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62.37

1928

Griffith AND Turner Co.

D. N. Shoemaker

SUPPLIES

GENERAL OFFICES. 205-215 N. PACA ST.

BRANCH HOUSE, 338 N. GAY ST.

BALTIMORE, MD.

D. N. Shoemaker

OUR SEEDS are the **BEST** that can be obtained anywhere, because we are as careful in our selection as it is possible for anyone to be, and are constantly on the lookout for the best of everything, but will not put on the market anything until it has been thoroughly tried and proved.

No matter what others may ask for their seeds, better quality cannot be obtained anywhere, as our constantly and rapidly increasing trade does and will testify.

Our Seeds are **ALL TESTED** thoroughly before being placed on the market.

If for any reason you change your postoffice address, please advise us, giving your old address as well as your new one, stating which is the old and new one.

By writing out your order on the Order Sheet sent with each Catalogue you will greatly facilitate our work. Extra Order Sheets sent on application. Be sure to sign your name in full, giving postoffice and shipping point. If you have rural delivery, give name and number of route. If you want goods shipped by boat or railroad, state which you prefer, and what line to send by.

PARCEL POST RATES

Weight in Pounds	Distance not over 150 miles	Over 150 and not over 300 miles	Over 300 and not over 600 miles	Over 600 and not over 1000 miles
1.....	\$.07.....	\$.08.....	\$.09.....	\$.10.....
2.....	.08.....	.10.....	.13.....	.16.....
3.....	.09.....	.12.....	.17.....	.22.....
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11.....	.17.....	.28.....	.49.....	.70.....
12.....	.18.....	.30.....	.53.....	.76.....
13.....	.19.....	.32.....	.57.....	.82.....
14.....	.20.....	.34.....	.61.....	.88.....
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17.....	.23.....	.40.....	.73.....	1.06.....
18.....	.24.....	.42.....	.77.....	1.12.....
19.....	.25.....	.44.....	.81.....	1.18.....
20.....	.26.....	.46.....	.85.....	1.24.....
21.....	.27.....	.48.....	.89.....	1.30.....
22.....	.28.....	.50.....	.93.....	1.36.....
23.....	.29.....	.52.....	.97.....	1.42.....
24.....	.30.....	.54.....	1.01.....	1.48.....
25.....	.31.....	.56.....	1.05.....	1.54.....
26.....	.32.....	.58.....	1.09.....	1.60.....
27.....	.33.....	.60.....	1.13.....	1.66.....
28.....	.34.....	.62.....	1.17.....	1.72.....
29.....	.35.....	.64.....	1.21.....	1.78.....
30.....	.36.....	.66.....	1.25.....	1.84.....
31.....	.37.....	.68.....	1.29.....	1.90.....
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33.....	.39.....	.72.....	1.37.....	2.02.....
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35.....	.41.....	.76.....	1.45.....	2.14.....
36.....	.42.....	.78.....	1.49.....	2.20.....
37.....	.43.....	.80.....	1.53.....	2.26.....
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39.....	.45.....	.84.....	1.61.....	2.38.....
40.....	.46.....	.86.....	1.65.....	2.44.....
41.....	.47.....	.88.....	1.69.....	2.50.....
42.....	.48.....	.90.....	1.73.....	2.56.....
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46.....	.52.....	.98.....	1.89.....	2.80.....
47.....	.53.....	1.00.....	1.93.....	2.86.....
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INSECTICIDES
CANNOT
BE SENT BY
PARCEL
POST

TO COUNTRY MERCHANTS

WE PUT UP VEGETABLE SEEDS in papers for the Country Trade in quantities to suit purchasers.

Our seeds are select and tested, and give satisfaction wherever used.

Beans, Peas, Corn, etc., in bulk, at lowest wholesale rates.

Write for special quotations in quantities.

Should you have placed your order for small papers for this year, we will be pleased to fill any shortage you may have, and solicit your patronage for another season.

Prospective Customers who are not rated in the Commercial Agencies will save time in having their goods shipped by accompanying their Orders either with the Cash or satisfactory references. Baltimore references preferred.

NOTICE.—We make a specialty of quoting on complete outfits. **SEND FOR PRICES.**

Filling Orders.—Every order is filled and forwarded as promptly as possible, but if not duly received, please notify us and we will make every effort to trace it without delay. Do not fail to sign your name and give full address.

PACKING AND SHIPPING.—We make no charge for boxes or packing of retail orders and deliver all goods to any railroad or steamboat free of charge. We charge for cotton bags, 2 bushel, 40 cents each.

HOW TO REMIT.—Remittances should be made by draft, Express Money Order, P. O. Money Order or Registered Letter.

We deliver by **PARCEL POST FREE** to any Postoffice in the United States all cash orders for Flower and Garden Seeds, up to ¼ lb.

No seed delivered free unless order is accompanied with the cash. For postage on Peas, Beans, Corn, Field Seeds in large quantities and All Merchandise, consult table below.

ON EVERY ORDER be sure to **SIGN YOUR NAME** and give your address **PLAINLY**, as we frequently receive orders lacking either or both; also give full shipping instructions. State if by freight or express and give route. This saves delay.

PRICES TO MARKET GARDENERS.—Market gardeners and all purchasers of Seeds in large quantities should submit as a list of their wants and we will name them special prices.

WEIGHT OF AGRICULTURAL SEED PER BUSHEL AND QUANTITY USUALLY

Weight per Bushel	Variety	Time to sow	Quantity per Acre
48 lbs.	Barley, Aug. to Nov.		75 lbs.
"	Broom Corn, in hills.		6 to 8 qts.
48 "	Buckwheat, June to Aug. 15.		1 bu.
60 "	Clover, Alfalfa, Mch., Apr. & Aug. to Oct. 15.		20 to 25 lbs.
60 "	Clover, Alsike, Feb., Mch. & Aug.		8 "
60 "	Clover, Crimson, July to Sept.		15 "
60 "	Clover, Sweet, Mch. & Apr., Aug. to Sept.		15 to 20 "
60 "	Clover, Japan, Mch. to May.		15 to 20 "
60 "	Clover, Red, Feb. & Mch.		10 to 12 "
60 "	Clover, White, Aug. & Sept., Mch. & Apr. (alone).		6 "
60 "	Clover, White, Aug. & Sept., Mch. & Apr. (with other grasses)		2 "
21 "	Crested Dog's Tail, Aug. & Sept., Mch. & Apr.		25 "
20 "	Creeping Bent, Aug. & Sept., Mch. & Apr.		50 "
56 "	Corn, for soiling, May.		1 to 2 bus.
24 "	English or Perennial Rye, Mch. & Apr., Aug. & Sept.		60 lbs.
20 "	Evergreen Lawn Grass, Mch. & Apr., Aug. & Sept.		3 to 4 bus.
56 "	Flax, for seed, Mch. & Apr.		1 bu.
56 "	Flax, for fibre.		2 to 3 bus.
56 "	Field Corn (in hills), May.		4 to 6 qts.
50 "	German Millet, May to Aug. 1st.		50 to 75 lbs.
50 "	Hungarian Millet, May to Aug. 1st.		48 "
44 "	Hemp		22 "
20 "	Italian Rye Grass, Apr. & May, Aug. & Sept.		50 "
14 "	Kentucky Blue, Apr. & May, Aug. & Sept.		42 "
22 "	Meadow Fescue, Apr. & May, Aug. & Sept.		50 "
7 "	Meadow Foxtail, Apr. & May, Aug. & Sept.		30 "
14 "	Orchard Grass, Apr. & May, Aug. & Sept.		42 "
32 "	Oats, Spring, Mch. & Apr.		75 "
32 "	Oats, Winter, Mch., Aug., Sept., Oct.		50 to 75 "
14 "	Red Top, unhalloed, Apr., May, Aug. & Sept.		42 "
32 "	Red Top, Faucy, Apr., May, Aug. & Sept.		12 "
60 "	Rape, Feb. to Aug.		4 to 6 "
60 "	Rye, Aug. to Nov.		60 to 80 "
12 "	Sheep Fescue, Apr., May, Aug. & Sept.		30 "
50 "	Sorghum (for Fodder), May & June.		50 "
50 "	Sorghum (in Drills), May & June.		30 "
10 "	Tall Meadow Oat Grass, Apr., May, Aug., Sept.		50 "
45 "	Timothy, alone, Apr., May, Aug., Sept.		20 "
"	Timothy, with other grasses.		8 "
(Together for an acre: Red Clover, 6 lbs.; Timothy, 12 lbs.)			
60 "	Wheat, Sept. to Nov. 15.		100 to 120 "
"	Teosinte, May & June.		4 to 5 "
"	Vetch, winter, Aug. to Nov. (broadcast).		30 "
30 "	Wood Meadow, Apr., May, Aug. & Sept.		30 "

"We give no warranty, expressed or implied, as to description, purity, productiveness or any other matter of any seeds, or bulbs we sell, and we will not be in any way responsible for them."

GRIFFITH & TURNER CO.

205-215 N. PACA STREET

BRANCH HOUSE, 338 N. GAY ST.

BALTIMORE, MD., U. S. A.

HOW TO SEND MONEY: By Mail, Express, P. O. Money Order, Registered Letter or Bank Draft.
For small amounts send Postage Stamps.

We deliver by Parcel Post free to any Post-office in the United States, all cash orders for Flower and Garden Seed at Catalog Price, except Peas, Beans, Corn and Field Seeds. No seed delivered free unless the order is accompanied with the cash. For Peas, Beans, Corn and Field Seeds, add to Catalog Price 8 cents a plant and 10 cents a quart. For each additional quart add at the rate of 2 cents a quart, for distances not over 150 miles from Baltimore. For other seed and merchandise rate consult inside of front cover of Catalog.

VERY IMPORTANT. No matter how often you have written us, always give your full address, and write your Name, Post-office, County and State very plainly. We frequently get orders without address or signature.

We give no warranty, expressed or implied, as to description, purity, productiveness, or any other matter of any seeds, bulbs or plants we sell, and we will not be in any way responsible for them.

ORDER FLOWER SEEDS BY NUMBERS. PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

AMOUNT ENCLOSED

Forward by { State on this line whether wanted
by Mail, Express or Freight. } ----- Post-office Order . . \$-----

Your Name..... Express Money Order

Post-office..... Route No..... Bank Draft

County..... State..... Cash, Notes and Silver

Freight Office }
Express or } _____ Date _____ Postage Stamps . . . _____
(2c. stamps preferred)

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Griffith & Turner Co.'s

ANNUAL

1928--CATALOGUE--1928

BEST GOODS

No. 41

LOW PRICES

SUGGESTIONS FOR THE FAMILY GARDEN

DRAW A DIAGRAM OF THE GARDEN. Locate the crops which take the most room (corn, potatoes, vines of the cucumber family), then locate the other crops, grouping them as follows: Peas, potatoes beans; (asparagus, rhubarb, herbs;) parsnips, turnips, salsify; beets, carrots, onions; cabbage, cauliflower; okra, tomatoes, eggplant, peppers; spinach, swiss chard, radish, salad plants. Vegetables should be planted in rows. Sow Indoors or in Hotbed January 15: Foxglove, pansy, Iceland poppy.

ORDER SEEDS. QUANTITY OF SEED FOR A FAMILY OF EIGHT: Brussels sprouts, carrot, turnip, 1 oz; onion, spinach, okra, 2 oz.; Cauliflower, eggplant, peppers, 2 pkgs.; cucumbers, 25 hills, 1 oz.; squash, 20 hills, 1 oz; string beans, 2 qts.; lima beans, 1 qt.; peas, 4 qts.; corn, 3 pts. (3 plantings); lettuce, 1 oz.; **BUY GARDEN TOOLS;** Wheelbarrow, roller, watering-can, sprayer, spade, fork, wheel hoe, common hoe, weeder, rake, scythe, sickle, trowel.

WHEN TO SOW: Early crops between March 15 and May 1. Main crops about May 5. Cover seeds twice or three times their thickness. Distances: drills from 1 to 2 feet apart; corn, 3 feet; vines of the cucumber family, 4 feet; tomatoes, 3 feet.

SOW INDOORS MARCH 1 OR IN HOTBED: Cabbage, endive, eggplant, lettuce, peppers, tomato. **SOW INDOORS MARCH 1 OR IN HOTBED:** Sweet-alyssum, balsam, calendula, coreopsis, petunia, sweet-william, zinnia.

SOW OUT OF DOORS BETWEEN MARCH 15 AND APRIL 1: Beets, cabbage, carrots, kohlrabi, lettuce, onions, parsley, parsnips, radish, salsify, spinach, turnips, sweet-peas.

SOW OUT OF DOORS APRIL 15: Beets, cabbage, carrots, Swiss chard, celery, cornsalad, garden cress, endive, lettuce, okra, onion, parsley, parsnips, peas, radish, salsify, spinach, sage, thyme, turnip. **SOW OUT OF DOORS APRIL 15:** Sweet-alyssum, calendula, candytuft, corn-flowers, carnation, forget-me-not, larkspur, marigold, mignonette, Iceland poppy, snapdragon, sweet-william, zinnia. Set out roots of dahlias, cannas, gladiolas, elephant ears, tube roses and plants of hardy chrysanthemums.

SOW OUT OF DOORS MAY 15: Beets, beans, cabbage, carrots, corn, salad, chicory, cucumbers, endive, tomatoes, lettuce, lima beans, muskmelon, peas, peppers, potatoes, pumpkin, radish, sweet corn, Swiss chard, spinach, squash, sage, watermelon. **SOW OUT OF DOORS MAY 15:** China aster, balsam, coreopsis, cosmos, foxglove, morning-glory, nasturtium, petunia, phlox, drummondii, sunflower. Vegetables and flowers should be transplanted from hotbed to garden about May 10. Flowering shrubs should be pruned immediately after they have blossomed. Fruit trees should be sprayed when the blossoms fall.

SOW EARLY IN JUNE: Beans, beets, cucumbers, lettuce, peas, radish, sweet corn. Ten week Stock, pansy. Roses should be grown on a southern exposure. The soil should be a rich loam. Set out ever-blooming roses the middle of April; Hybrid, Perpetual and Hardy Roses the middle of October. Rose bushes should be set 2 feet apart, sprayed in April and May, and pruned in March. The rose-bed should be well covered the last of November, and uncovered as soon as danger of frost is past.

FIRST WEEK IN JULY: Beans, carrots, lettuce, radish, sweet corn, turnips. **BORDEAUX MIXTURE** is excellent for all kinds of blight. **ARSENATE OF LEAD** will destroy insects that chew. **DIRECTIONS:** 2 to 3 pounds to 50 gallons of water. **LEMON OIL CO.'S STANDARD INSECTICIDE** WILL KILL PLANT LICE OF EVERY DESCRIPTION. **AUGUST 1, LAST PLANTING OF BEANS AND PEAS.**

SET OUT BULBS EARLY IN FALL: Phlox (perennial), peonies. Plant spring-flowering bulbs: crocus, daffodils, lily of the valley, narcissus, snowdrops, tulips, hyacinths. Spring-flowering bulbs should be planted about 4 inches deep. Plant bulbs of German Iris and Japanese Iris. **IN THE WINDOW GARDEN:** Roman hyacinths, Chinese sacred lilies, narcissus and crocuses can be grown in sand and water.

FERTILIZER for general use. Quantity, 500 lbs. to the acre, or 1 oz. to the square yard. Where a rich soil is required, 1,250 lbs. to the acre, or 4 oz. to the square yard. In artificial fertilizers there are no weed seeds. **GENERAL**

HINTS; BONE-MEAL AND SHEEP MANURE are excellent for lawn, garden, and orchard; **LIME** for heavy, damp soil.

BONE-MEAL OR SHEEP MANURE AND NITRATE OF SODA in equal parts for asparagus. **IN THE FLOWER GARDEN** in the spring a handful of bone-meal or sheep manure may be worked into the soil about a plant with marked results. In midsummer, if flowers are few, rake in some nitrate of soda and a little bone-meal. **SHEEP MANURE** is a good fertilizer for roses.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

PLANTING TABLE

The following table will give you the usual time to sow different varieties of seeds in the Baltimore section. Also, quantity per acre and distances to sow apart in rows. Of course, in Garden Culture a great many seeds could be planted closer together than mentioned, as this table is submitted for Field Culture. For other instructions, see catalog.

