radishes

All of our Radish seed comes directly from the growers in France. This year there is likely to be a shortage on nearly every variety, and of some kinds it is almost impossible to obtain an adequate supply. This means that the man who orders his seed early is sure of getting what he wants, late-comers will have to take what is left, or not get any seed at all. Radishes grow best in a rich, loose, mellow soil, and to be crisp and tender must be forced to make a rapid growth. For very early Radishes sow the seed in a hotbed or cold frame in January. Sowings may be continued at intervals of two weeks until September or even later. The winter Radishes may be sown in midsummer and taken up before extreme cold weather comes, storing the roots in sand or earth in a cool cellar. The seed should be sown thinly in drills, covering to a depth of about half an inch and when the seedlings come up, thin to about 2 inches apart.

EARLY SCARLET TURNIP WHITE-TIPPED

FORCING—A beautiful variety, bright scarlet, with white tip, very early; has a small top and may be planted close together. It is most attractive in appearance and cannot fail to give satisfaction as a forcing Radish; very popular. Sold sometimes as Rosy Gem, Rapid Forcing, etc. Pkt., 5c; oz., 10c; 2 ozs., 25c; ¼ lb., 50c; lb., \$1.50.

WHITE VIENNA, or LADY FINGER—The finest long white summer Radish; tender and crisp. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00.

EARLY SCARLET TURNIP—Small, round, intensely bright scarlet. If grown rapidly, it will make a crisp, tender bulb of delicious flavor, without the stringy characteristics of some sorts. Pkt., 5c; oz., 10c; ¼ lb., 40c; lb., \$1.50.

FRENCH BREAKFAST—An old favorite for market and home garden; just right for a small, crisp table radish. Of quick growth, oblong in shape; color a beautiful scarlet, except near the tip where it is pure white. A splendid variety on account of its excellent quality and attractive color. Prices, by mail, postpaid: Pkt., 5c; oz., 10c; ¼ lb., 40c; lb., \$1.25.

LONG WHITE ICICLE—A handsome, long, pure white radish, maturing very early. Exceedingly crisp, tender and well flavored. One of the most popular varieties. Pkt., 4c; oz., 6c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25.

CININNATI MARKET—A deep red in color, good keeper, very early, a favorite among market gardeners. Pkt., 5c; oz., 10c; ¼ lb., 50c; ½ lb., 80c; lb., \$1.50.

LONG BLACK SPANISH—Keeps best and longest of all winter radishes. Skin coal-black; flesh white, crisp and quite pungent. Grows 6 to 9 inches long. Pkt., 5c; oz., 10c; ¼ lb., 40c; lb., \$1.25, prepaid.

ROUND BLACK—For autumn and winter use, keeps well. Earlier than Long Black. Pkt., 5c; oz., 10c; ¼ lb., 40c; lb., \$1.25, prepaid.

White Tip
Early
Scarlet Turnip.

French Breakfast.

Long White Icicle.

Bloomsdale or Savoy Leaved Spinach.

Salsify

VEGETABLE OYSTER.

Salsify is the most delicious and nutritious of vegetables. Soup and salad made from it have a delicious oyster flavor. Sow early and quite deep, giving the same culture as for parsnips.

MAMMOTH SANDWICH ISLAND

—Average fully double the size of the old long white. The roots are of superior quality. Price, postpaid: Pkt., 5c; oz., 15c; ¼ lb., 70c; ½ lb., \$1.25.

Salsify.

Rhubarb, Pieplant

It requires a rich, loose soil and extremely careful cultivation. It is best to sow seed in a seedbed in early spring, and in the fall transplant into open ground, setting them about 2 by 3 feet apart. During the first winter cover them with leaves or litter. The best way to get Rhubarb quickly is to buy the roots, which will come into bearing the first season.

MAMMOTH RHUBARB SEED

—Pkt., 5c; oz., 15c; ¼ lb., 40c; lb., \$1.35.

RHUBARB ROOTS—Two year-old plants from seed—not divided plants, will grow vigorously. 10c each; 75c per dozen; \$4.50 per 100; \$40.00 per 1,000.

Rhubarb.

Spinach

Spinach is one of the finest greens, and a Spinach-bed should be found in every garden. Seed can be sown any time when the ground is not frozen, covering it to a depth of about 1 inch. If the plants are to stay in the open ground during winter, they may be covered with a little mulch of leaves or straw. For a midsummer crop sow seed early in the spring. An ounce of seed will sow about 100 feet of row.

BLOOMSDALE—A Savoy-leaved variety, very tender, of good flavor, and will stand longer without going to seed than almost any other variety. Pkt., 10c; ¼ lb., 50c; lb., \$1.25.

BROAD-LEAVED FLANDERS—A vigorous-growing variety; leaves very broad and thick, tender and of fine eating quality. Pkt., 5c; ¼ lb., 50c; lb., \$1.50.

LONG STANDING—Very large leaves, thick, crumpled, of extra good quality, stands long without seeding. Pkt., 10c; ¼ lb., 40c; lb., \$1.00.

VICTORIA—Very heavy, broad, deep green, crumpled leaves of fine flavor and very tender. Makes a quick growth of crisp, tender leaves. Pkt., 10c; ¼ lb., 40c; lb., \$1.00.

Squash

One ounce will plant 20 to 40 hills; four to six pounds will plant one acre.

Culture.—Sow in hills in the same manner and at the same time as cucumbers and melons, the bush varieties 2 to 3 feet apart and the running varieties 6 to 9 feet apart. Fall crops can be made by planting in July or August.

MAMMOTH WHITE BUSH (50 days) —

Produces large, thick, patty-pan Squashes with scalloped edges; often a foot in diameter. Of the true bush form, never running. Very popular in some sections on account of its size. Pkt., 5c; oz., 10c; ¼ lb., 40c; lb., \$1.25.

EARLY WHITE BUSH, or PATTY PAN

—This is the old standard variety of early Squash, and has never been excelled. It is the earliest variety known, and of the sweetest and most delicious flavor. Pkt., 5c; oz., 10c; ¼ lb., 40c; lb., \$1.25.

EARLY YELLOW BUSH SCALLOP—A

splendid sort. Early production, very fine quality. Many claim this is the very best early variety. Shape and size, same as Mammoth White Bush Scallop. Pkt., 5c; oz., 10c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25.

MAMMOTH YELLOW SUMMER

CROOKNECK—Vine larger and stronger than the old Summer Crookneck. The flesh is fine grained. Pkt., 5c; oz., 15c; ¼ lb., 40c; lb., \$1.25.

Early White Bush.

Tomatoes

An ounce of seed will make about 1,500 plants, and a quarter of a pound will be sufficient for an acre.

Our Tomato seed is secured from carefully selected specimens, grown on plants that are under continuous inspection and raised for seed purposes only. We do not buy seed from canners or from irresponsible growers.

In our section Tomato seed should be started in hotbeds or coldframes about the first of March. When the plants are about 4 inches high they should be pricked off into flats and allowed to harden in coldframes or in a sheltered place in the garden. Transplanting to the open ground should not be done until the weather is reasonably warm. For garden cultivation the plants are usually set 3 feet apart each way, and trained to stakes or on trellises, so that the sun can penetrate easily and ripen the fruit quickly. Sowings of seed may be made at various times until June, the later sowing producing fruit in the late fall.

EARLY DETROIT—This splendid variety is the largest and best of the early purplish pink Tomatoes. The vine is vigorous and very productive. Fruits are very smooth, uniform size, nearly globe-shaped, firm and of excellent quality. One of the most valuable shipping tomatoes produced. Pkt., 5c; oz., 35c; ¼ lb., 80c; ½ lb., \$1.00; lb., \$3.50.

EARLIANA—Our carefully selected strain of this variety is now the earliest variety we know of; fruits large, usually smooth; one of the most profitable for market. Vines vigorous and productive, having yielded for us at the rate of over 600 bushels to the acre; a first-class early market variety. The seed we offer ripens Tomatoes about ten days earlier than the original stock. Pkt., 5c; ½ oz., 15c; oz., 35c; ¼ lb., 90c; lb., \$3.50.

RED ROCK (110 days)—Very solid and free from an excess of water; smooth and fine red. For a late sort and for canning factories it is unexcelled, as it has produced as high as twenty-five tons to the acre. The vine is strong and vigorous, protecting the fruit from sunscald. Pkt., 5c; oz., 40c; ¼ lb., \$1.00; 1 lb., \$3.75.

Earliana.

EARLY ACME—Fine for early market. Well known and generally cultivated, both for early and main crops. Plants are of strong and vigorous growth, very productive, the fruit of medium size, perfect form, round, slightly depressed at the ends and very smooth (never rough); color a glossy red with purplish tinge; ripens all over and through at the same time. Our seed is extra select. Prices, by mail, postpaid: Pkt., 5c; oz., 20c; ¼ lb., 75c; lb., \$3.00.

LIVINGSTON GLOBE TOMATO (100 days)

—This is another of the Livingston introductions which has proven very popular. In shape it is notably distinct from all others. Of large size, maintained throughout the season, always smooth, firm fleshed, and has very few seeds, especially in the early fruits. Ripens evenly through and through. Fine glossy rose in color, tinged with purple. Very attractive. Bears fruit in clusters of from three to seven fruits. Especially adapted for slicing. A most popular market garden sort. Pkt., 5c; oz., 25c; ¼ lb., \$1.00; 1 lb., \$3.50.

Livingston Globe.

Early Acme.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

TOMATOES—Continued.

STONE (Bright Scarlet)—One of the heaviest and most solid of the large Tomatoes, of good quality. Fine for main crop and deservedly one of the most popular Tomatoes for shipping, canning, and home market. Of large size, bright scarlet color, and withstands rot and blight. It makes most attractive and salable fruits, firm and uniform, and is an excellent shipper. Pkt., 5c; oz., 30c; $\frac{1}{4}$ lb., \$1.00; lb., \$3.50, postpaid.

BEAUTY—Fruits large, purplish pink, extremely smooth and uniform in size; very solid and of excellent quality. Ripens about midseason. Pkt., 5c; oz., 30c; $\frac{1}{4}$ lb., \$1.00; lb., \$3.00.

DWARF CHAMPION (Purplish Pink)—Sometimes called the Tree Tomato. Especially desirable for small gardens, as they may be grown as close as three feet. The vines are stiff and upright, holding the fruits well off the ground. Smooth and attractive, firm, solid, with thick flesh and meaty center. Bears in clusters of 3 to 5 good-sized fruits and continues in bearing till frost. Pkt., 5c; oz., 35c; $\frac{1}{4}$ lb., \$1.00; lb., \$2.10, postpaid. By express, \$3.00 per lb.

Early Detroit Tomato.

DWARF STONE—Vine dwarf but vigorous and productive. While maturing with the later sorts the bright red fruits are of good color, exceedingly smooth, uniform in size and very solid. One of the best large fruited dwarf Tomatoes. The substance of this tomato is all that could be desired either for slicing or canning. The flavor is simply delicious. Try it. Pkt., 5c; oz., 35c; $\frac{1}{4}$ lb., \$1.00; $\frac{1}{2}$ lb., \$1.75; lb., \$3.50.

Sweet Potato Slips

We desire to announce to our many users of sweet potato slips that we have made arrangements whereby we will grow under our personal supervision most, if not all the plants that we will offer for sale during the season of 1919. This will insure to every purchaser plants true to name and type. This should go a long way in settling in the mind of everyone wanting plants, any doubt as to where to order them. We will offer Nancy Halls, Porto Ricans, Doolies, and Early Triumphs. Write us for quotations. We advise that you place your order early as there is bound to be a tremendous demand and a very limited supply.

Red Rock Tomato.

Turnips

One ounce of seed sows 100 feet of drill; 1 to 2 lbs. an acre.

Culture.—Sow the early sorts in July or August and the late during August and September. Sow either broadcast or in drills 2 feet apart, thinning out to 6 inches, and roll the ground after sowing. Rutabagas should be sown in August and September and earthed up as they grow. Early Turnips may also be sown in the spring.

White Fleshed Turnips

GORMAN'S MAMMOTH EARLY

PURPLE-TOP WHITE GLOBE—This is one of the largest and finest of the Turnips and is of a beautiful globe shape, with flesh pure white and a red or purple top. It is of very rapid growth and will produce more to the acre than any known variety. It may be sown either broadcast or in drills. Pkt., 10c; ¼ lb., 75c; ½ lb., \$2.50.

EARLY PURPLE TOP STRAP-LEAVED (63 days)—This is an early variety and a great favorite for table use. It is quite flat; of medium size; color purple top or dark red above the ground; flesh below ground white, fine-grained and tender. Leaves few and upright in growth. Pkt., 5c; oz., 10c; ¼ lb., 20c; ½ lb., 80c; 1 lb., \$1.50.

PURPLE-TOP MILAN (47 days)—The Milan Turnips are very early and the most tender of all Turnips for table use. Handsome, somewhat flattened, smooth; of a clear ivory-white with purple top; flesh snow-white. Pkt., 10c; oz., 15c; ¼ lb., \$1.00; ½ lb., \$3.00.

WHITE GLOBE (85 days)—It is globular in shape and nearly as large as Pomeranian White Globe, of beautiful appearance and the most excellent quality and equally desirable for table or stock. Our strain of this is very superior to the majority now on the market. Pkt., 5c; oz., 10c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.

EXTRA EARLY MILAN (45 days)—Like Purple-Top Milan, but with skin and flesh both of a clear ivory-white. Pkt., 12c; oz., 15c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.50.

EARLY WHITE FLAT DUTCH STRAP-LEAVED (65 days)—A most excellent early garden variety much used in our state. It is sure to bottom and make a very sweet and tender early sort. Pkt., 10c; oz., 15c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.50.

Early White Flat Dutch.

Gorman's Purple Top Globe.

Yellow Fleshed Turnips

GOLDEN BALL, or ORANGE JELLY (70 days)—Small; very early; fine quality. Sweetest of all yellow fleshed varieties. Pkt., 5c; oz., 15c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.

YELLOW, or AMBER GLOBE (78 days)—Fine shippers; popular for market. One of the most popular yellow turnips grown. Pkt., 10c; oz., 15c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.

YELLOW ABERDEEN, GLOBE SHAPED (80 days)—Produces large yellow turnips of good quality, used for table and also for stock feeding. Pkt., 10c; oz., 15c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.

Salad Turnips

SEVEN TOP—Grown only for its leaves, which are eaten as greens or salad. Very hardy. Pkt., 5c; oz., 10c; ½ lb., 80c; 1 lb., \$1.50.

SOUTHERN PRIZE—Another excellent salad variety. Stands cold and produces a wonderful amount of greens. Pkt., 5c; oz., 10c; ¼ lb., 50c; ½ lb., 80c; 1 lb., \$1.50.

Rutabagas

RUTABAGA, IMPROVED SWEDE (95 days)—A very superior strain of Rutabaga and one that we know will give entire satisfaction, either for home use or market garden. Flesh yellow, very sweet and tender, upper half of bulb purple. Globular in shape, with small neck; very productive and solid, making it an excellent keeper. Pkt., 10c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.

IMPROVED PURPLE TOP YELLOW (90 days)—Excellent strain of choicest quality, very popular. Pkt., 10c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.

LARGE WHITE (95 days)—Very productive and large; white skin and flesh. Pkt., 10c; oz., 15c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.

COW HORN (80 days)—Long, white flesh; fine grain, sweet and very popular. Pkt., 10c; oz., 15c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.

WHITE EGG (70 days)—A quick-growing, egg-shaped, pure white variety growing half out of the ground, with small top and rough leaves. The flesh is very sweet, firm and mild, quite devoid of rank, strong taste. Pkt., 10c; oz., 15c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Gorman's Improved Maine-Grown Cobbler Potatoes.

Gorman's Selected Seed Potatoes

One peck will plant about 100 feet of row ; 10 bushels are required to plant an acre.

Our Seed Potatoes are all specially grown for seed purposes, in the best potato districts in this country.

Our Maine-Grown Seed Potatoes are all inspected while growing and before shipment, and shipped to us under the State Department of Agriculture Maine Seed Improvement certificate. We always use every care possible to supply our customers with the best quality obtainable, free from scab or other injurious diseases.

The Second Crop Potatoes which we here offer are grown on the Eastern Shore, from selected Maine-grown stocks. These potatoes are planted in July or early August, and the crop dug late in the fall, which enables them to be furnished in the very best and most vigorous condition for planting in the early spring. Second Crop Seed Potatoes average a little smaller in size than Maine-grown.

Culture.—Any good soil will produce potatoes, but a sandy loam is best. Make furrows of good depth, 3 feet apart; the cut-seed pieces about 8 or 10 inches apart. If grown in hills, one or two pieces of potatoes, containing one or more eyes in each piece, are placed in each hill, which are made 3 feet apart each way. Cover the seed about 4 inches, but not so deep in wet, cold land. When the sprouts appear, cultivate and hoe them to keep the soil free and clear of weeds. As the vines increase, draw earth around them, forming a slight ridge.

IRISH COBBLER.—We have never sold a variety of Potatoes of which we have received more uniformly satisfactory and enthusiastic reports from our customers, and we recommend it strongly as a most desirable and productive extra-early variety of excellent table qualities; and it produces smooth, round, plump, and handsome tubers, ready for market ten or twelve days earlier than Early Rose. The tubers are a beautiful creamy white; eyes strong, well developed and slightly indented. Flesh white, skin even and slightly netted, which in Potatoes always proves a distinctive mark of fine quality. Are better adapted for planting in light loamy or sandy soil.

Harvesting a Field of Gorman's Maine-Grown Cobblers.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

POTATOES—Continued.

TENNESSEE—The well-known round, red Potato of very fine quality. It is the earliest type and more largely grown in the South than any other sort. It makes a small vine and resists drought better than any other sort. It should be highly fertilized, otherwise there will be too many small Potatoes. While the planting seed is small, we recommend the Tennessee-grown as they always come up to a good stand and require much less to plant an acre.

EARLY ROSE—This standard early variety for family use has been one on which we have had a large sale. This is one of the old-time popular varieties, tried and true—a variety which never fails. Try Early Rose this year.

PEERLESS—A medium-early, large, round white sort; prolific and a good keeper; table quality good.

BURBANK—A large, late, long white sort; a heavy-yielding, vigorous grower and largely used for late or main crop. The Burbank is an excellent standard potato. When cooked it is dry and mealy. As a market sort it is a moneymaker and will prove very satisfactory for the home garden.

Maine Triumph.

At this writing we can not tell what prices will be, as the market is very much unsettled, owing to war conditions, but you may rest assured, our prices will range as the best quality can be offered. Write early for prices.

Sweet Potatoes

Prices subject to market changes.

You can absolutely depend upon us to supply you the best and most suitable varieties of sweet potato plants. Our Mr. Gorman, is an expert in the selection, and cultivation of this most valuable farm product, and will gladly answer all questions bearing on the matter. We are growing the plants we offer you, and advise all of our customers to place their orders as early as possible. We will grow Nancy Hall, Portorican, Triumph, Running and Bunch Doodles. We offer the above varieties, in from one to five thousand lots, at \$3.00 per thousand; five to ten thousand, \$2.50 per thousand, f. o. b. Birmingham. Can make prompt shipment after May first.

Prepare a bed of good soil, rather sandy, and lay Potatoes close together. Cover 5 inches deep and water moderately. When plants are formed—in about six weeks—set 1 foot apart on ridges 4 feet apart, well drawn up and rather flat on top. Use hoe to keep young grass from choking plants, and some horse cultivating is advisable. No further attention is necessary.

THE DOOLEY YAM—Taking into consideration quality and productiveness, the Yam stands at the head of the list. Frequently, when baked, the saccharine matter in the shape of candy will be seen hanging to it in strings. When boiled, the flesh is very tender,

dry, and mealy. Skin and flesh yellow and very sweet.

NANCY HALL—This is a yellow skin Yam, yellow flesh, smooth, uniform size, oval shape, and cooks soft and sweet. It is an early producer and is a well known variety, and sells at good prices. If you have not tried this variety, don't wait any longer.

PORTO RICO YAM—This has a pinkish red skin, deep yellow flesh, fine quality, cooks soft and sweet; it is very early, extremely productive, and a fine seller.

Sweet Potatoes.

NOTE—Owing to existing conditions we can not guarantee prices as quoted in this catalog and same are subject to change without notice.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

GORMAN'S TESTED FARM SEEDS

A Field of Gorman's Southern Ensilage Corn, the Best for Southern Soils.

We have advertised **re-cleaned seed** since the day we opened and expect to continue to do so, for the reason that it is one of the many reasons why you should plant **Gorman's Seeds**. We did not buy cleaning mills for ornaments, we use them and you are benefited thereby in the **quality** as well as quantity of seed you buy. When we take out all dirt, thrash, immature seeds and other foreign matter often found in **farm-run** stocks, we are shipping you **full value** for your money. Compare seed of Millet, Clover, Seed Rice, Oats, Wheat, Seed Rye, Velvet Beans or any other grain or grass seeds we ship you with seed bought elsewhere. Our price may be a little higher than the other fellow, but try this out, split

the order and compare the two lots of seed received.

We want your particular attention on **Seed Corn**, we **triple mill** all of our corn and it is practically as good as hand picked stock and less expensive. We contract for supply in advance, have it selected and when received at our warehouse we mill it, clean it and grade the stock so that we can safely say that our **Seed Corn**, whether it be garden or field corn, is far superior to average seed corn offered. Ask for samples, we mail them **free of charge** and will **guarantee** that stock shipped you will be equal to the sample; that's a fair proposition, try it once just to convince yourself we are either right or wrong.

Gorman's Specially Selected Seed Corn

One quart of Corn to 300 hills; eight quarts to the acre.

Proper selection of Seed Corn is a matter of working year after year, planting good seed in the beginning, watching the particular stalks which grow best and which set enough ears the proper distances from the ground, and then cutting the tassels from all other stalks in the field. The seed ears must be selected on the stalks, and ripened and dried under correct conditions. The grains must be shelled and stored and graded so they will be even in size, and their vitality maintained unimpaired. Finally, the seed must be tested for germination. We have picked growers who give their Corn crops the attention necessary to produce first-class seed.

VIRGINIA WHITE DENT—The standard variety of white corn grown throughout this section. Deep grains, comparatively small cob, and makes a good growth of both stalk and fodder. Our stock has been grown by the same growers for the past ten years, and selections and improvements made each successive year. A most satisfactory and large yielding white field corn, especially for river low grounds. **Peck, \$1.00; bu., \$3.50; 5 bu. lots and over, \$3.25 per bushel.** Selected ears Virginia White Dent, \$3.25 per bushel crate.

A Few Ears of Gorman's Giant Tennessee Red Cob Corn.

GORMAN'S GOLDEN DENT (120 days)—This is without doubt the most beautiful Golden Dent ever offered. It grows 8 to 9 feet high, the ears are perfectly shaped and its bright golden grains are nearly always filled out to the complete end of the cob. Its superior quality, beautiful ears, deep grains, small cob and productiveness should commend it to everyone who desires to use a yellow corn for main crop. It will make 50 bushels or more to the acre, and we do not hesitate to recommend it as the best yellow field corn for the South. By express or freight, not prepaid, qt., 30c; pk., \$1.00; bu., \$3.50.

TENNESSEE RED COB (120 days)—One of the best all-around white sorts for rich land, producing largest crops of finest quality Corn. The ears average about 10 inches in length, of uniform size, and great depth of grain; there are sixteen to twenty-four rows on the well-filled red cobs. The grains are pure white, solid, very deep, producing the finest milling white corn. The yield of this superior Corn is very large, sometimes as much as 90 bushels per acre. By express or freight, not prepaid, qt., 30c; pk., \$1.00; bu., \$3.50.

HASTINGS' PROLIFIC (110 days)—This is a valuable variety of white Corn. On land of good fertility and especially on low river grounds, it may be relied upon to produce from two to four ears to the stalk and we have seen growing as high as eleven good ears to the stalk. The prolificacy makes it a heavy yielding Corn.

The ears are of good average size, the grain being of a white, flinty nature, making an excellent meal or hominy Corn. By express or freight, not prepaid, qt., 35c; pk., \$1.00; bu., \$3.50.

HICKORY KING (115 days)—A very popular and productive white Corn, especially for high land, and it is in great favor with those who have planted it. It produces on good soil three or four average-sized ears to the stalk. Grains are large, broad, and white, making fine meal. The cob is small. By express or freight, not prepaid, qt., 30c; pk., \$1.00; bu., \$3.50.

Gorman's Yellow Dent.

Plant a hill of Gorman's Mammoth Yellow Soy Beans between every hill of your upland corn.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

MARLBORO PROLIFIC (115 days)—This standard Corn bears two or three ears to the stalk and is largely planted in the South. It is medium early in maturity; grains are a little flinty, and make good meal. Good for planting on either uplands or bottom. It is a fair producer of foliage and makes good fodder. Grains and cob are both white. At right stages of growth makes a good "roasting ear." By express or freight, not prepaid, qt., 35c; pk., \$1.00; bu., \$3.50.

MOSBY'S PROLIFIC CORN (115 days)—This is a small white-cob Prolific Corn. It makes two good ears to every stalk, is a very heavy yielder, and the Corn is easy to shell, making it a fine stock Corn. The grain is soft. By express or freight, not prepaid, qt., 35c; pk., \$1.00; bu., \$3.50.

MEXICAN JUNE—A hardy, drought-resisting white Corn, ears 7 to 10 inches having fourteen to eighteen rows evenly lined on white cobs; grain of good size. Will make ears under conditions entirely too dry for other sorts. Pt., 20c; qt., 25c, by mail, postpaid. By express or freight, not prepaid, pt., 10c; qt., 35c; pk., \$1.00; bu., \$3.50.

Sudan Grass

The greatest hay and forage crop introduced in years.

This grass has been grown very extensively in Texas and has been tested out in a number of other States and the verdict is unanimous in its favor everywhere it has been grown. It seems to grow successfully on all kinds of land, stands dry weather and does not blight under ample rainfall. Sudan Grass is thought to be the original wild form of the cultivated sorghums. It is an annual, the seed having to be sown every year. It looks very much like Johnson Grass when growing but has a different root growth. Johnson Grass reproduces itself from underground root stalks as well as from the seed. Sudan Grass will not sprout from the roots after frost has killed the plant. Ranges in height from five to ten feet, stems small and somewhat more leafy than Johnson Grass. Like the sorghum crops, it must be planted each spring and dies when the frost comes. The number of cuttings each season, therefore, depends on the length of the season. Usually matures in ninety days from planting. Next crop is usually ready for harvesting thirty days from first cutting. At Chillicothe, Texas, four cuttings were had in one season, averaging slightly more than one ton per acre to each cutting. Its feeding value marks it easily as one of the most dependable crops for every farmer. Stock of all kinds eat it readily and will leave other kinds of hay to eat it. Makes a splendid silage crop. In arid districts, it is usually planted in rows 36 inches apart. This requires 2 to 4 pounds of seed per acre. It is also sown broadcast where the rainfall is ample, requiring 15 to 20 lbs. of seed per acre. It is likely that Sudan Grass will supercede the Millets as catch crops in most of the regions east of the Rocky Mountains. Since Sudan

Grass must be planted each spring, and dies off when frost comes, it is certain never to become a pest.

The Department of Agriculture in their Bulletin No. 605 gives information in regard to Sudan. Write the Department of Agriculture for a copy of this valuable bulletin.

Pound, 40c; postpaid. Write for prices in larger quantities.

Marlboro Prolific Corn.

Sudan Grass.

A Field of Gorman's Improved Osceola Velvet Bean.

Velvet Beans, The South's Great Forage Crop

The popularity of this Bean has increased to such an enormous extent that it is now being generally grown throughout the entire South. It makes a larger growth than any other known forage plant in the same length of time, far surpassing the cow pea in yield. The great possibilities of this being a land improver, and for producing a good crop of forage, seem almost unlimited. It has been thoroughly tested in all of the Southern States, and experienced agriculturists pronounce it of the greatest value. The vines and roots are very rich in nitrogen, making it a most valuable soil-improving crop. It is often difficult to gather or turn under, owing to its rank growth. It is advisable when sown thick, to allow stubbles to remain above the ground until frost kills them. It will thus make a heavy coating of vegetable matter which, when turned under, will benefit the soil almost equal to a heavy application of stable manure.

They are generally planted in corn rows, dropping three to four beans every five feet; where corn is planted in rows five feet apart, this requires about 15 pounds, or one peck per acre. We do not advise planting this bean broadcast though we have been advised that some growers do so.

The value of Velvet Bean Meal as a food for cattle can hardly be recommended too highly; we have used large quantities of this meal in a balanced dairy food at our own farm, and the result has been more than satisfactory. The increased milk production in a herd of 38

Jerseys was more than 33 per cent in ten weeks. Ask for our price and sample of "Greilhurst Dairy Feed." It is a properly balanced ration for dairy cows.

HUNDRED DAY SPECKLE—This is probably the most popular of all Velvet Beans. Price, 15 lbs., 75c; 60 lbs., \$3.50, not prepaid.

OSCEOLA—The latest improved Velvet Bean, early, very prolific, larger podded than Hundred Day. The dry bean has color of Hundred Day but is nearly flat, kidney-shaped and as large as Chinese. You should try this new one. Price, 15 lbs., \$1.25; 60 lbs., \$4.50, not prepaid.

Upland Rice

There is big money in growing Upland Rice, and if you will order a small quantity you will be astonished at the results. The upland sort is very much like the lowland rice in growth, but it is a type that grows well on upland. It should be planted in drills and cultivated like peas and beans. Should be cut when ripe and stored same as oats or wheat. It possesses very high feed value, and is largely eaten by all classes of stock, fowls, etc. Price of seed—by mail, postpaid, qt., 20c; by express or freight, pk., 65c; bu., \$2.50.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Soy Bean

Mammoth Yellow

The farmer will make no mistake in choosing the Mammoth Yellow for this latitude. It is a rank growing variety, has medium large yellow seed, and requires about 135 days to mature a crop of seed. On good land it produces from one to two tons of hay that is of high feeding value, being similar in composition to hay from cow peas, clover and alfalfa. The acreage of soy beans in Alabama is increasing rapidly. The live stock farmers and feeders desire crops that can partly take the place of corn, cottonseed meal and other expensive feeds. They are finding that the soy bean makes a valuable substitute in the feeding of horses, cattle and swine; that its hay is nutritious and liked by stock; and that the crop can be harvested cheaply.

Soy beans are rich in protein and make a good pasture for growing hogs, which graze on the young and tender leaves, and later feed on the ripened beans. Pasture experiments at Auburn show that pork was made from the feeding of a two-third corn ration and soy bean pasture at a cost of only \$2.74 per hundred pounds.

The value of the soy bean for soil improvement should not be overlooked. Being a legume it gathers atmospheric nitrogen and puts it in the soil for any succeeding crop. In addition to being a nitrogen gatherer, it improves the physical condition of the soil rapidly. Experiments made at Auburn in 1911 and 1914 show that cotton, when planted after corn and after soy beans drilled, from which only the seed was harvested, the soy bean land made an average increase over the corn land of 318 pounds of seed cotton per acre. If the seed cotton was reckoned at 4 cents per pound, the fertilizing value of the soy bean stubble and straw would be worth \$12.72 per acre. In another test where the soy bean land and corn land was planted in fall oats, the increase in yield of oats due to the fertilizing value of the soy bean stubble was 173 per cent over the corn land.

The soy bean can be grown on almost any kind of soil in Alabama. Any soil that will grow good crops of cotton or corn will produce good crops of beans or hay. A clay or clay loam well supplied with humus is best adapted to this crop. Poor sandy soil will not produce a profitable yield.

When the bean is planted for the first time, an application of three or four loads of stable or lot manure will materially increase the first crop. After the beans have been once grown successfully on a piece of land, the addition of nitrogenous fertilizer is not necessary to secure a profitable yield.

Soy beans require inoculation and while natural inoculation is widely distributed, it is often advisable to employ artificial inoculation when grown for the first time. Write for prices.

Mammoth Yellow Soy Beans.

Dwarf Essex Rape

Thrives best on good, rich land. Sow at the rate of 5 to 10 pounds per acre, broadcast in the spring or fall. This is the ideal quick winter forage, does the best in cool weather of fall and winter. Will not be injured by any freeze. Is especially valuable for hog pasture and for all stock. Produces quickly an abundance of green feed. We have a good stock of Dwarf Essex Rape. It is good for poultry as well as hogs and sheep. Pound, 25c; larger quantities, 12c per pound.

Speltz or Emmer

Grows tall like rye and matures early like barley. Makes an enormous yield of grain and straw. It stands drought better than other grain. All kinds of stock will eat it greedily. The straw is considered by a great many to be nearly as good as hay. Makes good pasture. Sow at the rate of seventy-five to one hundred pounds per acre, in fall or spring. Lb., 50c, postpaid. By express or freight.

Speltz or Emmer.

Dwarf Essex Rape.

Sorghum Cane

EARLY AMBER—Furnishes a large yield of most nutritious forage which can be fed either green or cured, and will yield two or three cuttings a year, stooling out quicker each time it is cut. The saccharine matter is of the finest quality and it produces a fine sugar or syrup. It grows 10 or 12 feet high. Sow broadcast for forage at the rate of $\frac{3}{4}$ to 1 bushel per acre. When sown in drills, sow at the rate of 10 lbs. $3\frac{1}{2}$ feet apart. Lb., 20c. Bushel prices quoted on request.

EARLY ORANGE—A favorite Sorghum in some sections of the South. Does not grow quite so tall as Early Amber, but is heavier. The stalks are longer and the amount of saccharine matter contained makes it more popular as a syrup cane. Lb., 20c. Bushel prices quoted on request.

RED TOP SORGHUM—Matures about 10 days later than Early Amber. Sweeter and juicier than all other Sorghums; small seeds, heads erect, dark red in color. Grows from 8 to 12 feet tall and yields five tons of forage to the acre. Excellent for syrup. A great favorite in Tennessee, Georgia, and Texas. Lb., 20c; 4 lbs., 75c, postpaid. Bushel prices quoted on request.

TEXAS SEEDED RIBBON CANE—A variety that has become very popular in past two seasons and one that is justly so. It is planted principally to make syrup and has given the very best of satisfaction to those who have used it for that purpose.

It has been known to yield three or four hundred gallons of syrup per acre. Grows 10 to 15 feet high and should be planted in rows $3\frac{1}{2}$ feet apart, drilling from 6 to 10 lbs. of seed per acre. On account of its enormous yield of forage, it is a fine crop to grow for ensilage. Lb., 20c. Bushel prices quoted on request.

Feterita.

Kaffir Corn

It makes a large growth of forage and is also particularly valuable on account of its yield as the grain makes the most nutritious feed for stock and poultry. It is non-saccharine and therefore more often used in connection with cow peas and other forage crops. It has for years been grown in connection with cow peas at the rate of one peck of Kaffir Corn to one bushel of Peas per acre. When sown by itself it requires $\frac{3}{4}$ to 1 bushel per acre, broadcast.

WHITE KAFFIR—The most popular on account of the seed being larger and cheaper. Lb., 20c, postpaid. By express or freight, pk., 75c; bu., \$3.00.

RED KAFFIR—Grows taller than the white, seed smaller, ripens earlier, and yields heavier than the white. Lb., 20c, by mail, postpaid. By express or freight, pk., 75c; bu., \$3.00.

Yellow Milo Maize

This is probably the most valuable of all the non-saccharine sorghums. It produces a growth from nine to twelve feet high and yields from fifty to a hundred bushels of grain to the acre. Its growth and cultivation is very much like sorghum, but sends out shoots from every joint, and often single heads will weigh a pound. The grain is round, twice the size of sorghum, pale yellow color, but pure white inside. Southern farmers will find this a valuable plant to help out corn crop as it may be planted from March to July and mature a crop under hot, dry conditions, where corn would be a failure. A half peck is sufficient to plant an acre. Postpaid, lb., 20c. By freight or express, pk., 75c; bu., \$2.50.

Feterita

One of the greatest and most productive of all non-saccharine sorghums, and we think it one of the most valuable to the farmer. The grains are larger than Kaffir Corn and will mature much quicker. In fact we have been told that it would produce two crops in one season. Plant six to ten pounds of seed per acre in drills and cultivate as for other sorghums. Lb., 20c; pk., 75c.

Teosinte

A remarkable mammoth forage plant from Central America, one of the most valuable forage plants to be used in a green state. The yield is enormous and can be cut till frost. Plant in hill like corn after danger of frost is past. Seed is very hard and should be soaked a day or so before planting. Plant three pounds per acre. Ounce, 10c; $\frac{1}{4}$ lb., 25c; lb., 85c, postpaid.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Kaffir Corn.

Millet Seed

TENNESSEE GERMAN MILLET—This is the true large-headed, tall German or Golden Millet. On good soil the plants will grow often $4\frac{1}{2}$ to 5 feet high, producing an abundance of broad leaves and a very large head, and when cut when head is about half grown, produces a large tonnage of very desirable hay. It is very quick in maturity and is often headed out and ready to cut within six weeks after sowing. The seed may be planted any time from April to the middle of August. The hay is very easily cured, and, if cut in the morning, is generally ready to stack late in the evening of the same day. It is very necessary to sow Millet on good land for the best results, and at least one bushel should be sown to the acre. The soil should be thoroughly prepared, the seed sown broadcast and covered very lightly. We offer pure Tennessee grown Millet as follows: Pk., \$1.25; bu., \$4.00. Write for price in quantity.

PEARL or CAT TAIL MILLET (Pencillaria)—There are two or three different types of this plant, but the character of growth of each is practically the same and no distinction is shown in describing the usefulness of this plant. The seed of this plant are small, about twice the size of German Millet, of a gray color and are more pointed in shape. The plant is an annual, producing broad foliage very much like Sorghum or Teosinte. It is spreading in character and, after being cut, will stool out enormously, often producing two dozen or more shoots from the same plant. Its principal use is for cutting and feeding green. It will produce an abundance of fodder which, however, will powder up badly, and it is generally more economical to cut the feed green. It grows very rapidly after getting a start, and if seasonable will bear repeated cuttings. The green forage is very nutritious and relished by all classes of live stock. It is particularly valuable for cutting and feeding green to cows and horses. It should be sown in drills and cultivated like sorghum or corn, requiring only about 3 to 4 pounds of seed to plant an acre. Crop failed.

Hairy or Winter Vetch

Makes one of the largest-yielding and most nutritious hay crops grown. Also makes a most valuable soil-improving crop, rivaling cow peas in its nitrogen-gathering properties.

The Vetch is a very valuable forage plant, which has been grown very extensively in England and Germany for many years, and cannot be recommended too highly to the farmers and planters of this country. Judging from the increased demand the past year, many have already been impressed with its great value. Sow broadcast from July to November, at the rate of twenty to thirty pounds to the acre, with a bushel of wheat, rye, or oats, which will support the Vetch, greatly increasing its growth and keeping it from the ground. It should be cut for a hay crop just as the head of the grain has headed out, or when it is still in a milky state. By express or freight, not prepaid, lb., 35c; bu. of 50 lbs., \$12.00.

Tennessee German Millet.

Japanese Buckwheat

Entirely distinct from all other varieties. It has the advantage of remaining some time in bloom, and produces seed earlier. It resists drought and blight very well. The seed is rich, dark brown in color and larger than Silver Hull. As much as forty bushels to the acre has been harvested of this variety, making it very profitable to raise. Pound, 20c; bushel, \$3.00.

Seed Wheat, Winter Rye, and Winter Barley

Blue Stem, Early Red May, Fulcaster, and Fultz. All of these varieties are supplied by us in the fall months and will be found listed in our fall catalog, which is issued in June. If you fail to get a copy of this, kindly write us.

MAMMOTH Russian Sunflower

Growing to double the size of the common sunflower and the yield of seed is twice as great. Price, per lb., 25c.

WRITE US FOR DELIVERED PRICES—The prices on Sorghums, Millets, Seed Corn, etc., change often. We want you to write us for delivered prices when you are ready to buy in quantity. We can often save you money. We are always glad to mail samples of our stocks and show you what the seed will cost delivered at your station. Don't be afraid to ask for samples and prices; this puts you under no obligation to purchase unless you care to do so.

View on Roe Buck Farm.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Peanuts, A Profitable Crop for the South

Spanish Peanuts.

We are convinced that this will be one of the best money making crops in the South, they are getting more and more important every year. We know of one man who raised 6,000 bushels and a good corn crop with only three mules. Peanuts of course belong in the class of legumes and will improve the soil—build it up like cow peas or velvet beans.

The demand for peanuts is growing rapidly, not only for a food for man and beast, but a number of products are now being manufactured from them, such as peanut oil, peanut butter, etc. There

is hardly any food product more wholesome or possessing a higher feed value. The vines or tops of all sorts of peanuts make a delicious hay, relished by all classes of live stock as well as hogs. The hay is much improved where more or less of the nuts are harvested with it.

Peanuts should be shelled before planting. They should be planted in May or early June, in rows about 2½ to 3 feet apart, dropping the nuts 8 to 10 inches apart, one in a hill. Cover one or two inches deep. Cultivate three or four times with a cultivator, so as to loosen the earth and keep down weeds, and at the last working, with a small turn-plow throw the dirt to the nuts. Do not cultivate too late in the season, as late cultivation is likely to injure the formation of the nuts. It is also advisable to make an application of lime, scattering it on top of the row just after planting, and to use a top-dressing of land-plaster just after the last working. Peanuts require plenty of lime to make first class nuts, and the use of lime and land plaster as above mentioned is recommended by the most successful growers.

SPANISH PEANUTS—There are several types of Spanish Peanuts. One is a large improved sort, known as Valencia; another has red nuts, but the one most in use is the common Spanish or Two Crop Peanut, the shell being small, the nuts closely packed in the shell, and are of a pale red or white color. The plant is bunch in character, admits of close cultivation, the nuts are borne close to the plant, and when the plant is pulled up most of the nuts adhere to the roots. It is the best flavored nut in use. Price, peck, 80c; bu., \$3.00. By mail, postpaid, per qt., 20c.

COMMON GEORGIA—Plant in drills 3 feet apart, placing nuts 8 to 12 inches apart in drill. Cultivate well and keep clean. It requires 15 to 20 lbs. of shelled nuts, or 1 bushel (24 lbs.) of Peanuts when not shelled, to plant an acre of this variety. They resemble the Spanish Peanut, but are not of bunch growth; rather have a tendency to spread, like the Virginia Peanut. Quart, 20c; peck, 70c; bushel, \$2.50.

NORTH CAROLINA PEANUTS—In appearance this variety looks like the ordinary Virginia peanut of commerce, only it is much smaller, being only a little larger than the Spanish. The hull contains two nuts, pale red and white. The variety fills out well and will yield better on poor soil than any other sort. The vines are spreading in character. The heaviest yielder, and affording the greatest amount of forage of any sort. For a hog pasture it can't be beat. Price: peck, 75c; bu., \$3.00. By mail, postpaid, qt., 25c.

RED SPANISH—A popular sort in some sections. They are long, somewhat irregular in shape, contain about three to four nuts of deep red color and excellent flavor. Should be planted on good soil to make them fill out well. Later than the White Spanish. Quart, 20c; pk., 75c; bu., \$3.00.

Red Spanish Peanuts.

Seeds for Southern Planters

This catalog is issued by a Southern seed company, whose interests are in the South, for Southern planters, who want the kind and quality of seeds which are adapted to Southern conditions. We are always glad to give any information and advice regarding these matters. We want to do our share toward putting the South in the forefront of the agricultural sections of the country.

Chufas, Earth Almonds

Culture of Chufas.—They do best on light, sandy soil, or rather soil that does not contain too much clay, except as a sub-soil. They should be planted in drills two and a half to three feet apart, dropping from three to five Chufas in a hill 15 to 20 inches apart, cover about two inches, keep clean and stir the soil occasionally. If for any reason an imperfect stand is obtained, the plants may be transplanted. Level culture is the best. Chufas make rapid growth after coming up. When it is desired to turn the hogs into them, pull up a few of the hills by the roots, and leave them on top of the soil, and when either hogs or chickens get a taste of them, they will soon scratch over the whole field in their search for them. They are very productive, nutritious and fattening; having a rich, nutty flavor, they are much relished by hogs, and the meat of hogs which have eaten Chufas has a distinct sweetness. Can be planted in May, June or early July. Bushel, \$4.50.

Earth Almond.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Spring Oats

BURT OATS. An extremely early variety, producing an abundance of straw of good length. The best poor-land oat known, also the safest and earliest to plant in spring. Grain is small, light, slim, and under favorable weather conditions of a very light straw color. A good per cent of the grains have beards, and are frequently borne in clusters of two. The genuine Burt Oat is a sure header, coming to maturity ten days to two weeks before rust-proof. A great many Western white oats are sold for Burt. We only handle one grade of this oat, pure bred Tennessee grown stock. Good land will produce Burt Oats better than poor, but on account of this oat's habit to grow tall it may be planted on poor land with fairly satisfactory results. Thorough preparation should be made in sowing this oat. No less than two bushels of Burt Oats should be used in seeding an acre, and where they are to be made into hay, three bushels will be found profitable. Bu., \$1.50. Write for prices in larger quantities.

Field of Our Pure Bred Burt Oats.

Field or Cow Peas

This forage crop should be grown even more extensively for forage and crop rotation. It solves the problem for the soil fertility in the South. It is a profitable crop, the Peas always bring a good price and are in demand. Pea vine hay is richer in protein than Alfalfa and if the proper threshing machines are secured both the hay and seed can be saved. It has been recently discovered that the vines also contain a fiber that promises to be as valuable as flax. In our opinion the Cow Pea is going to contribute tremendously towards the future prosperity of the state of Texas.

Prices subject to change. Write for prices in quantities.

CALIFORNIA BLACK EYE—An extremely early sort, maturing peas in six or eight weeks. The pea is large, kidney-shaped, has a distinct black eye. It may be called bunch variety, as it does not put any long runners except when planted in corn. When planted in the open it does not make any runners to amount to anything. It is very productive, yielding from ten to twenty bushels of peas to the acre. Two crops can always be made, and if seasons are favorable, three crops can be taken off the same land in one season, provided the first crop be planted in early April. In quality it surpasses them all. Price, pt., 10c; qt., 30c; pk., \$1.50; bu., \$6.00. By mail, postpaid, pt., 20c; qt., 35c.

UNKNOWN or WONDERFUL—A very vigorous, rank growing variety, especially valuable for hay. Price, pt., 10c; qt., 15c; pk., \$1.25.

CLAY PEA—The old standard variety. Price, pt., 10c; qt., 15c; pk., \$1.25.

WHIPPOORWILL—The old standard popular sort, bunch in character and very early. Price, pt., 10c; qt., 15c; pk., \$1.25.

MIXED PEAS—For sowing for hay, pasturage or fertilizing, these are just as good as any. They are more easily obtained and always cheaper. Price, pt., 10c; qt., 15c; pk., \$1.25.

WHITE BLACK EYE—Late running sort, fine for eating purposes. Price, pt., 10c; qt., 20c; pk., \$1.00.

SMALL WHITE LADY PEA—Late running, prolific sort, very choice as table pea. Price, pt., 10c; qt., 15c; pk., \$1.50.

WHITE CROWDER—The most popular sort for table use. Price, pt., 10c; qt., 15c; pk., \$1.50.

PURPLE HULL—A large white pea, having a purplish eye, and the hull, when nearly matured, is of purple color. The variety is a runner; very prolific. Price, pt., 10c; qt., 15c.

IRON—A very early running pea, clay color. Peas small, and more prolific than the Clay Peas. Price, pt., 10c; qt., 15c; pk., \$1.25.

Cow Peas.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Gorman's High-Grade Clover Seed

Selected for Southern
Soils and Conditions

Red Clover

COMMON, MEDIUM or JUNE CLOVER (*Trifolium pratense*)—Is so well known and extensively used that it is almost useless for us to take up very much space telling you its advantages. Red Clover is second to none as a soil strengthening crop, adding fertility to the soil, making it possible to grow larger and better crops of corn and other grains. For soiling crop and green manure it is invaluable. It lives two years, grows about two feet high, makes two crops per year, yielding two to four tons of hay per acre. As a pasture, all animals thrive on it, particularly cattle, sheep, and hogs. The long roots penetrate deeply into the soil, gathering nitrogen from the air and storing it in the soil in the form of nodules on the roots, thereby providing rich food for crops of cereals, etc., which follow it, also improves the drainage which renders the soil more friable, increasing its capacity for holding moisture. Prices, per lb., post-paid, 40c; 3 lbs., \$1.10. By freight or express, your expense, \$21.00 per bu.

Inoculate all Legumes

To insure best results all legumes should be inoculated. We can supply Mulford Cultures for the following: Alfalfa, Sweet Clover, Cow Peas, Soy Beans, Peanuts, Vetch, Velvet Beans, Garden Peas, Garden Beans, and many others.

Write for the booklet
on Mulford Cultures,
mailed free on
request.

Medium Red Clover.

Sweet Clover.

WHITE BOKHARA, or SWEET CLOVER (*Melilotus alba*)

—Used quite largely in some sections as a forage and soil-improving crop particularly valuable for thin lands or to sow on hillsides that are liable to wash or gully, and it also gives the inoculation necessary for the best success with alfalfa. For feed or forage it should be cut when quite young, for when it gets old cattle do not relish it. By express or freight, not prepaid, lb., 30c.

WHITE DUTCH CLOVER (*Trifolium Repens*)

—Sixty pounds to the bushel. A small, spreading perennial clover, indigenous to all parts of the United States. May be sown any time from September to March. It should be sown in the same manner and treated the same as Red Clover. White Clover is largely sown in some sections to provide a bee pasture. About 10 to 15 pounds is sufficient to seed an acre, but if mixed with other grasses half this amount will do. Price, by mail, post-paid, lb., 75c.

IMPORTANT NOTICE TO FIELD SEED BUYERS—Prices on all Farm Seeds are subject to change without notice. If prices are lower the day your order is received more seed will be added; if higher the amount will be decreased. Write us quantity required, and give variety. We will quote lowest market price by return mail, with samples. By all means order early.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

CLOVERS—Continued.

ALSIKE (*Trifolium hybridum*)—Sixty pounds to the bushel. A valuable perennial Clover, growth of fine texture, more spreading and recumbent than Red Clover, matures later, has pinkish blossoms and does not make such large roots, nor do they penetrate so deeply in the soil. It seems to be harder than Red Clover. Alsike Clover should be sown in the South from September to March, the sooner the better. From eight to ten pounds should give a good stand. Alsike Clover is relished by all kinds of live stock, and it seems that it will prove more valuable for pasturage than for hay. **Lb., 40c, postpaid, by express or freight, not postpaid, lb., 35c.** Write for prices on larger quantities.