Variety	Time to Sow	Quantity Per Acre	Distance Apart in Rows	Distance Between Rows	No. Lbs. Per Bushel
Artichokes, tubers.....	Mar., Apr.....	6 to 8 bu.....	18 in.....	3 ft.....	.50 lbs
Asparagus, seed.....	Mar., Apr.....	10 to 20 lbs.....	4 in.....	18 in.....	.60 "
Asparagus, roots.....	Feb., Mar., Oct.....	8,000 roots.....	12 in.....	3½ ft.....	
Beans, Dwarf Wax.....	Apr. to Aug. 15.....	60 lbs.....	6 in.....	2½ ft to 3 ft.....	.60 "
" Dwarf G. P.....					
" Dwarf Lima.....	May, June, July.....	20 lbs.....	18 in. to 2 ft.....	3 ft.....	.60 "
" Pole Lima.....	May, June.....	15 lbs.....	3 ft.....	4 ft.....	.60 "
" Pole.....					
Beets, Table.....	Mar. to Aug.....	4 to 6 lbs.....	3 in.....	2 ft.....	
" Mangold.....	Apr., May, June.....	4 to 6 lbs.....	6 in.....	2½ to 3 ft.....	
Cabbage, Early.....	Feb., Mar., Apr., Sept.....	8 oz.....			
Cabbage, Late.....	May.....	6 oz.....			
Cabbage Plants, Early.....	Mar., Apr., Nov.....	10,000.....	18 in.....	3 ft.....	
Cabbage Plants, Late.....	July.....	8,000.....	2 to 3 ft.....	3 to 3½ ft.....	
Collards.....	Mar., Apr.....	½ lb.....	18 in.....	3 ft.....	
Cauliflower.....	Mar., Apr.....				
Carrot.....	Mar. to June.....	3 to 4 lbs.....	3 to 4 in.....	2 ft.....	
Celery, Seed.....	Feb., Mar.....	3 lbs.....	2 to 4 in.....	1½ to 2 ft.....	
Celery, Plants.....	July.....	16,000.....	6 to 12 in.....	4 ft.....	
Corn, Sugar.....	Apr. to July 4.....	10 to 12 lbs.....	12 to 18 in.....	3 to 3½ ft.....	.44 "
Corn, Field (drill).....	Apr. to July 1.....	12 to 14 lbs.....	12 to 18 in.....	3½ to 4½ ft.....	.56 "
Corn, Field (checkered).....	Apr. to July.....	10 to 12 lbs.....	3½ to 4 ft.....	3½ to 4 ft.....	.56 "
Cucumber.....	Apr. to June.....	2 to 3 lbs.....	2 ft.....	4 to 5 ft.....	.40 "
Eggplant, Seed.....	Feb., Mar.....	6 oz.....			
Eggplants.....	May, June.....	5,000.....	3 ft.....	3 ft.....	
Kale.....	Feb. to Mar.....	8 to 10 lbs.....	Broadcast.....	Broadcast.....	
Kale, Winter.....	Aug.....	4 to 6 lbs.....	Broadcast.....	Broadcast.....	
Lettuce, Seed.....	Feb. to May.....	2 lbs.....	Broadcast.....	Broadcast.....	
Lettuce, Plants.....	Feb. to June and Aug.....				
Muskmelon.....	to Nov.....	20,000 to 25,000.....	8 to 12 in.....	18 to 24 in.....	
Melons, Water.....	May, June.....	2 lbs.....	4 to 6 ft.....	4 to 6 ft.....	
Okra.....	May, June.....	2 lbs.....	8 to 10 ft.....	8 to 10 ft.....	
Onion Seed for Large Bulbs.....	Apr. May.....	8 to 10 lbs.....	8 to 10 in.....	2½ to 3 ft.....	
Onion Seed for Sets.....	Mar., Apr.....	4 to 5 lbs.....	3 in.....	15 to 24 in.....	
Onion Sets.....	Mar., Apr.....	40 lbs.....		12 to 18 in.....	
Parsnip.....	Feb. to May and Sept. and Oct.....	10 bus.....	4 in.....	18 to 24 in.....	.32 "
Parsley.....	Mar., Apr.....	4 to 6 lbs.....			
Mustard.....	Mar., Apr.....				
Peas, Garden, Smooth.....	Feb. to May.....	90 lbs.....	2 in.....	3 ft.....	.60 "
Peas, Garden, Wrinkled.....	Feb. to May.....	90 lbs.....	2 in.....	3 ft.....	.56 "
Pepper, Seed.....	Feb., Mar.....	8 oz.....			
Pepper, Plants.....	May, June.....	10,000.....	18 in.....	30 in.....	
Potatoes, Irish, Early.....	Mar., Apr.....	11 bus.....	15 to 18 in.....	2½ to 3 ft.....	.60 "
Potatoes, Irish, Late.....	June to Aug. 1.....	11 bus.....	15 to 18 in.....	2½ to 3 ft.....	.60 "
Potato, Sweet, Plants.....	May 10 June 15.....	7,000 to 8,000.....	18 in.....	3½ ft.....	
Pumpkin.....	May, June.....	2 lbs.....	6 to 8 ft.....	6 to 8 ft.....	
Radish.....	Feb. to May and Aug. to Sept.....	15 to 20 lbs.....			
Salsify.....	Mar. to May 10.....	6 to 8 lbs.....	3 to 4 in.....	2 ft.....	
Spinach, (drills).....	Feb., Mar., Apr. and Aug. to Nov.....	20 to 25 lbs.....	2 in.....	9 in.....	
Spinach, Broadcast.....	Feb., Mar., Apr. and Aug. to Nov.....	25 to 30 lbs.....	Broadcast.....	Broadcast.....	
Squash.....	Apr., May, June.....	3 lbs.....	4 ft.....	4 ft.....	
Tomato, Seed.....	Feb. to June.....	6 oz.....			
Tomato, Plants.....	May to July.....	3,000.....	3 to 4 ft.....	4 ft.....	
Turnip.....	July 1 to Sept. 15.....	1 to 1½ lbs.....	4 in.....	2 ft.....	
Turnip, (Broadcast).....	July 1 to Sept. 15.....	2 lbs.....	Broadcast.....	Broadcast.....	

FURTHER SUGGESTIONS FOR THE FLOWER GARDEN

Sweet Peas can be planted outdoors in March.
Sow Outdoors in May where they are to remain.

Sweet Alyssum
Calendula
Candytuft
Bachelors Button
Annual Chrysanthemum

Clarkia
Early Cosmos
Chinese Pink
California Poppy

Gaillardia
Godetia
Gourds
Larkspur

Marigold
Nasturtium
Petunia
Phlox

Poppy
Portulaca
Verbena
Zinnia

Sow indoors in March and transplant in May.

Asters
Antirrhinum

Carnation
Heliotrope

Dahlia
Pansy

Petunia
Salvia

Wallflower

Coreopsis
Chrysanthemum
Delphinium

Gaillardia
Hollyhock
Myosotis

Phlox
Oriental Poppy

Pyrethrum
Scabiosa

Sweet William
Wallflower

Alyssum
Begonia
Lobelia

Nasturtium
Petunia
Pansy

Oxalis
Tradescantia (Wandering Jew)

Fuchsia
Thunbergia

Geraniums

Balsam
Cowslip

Coreopsis
Foxglove

Lobelia
Mimulus

Forget-me-not
Pansy

Begonia
Bellis

Antirrhinum
Asters
Candytuft

Calliopsis
Clarkia
Cosmos

Gaillardia
Larkspur
Marigold

Scabiosa
Stocks

Sweet Peas
Zinnias

Canary Bird Flower
Cockscorb

Fancy Gourds
Foxglove

For the Children's Garden
Balloon Vine
Snapdragon

China Pinks
Balsam or Lady's Slipper

Morning Glory

ASPARAGUS

PALMETTO ASPARAGUS

This is one of the earliest spring vegetables, and should be in universal use. Many persons think it is difficult to grow, but we consider this a mistake, and believe it can be produced as cheaply and easily as any on the list. Sow the seed in the seed bed late in the fall or the early spring, as soon as the ground can be worked, in drills one foot apart, covering the seed about one inch deep. When the plants are four or five inches high, great care should be taken to keep the bed free of weeds. One ounce of seed will sow forty feet of row.

WASHINGTON ASPARAGUS.—This variety is the result of careful breeding by the U. S. Department of Agriculture, with the object of eliminating rust. A dark green color.

PALMETTO.—A very early maturing variety, producing an abundance of very large, deep green shoots.

MAMMOTH WHITE.—Produces large white shoots six inches above the surface; fine quality.

BARR'S MAMMOTH.—The stalks are very large, and retain their thickness completely up to the top of the shoots; light in color.

CONOVER'S COLOSSAL.—A mammoth green sort of the largest size and of good quality. One of the best known and most generally cultivated varieties.

ASPARAGUS SEED	Pkt.	Oz.	¼ Lb.	Lb.
Palmetto	\$0.10	\$0.15	\$0.30	\$.75
Conover's Colossal.....	.10	.15	.30	.75
Barr's Mammoth.....	.10	.15	.30	2.00
Washington	.10	.20	.65	.75

ASPARAGUS ROOTS.—A saving of one to two years is effected by planting roots. A bed 12x40 feet, requiring about 100 roots, should give a sufficient supply for an ordinary family. 8,000 roots will plant an acre. Select good loamy soil, plow deep, put in good quantity of manure and 100 pounds kainit to 1,000 square feet of bed. Incorporate thoroughly, make a trench eight inches deep, set plants 15 inches apart. In field culture rows are placed four feet apart.

ASPARAGUS ROOTS—(Postage Extra)

	100	1,000		100	1,000
PALMETTO	\$1.25	\$9.50	BARR'S MAMMOTH	\$1.25	\$9.50
WASHINGTON	1.75	12.00	CONOVER'S COLOSSAL	1.25	9.50

BEANS—POLE OR RUNNING

KENTUCKY WONDER POLE BEANS

These are of strong, running growth, and need stout poles on which to climb. They require a longer season in which to mature than do the bush varieties, but by reason of their stronger growth are more productive, and growing on poles are more easily gathered.

LAZY WIFE.—Large, pale green pods, very thick meated, stringless, rich, tender and buttery; ripens early; clings well to pole; enormously productive; splendid either as a snap or shell bean.

KENTUCKY WONDER, OR OLD HOMESTEAD.—A very prolific sort, bearing its pods in large clusters; pods green, often reaching 9 to 10 inches in length; nearly round when young, and very crisp.

SPECKLED HORTICULTURAL, OR WREN'S EGG.—An old favorite for both snap-shorts and dry beans.

BEANS—POLE OR RUNNING

Beans by Weight	(about) (1 pt.) 1 lb.	(1 qt.) 2 lbs.	(1 pk.) 15 lbs.	(1 bu.) 60 lbs.
LAZY WIFE	\$.25	\$.50	\$2.75	\$11.00
KENTUCKY WONDER	.25	.50	2.75	11.00
SPECKLED HORTICULTURAL POLE or WREN'S EGG	.25	.50	2.75	11.00

Add for postage, 8c. per lb., 10c for 2 lbs.

Ask for prices by the bushel.

BEANS

Dwarf or Bush-Wax Podded

Select light, warm soil and plant when danger from frost is past in the spring, in drills 2 to 2½ feet apart, dropping the beans about 6 to 8 inches apart in the drills, and cover 2 inches deep. A succession of sowings can be made from the first week in May until August.

IMPROVED RUSTPROOF GOLDEN WAX

This is the handsomest and hardiest of all the Wax Beans. The Pods are straight, long and thicker than the ordinary Golden Wax, much superior in quality, absolutely rustproof and sure to become a favorite Wax Bean; in fact it has already gained great popularity with growers.

SURE CROP STRINGLESS WAX.—Recently introduced by the largest bean grower and originator of new varieties in this country. Entirely stringless, black-seeded, thick, flat yellow pods. The most desirable sort for canning.

DWARF PROLIFIC BLACK WAX

Yellow pod, a very superior snap sort, ripening among the first earlies and having the best characteristics. Very tender.

WARDELL'S KIDNEY WAX BEAN

This is one of the best wax sorts. The vines are remarkably vigorous, hardy and productive. The pods are very large, smooth, showy, tender, perfectly stringless and of an unusually fine quality.

CURRIE'S RUSTPROOF BLACK WAX

For earliness and freedom from rust it is at the head of the Wax Bean family. Habit, upright and robust, holding the pods well from the ground. Pods long, straight, flat and very meaty, of a beautiful color; quality not surpassed, and for productiveness it is unequalled.

CURRIE'S RUSTPROOF GOLDEN WAX

NEW BALTIMORE STRINGLESS WAX

Black seeded, early; thick flat, yellow pod. No strings. Have appearance of Currie's Rustproof Wax, but are better cropper, and absence of strings make them much more desirable for canning and other uses.

NEW PENCIL POD WAX BEAN

Very early and productive. Pods long, straight and handsome; color, light golden yellow; strong and vigorous bush. One of the best varieties.

BEANS BY WEIGHT

1 pound equals about 1 pint 15 pounds equal about 1 peck
2 pounds equal about 1 quart 60 pounds equal about 1 bushel

WAX POD BUSH BEANS	(about) (1 pt.)	(1 qt.)	(1 pk.)	(1 bu.)
Beans by Weight	1 lb.	2 lbs.	15 lbs.	60 lbs.
IMPROVED RUSTPROOF GOLDEN WAX ..	\$.25	\$.50	\$2.75	\$11.00
SURECROP STRINGLESS WAX	.25	.50	3.00	12.00
DWARF PROLIFIC BLACK WAX	.25	.50	3.25	12.00
WARDELL'S KIDNEY WAX	.25	.50	3.25	12.00
CURRIE'S RUSTPROOF BLACK WAX	.25	.50	3.00	12.00
NEW BALTIMORE STRINGLESS WAX ...	.25	.50	3.25	12.00
NEW PENCIL POD WAX	.25	.50	3.25	12.00

Add for postage, 8c. per lb., 10c. for 2 lbs.—Ask for prices in quantity.

Beans—Green—Podded Bush

The green podded dwarf sorts are perhaps the most important class of garden beans and are probably more extensively used for snaps than the wax podded varieties, although the latter are considered by many as the more attractive in appearance. The green podded sorts are as a rule the more productive, being less sensitive to unfavorable conditions of soil and climate and of late years have been less susceptible to bean diseases.

G. & T. CO.'S EXTRA EARLY RED VALENTINE (Specialty).—Ten days earlier than the ordinary Red Valentine Bean, and therefore the best for truckers and market gardeners. It is without doubt the very best and earliest green Snap Short Bean.

The habit of the vine is dwarfed and very uniform. Color of pods light green, round, curved, succulent, prolific, continuing long in edible condition.

BLACK VALENTINE.—This excellent extra early variety has perfectly round, straight pods of excellent quality. It is suitable both for early and late planting, being extremely hardy. A most desirable sort for the market gardeners, owing to its enormous yielding qualities, large and handsome appearance.

EXTRA EARLY BOUNTIFUL (Flat Green Pod).—A prolific and continuous bearer. The first in the spring, the last in the fall. Absolutely stringless, very tender and of delicious flavor.

EXTRA EARLY REFUGEE.—It is similar in every respect to the ordinary Refugee, but is nearly two weeks earlier.

REFUGEE, or 1000 TO 1.

A medium to late variety, very productive and largely grown for pickling; handsome and tender pods.

GREEN-PODDED STRINGLESS REFUGEE

Medium-early, round-podded, green

G. & T.'S IMPROVED EXTRA EARLY RED VALENTINE BEANS.

stringless; exceptionally good cropper. Fine for canning and table use. Newest thing in Green Pod Stringless Beans.

FULL MEASURE (New)—Large cropper; stringless, greenpodded, round Bean, not as early as Burpee's Stringless, but a heavy yielder. Best of quality.

BURPEE'S NEW STRINGLESS GREEN POD

One of the earliest varieties, pods round and full, absolutely stringless and of beautiful fleshy appearance; quality excellent. The only green pod bean of which the pods never develop any strings.

GIANT STRINGLESS GREEN POD

Resembles very much the old Valentine. The plants are of strong growth, very productive; pods 5 inches long, light green, slightly curved, very meaty, brittle and stringless at all stages and of mild flavor.

LONG YELLOW SIX WEEKS

The plants of this hardy variety, large, vigorous, erect and very productive. The leaves are large. The pods are long, about six inches, straight, flat, handsome, rather light green and when young are of good quality for snaps.

DWARF HORTICULTURAL (Cherry.)

Very green podded sort, used as a shell bean, and for this purpose is one of the finest in general use; long a favorite with those who use a shell bean in a green state.

WHITE MARROWFAT.

Extensively grown for sale as a dry bean for winter use.

WHITE NAVY, or SMALL PEA BEAN.

A well-known variety for field culture; very prolific.

BEANS—GREEN-PODDED BUSH

Beans by Weight	(about) (1 pt.)	(1 qt.)	(1 pk.)	(1 bu.)
	1 lb.	2 lbs.	15 lbs.	60 lbs.
G. & T. CO.'S EXTRA EARLY RED VALENTINE	.25	.50	\$3.00	\$12.00
BLACK VALENTINE	.25	.50	2.75	10.00
EXTRA EARLY BOUNTIFUL	.30	.60	3.85	15.00
EXTRA EARLY REFUGEE	.25	.50	3.00	12.00
REFUGEE OR THOUSAND TO ONE	.25	.50	3.00	12.00
GREEN-PODDED STRINGLESS REFUGEE	.25	.50	3.00	12.00
FULL MEASURE	.25	.50	3.00	12.00
BURPEE'S NEW STRINGLESS GREEN-POD	.25	.50	2.50	10.00
GIANT STRINGLESS GREEN-POD	.25	.50	2.75	11.00
LONG YELLOW SIX WEEKS	.30	.60	3.85	15.00
DWARF HORTICULTURAL	.25	.50	2.75	11.00
WHITE MARROWFAT				
WHITE NAVY				

Add for postage, 8c. per lb., 10c. for 2 lbs.—Ask for prices in quantity.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

BUSH LIMA BEANS

Plant in drills two to three feet apart, dropping the beans three to four inches apart and covering one and one-half to two inches deep. If planted in hills, make the hills two or three feet apart one way and two to two and one-half feet the other and plant four beans in a hill. Hoe often but only when the leaves are dry.

BURPEE'S BUSH LIMA

FORDHOOK BUSH LIMA.—An improved dwarf Lima of the Kumerle type. The plant is vigorous and erect growing, bearing well above the ground. The pods are produced in large clusters, each containing three to five large beans of exceptionally fine quality. Much more productive than Kumerle and matures earlier. We consider this a decided acquisition to the dwarf Lima, possibly the best of the class.

BURPEE'S IMPROVED BUSH LIMA.—Will outyield Burpee's Bush Lima by fully one-third. This greater yield is due to the increased size of both pod and beans. The dried beans are very handsome, and generally show a greenish-white coloring, while dried beans of the Burpee Bush Lima, like those of the Large Pole Lima, are pure white.

BURPEE'S BUSH LIMA.—Bushes grow 18 to 20 inches high, stout growth and always erect, yet branching so vigorously that each plant develops into a magnificent circular bush 2 to 3 feet in diameter; an immense yield, each bush bearing 50 to 200 handsome, large pods, well filled.

DREER'S BUSH LIMA.—Dwarf variety of Dreer's Improved Lima, which has been fixed in its character of a bush bean; very prolific, single plants often producing 150 to 200 pods. Equal in quality and tenderness to Dreer's Pole Lima.

DREER'S WONDER BUSH LIMA.—Very desirable on account of earliness, productiveness; of strong, upright growth, and are completely covered with large pods, many of which contain four beans, which are fully as large as the Pole Limas. The beans are flat in shape and of excellent quality.

HENDERSON BUSH LIMA.—These are very valuable, because they do not need poles, and, being so dwarf, can be planted close together. They are very early and prolific, continuing to bear until frost.

BEANS, BUSH LIMA

	(about)	(1 pt.) 1 lb.	(1 qt.) 2 lbs.	(1 pk.) 15 lbs.	(1 bu.) 60 lbs.
FORD HOOK BUSH LIMA		\$.35	\$.60	\$3.75	\$15.00
BURPEE'S IMP. BUSH LIMA		.30	.60	3.25	
BURPEE'S BUSH LIMA		.30	.60	3.25	
DREER'S BUSH LIMA		.40	.75	4.50	
DREER'S WONDER BUSH		.30	.60	3.50	
HENDERSON'S BUSH		.30	.60	3.00	

Ask for prices in quantity. Add for postage, 8c. per lb., 10c. for 2 lbs.

Set the poles 3 to 4 feet apart and plant 6 to 8 beans, with the eyes downward, around each pole thinning to 4 healthy plants when they are up. They require the same soil and treatment as the dwarf varieties.

POLE LIMAS

CARPENTERIA POLE LIMA.—The newest large pole Lima; enormously prolific; early green and delicious flavor.

HENDERSON'S EARLY LEVIATHAN.—This is the very earliest. It will not only give large Lima beans earlier than any other strain, but it is also much more productive, both early and throughout the season. It is a strong grower, clinging well to the poles, and is a sure cropper. The pods hang out from the foliage in large clusters and contain three or four and sometimes five large beans to the pod.

KING OF THE GARDEN LIMA.—This bean has met with enormous sales the past few seasons. They are vigorous growers, setting their beans early at bottom of pole, producing continuously to the end of the season. They are more prolific than the ordinary Lima, bearing pods 5 to 7 inches long, in clusters of 4 and 5, with 5 or 6 beans in a pod.

EXTRA LARGE WHITE LIMA.—This is a splendid sort, and takes a leading place with growers, because of its many excellent qualities. As a shell bean surpasses all in quality and is the favorite with most people.

EXTRA EARLY JERSEY LIMA.—This variety is two weeks earlier than other sorts; the pods are large and numerous, making it a very profitable sort to grow.

DREER'S IMPROVED OR CHALLENGER POLE BEAN.—This popular bean is considered by many growers superior to all others in quality and productiveness. When green it is as large as the Large Lima, thicker, sweeter and more tender and nutritious, remaining green in the pod for a long time after maturing.