CRIMSON CLOVER—Adapted only for late summer and fall seeding. Farmers should take every available means of sowing all their vacant lands in Crimson clover, as it makes a fine winter cover crop—an excellent grazing crop during the winter and early spring—the earliest of green feed—an excellent hay crop and a splendid soil-improving crop to plow under early, to be followed by corn, cotton or other crops of the same year. A crop of Crimson clover plowed under is equal to an application of stable manure. It makes land rich and mellow, fills it with humus or vegetable matter and increase the yield of corn, cotton, or other crops which follow it, to a wonderful extent. Sow at the rate of 15 pounds per acre, broadcast in July, August, or September. Crimson clover is very successfully sown at the last working of corn, cotton, or similar crops. **Price—the best quality obtainable—Lb., 30c; bu., \$15.00. Price fluctuates.**

SOUTHERN BURR CLOVER—Adapted for fall and summer seeding only. For the South it is a most valuable winter-grazing crop, growing luxuriantly

all through the winter and until summer comes fully on. After once being seeded it reseeds itself and improves in growth and appearance each succeeding year. It is admirably adapted for use with Bermuda Grass, and the combination of the two makes a splendid all-the-year-round pasturage. Fuller information in our Fall catalog, issued in August. **Burr Clover Clean Seed, lb., 50c; in 10-lb. lots and over, 45c per lb.**

JAPAN (*Lespedeza striata*)—This is a low-growing, annual leguminous plant, enriches the soil, thrives under conditions that no other clover or grasses will, and is of great value for pasturage during the latter part of the summer. Unless cut late or heavily pastured it will re-seed itself. On rich bottom land it grows tall enough to cut for hay. Sow twenty to twenty-five pounds to the acre, either in the fall, with grain or grasses, or in the early spring by itself or with grain or grasses. **Lb., 50c, postpaid. By express or freight, not prepaid, lb., 40c.** Write for prices on larger quantities.

Inoculation for Legumes

All plants belonging to the family known as legumes, such as Alfalfa, Clover, Sweet Clover, Cow Peas, Soy Beans, and the Vetches, have upon their roots nodules or tubercles, produced by certain bacteria by which the plants are enabled to obtain a supply of nitrogen from the air. Though the legumes can grow without the presence of these bacteria, especially if the soil is rich in nitrogen, yet under normal field conditions the growth is very much retarded, and where these organisms are not present as indicated by the tubercles on the roots, it is necessary to inoculate the young plants or seed in order to procure the best results, for unless these tubercles are present the plant is not fulfilling the purposes for which it was intended, for it is using up nitrogen instead of supplying it. This can best be done by placing bacteria directly upon the seed before sowing. See page 49 for further information.

Southern Burr Clover.

Crimson Clover.

The Giant Agriculture Clover of Today

Alfalfa, Grown from Gorman's Selected Alfalfa Seed.

Alfalfa

The Greatest of All Legumes

No cropping system is complete without at least a few acres of this wonderful hay and pasture crop. Alfalfa is the queen of hay crops. It is the great soil builder. The greatest of all sources of protein. The most essential constituent of our feed stuffs. No farmer's seed purchase is complete without a few bushels of Alfalfa. As a hay producer it surely has no equal when once established, as from three to four cuttings may be had in a season, according to conditions, totaling from four to six tons per acre. Compare this enormous yield with the ordinary hay or forage plant, and note the great financial difference. In these days of intensive scientific farming, crop growing should be considered strictly from a money basis.

Why Buy Fertilizer When You Can Grow Alfalfa?

Why pay out good, hard-earned money when you can grow right on your own farm a crop with the power to supply the necessary plant food for the growing of bumper crops. Alfalfa not only supplies nitrogen to the soil by means of gathering it from the air and storing it in nodules in its roots, but its long penetrating roots go down deep into the soil, gathering potassium and phosphorus from unexplored sources and incorporating the constituents into its plant cells, where upon breaking up the land these elements become available for other crops. Alfalfa does not only supply the necessary plant food for succeeding crops, but upon the decay of its fibrous roots the necessary humus is added to the soil and the land is placed in better physical condition for the growing of other crops. Thus we have Alfalfa fulfilling the requirements not only of the greatest fertilizing plant known, but of the greatest money crop, for no other crop will produce the revenue that a crop of Alfalfa will. Then, too, the number of cuttings which are obtained each season, add to the money-making power of this wonderful plant, making it one of the most profitable crops which can be grown. You may depend upon Alfalfa to furnish an abundance of feed. Prices of Alfalfa, 1 lb., 35c, prepaid; 10 to 50 lbs., at 24c per lb., not prepaid. 100 lbs. or more at 23c per lb., not prepaid.

A Few Hints on Growing Alfalfa

Alfalfa should never be sowed on freshly plowed ground. The best time for seeding is fall, but it can be planted in the spring. Soil should be prepared as finely as for garden seed; a well prepared seed bed is half the battle. Be sure there is plenty of moisture in the ground before planting, and then give proper cultivation to insure quick growth.

Quantity of seed per acre, 20 to 25 pounds to insure a full stand, though successful crops have been grown by drilling 15 pounds per acre.

Seed must not be covered deep; about one inch is best. Do not sow alfalfa unless you inoculate the seed.

We will gladly mail full directions on how to sow and cultivate Alfalfa, on request. The information contained in this pamphlet was obtained from several of the most successful Alfalfa growers in America.

Owing to conditions over which we have no control, all prices quoted in this book are subject to change without notice.

Inoculate Your Alfalfa, Clovers, Cow Peas, Soy Beans, Vetches
and All Other Legume Crops with

Mulford Cultures

FOR LEGUMES

Uninoculated

ALFALFA

Inoculated

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

THE CONTRAST SPEAKS FOR ITSELF.

ALFALFA (Lucerne)
CRIMSON CLOVER
SWEET CLOVER
WHITE CLOVER
RED CLOVER
ALSIKE CLOVER
Mammoth Clover

BURR CLOVER
Yellow Clover
Berseem Clover
COW PEAS
SOY BEANS
Canada Field Peas
PEANUTS

VETCH
Horse Beans
VELVET BEANS
Perennial Peas
SWEET PEAS
GARDEN PEAS
GARDEN BEANS

LIMA BEANS
Lupins
Sainfoin
Lespedeza
Beggar Weed
and others

Those printed in CAPITAL LETTERS can be shipped immediately from stock. The others will be prepared to order and can be supplied in a few days.

PRICES

MULFORD CULTURES are supplied for the varieties of legumes listed at the following prices:

5-Acre Size ("A Dollar per Acre")	\$5.00
1-Acre Size	1.50
¼-Acre Size	.50
Small Size (Supplied only in 4 varieties, for Garden Peas, Garden Beans, Lima Beans and Sweet Peas)	.25

(These prices include delivery on freight shipments.)

Why buy expensive commercial nitrates when you can grow legume crops and thus increase your yield and at the same time increase the nitrates and enrich and renovate your soil by Nature's own method?

FREE DESCRIPTIVE LITERATURE SENT UPON REQUEST.

Small Cost

Large Returns

Easy to Use

No Labor Expense

Mulford Cultures contain pure, tested strains of active, vigorous nitrogen-fixing bacteria, for inoculating seeds of legumes or soil. Enormous numbers of these very valuable and desirable bacteria are thus available to you in every package of Mulford Cultures and may readily be applied to your seed. The sealed bottle insures purity.

Increase Your Crops

Improve Your Soil

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

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

MULFORD CULTURES are scientifically prepared and tested by experts in the biological laboratories of H. K. Mulford Co., Philadelphia, U. S. A., with the same degree of care as Mulford Antitoxins, Serums, Vaccines, etc., which are standard all over the world.

Always specify on your order what crop you want to inoculate, as there is a different strain of bacteria for each legume.

Gorman's High Grade Pasture and Hay Grasses

The Grass and Clover seeds we offer this season are the varieties that experience and practice have shown to be best adapted for sowing in the South. It is an easy matter for the farmer to find out just what varieties will thrive and produce heavy crops of hay or make the best pasturage, but if you do not have this information at hand, write us, and we shall be glad to help you get the right kinds. A great deal of valuable information can be had from the various bulletins published by the U. S. Department of Agriculture, Washington, D. C., and from our own State Agricultural Experiment Station at Auburn, Ala. You can get the bulletins regularly if you send your name and address.*

Prices on Grass and Clover Seeds Fluctuate. The prices named are those ruling at the time this catalog is printed. We will quote prices at any time, or will fill all orders intrusted to us at ruling prices at the same time the order is received.

Timothy (Phleum pratense)

As a crop for hay, Timothy is probably surpassed by no other grass now cultivated. In fact, it is the standard hay in most localities. If sown alone it requires 8 to 12 pounds per acre. It is usually sown with other grasses about one-half to one-third of the above amount, with most excellent results. Timothy seed is one of our specialties and we sell great quantities annually.

Fields of Timothy may be maintained for ten years or more without renewing, but it does not withstand the trampling of cattle, or close grazing, it may be necessary to occasionally reseed fields that are pastured. Where fields become thin or weedy, sow a little seed, preferably early in the spring. To make the most palatable hay, cut Timothy when it is just coming into bloom. If left longer, or when in full bloom, it will be too dusty to use in feeding horses. By the time the bloom is passing it will have become woody and less palatable for general feeding, although it is relished by horses.

Timothy is the standard hay of commerce. The cheapness of the seed, the ease of culture, and excellent quality of hay make it a favorite. Timothy is the national hay of commerce. It is the hay for which the city teamsters and horsemen pay the fancy prices. It is probably of more importance commercially than any other hay grown.

Prices on Timothy Seed, by express or freight, your expense, $\frac{1}{4}$ bu., 60c; $\frac{1}{2}$ bu., \$1.10; 1 bu., \$3.00; 1 bu., \$5.50. Bags extra, 20c to 75c.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Kentucky Blue Grass

The grass that made old Kentucky famous for its fine horses and cattle and prosperous farming country.

Kentucky Blue Grass is one of the richest and most nutritious of pasturage grasses, and should be largely used in all pasturage mixtures, except on very light or sandy soils. For fall, winter, and spring it makes the very best of pasturage, and, mixed with other grasses like Herd's Grass, or Red Top, and Meadow Fescue or Randall Grass, will give an excellent all-the-year-round pasturage. Land well set in Blue Grass lasts longer than other grasses. In fact, a good Blue Grass pasture is considered to improve from year to year, and on land where it is well adapted, rarely ever requires reseeding. Kentucky Blue Grass can be sown either in the spring or fall. It grows rather slowly at first, but soon forms a compact turf, making a fine permanent pasturage when once established. A thick, well-set sod of Blue Grass is usually considered an ideal pasturage, both for nutritious qualities and yield, and wherever Blue Grass succeeds it should be one of the principal constituents of all pasturage mixtures. Blue Grass being a little slower to become well set than other grasses; it is also a good plan to sow some Perennial Rye Grass with it, when sowing in the fall. It should be sown at the rate of 40 to 50 pounds per acre. Per lb., 35c; bu. (14 lbs.), \$4.20. Special prices in quantity.

ITALIAN RYE GRASS (*Lolium Italicum*) — Grass resembles English Rye Grass. It is a valuable, vigorous-growing Grass, suitable for furnishing, in very short time, a splendid green pasture. It forms a good turf, and stands the dry weather remarkably well. This grass can be sown with success either in the fall of the year or very early spring. On rich land it will grow from 2 to 3 feet high. From forty to sixty pounds of seed should be used in seeding an acre. Lb., 25c, postpaid. By express or freight, not prepaid, lb., 20c; bu. of 14 lbs., \$2.10. Write for prices on larger quantities.

PERENNIAL or ENGLISH RYE GRASS (*Lolium perenne*) — Valuable in Grass mixtures for permanent pastures. It is of very quick growth, affording, in connection with other Grasses, valuable green forage, and when cut in bloom, a large quantity of hay. On good land it will grow from 1½ to 2 feet high. Perennial Rye Grass is also largely used in the South as a lawn Grass. From forty to sixty pounds of seed should be used in seeding an acre; that is, where used by itself. If sown in mixtures a much less quantity will suffice. Lb., 25c, postpaid. By express or freight, not prepaid, lb., 20c; bu. of 14 lbs., \$2.10. Write for prices on larger quantities.

JOHNSON GRASS — The popular prejudice against Johnson Grass is rapidly disappearing. The old argument that "you can never be rid of it" is being met with the statement that it is not a good thing to be rid of, but an excellent thing to have in a place where hay is desirable. Sow Johnson Grass at the rate of one bushel of clean seed to the acre. A bushel weighs twenty-five pounds. The early spring is the best time to plant, and usually one or two good cuttings may be obtained the first summer.

RED TOP or HERD GRASS — This is a good permanent grass, standing our climate well. Adapted to low lands and marshes, although it will grow with luxuriance on most any soil; whether wet or dry. Makes good pasturage if kept fed off close; or large returns of excellent hay if cut early; useful in lawn mixtures. Should be included in mixtures for seeding down marshy or overflow lands. We handle only the solid seed free from chaff, known as Fancy Red Top. Seed is cheaper this year and you should use more Red Top as it is easy to start and is exceptionally good

Happy and Contented on the Blue Grass.

for wet land. Price, postpaid, lb., 25c. By freight, your expense, 1 bu. (14 lbs.), \$2.50; 100 lbs., \$15.00. Bags free.

ORCHARD GRASS — One of the most desirable and widely known of all pasture grasses, coming earlier in the spring and remaining later in the fall than any other. It is of great value to dairy farmers, withstands drought and grows either in shade or sunshine. Grows about 2½ feet high, producing an immense quantity of leaves and foliage. Blooms with red clover, making with it an admirable hay. The aftergrowth is very heavy and gives a splendid rich pasture until late in the fall. Price, 1 lb., postpaid, 30c. By freight, your expense, 1 bu. (14 lbs.), \$4.50.

Bermuda Grass

WILL GROW ON ALMOST ANY SOIL.

Often planted for lawns. No grass will stand the sun better or will make a prettier carpet when kept short. It is also very valuable as a pasture and hay grass; but we would not advise planting on land that you expect to cultivate in other crops, as it is almost impossible to eradicate it after having once obtained a good hold. We can also supply Bermuda roots if desired, but the sowing of seed is much simpler, and an easier plan. Six pounds will sow an acre. Should be planted in spring but can be sown later. Under the most favorable circumstances it often takes from 60 to 90 days to sprout; requires damp weather and hot sun, but when once up, grows very rapidly. 1 lb., 60c, postpaid. Write for price in large quantities.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Gorman's Lawn Grass Always Produces Beautiful Lawns.

Gorman's Best Selected Lawn Grass Seed

Surely nothing is more beautiful about the home than a well-kept lawn. To have a good lawn you must first sow good seed. Below we list only the ones which experience has taught us are the very best. To get best results, fertilize well before sowing and keep the young lawn watered well.

GORMAN'S LAWN GRASS MIXTURE—Produces a quick, velvety, permanent, green turf. Kentucky Blue Grass forms the basis of this mixture, but other varieties are added in the right proportions to make a permanent, firm turf. Some of the sorts used are early and some late, to keep the lawn green from early spring to late fall; some creep over the ground, to bind the soil; others grow upright, to give a heavy turf. The best time to sow Lawn Grass Seed is from January 15 to May 15. Use one pound to every 400 square feet. Pkt., 5c; lb., 35c; 3 lbs., \$1.00, postpaid. By express or freight, not prepaid, lb., 30c; 5 lbs., \$1.35; 10 lbs., \$2.25; 100 lbs., \$20.00.

WHITE CLOVER—Many use White Dutch Clover in starting a lawn. It is used to get the grass started and for this reason many prefer it to other grasses. Price, postpaid, 1 lb., 65c; 2 lbs., \$1.25; 3 lbs., \$1.80.

SHADY NOOK—For shady places. Generally it is a difficult matter to get Grass Seed that will grow under trees or in the shade of buildings. This mixture is prepared specially for such places. Pkt., 5c; lb., 45c; 3 lbs., \$1.25, postpaid. By freight or express, not prepaid, lb., 35c; 5 lbs., \$1.60.

FANCY KENTUCKY BLUE GRASS—There is absolutely no grass better for lawns than Fancy Blue Grass. It comes early and stays green until late in the fall. Our seed is of high germination and pure. Price, postpaid, 1 lb., 40c; 2 lbs., 75c; 3 lbs., \$1.00.

Shady Nook.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Cotton Seed

Grown in North Carolina
Noted for Early Maturity

You of course know that if we expect to continue planting cotton in this section that we must use extra early varieties that will mature quickly and, at the same time, the seed should come from a district not infected with weevil.

One of the principal points we want to bring out and impress on you is that every pound of Cotton Seed offered you here has been grown in the State of North Carolina, away from the weevil infected district, grown especially for seed and ginned on private gins, where there is no possibility of mixture, and we are certain that there could not be varieties offered you that would compare with these in earliness, productiveness and ability to produce full crops in spite of the boll weevil.

King's Improved

The plant of King's is rather small, bearing short base limbs with numerous medium length upper limbs. On part of the blooms there is a red spot, usually inside the flower near the base. The main quality of this variety is its extreme earliness, being earlier than any other known sort. The staple is of good quality but rather short. The per cent of lint is high, running from 38 per cent to 40 per cent. The seeds are small, fuzzy, mostly greenish white and brownish green. The bolls are round and blunted. It is highly recommended for bottom or late lands. This variety has been grown successfully in territory infested with weevil. Bu., \$3.50. Ask for price on large lots.

Simpkin's Prolific

The main feature of this variety is its extreme earliness and prolificness. It will generally run forty per cent in lint. The quality of the staple is the very best, boll of good size, stalk medium in size and all of its branches are literally covered with bolls and it is a rare thing to see any of its branches that are barren. Growers of many years experience advise us they prefer this variety to any other for making cotton. Bu., \$3.60. Ask for price on large lots.

Cook's Improved

One of the very few big boll types recommended for weevil infested district. This variety limbs out well, starts close to the ground, has light foliage, fruits well and is undoubtedly an ideal big boll for this section. On rich land it is recommended to be planted in six foot rows, on fairly good land in five foot rows. The average per cent of lint is 40. \$3.50 per bu. Write for prices in large quantities.

All prices named in this catalog are subject to change without notice.

Pool's Big Boll

The introducer of this cotton claims that it is the earliest big boll variety, yielding from 37 per cent to 41 per cent lint, and we have many testimonials from first class farmers and merchants who have used this variety, stating that it is the best big boll cotton they have ever planted. If you desire to use big boll cotton, we advise the use of Pool's. We feel sure it will give perfect satisfaction. Bushel \$3.65. Ask for price on large lots.

GORMAN'S SEEDS ARE DIFFERENT.—Some people put price ahead of quality with the result that they get seeds that are minus the quality. The seeds that we list in this catalog are grown specially for us, and are under the constant care of experts who have made seed-growing a constant study. We know that you will not get better seeds, no matter where you buy. It's always good judgment to plant Gorman's "Seeds That Never Disappoint."

Price List of Parcel Post Egg & Butter Boxes

Send your eggs and butter to market by parcel post. In this way you deal directly with the consumer, and thereby obtain at all times the top notch price for your product. The demand for good fresh butter and eggs is unlimited, and the price good; why not take advantage of this great system instituted by our Government for your own benefit? Good fresh country eggs are retailing for 90c a dozen, and real good butter for 75c a pound. It will only cost you about 1½c a dozen and 1c a pound for butter delivered to Birmingham. There are thousands of people here waiting for you to tell them that you can supply their needs. Not only do these people of Birmingham want a high grade article, but they want a good sanitary container for that article. The average lifetime of the boxes we offer in regular service are from four to six months. Do not fail to take advantage of this, the one great opportunity of your life.

EGG BOXES FOR PARCEL POST.

Size	Weight each	Price each
1 dozen.....	8 oz.	25c
2 dozen.....	14 oz.	30c
3 dozen.....	1 lb 3 oz.	35c
4 dozen.....	1 lb 9 oz.	40c
5 dozen.....	1 lb 12 oz.	45c
6 dozen.....	2 lb 3 oz.	50c
10 dozen.....	3 lb 2 oz.	60c

EYRIE EGG BOXES.

Manufactured expressly for carrying hatching eggs.
15-egg size, 25c each. Weight, each, 14 oz.
30-egg size, 35c each. Weight, each, 1 lb., 7 oz.

PAPER EGG BOXES.

Just the thing for your family egg trade.
Egg Boxes, paper, 1-doz. size, 15c doz.; \$1.00 per 100; \$8.50 per 1,000.
The average weight of one dozen eggs is one and one-half pounds.

BUTTER BOXES FOR PARCEL POST.

(Constructed of same material as egg boxes.)

	Price each	Wt. each
1 lb.....	7c	2 ½ oz.
2 lb.....	9c	3 ½ oz.
3 lb.....	10c	5 ½ oz.
5 lb.....	15c	7 ½ oz.
10 lb.....	25c	10 oz.
30 lb.....	50c	1 ¼ lb.

Eyrie Shipping Coops

Eyrie Coops weigh less than muslin coops; are very strong and perfectly safe.

Made in five sizes, for single birds, pairs, trios and breeding pens.

	Each
No. A. 12x16x18 in.....	\$1.10
No. B. 12x18x22 in.....	1.35
No. C. 12x22x22 in.....	1.60
No. D. 20x22x22 in.....	1.85
No. E. 20x24x22 in.....	2.00

Sefton's Live Chick Boxes

25 chick size.....	\$0.45 each
50 chick size.....	.90 each
100 chick size.....	1.10 each

1lb. Paraffined Butter Cartons

Per 100, \$1.00; weight, 4 lbs., 10 oz.

These are recommended for use as inside boxes for parcel post boxes.

Gorman's Utility Mould

For moulding 1-lb. brick shape, each 40c; if by mail, 6c extra; dozen, \$4.50.

Ideal Mould, same shape as Gorman's Utility. Made of best maple and put together with brass screws. Also has brass screws for regulating the size, from 14 to 16 ounces. Price, each, \$1.25, postpaid.

The above moulds are recommended for moulding butter for parcel post.

Butter Paper

Best grade Vegetable Parchment Butter Paper, extra thin and of fine quality, pure white, per pound, 35c. Postage extra.

PRATT'S REMEDIES

PRATT'S POULTRY REGULATOR.

Healthy birds and lots of eggs, the two big things in poultry raising, are made certain by giving Pratt's Poultry Regulator. Packages 30c, 60c, \$1.20; 12-lb. pails, \$1.75; 25-lb. pails, \$3.00; 100-lb. bags, \$10.00.

It builds up vitality, insures sound digestion, sharpens appetite and prevents disease, thus putting birds into condition for heavy egg laying or winning blue ribbons.

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

PRATT'S is the original Poultry Regulator of America and is in use by the most successful poultry raisers everywhere. When regularly used, hens lay throughout the year.

It will prevent chicken cholera, gapes, roup, rheumatism, expel worms, prevent leg weakness and egg eating. It will greatly improve turkeys, geese, ducks, pigeons, guineas, insuring quick growth and keeping them free from disease.

PRATT'S POWDERED LICE KILLER.

Get rid of lice on your poultry, in nests, dustbaths, incubators and elsewhere in a day's time by using Pratt's Powdered Lice Killer. 30c and 60c.

Effective, non-poisonous, non-irritating. It quickly and thoroughly kills all lice on little chicks, big chicks, setting hens and incubator chicks. It rids horses, cattle, hogs, dogs and cats of lice, and destroys ticks on sheep. It destroys insects and bugs on vines, plants and flowers. Drives out moths from closets, furniture, carpets and clothing.

PRATT'S POULTRY DISINFECTANT.

If poultry keepers would regularly spray the chicken houses, roosts, dropping boards and utensils with Pratt's Poultry Disinfectant most all their troubles would vanish.

Three times as powerful as crude carbolic acid. A sure deodorizer, germicide and liquid lice killer. Use it for roup, colds and other contagious diseases. Quart, 50c; half-gal., 90c; gal., \$1.50.

PRATT'S BRONCHITIS REMEDY.

Bronchitis in poultry is fatal in a few days unless promptly checked with Pratt's Bronchitis Remedy, 25c and 50c.

This is sure, safe and quick and will 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.

PRATT'S CHOLERA REMEDY.

An unfailing remedy for cholera and a "guaranteed or money back" article is Pratt's Cholera Remedy, 25c and 50c.

It is administered in the drinking water and will be found of great value, not only for treating cholera but also in cases of indigestion, sour crop, dysentery, diarrhoea and bowel trouble.

PRATT'S ROUP REMEDY.

Don't let ROUP cut your profits. The sure and easy "ounce of prevention" against this dangerously contagious disease is Pratt's Roup Remedy. Tablets or Powder, 25c, 50c, \$1.00.

Quickly absorbed by the blood, purifies the system, reduces fever, allays inflammation. The safe remedy for roup, colds, catarrh and all bad weather diseases.

PRATT'S BABY CHICK FOOD.

When baby chicks come, keep them healthy and growing and bring even the weak ones along by feeding Pratt's Baby Chick Food. Packages, 30c and 60c. 14 lbs. for \$1.35; 100-lb. sacks, \$8.00.

A largely predigested baby food for baby chicks. Guaranteed to raise every livable chick. Prevents leg weakness, white diarrhoea, "pasting up" and other chick diseases.