CAROLINA OR SIEVA.—A seedling variety of large White Lima, with small pods, usually about 2 inches long. A little earlier and harder.

POLE LIMA BEANS

little earlier and hardier.					(about) (1 pt.) (1 qt.) (1 pk.)						
POLE LIMA BEANS					Beans by Weight						
Beans by Weight	(about) (1 pt.)	(1 qt.)	(1 pk.)	1 lb.	2 lbs.	15 lbs.	EXTRA EARLY JERSEY	.....	\$ .30	\$.60	\$ 3.00
CARPENTERIA	.....	\$.30	\$.60	\$ 3.00			DREER'S IMP. CHALLENGER	.....	.30	.60	3.25
HENDERSON'S LEVIATHAN	.....	.30	.60	3.00			CAROLINA OR SIEVA	.....	.30	.60	3.00
KING OF THE GARDEN	.....	.30	.60	3.00			Ask for prices in quantity.				
EXTRA LARGE LIMA		.30	.60	3.00			Add for postage, 8c. per lb., 10c. per 2 lbs.				

Ask for prices in quantity.

Add for postage, 8c. per lb., 10c. per 2 lbs.

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BEETS

One Ounce of Seed Will Sow One Hundred Feet of Drill

Select a deep, rich sandy loam and manure with well decomposed compost or a good chemical fertilizer. Sow in drills, 14 to 16 inches apart, and cover 1 inch deep. When the young plants appear, thin to 4 or 5 inches apart. For early use, sow as soon as the ground can be worked in the spring; for autumn use, about the middle of May, and for winter use, during June or July, according to the variety—the long varieties requiring more time to mature than the round, early kinds.

**Crosby's
Improved Egyptian.**

EGYPTIAN BEET.

CROSBY'S IMPROVED

A very superior strain of the well-known Egyptian, carefully selected, blood color, quick, rapid growth. The shape is very desirable, as shown in the accompanying photograph, being not so round as the Eclipse, or quite so flat as the ordinary Egyptian. It may be sown outside as late as July.

Eclipse Beet.

ECLIPSE BEET.

This extra early Beet is remarkable for its fine quality and rapid growth; is of deep red color and handsome shape. As an early market sort it is unrivaled. It is to a large extent superseding the Egyptian, being earlier in development, more attractive in appearance, and of superior quality for the table.

G. & T. CO'S EARLY BLOOD TURNIP BEETS. This is our Special Stock of Early Blood Turnip Beet, which we have been growing for a number of years, and which the market gardeners of Baltimore and other places prefer. It is of dark red color, handsome shape and early.

EARLY WONDER BEET

Detroit Dark Red Turnip Beet

This is one of the finest formed and handsomest-colored Beets on the market. It is unsurpassed in the uniformity and beauty of the crop. It is exceedingly early, and produces more marketable specimens on the same acreage than any other variety.

stalks which are superior to those of other beets for use as greens. Later in the season the wax-like leaf stems are cooked like asparagus or are pickled. This variety we offer has large, broad, undulated leaves, and remarkably broad stalks and midribs or chards. It is well worthy of a place in the home garden as well as for market use.

EARLY WONDER BEET

This grand new Beet, recently introduced, is early, Red with short tops, fine for bunching. Roots are of good, uniform size, slightly oval, and of deep blood red, has slim tap roots, fine grain, tender and sweet. Never gets stringy or woody. Fine for both home use and market garden.

EXTRA EARLY EGYPTIAN.

This is a flat Beet, very early and deep red color. Owing to the small top it can be planted very close.

SWISS CHARD

(Sea Kale or Spinach Beet.)

This kind of beet is grown exclusively for the numerous, fleshy, tender leaves and leaf

Swiss Chard

	Pkt.	Oz.	¼ Lb.	1 Lb.
BEET				
CROSBY'S IMPROVED EGYPTIAN.....	.10	.15	.25	.75
EARLY WONDER.....	.10	.15	.25	.75
DETROIT DARK RED.....	.10	.15	.25	.75
ECLIPSE.....	.10	.15	.25	.75
EXTRA EARLY EGYPTIAN FLAT.....	.10	.15	.25	.75
BLOOD TURNIP.....	.10	.15	.25	.75
SWISS CHARD.....	.10	.15	.25	.75

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Golden Tankard Mangold.

MANGEL WURZEL BEETS FOR STOCK

SOW 4 POUNDS TO THE ACRE.

Stock Beets grow larger than any other Beets, and hence require more room. They should be sown from April to June, in drills $2\frac{1}{2}$ feet apart, and the plants thinned to 12 to 15 inches in the row. The attention of farmers to the growing of Beets for stock feeding has rapidly increased, but it should be grown more generally, and will show the results in the health and condition of the stock. It supplies good, rich food for cattle during the winter.

LONG RED MANGOLD WURZEL.

The well-known, large, long variety, grows well out of ground. Color light red. Very productive.

GOLDEN TANKARD MANGOLD.

The best type of Mangold—small top, smooth, rich skin, broad shoulders, very solid fleshed, golden stemmed, heavy producer.

WHITE SUGAR BEET.

A large-growing sort, and used for feeding stock.

CHAMPION YELLOW INTERMEDIATE, OR GATE-POST MANGOLD.

One of the very finest Mangolds ever introduced, giving unbounded satisfaction wherever grown. With good cultivation will crop at the rate of 200 bushels per acre.

BORECOLE

BRUSSELS SPROUTS

1 Ounce of Seed to 100 Yards of Row.

Brussels Sprouts are used in the fall and early winter and by some considered more tender and delicious than any cabbage. The plant resembles the cabbage, the edible part being the numerous very small heads or sprouts an inch or two in diameter formed on the stalk at each leaf joint. The culture is the same in all essentials as for cabbage, except the leaves should be broken down in the fall to give the little heads more room to grow.

BRUSSELS SPROUTS

BORECOLE

This is often called Broccoli by market gardeners, but belongs to the Kale family. Very spreading in habit and beautifully curled.

Seed should be sown in May and transplanted in July, in the open field and treated same as Savoy Cabbage.

BROCCOLI

BROCCOLI

1 Ounce of Seed to 100 Yards of Row.

The heads resemble somewhat a coarse cauliflower and the culture is the same as for that vegetable. Broccoli is well adapted only to those sections where the season is long, cool and rather moist. One of the most valuable features is that it withstands greater extremes of temperature than cauliflower.

EARLY PURPLE CAPE.—Large, compact.

LARGE EARLY WHITE.—Head white, like cauliflower; the best

	MANGOLD WURZEL	Oz.	$\frac{1}{4}$ Lb.	1 Lb.
LONG RED		.10	.20	.40
GOLDEN TANKARD		.10	.20	.40
WHITE SUGAR		.10	.20	.40
CHAMPION YELLOW INTERMEDIATE		.10	.20	.40
GATEPOST		.10	.20	.40
		Pkt.		
BRUSSELS SPROUTS		.10	.30	.75
BORECOLE		.10	.15	.60
BROCCOLI		.10	.50	2.00

CABBAGE

One Ounce of Seed to 100 Feet of Row.

EARLY CABBAGES

Cabbage will thrive on any good corn land, though the stronger the soil the better they will develop. New land is preferable. Plow deep and manure very liberally, as cabbage is a strong feeder, and will repay for the care bestowed upon it. The early sorts bear planting from eighteen inches to two feet apart in the rows, with the rows from two to two and a half feet apart. The larger varieties to be from two to four feet apart in the rows, with the rows from two and a half to four feet apart. The distance varying with the size. It does not pay to buy cheap cabbage seed. Ours are American grown, and from the best stock in the country. For early use, sow in a hotbed in February or March, and transplant to a cold-frame as soon as large enough. In April the plants may be set out in the rows. For late crop, sow in nursery bed in May or June, and transplant as soon as the plants are five or six inches high. The ground should be thoroughly cultivated every week until the plants meet in the rows.

SELECT EARLY JERSEY WAKEFIELD

American Grown.

The very best early Cabbage, and grown more extensively by market gardeners than any other variety. It is early, the heads are pyramidal in shape, very large and solid, and having but few outside leaves, the plants can be set close together. We secured our seed from a grower of the best Wakefield Cabbage in the country, and it is giving good results wherever it is used, so much so that our sales of this sort are rapidly increasing each year.

LARGE OR CHARLESTON WAKEFIELD

EXTRA EARLY EXPRESS.—Heads are comparatively thicker and less pointed than Jersey Wakefield and slightly earlier. Heads softer, but stands shipping better.

EARLY WINNINGSTADT.—Head large, cone-shaped and solid. An old and popular sort.

LARGE EARLY YORK.—(American Grown)—One of the earliest. Forms a medium size, pointed head.

COPENHAGEN MARKET.—A new round head, solid cabbage, recently introduced from Denmark. It is without doubt the finest large round-headed early cabbage in cultivation. The type is thoroughly fixed and the heads mature uniformly, which enables the crop to be harvested at one time, so that the ground can be cleared in two cuttings.

PEDIGREE SELECTED EXTRA EARLY JERSEY WAKEFIELD CABBAGE

We obtained this Pedigreed stock after careful selection and roguing to get an absolute true type, and now we offer it to our patrons for the first time.

There is nothing in the sharp-pointed Jersey Wakefield type Cabbage that equals it in quality. It matures about ten days earlier than the select Early Jersey Wakefield.

CHARLESTON, OR LARGE WAKEFIELD

American Grown.

This is now a very popular market cabbage, fully meeting the demand for a cabbage having all the characteristics of the Jersey Wakefield, but larger. It is five to six days later than Early Jersey Wakefield. The heads are fully one-half larger and quite solid. It is very compact in growth, and can be easily planted in rows two feet apart and twenty inches in rows.

CABBAGE	Pkt.	Oz.	¼ Lb.	1 Lb.
EARLY JERSEY WAKEFIELD.....	.10	\$.25	\$.75	\$2.25
PEDIGREE SELECT LARGE JERSEY WAKEFIELD	.10	.30	1.00	3.00
CHARLESTON WAKEFIELD.....	.10	.25	.75	2.25
EXTRA EARLY EXPRESS.....	.10	.30	1.00	3.00
EARLY WINNINGSTADT.....	.10	.25	.75	2.25
LARGE EARLY YORK.....	.10	.25	.75	2.25
COPENHAGEN MARKET.....	.10	.25	.75	2.50

CABBAGE—CONTINUED

NEW EARLY—American Grown.

This is one of the finest large early cabbages grown. Forms solid, compact heads, and leaves close to the head, thus allowing many more cabbages to be grown on the acre than any other sort. One of its most striking features is its earliness. It heads so rapidly that the worms can't hurt it.

SUCCESSION CABBAGE.—A fine early variety, coming in a few days later than Early Summer, but it is immeasurably superior to that variety; it is nearly double the size, and is absolutely true to its type under all conditions. In addition to this, it has no tendency whatever to run to seed. It is one of the finest sorts in existence today; whether for medium early, main crop or late use, it has no superior. It is so finely bred and so true to type that in a field of twenty acres every head appears alike. We can recommend it either for the market gardener, trucker or private planter, as it is a perfect cabbage in every respect, not only being of the largest size; but of handsome color and of the finest quality. It is probably the safest variety for an amateur to plant, as it does well at all seasons, and one is almost sure of getting a crop, no matter when it is planted.

EARLY SUMMER CABBAGE.—American grown. One of the earliest of the summer varieties. Heads large and flat; short stemmed, few outside leaves, uniform in character, and about 10 days later than the Wakefield. It is very popular with truckers.

LOUISVILLE DRUMHEAD.—American grown. This is the most popular intermediate or second early with market gardeners around Louisville and the Southwest. It comes off medium early, withstands heat to a remarkable extent, heads large, solid and uniform in size and color. We can recommend this sort very highly for the Southern and Middle States.

ALL HEAD EARLY

ALL-HEAD EARLY.—AMERICAN Grown, is the largest of all early Cabbages, fully one-third larger than the Early Summer. It is the nearest approach to a thoroughbred cabbage of any variety, both in size and uniform development. As the All-head comes in quicker than any of the other flat cabbages, it is consequently more tender. It is also valuable for a late or winter Cabbage.

EARLY DWARF FLAT DUTCH

American Grown

An old standard variety which stands the sun and produces fine, large heads, coming in soon after the Wakefield.

SUCCESSION CABBAGE

ALL SEASON—American Grown

This forms a fine, large head, of superior quality, nearly as early as the Early Summer. Suitable for planting at any season.

SUREHEAD—American Grown

This popular cabbage is rightfully named Surehead, as it never fails to make a fine, large, solid head, with few outer leaves. It is a strong, vigorous grower, and very uniform in size and color. Always brings the highest price in our markets.

ALL-HEAD EARLY CABBAGE

CABBAGE	Pkt.	Oz.	¼ Lb.	1 Lb.
ALL-HEAD EARLY	.10	\$.25	\$.75	\$2.25
EARLY DWARF FLAT DUTCH.....	.10	.25	.75	2.25
NEW EARLY	.10	.25	.75	2.25
SUCCESSION	.10	.25	.75	2.25
EARLY SUMMER	.10	.25	.75	2.25
LOUISVILLE DRUMHEAD	.10	.25	.75	2.25
ALL SEASONS	.10	.25	.75	2.25
SUREHEAD	.10	.25	.75	2.25

LATE OR AUTUMN CABBAGE

BOSS FLAT DUTCH—LATE CABBAGE

Premium Large Late Flat Dutch Cabbage

American Grown

Large and excellent for winter; very extensively grown. The head is broad, thick and flat, well covered in by leaves lapping across the center, outside leaves feathered to the base of the leaf stem.

PREMIUM LARGE FLAT DUTCH—LATE CABBAGE

DANISH BALL HEAD CABBAGE

Danish Ball Head

This most excellent variety of cabbage, coming from Denmark, has grown very rapidly into favor with both market and private gardeners. It is a large, round, solid heading, medium early variety; a very sure header, having few loose leaves, consequently can be planted very close together. Although a medium early, can also be grown for a fall and winter crop, being one of the best keepers. Very popular in Philadelphia, New York and Boston markets.

Large Late American Drumhead Cabbage

American Grown

One of the largest, most solid and best keeping late varieties. This variety seldom fails to head, and is of good quality.

Red Dutch Cabbage

The head is round, large, solid and a deep red color, the best of the red cabbages.

CABBAGE	Pkt.	Oz.	¼Lb.	1 Lb.
BOSS FLAT DUTCH.....	\$.10	\$.25	\$.75	\$2.25
PREMIUM FLAT DUTCH.....	.10	.25	.75	2.25
DANISH BALLHEAD.....	.10	.25	.75	2.25
LATE AMERICAN DRUMHEAD.....	.10	.25	.75	2.25
RED DUTCH.....	.10	.25	1.00	3.00

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DRUMHEAD SAVOY

LATE CABBAGES--CONTINUED

PERFECTION DRUMHEAD SAVOY

AMERICAN GROWN

This is without any exception the finest stock of Savoy Cabbage to be found anywhere. The heads are large and solid, the leaves beautifully curled, and in tenderness and flavor it is almost equal to cauliflower, while its keeping quality is first class.

GEORGIA COLLARDS

Called the Cabbage Collard on account of its close bunching growth. The plant produces center leaves generally perfectly white, though sometimes dashed with pink. It is a very delicate vegetable and of the finest quality.

G. & T. CO.'S LARGE GILT EDGE SNOWBALL CAULIFLOWER

Is without exception one of the finest sorts now in cultivation. It is very early. Nearly every plant will, under proper cultivation, form a perfect, snow-white head, and its close growing, compact habit enables the grower to plant one-third more on the same space of ground than other varieties. In fact, it is, and deserves to be, the standard with the market gardener and amateur.

EXTRA EARLY SNOWBALL.—Our stock of this well-known variety is unexcelled. It is one of the best sorts for open ground or forcing under glass.

G. & T. CO.'S "DROUTH-RESISTING."—Produces large, white, solid heads, maturing about a week later than our large Gilt Edge Snowball. The best for hot, dry weather.

G. & T. CO.'S SELECT EARLY DWARF ERFURT.—Long the standard of highest excellence, and still holding its own with a great many people.

CULTURE.—The same as for Cabbage, except that extra manure and plenty of water will pay upon cauliflower. If the soil be dry, water frequently, and if the plants could have a heavy mulch of hay or straw it would keep the soil moist, and the plants would not suffer from drouth. The early kinds should be strong enough to plant out not later than the middle of April; the late kinds may be planted out same time as for Cabbage.

CORN SALAD

Three Ounces of Seed to 100 Feet of Row.

A favorite salad plant, and very hardy. Sow in August or September, and protect with leaves during the winter; it can be gathered in the spring very early. Sown in April, it is soon ready for use. The leaves are sometimes boiled and served as spinach.

CRESS, OR PEPPER GRASS

Used as a small salad. Sow very thickly in shallow drills, on a smooth surface, at short intervals throughout the season.

WATER CRESS.—Water cress may be grown along the margin of running streams, ditches or ponds, and has a ready sale in the hotels and markets.

LATE CABBAGE	Pkt.	Oz.	¼ Lb.	1 Lb.
PERFECTION DRUMHEAD SAVOY.	.10	\$.25	\$.75	\$2.25
COLLARDS.				
GEORGIA	.10	.15	.25	.75
CAULIFLOWER				
G. & T. CO'S LARGE GILT				
EDGE SNOWBALL	.25	1.50	6.00	
EXTRA EARLY SNOWBALL.	.25	1.50	5.00	

	Pkt.	Oz.	¼ Lb.	1 Lb.
G. & T. CO'S DROUTH RESISTING.	.25	\$1.50	\$5.00	
G. & T. CO'S SELECT				
EARLY DWARF ERFURT	.25	1.50	5.00	
CORN SALAD	.10	.15	.20	.75
CURLED CRESS	.10	.15	.40	1.00
WATER CRESS	.10	.40	1.00	3.00

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

G. & T.CO.'S

CARROTS

1 OZ. OF SEED TO
100 FEET OF ROW

Carrots thrive best in rather a light, rich loam. The ground should be well manured with fine, well-rotted or composted manure, and be thoroughly worked quite deep. Sow from middle of April to middle of May, in rows 14 inches apart, and thin the plants to 5 or 6 inches in the row. For late crops sow in June or July. An important point is to tread the rows firmly after sowing. For field culture, Carrots should be sown in drills 3 to 3½ feet apart, so as to cultivate with horse.

OXHEART OR GUERANDE.

Oxheart or Guerande

One of the heaviest yielders and the best for stiff and heavy soils where the long varieties would fail. The roots are often 3 to 3½ inches thick at the top; nearly oval in shape; the flesh is bright orange, fine grained and sweet. Of the finest table quality and equally good for stock.

Pkt., 10c. Oz., 15c. ¼ Lb., 35c. Lb., \$1.00

CHANTENAY

A most excellent, medium early, half long variety. It is one of the best in quality for the market and home garden, while its great productiveness and the ease with which it can be harvested make it desirable as a field sort. The tops are medium sized with small neck. The mature roots are thick, five and one-half to six inches in length, uniformly half long or stump rooted but tapering slightly, smooth, deep orange-red in color. The flesh is very crisp and tender. Although a medium early sort the roots are suitable for use nearly as early as any. The variety is extensively used for bunching.