The cost per chick for three weeks is about one cent. If by using Pratt's Baby Chick Food you can save five more chicks out of one hundred than you formerly did, considering these five chicks at three weeks of age as worth at least One Dollar, your food has cost you nothing and you have five more husky chicks. These figures are too conservative as losses ordinarily in many cases average 25 to 50% for the first three weeks.

Using Pratt's Baby Chick Food means Life Insurance for the baby chicks, for the critical first three weeks period, at a very small outlay and guaranteed to give the little fellows a splendid start which will prove the foundation for the development of strong, healthy pullets and cockerels.

PRATT'S CONDITION TABLETS.

Heavy laying hens frequently get into a "run down" condition. For a quick "bracer" to put them back into form we recommend Pratt's Condition Tablets. 25c and 50c.

Don't get the idea that these tablets are for show birds only just because they are extensively used by fanciers to keep their exhibition stock in the pink of condition. They are for utility birds as well. Will put flesh on the birds. Prevent colds, roup and liver troubles.

PRATT'S WHITE DIARRHOEA REMEDY.

To protect your chicks from white diarrhoea, the most destructive of all chick diseases, it is only necessary to give Pratt's White Diarrhoea Remedy. 25c and 50c. In the drinking water from the first drink. This remedy has saved many dollars' worth of chicks for poultry raisers. You can depend on it.

PRATT'S SCALY LEG REMEDY.

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

Pratt's Scaly Leg Remedy will effect a complete cure 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. 25c and 50c.

PRATT'S WORM POWDER.

To quickly rid your stock of these pests use Pratt's Worm Powder. Specially prepared for destruction of worms in horses, cows, hogs, and sheep. Has a strong tonic effect that builds up and helps the animal to regain strength. Unquestionably the quickest, surest and most thorough worm destroyer procurable. 50c and \$1.00.

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. Mailed postpaid upon receipt of price if not at your dealers. 25c tins.

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

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 Remedy, 25c and 50c.

It acts quickly, checking the spread of the contagion and curing the sores.

We guarantee a sure, rapid cure if Pratt's Sore-Head (Chicken-Pox) Remedy is used.

PRATT'S COW REMEDY.

Keep your cows healthy while forcing milk production, without increased cost for feeding or care by giving them Pratt's Cow Remedy, 60c and \$1.20; also sold in 12-lb. tins at \$2.75 and 25-lb. tins at \$5.00.

Insures healthy appetite, good digestion, increased vigor, greater milk production. Prevents and cures contagious abortion and other profit-destroying diseases.

PRATT'S HEALING POWDER.

Many wounds seem to heal more quickly by being kept dry. These can be perfectly protected from dirt and dangerous infection by covering with Pratt's Healing Powder. A guaranteed, antiseptic powder that forms a healthy dry coating over wounds and keeps out the cold. Arrests hemorrhages and checks blood flow. Just the thing for harness galls, sores, cuts and scratches. A valuable remedy for home use; 4 oz. sifting top enameled can, 30c.

PRATT'S HEALING OINTMENT.

Injuries of any kind are healed naturally and permanently and pain quickly relieved by applying Pratt's Healing Ointment, 30c and 60c.

Sores, cuts, scratches, wounds, burns, scalds, barb wire cuts, as well as skin eruptions, eczema and itching are quickly cured. Corns, harness and saddle galls disappear in short order.

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 thoroughly for nearly half a century, its worth is known and recognized by stock owners the world over. Always sold on a guarantee that it will satisfy you or your money back. 25-lb. pails, \$4.00, are popular with our customers. Packages, 30c, 60c, and \$1.20. Get prices on 50 lb. and 100 lb. sacks.

PRATT'S VETERINARY COLIC REMEDY.

As a positive remedy in all cases Pratt's Veterinary Colic Remedy cannot be excelled.

Equally effective in all cases of flatulent colic (sometimes called bloat), spasmodic colic, gas colic, kidney colic, and acute indigestion. Its action is quick, and a cure certain. 75c and \$1.50.

PRATT'S LINIMENT.

There is no better remedy of its kind for man or beast than Pratt's Liniment. Can be used either to blister or without blistering by regulating application.

Cures rheumatism, lameness, sprains, bruises, contracted muscles, shoulder or stifled lameness, thrush or canker, swellings, kicks, quinsy, curb, splint, capped hocks, shoe boils. 30c, 60c, and \$1.20.

If You Want More Eggs and Bigger Chicks

If your hens do not lay regularly both in winter as well as summer—if your little chicks do not grow and develop as fast as you would like to have them, the reason is probably that you are not feeding them enough egg-making and meat-making food in their rations.

Give your poultry more meat food—that contains a high percentage of digestible protein. Protein makes eggs. Protein makes meat and bone, and the best and cheapest form of protein poultry food is

DARLING'S MEAT CRISPS

A poultry food—not a feed. DARLING'S MEAT CRISPS are composed of clean meat—cooked, pressed, dried and ground fine. 75% protein guaranteed.

Just add a little Meat Crisps to your scratch grains, poultry feed or feed in hoppers and give your hens the "egg-a-day" habit the year 'round and make your little chicks grow big and fast.

It costs you only about 5c per month per hen to feed and will pay for itself ten times over in the extra eggs you get.

Put up in handy 3-lb. packages.

Price only 40c per package.

An Alabama Dairy Herd.

Planet Jr. Garden Tools

PLANET JR. No. 4, COMBINED HILL AND DRILL SEEDER, WHEEL HOE, CULTIVATOR AND PLOW.
Price, complete, \$19.50. As a seeder only, \$15.00.

PLANET JR. No. 25, COMBINED HILL AND DRILL SEEDER AND DOUBLE WHEEL HOE, CULTIVATOR AND PLOW. Price, \$23.00.

PLANET JR. No. 3, HILL AND DRILL SEEDER.
15-inch steel driving wheel. Hopper holds 3 quarts. Price, \$18.50.

PLANET JR. No. 1, COMBINED DRILL SEEDER, WHEEL HOE, CULTIVATOR AND PLOW. Price, \$15.50.

PLANET JR. No. 11, DOUBLE-WHEEL HOE.
With 2 pairs of Hoes, 2 Cultivator Teeth, 2 pairs of Rakes, 1 pair of Plows and 1 pair of Leaf-Lifters. Price, \$16.00.

PLANET JR. No. 16, SINGLE-WHEEL HOE. With 1 pair of Hoes, 3 Cultivator Teeth, 2 Rakes, 1 Plow, and 1 Leaf-Guard. Price, \$10.50.

PLANET JR. No. 2, DRILL SEEDER. Larger than No. 1 Combined Drill. No cultivator attachments. Price, \$12.75.

PLANET JR. No. 5, HILL AND DRILL SEEDER. Built on the same lines as No. 3 Drill, but larger. Price, \$21.00.

PLANET JR. No. 12, DOUBLE-WHEEL HOE.
With 1 pair of Hoes, 2 pairs of Cultivator Teeth, 1 pair of Plows, and 1 pair of Leaf-Lifters. Price, \$12.50.

PLANET JR. No. 13, DOUBLE-WHEEL HOE. With 1 pair of Hoes only. Price, \$9.00.

PLANET JR. No. 17, SINGLE-WHEEL HOE. 1 pair of Hoes, 3 Cultivator Teeth, 1 Plow. Price, \$8.75.

PLANET JR. No. 18, SINGLE-WHEEL HOE. With 1 pair of Hoes only. Price, \$6.25.

PLANET JR. No. 19, SINGLE-WHEEL HOE.
With 1 large Garden Plow, 1 10-inch Sweep, 1 6-inch Sweep, 1 4-inch Cultivator Tooth, 1 2-inch Cultivator Tooth. Price, \$6.25.

No. 33. SINGLE HOE.

Steel Frame, weight 22 pounds. Especially desirable for small gardens. Equipment, same as No. 31, except for seeder attachment and boxes; light, easily handled and very serviceable. Price, \$3.75.

The "PLANET JR." Catalog will be mailed FREE to any address on application.

Planet Jr., No. 4.

Planet Jr., No. 25.

Planet Jr., No. 3.

Planet Jr., No. 1.

Planet Jr., No. 11.

Planet Jr., No. 16.

No. 100. PLANET JR. CULTIVATOR WITH WHEEL.

Price, \$5.75 With Wheel.
Price, \$4.75 Less Wheel.

Packed weight, 50 pounds. This is economical, light and the latest cultivator made entirely of steel with the exception of the handles.

High Grade Fertilizers

We handle but one grade of fertilizers—the best. Special quotations to large buyers. Prices subject to market changes.

Darling's Sheep Manure

Apply one thousand pounds to the acre. For garden lawn or greenhouse use, nothing surpasses Sheep Manure; it is clean and easily handled, besides giving immediate results; especially for lawns. 5-lb. pkg., 25c; 10 lbs., 50c; 100 lbs., \$3.50; 500 lbs., \$15.00; ton, \$50.00.

Cow and Cattle Manure (PULVERIZED)

Some growers prefer this to the shredded kind and to sheep manure. It is thoroughly sterilized and weedless. Price, f. o. b. Chicago, 100 lbs., \$1.25; \$5.50 for 500 lbs.; 1,000 lbs., \$9.50; \$18.00 per ton. Price, f. o. b. Philadelphia, \$1.50 per 100 lbs.; 500 lbs., \$7.00; \$13.00 per ½ ton; ton, \$25.00.

Pure Bone Meal

This finely pulverized ground bone is excellent for rose culture and lawns. It decomposes rapidly and is more quickly effective than the coarser grade. It is excellent for mixing with soil for potting. 2 lbs., 15c; 10 lbs., 50c; 25 lbs., \$1.15; 50 lbs., \$2.25; 100 lbs., \$4.25; 200-lb. bag, \$4.00; per ton, \$35.00.

For lawns, use at the rate of at least 500 lbs. per acre.

High-Grade Trucker

Many good farmers and truckers think it cheaper to buy fertilizers of high grade analysis, even though they use less to the acre, than buy fertilizers of low analysis and use larger quantities to the acre, as the saving in freight is quite an item.

Analysis revised: Ammonia, 6 to 7 per cent; phosphoric acid, 8 to 10 per cent; potash, 2 per cent. Bag of 100 lbs., \$3.50; ton, \$55.00.

Nitrate of Soda

This is ordinarily the cheapest concentrated form of ammonia or nitrogen that can be bought commercially. It is usually applied after a crop is growing, because it is available so quickly that it cannot be used to profit when seed is planted, except on very quick-maturing crops. It is valuable in composts, and especially desirable to hurry on cabbage, onions, lettuce, and other vegetables, also to draw up wheat and oats. Write for prices.

Standard High-Grade Acid Phosphate

Nearly all Southern soils are lacking in available phosphoric acid and lime, and for this reason acid phosphate is a most valuable fertilizer. Apply at the rate of three to four hundred pounds to the acre. If broadcasted, it should be harrowed in when applied, so as to incorporate it well with the soil. When used on grass, clover, and grain crops, it is best to apply it two or three weeks before seeding.

16 per cent acid phosphate. Bag of 100 lbs., \$1.50.

Vegetable Fertilizer

Analysis revised: Ammonia, 3 to 4 per cent; phosphoric acid, 8 to 10 per cent; potash, soluble, 1 per cent. Bag of 100 lbs., \$3.00; ton, \$55.00.

This fertilizer is especially prepared and highly recommended for all vegetable crops. It gives most excellent results on peas, beans, cabbage, melons, and tomatoes. Use 300 to 400 pounds per acre in hills or drills, or 600 to 800 pounds per acre broadcast, mixing a little with the soil. A good substitution for stable manure or can be used in connection with it. This also makes excellent tobacco fertilizer.

Cyclone Seed Sower

A Very Popular Seeder and Very Extensively Sold

This sower is guaranteed to distribute seed perfectly, evenly, and will not throw seed in an upward direction or against the operator, but direct and evenly to the land. Sows clover, timothy, red top, or herd's grass, alfalfa, oats, rye, wheat, millet, buckwheat, turnip, and other varieties of farm seeds. It also distributes bone dust, land plaster, and fertilizer to advantage. Clover seed is sown a width of 18 feet; timothy, 15 feet; alfalfa, 20 feet; wheat, 25 feet; millet, 18 feet; oats, 18 feet. Thus it will be seen that one operator can sow from 40 to 60 acres per day, according to the kind of seed. Price, \$2.50 each.

The Standard Spray Pump

The Standard Spray Pump is in reality simply a very carefully designed and accurately made "Squirt Gun," provided with proper outfit of nozzles.

Its plan of operation is quite different from other types of spraying apparatus since the hose is used on the suction end instead of the discharge end. This makes it possible to use the pump with a bucket, barrel, tank, or knapsack, depending upon the number of trees or the kind of spraying to be done.

For bucket use a 3½ foot length of hose is supplied. To use it with a barrel or tank for a large orchard, a longer hose up to 25 or 30 feet is desirable. The work of spraying is all done from the ground. No ladders or platform needed. Since a large tree can be completely sprayed with ten or a dozen strokes of the pump, the work is done rapidly and at a minimum of labor.

For spraying young or scattered trees or truck crops such as potatoes, tobacco, etc., the knapsack and short extension are used. With these attachments the Standard will spray potatoes one row at a time at the rate of an acre an hour or better.

THE STANDARD IS MADE ENTIRELY OF BRASS. NO LEATHER PACKINGS. NO IRON CASTINGS TO RUST OR DECAY.

NOTHING TO GET OUT OF ORDER.

WARRANTED FOR FIVE YEARS.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

**POISON CANNOT
BE SENT BY MAIL**

Insect Destroyers

**PRICES SUBJECT TO
MARKET CHANGES**

Pat. March 16 and Nov. 9, 1897.

Bug Death

A popular insecticide, very effective against caterpillars and other leaf-eating insects. **Lb., 15c; 3-lb. pkg., 40c; 5-lb. pkg., 65c; 12½-lb. box, \$1.25; 100 lbs., \$8.50.**

Dickey

Bug Death Duster

A simple little instrument for applying any form of bug poison in dry form. It will more than pay for itself in a day's using. **35 cents.**

Tobacco Dust

A most valuable insecticide and will drive away almost all kinds of insects, being especially desirable to destroy lice and bugs attacking melons, cantaloupe, squash, etc. Tobacco is a high-grade fertilizer, and you can get your money back in plant-food alone, to say nothing of the value as an insecticide. **Lb., 10c; 10-lb. lots, 8c per lb.; 50-lb. lots, 6c per lb.; 100-lb. lots, 5c per lb.; 200-lb. bags, 4c per lb.** Special prices on ton lots.

Lime-Sulphur Solution

Is used as an insecticide to control San Jose scale, oster-shell scale, and all sucking or scale insects. For this purpose it is used as a dilution of one gallon to nine to eleven gallons of water, and applied during the dormant season, either after the leaves drop in the fall or before the buds open in the spring. The spring application just before the buds open, will control leaf blister-mite, plant-lice and peach-leaf curl, in addition to the scale insects. The fall application is advisable where trees have not been previously sprayed, and are badly infested with scale, or where the size of the orchard, together with climatic conditions, render spring spraying impracticable. Grasselli Lime-Sulphur Solution is also used as a summer spray to control scab, leaf-spot, and similar fungous diseases on apples and pears; also to control scab and brown rot on peaches, plums, and cherries. On apple and pear foliage, it should not be used stronger than one and one-half gallons to fifty gallons of water. Some prefer one and three-quarters gallons to fifty gallons of water. On plum and cherry foliage, it should not be used stronger than three quarts to fifty gallons of water, and on peaches one-half gallon to fifty gallons of water. **Qt., 30c; gal., 85c; 5 gals., \$4.00; bbl. of 50 gals., 40c per gal.**

Slug Shot

Is a powder, not poisonous to any extent to human life, but certain death to all classes of leaf-eating insects. It is applied by dusting on in the dry state, or it can be mixed in water and sprayed on. Slug-Shot, when dusted on vegetation, will keep off more or less insects that it does not kill. It is a valuable fertilizer. **Lb., 20c; 5 lbs., 65c; 10 lbs., 85c; 100 lbs., \$6.50.**

Paris Green

Is very poisonous. The most reliable destroyer of all leaf-eating insects, but is almost worthless for destroying

what is known as sucking insects. If thought desirable to use in solution which is really the most economical way, from one-quarter to one pound will be sufficient to add to fifty gallons of water, the quantity depending upon the tenderness of the foliage it is to be applied to. **¼ lb., 25c; ½ lb., 50c; lb., 75c; 5- to 10-lb. lots at 48c per lb.**

The Acre-an-Hour Sifter

An improved sifter for applying all classes of dry poisons. Its construction is so regulated that you can apply any quantity to an acre. **85 cents each.**

Bordeaux Mixture

This is a preventive of plant diseases, especially apple scab, rust on melons, beans, hollyhocks, etc., besides rot and mildew. Bordeaux Mixture may be applied alone or combined with arsenate of lead or Paris green for codling moths, potato beetles, caterpillars, and chewing insects in general. Semi-liquid (113), mix 1 gallon with 40 gallons of water. **Pt., 25c; qt., 40c; ½ gal., 75c; gal., \$1.00; 5 gals., \$4.00.**

Fungi Bordo

A dry powdered bordeaux mixture, to be used at the rate of 1 pound to 5 gallons of water. **1 lb., 40c; 5 lbs., \$1.75. Tuber Tonic. A Bordeaux with Paris Green added. Per lb., 45c.**

The use of insecticides and spraying materials cannot be too highly recommended. More and more the farmer is coming to recognize the need of protecting his crops from the insects which prey upon them.

For the Farmer's Benefit

It was with the farmer and dairyman in mind that this catalog was written. We have taken our experience with seeds and supplies and have offered it here hoping that it will help both you and us. There is a truly Southern planting table on page 2. The seeds offered are the kinds that have grown and will grow in the South. You can depend on the information given as being correct. Send us your order.

Spraying and Dusting Implements

The Faultless Sprayer

Made in Brass and Tin. Throws a Spray as Fine as Mist. Kills Drives Away and Exterminates Every Living Thing Obnoxious to Yourself, Your Animals or Your Crops.

Fig. 790.
Price, 60c each.
Will Spray Dry Powder.

Is adapted for the destroying of every kind of insect.

One-half tablespoonful of Paris Green and one filling with water is sufficient to destroy all the bugs on 1,300 hills of potatoes.

The Faultless Sprayer is absolutely the best constructed sprayer of its class ever offered to the trade. For strength and durability it has no equal. The tapering point to air chamber gives great force to the spray, carrying it to the greatest possible distance.

Fig. 1521.

The Myers Cog Gear Barrel Spray Pump

Patented January 16, 1912.

WITH MALLEABLE IRON BASE.

Cylinders, Valves, Valve Seats and Discharge, All Brass.

All Working Parts Submerged in Liquid, Hence No Priming Necessary. Has Both Jet and Mechanical Agitators.

PRICE LIST.

No. R318B, Fig. 1521, as above with one lead of 15 feet of $\frac{1}{2}$ inch 5-ply discharge hose, graduating Vermorel nozzle. Price, \$21.00.

The Myers Handy Portable Sprayer

Patented.

WITH COG GEAR SPRAY PUMP AND MECHANICAL AGITATOR.

Made of Extra Heavy Galvanized Iron, Capacity, $1\frac{1}{2}$ Gallons, Suitable for Spraying Trees, Whitewashing, Painting, Etc.

Fig. 1614 illustrates the Myers Handy Sprayer as made for general use as a handy outfit about the home.

The pump is our regular No. R318B fitted with cog gear handle and mechanical agitator. The pump is securely attached to the tank by means of a clamp connected direct to the channel iron that

surrounds the top of the tank, held in position by one thumb screw. The handle can be located at any point desired.

The pump is fitted complete with mechanical agitator, 15 feet of hose and an 8 foot pipe extension in two 4 foot parts, which adapts it for spraying large trees and also for use in whitewashing on the inside of low buildings.

The tank is made of heavy galvanized iron thoroughly reinforced at top and bottom by steel bands. The wheel and handles are made of wrought steel thoroughly braced. The wheel is 16 inches in diameter.

No. R336B, Fig. 1614, Myers' Handy Portable Sprayer, complete as shown in illustration with mechanical Agitator and Vermorel nozzle. Price, \$33.00.

The Myers Whitewash, Cold Water Painting Machine and General Purpose Sprayer

With patent double agitator. A complete and serviceable outfit.

The tank is made of heavy galvanized iron with a wide bottom, with removable cover, which prevents any spilling or splashing of the liquid. Holds 7 gallons.

The pump is our regular No. R324 Cog Gear Bucket Spray Pump, as shown under Fig. 1726, fitted with Bordeaux nozzle, brass ball valves, and patent double agitator.

Fig. 1736.

No. R329, Fig. 1736, complete as illustrated. Price, each, \$16.50.

Fig. 1726.
No. R324.

Fig. 1726 illustrates the Myers Bucket Spray Pump, with Cog Gear Handle. This pump has $1\frac{1}{2}$ inch diameter brass cylinder with solid plunger, brass ball valves, brass air chamber and discharge tube. The foot rest, head and cog gear handle are malleable iron. The large cylinder in combination with the cog gear handle makes this an exceptionally easy working pump of more than ordinary capacity. Has patented jet agitator which keeps liquid thoroughly mixed.

No. R324, Fig. 1726. Myers Cog Gear Bucket Spray Pump, with agitator, complete with detachable hose and graduating Vermorel fine, sprinkling and solid stream nozzle, packed one in a carton. Price, \$9.00.

Auto-Spray No. 1

The Auto-Spray No. 1 is the standard of all compressed-air Sprayers, and is guaranteed in every particular. It consists of a four-gallon reservoir made either of heavy brass or galvanized iron, and is fitted with patented automatic shut-off that enables the operator to direct the spray with only one hand. By releasing the fingers the shut-off automatically closes. The brass pump locks into the center of the tank by a convenient cam arrangement that only requires a half-turn of the handle to make it airtight. It is fitted with best-grade five-ply rubber hose and eight-ply halter-web carrying strap. Every machine is fitted with a patented screen nozzle that absolutely cannot clog.

Auto-Spray No. 1-B. Brass tank, with "Auto-Pop," \$9.50.

Auto-Spray No. 1-D. Galvanized tank, with "Auto-Pop," \$7.50.

Auto-Spray No. 1.

Complete Sprayer Catalog will be mailed FREE to any address on application.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Buckeye Incubators

Are Guaranteed to Hatch MORE Chicks and BETTER Chicks Than Any Other Incubator.

No. 14 Style E.

Weight, crated for shipment, 55 lbs. Capacity 60 eggs. Price\$12.00 No 14 is especially adapted for use by the small raiser. It has all the important features of the larger machines, such as visible thermometer, and the Buckeye heating and ventilating system. The temperature is easily regulated and the consumption of oil is low.

No. 16, Style E. Capacity 110 eggs; weight, crated for shipment, 85 pounds. Price \$20.50. This machine is the same as No. 14, except that it has a greater egg capacity and long legs instead of short ones.

No. 17, Style E. Capacity 200 eggs. Weight, crated for shipment, 125 pounds. Price, \$27.50. Same as No. 16, except that it has a greater egg capacity.

No. 17
Style E.
200 Egg.
Price \$27.50.

All style E incubators have single walls and are equipped with galvanized armor and rust-resisting heaters.

No. 15, Style H. Capacity 60 eggs. Weight, crated for shipment, 75 pounds. This is a wonderful little hatcher and was designed for the raiser who wants the best, even in a small machine. The walls are all double and the equipment is the same as the larger machines. This incubator has long legs, which makes it more convenient to operate. It is self-regulating in every sense, never fails, and is efficient and economical.

No. 15
60 Egg.
Weight
crated 75
pounds.
Price, \$16.50.

We are exclusive agents in Los Angeles for the famous Buckeye Incubators and Brooders. Years of experience in the poultry supply business have convinced us that these are the most efficient hatchers on the market. The Buckeye Incubators are sold under an iron-clad GUARANTEE to hatch a chick from every hatchable egg. This is the guarantee the makers give with every machine sold.

WHY THE BUCKEYE SUCCEEDS.

The unprecedented success which has followed the Buckeye for twenty-five years is primarily due to the invention of the Buckeye hot water system. Without this wonderful system of hot water heating, that perfect balance between the temperature, moisture and ventilation, which is so necessary to successful incubation, would be a physical impossibility. The ability to heat the egg chamber without cooking all the moisture out of the air is not only responsible for the abundant supply of natural moisture, but at the same time the soft radiated heat from the hot water tank provides an absolutely uniform temperature, and permits the perfect ventilation of the egg chamber at the same time.

Too much emphasis cannot be attached to the importance of keeping impure gasses and fumes out of an incubator. Instead of passing the hot air fumes through the incubator, with a likelihood of leakage in the conductor at any time, we heat the hot water on the outside—send it circulating around the egg chamber—and keep all the fumes from the lamp on the outside. It takes but a very small portion of lamp fumes to kill the developing chicks, and by circulating hot water through the egg chamber instead of hot air, we entirely eliminate all possibility of damage to the eggs.

BUCKEYE GUARANTEE.

This Buckeye Incubator is guaranteed to hatch every hatchable egg, and we further guarantee the perfect working of all its mechanical parts. Should the incubator fail to fulfill our guarantee in any particular, it may be returned to us at our expense (via freight) any time within 40 days after its receipt, and we will send the purchaser a new incubator in exchange.

HATCH MORE AND STRONGER CHICKS.