Pkt., 10c. Oz., 15c. ¼ Lb., 35c. Lb., \$1.00

EARLY SCARLET HORN

The earliest variety in our list. Blunt-pointed, about 3 inches long, 1½ inches thick, very fine grained, sweet flavored; deep rich orange color. Fine for bunching.

Pkt., 10c. Oz., 15c. ¼ Lb., 35c. Lb., \$1.00

HALF LONG DANVERS

A decided acquisition of the half-long type, broad-shouldered, cylindrical, admirable in color, fixed in habits, a wonderful producer. It is a first-class Carrot for all soils.

Pkt., 10c. Oz., 15c. ¼ Lb., 35c. Lb., \$1.00

IMPROVED LONG ORANGE

Deep orange color, long, smooth, fine for either garden or field culture. All who have cattle should raise a surplus of this Carrot for feeding milch cows during winter. It increases the flow of milk and imparts to the butter a delicious flavor and a rich golden color.

Pkt., 10c. Oz., 15c. ¼ Lb., 30c. Lb., 75c.

SCARLET INTERMEDIATE

A fine handsome Carrot, in form midway between the Long Orange and Early Scarlet Horn. The roots are smooth and handsome, deep orange color, medium length tapering to a blunt point. The flesh is sweet, crisp and tender.

Pkt., 10c. Oz., 15c. ¼ Lb., 30c. Lb., 90c.

CHANTENAY.

EARLY SCARLET HORN.

DANVERS.

IMPROVED LONG ORANGE.

1 Oz. Will Produce 2000 Plants. CELERY **CELERY**

Requires water, and lots of it, from the time the seed is sown in boxes in March until it is pulled in the autumn or winter. The seed is slow to germinate, and the soil where it is planted needs to be kept very wet.

Plant seed in hotbed or very early in open ground. Transplant 4 inches apart when 3 inches high in rich soil, finely pulverized; water and protect until well rooted. In June or July transplant into rows 3 to 4 feet apart, either on surface or well-manured trenches a foot in depth, half filled with well-rotted manure. Set the plants from 6 to 8 inches apart. To blanch, draw earth around the plants from time to time, taking care not to cover the top of the center shoots.

GOLDEN PLUME CELERY

FRENCH GOLDEN SELF-BLANCHING

This cannot be too highly recommended, as after being thoroughly tested it has fulfilled all that has been claimed for it. It is decidedly the very best and most profitable Celery in cultivation; it is very early and entirely self-blanching. The beautiful appearance of the plant, its close habit, compact growth, straight, vigorous stalks, solid, crisp, brittle ribs, fine quality and delicious flavor commend it to all lovers of Celery.

GOLDEN SELF-BLANCHING CELERY.

IMPROVED BOSTON MARKET

This is a decided improvement on the old Boston Market, being earlier, larger in size and of more vigorous growth.

WHITE PLUME

An early, handsome, self-bleaching variety, growing in popularity every year. Like the Golden Self-Blanching, it requires very little earthing up to blanch it, and as a Celery for fall and early winter use it is unsurpassed

GOLDEN PLUME (New)

Recently introduced. Much better than White Plume. Equal to Golden Self-Blanching. Proven to be the leading Celery.

CELERY SEED FOR FLAVORING

This seed is used for flavoring pickles, soups, etc.

CELERY	Pkt.	Oz.	¼ Lb.	1 Lb.
GOLDEN PLUME	\$.10	\$.75	\$2.50	\$10.00
FRENCH SELF-BLANCHING, AMERICAN STOCK ..	.10	.50	1.50	4.00
IMPROVED BOSTON MARKET	.10	.20	.60	2.00
WHITE PLUME	.10	.20	.60	2.00
FLAVORING	..	.10	.15	.40

A detailed black and white engraving of a bunch of celery stalks. The stalks are long, ribbed, and pointed at the bottom, bundled together. They rise from a base of fine, dense cross-hatching. The upper portion of the image is filled with a dense, intricate network of celery leaves, which are deeply lobed and feathery. The entire illustration is rendered with fine lines and cross-hatching for texture and shading, set against a plain, light-colored background.

A detailed black and white engraving of a large, upright vegetable, likely a celery stalk. The vegetable has a thick, ribbed stem that tapers slightly towards the top. The top of the stalk is covered in a dense, feathery mass of leaves. The vegetable is set against a dark, textured background, possibly a wooden surface or a shadowed area. The engraving is highly detailed, showing the texture of the leaves and the ribs on the stem.

A detailed black and white illustration of a large, leafy plant, possibly a herb or vegetable, growing out of a glass jar. The plant has many small, rounded leaves and a thick, ribbed stem. The jar is decorated with vertical lines and sits on a small, ornate base.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

CORN FOR TABLE USE

56 POUNDS PER BUSHEL

WHEN CORN IS WANTED BY MAIL, ADD 6 CENTS PER POUND TO PAY POSTAGE.

CULTURE.—Sugar Corn may be planted in rows 3 to 4 feet apart, and the seeds placed about 8 inches apart in the rows, or planted in hills 3 to 4 feet apart each way, according to variety grown or richness of soil. Do not let more than three plants remain in each hill. It can be planted in this vicinity from first of May to last of July for succession of crop. By planting every two weeks a family may have good corn throughout the whole season.

Extra Early
Neck

Not a Sugar Corn, but are used for very early planting and will mature nice roasting ears before the sweet corn.

FIRST EARLY VARIETIES

FIRST EXTRA EARLY VARIETIES.

Extra Early
Baltimore

FIRST EARLY NECK CORN.—By far the earliest roasting-ear corn we have. Can be planted in April without injury, as it is very hardy.

EXTRA EARLY BALTIMORE.—The hardiest and earliest variety for table use; it can be planted earlier than any other, but is not a sweet corn; white indented grains and short ears.

EXTRA EARLY ADAMS.—Extremely hardy and early; one of the best for early planting.

EARLY ADAMS.—A favorite in the South.

NINETY-DAY CORN (Red Cob).—This is an elegant corn for truckers and market gardeners, as it is as good a seller as green corn, and if not used as green corn makes a good variety for feeding purposes. It may be planted for early crop, and at intervals until the middle of July. Many truckers use it for their late planting, as it produces a very sure crop.

SWEET OR SUGAR CORN

EXTRA EARLY VARIETIES. (Bushel Sweet Corn, 44 Lbs.)

DE LUE'S GOLDEN GIANT SUGAR CORN.—The stalks grow $4\frac{1}{2}$ to 6 feet tall and very near the ground; about one-third are purple in stalk, leaf and husk. They carry two or three good ears, 7-9 inches long; cob of small diameter, with 12-20 rows of long, deep kernels of deep orange color. The husk is very heavy, affording the end protection from worm and bird.

NEW GOLDEN BANTAM SUGAR CORN.—The earliest and best of sugar corns. It is of golden color and delicious flavor, with the sweetness of honey; can be planted earlier than the other varieties of true sweet corn, as it is very hardy. The stalks are dwarf in habit, growing about four feet high, producing two or three good ears five to six inches long, well set from the ground.

Comparative Size of Golden Bantam and New Golden Giant Sugar Corn.

CAUTION.—Sweet Corn in bulk, even after being thoroughly cured, will often gather moisture and spoil, particularly if it has been exposed to a low temperature. To prevent this it should be taken out of the bag as soon as received and spread in a dry place.

PREMO.—The best early sweet corn on the market. A genuine sweet corn as early as the Adams Extra Early, and larger than any other early variety. The quality is the best, ears measuring 7 to 9 inches long, being well filled to the end; generally bearing two ears to the stalk.

CORY.—An early variety, red cob.

FIRST OF ALL.—A selection from the Cory, the ears about the same size as the Cory, lighter in color and earlier.

WHITE CORY.—An early variety, with good-sized ears and large kernels.

STABLER'S EARLY.—Of larger size than usual for the early kinds. It is remarkable for the fine flavor and sweetness, and is a desirable gardeners' and canning variety.

CROSBY'S EXTRA EARLY.—An early market variety very productive; ears rather short and rich, sugary flavor.

EARLY MINNESOTA SUGAR.—One of the first early among sugar corn.

BLACK MEXICAN SUGAR.—The black corn is especially rich in sugary qualities.

HOWLING MOB.—Howling Mob is one of the best flavored and most tender of all second-early white sweet corns. Ears of Howling Mob measure from 7 to 9 inches in length and they are closely set with 12 or 14 rows of large, pearly-white grains.

Howling Mob is a strong-growing and sturdy variety, usually carrying two ears to a stalk. It is very productive and, without question, the earliest white sweet corn of really high quality. It is easily grown and yields a fine crop of handsome ears.

	about (1 pt.) ¾ lb.	(1 qt.) 1 ¾ lbs.	(1 pk.) 14 lbs.		about (1 pt.) ¾ lb.	(1 qt.) 1 ¾ lbs.	(1 pk.) 11 lbs.
GARDEN CORN				SWEET CORN			
FIRST EARLY NECK	\$.15	\$.30	\$ 1.50	PREMO	\$.20	\$.35	\$ 1.75
EXTRA EARLY BALTIMORE ..	.15	.30	1.50	HOWLING MOB	.20	.35	2.00
EXTRA EARLY ADAMS	.15	.30	1.50	CORY	.20	.35	1.75
EARLY ADAMS	.15	.30	1.25	FIRST OF ALL	.20	.35	1.75
NINETY DAY RED COB	.25	.25	1.25	WHITE CORY	.20	.35	1.75
	about (1 pt.) ¾ lb.	(1 qt.) 1 ¾ lbs.	(1 pk.) 11 lbs.	STABLER'S EARLY	.20	.35	1.75
SWEET CORN				CROSBY'S EXTRA EARLY ..	.20	.35	1.75
DE LUE'S GOLDEN GIANT CORN \$	.20	\$.35	\$ 1.75	EARLY MINNESOTA	.20	.35	1.75
NEW GOLDEN BANTAM CORN...	.20	.35	1.75	BLACK MEXICAN	.20	.35	1.75
Ask for prices in quantity. Add for postage, 8c. per lb., 10c for 2 lbs.							

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

SWEET OR SUGAR CORN FOR TABLE USE

CAUTION.—Sweet corn in bulk, even after being thoroughly cured, will often gather moisture and spoil, particularly if it has been exposed to a low temperature. To prevent this it should be taken out of the bag as soon as received and spread in a dry place.

EARLY SHEFFIELD.—Plant as early as Adams. Makes strong, vigorous growth with abundant foliage. Growing about 5 feet and bearing usually 2 ears of handsome appearance.

METROPOLITAN.—Extra early, ripens a few days later than Cory, but produces larger ears.

BUSHEL SWEET CORN 44 POUNDS MAIN CROP VARIETIES

TRUCKER'S EARLY CORN

EARLY MAMMOTH.—A splendid market sort, producing large, handsome ears; grain large, white and sweet; fills out well at the end.

WHITE EVERGREEN.—Has ears as large as Stowell's, is five days earlier; grains pure white. A valuable acquisition for the gardener and canner.

COUNTRY GENTLEMAN CORN.—This is the sweetest and most delicious flavored of all sugar corn. It is the finest variety for the table, and will delight the most fastidious epicure. It produces three to four ears to the stalk, and retains its greenness longer than other sorts.

STOWELL'S EVERGREEN.—So well known that it scarcely needs description. Excellent; keeps green till cold weather; ears large; one of the best.

TRUCKER'S EARLY SUGAR CORN.—This is the most desirable variety of sugar corn for truckers and gardeners to plant early. As its many excellent qualities are becoming generally known, it has come to be one of the standard sorts. It is ten days earlier than Evergreen, very productive, growing two to four ears to the stalk. The ears set low, are large and well filled, the grain long and narrow, similar to Evergreen, but smaller. It is one of the most productive varieties in cultivation.

LATE MAMMOTH.—The largest variety grown; very fine for market purposes.

ZIGZAG EVERGREEN.—This is one of the sweetest and best late sweet corn, not even excepting the celebrated Country Gentleman and Shoe Peg. The ears resemble Stowell's Evergreen in size and shape, except that the kernels are placed irregularly or zigzag upon the cob, which is always an indication of great sweetness in any variety of sugar corn.

COUNTRY GENTLEMAN CORN

STOWELL'S EVERGREEN.
BUSHEL SWEET CORN CONSISTS OF 44 POUNDS.
ASK FOR PRICES IN QUANTITY.

	about (1 pt.)	(1 qt.)	(1 pk.)
SWEET CORN	$\frac{3}{4}$ lb.	1 $\frac{3}{4}$ lbs.	11 lbs.
COUNTRY GENTLEMAN	.20	.35	\$1.75
STOWELL'S EVERGREEN	.20	.35	1.75
TRUCKER'S EARLY	.20	.35	1.75
LATE MAMMOTH	.20	.35	1.75
EARLY MAMMOTH	.20	.35	1.75
WHITE EVERGREEN	.20	.35	1.75
EARLY SHEFFIELD	.20	.35	1.75
METROPOLITAN	.20	.35	1.75

Ask for prices in quantity. Add for postage, 8c. per pound
10c. for 2 lbs.

1 Oz. Will Plant 50 Hills.
2 Lbs. Will Plant an Acre.

CUCUMBER CULTURE

For very early Cucumbers sow the first of April in a hotbed upon pieces of sod (grass side down), so that they can be readily transplanted to the open ground in rich soil when danger of frost is over, or protect by hand-glasses. The vines require a warm location for early Cucumbers. Plant after the ground has become warm in hills 4 feet apart for the smaller varieties, and 5 feet for the larger sort. For pickling sow from middle of June to last of July. Manure with ashes, fertilizer or some well-rotted compost, working the manure just under the surface. Sprinkle the vines with slug-shot plaster, or air-slaked lime to protect from bugs. The Cucumbers should be gathered when large enough for use, whether required or not; if left to ripen, it destroys their productiveness.

IMPROVED BALTIMORE WHITE SPINE

EARLY FORTUNE CUCUMBER

JERSEY PICKLING

IMPROVED LONG GREEN

IMPROVED BALTIMORE WHITE SPINE

This is the best Cucumber for early planting, because it will retain its green color longer than any other sort. It is of good size and shape, and the popular variety with truckers around Baltimore and Norfolk, as well as the growers from Virginia to Florida.

ARLINGTON WHITE SPINE.—A favorite extra early variety, of desirable size, handsome shape, dark green color, holding its color longer than most others. Good shipper and sells well.

EARLY FORTUNE CUCUMBER.—One of the earliest and best dark green White Spine Cucumbers. Extremely early, and beautiful shape. Good for market gardeners, truckers or private family; in fact, any one who likes a dark green, white spine cucumber it cannot help but please. Fine for Southern growers, as it stands shipping remarkably well.

JERSEY PICKLING.—This is the most popular sort with the market gardeners around Baltimore and Philadelphia for pickling. Said to green better than any other variety.

IMPROVED LONG GREEN

The skin is of a deep green, and the flesh is solid, crisp and of fine quality. We have the very best strains of this variety and recommend it as much the best cucumber of all, and the variety every one should plant. The best known and most popular variety for general use. Is vigorous and productive, and forms fruit fit for use as early as the shorter varieties. The mature fruit is almost 12 inches long.

BURR, OR WEST INDIA GHERKIN.

An extremely small fruited variety, grown exclusively for pickles. It has no value for slicing. Is very prickly, but tender and crisp if pickled when young. Seed germinates slowly.

CUCUMBER		Pkt.	Oz.	¼ Lb.	1 Lb.
IMPROVED BALTIMORE WHITE SPINE.....		\$.10	\$.15	\$.30	\$ 1.00
ARLINGTON WHITE SPINE.....		.10	.15	.30	1.00
EARLY FORTUNE		.10	.15	.30	1.00
JERSEY PICKLING		.10	.15	.30	.90
IMPROVED LONG GREEN.....		.10	.15	.40	1.25
BURR OR WEST INDIA GHERKIN.....		.10	.15	.40	1.50

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CUCUMBERS—CONTINUED

EARLY GREEN PROLIFIC

A very productive variety, having fruits of good length and handsome form. Desirable for producing pickles of medium size and fine quality when sliced for the table.

EVER-BEARING CUCUMBER

EVER-BEARING CUCUMBER

This variety is unique, and will prove valuable both for the table and for pickling. Is of small size, very early, enormously productive and extremely valuable as a green pickler. The peculiar merit of this new Cucumber is that the vines continue to flower and produce fruit until killed by frost, whether the ripe Cucumbers are picked off or not, in which respect it differs from all other sorts in cultivation.

EARLY CLUSTER

A short prickly variety, bearing in clusters near the root. A good bearer.

JAPANESE CLIMBING CUCUMBER

It bears abundantly throughout the season, while the climbing habit enables the hanging fruit to grow perfectly straight, from 12 to 16 inches in length; the Cucumbers are thick, tender and of delicate flavor; flesh white, skin dark green, turning to brown, and netted when ripe.

TELEGRAPH (ENGLISH FORCING)

Should be grown in hotbeds where the temperature does not fall below 65 degrees at night.

ENDIVE

Is One of the Best Salads for Fall and Winter Use. One Ounce of Seed to 150 Feet of Row.

For early use, sow as soon as the ground can be worked in the spring, in drills 15 inches apart, and then thin plants to 6 or 8 inches in the row. To blanch the leaves, gather them carefully together when perfectly dry and tie them with matting or soft fibrous material. Another method is to invert flower pots over the plant. The leaves are very highly esteemed for use as salads.

GREEN CURLED ENDIVE

The best sort in use. Useful as a salad, and also used for garnishing.

GREEN CURLED ENDIVE

CUCUMBERS		Pkt.	Oz.	¼ Lb.	1 Lb.
EARLY GREEN PROLIFIC		\$.10	\$.15	\$.30	\$.90
EVERBEARING		.10	.15	.30	.90
EARLY CLUSTER		.10	.15	.30	.90
JAPANESE CLIMBING		.10	.15	.30	.90
TELEGRAPH		.25			
ENDIVE		Pkt.	Oz.	¼ Lb.	1 Lb.
GREEN CURLED		.10	.15	.40	1.25

BALTIMORE

EGGPLANT

EGG PLANT

CULTURE.—Sow the seed in hot-beds early in March. When three inches high pot the young plants, using small pots, and plunge them in the same bed so that the plants will become stocky. They can be planted out from the pots when the season becomes sufficiently warm in May or June, or they can be transplanted into a second bed to make them strong until the weather is warm enough to transplant about three feet apart each way in a thoroughly-worked and well-enriched soil. Draw the earth up to the stems when about a foot high. Egg Plant Seed will not vegetate freely without a strong, uniform heat, and if the plants get the least chilled in the early stages of growth they seldom recover. Therefore, repeated sowings are sometimes necessary. Care should be observed in cutting the fruit so as not to disturb the roots of the plants. One ounce will produce about 1,000 plants.

BLACK BEAUTY EGG PLANT.—The earliest of all large fruited Egg Plants and produces fruit quite as large as the **NEW YORK PURPLE** in 10 days less time. The fruit is symmetrical in shape, of uniform size, of a dark rich purple color, which does not fade or change to lighter color at blossom end like some other varieties. Just the variety for the market gardener and trucker for early spring trade.

NEW YORK IMPROVED LARGE PURPLE EGG PLANT.—This market garden variety has plants of strong growth, and is very productive, producing plants of large size and fruits of smooth, deep purple color until frost.

THE FLORIDA HIGH-BUSH EGG PLANT.—Is in great demand by Southern truckers. It has very vigorous growth and remarkably hardy. The plant grows very erect and holds the fruits clear of the ground.

BALTIMORE EGG PLANT.—This is decidedly the best and most profitable Egg Plant in cultivation. It is large thornless, of beautiful shape and handsome purple color. We have never seen finer specimens of Egg Plant than those grown from our seed. When inspecting the field of Egg Plants growing for seed we were surprised at the regular size and uniform, handsome color of the fruit all over the field.

KALE

One Ounce of Seed Will Sow a Drill of About 200 Feet.

The Kales are more hardy than cabbage, and make excellent greens for winter and spring use, and are improved by frost. For early spring use, sow broadcast in September and protect during winter. It must also be sown in April or May for later use.

GRIFFITH & TURNER CO'S. NEW KALE.—Larger, More Curled and longer-standing than any other Kale. Packet, 10c.; $\frac{1}{4}$ lb., 20c.; lb., 75c.

DWARF GREEN GERMAN KALE.—This variety sow in September broadcast, and gather in early spring, like spinach. It may also be sown early in the spring for later use.

EXTRA CURLED NEW AMERICAN KALE.—This is an extra curled, long-standing variety of a beautiful green color; stands the winter well, and will stand longer in the spring before going to seed than any other variety.

Norfolk.—A variety used by the truckers of Norfolk for shipment North. Light green color and leaves much curled.

EXTRA CURLED NEW AMERICAN KALE

KOHLRABI

1 OZ. OF SEED TO 100 FEET
OF ROW

Improved White Vienna

BULB LIGHT GREEN
FLESH WHITE
VERY RAPID IN GROWTH
EARLY MATURITY.
FINE IN TEXTURE, and
SYMMETRICAL IN FORM
SUPERIOR.

LEEK

1 OZ. OF SEED TO 150 FEET OF ROW

Select good Onion soil, manure liberally, plant in April in drills 6 to 8 inches deep, and 18 inches apart, and thin to 9 inches apart in the drill. Gradually draw the earth around the plants until the drills are filled level with the surface. Draw for use in October. To be used in soups or boiled as Asparagus.

EXTRA LARGE MAMMOTH.—A large and strong plant; hardy. The best variety for general culture.

LARGE ROUEN.—

EGG PLANT	Pkt.	Oz.	$\frac{1}{4}$ Lb.	1 Lb.
BLACK BEAUTY.....	.10	.40	\$1.25	\$4.00
NEW YORK IMPROVED.....	.10	.40	1.25	4.00
FLORIDA HIGH BUSH.....	.10	.40	1.25	4.00
BALTIMORE.....	.10	.40	1.25	4.00
KALE	Pkt.	Oz.	$\frac{1}{4}$ Lb.	1 Lb.
DWARF GREEN GERMAN.....	.10	.20	.40	
EXTRA CURLED NEW AMERICAN.....	.10	.20	.40	
NORFOLK.....	.10	.25	.75	

KOHL RABI	Pkt.	Oz.	$\frac{1}{4}$ Lb.	1 Lb.
WHITE VIENNA IMPROVED.....	.10	.20	.50	1.75
LEEK	Pkt.	Oz.	$\frac{1}{4}$ Lb.	1 Lb.
EXTRA LARGE MAMMOTH.....	.10	.20	.50	1.75
LARGE ROUEN.....	.10	.20	.50	1.75

ABOVE PRICES ARE POSTPAID

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LETTUCE

Lettuce requires rich and rather moist soil. The rows should be about 12 inches apart, and the plants thinned to 10 or 12 inches apart for the leading varieties. The more rapid the growth, the better the quality. Some varieties are peculiarly adapted for early culture, others for summer growth.

G. & T. CO.'S WHITE SEED SUMMER LETTUCE

The Best Summer Lettuce Ever Introduced.—This variety, introduced by us recently, has exceeded our expectation. Those who purchased it were delighted with their crops, and came back for more seed. This Lettuce will stand the summer heat better than most sorts, and makes magnificent heads. We expect this sort to grow in favor wherever known. It has a beautiful green color; head solid; light leaves, nicely crinkled; very tender, and of most excellent flavor.

W. S. SUMMER LETTUCE

G. & T. CO.'S SUMMER LETTUCE (Black Seed.)

This Lettuce is becoming very popular among gardeners for summer use. It produces a splendid, large, solid, head, of the Cabbage type, remaining a long time in prime condition without going to seed; in fact, it is often necessary for the seed growers to slit open the head in order to allow the seed stalk a chance to develop. It is of a light green color, fine quality, crisp, tender, and nearly every plant will make a fine, solid head in the hottest weather, when other varieties refuse even to grow.

IMPROVED NEW YORK, OR "WONDERFUL"

Plants of extra large growth, producing heads of immense size under favorable conditions. Inner portion is beautifully blanched and stands for a considerable time before running to seed. Outer leaves a deep, rich green.

MAY KING

A very early, new variety, forming fine, hard heads within a few weeks after planting. It is medium sized, light green, with buttery but crisp heads. There is just a faint tint of brown on the head.

We have had no end of praise from our friends and customers who have tried this variety. It is essentially a spring sort, and does well all summer. Being of rapid growth and quick heading, it is especially recommended for home garden, and is universally esteemed.

"ICEBERG" LETTUCE

The heads are large, crisp, solid and tender.

EARLY PRIZE HEAD (Seed White)

A large, clustering, non-heading lettuce, most excellent for the home and garden, and undoubtedly the most easily grown variety in cultivation. It is too tender, however, to stand shipping or handling on the market. The leaves are finely curled and crumpled, bright green tinged with brownish red, and are very crisp, tender and sweet.

EARLY CURLED SIMPSON

Black seed. Very early; excellent for salads; forms a compact mass of leaves.

TENNIS BALL

Black seed. A favorite forcing variety; a very hard head.

ROMAINE OR WHITE PARIS COS

The best of the Cos or celery varieties. Forms a large, light green plant with the head well folded and quite solid. Cos lettuce is also called Romaine, and is very popular with our foreign population, for it is highly prized in England and France, while little known to our own people.

COS LETTUCE

LETTUCE	Pkt.	Oz.	¼ Lb.	1 Lb.		Pkt.	Oz.	¼ Lb.	1 Lb.
G. & T. CO.'S WHITE SEED SUMMER.....	.10	.25	.75	2.50	MAY KING.....	.10	.20	.50	1.25
G. & T. CO.'S BLACK SEED SUMMER.....	\$.10	\$.25	\$.75	\$2.50	ICEBERG.....	.10	.20	.50	1.25
IMPROVED NEW YORK OR WONDERFUL...	.10	.25	.60	2.25	EARLY PRIZE HEAD.....	.10	.20	.50	1.25
					EARLY CURLED SIMPSON.....	.10	.20	.50	1.25
					TENNIS BALL.....	.10	.20	.50	1.25
					ROMAINE OR WHITE PARIS COS.....	.10	.20	.50	1.50

LETTUCE---Continued

BALTIMORE CABBAGE LETTUCE

G & T CO.'S TRUE STOCK
Large Heads, Beautiful Heads, Solid Heads; Stands Heat Well. Best
of all for

FALL PLANTING

This new Lettuce, which we introduced a few years ago, and claimed to be one of the best ever put on the market, and which produced such a sensation among the large growers who tried it, still holds a high place among lettuce. As soon as the growers discovered its merits they came for more seed, and recommended it to all their friends; these in turn were delighted with their crops, as the result more than justified all we claimed for it. A grower at Gardenville, Md., says, "I had 3,000 heads of your Baltimore Cabbage Lettuce, and they all headed but one; they are slow to run to seed." The heads are large and solid; color pretty light green, and very slow to seed; in fact, it is just what the truckers and gardeners want. A large trucker in New Jersey writes: "The Baltimore Cabbage Lettuce I had of you was certainly very fine."

LARGE LOAF LETTUCE

This is so well known to truckers and gardeners around Baltimore and Norfolk that for them it scarcely needs description. For the benefit of those who are not acquainted with it, would say it makes large, compact heads, is of beautiful light green color, very tender and crisp. This is unsurpassed for frame use, and is also an excellent outdoor lettuce for fall or early spring.

BALTIMORE CABBAGE LETTUCE.

BALTIMORE OAK LEAF

This lettuce will resist the heat of summer and stand longer before running to seed than any variety we have ever known. It makes a large, solid head, and is very popular with those who know it.

HANSON.

A variation of the Indiana, forming a half-closed head.

BOSTON MARKET

White seed. A celebrated variety in New England, of good heading habit; small, early and compact; quite desirable.

GRAND RAPIDS

This variety is largely grown for shipment, and is considered by many the best loose-headed Lettuce for forcing under glass. Leaves medium size, of light, yellowish green color, much crimped and frilled, thin, but of very upright growth; crisp, tender and of good quality. Owing to its upright habit, it may be planted very closely. It is of extremely rapid growth; not very liable to rot; will stand without spoiling a week to ten days after it is fit to cut, and retains its freshness a long time after cutting.

DEFIANCE.

Stands summer heat better than any other variety; one of the finest large-growing varieties. It forms very large, solid heads, so firm that they have to be cut open to allow the flower heads to come through.

BIG BOSTON

The same in color, shape and general appearance as the Boston Market, double the size. A most desirable sort either for forcing in cold frames or planting in open ground. Is popular with truckers, as it makes large, solid, salable heads. Very highly recommended by those who have tried it.

LARGE LOAF LETTUCE.

BIG BOSTON.

LETTUCE	Pkt.	Oz	¼ Lb.	1 Lb.
BALTIMORE CABBAGE.....	\$.10	\$.20	\$.60	\$2.00
LARGE LOAF LETTUCE.....	.10	.20	.50	1.50
BALTIMORE OAK LEAF.....	.10	.20	.50	1.50
HANSON	.10	.20	.50	1.50
BOSTON MARKET.....	.10	.20	.50	1.50
GRAND RAPIDS.....	.10	.20	.50	1.50
DEFIANCE	.10	.20	.50	1.50
SALAMANDER	.10	.20	.50	1.50
BIG BOSTON	.10	.20	.50	1.50

Muskmelon

**NEW
MARYLAND**

CULTURE.—One ounce of seed to 50 hills. Sow about the last of spring or the first of summer in hills of light, rich, sandy soil, 4 feet apart, allowing but three plants to grow in each hill; after they have grown about a foot long, pinch off the points of shoots, which causes the vines not only to become stronger, but makes them produce lateral branches and prove more productive and mature earlier. It should not be grown near squashes, cucumbers or pumpkins, as the flavor will be affected in consequence.

NEW MARYLAND CANTALOUPE.—The latest acquisition to our collection of muskmelons. It is earlier, larger and cuts better than the Rocky Ford. Flesh is green, of fine flavor and heavily netted, making it the most attractive melon on the market. A sure money-maker. Our truckers around Baltimore will have no other after planting our New Maryland. **Pkt., 10c. Oz., 15c. ¼ lb., 35c. Lb., \$1.25**

ROCKY FORD MELON

This has become one of the most popular of small or basket melons, largely owing to the fact that growers in the **Rocky Ford** region pack and ship their fruit in a most attractive manner. The fruit is oval, slightly ribbed, densely covered with coarse netting. Flesh thick, green, very sweet and high-flavored.

We have an exceptionally fine stock of this variety grown from choice selected specimens. **Pkt., 10c. Oz., 15c. ¼ lb., 30c. Lb., 90c.**

Baltimore Nutmeg Cantaloupe

The Old Standard Variety That Has Found Favor Wherever Grown.

The stock seed of this splendid melon was secured from a trucker who enjoys the reputation for raising the finest Cantaloupes that come to the Baltimore market. The writer also tested the fruit, and found it to be of excellent flavor. It is green-fleshed, and the rind is handsomely netted. It is well known and popular with the truckers and market gardeners of Baltimore, Washington, Norfolk and other places—in fact, it is a leading sort all over the country. **Pkt., 10c. Oz., 15c. ¼ lb., 30c. Lb., 90c.**

IMPROVED JENNY LIND.

A small, early variety of surpassing good quality, highly recommended for family garden. We consider this the most delicious Cantaloupe we have ever eaten, and while the fruit is small, it is an abundant bearer. A market gardener having this sort for sale would in a short time have no difficulty in disposing of all he could raise. **Pkt., 10c. Oz., 15c. ¼ lb., 30c. Lb., 90c.**

ROCKY FORD CANTALOUPE.

BALTIMORE NUTMEG.

EMERALD GEM.

Meat, salmon color, exceedingly sweet and delicious; very early and prolific. One of the best for family use. Its appearance is not attractive, but try it, and you will want it again. **Pkt., 10c. Oz., 15c. ¼ lb., 30c. Lb., 90c.**

OSAGE, OR MILLER'S CREAM.

Most delicious. The flesh is a rich salmon color, very thick, sweet and rich; rind very thin and finely netted. **Pkt., 10c. Oz., 15c. ¼ lb., 30c. Lb., 90c.**

EARLY NETTED GEM.

EXTENSIVELY grown, and many prefer it to all others for table use. Grows remarkably uniform; thick meat; flesh light green in color, and of fine, luscious flavor; skin green, regularly ribbed and thickly netted; very productive and extra early in ripening; will keep for nearly a week after picking, and is especially suited for shipping in baskets or crates. **Pkts., 10c. Oz., 15c. ¼ lb., 30c. Lb., 90c.**

MUSKMELONS--CONTINUED

KNIGHT CANTALOUPE

**A New Early Cantaloupe of Superb Quality
and at the same Time Makes an Excel-
lent Market or Shipping Melon.**

KNIGHT CANTALOUPE

This new Cantaloupe has been grown in Anne Arundel county for the past several years, and has created a furore with our truckers, on account of its earliness, productiveness, uniformity in shape and appearance and its fine table qualities. It matures about a week earlier than the regular Rocky Ford, is larger in size and makes a most attractive and salable melon. It has thick, green flesh, shading to orange at the center. The fruits are oblong in shape, well ribbed and well netted. It is a leader both for planting for home use and market and for shipping. Its early maturity, together with its fine qualities, are strong points in its favor. **Pkt., 10c. Oz., 15c. ¼ Lb., 35c. Lb., \$1.25**

PAUL ROSE

PAUL ROSE.—In this new sort are combined all the good qualities of the Netted Gem and the Osage, the varieties from which it originated. The fruit is oval, about 5 inches in diameter, and in shape and general appearance similar to the well-known Netted Gem or Rocky Ford. The firm flesh is a rich orange-red color, like that of the Osage, but even sweeter and higher flavored, retaining its good qualities quite to the rind. We think it really has no equal as a market melon for professional melon-growers, and it is one of the very best sorts for the home garden **Pkt., 10c. Oz., 15c. ¼ Lb., 30c. Lb., 90c.**

ANNE ARUNDEL CANTALOUPE

(Original Stock.)

This handsome melon introduced by us several years ago, was for years a special favorite with a number of the leading growers of Anne Arundel county, Maryland. This county is justly celebrated as growing the finest Cantaloupes in the country. We might almost say the finest in the world. Knowing its value, we selected the stock and placed it before our customers. It has met every promise we made for it upon its introduction. **Pkt., 10c. Oz., 15c. ¼ Lb., 30c. Lb., 90c.**

HONEY DEW MELON.—This new melon averages about 6½ inches in diameter. Smooth skin, rind thin and tough, good keeper and fine flavor. **Pkt., 10c. Oz., 20c. ¼ Lb., 60c. Lb., \$2.00.**

EDEN GEM OR NETTED ROCK

One of the handsomest melons in our list. Splendid shape and thorough netting and absence of deep spaces between the ribs, indicating strong shipping properties. The flesh is unusually thick, the seed cavity very small, the flavor exquisite. A heavy yielder, the melons very uniform, but few run too large, and still fewer too small. For shipping we recommend it highly; also for home growers. **Pkt., 10c. Oz., 15c. ¼ Lb., 30c. Lb., 90c.**

NORFOLK BUTTON

An improved strain of Early Jenny Lind, having a nub or button over all other varieties. It gives it a distinction over all other varieties. It is very early, of remarkably fine texture and delicious flavor, and produces fruits of the finest quality. It is extra fine for both home and market use. We are putting the above on the market for the first time, and have but a limited supply of seed. Those who wish to secure a trial order will do well by placing their order at once. **Pkt., 10c. Oz., 15c. ¼ Lb., 30c. Lb., 90c.**

EXTRA EARLY HACKENSACK

Netted green flesh and excellent; very showy market variety and an excellent keeper. Ten days earlier than the Old Hackensack. **Pkts., 10c. Oz., 15c. ¼ Lb., 30c. Lb., 90c.**

LONG ISLAND BEAUTY.—**Pkts., 10c. Oz., 15c. ¼ Lb., 30c.**

Netted Rock or Eden Gem Cantaloupe

WATERMELONS

LORD BALTIMORE

CULTURE.—One ounce of seed to 30 hills. Watermelons require a rich, sandy soil for best development. Cultivate the same as for cantaloupes, except that the hills should be eight or ten feet apart.

Lord Baltimore

It is very early, of oblong shape, and the flesh is of handsome crimson color, deliciously sweet and extending close up to the rind. It has a thin, hard rind, beautifully mottled light and dark green. Its perfect shape, faultless color, fine texture and excellent flavor combine to make it one of the very best melons that grow. It is a good shipper and beats all others as a seller.

FLORIDA FAVORITE

Florida Favorite

This we consider one of the richest and sweetest flavored melons grown, of medium size and prolific. The best of all for family gardens. It is now very popular with the truckers and melon-growers of Maryland and Virginia, and sells readily in the Baltimore markets.

McIVER'S SUGAR WATERMELON

In outward appearance it somewhat resembles the old Rattle-snake. The quality is much superior. It is an extremely productive and hardy variety.

Indian Chief Watermelon

A large oblong dark green melon, with thick netting, the rind is thin but very tough. The flesh is a bright attractive red, and has a crisp delicious flavor. It is very productive, and is an excellent shipper.

DUKE JONES

Dark Icing

An extra early and extra good melon for home use and nearby market. One of the most delicious of melons; rich red and sugary to the very thin rind.

GRAY MONARCH OR LONG WHITE ICING

This distinct melon is without a doubt one of the largest of all, frequently attaining a weight of 70 pounds and over. The skin is a mottled gray color, shape long, flesh bright crimson, and of sweet delicious flavor. It is also a fine shipper, carrying well long distances and bringing very high prices.

Duke Jones Watermelon

In shape the **DUKE JONES** resembles very closely the Kolb Gem. The rind is darker green in color, with indistinct irregular stripes of light and dark green alternating; in general appearance it is a dark green melon. It averages very large in size, comparatively no small melons; is very productive; it is also very early in maturing.