The Buckeye will hatch more chicks and stronger chicks than any other make of incubator. It requires no artificial moisture; will operate satisfactorily in any climate, and requires no attention to the regulator from the time a hatch is started until it is finished.

NO PREVIOUS EXPERIENCE NECESSARY.

It is not necessary to have any previous experience to operate a Buckeye. The entire Buckeye system is so simple that a boy or girl can operate it as satisfactorily as an experienced operator.

BUCKEYE STANDARD INCUBATORS.

The Buckeye Standard is an improved Buckeye. It is fire-proof and fool-proof. It is equipped with every desirable device that could possibly add to the efficiency of an incubator. Only the best material is used throughout and a Standard should last a lifetime. In addition to being the most satisfactory hatcher on the market, the Standard Buckeye is fire-proof, and therefore, insurable. Each machine is inspected by the National Board of Insurance Writers before it is put on the market.

NEW MAMMOTH STANDARD.

The New Mammoth Standard is a superior incubator in every sense of the word. It is guaranteed to be mechanically perfect in every part, carefully constructed of selected materials. It is further guaranteed to hatch more and better chicks than any other mammoth incubator of like capacity. The Mammoth Standard is equipped with an electric fan, is fire-proof, insurable, and has a gas heater. A special feature of this improved Mammoth is the fact that you can have a continuous hatch. As soon as one tray of eggs is hatched you can remove it and insert a new tray of eggs. This is due to the fact that each compartment is distinct and separate from the other compartments. The egg capacity is 2440, and the price, \$350.00.

No. 1
Standard
110 Egg
Price, \$27.50.

No. 1 Standard has a capacity of 110 hen eggs, or 85 duck eggs. It is complete in every detail and is ready for immediate use. The weight, crated for shipment, is 100 pounds. This incubator is insurable and bears the Underwriters' label. An improved feature of all Standard incubators is the enclosed lamp. Equipped with oil or gas heater.

No. 2 Standard has a capacity of 175 hen eggs or 140 duck eggs, is equipped with oil or gas heater, and is complete and ready for use. Weight, crated for shipment, 135 pounds. This machine is insurable and bears the Underwriters' label. Price, \$32.50.

No. 3 Standard has a capacity of 250 hen eggs or 200 duck eggs, is equipped with oil or gas heater and is complete and ready for use. Weight, crated for shipment, 200 pounds. This machine is insurable and bears the Underwriters' label. Price, \$42.50.

No. 3
Standard
250 Eggs.
Price, \$42.50.

No. 4 Standard has a capacity of 350 hen eggs or 280 duck eggs. Equipped with oil or gas heater and is ready for use. Weight, crated for shipment, 230 pounds. Insurable and bears Underwriters' label. This machine is very convenient for the commercial raiser. Price, \$52.50.

No. 5 Standard (Mammoth Standard). Capacity 600 hen eggs or 480 duck eggs. Outside dimensions 54 inches square, 36 inches high. Equipped with four egg trays, holding 150 eggs each. Double doors on front and back; oil or gas heater. Complete and ready for use. Bears Underwriters' label. Weight, crated for shipment, 325 pounds. Price, \$75.00.

Standard No. 5
600 Egg.
Price, \$75.00.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Buckeye Brooders

THE STANDARD COLONY BROODER.

The Standard Colony Brooder will successfully brood 100 chicks or 1000. It is the simplest, safest and most economical brooder on the market. It cuts the cost of labor in half and reduces cost of operation. A poultryman can now handle 1000 chicks with about the same amount of work that he formerly took to raise 100.

Standard Colony
Brooder No. 18.
Capacity 500 Chicks.
Self-feeding
Self-regulating
\$19.00.

BURNS ANY KIND OF FUEL.

The Standard Colony will burn any kind of fuel—hard or soft coal, coke, charcoal, briquettes or gas. It is self-regulating. You simply have to adjust the regulator at the beginning of the brooding season, and then forget about it. It is self-feeding. You fill the stove once a day, and then no further attention is required, as the fuel automatically feeds the fire until it is entirely burned out. It is guaranteed to burn more than 24 hours in any kind of weather.

SIMPLE TO OPERATE.

No previous experience is necessary to operate a Standard Colony Brooder. The whole apparatus has but one adjusting nut, and it is only necessary to touch that once a season. Only attention required is to fill stove once a day.

CAN BE OPERATED ANYWHERE.

No room is too large or too small for a Standard Colony Brooder. It can be operated in any room that is large enough to accommodate the hover and give room to move around. Can be handled with equal success in the largest barn or in the smallest colony house.

ABSOLUTELY FIRE PROOF.

It is guaranteed to be fire proof and will not increase the cost of insurance. It is just as safe as any stove that burns coal or gas and cannot by any possibility set anything on fire.

Standard Colony Brooder No. 19.

Capacity 1000 Chicks.

Self-feeding Self-regulating

\$23.50.

GUARANTEE.

The Standard Colony Brooder is guaranteed to do everything that any brooder on the market will do—and do it better—no matter what the other brooder costs.

THE SECURITY PORTABLE BROODER.

This brooder is all that the name implies—and more. It is the only lamp heated brooder ever invented that possesses every desirable qualifications for the welfare of the little chicks. It is the only oil-burning brooder that provides every ideal condition which you know to be necessary to the health and growth of the chicks, and its construction is so simple that the operator cannot go wrong. There is nothing to adjust, nothing to get out of order, nothing to look after but the lamp—and that requires filling but once in 24 hours. Capacity 150 chicks. \$16.50.

ABUNDANCE OF FRESH AIR AND HEAT.

The Security Brooder furnishes an abundance of fresh air and heat at all times. Every particle of heat coming from the high power lamp is utilized to heat the interior of the brooder. The Security construction insures the highest degree of efficiency and we guarantee the satisfactory operation of every brooder in any inside temperature down to freezing. The lamp is protected from the chicks by a galvanized wire guard extending from the floor to the overhead canopy. This keeps the lamp perfectly clean at all times and guards against interference from the chicks.

BUCKEYE PORTABLE BROODERS.

These portable brooders are illustrated below. They differ from the Security in that they have the lamp on the side instead of the center of the machine, which is considered by many to be more convenient. The Buckeye Portable has all the desirable features of the coal-burning brooder. It is guaranteed to raise more chicks and better chicks than any other oil-burner on the market, and is also guaranteed to furnish an abundance of heat in any temperature down to freezing. This brooder is absolutely free from all gases or odors, and there is always a good circulation of pure, fresh air. Under this system of brooding the chicks get a better and quicker start, and develop so rapidly that the customary "baby troubles" never have a chance.

Another illustration of the Standard Colony Brooder which shows the ease and simplicity of operating.

CAN BE USED ANYWHERE.

The Portable Brooder can be used anywhere—in the house, barn or out of doors. Easy to handle and easy to operate. No crowding of chicks, as there is always an abundance of heat no matter what the temperature outside may be. The Buckeye Portable Brooder is guaranteed to operate successfully in any temperature down to freezing.

Portable Brooder No. 22,
Diameter 30 in., Capacity
150 Chicks. Price, \$13.50.

Portable Brooder No. 21,
Diameter 22 in., Capacity
100 Chicks. Price, \$10.50.

Portable Brooder No. 20,
Diameter 19 in., Capacity
60 Chicks. Price, \$8.50.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Increase Your Live Stock Profits With

The Great Worm Destroyer and Live Stock Conditioner

This simple remedy will rid your stock of worms, improve their digestion and keep them healthier, so that they will thrive better and make faster gains with much less feed. The saving in feed alone more than pays its cost.

SAL-VET is the cheapest and most dependable worm destroyer and conditioner you can buy—it destroys the worms and does it without any trouble to you—your stock doctor themselves—no dosing or drenching—you put it in their feed, or where they have access to it and they will eat just what they need to keep their systems toned up.

Your Money Back if any of these Remedies Fail

In offering SAL-VET and SAL-VET REMEDIES to our trade, we do it with the understanding that unless they do all that is claimed for them you get your money back. SAL-VET REMEDIES include a reliable and guaranteed line of remedies that every farmer and poultryman should keep on hand at all times. The small investment will pay you big returns.

The Dairy Maid

This stove will burn hard or soft coal or two-foot wood with equal facility, and as shown in the cut, may be supplied with a cast-iron tank, twenty-eight inches long, seventeen inches wide and thirteen inches deep, holding twenty-three gallons. The tank is furnished plain or enameled, as ordered. It is large enough to take in and scald the largest milk can. It can also be used for heating water, cooking for hotels, preserving fruits, cooking feed, boiling clothes and other uses. The tank may be taken off, and a deep pan twelve by twenty-three inches, for heating sad irons, put in its place.

PRICE

Stove and pan only, with Dumping Grate and linings for burning hard or soft coal or wood. \$25.00
Weight, 196 pounds.

For Galvanized Tank add \$3.50 and for Enameled Tank add \$5.50 net to price of plain tank.

Plain Cast Iron Tank, Weight 74 pounds, Price 5.00

Solon Steel Boiler

This furnace and caldron is designed to meet the wants of farmers, butchers, contractors, and others who want something good as well as low priced, and while we do not recommend it as equal to our Profit or Rival Boilers, it is, nevertheless, a good practical apparatus. It is supplied with our regular caldrons, which are unrivaled for fine finish and durability. The jacket or shell is made from heavy sheet steel, with edges banded, and has no bottom, as the stove is intended to be used on the earth, or to be filled with brick or clay up to the bottom of the feed door. It is provided with double doors so that it can be conveniently used as a coal burner when supplied with coal fixtures.

Ten sizes, heavy steel shells, large double doors, Sperry's Perfect Caldrons. Capacity guaranteed. Don't confound this boiler with those of similar construction made from stove-pipe metal.

LIST

No. 1.	25 gallons, weight 165 lbs.....	\$24.00
No. 2.	33 gallons, weight 190 lbs.....	28.50
No. 3.	40 gallons, weight 225 lbs.....	30.00
No. 4.	48 gallons, weight 240 lbs.....	31.50
No. 5.	53 gallons, weight 255 lbs.....	33.00
No. 6.	58 gallons, weight 260 lbs.....	34.50
No. 7.	65 gallons, weight 335 lbs.....	36.00
No. 8.	75 gallons, weight 375 lbs.....	38.00
No. 9.	90 gallons, weight 470 lbs.....	42.00
No. 10.	110 gallons, weight 500 lbs.....	50.00

Subject to Discount.

Coal Fixtures for Nos. 1, 2, 3, 4, 5, 6, 40 pounds, \$3.50. For Nos. 7, 8, 60 pounds, \$5.25. For Nos. 9, 10, 80 pounds, \$6.75.

Cross Section showing earth lining.

Cross Section showing Coal fixtures.

Louden Senior Hay Fork Carrier

The Louden Senior Fork Carrier is built to operate in any style barn on the Louden double bead steel track.

This carrier, throughout, is built strong and sturdy and, in addition, its mechanism is simple and sure. It has the wide flaring mouth and the round-topped fork pulley that has been a distinctive feature of Louden Carriers for years. The fork pulley will never fail to register from whatever angle it may be drawn, and the grappling hooks take a deep, sure grip on the pulley.

The Louden Senior is a "Louden Swivel" frame carrier and is especially efficient whether hay is taken up from the end of the barn or from a center driveway. With the Louden Senior Carrier the barn can be filled clear to the track. There is no danger of breaking any part of the carrier, as the load can swing back directly behind carrier when necessary.

The Carrier is made of the best material. We guarantee that it will operate easily and that it will handle a load weighing 1500 pounds continuously and with safety.

Emancipator Litter Carrier

The Louden Emancipator Litter Carrier is made for the man who wants the best, who is satisfied with nothing short of perfection.

There is no other carrier like it; no other carrier that has the same strength, symmetry, lifting power, or ease of propellment along the track. The lowering and raising of the box is so easy that with the same effort practically double as much can be raised as with any other hoisting device. The box is built 48 inches long, 27 1/8 inches wide, and 22 inches deep. It is water-proof; this avoids the spilling of liquids and the most valuable part of the manure is saved.

The box is hung at a perfect balance. The trip lock in the end of the box is so adjusted that it is impossible to dump the box unless it is so desired, yet makes it an easy matter to dump the box with a shovel or fork.

The Louden Litter Carrier meets all requirements and will last a lifetime.

Louden Double End Feed Carrier

The advantages in using a Feed Carrier are many. It is not only a labor-saver, but a herd can be cared for in half the time that it takes with other methods.

A carrier can be run under the silo chute or spout from grain bins, and enough feed loaded into the carrier to feed twenty or more cows or other stock. With a feed carrier operating on an overhead track, you always have clear right-of-way.

The Louden Double End Feed Carrier is a large carrier, built extra strong for heavy work. Each end of the carrier has a sloping shovel board, so two men can work at it handy. The carrier is furnished with the Emancipator hoisting device, which has no equal, and which has a ratio of 40 to 1. One pound pull on the hand chain will lift forty pounds in the carrier box.

The feed box is well constructed throughout and the carrier itself is warranted superior to anything of the kind on the market.

DAIRY SUPPLIES

We Are in Position to Satisfy All Your Needs

The time has come when it is absolutely necessary for the Southern farmer to do something besides raise cotton. And right now is the opportune time for every farmer to engage in a business which brings in cash returns every day in the year. This is the dairy business. Write today to your State Agricultural Department, also to the U. S. Department of Agriculture for bulletins on this subject. There is no business which promises more for the investment than a small herd of cows. Investigate today.

Our line of equipment for the dairy is complete in every detail, and we can furnish you with everything needed for the successful operation of a modern dairy. Write us today for complete information.

We give here only a partial list of our equipment and should you fail to find listed exactly what you need, kindly write us. Our stock is complete.

Sanitary Milking Stools

THE HERCULES.

This stool is a one-piece malleable iron galvanized casting, covering all the requirements of a stool in an up-to-date dairy. It is sanitary. It is intended to be sterilized. It is light. It is convenient to handle. It is comfortable to sit upon. It is indestructible. It is just what you want. It is just what the board of health wants.

Prices.

Each \$ 2.75

Ask for quotation on quantity lots.

Ask for Samples and Prices

WRITE US FOR DELIVERED PRICES—The prices on Sorghums, Millets, Seed Corn, etc., change often. We want you to write us for delivered prices when you are ready to buy in quantity. We can often save you money. We are always glad to mail samples of our stocks and show you what the seed will cost delivered at your station. Don't be afraid to ask for samples and prices; this puts you under no obligation to purchase unless you care to do so.

Louden Steel Stanchion.

To Modernize Your Farm, Loudenize Your Barn

We are prepared to outfit your barn completely with Louden equipment. Write us for full information and barn-equipment catalog. We furnish plans free for building barns, when they are equipped the Louden way.

Louden Steel Stanchion

Made of high carbon tubular steel; built to last. Warranted superior to any stanchion made. It is the strongest as well as the lightest, and is also the easiest to keep clean. No sharp corners to injure the cow's neck; no cracks or crevices to harbor disease germs.

Barns Which We Have Equipped

We have equipped the finest and largest barns in this territory, among them:

W. B. Baker & Sons, Route 4, Birmingham, Ala.; E. L. Wilkinson, Route 3, Birmingham; Holcombe Bros., Route 3, Birmingham; R. W. Kirk, Route 4, Birmingham, Ala.; S. L. Brewster, Route 6, Birmingham; W. S. Mayhew, Sayreton, Ala.

Louden Side-post stall No. 959. Each \$5.20 f. o. b. factory.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Galvanized Steel Delivery Cases

This is one of the most convenient and serviceable of cases, made to use without rack in the wagon. Water-tight, with removable iron partition, arranged so that one stacks on the other. The pint cases fit on the quart cases, and vice versa. Can be used in any wagon without special arrangement. These cases are made of extra-heavy galvanized steel and will not rust. They are built to last and will give years of excellent service. They are light and easily handled.

20-pt. case, 4x5	\$3.00
12-qt. case, 3x4	3.00
24 ½ pt. case, 6x4	3.25

Perfection Delivery Cases

Are made of hard wood and are reinforced with iron. They cannot be buckled, bent, or dented. They have heavy iron corners, and stack perfectly. The partitions and bottom (open bottom) are made of galvanized steel wire, all put in and clinched on ends with special machinery. Every precaution is taken to make them strong and sanitary. Some of the largest dairies in the East use these cases exclusively.

20-pt. case, 4x5	\$1.50
12-qt. case, 3x4	1.50
20 ½-pt. case, 5x4	1.50

Bottle Delivery Baskets

Heavy Wire.

Size	Heavy Retinned Band Steel.	Wire	Band Steel
6-qt.		\$1.10	\$1.50
6-pt.		1.10	1.75
8-qt.		1.35	2.00
4-qt., 2-pt.		1.50	
4-qt., 4-pt.		1.50	
12-pt.		2.00	

Rubber Aprons

Rubber is desirable as material for aprons, as it is bound to protect the wearer and his clothing from acid as well as grease, etc. For all purposes a rubber apron is the best.

	Each
Light Black	\$3.00
Heavy Black	3.25
White	3.25

Fish Brand Aprons

These are made of canvas and are heavily oiled. They are very well sewed and are cut in three lengths. This is the most popular apron among buttermakers. No. 1, long; No. 2, medium; No. 3, short; each, \$1.50.

Superior Milk and Cream Bottles

Our bottles are extra quality, full weight, and full measure, and are made from best clear glass.

Size	Packed	Doz.	Gross
¼-pt., gross case..	\$0.35		\$9.00
½-pt., gross case..	.45		9.00
1-pt., gross case...	.55		9.50
1-qt., gross case...	.60		10.50

Orders for half-gross lots taken at gross prices.

145 FARM USES

Milking Machines

Spray Barns and Stock

Save Every Calf

Hog Sanitation

Incubators

Safe - Clean
Powerful
Saves Time

Leaves No Odor
Not a Poison
Saves Labor

NOTE THESE REMARKABLE QUALITIES OF B-K

POWERFUL. By Government Method test B-K has over ten times greater germ-killing strength than carbolic acid. Much stronger than coal tar disinfectants—much safer.

SAFE. B-K contains no poison, acid nor oil.

CLEAN. B-K is colorless, leaves no stain on floors or walls.

DEODORANT. B-K destroys foul odors—leaves no odor of itself. Does not soil animal's hair.

CHEAP TO USE. B-K is so much stronger than other disinfectants that more water is used. It goes farther.

USE B-K FOR

Contagious Abortion
Retain After-birth
Barrenness
Calf Scours—Bloat
Poultry Diseases
Hog Sanitation
Barn Disinfecting

Sterilizing
Milk Cans, Bottles
Separators
Milking-machines
Deodorizing
Cleaning Cows
Home Sanitation

EVERY USE OF B-K SAVES WORK

B-K is packed in 1 gallon and 5 gallon jugs, each in solid case for re-shipment.

Single Gallon, \$2.50; 5 Gallon Carboy, \$11.00.

Liberal Discounts to consumers on half-barrel and barrel quantities.

SOLD UNDER THE MANUFACTURERS' GUARANTY.

Ask for Farm Bulletin No. 317

Laundry

Sick-room

Refrigerator

Garbage Can

Dairy

No. 2 "Blizzard"
Lantern

No. 2 Large Fount
"Wizard."

"Monarch" Lantern

DIETZ LANTERNS

NO. 2 "BLIZZARD" LANTERN (Cold Blast)—This Lantern first appeared on the market in 1898 and has been continually improved. Two attractive new features are the Wing-lock Rising Cone Burner, exposing the wick for trimming and lighting, and the patent "Loc-Nob" Globe. The No. 2 "Blizzard" gives a clear white light of ten candle power. **Special Features:** Dietz security standing bail, patent brass eyelets, patent safety (wing-lock) rising cone burner, patent reinforced tubes, patent globe lift on inside of frame, large oil-filler, patent locking globe, and double-seamed solderless dome-shaped oil fount.

NO. 2 LARGE FOUNT "WIZARD" (Cold Blast)—Attention is called to the new Large Fount Lantern, Dietz No. 2 Large Fount "Wizard." This lantern burns 40 hours with one filling and gives a light of ten candle power. **Special Features:** Dietz security standing bail, patent brass eyelets, patent safety (wing-lock) rising cone burner, patent reinforced tubes, patent globe lift on inside of frame, large oil-filler, patent locking short globe and extra large double-seamed solderless dome-shaped oil fount.

"MONARCH" LANTERN (Hot Blast)—Dietz "Monarch" Lantern with round tubes represents the highest development in Hot Blast Lanterns. Attention is called to the strength of the reinforced air tubes through the use of patented horizontal and vertical beads. **Special Features:** Dietz security standing bail, patent brass eyelets, patent safety (wing-lock) burner, patent reinforced tubes, patent positive-locking globe lift, large oil-filler, double-seamed solderless dome-shaped oil fount.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

R. & A. Automatic Bottle Filler No. 31

R. & A. Automatic Bottle Filler No. 32

Single Row, Double End, 4-Qt. and 5-Pt. Filler
CERTIFIED GRADE—Hollow Tubing Frame, Copper
 Tank with Improved Sanitary Corners. Retail Price,
 \$135.00.

OPERATION AND EQUIPMENT.

This machine fills four quart bottles at one end and five pint bottles at the other. The valves are centered to fill R. & A. standard 12-quart and 20-pint wagon cases. Half-pint and third-quart bottles are handled at the pint end. The operation and construction is exactly the same as style No. 31. Equipment includes 40 gallon copper tank with brass sanitary milk cock, two narrow end covers over valves, R. & A. Patented Labor-Saving Crank Lifting Device and Accurate Filling Valves. Height of machine 48 inches, floor space 24x60 inches, shipping weight 335 lbs. Suitable for a dairy of 500 to 800 bottles. See subsequent page for a complete description and price list of R. & A. Sanitary Covers and Automatic Bottle Fillers.

CONSTRUCTION.

Perfectly Sanitary, Rust-Proof and Durable.

The frame is made of galvanized hollow tubing which makes an exceptionally light machine with no corners for bacteria to lodge upon. All castings are made of galvanized malleable iron which is lighter and many times stronger than cast iron. The bearings on each side of the lifting basket which slides on the legs are rabbitted to prevent friction and wear. The Improved Sanitary corners are easy to clean. To be sanitary a machine must be rust-proof, and to be rust-proof it must be galvanized. The castings and frames of R. & A. machines are galvanized by the hot process which is the most durable and most expensive method. The tank is properly supported underneath by angle irons and re-enforced at the top by the flat steel band inside the copper rim.

Single End, 4-Bottle Filler. **CERTIFIED GRADE**—Hollow Tubing Frame, Copper Tank with Improved Sanitary Corners. Retail Price, \$85.00.

R. & A. Certified Grade Fillers are in a class by themselves. The Galvanized Hollow Tubing Frame is especially attractive and sanitary and the Improved Sanitary Corners of the Tank are easy to clean. They are especially designed for the most particular users.

OPERATION—Quart and pint bottles are filled one row at a time in the R. & A. 12-quart and 16-pint wagon cases. Half-pint and third-quart bottles are filled in filling cases. All R. & A. Fillers will handle Crown Finish and Standard Cap and Seal Jars. Twenty-pint cases will not fit this machine. The lifting platform is adjustable for quarts and pints. With the R. & A. Patented Crank Lifting Device, the case of bottles is automatically locked while filling, which allows the operator to cap one row of bottles while the next row is filling.

MODERN SANITARY EQUIPMENT—The copper tank is tin coated on outside and inside and holds 32 gallons. The tank outlet is an especially designed nickel plated brass sanitary milk cock. The frame is attractively painted with aluminum. Tin cover is furnished over the valves. Height of machine 48 inches, floor space 24x38 inches, shipping weight 250 lbs. Suitable for dairy of 200 to 600 bottles.

THE LIFE OF A FILLER DEPENDS ON

R. & A. Valves are accurate, rapid and sanitary. They have renewable hard fiber valve seats which will not leak. The material and workmanship is the very best. Particular attention is given to our valve department, in the design, the manufacture, and the final testing. Thousands of R. & A. Fillers are in use, and the enormous sale of these machines has been due to a large extent to the expert attention always exercised over our valve department.

R. & A. Bottle Filler

This filler is fitted with one regular R. & A. valve and is intended for use in small dairies, filling from 25 to 100 quarts of milk daily; and for large dairies, for filling cream, buttermilk, etc., that you do not wish to put in the regular filler.

As it is the top of the bottle that operates the valve, it will fill any size bottle neatly to the cap seat. It is very quickly and easily cleaned. Will not slop milk and cream over the floor.

CONSTRUCTION—Tank, heavy copper. Valve, regular R. & A. soldered in so there is no lodging place for dirt or bacteria. No. 00 R. & A. Filler, Price. \$15.00.

Single Bottle Capper

List Price \$31.24 (Subject to Discount).

Are your bottles capped in a perfectly sanitary manner?

This new Single Capper is a necessity for the sanitary sealing of milk bottles.

It does nice, smooth work; is easy operating; never skips a cap; is very light in weight, is adjustable for any kind of cap, and is built to stand up under hard usage.

With this machine you can cap your bottles right in the case almost twice as fast as by hand, and your caps are put on in a clean, sanitary manner.

Price\$35.00

The Official Babcock Hand Milk Tester

No dairyman should be without one of these. It will enable him to be a Dairyman instead of merely a cow-keeper. You can ascertain exactly the percentage of butter fat in each cow's milk. This is very necessary. A poor cow will consume as much feed as a good one.