WATERMELON	Pk ⁺	Oz.	1/4 Lb.	1 Lb.	GRAY MONARCH OR LONG				
LORD BALTIMORE.....	\$.10	\$.15	\$.25	\$.75	WHITE ICING.....	.10	.15	.25	.60
FLORIDA FAVORITE.....	.10	.15	.25	.60	DUKE JONES.....	.10	.15	.25	.60
MCIVER'S SUGAR.....	.10	.15	.25	.60	INDIAN CHIEF.....	.10	.15	.25	.60
DARK ICING.....	.10	.15	.25	.60					

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

WATERMELONS--Continued

NEW WATERMELON—THURMOND GRAY

It's sweet; the flesh is red, crisp and free from stringiness and the color of rind a mottled light gray-green, entirely distinct. Rind is thin, but very tough. Long-distance shipments go through perfectly. Plant Irish Gray for home or market use and you will be delighted.

EXCEL—Many growers claim that for shipping it is even better than Tom Watson. In appearance it strongly resembles the Watson, has a very thin, tough rind, is uniformly large, averaging from 40 to 60 pounds. On the table it is as attractive as any melon can be, and its quality is fully equal to its attractiveness. It is an unusual melon in that, although a grand shipper, it is also one that we can highly recommend for private garden, the beautiful red meat being decidedly crisp, sweet and luscious, and solid to the center. Seeds are both black and white.

TOM WATSON

TOM WATSON

A recent introduction. A large oblong melon, dark green skin, with thin, tough rind, which gives it excellent shipping qualities. Melons are produced from 18 to 24 inches long and from 8 to 12 inches in diameter. Flesh deep red, crisp, melting and of finest flavor. Heart large, with little or no core. One of the best eating melons known.

RATTLESNAKE WATERMELON

Large, oblong, striped and mottled; flesh bright red; a good shipper, a favorite variety in the South.

DIXIE

It is earlier and larger than the well-known and popular Kolb Gem, and in color a darker green, with beautiful stripes, making it one of the handsomest melons on the market. Flesh deep red, sugary and melting.

SWEETHEART

An entirely distinct and handsome new Watermelon. Vine vigorous and productive, ripening early. Fruit, large oval, very heavy, uniformly mottled light and dark green. Flesh bright red, solid and very sweet.

KLECKLEY'S SWEETS

Skin dark green, thin rind, flesh scarlet, very solid, firm and most luscious quality for the home market or family garden. It is decidedly one of the best.

KOLB'S GEM—This is one of the largest, most productive, best keeping and best shipping watermelons grown. Sells readily at the highest market prices. In fact, it is so well known that it speaks for itself. Our stock of this comes direct from the original grower. Special prices on large quantities.

CITRON—For Preserves. Fruit round and handsome. Used in making preserves only.

GEORGIA RATTLESNAKE

WATERMELON	Pkt.	Oz.	¼ Lb.	1 Lb.	WATERMELON	Pkt.	Oz.	¼ Lb.	1 Lb.
TOM WATSON.....	.10	.15	.25	.60	KLECKLEY'S SWEET.....	.10	.15	.25	.75
THURMOND GRAY.....	.10	.15	.25	.90	EXCEL.....	.10	.15	.25	.75
RATTLESNAKE.....	.10	.15	.25	.60	KOLB GEM.....	.10	.15	.25	.60
DIXIE.....	.10	.15	.25	.60	IRISH GRAY.....	.10	.15	.25	.75
SWEETHEART.....	.10	.15	.25	.60	Citron.....	.10	.15	.25	.90

ENGLISH MILL TRACK MUSHROOM SPAWN

Cake, 30c., by mail 35c.; 10 lbs., \$2.50 by Freight or Express.

CULTIVATION

The cultivation of the Mushroom is a very simple matter and requires only ordinary intelligence and care. The materials needed are fresh horse manure, good soil and live spawn. The manure should not be too short, as it does not combine the necessary qualities. Long, strawy litter, plentifully mixed with short manure, makes by far the best beds, as it does not heat too violently, decomposes slowly and retains its heat for a long period. Put in a heap and turn every three or four days to permit the escape of noxious gases and prevent burning. When ready for use it should be as hot as can be borne comfortably by the hand, and should also be moist. Make the beds 3 feet wide at the base, 2½ feet high, and of any desired length. The manure, when in proper condition, should be quickly handled to prevent the loss of heat, and be beaten down to make the heap firm and compact, and covered with long litter. The bed should within a few days, warm to a temperature of 110 to 120 degrees. Never spawn a bed when the heat is rising, but always on the decline and under 90 degrees. Have a ground thermometer, and keep it plunged in the bed; by pulling it out and looking at it you can ascertain exactly the temperature of the bed. Should the temperature not exceed 100 or 110 degrees, no alarm should be felt, for if the manure was fresh it will likely produce a good crop. When the heat has decreased to 90 degrees, the bed is ready to receive the spawn, which is done by raising the manure with the hand and inserting pieces of spawn 2 inches square and 9 inches apart each way. At the expiration of a few days the bed may be covered with soil to the depth of about 2 inches. If in a closed cellar or mushroom house, wait about ten days, but if in open shed five days will do. If the soil is poor, add a liberal quantity of bone meal. It requires a period of 5 to 7 weeks before they are ready for use.

Two pounds of spawn are sufficient for a bed 3 feet by 6 feet.

Mushrooms can be readily grown in cellars, stables, sheds or pits. Many are successively grown on a shelf in an ordinary cellar, and yield sufficient crops to compensate the grower for his effort. The space under greenhouse benches or stagings will suit them exactly, using materials in the same manner as described.

MUSHROOMS ON PASTURE LAND OR LAWN

About the first of June take pieces of spawn an inch square and lift the sod with a trowel or spade just sufficient to get a spawn under it, and then press the soil down hard. Set the spawn 1 to 2 feet apart. In a favorable season a crop may be expected 3 or 4 months from the time of planting.

OKRA, or GUMBO

Select warm location and rich soil, and plant when the ground becomes warm, in rows three feet apart, thinning plants a foot apart in the row. As the seeds are liable to rot in cool weather, they should be sown thickly. The pods are used to thicken soup, being gathered when young. It is one of the most wholesome vegetables in use.

DWARF OKRA.

This is the preferred kind with the growers; is of dwarf habit and very productive.

Pkt., 10c. Oz., 15c. ¼ Lb., 20c. Lb., 75c.

WHITE VELVET

It is very distinct and the pods are perfectly round and smooth, of an attractive white velvet appearance, and of superior flavor and tenderness. The pods are of extra large size, and produced in great abundance.

Pkt., 10c. Oz., 15c. ¼ Lb., 25c. Lb., 75c.

ONION SETS

CULTIVATION FOR SETS

Have a clean and very rich soil, which should be thoroughly cultivated, or it will not do well enough to pay for the trouble. The most successful growers work their ground several times in the fall to kill out the weeds a get ground in nice condition. Use well-rotted manure freely, and be sure to get the seeds in as early as possible in the spring, no matter if it is ever so cold or unpleasant, and keep the soil mellow and clear of weeds, and if seed is good you will have a large crop of onion sets. On no other condition can you hone for success. Disturb the roots of the onion as little as possible, either in thinning or hoeing, and never hoe earth toward them to cover or hill, as we do most other things.

Sow the seed in drills about 12 inches apart. It will require from 40 to 60 pounds of seed to sow an acre.

WHITE—1 lb., about 1 qt., 30c.; mailed, 35c. YELLOW—1 lb., about 1 qt., 25c.; mailed 30c. Ask for prices on sets by the bushel of 32 lbs. It requires 10 to 15-bushel sets to plant one acre.

VEGETABLE ROOTS

ASPARAGUS ROOTS

A saving of one to two years is effected by planting roots. A bed 12x40 feet, requiring about 100 roots, should give a sufficient supply for an ordinary family; 8,000 roots will plant an acre. Select good, loamy soil, plow deep, put in good quantity of manure and 100 pounds of kainit to 1,000 square feet of bed. Incorporate thoroughly, make a trench 8 inches deep, set plants 9 inches apart. In field culture rows are placed 4 feet apart.

Palmetto—Per 100, \$1.25. Per 1,000, \$9.50.
See also page 3 and 56.

Washington—Per 100, \$1.75. Per 1,000, \$12.00
Postage extra.

HORSE RADISH ROOTS

The land should be rich, well manured, plowed deeply, harrowed and free from lumps. Plant in a roomy space by itself. Make rows 15 inches apart, set plants 12 inches from each other. Plant shoots about 5 inches long, making holes for same with a stick, and set them about 2 inches under the soil. Have the shoots cut squarely across the bottom, but cut slanting at the top, in order that one side may be a little longer than the other. Keep free from weeds for the first and second seasons, after which the Horse Radish will take care of itself. Dozen, 20c. By mail, 25c. Per 100, \$1.00. By mail, \$1.25. Per 1,000, \$8.00. By express, not prepaid.

RHUBARB OR PIE-PLANT

This very desirable vegetable comes early in the spring. The large stems of the leaves are used for pie-making and stewing. A deep, rich soil is indispensable to secure large, heavy stalks. Plant in rows 4 feet apart, with the plants 3 feet distant. Set so that the crowns are about an inch below the surface. Top-dress annually in the fall with stable manure, and fork under in the spring. 20c. Each. By mail, 25c. Dozen, \$2.00. By express, not prepaid.

ONION SEED

CULTIVATION TO GROW LARGE ONIONS FROM SEED.—The seed should be sown as early as possible in the spring as they grow much better during the cool weather, and should make most of their growth before the hot weather sets in. Sow 5 pounds of seed to the acre for large onions.

THE NEW ONION CULTURE.—Sow the seed in hotbed and transplant early as possible to open ground. They can be grown very successfully by this plan.

WHITE SILVERSKIN ONION

YELLOW DANVERS ONION

WHITE SILVERSKIN or PORTUGAL.—A good variety for family use, skin and flesh pure white, mild flavor and flat shape. The best white onion to grow largely for sets.

AUSTRALIAN BROWN.—A Valuable Long-Keeping Onion.—This new onion, introduced into the United States a few years since, has met with wonderful success, and is pronounced the best keeper of all onions. The outside skin is of a deep amber brown, distinct from all other onions, extremely hard and firm, of fine flavor, and will keep almost indefinitely. Australian Brown is the only onion Australian growers will plant

WETHERSFIELD LARGE RED.—Well-known and favorite sort. A large yielder and good keeper.

YELLOW DUTCH, or STRASBURG.—The most popular and best variety for set purposes. Is similar to the Yellow Danvers. Flat in shape, color and size, but as a set onion it has the quality of ripening down earlier and more uniformly.

YELLOW GLOBE DANVERS.—A very handsome, round, yellow onion: a large yielder and splendid keeper; the preferred sort with market gardeners and large growers all over the country. We unhesitatingly recommend it for growing either sets or large onions.

PRIZE TAKER.—This is the large, beautiful onion that is seen every fall offered for sale at the fruit stores in Baltimore and other large cities. It has a rich straw color, and is of enormous size. Although of such large size, it is very hardy and an excellent keeper. The flavor is mild and delicate, making the Prize-taker a favorite variety for salads. By sowing this sort early you can raise a large crop of large onions the first season with very little trouble. All that is necessary is good ground, proper cultivation, and not to have them too thick. Those of our growers who have tried this variety have had remarkably fine success.

ONION	Pkt.	Oz.	¼ Lb.	1 Lb.
WHITE SILVER-				
SKIN or PORTUGAL	\$0.10	\$0.25	\$0.75	\$2.50
AUSTRALIAN BROWN	.10	.25	.65	2.25
WETHERSFIELD				
LARGE RED	.10	.25	.60	2.00
YELLOW DUTCH or				
STRASBURG	.10	.20	.60	2.00
YELLOW GLOBE				
DANVERS	.10	.20	.60	2.00
PRIZE-TAKER	.10	.25	.65	2.25

PARSNIP

The Parsnip will nourish best and give the longest largest and smoothest roots in a very deep, rich soil—one that has been made rich from manure the previous year. Fresh manure makes the roots somewhat ill-shaped. Sow as early in the spring as the ground can be made ready, pretty thickly in drills from 12 to 18 inches apart, and about an inch deep. Thin the plants to five or six inches apart.

Hollow Crown or Sugar

The Hollow Crown is superior in quality to all other varieties, and the preferred kind with Baltimore gardeners. The roots are smooth, tender, handsome shape and early. We have the finest stock of Hollow Crown Parsnips that we know of in this country.

NASTURTIIUM

Plant in May, the climbing varieties to cover arbor or fence, and the dwarf for beds or hanging baskets. The leaves are used for salad, and the seeds, when soft enough to be penetrated by the nail, for pickles.

MUSTARD

GIANT CURLED.—Highly esteemed in the South, where the seed is sown in the fall and used in the spring as a salad. Our stock is the true curled leaf, and produces plants two feet high and of great breadth, forming enormous bunches.

WHITE MUSTARD.—

PARSLEY

SELECT rich soil; sow the seed in drills one foot apart, covering half an inch deep. It would be well to firm the soil with the foot after sowing the seed. As the seed is usually from 15 to 25 days in germinating, it will be necessary to sow early. Thin plants to 4 inches apart when 2 inches high. The beauty of the plant may be increased by several successive transplantings. It is used principally for flavoring soups, etc., and for garnishing in its natural state.

BALTIMORE EMERALD GREEN TRIPLE CURLED PARSLEY.—The newest and best variety yet introduced. Beautiful green color and finely curled and crimped.

DWARF EXTRA CURLED.—The most beautiful and valuable variety in use; handsome bright green color; finely crimped, beautifully curled.

MOSS CURLED.—A very select crimped variety.

HAMBURG ROOTED OR GERMAN.—The root resembles a small parsnip and is the edible part of the sort; used for flavoring soups.

PARSNIPS				PARSLEY			
	Pkt.	Oz.	1/4 Lb. 1 Lb.		Pkt.	Oz.	1/4 Lb. 1 Lb.
HOLLOW CROWN OR SUGAR.....		\$.10	\$.25 \$.75	BALTIMORE EMERALD GREEN			
MUSTARD				TRIPLE CURLED.....	.10	.15	.35 1.00
GIANT CURLED.....		.10	.25 .75	DWARF EXTRA CURLED.....	.10	.15	.20 .60
WHITE MUSTARD.....		.10	.25 .75	MOSS CURLED.....		.15	.20 .60
NASTURTIIUM				HAMBURG ROOTED GERMAN.....	.10	.15	.20 .75
TALL MIXED.....		.10	.20 .60				
DWARF MIXED.....		.10	.20 .70				

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

PEAS

The dwarf varieties should be liberally manured; the tall sorts will run too much to vine if heavily manured, it being better to depend on the richness of the land that was previously in good condition. Plant the dwarf in rows two feet apart; those varieties attaining a height of from two to three feet in rows three feet apart, and the rows of the tallest sort four feet apart. Bushing the tall kind when six inches high, on poles set every six or eight feet, with twine fastened to them about four inches apart, will answer finely.

G. & T. Co.'s First Early Peas

This is the earliest of all and the most profitable early market Pea, because of its early maturity, uniformity of growth, and ripening and its productiveness. It ripens up so evenly as only to require about two pickings to secure the crop. It is grown from selected stock, under our own supervision, and the greatest care is exercised to keep it up to the highest standard of quality. It is a great favorite with the truckers, and is largely used by private families. Our sales of this sort increase annually.

NEW LARGE PODDED ALASKA.—In general habit and growth resembles the well-known Alaska. Ripening about three days later, but with much longer and thicker pods. Handsomely shaped, of a beautiful dark green color, which is retained long after other varieties have lost their usefulness. The seed is somewhat wrinkled and dented. We strongly recommend this new Pea to gardeners, truckers and shippers as a most productive and large extra early variety.

ALASKA.—Our best rogued and hand-picked stock. Height, 26 inches. The earliest Blue Pea; very uniform in growth and time of ripening. The dark green color of pods makes this a most desirable sort for canners and shippers, as it can be carried long distances without losing color.

Early Bird Peas

Recently introduced. Hardy, prolific, early. Earlier than Alaska or First and Best. Large podded and very prolific. Fine luscious flavor. Hardiness unsurpassed.

FIRST AND BEST.—Height, 2½ feet. Grown with special care. One of the earliest varieties.

BOUNTIFUL.—Ripening about three to four days later than extra early sorts. Much longer and thicker pods. Beautifully shaped, dark green color which is retained after earlier varieties have turned grey. Seed dented, and we recommend this pea to all market gardeners and truckers.

PEDIGREE EXTRA EARLY.—Introduced several years ago, has steadily increased in favor until now the truckers all want it. Early as Alaska, large pods, white seeded, very prolific. All mature at one time and can be gathered in one picking.

PROLIFIC EARLY MARKET.—New. Recently introduced. The finest, largest and most prolific extra early variety. Larger than Alaska, nearly as early, quite as prolific. Handsome pods, which command the highest prices. Just the pea for the trucker, market gardener and family garden.

Large Podded Extra Early Sugar Variety

MARYLAND PRIDE PEAS.—Introduced by us last season for the first time, giving universal satisfaction to the market gardeners and shippers. Pods large, of a deep green color and nearly as early as Alaska.

THOMAS LAXTON.—Habit and growth same as **GRADUS**, but pods are a deeper green color, square at the ends, having fine flavor.

IMPROVED THOMAS LAXTON PEAS.—Larger, better and greener than **THOMAS LAXTON**.

GRADUS, OR PROSPERITY.—Pale Green Wrinkled. The most attractive novelty of recent years. Large, handsome pods, well filled, ripening with the earliest and of vigorous habit.

Peas by Weight	(about)	(1 pt.)	(1 qt.)	(1 pk.)	(1 bu.)
	1 lb.	2 lbs.	15 lbs.	60 lbs.	
G. & T. CO'S. FIRST EARLY	.20	.40	\$2.25	\$ 8.50	
NEW LARGE-PODDED ALASKA	.25	.45	2.50	8.50	
ALASKA	.20	.40	2.25	8.00	
EARLY BIRD	.25	.50	2.75	10.00	
FIRST AND BEST	.20	.40	2.25	8.50	
BOUNTIFUL	.25	.50	2.50	8.50	
PEDIGREE EXTRA EARLY	.20	.40	2.25	8.50	
PROLIFIC EARLY MARKET	.20	.40	2.25	8.50	
	1 lb.	2 lbs.	14 lbs.	56 lbs.	
MARYLAND PRIDE	.25	.50	2.75	10.00	
THOMAS LAXTON	.25	.50	2.75	9.50	
GRADUS, OR PROSPERITY	.25	.50	2.50	9.00	
IMPROVED THOMAS LAXTON	.30	.60	3.00		

Ask for prices in quantity. Add for postage, 8c. per lb., 10 c. per 2 lbs.

EXTRA EARLY ALASKA PEAS.

MARYLAND PRIDE PEAS.

NOTT'S EXCELSIOR

EVERBEARING

Vines are about 2 feet high, of a branching character, forming as many as 10 stalks from a single root stalk. Peas large and of fine quality.

ABUNDANCE

Height, 30 to 36 inches. An excellent half-dwarf, medium early wrinkled variety; pods $3\frac{1}{2}$ inches long, containing 6 to 8 large Peas of excellent quality.

HORSFORD'S MARKET GARDEN

Height, $2\frac{1}{2}$ feet. A medium early wrinkled variety; highly recommended.

LAXTONIAN

A fine, large mammoth-podded wrinkled pea. Vine is dwarf and is fine for home garden.