2-bottle outfit, complete.....	\$ 5.50
4-bottle outfit, complete.....	6.50
6-bottle outfit, complete.....	12.00
12-bottle outfit, complete.....	15.00

Price includes full set of glassware and everything needed for testing, together with complete instructions for testing milk and cream.

Babcock Test Glassware

Milk test bottles.....	\$0.25
Cream test bottles 30 per cent.....	.25
Acid measure	.15
Pipettes, 17.6, 18 CC.....	.25

Churn Covers

Sizes 0 to 2, each	\$2.00
Sizes 3 to 5, each	2.50

Churn Cranks

For churns Nos. 0 to 3, each...	.25c
For churns Nos. 4 to 8, each...	.50c

Milkoline 2c a Gallon

Quick fattening at least cost is first consideration of all hog raisers.

Get more nourishment out of your high priced grains. Keep your hogs' digestive systems toned up so that they assimilate their food properly.

The main objection heretofore to most buttermilk has been the excessive cost, inconvenience and expense of handling, no guaranteed standard and the poor keeping qualities during the different seasons. Overcome all these difficulties by using MILKOLINE the base of which is Pure Modified Buttermilk, with the proper acids and fats added which make it a satisfactory substitute for buttermilk.

MILKOLINE comes in condensed form. It will keep indefinitely in any climate and will not mold, rot or sour. For feeding, mix one part Milkoline with 50 parts water or swill or feed with your usual grain feeds. It will keep your hogs healthy, their appetites keen, and make more pork per bushel of grain.

Stop buying "Buttermilk" of uncertain quality. Use Milkoline and you will always be sure of an even, uniform acidity, and at a cost of two cents a gallon or less when mixed as stated above.

10 gals. at creamery.....	\$1.50 per gal.
32 to 40 gals. at creamery.....	1.00 per gal.
58 to 60 gals. at creamery.....	.90 per gal.

Tested Before Being Sent Out.

Prices include test bottles, pipette, acid measure, speed indicator, hot water tank, steam gauge, full directions, all securely packed. Acid extra.

Equipped with 6-inch bottles for milk testing.

No. bottles	24	18	12
Each	\$40.00	\$39.00	\$38.00

Note.—Standard 6-inch cream bottles or 6-inch 9-gram bottles can be substituted at proportionate extra charge.

Churn Pulleys

Make churning easy by changing your hand churn to a power churn. Power pulleys can be attached by anyone in a few minutes. We carry pulleys to fit all churns.

No. 0 to 5	\$3.75
No. 5 1/2 to 6	4.25
No. 7 to 8	5.00

The Wide-Awake Farmer

Is coming fully to understand that the business of farming and dairying cannot be profitably carried on without good equipment. Be good to your farm and stock and they will be good to you. It was with the farmer and dairyman in mind that this catalog was written. Get your seeds and supplies from a firm that makes a specialty of supplying seeds and supplies suited to the needs of the section of country in which you live. Small orders receive the same careful and painstaking attention as is given the large ones; no matter what the order amounts to, we are glad to receive it.

GORMAN-GAMMILL SEED CO.

The Favorite Churn

Imitated but not equaled. The barrel is made of well-seasoned, quarter-sawed oak. Capacity of each size is full registered measure. Easy to operate. Easy to keep clean.

No.	Gals.	To Churn	Price
0	6	3	\$ 5.00
1	10	5	5.75
3	20	10	6.50
4	25	13	7.00
5	35	18	9.50
5 1/2	50	25	12.50
6	60	30	14.50
7	75	37	17.00
8	90	45	20.00

Dazey Glass Churns

Extra heavy clear glass jar, having smooth-finished top. Steel screw cap, heavily nickel plated. Dasher of thoroughly seasoned white maple. Dash rod plated, making it rust-proof. Frame cast in one piece, finished with two coats of pure aluminum bronze. Natural finished wood handles. Gears carefully adjusted to run smooth and noiseless.

JUST THE CHURN FOR THOSE SELLING THEIR CREAM TO MAKE A POUND OR TWO OF BUTTER FOR THEIR OWN USE.

Nos.	10	20	30	40
Capacity, Pints	3	5	7	9
Churn. Cap., Pts	2	3	4	5
PRICE, EACH	\$1.25	\$1.75	\$2.25	\$2.75

EXTRA JARS FOR DAZEY GLASS CHURNS.

No.	10	20	30	40
PRICE, EACH	\$.35	\$.50	\$.60	\$.75

Sturges Steel Churn

Not a piece of wood about it; handsomely finished with enamel paint in colors. Inside is heavily tinned; cork-lined cover; malleable iron trunnions. Steel-welded frame, without bolts or rivets. The making of these Steel Churns is an achievement never before accomplished, and promises to result in supplanting the wooden churn, just as steel cars and buildings have taken the place of wooden. A Steel Churn is sanitary; milk can not soak into steel; there is no place for microbes to lodge; no seams to open up, or hoops to drop off in the sun. Steel makes it long-lived, for with care it will last a lifetime.

Made in Three Sizes (for Family Use), Five, Seven and Ten Gallons.

	Price
Size No. 1—Five-gallon	\$8.00
Size No. 2—Seven-gallon	9.50
Size No. 3—Ten-gallon	10.50

A "Dazey" for the Farm IS JUST THE THING

The "Dazey" Churn, with its dasher designed along the lines of the ocean steamer propeller, gives to the cream a swift, uniform motion that rapidly rolls up the tiny fat globules into grains without beating them to pieces and losing any of the elements that are frequently washed out with the buttermilk. The "Dazey" saves time and butter. The dashers and covers are of seasoned white maple, base of gray iron. The dash rods are heavily tinned in Nos. 1 and 2, and nicked in Nos. 3 and 4. The gears are of heavy cast iron, except in No. 3, in which they are machine-cut and equipped with pulley for power. The receptacles are of heavy tin, triple-plated and well soldered. All framework is aluminum coated, and receptacle finished with blue enamel. Just the churn for the home or small farm dairy.

SIZES AND PRICES.

Nos.	2	1	4	3
	Hand	Hand	Hand	Power
Churning capacity, gal.	2	4	12	18
Height over all, in.	23	31	47	48
Weight, crated, lbs.	17	37	100	200
Each	\$3.50	\$6.00	\$15.00	\$35.00

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Reed's Sanitary Milk Pail

Made from XXXX charcoal plate. One-piece re-tinned top or hood; steel bail; four-rivet ears; all seams sanitary-soldered inside and outside; no loose parts to collect germs. This Pail is approved by state and city boards of health. Absolutely the best sanitary Pail made. 12-qt., \$1.35 each; 14-qt., \$1.50 each.

Iron-Clad Pails

Made of heavy imported tinplate, completely handmade, all seams flushed smooth. A genuine Pail, that will outwear three ordinary dairy Pails. 10-qt., \$1.50 each; 12-qt., \$1.75 each; 14-qt., \$1.95 each.

Milk Strainers

Seamless special extra-heavy. Wire strainer cloth in bottom with extra ring on bottom to hold cotton strainer cloth. 2-qt., 85c; 4-qt., \$1.25; 10-qt., \$2.25.

Wood Sole Shoes

Drier, warmer, more durable and easier on the feet than any leather sole shoe made. Soles cut from tough, close-grained wood, shaped to fit the foot. The uppers are of best oil grain. These shoes and boots are much lighter than heavy foot-wear. They are supplied with rails of non-corrosive metal, which add to their life and prevent slipping. Extra rails for sole and heel, 25c per pair. In these shoes your feet will always be dry and warm. Price per pair. \$2.90.

Red Cross Filter Cloth

Is especially woven cloth with the nap raised and is intended to take the place of the ordinary strainer cotton and strainer cloth, as it combines in itself the qualities of both. It is recommended for use in filter-vats,

can-strainers, etc. 1-lb. rolls, 17 inches wide by 20 feet long, \$1.20 each.

Blatchford's Calf Meal

THE COMPLETE MILK EQUIV. RAISE MORE AND BETTER CALVES WITHOUT MILK.

In fact, if you stop to consider that almost everywhere a pound of Blatchford's Calf Meal can be bought for not over 5 cents, and a pound is equal in feeding value to a gallon of milk, and that where it is fed, the calf's development is more rapid and the trouble of feeding no greater, you will not feed expensive dairy milk, but use Blatchford's Calf Meal instead.

Healthy calves are always raised, and by actual comparison the largest gains in both growth and weight are reported, where Blatchford's Calf Meal is fed.

It is not only nourishing but actually contains the necessary elements to reproduce the feeding value of the butter fats of whole milk, and is thoroughly steam cooked. 100 pounds of Blatchford's Calf Meal make 100 gallons of rich milk substitute. Two tablespoonfuls in gruel form as directed is a full feed at the start. Explicit feeding directions in every bag. A compliance with them will insure perfect results.

Finally, Mr. Dairyman, if you are to continue in the dairy business, you will have to discontinue the practice of killing your calves, especially your heifer calves. There is no reason why you should not raise all your calves. Blatchford's Calf Meal will do the trick, and at the same time raise a fine cow for you. We have had a lot of experience with this and know whereof we speak. Order a trial bag today. Start now to make money from your calves. 25-lb. bag, \$1.75; 100 lb., \$7.00, f. o. b. Birmingham, Ala.

Order Early, and Assure Yourself of the Best Seed Service

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Milk Bottle Caps in Sanitary Tubes

Any of the designs shown below packed in tubes. There is a growing demand for bottle caps packed in tubes holding 500 caps. This method of packing heretofore has been largely used by the dairies that have automatic capping machines. However, many of the smaller dairies are now taking them up, as they find that the sanitary feature, combined with the economy in handling on account of eliminating waste, makes up for the small extra cost for this packing. Per tube of 500 caps, 25c; 50,000 caps packed in tubes, \$20.00, f. o. b. Birmingham.

Graduated Measures

Made of Anti-Rust Tin, guaranteed to be accurate and to give excellent satisfaction.

	Each
1-pt.	\$0.40
1-qt.	.50
2-qt.	.65
1-gal.	.75
We fit any size with lid for 25c extra.

Milk Cooling or Cream Setting Cans

Wire Bails and Malleable Iron Ears.

These Cans are very useful. They are handy for setting milk to cool, conveying milk from stables to cooler and various other purposes. We carry in stock made as follows:

Heavy XXXX Tin 8 1/4 in. wide by 19 in. deep. Each, \$1.50; doz., \$15.00. Other sizes can be furnished on special order only.

Graduated Dippers

Our Graduated Dippers are made of extra heavy block tin, handles are riveted and well soldered. All seams are smoothly filled with solder. Furnished with either long or short handles and with or without lip.

1/2 pint, each.....\$0.15 1 pint, each.....\$0.25
1/2 pint, each......20 1 quart, each......30

Milk Stirrer

A dairy utensil which is almost indispensable. With it milk may be stirred quickly and thoroughly. Strongly made and will last for years. Price, 65 cents.

Milk and Cream Scale

This Scale is specially made for weighing milk in pails. The dial is divided into tenths. The indicator is adjustable, so that it can be set back to take out weight of pail. Each Scale carefully tested and guaranteed accurate.

	Each
30 lbs. by 1/20 lb.	\$3.00
60 lbs. by 1/10 lb.	3.50
120 lbs. by 2/10 lb.	4.50
Record sheets, per doz., 15 cents.

No. 1.

No. 2.

No. 3.

No. 4.

Caps for Milk and Cream Bottles

Best quality of pulp board; artistic printing; well paraffined; fit any standard-sized bottle. Order by number. Price, 40c per 1,000. Barrel of 50,000, \$15.00, f. o. b. factory. No extra charge for printing in lots of 50,000 or more, with your name, etc., as shown in designs, Nos. 2, 3, and 4, in either red or blue ink. Two-color printing, \$1.00 per lot extra. A charge of \$2.50 is made on first order for less than 50,000.

Perfection Pull Caps

Can be taken out of bottle with the fingers without breaking or bending. 50 cents per 1,000; 5,000 lots, 50 cents per 1,000; 50,000 lots, 40c per 1,000. No extra charge for printing in 50,000 lots.

Please read carefully all pages in our Dairy Supply Department. If you need something which we do not list, write us, and if we do not carry the article in stock, we may be able to direct you to the firm who has it. We are always glad to assist in any way.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Railroad Shipping Cans

"Jersey" Pattern. Double tinned round handles. Our New Jersey pattern has the hoopless-bottom construction, also the patented one-piece double-rim Paragon cover. 5-gal., \$5.25; 10-gal., \$7.75 each.

Our "Gem" Pattern. Positively the best ever offered for anything like the price. A well-constructed Can, but just a little lighter than our "Jersey" pattern. 5-gal., \$5.00 each; 10-gal., \$7.00 each.

Milk Can Jackets

Keep the milk cool in summer and warm in winter.

Milk may be shipped safely a long distance when Milk-Can Jackets are used. These Jackets lengthen the life of the milk can. Made from the best hair felt, covered with heavy duck, with two strong, heavy straps and buckles. The Jackets will withstand hard service. Jackets with cap and opening at top can also be furnished and at special prices. These are adapted to retail delivery.

In ordering Jackets, state style of can they are to fit.

Each
40-qt. can, felt 1-in. thick. \$3.85
20-qt. can, felt 1-in. thick. 3.50

The Sturges Refrigerator Can

Has made long distance shipping possible. Of very strong construction to withstand severe usage in distance shipping. These are the cans for wear and tear. See illustration.

Georgia Pattern with Ice Compartments

These cans are fitted with a separate compartment on the inside thus enabling user to keep cool the contents of Can while in transit. Extra heavy reinforcing bottom, same as on our New York Cans.

Net Capacity	12	20	30	40	quarts
Weight, about	18 1/2	24 1/2	31 1/2	33 1/2	pounds
Price on application.....

Brass Name Plates

**C. N. COOPER
BROWNSVILLE, TENN.**

Brass name-plates, with name, address, etc., in two lines; letters sunk. 35c each, including soldering on can.

Lead Seals with Wires

3/4-in. seal, 7-in. wire,
500, \$1.25; 1,000, \$2.50;
10,000, \$20.00.

Lead Seal Press

Plain\$2.75
Engraved 3.50

City Delivery Cans

Chain cover. You will find this a very serviceable Can. Being heavily constructed, it will stand much rough use.

1/2-gal.	\$1.00
1-gal.	1.50
2-gal.	2.00
3-gal.	2.50
4-gal.	3.00
5-gal.	3.80

Milk and Cream Cans

Made from the highest quality XXXX tin, strongly and durably constructed. They are the well-known Anti-Rust Cans and will outlive the lighter-weight grades many times.

	2-qt.	4-qt.	6-qt.	8-qt.	10-qt.	12-qt.	16-qt.	20-qt.
Sides	1X	2X	2X	3X	3X	4X	4X	4X
Bottom	2X	3X	3X	4X	4X	6X	6X	6X
Each	\$0.95	\$1.50	\$1.75	\$2.00	\$2.50	\$2.75	\$2.75	\$3.00

Dozen price good on 1/2 dozen lots.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

"Chilly King" Cooler, Outfit "D"

Outfit "D" consists of "Chilly King" Cooler, Detachable Tilting Spout, Self-contained Stand with Brackets for Supply Tank, Supply Tank with Faucet, Mantle covering the sides and Cover for top of Cooler.

The Chilly King Cooler is in a class by itself and we can recommend it without reserve. In efficiency it has no equal. Its appearance is attractive. It is absolutely sanitary and is easily cleaned.

Of the combinations in which the "Chilly King" Cooler is to be had, this is the style that we recommend the most highly. Outfit "D" Cooler is entirely covered, and this cooler will appeal to dairymen who aim to produce milk with the lowest possible bacteria count. The mantle prevents the absorption of odors and dust from the outside. Supply tank has round corners, round bottom, round ends.

PRICES AND SPECIFICATIONS.

50 pounds Working Pressure. Capacities Based on Cooling from 95 degrees F. XXXX Tin Mantle and Supply Tank.

	Size 5	Size 8	Size 10	Size 15
Capacity, pounds per hour.....	500	800	1000	1500
Capacity, quarts per hour.....	250	400	500	750
Height from floor to outlet, inches.	26	26	26	26
Height over all, inches.....	56 3/4	60 1/2	62 3/4	69
Water inlet and outlet connection, inches.....	3/4	3/4	3/4	1
Diameter of space required, inches	20 1/2	21 1/2	22 3/4	28
Capacity Supply Tank, gallons.....	6	8	10	12
Shipping weight, pounds.....	206	216	252	369
Price	\$127.25	\$158.50	\$183.50	\$330.00

CONSTRUCTION—The Chilly King is constructed of Lake Superior Copper heavily tinned by the hand dipping, palm oil process and is built to stand high pressure. Nos. 2, 3, and 4, will stand an internal pressure of 20 pounds per square inch and the larger sizes will stand a pressure of 50 pounds to the square inch.

OPERATION—The water enters the bottom of the cooler through the connection marked "inlet" and is confined in the angle shaped coil through which it circulates in a spiral course until it reaches the top and whence it may be piped to the stock tank or elsewhere as desired. The milk enters receiving bowl and is distributed on outside of top of cooler by means of perforations in the bowl. Here it spreads out and flows over the outside of the cooler in a very thin film so that the milk is not only quickly cooled but it is thoroughly aerated.

The Chilly King Cooler cools milk to within one or two degrees of the temperature of the water used so that ice is unnecessary.

If it is desired to reduce the temperature of the milk below that of the water, we can furnish a Chilly King with a double water way so that ice water or brine may be used in the lower section and well water or city water in the upper section of the cooler.

Champion Milk Cooler and Aerator

It improves the flavor of fresh milk and its products. This is accomplished by aeration, or the driving out of the objectionable animal and food odors which new milk always contains. This aeration takes place in the Champion while the milk is falling through the air in minute particles and before it strikes the cooling drum, and this is the only time it can be done successfully, as after the milk is cooled, it becomes impossible.

It increases the keeping qualities of the milk and its products. This is accomplished by the thorough cooling to which the milk is subjected in the Champion. This reduction in temperature takes place while the milk is flowing in a thin sheet over the surface of the cooling drum.

Aeration and cooling are both necessary to the proper care of milk, and in the Champion both processes are combined scientifically in just the right order and in just the right proportion.

The following sizes of the Champion are gauged as nearly as possible to take care of the milk as fast as drawn from the various-sized dairies with the average number of milkers. Be sure to get one large enough, as best cooling results are obtained with low pressure of milk in the receiver.

No.	Capacity of Milk Receiver	Cows in Dairy	Takes care of	Price
2	18 qts.	10 to 25	3 milkers	\$ 8.00
3	34 qts.	25 to 50	5 milkers	9.50
4	52 qts.	50 to 100	8 milkers	11.00

The Champion is well crated and delivered F. O. B. cars.

The weights crated are as follows:

No. 2, 25 lbs. No. 3, 35 lbs. No. 4, 42 lbs.

SANITARY FOLDING STANDS.

for the coolers made of steel, furnished at the following prices: No. 2, \$2.75; No. 3, \$3.00; No. 4, \$3.50, net.

You Do Not Obligate Yourself in Any Way by Consulting Us.

Rice & Adams ("R & A")

"In the Bottle" Pasteurizer

Patented June 29, 1915, and June 13, 1916.

Capacity in number of Cases	Stacks	Pump Cap. G. P. M.	Size of Motor Required	Size of Boiler Required
54	3x3	120	1 H. P.	10 H. P.
72	3x4	120	1 H. P.	10 H. P.
90	3x5	150	1 H. P.	10 H. P.
120	4x5	200	2 H. P.	12 H. P.
144	4x6	240	2 H. P.	14 H. P.
180	5x6	300	2 H. P.	18 H. P.
210	5x7	350	3 H. P.	20 H. P.
240	5x8	400	3 H. P.	22 H. P.
270	5x9	450	3 H. P.	24 H. P.

24-case Pasteurizer with horizontal belt-driven pump.

24-case Pasteurizer with vertical motor-driven pump.

Equipment includes Centrifugal Pump, Circulation Tank, Taylor Recording Thermometer, Water Thermometer, Discharge Headers with Extension Nipples, Cold-storage Door, and all Pipes and Fittings Complete. Motor and Boiler are extra.

The price of the pasteurizer does not include any metal cases or distributing pans. Only as many of these may be ordered at first as are actually required. Extra pans and cases may be purchased as the business grows. Direct connected motor-driven centrifugal pumps are always recommended in preference to belted pumps. Prices on motors will be supplied on request. Steam pumps may be used where electricity is not available.

The pasteurizer is made in sections, held together with lag screws. It is shipped knocked down and can be easily set up. The walls are made of double thickness matched selected lumber with an air space between which is packed with cork for insulating.

Right and Left Hand Outfits: The pasteurizer is usually located in the corner of the bottling room with pump placed back of the door next to the wall, a right hand outfit, or as in the illustration, which is a left-hand outfit.

Distributing Pans: A Galvanized Steel Distributing Pan, with inverted cups perforated at the bottom edge is placed over each case of bottles, protecting the mouth of the bottles from water and distributing a fast-moving film of water of gradually increasing temperature over the surface of each bottle for heating and gradually decreasing temperature for cooling.

Metal Cases: These are made of heavy gauge steel with open wire bottoms and flat division wires. Metal cases are recommended because they do not absorb moisture. Metal heats and cools very quickly, while wood heats and cools very slowly, thus retarding the operation of the Pasteurizer.

THE ADVANTAGES OF PASTEURIZATION "IN THE BOTTLE."

Serves Both as Refrigerator and Pasteurizer: After the milk is cooled it is kept in the pasteurizer until ready for delivery. This means a great saving in labor.

Other Advantages: The cost of operation and upkeep, labor included, is less than any other method.

It produces a thicker, heavier cream. The room is well insulated, preventing heat loss.

There are no pipes or vats to clean after pasteurizing. There is no shrinkage of milk.

The apparatus costs less than other pasteurizers, takes up less room and is much easier to keep clean.

The Weak Link of Bulk Pasteurization: Pasteurization in bulk has met with one serious objection, viz., the milk is again exposed to contamination between pasteurization and bottling. This danger is eliminated by pasteurizing in the bottle.

Low Bacteria Count: In the City of Buffalo, the Board of Health have given twelve users of R. & A. Bottle Pasteurizers the privilege of grading their milk "Grade A Pasteurized." We could mention many phenomenally low counts, but we prefer to guarantee less than we can do rather than more.

Write for prices, etc.

Brushes and Brooms for Dairy Uses

We specialize on Brushes and Brooms. We carry only the best grades and always keep on hand a large assortment of fresh stock of all kinds of hand and machine brushes.

Can Brushes

Gong Brush, 30 cents.

Holstein Brush, 50 cents.

Jersey Brush, 40 cents.

Bottle Brush

No. 86. A pure bristle Brush; small diameter; suitable for all-sized bottles; long handle for hand washing. (See above). Each, 50 cents.

Machine Brush

No. 66. Grey Hair, brush part 3 inches diameter, 5/8 inches diameter hickory handle, 5 inches long, tapered. Each, 50 cents.

Spout Brush

No. 49. Separator spout brush, for DeLaval, Sharples, Champion, Standard, and Economy Separators. Gray bristle; brush part 2 inches diameter, 5 inches long; length over all 13 inches. Each, 35 cents; dozen. \$1.50.

Babcock Test Bottle Brush

Each, 20 cents.

Heavy Coarse Wire Push Broom

An excellent Broom for cleaning wood and concrete floors. \$1.25 each.

Fiber Push Broom

No. 19. Factory broom; stock of best quality, corn and Jap. fiber mixed. Has nailed steel head, cannot work loose on handle. A good, long sweeper. Each, \$1.00.

Green Band Barn Broom

For heavy, coarse sweeping, such as that of dairy barns, warehouses, packing-houses, etc. These Brooms are made with heavy steel bands or heads nailed together. They will last longer and give better service than any ordinary wire-bound broom. \$1.25 each.

DeLaval Cream Separators

You get by far the greatest actual value for your money when you buy a De Laval—because it will give you much better and longer service than any other separator.

From the standpoint of its greater durability alone, the De Laval is the most economical cream separator to buy, and when you also take into consideration its cleaner skimming, easier running, greater capacity, and less cost for repairs, the price of the "cheapest" machine on the market is most exorbitant compared with that of the De Laval.

And there is no reason why you should let its first cost stand in the way, because the De Laval may be purchased on such liberal terms that it will actually pay for itself out of its own savings in a few months' time.

The man who buys a De Laval today gets more and better cream separator service for his money that has ever before been possible, and more than he can secure in any other way. If you have not seen one of the new machines, don't fail to do so at the earliest opportunity. You will better appreciate the importance of all the new improvements after you have examined and operated the machine itself.

We will gladly mail, to anyone requesting it, a large De Laval catalog, very fully illustrating and describing the construction and showing all sizes.

Hand Power

- No. 4, Capacity, 150 lbs. per hour.
- No. 5, Capacity, 225 lbs. per hour.
- No. 10, Capacity, 350 lbs. per hour.
- No. 12, Capacity, 500 lbs. per hour.
- No. 15, Capacity, 750 lbs. per hour.
- No. 17, Capacity, 1000 lbs. per hour.
- No. 22, Capacity, 1350 lbs. per hour.

(Prices on Application).

Steam Turbine

- No. 19, Capacity, 750 lbs. per hour.
- No. 20, Capacity, 1000 lbs. per hour.
- No. 25, Capacity, 1350 lbs. per hour.

DeLaval Oil Cans

- De Laval Separator Oil, (gal. size).
- De Laval Separator Oil, ($\frac{1}{2}$ gal. size).
- De Laval Separator Turbine Oil, (gal. size).

(Prices on Application).

DeLaval Milk Clarifiers

In spite of the precautions you take you have complaints from your customers about the presence of sediment in the milk. This sediment, which comes from the stable, is so fine that no process of straining or filtering will take it out.

The DeLaval Centrifugal Milk Clarifier removes not only the stable dust but waste tissue from the interior of the cow's udder, which is always present in milk and often dangerous.

A large number of milk dealers are using milk clarifiers. Their enthusiastic letters tell how greatly the De Laval Clarified Milk is pleasing their regular customers and steadily getting new customers for them. We will be glad to arrange to have a demonstration of the De Laval Clarifier in your plant. Furnished in the following sizes and styles:

Hand-Driven.

- No. 96, 100 lbs. per hour.
- No. 98, 500 lbs. per hour.

Hand or Belt-Driven.

- No. 100, 1000 lbs. per hour.

Turbine-Driven.

- No. 99, 500 lbs. per hour.
- No. 101, 1000 lbs. per hour.
- No. 106, 2000 lbs. per hour.

Belt-Driven.

- No. 105, 2000 lbs. per hour.

Prices on application.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Wright Bottle Washer and Sterilizer

In the construction of this outfit, we have incorporated a number of new and essential features to insure rapid, economical satisfactory work, and to wash the greatest number of bottles in the shortest time with the least work and the best results.

Operation

The rinsing and sterilizing is controlled by a valve which is automatically opened and does perfect work regardless of the operator. Case placed to the right of Washer to receive washed bottles opens the automatic valve, letting boiler pressure steam into the round pressure tank, forcing the water in this tank up through the spray box, which rinses the bottles.

When this water is exhausted, it is followed by steam and the bottles are sterilized for as long as it takes to wash a case of bottles.

When the case of washed bottles is removed, pressure stops, and the round pressure tank automatically fills with hot water from square hot water tank and operation is repeated. Attached to the hot water tank is a thermometer so that water can be kept at 180 degrees, which obviates over or under-heating of bottles.

Washed bottles can be placed in case with mouth down and turned before filling, or retaining racks used to hold bottles when case is inverted.

PRICE

Length 9 feet, width 2 feet 5 inches.....	\$150.00
Rinsers and Sterilizer, less washer and tank.....	\$110.00

Feed Cookers, Also Used for Water Heaters

Cows and hogs are fond of boiled food and they always thrive on it. Get one of these Feed Cookers and boil turnips, mangels, beets, rutabagas, or any other stock feed you wish. It will soon pay for itself.

Farmers' Favorite. Has cast-iron stove with galvanized-iron heater. Does not require any foundation. Can be used with wood or coal. Makes an ideal method of heating water for any dairy.

Capacity	Price
No. 2. 30 gallon	\$22.00
No. 3. 40 gallon	25.00
No. 4. 50 gallon	30.00
F. O. B. factory.

"Besco" Complete Steam and Washing Outfit

The Besco All-Steel Bottle-Washing Outfit gives you more real service and satisfaction for the money expended than any other outfit on the market. It is complete in every way, consisting of one High Pressure Boiler, fitted complete with all high-grade trimmings, including Penberty Injector; one two-compartment, all-steel, round-bottom Wash Sink, each compartment 36 inches long, 28 inches wide, and 22 inches deep, drain board 20 x 28 inches fitted with large Sterilizer Hood and can-sterilizing jet, steam pipes, and noiseless heaters to each compartment; one Besco Steam-Turbine Bottle-Washer, with steam gauge and automatic grease-compression oil cups. This machine is built for wear and is high grade in every respect.

PRICES OF OUTFITS COMPLETE AS SHOWN IN CUT.

Complete with 2-h. p. boiler.....	\$220.00	Tank, turbine, washer, steam fittings, sterilizer.....	\$ 75.00
Complete with 3-h.p. boiler.....	235.00	2-h. p. boiler, complete with injector.....	150.00
Complete with 4-h. p. boiler.....	270.00	3-h. p. boiler, complete with injector.....	165.00
Tank alone, with steam fittings and sterilizer.....	50.00	4-h. p. boiler, complete with injector.....	210.00

These prices are f. o. b. factory. Write for delivered price, also price on larger-sized boilers.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Cattle Instruments

Cattle Case, No. 3, containing \$4.00 garget outfit, \$3.00 milk-fever outfit, and 12 other instruments needed by every dairyman. Complete in case. Sent prepaid on receipt of price, with full, easy-to-use directions. \$15 each.

Milk Fever Outfits

The use of the air treatment has cured 97 per cent of cases treated. Guaranteed to be successful if used according to directions. \$4.00 each.

Kow-Kure

Kow-Kure is a remedy for all ailments peculiar to cows. If you have unprofitable barren cows, give them Kow-Kure and double their value. Thousands of barren cows have become prolific breeders by the use of this preparation. Not a "food" but a medicine for cows only. Kow-Kure is the dairyman's friend for it makes cows more valuable. Every dairyman should keep Kow-Kure on hand. Medium size, 60c; large size, \$1.20.

Bag Balm

Just the thing for sore teats and caked udders. It softens the glands, relieves congestion, and cools the tissues. Makes the milk flow easier. 60c per box.

Kentucky Cow Bell

Pleasant sounding and durable. The sound of these bells is very penetrating and can be heard a great distance.

No. 1. Kentucky, each	\$0.75
No. 2. Kentucky, each	65
No. 3. Kentucky, each	55
Straps, each	70

Milking Tubes

Plain. Not adjustable.

	Solid coin silver	Plated
2-inch	\$0.40	\$0.25
3-inch	50	30
4-inch	60	35

Self-Retaining. Similar to the preceding, but has, in addition, a projection near flange, making it self-holding.

	Solid coin silver	Plated
2-inch	\$0.50	\$0.35
3-inch	60	40
4-inch	75	50

Imported Floating Dairy Thermometers

These are referred to generally as the "common grade" of instruments. They are reasonably accurate, registering within 3 to 4 degrees. Cheap in price and are available only as long as the present supply lasts. Size, 8 inches. Each, 85 cents.

Garget Outfit

The only proper and successful treatment of garget. With this outfit one may spray the remedy direct to the seat of disease—the only method to insure a cure. Complete outfit with full directions to use. Made by the well-known firm of Pilling & Son, Philadelphia. \$4.00.

Rice Calf Weaner

Prevents calves or cows sucking themselves or each other, but does not interfere with eating or drinking and cannot injure the animal. Easily attached to the animal's nose. Made in three sizes for animals of different ages.

No. 1. Weaner for calves until 1 yr. old, 65c.

No. 2. Weaner for calves 1 or 2 yrs. old, 85c.

No. 3. Weaner for full-grown animals, \$1.25.

Ear Buttons

Made of pure aluminum, hardened. Clinches tight. Cannot come out. Name and address on front side. Numbers on reverse side. Maximum number of letters for name and address, 18.

Postage extra.	
25 (weight for pp. 3 oz.)	\$1.15
50 (weight of pp. ¼ lb.)	2.00
100 (weight of pp. ¾ lb.)	3.50
500 (wt. for pp. 3 ¼ lb.)	15.00
1000 (weight for pp. 6 lb.)	27.00
Punch and Pliers (¾ lb.)	\$2.10

Bull Staff

Complete with heavy wood handle and chain to work catch. Malleable head only with chain.

Bull Rings

No. 21—2½ in. Copper (weight about 3 oz.), each.....\$0.50

No. 22—3 in. Copper (weight about 3½ oz.), each......75

"Simplex" Spray Vat

A Coilless Pasteurizing Vat

U. S. Gals Capacity	Shipping Weight, Lbs.	List Price	Net Extra for Nickel Silver Vat and Paddles	Net Extra for Insulation
100	900	\$375.00	\$ 60.00	\$ 60.00
150	1000	450.00	80.00	70.00
200	1100	500.00	90.00	70.00
250	1200	550.00	110.00	80.00
300	1300	575.00	125.00	85.00
400	1600	750.00	160.00	100.00
500	1700	825.00	175.00	110.00

Special Advantages

The absence of a coil, with the possibility of leakage, or loose joints, freezing up, etc.

The absence of stuffing boxes, as there is no coil and the agitators are supported from above.

The absence of gearing or pulleys from the vat, giving a clean vat that is convenient to work around.

An agitator that works with a gentle motion, only five double strokes per minute, and yet produces a thorough agitation.

On account of the absence of stuffing boxes the conditions are very sanitary inside the vat. There is no chance for anything to work into the contents of the vat, nor for any leakages in or out.

The construction is entirely of metal of heavy gauges, so that the vat must prove durable.

The vat can be taken apart as easily as an ordinary cream or cheese vat by loosening a few screws and lifting the inner vat out.

Two or three vats can be operated from one countershaft, which reduces the amount of belting, pulleys, etc.

The countershaft can be placed where it is most convenient to the shafting. This allows the vat to be located in almost any desired position, independently of the location of the shafting.

The vats being narrow, the entire inner surface is easily reached in cleaning from one side of the vat.

Sectional View.

Continuous Surface Type

Special Complete Circular on Application.

The "Simplex" Sanitary Tubular Milk Coolers

This has proven the most popular line of tubular milk coolers yet placed on the market. The sectional type of construction is used, which minimizes strains, due to expansion and contraction, and allows coolers of any capacity to be built up. Troughs are of heavy copper. Headers of solid bronze, ground smooth, tinned, and tubes united their entire length by tinned brass spacing strip, forming a smooth, unbroken surface for the milk, and making each section a rigid unit.

A line of Dairy Coolers with 1 inch diameter tubes, has been added, so that the complete line comprises coolers with tubes 1 in., 1 1/2 in., 2 in., and 3 in. diameter, covering the entire field from the smallest farm dairy to the largest Metropolitan milk business.

The "Simplex" Combined Churn and Butter Worker

No. 6 Cast Frame Type

Showing Butter Worker in Position.

There is an entire absence of bearings, loose heads, journals, stuffing boxes, gears, etc., inside of the drum, thus avoiding a chance of leakage or injury to, or soiling of, the cream or butter.

Every part of the machine can be reached with a scrub brush and is plainly visible.

The butter working is visible and is fully controlled by the operator. This operation is not a matter of guesswork, but it is as certain as with the table butter workers.

The salt can be added while the butter is being worked, insuring an even distribution.

The butter is automatically delivered from the drum by means of a sliding tray or hopper. There is no digging out of the butter with ladles or spades.

It is the only automatic combined churn and butter worker in which the cream can be placed and churned and the butter worked and delivered automatically ready for packing.

It is the only combined machine that possesses all the advantages of the best independent Churns and Workers, and of any other combined Churn, with none of the disadvantages of any.

Butter Worker Carriage.

Two or more churns can be used with one worker attachment only.

NO. 1—100-GALLON DRUM.

Churns.....50 Gallons Cream
Works.....125 Pounds Butter
Price with steel or cast iron frame.....\$235.00

NO. 3—200 GALLON DRUM.

Churns.....100 Gallons Cream
Works.....300 Pounds Butter
Price with steel or cast iron frame.....\$360.00

NO. 6—400-GALLON DRUM.

Churns.....200 Gallons Cream
Works.....600 Pounds Butter
Price with steel or cast iron frame.....\$410.00

NO. 9—600-GALLON DRUM.

Churns.....300 Gallons Cream
Works.....900 Pounds Butter
Price with steel or cast iron frame.....\$500.00

NO. 12—800-GALLON DRUM.

Churns.....400 Gallons Cream
Works.....1200 Pounds Butter
Price with cast iron frame.....\$625.00

Above prices are for painted frame and main castings galvanized and exposed shafts sherardized.

The churning capacities as given in the list are based on churning with the drum half full of cream.

All of the sizes will do good work at a wide range of capacities—they are as efficient at one-third or one-half of the rated capacities.

The Improved Friday Butter Printer

COMPLETE PRICE LIST.

Friday Improved 90 lb. Printer.....	\$55.00
Friday Improved 80 lb. Printer.....	55.00
Friday Improved 30 lb. Printer.....	32.00
Friday Improved 24 lb. Printer.....	30.00
Special Cutting Frame for $\frac{1}{4}$ or $\frac{1}{2}$ lb. Print, each	12.50
Extra Bow Knife for same.....	3.50
Friday Improved Tub Cutting Machine..	60.00
Box Attachment for same (must be ordered extra. Includes one 90 lb. Box Bow Knife and Cutting Frame).....	20.00
Tub Cutting Attachment, galv., can be used on our 80 lb. or 90 lb. frame....	25.00
90 lb. Boxes or Moulds, standard.....	4.00
90 lb. Boxes or Moulds, Swift style.....	5.00
80 lb. Boxes or Moulds, Western flat style	4.00
30 lb. Boxes or Moulds, standard.....	2.00
24 lb. Boxes or Moulds, standard.....	2.00

The regular equipped machines all cut a print $2\frac{1}{2} \times 2\frac{1}{2} \times 4\frac{5}{8}$ inches. We can equip a machine to cut practically any size desired at a small additional cost and are prepared to furnish cutting frames for $\frac{1}{4}$ pound, $\frac{1}{2}$ pound, 2 pounds or a special Boston flat print. In ordering cutting attachments specify the style of print you want and we will equip the machine accordingly.

Butter Moulds

Ideal Hand Mould

Hard maple, adjustable with set screws to mold exactly one pound. Block either plain or carved with two sheaves of wheat. Strongly screwed together, easily slipped apart and cleaned.

1-lb., with plain or carved block.....\$1.25

Weight, 3 lbs. If sent by parcel post, add postage.

Round Molds—

	Each
$\frac{1}{2}$ -lb.	\$0.25
1-lb.	.40

Square Molds—Rocky Mountain—

$\frac{1}{2}$ -lb.	.35
1-lb.	.40

Butter Color

DANDELION BRAND. Will not color the buttermilk. Does not turn rancid. Three sizes, 30c, 60c, and \$1.15 per bottle.

Butter Shipping Boxes

Something which Every Modern Dairy Should Have. Deliver the Butter to Your Customer Ready for the Table.

Just the box you want for delivering the butter to your customer in first-class condition. A removable ice box is placed in the center. Especially suited for the brick shape prints, and is unquestionably the best carrier on the market. It gives the butter that freshly made, cool appearance and places the butter in the hands of the customer cooled and ready for the table. Delivery by this method helps future sales. Aside from the advantages mentioned above, it also proves an excellent acquisition for the household as a separate butter container.

Capacity	Each
12 lbs.	\$6.50
20 lbs.	6.75
30 lbs.	7.00
40 lbs.	7.50
56 lbs.	8.00
80 lbs.	8.75
120 lbs.	10.50

Butter Cartons

This carton makes a very attractive package, adding a value to the butter that can be obtained in no other way, besides preserving the shape of the print until used. They are shipped flat, all that is necessary being to tuck the ends in. Can be printed on all four sides and also on the ends, if desired. Samples and prices will be sent on request. State quantity wanted.

Parcel Post Butter Boxes

Constructed of an excellent quality of corrugated board.

Size	Weight	Each	Doz.	100
1 lb., $2\frac{1}{2}$ oz.	..	\$0.04	\$0.45	\$ 3.75
2 lb., $3\frac{1}{2}$ oz.	..	.07	.80	6.50
3 lb., $5\frac{1}{2}$ oz.	..	.08	.90	7.50
5 lb., $7\frac{1}{2}$ oz.	..	.11	1.25	10.00
10 lb., 10 oz.	..	.20	2.25	18.50

Diamond Crystal Butter Salt

Can furnish in any quantity in sacks and barrels. 12-lb. bag, 25c. Write for prices on larger lots.

Parchment Butter Paper

Stronger when wet than dry. White and tough. Free from specks. Furnished for either half or pound-size molds, 8x11-in. sheets for half-pound mold. 9x12-in. sheets for pound mold. 30c per lb.; 5-lb. pkg., \$1.50; 50-lb. lots, 25c per lb.

Milking Stool

Price, \$1.50 each.

DON'T upset as do ordinary ones that have straight pipe legs with narrow base. Our curved legs make a substantial base.

Seat large and ample and shaped properly. Not made from an ordinary milk can top, but made right to fit body. Seat made from 16 gauge annealed steel. Heavy wrought iron legs, riveted smoothly and securely to seat, the entire stool is heavy galvanized, filling up crevices and insuring strength and sanitation. Can be washed and sterilized and used a life time.

A-1 Single Steam Turbine Washer

Price—Single Brush, Dope Cups.....\$20.00
Price—Single Brush, Sight Feed Lubricators.... 22.00
Double Brush\$23.00 or 25.00

This Steam Turbine we know is as good as the best, as we have constructed it in the most approved manner, and used the very best of material. The steam wheel is carefully balanced; the shaft runs in two heavy bronze boxes. Equipped with our Improved Brush Holder.

Folding Lever Worker

Made of best ash wood; very rigid when set up; easily and quickly folded.

No. 0. 22 in. wide, to work 15 lbs.....\$7.50
No. 1. 30 in. wide, to work 25 lbs..... 8.50
No. 2. 40 in. wide, to work 35 lbs..... 9.50

Reed's Patented Butter Worker

Built of the best materials. The iron parts are galvanized, preventing rust.

No. 4. Will work 10 lbs.....\$ 8.50
No. 3. Will work 20 lbs..... 9.00
No. 2. Will work 30 lbs..... 10.50
No. 1. Will work 50 lbs..... 15.00

A-1 3 Brush Steam Turbine Washer

This washer is well constructed, the gears running in oil. The gears and box do not come in direct contact with the steam, insuring long wear. Equipped with a governor brake to control the speed, which is made strong and will not break or get out of order. The three brushes enable operator to wash the outside and inside of two bottles at one time, doing the work of two single Brush Washers. Anyone having a quantity of bottles to wash will find this Washer will do the work better and in a shorter time than any Brush Washer on the market. Price, \$65.00.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Wyandotte Dairyman's Cleaner and Cleanser

is a most unusual cleaning material made especially for cleaning dairy utensils, separators, milk containers of all kinds, churns, vats, milking machines, whey cans, and in fact everything used in the production of milk or milk products.

When you observe the clean, sweet, wholesome, sanitary conditions which the use of this cleaner easily and quickly produces you instantly appreciate that it belongs to no group of cleaning materials, but is rather the only one of its particular nature and kind.

It contains no soap grease, no caustic, no sal soda, no lye, but only harmless ingredients which are developed to such a remarkable degree of efficiency that the value of using this cleaner is at once evident. It not only protects the milk from contamination which you can see and which you believe you have removed because things look clean, but also from the undesirable matter left by cleaners which do not clean and rinse perfectly. This latter advantage in itself should be sufficient reason to induce you to use this cleaner, since of all foods milk is the easiest rendered unfit for use.

May we not expect your order for this cleaner. 280-lb. barrels; 80-lb. kegs; 5-lb. sacks.

Indian in Circle

In Every Package

It cleans clean.

GORMAN-GAMMILL SEED CO.

A Farm Economy

Type "Z" Kerosene Engines

These engines successfully operate on kerosene because they are built for kerosene—not a converted makeshift. They give the same power from a gallon of kerosene as from a gallon of gasoline.

More work in less time at a low cost is true economy. That's the thought thousands of farmers had in mind when they bought their "Z"s.

You'll buy a "Z" when you do as they did—check it point by point with all other engines—especially those that are high in quality and price.

These are strong statements, doubly so, when you consider the responsibility back of the name plate.

See this sturdy engine in operation, and you'll soon have one working for you.

Let Us Show You the "Z"

We sell the "Z" engine because we know it is the best buy for you.

Ask us to demonstrate it. We can show you more quickly than we can tell you the things you want to know about it. We'll prove to you that it meets your idea of a real farm engine. We make it a point to see that your engine "makes good."

We have a "Z" in stock for you—don't fail to see it.

The Myers Cog Gear Barrel Spray Pump

With Malleable Iron Base

The construction of this pump is such that the entire pump sets inside the barrel containing the liquid, being bolted fast at its upper end to the head of the barrel. By this arrangement the working parts are entirely submerged in the liquid that is to be sprayed, thereby avoiding all possibilities of losing priming, doing away with the necessity of a suction pipe, placing the agitator in the bottom of the liquid in a simple form, and also doing away with a large amount of complicated parts. Base fits 8x8 inch hole. Has bronze ball valves and brass seats. Will handle hot, cold or any caustic mixture. It has a good leverage, is very powerful and easily operated. Outfit includes one lead of 15 feet of 1/2-inch, 5 ply discharge hose, graduating Vermorel nozzle and mechanical agitator.

The Myers Steel Barrel Cart

Three Inch Tire

This is our All Steel Barrel Cart, attached to barrel; has 36 inch wheels with three inch tires. No tires to get loose, or wood to break or rot when standing out in wet weather. Any Myers Barrel Spray Pump can be used with it.

The Myers O. K. Cog Gear Spray Pump

With Malleable Iron Base

The opposite illustration shows our O. K. Spray Pump mounted on barrel, complete with hose, pipe extension, nozzle and mechanical agitator. The cylinder is what is known as a ram, plunger, made of solid brass tube with a closed end, which passes through a circular hemp packing, which adapts it for pumping hot, cold or any kind of mixture. The packing gland is adjusted by means of two heavy bolts, with which all wear can easily be taken up. The valve and seat are made of ordinary brass, ground in a bevel shape. Another special feature of this pump is that by removing two bolts the valves can be taken out and repaired. The air chamber is made of 2 1/2 inch steel tube. The cog gear handle enables the operator to carry a pressure of 200 pounds or more if necessary. Barrel holds 50 gallons.

Outfit consists of one lead of 15 feet of 7 ply discharge hose, 8 foot iron pipe extension and Fembro nozzle.

Write For Prices

Williams Vertical Meal and Feed Mills

Construction

The frame-work or skeleton of the Williams Mill is made of a select grade of heart pine, cut with great care, that insures it free from knots and defective parts. This lumber is thoroughly seasoned and milled before it is made up for the frame work of the mill. It is put together in the most rigid manner and thoroughly held in place by a number of wrought iron bolts, which makes the most perfect wood frame in the world. For strength and durability we claim that our frame is the equal of any cast iron frame made, and we think has many advantages over the cast iron frame; the chief of these is that it does not sweat and cause the meal to cake up and sour, as it does in the iron hull. The Spindles are heavy and are of the best grade of steel; the boxing is the best that can be made and well lined with a good grade of anti-friction babbitt metal, which insures a cool spindle and box at all times. The babbitt is arranged in halves to allow for the take up in wearing. Just inside the bearings there is an oil trap, or device for catching any excess of lubricating oil which might trickle down the spindle and find its way into the meal. This feature is a valuable one and will be highly appreciated by those who desire nothing but the most wholesome bread meal.

Fan Cleans the Meal

The mill is provided with a fan for cleaning the grain as it passes from the hopper to the buhrs. The fan is made of one solid piece of metal and is fastened onto the end of the shaft or spindle with a set screw, and is provided with a case or covering which has a return bed through which the air current is directed and carried directly through the grain spout, thereby blowing away all husky material, together with the dirt and other accumulations that necessarily find their way into corn and other grain, as well as the silks and hairs that will get into the grain.

Screens Take Out Trash and Litter

In addition to the fan for blowing out litter and trashy matter which screens will not take out, the Williams Mills are provided with perforated metallic screens placed in the shaker shoe. The first or top screen prevents foreign substances, such as nails or bolts, from entering into the mills and damaging. The second or lower screen takes out broken particles, as well as litter of every description, and is here separated from the corn that is being ground for bread meal.

White Flint Stone Buhrs

The buhrs are the best that money can buy. They are the White Flint grit, which is the equal, if not the superior of the French buhr. Our buhrs are hard and flinty, but tough in texture, which makes them especially adapted for grinding soft, fine meal. They require little sharpening to keep them in good grinding condition. The runner stone is securely fastened to the spindle and the stationary stone is cemented in the frame of the mill in the most rigid manner, so that the buhr cannot get out of alignment.

Buhrs Will Not Drift

Also another feature of the Williams Mill is that the buhrs positively will not run together when the mill runs empty. This action is positive and will not disappoint the miller at any time. He can put up his grain and go about his business, and if, when he returns, the grain is ground out, he will find his mill running on as if nothing had happened, and the face of the buhrs not damaged in the least by running together.

Usefulness and durability should be the guiding points in buying a Corn Meal Mill or Mill Feed Mill. Look to see if there are any complicated parts. If its construction is substantial. Does it need an experienced or expensive miller? Will it last? The Williams meets all requirements.

Easy to Open

The Williams Mill can be opened for sharpening in from one to three minutes. The old method of spending several hours with wrench, hammer and crowbar has been entirely eliminated, as you only have to remove two nuts and loosen two more, when you are ready to swing the mill open. This is all done in a few moments and with ease, compared with the old method of taking off the hopper and then loosening every bolt about the mill.

Sifter or Bolter

Each mill is furnished with a sifter or bolting attachment. This is very valuable where meal is ground for the trade and sacked at the mill. The manner of operating the sifter of the Williams Mill is different from any other. The sifter has a rocking motion similar to the old style of sifting by hand, this motion being extended to the sifter from a rod attached to the eccentric on the shaft, and motion is not only positive, but is almost noiseless.

Extra Bolters or Sifters

We can furnish extra bolters or sifters for making whole wheat flour, grits, buckwheat flour, and numerous other products made from shelled or threshed grain. We furnish free of charge with each mill a corn bolter. Bolters can be placed on the mills or taken off in a minute while the mill is running.