PEAS	about (1 pt.) 1 lb.	(1 qt.) 2 lbs.	(1 pk.) 15 lbs.	(1 bu.) 56 lbs.
Peas by Weight				
Nott's Excelsior	\$.25	\$.50	\$2.75	\$9.00
American Wonder	.25	.50	2.75	9.00
Laxtonian	.25	.50	3.00	10.50
Premium Gem	.25	.50	2.75	9.00
McLeans Gem	.25	.50	2.75	9.00
Gardener's Favorite	.25	.50	2.75	9.00
Advancer	.25	.45	2.75	9.00
Everbearing	.25	.50	2.75	9.00
Abundance	.25	.50	2.75	9.00
Horsford's Market Garden	.25	.45	2.75	9.00

Ask for prices in quantity.

Add for postage, 8c. per lb., 10c. for 2 lbs.

PEAS-CONTINUED

Postage paid on one and two pounds. Larger amounts add postage.

DWARF EXTRA EARLY VARIETIES **Nott's Excelsior**

It is the best of dwarf wrinkled extra early of recent introduction. The vines are larger and more vigorous than the American Wonder, while the pods are fully one-third larger, containing 6 to 8 fine, large Peas, packed so closely together in the pods that the Peas are always more square than round. The pods are always well filled with Peas, which in sweetness and quality have no superior.

AMERICAN WONDER

Very luscious in flavor. Try it. Height, 12 inches. The earliest wrinkled Pea; very productive and sweet. Better suited to the private than to the market garden.

PREMIUM GEM

Height 15 inches. An improvement upon the Little Gem. A splendid wrinkled dwarf Pea; very luscious in flavor.

McLEAN'S LITTLE GEM

Similar to Premium Gem, but more straggling in growth; pods not so well filled; height, 18 inches; seed, green, wrinkled.

Second Early Half Dwarf Wrinkled Varieties

GARDENER'S FAVORITE

Height 30 to 36 inches. A wrinkled variety named and introduced by us, and which is constantly gaining friends; of most delicious flavor; prolific bearer, specially suited for the market garden trade. It is also attracting considerable attention with some of our leading canners, as when packed they find the quality to be superior to any other sort.

ADVANCER

Height $2\frac{1}{2}$ feet. A green wrinkled variety; introduced some years ago, and has always given satisfaction.

GARDENER'S FAVORITE

PEAS—CONTINUED

Medium and Late Varieties

HEROINE PEAS.

HEROINE PEA.—A medium early, green, wrinkled Pea, and one of the best of recent introduction: large, curved, showy pods; an immense cropper; Peas of finest quality. Height, 2 to 2½ feet.

CHAMPION OF ENGLAND.—Height, 4 feet. An old favorite, rich flavored and very productive.

MELTING SUGAR (Edible Pods).—This variety is ahead of all other Sugar Peas, not only in size of pod and prolific bearing, but also for its delicious flavor. It grows to the height of 5 feet, bears a profusion of very large, broad handsome light green pods, which are so brittle that they snap without any strings.

TALL GRAY SUGAR (Edible Pods).—Cooked in the pods same as Snap Beans.

DWARF GRAY SUGAR (Edible Pods)—Quite a favorite.

TELEPHONE.—Height, 3 to 4 feet. Large wrinkled seeds; pods large and well filled.

TELEGRAPH, or LONG ISLAND MAMMOTH.—Resembles the Telephone in every respect, except they are a deeper shade of green. Pods are very attractive in appearance.

IMPROVED SUGAR MARROWFAT PEAS (Genuine Stock).—Height, 3½ feet. Grows a strong vine, bears in abundance large, filled pods. The truckers' favorite.

FRENCH CANNER.—Height, 3½ feet. The celebrated Pea used in France by the canners. It is wonderfully prolific, bearing an abundance of long pods, containing 7 to 9 peas of excellent flavor.

IMPROVED SUGAR MARROWFAT PEAS.

PEAS

MEDIUM AND LATE VARIETIES

	Peas by Weight	(about) (1 pt.)	(1 qt.)	(1 pk.)	(1 bu.)
		1 lb.	2 lbs.	14 lbs.	56 lbs.
HEROINE		\$.25	\$.50	\$2.50	\$ 9.00
CHAMPION OF ENGLAND		.25	.50	2.50	9.00
TELEPHONE		.25	.50	2.50	9.00
TELEGRAPH, OR LONG ISLAND MAMMOTH		.25	.50	2.50	9.00
		1 lb.	2 lbs.	15 lbs.	60 lbs.
IMPROVED SUGAR MARROWFAT		.20	.40	2.50	9.00

PEAS—EDIBLE POD

MELTING SUGAR	.25	.50
TALL GRAY SUGAR	.25	.50
DWARF GRAY SUGAR	.25	.50

Ask for prices in quantity. Add for postage, 8 c. lbs., 10c. for 2 lbs.

HERBS

A well assorted selection of the various kinds of herbs should have a place in every garden. Their value in seasoning and flavoring is well known and appreciated. Sow in spring in shallow drills, one foot apart, and when well up thin out or transplant to a proper distance. Care should be taken to harvest on a dry day just before they fully blossom.

	Pkts.	Oz.	¼ lb.	Lb.		Pkts.	Oz.	¼ lb.	Lb.
ANISE	5c.	15c.			DILL	5c.	15c.		50c.
BASIL	5c.	15c.			FENNEL (Sweet)	5c.	15c.		
BENE, use medicinally	5c.	15c.			LAVENDER	5c.	15c.		
BORAGE, excellent for bees	5c.	15c.			MARJORAM	5c.	25c.		
CARAWAY	5c.	15c.			ROSEMARY, an aromatic herb	5c.	35c.		
CHERVIL	5c.	25c.			SAGE (American)	5c.	20c.		
CHICKORY	5c.	15c.			THYME (broad-leaved English)	5c.	25c.		
CORIANDER	5c.	10c.							

PEPPER OR CAPSICUM.

Is cultivated mainly for pickles; used as a seasoning in many ways; sometimes medicinally. Sow seed early in hotbed, if possible; if not, select a warm place in the garden for seed bed; sow as soon as the soil is warm. Transplant when 3 or 4 inches high, in rows 18 inches apart.

LARGE BELL OR BULL NOSE.—Plant vigorous, compact, very productive, ripening its crop uniformly and early. Fruit large, with thick, mild flesh, of excellent quality for use in salads and pickles; color bright red when ripe.

RUBY KING.—An improved American variety often four to six inches in length and quite symmetrical in shape. It is very bright colored and the flesh is sweet and mild flavored.

SWEET MOUNTAIN.—Plants very vigorous, of compact, upright growth. The fruit does not ripen until very late. It is very large and long, often eight inches or more in length by two in diameter; very smooth and handsome, being when fully matured of a rich red color. Flesh very thick, sweet and mildly flavored.

CHINESE GIANT.—Double the size of Ruby King; the finest mild Red Pepper grown. It is very productive, having a magnificent appearance, which makes it sell readily.

LONG RED CAYENNE.—A well known variety, having a slender, twisted and pointed pod about four inches long, and, when ripe, bright red in color. Extremely strong and pungent flesh.

RED CHERRY.—Plant tall, bearing a profusion of round, bright red fruit which are very pungent when ripe. The plant, when in fruit, is very ornamental.

RED CHILI.—Used in the manufacture of pepper sauce. The bright, rich red pods are about two inches long, one-third to one-half inch in diameter at the base, tapering to a sharp point and exceedingly pungent when ripe.

PIMIENTO.—The mildest flavored of all peppers. Its productiveness makes it a desirable sort for the home garden or market. Its smooth, thick flesh and uniform shape makes it an excellent shipper. Should be planted in every garden where a delicious sweet-flavored pepper is wanted both for salad and for stuffing.

TOPEPO.—A new vegetable of exquisite flavor, combining the delicious qualities of the Pepper and Tomato. Splendid for salads, soups and flavoring.

PUMPKIN

Plant in May, in hills 8 feet apart. Allot 10 seed to each hill, as bugs often destroy the young plants, but only allow 2 or 3 healthy plants to remain in each hill. They are usually planted in fields with corn or potatoes.

G. & T. Co.'s Maryland Sweet Potato

This is the best table pumpkin in cultivation. In shape and size it somewhat resembles the Cashaw, but much more beautiful in color, being a handsome green and white striped. The flesh is a rich yellow color, solid, fine grained, very thick; flavor delicious.

LARGE CHEESE, OR KENTUCKY FIELD.—A very large, flattened pumpkin, averaging about 2 feet through. When ripened the skin is a rich cream color. Flesh yellow and of fine quality.

TENNESSEE SWEET POTATO.—A splendid pie and cooking pumpkin. They grow pear-shaped, of medium size, slightly ribbed; skin is creamy white, lightly striped with green; flesh very thick, creamy white, dry and fine-grained, keeping well until late in the spring. When cooked resembles sweet potatoes, but much more delicious in taste.

Connecticut Field

A fine, large, orange-colored variety used for field culture and stock feeding. The skin is smooth and ribbed and the flesh is brittle and sweet.

YELLOW CASHAW OR CROOKNECK.—Solid flesh, fine and sweet; keeps well.

SALSIFY OR VEGETABLE OYSTER

Sow in early spring in light, rich soil, in drills 14 inches apart and thin the plants to six inches in the row. The roots will be ready for use in October and will sustain no injury by being left in the ground during the winter.

SANDWICH ISLAND MAMMOTH.—This new salsify grows fully twice the size of the old sort, and is superior in quality. Invaluable to market gardeners.

LARGE WHITE.—The old, well-known variety.

PEPPER				
	Pkt.	Oz.	1 1/2 Lb.	1 Lb.
LARGE BELL, OR BULL NOSE.....	\$0.10	\$0.25	\$0.75	\$2.75
RUBY KING.....	.10	.30	.75	2.75
SWEET MOUNTAIN.....	.10	.30	.75	2.75
CHINESE GIANT.....	.10	.40	1.25	4.50
LONG RED CAYENNE.....	.10	.30	.75	3.00
RED CHERRY.....	.10	.40		
RED CHILI.....	.10	.40		
TOPEPO.....	.10	.50	2.50	
PIMIENTO.....	.10	.35	.90	
PUMPKIN				
G. & T. CO.'S MARYLAND SWEET POTATO.....	.10	.15	.25	.80
LARGE CHEESE OR KENTUCKY FIELD.....		.10	.20	.60
TENNESSEE SWEET POTATO.....	.10	.15	.20	.80
CONNECTICUT FIELD.....		.10	.20	.60
YELLOW CASHAW OR CROOKNECK.....	.10	.15	.25	.80
SALSIFY				
SANDWICH ISLAND MAMMOTH.....	.10	.20	.60	2.00
LARGE WHITE.....	.10	.20	.60	2.00

G. & T. CO.'S
MARYLAND SWEET POTATO

SALSIFY

RADISH

ONE OUNCE
WILL SOW
100 FEET
OF DRILL

For an early supply sow in hotbed in February. For a successive supply sow from middle of March to September. Radishes thrive best in light, rich, sandy loam. The radish must make a rapid growth to be fit for use; it will then be crisp and tender and of a mild flavor. If it grows slowly, it will be hard, fibrous and disagreeably pungent.

EARLY SCARLET, OR PRUSSIAN GLOBE RADISH.—This is the very best forcing variety; is sown largely by market gardeners and truckers, and they are delighted with it. It is of a globular shape and brilliant, beautiful crimson color, short top, and will stand a large amount of heat without becoming pithy.

FRENCH BREAKFAST.—Of oval form; color scarlet, white tipped.

EARLIEST WHITE TURNIP.—For forcing. This and the Red Turnip bunch together very nicely.

EARLY RED TURNIP.—Turnip shaped; red skin; for forcing. Sometimes called Red Button Radish.

SCARLET OLIVE-SHAPED RADISH.—A showy half-long variety of pretty shape and bunches beautifully.

EARLY WHITE TIPPED SCARLET.—An excellent variety for forcing, with very short leaves; bright scarlet in color, with a white tip.

White
Strasburg
Radish.

SUMMER VARIETIES

WHITE STRASBURG.—This is becoming one of the most popular summer sorts; it is of handsome tapering shape, skin pure white; very tender.

GIANT STUTTGART.—A splendid new variety, of excellent quality; withstands summer heat.

CHARTIER.—A good variety for private or market garden purposes. Stands long before going to seed, and is tender and crisp.

DELICACY.—Resembles White Strasburg, being more evenly shaped and smaller topped; grows into full size and perfection during the hottest months.

GOLDEN GLOBE.—An excellent summer Radish; slow to run to seed; shape globular, bright yellow color and mild flavor.

LONG VARIETIES

CINCINNATI MARKET NEW GLASS RADISH.—

WHITE VIENNA, OR LADY FINGER.—This is unquestionably the finest long white Radish. Of most handsome shape, color a beautiful snowy white. It is of very rapid growth, and remarkably crisp, brittle and tender, equally desirable for the market or home garden.

LONG SCARLET (Finest Grown).—Very attractive and sells rapidly. Owing to its handsome shape, brilliant color and fine qualities, it commands a higher price and more ready sale than the ordinary Long Scarlet as generally sold.

RADISH	Pkt	Oz	¼ lb	1 lb	RADISH	Pkt	Oz	¼ lb	1 lb
Early Scarlet or Prussian Globe...	.10	.15	.25	.70	Giant Stuttgart...	.10	.15	.25	.85
French Breakfast...	.10	.15	.25	.70	Chartier...	.10	.15	.25	.75
Earliest White Turnip...	.10	.15	.25	.70	Delicacy...	.10	.15	.25	.75
Early Red Turnip...	.10	.15	.25	.70	Golden Globe...	.10	.15	.25	.75
Scarlet Olive Shaped...	.10	.15	.25	.70	Cincinnati Market...	.10	.15	.25	.75
Early White Tipped Scarlet...	.10	.15	.25	.70	White Vienna, or Lady Finger...	.10	.15	.25	.75
White Strasburg...	.10	.15	.30	.70	Long Scarlet...	.10	.15	.25	.75

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RADISH

WINTER VARIETIES

WHITE CHINESE WINTER, OR CELESTIAL.—This excellent variety is sold also as Chinese White Winter. The roots are long, cylindrical, with beautiful white skin and flesh, the whitest and usually the least pungent of the winter varieties. When fully matured the roots are six to nine inches long by about two and one-half to three and one-half inches in diameter. The flesh is compact and crisp.

CHINESE ROSE WINTER.—Remarkably fine for winter use. The best of the winter sorts.

LONG BLACK SPANISH.—A large winter variety; one of the hardiest, with dark green leaves, firm in texture, keeping until spring.

LONG WHITE SPANISH (Winter).—Fine keeping quality.

ROUND WHITE SPANISH.—A good fall or winter variety.

RADISHES—Winter Varieties

	Pkt.	Oz.	¼ Lb.	1 Lb.
WHITE CHINESE, OR CELESTIAL	\$0.10	\$0.15	\$0.30	\$0.85
CHINESE ROSE WINTER	.10	.15	.30	.85
LONG BLACK SPANISH	.10	.15	.30	.85
LONG WHITE SPANISH	.10	.15	.30	.85
ROUND WHITE SPANISH	.10	.15	.30	.85

SPINACH

BLOOMSDALE SAVOY SPINACH

This is quite an important crop with market gardeners, and one easily managed. For summer use, sow early in spring, in drills eight inches to one foot apart, covering the seed one inch deep. Select rich soil and manure liberally. A succession may be obtained by sowing at intervals of two weeks through the season. For very early spring sow in August, and protect the plants through the winter by a thick covering of clean straw or some other similar light covering. Spinach is used principally as greens for boiling, and is very highly esteemed for this purpose.

BLOOMSDALE SAVOY SPINACH.—The variety most generally used in the East, and especially throughout the South for shipping. Leaves large, round and thick, very much savoyed and rich, deep green. The old standard variety.

RESELECTED BLOOMSDALE SAVOY SPINACH.—Grown from pedigree stock, carefully rogued each year for the true Bloomsdale Savoy Spinach plants.

IMPROVED LONG STANDING BLOOMSDALE SAVOY SPINACH.—A most desirable sort, very curly and dark green. Stands ten days longer, or more, than the other savoy types before going to seed. While it is a slow seeder, it requires a longer time before it is fit to cut, because it is a slower grower than the other Bloomsdale varieties.

VICTORIA LONG STANDING.—Slow to run to seed, dark green in color. Good for spring sowing.

LONG SEASONS.—Long standing; slow to run to seed; crimped, dark green. For spring sowing.

TRIUMPH.—Long standing; slow seeder; crimped dark green. Good for spring sowing.

JULIANA.—Long standing. The finest crinkled sort of the flat types. Lots of foliage and very shy seeder. Dark green foliage and fine for summer sowing.

LONG STANDING SPINACH

New Zealand Spinach

THE HOT WEATHER SPINACH

will resist heat and make a strong growth during the summer. The plants will continue to grow until late fall, supplying all during summer and fall an abundance of rich green leaves. It cannot stand frost like other spinach; for family gardens only.

SPINACH	Pkt.	Oz.	¼ Lb.	1 Lb.
BLOOMSDALE SAVOY		\$0.10	\$0.15	\$0.30
RESELECTED BLOOMSDALE SAVOY		.10	.15	.30
IMPROVED LONG STANDING BLOOMSDALE SAVOY		.10	.15	.30
VICTORIA LONG STANDING		.10	.15	.30
LONG SEASONS		.10	.15	.30
TRIUMPH		.10	.15	.30
JULIANA		.10	.15	.30
NEW ZEALAND	\$0.10	.15	.30	.90

ASK FOR PRICES IN QUANTITY

RHUBARB OR PIE PLANT

ONE OUNCE OF SEED TO 125 FEET OF DRILL

CULTURE—Good plants are easily grown in any good garden soil. Sow seed thinly in shallow drills a foot apart, thin to 4 or 5 inches. Keep soil loose and free from weeds. The plants are liable to vary considerably. Pick out the strongest and best. In fall or spring following transplant to the permanent bed, 4 feet apart each way, in deep, warm and very rich soil. The more manure the better stalks. For winter forcing take up two-year roots in fall, leave out to freeze, then bed close together on cellar bottom or under greenhouse bench in the dark.

Package, 10c.; Counce, 20c.; ¼ Lb., 35c.; 1 Lb., \$1.25

RHUBARB ROOTS

20c. Each.

Dozen, \$2.00

Early White Bush Scallop

SQUASH

The squashes are all quite tender, and therefore no progress can be made in starting them until the weather becomes somewhat warm and settled. Plant in hills five feet apart each way for the bush varieties and eight feet for the running varieties; put eight seeds to the hill, but don't allow over three to stand.

EARLY WHITE BUSH SCALLOP—A desirable and marketable sort. Best known and most productive of all the summer sorts.

Hubbard

SUMMER CROOK NECK (Early)—Fine flavor; a desirable table sort.

WINTER CROOK NECK—Flesh red, fine flavor; largely grown for winter use.

HUBBARD—The most popular winter squash. Fruit is oblong and pointed, heavily warted, dark green in color, with orange-colored flesh. Is remarkable for its keeping qualities.