Bearings

The bearings in all the Williams Mills are of the latest and most modern type of ball bearings. The adjustment of the buhrs for grinding is regulated by a hand wheel and screw, acting upon the end of the shaft, which is adjustable and cannot get out of order.

Feeding Device

This device is the simplest and best arrangement of the kind that has ever been brought out. The feeding arrangement is such that it can be regulated to give the required amount of grain in a smooth, even current to the buhrs and in any amount desired. It has the positive force feed which counts for much where rapid grinding is required. The capacity of the Williams Mill is measured only by the power used. They will make from five to ten bushels of good corn bread meal per hour and will grind from five to forty bushels of feed per hour.

The Thrust Screw

At the right hand end of the shaft adjusts the buhrs to the proper degree of closeness for grinding corn or other grain for bread or for feed, as may be desired.

The Indicator

Consists of a half circle and stop with three legs, and a cast iron pointer attached to the thrust screw. The miller should loosen the pointer or needle so that the thrust screw will turn in it, and set the buhrs for grinding the quality of meal that is desired, turn the pointer so that the small end will rest against the stop, and then tighten on the thrust screw. The buhrs can then be opened for grinding coarser meal or any other purpose, and when it is desired to grind fine meal again, turn the thrust screw forward until the pointer rests against the stop. Thus the buhrs can be adjusted time and again for grinding fine meal without damaging them, thereby avoiding running the stones together and causing them to become slick or dull.

Sizes and Prices on Application

We Sell the **LETZ Dixie Feed Mill**

The Mill that Grinds Everything
And It Stays Sold

Don't waste your roughage---grind it into feed meal and sell your grain

Grinds Stalks, Vines, Husks and All Grains Don't Turn Under Vines and Stalks

You don't teach your child to throw away bread crusts. Of course not! Then why save velvet beans and cereals and waste the vines and stalks? They're just as valuable as the crop they bear when cut and ground with the

LETZ Dixie Feed Mill

The greatest mill ever designed for Southern grinding. It's new, different and better. The Dixie Mill excels in capacity, clean grinding and variety of grinding. The Letz Dixie grinds everything. It is convenient for the operator and is as near indestructible and "fool-proof" as a mill can be.

It's an all purpose mill that will grind wet or dry grains, corn on the cob, snap corn husks and all, kaffir corn, velvet beans, pea vines—anything. The Dixie is a combined cutter and grinder. It first cuts stalks, vines, hay, etc., into short lengths, then forces them through the wonderful Letz self sharpening buhrs, reducing to as fine or coarse a meal as you want.

It doesn't smash or roll the grain—the "Dixie" shears it. It can't clog. Has wonderful capacity. Grinds any kind of hay, grain or seeds—dry or wet; will even grind corn in the milk stage without clogging. Runs smoothly and noiselessly. The Letz self-sharpening silent buhrs never need sharpening—grind thousands of bushels without replacement. The Letz "Dixie" is designed particularly for cutting and grinding velvet beans, alfalfa, kaffir corn, pea vines and other Southern forage crops. It's the only mill that will do this work right as well as grinding dry grains.

Ten Reasons Why You Should Buy a Dixie Feed Mill

1. It's a combined cutter and grinder.
2. Grinds all grains and roughage.
3. Can't be clogged.
4. Is silent running.
5. Safety bottom prevents breakage.
6. Plates are self sharpening.
7. Does not heat grain.
8. One set of plates grinds 1000 to 3000 bushels.
9. Has great capacity.
10. Exceptionally light running.

Three Sizes

- No. 76—8" Buhr Without Feed Rollers, 2 to 8 H. P.
- No. 77—8" Buhr With Feed Rollers, 2 to 8 H. P.
- No. 86—10" Buhr Without Feed Rollers, 8 to 15 H. P.
- No. 88—10" Buhr With Feed Rollers, 8 to 15 H. P.
- No. 22—12" Buhr 15 to 30 H. P. With Traveling Table.

Feed Rollers can be added at any time to No. 76 and No. 86, transforming them into No. 77 or No. 88.

**You Find Letz
Buhrs Only in
Letz Dixie Mills**

Papec Ensilage Cutters

"It Throws as Well as Blows"

Made in the following sizes:

R-10 2 straight knives.

N-13. 2 straight knives.

L-16. 2 or 3 knives.

K-19. 3 or 6 knives.

All machines except style K-19 furnished mounted or on legs.

With each ensilage cutter is included 30 foot blower pipe, steel elbow, two bevel rings, gears to cut three lengths, one extra set of knives, tools, and tool box, and have automatic self feeders.

Capacity, Power, Speed and Weight

R-10. 2 to 5 tons per hour. H. p. required, steam 3 to 4, gas 3 to 6; r. p. m. 700. 875 lbs. on legs, 940 lbs. mounted.

N-13. 5 to 10 tons per hour. H. p. required, steam 4 to 6, gas 6 to 10; r. p. m. 700. 1100 lbs. on legs, 1370 lbs. mounted.

L-16. 10 to 20 tons per hour. H. p. required, steam 10 to 12, gas 14 to 20; r. p. m., 700. 1500 lbs. on legs, 1750 lbs. mounted.

K-19. 20 to 30 tons per hour. H. p. required, steam 14 to 18, gas 20 to 30; r. p. m., 700. 2550 lbs. mounted.

We Have the Only 6-Propeller Steel Bound Steelized Wheel in the World

The Papec is built of the very best materials, and is the strongest, most durable cutter in use. It is simplicity itself in design and convenient to operate. The construction is light, yet strong, as special materials, Steel, Semi-Steel, and malleables are used throughout. The cutting wheel, which is the most vital part of the machine, is indestructible. The

work of the Papec is invariably a surprise to the operator. Its strength, capacity and great lifting force on little power and at slow speed, 700 r. p. m., is a wonder to everybody.

We carry duplicate parts of our machines at 6 important cities in the South.

We also make self-feeding attachments, shredder bars, conveyors, and hand and power feed cutters.

This illustration represents our L-16 style mounted cutter. It is made with either 2 or 3 knives as wanted. This cutter equipped with 3 knives is the popular size for general work.

Write for Further Information

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

THE SAGINAW "STEEL BUILT" SILO

Saginaw All-Steel Door Frame
for Stave Silos.

Used only on Saginaw "Steel-Built" Silos—provides uniform bearing from top to bottom—has a continuous opening—protects first stave from damage—prevents cross girders from counter-sinking—prevents doors from binding—prevents bulging or buckling and is stiff and rigid.

Saginaw Spine-Dowel.

Used in "Saginaw" Silos—locks and interlocks four staves—makes air tight joint—prevents shearing—strengthens silo wall—protected with water-proof, acid-proof and vermin-proof Silo seal.

REDWOOD

When a man buys a Saginaw "Steel-Built" Redwood Silo he is getting a silo that is a permanent investment—a silo that will produce profits year after year for an average lifetime or longer and withstand the elements of time without additional expense for repairs.

California Redwood is especially adapted for the construction of silos. It is straight grained, knotless lumber—it does not rot—it does not shrink nor swell when properly dried—is fire-resisting and the best non-conductor of heat or cold—it makes an air tight, smooth, inside wall which of itself insures perfect, sweet, succulent silage—it is recommended by United States Agricultural Departments everywhere—let us tell you more about it.

Famous throughout the country for its permanence especially in the "Steel-Built" Redwood type. Ask us for information.

Saginaw Base Anchor.

This type of base anchor is exclusively a Saginaw "Steel-Built" feature—adjustable—prevents silo shifting on foundation—being connected with the bottoms hoops distributes holding power equally to all staves.

SWEET SILAGE

Making silage is similar to canning fruit—fruit is cooked by artificial heat and then placed in air tight receptacles with sufficient liquid to fill all spaces and exclude all air—silage is cooked by its own heat, cured and preserved by its own acids. In order to secure sweet, succulent silage the silo must be air-tight, non-conducting of heat and cold, have smooth perpendicular inside walls, and walls that will not be affected by acids. There is a story connected with this and our men would like to tell you about it.

Saginaw Steel Inner Anchor.

An exclusive feature of the Saginaw "Steel-Built" Silo—distributes anchor cable strain equally to all staves—freely adjustable—prevents vibration—holds staves firmly—keeps silo wall circular—prevents buckling—firmly locked to outside hoop—draws tighter as cable anchor is tightened.

Saginaw Angle Steel Rib.

An exclusive "Steel-Built" feature found in no other silo—automatic—adjustable— independent of hoops—prevents vibration tilting, shearing, buckling, cave-ins—makes erection easy.

SAGINAW LEADER SILO

The Saginaw Leader Silo is very similar in construction to the Saginaw "Steel-Built" except that instead of an all-steel door frame the Leader door frame is made of wooden uprights and lacks some of the "Steel-Built" features which places the other silo above the ordinary. The Saginaw Leader Silo is the ordinary type of silo that is sold so commonly. You will be well satisfied with it. All Stave silos are furnished in either California Redwood, Oregon Fir, or Yellow Pine but the discriminating buyer prefers to pay a little extra and get something better than the common run. Ask us about this.

T.—Vacuum Tank. Plain, heavy, galvanized tank; nothing inside of it.

S.—Safety Valve to keep the vacuum constant. No springs.

G.—Mercury Vacuum Gauge—the only accurate and dependable way to measure vacuum.

Exclusive Features of the

Burrell Single Tube Milker

AUTOMATIC CONTROLLER. Regulates the vacuum in the teat cup automatically, so that it is at all times only what the individual cow needs to milk her quickly and thoroughly. Vacuum always goes to zero between sucks. It is this feature which has earned for the Burrill Milker its reputation for thorough milking.

UNIVERSAL TEAT CUPS. Single compartment durable nickel alloy teat cups. One size only required for practically all cows—no rubber lining—cheap to maintain.

SUCTION TRAP. Located on pulsator. Positively prevents any contamination from stanchion hose and pipes from getting into the milk pail. Essential to the production of clean milk of low bacterial count.

PARTITION PAIL. Keeps milk from each cow separate, for records. No need for single machines, which mean twice as many trips to empty—twice as many pails and pulsators to wash and maintain.

Burrell (B-L-K) Milkers

This Picture Illustrates How Extremely Simple is the

Burrell Single Tube System

A single line of pipe in the barn—easy to install.

M.—The Milking Unit. Milks one or two cows at a time—keeps the milk from each cow separate for records—only one set of tubes from the pail to the single compartment cups.

P.—Efficient, heavily built, single acting pump—Only one valve, positively operated, for each cylinder.

The Myers Fountain Spray Pump

For Spraying Potatoes, Cotton, Trees and Vines with Paris Green, London Purple or any other Soluble Mixture.

The Myers Fountain Knapsack is constructed of first quality galvanized iron, and is fitted with adjustable straps so as to be carried on the back, or can be carried by bail as shown by dotted lines. Holds 5 gallons and weighs 52 pounds when full. The pump is operated by grasping bulb in the hand and compressing it, which causes a spray to be thrown from 3 to 15 feet.

The Myers Back Gear Power Spray Pump

For Hot or Cold Mixture. Belt Driven

The cylinder is a removable brass shell, 2x4 inch stroke.

The pump is equipped with gears of ample strength, and is back geared 5 to 1.

The valves are of poppet pattern, made of hard brass with concave ground seats.

The piston rod is $\frac{3}{8}$ solid brass, outside packed.

The plunger is of the telescope pattern, packed with hemp packing suitable for handling hot or cold mixtures.

The suction may be taken from either side.

The discharge has double shut off cock.

Is fitted with retaining check valve in pump at base of air chamber.

The relief valve is placed below the retaining check valve so that the discharge from the relief valve does not lower the pressure in the air chamber, a valuable point.

Capacity, 6½ gallons per minute.

THE MYERS

Cog Gear Spray Pump

Double Acting

Mounted on Skids, with 50 Gallon Barrel

Has brass valves and ground bevel brass seats, 2 inch seamless brass removable cylinder, hemp packed plunger, double lever shut off discharge.

Special Features: Cog gear movement, increased leverage adapted for spraying under heavy pressure, mounted complete, occupying smallest possible space. Capacity sufficient for 8 nozzles; well adapted for spraying potatoes. Will set in an ordinary farm wagon box.

Outfit includes 15 foot lead of $\frac{3}{8}$ -inch, 7-ply discharge hose, one Fembro nozzle, one 8 foot pipe extension with lever shut off and mechanical agitator.

Prices Furnished Upon Application

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

EL FLO No. 30—Large Family Size Outfit.

This is the most convenient size for general family canning in our entire line of Outfits. Two much praise cannot be given it. EL FLO No. 30 holds the World's Canning Record for the largest number of cans and the most efficient and economical pack. Every make of Outfits in the United States had equal chances. This Outfit is used largely by the United States Government Colaborators, Demonstration Agents, and the majority of Truck Farmers. It is a large, roomy Outfit, and has splendid capacity. No Outfit or any other article could bear higher endorsements than the EL FLO No. 30 does. Its praises may be heard in all parts of the country, and, as many say, it is truly a "Treasure." Big profits are made with it.

This Outfit holds 30 No. 3 cans, or 15 quart jars, at each filling. Daily capacity of average fruits or vegetables, 400 to 600 No. 3 cans; of tomatoes, 594 quarts, or 33 bushels.

EL FLO No. 30 Outfit: Boiler 14 inches wide, 23 inches high, 23 inches long; Cover, Capping Steel, Tipping Copper, Two Combination Trays, Tray Lifters Can Tongs, Flux Cord, Elbow, Two Joints of Pipe, and Book of Instructions. Weight, 55 pounds. Price, complete-----**\$17.50**

THE "UTILITY OUTFIT" POSSESSES SUCH ADVANTAGES as will make it **USEFUL** throughout the year. Therefore it is not only an investment for **CANNING**, but is adaptable to doing service and making luxuries out of many every day home drudgeries. Particularly is it of great value on "**WASH DAY**," making the laundry work easy, free from soot or rust. In cooking Stock Food, Heating Water, etc., the service is inestimable.

THE FIRE BOX IN THE "UTILITY OUTFIT"

is surrounded by a thin wall of water, thus making the water boil quickly and insuring that important part of the **BOILER** from rusting or burning out.

"Utility Outfit" No. 21 Complete, weight 35 pounds. Price-----\$12.50

"Utility Outfit" No. 57 Complete, weight 60 pounds. Price-----\$20.00

Gentlemen: I have used eleven different kinds of canning outfits, I like yours best of all. I have used it in many demonstrations.

(Miss) **VIRGINIA MOORE,**

State Agent, Girls' Tomato Club Work,
Nashville, Tenn.

The number on "El Flo" and "Utility" Outfits gives the quantity of No. 3 cans same holds at each filling.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

EL FLO IMPROVED CONTINUOUS HEATING AND CAPPING STEEL

USEFUL IN HEATING TIPPING STEELS ALSO

This is the solution to your sealing problems.

Five cents' worth of gasoline will run the EL FLO Heater a whole day—sealing more than 1,000 cans. A blue flame plays continuously on the steel, keeping a nice uniform heat. It is light, neatly finished, compact, convenient, and never requires any "tinning" or "fluxing." Perfectly safe, and is as simple and easily operated as a lamp. Guaranteed to give perfect satisfaction or money will be refunded. Made in all sizes, 1 5-8, 2 1-16 and 2 7-16 openings.

EL FLO Heater, with Capping Steel "Tinned".....\$5.00

Plain Capping Steel, "Tinned".....\$2.00

Tipping Coppers, 1-lb. size, with handle.....\$0.50

Prepared Flux, Qt. Can.....\$0.50

Prepared Flux, Pt. Can.....\$0.30

Can Tongs.....\$0.35

Wire Tipping Solder, per pound.....\$0.75

Solder Hemmed Caps, per 100.....\$0.75

Prepared Salamoniatic, per pound.....\$0.75

EL-FLO NO. 14. KITCHEN CANNERY OUTFIT.

Get an Outfit of some size today. Get started. That's the point. If your supply of fruit or vegetables is limited or small, get this Outfit and enjoy the most delicious canned goods you've ever tasted. **You will use it every day.** You are able to can in either glass or tin with it. Sets on your oil, gas or cook stove and requires little fuel either for canning, cooking or washing purposes. Preserves the flavor, texture, color and juices of the fruits.

The No. 14 holds 14 No. 3 cans, or 7 quart jars, at each filling, having a daily capacity from 40 to 100 quarts of average fruits and vegetables. The boiler is 14 inches wide and 12 inches high with oval shape, close fitting cover and large Combination Tray. This Outfit may be sent by Parcel Post if desired, packed for shipment weighs 15 pounds.

Be governed by the above weight and include sufficient postage if same is to be sent by Parcel Post, otherwise same will go by Express.

EL FLO, No. 14, fully complete, except Capping Steel,.....\$5.50

"Utility Outfit" No. 24 Complete, as below, weight 35 pounds. Price.....\$12.50

"Utility Outfit" No. 54 Complete, style as below, weight 60 pounds. Price.....\$20.00

BOOK OF INSTRUCTIONS

Like a great College without an instructor, so is a good Canning Outfit without the proper recipes and instructions. There are no secrets in canning—just simple preparations, sterilizations, and the correct methods to pursue. This book contains forty-two recipes and is especially prepared for our Canning Outfits, with recipes covering all kinds of fruits, vegetables, meats, jellies, marmalades, soups, etc., and it is so clearly written that anyone can do canning successfully from the beginning. A Book of Instructions free with each Outfit. Price alone, Fifty Cents.

Electric Light is the Best Light

Electric Power is the Best Power

You can have electricity right in your home. This plant brings you the many labor saving devices the city dweller enjoys. It gives you light—ready for use every hour of the day and night. The snap of a switch floods the house and barn with as much light as you could wish for. Snap another switch and the motor turns the washer and wringer. It's easier to snap a switch than it is to fill and clean oil lamps. It's *safer* and *better* light, and it saves a vast amount of work when electricity does the washing and the other distasteful tasks. Install

Western Electric

POWER AND LIGHT

L I G H T

for

House
Porch
Driveway
Barn
Dairy
Stable
Garage, etc.
County House
Stores
Churches
Grange Halls
Schools, etc.

Begin right now and enjoy this boon of electricity. Western Electric Power and Light can be installed on your place with little trouble and small expense. You owe it to yourself to know just what electricity will do to help make the day's work lighter and the evenings brighter.

P O W E R

for

Washing Machine
Vacuum Cleaner
Dishwasher
Sewing Machine
Fan
Electric Iron
Running Water
Churn
Separator
Fanning Mill
Grindstone
Feed Cutter, etc.

Western Electric

Power AND Light

"In our house we have bright light all the time. When I want something from the cellar I snap a switch before I go down the stairs—the steps are all lighted up so I am never afraid of falling, and the cellar is just as light as day all over. Some folks still use oil lamps in the house and lanterns in the barns, but we wouldn't know how to get along in our house without Western Electric Power and Light.

"Why, it saves more steps than you would ever think. I can get my work done more quickly, and more easily. For the Western Electric outfit runs my washing machine and wringer; and it runs a vacuum cleaner and iron; it pumps water for me and for the men in the barn. It is so clean and safe, too. The whole place—house, barn and sheds—is practically made over by electric lights. Whenever I pass a farm house I want to get out and tell the folks in there what they are missing until they get Western Electric Power and Light. For they will have it sooner or later. Why don't they find out about it right now?"

When Mrs. O'Leary's cow kicked over an oil lamp in her Chicago barn she started a fire that made history.

That was back in '71 and cows' habits haven't changed a bit since then—they still kick at unexpected moments and if an old fashioned oil lamp is in the way, over it goes to start a fire—a fire that always is disastrous.

But although cows' habits haven't changed in 50 years—lights have. No longer need you use the dangerous oil lamps of '71—for with

Western Electric

you can have bright, satisfactory, **SAFE** electric lights—all over your farm and home. No other light is as satisfactory—no other light as safe.

Western Electric lighting outfits hook up with your own gas engine. They are easy to install—simple to operate.

Let us demonstrate right in your home and in your barn why you cannot afford to be without a plant.

A Field of Gorman's Improved Tennessee Red Cob Corn.

"As a man soweth,
so shall he reap."

QUALITY
Made Us
Famous

SERVICE
Made Us
Grow

Therefore
"Get Them Good,"

LETTERS REQUIRING AN ANSWER SHOULD BE WRITTEN ON A SEPARATE SHEET FROM
THE ORDER, TO INSURE A PROMPT REPLY.

INDEX

Alfalfa	46	Egg Plant	17	Peas, Field or Cow	43
Aprons, Rubber	65	Emmer	39	Pencillaria	41
Artichokes	4	Endive	17	Peppers	27
Asparagus	5	Engines and Equipment	84	Pieplant	29
Barley, Winter	41	Ensilage Cutters	88	Planet Jr. Garden Tools	55
Beans, Soy	39	Feed Carriers	63	Pop Corn	15
Beans	6-9	Feed Mills	86-87	Potatoes	33-34
Beans, Velvet	38	Fertilizers	56	Poultry Remedies	52-53
Beets	10	Feterita	40	Pumpkins	27
Bermuda Grass	49	Field Peas	43	Pumps, Tanks, etc.	82
Blue Grass	49	Filter Cloth	70		
Boilers, Solon Steel	62	Garden Tools	55	Radishes	28
Borecole	17	Grasses	43-50	Rape, Dwarf Essex	39
Bottle Washers, etc.	76	Gumbo	20	Red Top	49
Bottle Caps	71	Hay Fork Carrier	63	Rhubarb	29
Bottle Delivery Baskets	65	Herbs	18	Rice, Upland	38
Bottles, Milk	65	Herd Grass	49	Russian Sunflower	41
Bottle Fillers	67	Horse Radish	18	Rutabagas	32
Broccoli	5	Incubators	59	Rye Grass	49
Brooders, Buckeye	60	Insect Destroyers	57	Rye, Winter	41
Brushes and Brooms	75	Jerusalem Artichokes	4	Salsify	29
Brussels Sprouts	5	Johnson Grass	49	Sal-Vet	61
Buckwheat, Japanese	41	Kale	17	Sea Kale	10
Bull Rings	78	Kaffir Corn	40	Seed Sower, Cyclone	56
Butter Boxes, etc.	81	Kohl Rabi	18	Separators	76
Butter Cartons	81	Kow-Kure	78	Shipping Boxes, Butter	81
Butter Color	81	Lanterns, Dietz	66	Shoes, Wooden Sole	70
Butter Moulds	81	Lawn Grass Seed	50	Silos	89
Butter Supplies	81-82	Leek	18	Silver Beet	10
Butter Workers	82	Lee's Poultry Remedies	52	Sorghum Cane	40
		Lettuce	19	Soy Beans	3, 39
Cabbage	11-12	Light and Power Plant	84	Speltz	39
Calendar	3	Litter Carrier	63	Spinach	29
Calf Meal	70	Mangel Wurzel	10	Spraying Implements	58
Canning Outfits	92-93	Meat Scraps	52	Spray Pumps	56, 94-95
Cans, Milk	72	Milk Coolers, etc.	73, 80	Spray Vat	79
Carriers	63	Milkers	90	Squash	29
Carrots	13	Milking Stools	64, 82	Stanchion, Loudon	64
Cattle Instruments	78	Milk Pails	70	Steel Boiler	62
Cauliflower	14	Milk Testers	68	Stove, Dairy Maid	62
Celery	14	Millet	41	Sudan Grass	37
Celery Beet	10	Mills, Feed	86-87	Sunflower, Mammoth Russian	41
Chufas	42	Milo Maize	40	Sweet Corn	15
Churns	69, 80	Mulford Cultures	47	Sweet Potatoes	34
Clarifiers	76	Muskmelons	21	Swiss Chard	10
Clover Seed	44-45	Mustard	20		
Collards	13	Oats, Spring	43	Teosinte	40
Corn, Pop	15	Okra	20	Tester, Milk	68
Corn, Seed	35-37	Onions	23-24	Thermometers, Dairy	78
Corn Salad	13	Orchard Grass	49	Timothy	48
Corn, Sweet	15	Parsley	24	Tomatoes	30-31
Cotton Seed	51	Parsnips	24	Turbine Washer	82
Cow Bells	78	Pasteurizer	74, 79	Turnips	32
Cow Peas	43	Peanuts	42		
Cucumbers	16	Peas	25-26	Upland Rice	38
Dairy Supplies	64-82			Velvet Beans	38
Dairy Maid Stove	62			Vetch	41
Darling's Meat Scraps	52				
Delivery Cases	65			Watermelons	22
Dippers, etc.	71			Wheat	41
Earth Almonds	42			Windmills	82

DON'T BUY ALL YOUR VEGETABLES

It costs a pile of money to run to the store every time you want a head of cabbage or some onions. Get seeds from GORMAN-GAMMILL. They sell one kind only—THE BEST.

USE GORMAN'S SELECTED
VARIETIES OF WHEAT
FOR THE SOUTH —

A FIELD OF GORMAN'S SOUTHERN
ENSILAGE CORN. IT PRODUCES MORE
AND BETTER SILAGE THAN ANY
VARIETY

A CROP OF GORMAN'S
ABRUZZI RYE WILL
FURNISH AN
ABUNDANCE OF
WINTER GRAZING.

A FIELD OF GORMAN'S FROST PROOF DRUMHEAD CABBAGE

GORMAN'S SUCCESS WINTER OATS — A SURE WINNER