Boston Marrow

BOSTON MARROW—A popular variety, with large oval fruit. Skin bright reddish-orange, with light cream netting. Flesh orange. Fine grained and of excellent quality. This is the most popular variety for canning. The fruit makes a rich orange-red and delicious flavored dish.

Summer Crook Neck

SQUASH	Pkt.	Oz.	¼ Lb.	1 Lb.
EARLY WHITE BUSH SCALLOP.....	\$0.10	\$0.15	\$0.25	\$0.80
SUMMER CROOK NECK.....		.15	.25	.75
WINTER CROOK NECK.....		.15	.25	.75
HUBBARD.....	.10	.15	.25	.85
BOSTON MARROW.....	.10	.15	.25	.75

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T O M A T O

BONNIE BEST TOMATO

The fruit is even in size, smooth, round, red, of delicious flavor, ripening to stem. It does not have the green surface like Earliana and other extra early varieties.

For early fruit sow the seed in March or April in the hotbed or in pots in a sunny exposure in the house. When the plants are about three or four inches high they should be set out four or five inches apart in another hotbed or cold frame or removed into small pots, allowing a single plant to a pot. Expose to the air as much as possible to harden, and about the middle of May set the plants in the open ground at a distance of four or five feet each way. Water freely at the time of transplanting and shelter from the sun for a few days until the plants are established. Sufficient plants for a small garden may be had by sowing a few seeds in a shallow box or flower pot and placing in a sunny window in the house. Cultivate thoroughly as long as the vines will permit.

Tomatoes will admit of training to stakes or trellis of various kinds, and the fruit is very much improved, both in appearance and quality. This mode of cultivation is now quite common among gardeners who grow for early market. The usual method is to set one strong plant to a stake, using stakes five to seven feet in height, tying the plant up with wool or other strong, soft twine, pruning out quite freely as the vines advance in growth. By adopting this method the plants may be set much closer than in the ordinary way.

BONNIE BEST TOMATO

As its name signifies, it is the best extra early tomato yet introduced. Is fully ten days earlier than Chalk's Early Jewel and, within a day or two, if not quite as early, as Spark's Earliana. Truckers who tested it claim it is as early as Earliana.

It is a vigorous grower, very prolific, with dense foliage, which protects the fruit from the hot sun when other varieties like the Earliana have scalded fruits.

MARGLOBE TOMATO

EARLY WILT-RESISTANT VARIETY

which originated from a cross between Marvel and Globe. This cross was made by an expert plant breeder of the United States Department of Agriculture, with the purpose in mind of developing an early type of Wilt-Resistant tomato.

By crossing with the Globe it was found possible to select from the resulting hybrids a very desirable type of second-early tomato, combining the scarlet color of the Marvel with the globular form, fine texture and mild flavor of the Globe. With this excellence of fruit was carried the equally desirable character of Wilt-Resistance to the extent that Marglobe will continue to bear fruit and retain its green foliage when planted on wilt-infested soils, where the early varieties such as Earliana and Bonny Best will be overcome by the disease before their maximum fruit-bearing period has been reached.

MARGLOBE TOMATO

CHALK'S EARLY JEWEL—Deep fruited and solid. The growth is very compact. Fruit of uniformly good size; very solid; brightest scarlet, ripening up to the stem without cracks or green core; sweet flavor.
JOHN BAER.—New, early prolific. Fine flavor and shape; quite as early as Bonny Best.

TOMATO	Pkt.	Oz.	¼ Lb.	1 Lb.
BONNY BEST	\$.10	\$.30	\$1.00	\$3.50
MARGLOBE (Limited Supply)	.10	.50	1.50	5.00
CHALK'S EARLY JEWEL	.10	.30	1.00	3.50
JOHN BAER	.10	.30	1.00	3.50

EARLY RED VARIETIES

SPARKS' EARLIANA.—The earliest bright red Tomato; very large, smooth, color bright red; solid and excellent for slicing. The plants are of moderate growth, well set with fruits, nearly all of which ripen extremely early in the season. Grows in clusters; of medium size; smooth, solid, solid center, small seed cells, slightly acid.

EARLY I. X. L. TOMATO.—Earliest, largest, most prolific.

EXTRA EARLY RUBY

While not as early as Sparks' Earliana by a week or ten days, it is far superior in quality, size, shape, flavor and productiveness. In color, ruby red, nearly globe-shaped; solid flesh throughout, and with very few seeds and free from acidity; It makes a splendid main crop variety; a great keeper and shipper.

EARLY PURPLE VARIETIES

BEAUTY.—For early market and shipping this cannot be excelled, because of its solidity and toughness of skin. Color is a rich, glossy crimson, with a slight tinge of purple. It is well known and very largely used by our gardeners.

DWARF CHAMPION.—Dwarf, upright growth; smooth purple fruit.

PRIZETAKER.—Early; large; handsome; deep crimson; slight tinge of purple.

PONDEROSA.—Remarkable for size; fruits heavy; deep red; flesh thick, solid and fine quality.

SMALL FRUITED VARIETIES

PEAR SHAPED RED.—

PEAR-SHAPED YELLOW.—Used for preserves and pickles.

YELLOW PLUM.—Color bright yellow; excellent for preserving.

MAIN CROP

Griffith & Turner Co.'s World's Fair

The great canner. The six great points of this great canner—solidity, symmetry, handsome, bright red, ripens uniform, free from rot. Its shipping and keeping qualities are unexcelled.

The planters now demand this great Tomato, notwithstanding the fact that there are many much-newer varieties. Yet it has been so successful that it is preferred above all others. The fruit is particularly solid and of fine flavor, good size, smooth, and certainly very attractive.

TOMATO	Pkt.	Oz.	¼ Lb.	1 Lb.
WORLD'S FAIR.....	.10	.30	.75	\$2.50
SPARKS' EARLIANA.....	.10	.30	.85	3.00
EARLY I. X. L.....	.10	.30	.85	3.00
EXTRA EARLY RUBY.....	.10	.40	1.10	4.00
BEAUTY.....	.10	.30	.85	3.00
DWARF CHAMPION.....	.10	.40	1.10	4.00
PRIZETAKER.....	.10	.30	.85	3.00
PONDEROSA.....	.10	.40	1.25	
PEAR-SHAPED RED.....	.10	.35	1.25	
PEAR-SHAPED YELLOW.....	.10	.35	1.25	
YELLOW PLUM.....	.10	.35	1.25	
NEW STONE.....	.10	.30	.75	2.50
GREATER BALTIMORE.....	.10	.30	.75	2.50
LIVINGSTON'S FAVORITE.....	.10	.30	.75	2.50
PARAGON.....	.10	.30	.75	2.50
NEW SUCCESS.....	.10	.30	.85	3.00
NEW QUEEN.....	.10	.30	.75	2.50
RED ROCK.....	.10	.30	.75	2.50
WISDOM.....	.10	.30	1.00	3.50
MATCHLESS.....	.10	.30	.75	2.50
BRINTON'S BEST.....	.10	.30	.75	2.50
KELLY RED.....	.10	.30	.75	2.50
MY MARYLAND.....	.10	.30	.75	2.50

MAIN CROP VARIETIES

THE NEW STONE TOMATO.—Ripens for main crop; is very large and of bright scarlet color; very smooth; with occasionally a specimen very slightly octagon-shaped, ripening evenly to the stem without a crack; exceedingly solid and firm-fleshed (as its name indicates). It is an excellent shipper; not subject to rot.

"GREATER BALTIMORE" TOMATO.—Makes a fine crop.

LIVINGSTON'S FAVORITE.—Bright red, smooth Tomato of good size.

PARAGON.—Well-known standard bright red Tomato.

NEW SUCCESS.—A magnificent new scarlet fruited Tomato of the finest quality, handsome appearance, large size and great productiveness.

NEW QUEEN TOMATOES.—Fruit somewhat resembles Paragon in appearance. This sort is well known and a favorite among canners, but it is not as deep red in color nor as weighty and solid as our World's Fair.

MY MARYLAND TOMATO.—My Maryland is an exceptionally heavy yielder of wonderfully uniform, well shaped, solid, smooth, bright red tomatoes. It is a second early or main crop variety, and the fruit is entirely free from roughness and cracks.

RED ROCK

One of the finest for canning, being extraordinarily solid, smooth and red. No other variety has any better qualities than the Red Rock. Of fine flavor, very meaty and wonderfully free from acid. A heavy producer and good shipper. We think it is the coming tomato for main crop and canners' use.

WISDOM.—Recently introduced. Medium early; good crop, fine size and flavor. Good for early or late planting.

MATCHLESS.—The color is rich red. The skin is so tough that it makes a splendid keeper and shipper, and is less liable to crack in wet weather than any other large Tomato. Unsurpassed for market or table; strong grower and very productive, bearing with undiminished vigor until frost. The fruit is free from core and the seed spaces comparatively small.

BRINTON'S BEST.—One of the leading sorts for second early and late use; the fruit is large, handsome and a splendid keeper. A great favorite with canners and truckers.

KELLY RED TOMATO.—This splendid Red Tomato originated in Anne Arundel County, Md., and through its superior qualities it has become the Tomato most largely used in that section. It is large, meaty, an abundant yielder, and withstands unfavorable conditions remarkably well.

SEE PRICES OPPOSITE PAGE

TURNIP

Improved Purple or Red Top Globe Turnip.

This excellent table variety is globular in shape, of good size and very attractive appearance. The roots are large, purple or dark red above ground, white below. The flesh is white, fine grained and tender. The roots when in best condition for the table are about three inches in diameter, but can be grown much larger for stock feeding. This sort keeps well for so early a variety, and is one of the best for market use. It is also known as Red Top White Globe.

G. & T. Co.'s Improved Purple Top Rutabaga.

For early use, sow the small sorts as soon as the ground can be worked in the spring, in drills 14 inches apart, the Rutabagas 30 inches. As the seed is very fine, it should be covered but slightly, excepting in very dry weather. Select light, and if possible, new soil and manure with plaster and ashes or phosphates. Should the young plants be troubled with insects, a sprinkling of slug shot will be beneficial. For fall and winter use the early kinds should be sown, from the middle of July to the middle of August, and the Rutabagas from the middle of June to the first of July, using from one to one and a half pounds of seed to the acre.

Red or Purple Top Flat Strap-Leaved Turnip.

A very early, strap-leaved variety, very extensively used for the table. The leaves are few, entire, upright in growth. The roots are flat, of medium size, purple or dark red above ground, white below. The flesh is white, fine grained and tender. Roots when in best condition for table use are about two and one-half inches in diameter, but can be grown much larger for stock feeding. This sort is also known as Early Red Top, Strap-Leaved.

YELLOW ABERDEEN, or SCOTCH YELLOW—This is a highly approved Cattle Turnip, attaining a large size. It is solid, nutritious, a good keeper, and in every respect reliable.

LARGE AMBER or YELLOW GLOBE—Grows to a large size; flesh yellow, firm and fine grained. Excellent for either table use or feeding stock.

SEVEN TOP—For greens and salads. Used largely in the Southern States.

EXTRA EARLY PURPLE TOP MILAN—The earliest and handsomest Flat Turnip in cultivation; none equal to it for spring sowing.

WHITE FLAT—Differs from Red Top only in color.

EARLY WHITE EGG—A new variety of rapid growth; egg-shaped and white, as its name indicates.

COW HORN (Large Croppers)—This variety is pure white, excepting a dash of green at the crown, and in shape is long, like the carrot.

SOUTHER PRIZE—True strain of the favorite Turnip for greens in Virginia and Carolinas. Valued also for its bulk.

RUTABAGAS OR SWEDES

The Swede Turnips, or Rutabagas, grow much larger in size, and are of greater value for stock feeding than ordinary turnips. Every farmer and stock-raiser should grow Rutabagas and Stock Beets for winter feeding.

GRIFFITH & TURNER CO.'S IMPROVED PURPLE TOP—Yellow-fleshed. A standard field variety for stock and fine for family use. This splendid Swede is the hardiest, most productive and most nutritious variety in cultivation.

TURNIPS	Oz.	¼ Lb.	1 Lb.
IMPROVED PURPLE OR RED TOP GLOBE.....	\$.10	\$.15	\$.40
PURPLE TOP STRAP-LEAF.....	.10	.15	.40
YELLOW ABERDEEN.....	.10	.15	.40
LARGE AMBER OR YELLOW GLOBE.....	.10	.15	.40
SEVEN TOP.....	.10	.15	.50
EXTRA EARLY PURPLE TOP MILAN.....	.10	.15	.60
WHITE FLAT.....	.10	.15	.40
EARLY WHITE EGG.....	.10	.15	.40
COW HORN.....	.10	.15	.40
SOUTHERN PRIZE.....	.10	.15	.40

RUTABAGAS	Oz.	¼ Lb.	1 Lb.
G. & T. CO.'S IMPROVED PURPLE TOP.....	.10	.15	.50
PURPLE TOP.....	.10	.15	.50

POTATOES

MAINE OR NORTHERN GROWN

ALL POTATOES SOLD BY WEIGHT ONLY

Owing to fluctuations in market for potatoes, ask for prices in quantity.
A Bushel Consists of 60 Pounds.

The soil best suited to the Potato is a rich, sandy loam; but it seems to thrive in almost any soil or climate. The Potato being a gross feeder requires a liberal application of manure. If stable manure is to be used it should be well-rotted, and not allowed to come in contact with the tubers. On no other crop are the results from the use of phosphates so manifest as on the Potato. Almost invariably the tubers are smoother, brighter and freer from rust and the destructive influence of wire worms. **GRIFFITH & TURNER CO.'S PLANT FOOD** is especially adapted for Potatoes, as it promotes growth and at the same time prevents disease. Plant as early in the spring as the ground can be thoroughly worked in rows three feet apart and one foot in the rows, covering in light, warm soil about four inches, and in cold wet ground three inches deep; draw the earth to the plants as they advance in growth. The soil should be constantly stirred through the season to prevent the surface from baking.

Extra Early Prize Potatoes

G. & T. CO.'S EXTRA EARLY PRIZE.—This potato is in all respects a very popular early sort. It proved to be early and productive; also found its eating qualities first class. We consider it the best early potato on the market today.

RED BLISS TRIUMPH.—This beautiful variety combines the wonderful productiveness of the Peerless with all the good qualities of the Early Rose; is much more productive and matures its crop at least a week in advance of the Early Rose.

EARLY OHIO.—This is very early and productive, of fine quality and an excellent keeper.

SPAULDING ROSE.—The Early Rose led the list for over 30 years, and is today one of the best early market Potatoes. Our stock of this is grown on new land near Houlton, Maine; is rugged and pure, and produces as good crops as those which made the Early Rose famous in its early years. Remember that this stock is not to be confounded with the old run-out Rose grown in other sections.

IRISH COBBLER (A New Sort).—Very productive, matures early; shape chunky, eyes strong and deeply set, skin netted, flesh white, quality very superior. After years' experience we find that it is a very superior variety. Don't fail to get it.

We are only listing a few of the best varieties of Potatoes this year, as we find it next to impossible to secure so many of the kinds we formerly listed true to name. The above kinds are Maine grown and first class in every respect.

Price, up to 15 lb. lots, at 5c. per pound. Write for price in quantity.

PROSPERITY.—A middle-crop variety, one of the handsomest large Potatoes ever produced. The yield is immense, and even under unfavorable circumstances can be relied on; flesh very white; cooks dry and mealy.

RURAL NEW YORKER, No. 2.—A valuable variety of large size, very smooth and a great cropper; in quality unexcelled. This variety is yearly becoming more popular as the best late long keeper, and we recommend it highly.

GREEN MOUNTAIN

This is a most excellent late Potato; it does remarkably well on poor soils, and is very free from disease; it resists drought wonderfully well and produces tubers of large size and attractive appearance; flesh white. It is a good keeper, and when put away in the fall will keep well until spring. Matures in 140 days.

Irish Cobbler Potatoes.

If wanted by mail, add for Parcel Post charge as per table on inside 1st Cover Page.

SWEET POTATOES

CHOICE JERSEY SWEETS AT MARKET PRICES DURING SEASON. WRITE FOR QUOTATIONS.

ASK FOR PRICE IN LARGE QUANTITIES.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE

YELLOW FIELD CORN

CHESTNUT GROVE YELLOW CORN—This corn was grown on Chestnut Grove Farm, Baltimore County, and the average yield from the whole crop was 20 1-16 barrels to the acre. The ears are large, deep, medium-sized grain, and of beautiful color. 1¾ lbs. (about 1 qt.) 20c. 14 lbs. (about 1 pk.) \$1.00 56 lbs. (about 1 bu.) \$3.50

NEW MARYLAND YELLOW DENT—The grains are unusually deep, ears large, stalks grow from 7 to 10 feet high, does not exhaust soil so much, and will stand drought better than a large stalk, and will yield 5 to 10 bushels per acre more than any other corn generally planted. 1¾ lbs. (about 1 qt.) 20c. 14 lbs. (about 1 pk.) \$1.00. 56 lbs. (about 1 bu.) \$3.50.

Postage, 8c. per lb. extra.

IMPROVED EARLY LEAMING—Bred and tested for 10 years. Pedigree stock. An early selected variety of yellow corn; small grains, weighty and productive. Highly esteemed in Maryland and Pennsylvania. One of the earliest varieties of yellow corn in cultivation. 1¾ lbs. (about 1 qt.) 20c. 14 lbs. (about 1 pk.) \$1.00. 56 lbs. (about 1 bu.) \$3.50.

Postage, 8c. per lb. extra.

G. & T. CO.'S IMPROVED GOLD-EN BEAUTY—A large, broad-grained yellow corn, with ears of perfect shape and small cob. The richness of color and the quality of grain make it a very superior variety. 1¾ lbs. (about 1 qt.) 20c. 14 lbs. (about 1 pk.) \$1.00. 56 lbs. (about 1 bu.) \$3.50.

Postage, 8c. per lb. extra.

90-DAY YELLOW—This is an excellent quick-growing variety. May be planted after peas are taken off, and make a good crop. Largely used by truckers around Baltimore. 1¾ lbs. (about 1 qt.) 20c. 14 lbs. (about 1 pk.) \$1.00. 56 lbs. (about 1 bu.) \$3.50.

Postage, 8c. per lb. extra.

REID'S YELLOW DENT CORN—Matures in 100 to 105 days. Has a rich yellow color, very solid heavy ears from 8 to 12 inches long, with 16 to 18 rows of grain. The grains are deep on a small red cob. Fodder from 7 to 8½ feet high, and produces a great many stalks with two ears. A fine early corn. 1¾ lbs. (about 1 qt.) 20c. 14 lbs. (about 1 pk.) \$1.00. 56 lbs. (about 1 bu.) \$3.50

Postage, 8c. per lb. extra.

SMOKY YELLOW DENT—The earliest dent Corn today; a good yielder and entirely free from disease. It is the most beautifully colored up corn in cultivation. Sides of grain red, with white cap. Grows strong, quick and has splendid seven to eight foot fodder. Will mature in 75 to 80 days. Price: 1¾ lbs. (about 1 qt.) 20c. 14 lbs. (about 1 pk.) \$1.00. 56 lbs. (about 1 bu.) \$3.50.

Postage, 8c. per lb. extra.

Maryland Yellow Dent Corn

Golden Beauty (Yellow)

Improved Yellow Leaming

GRIFFITH & TURNER CO.'S CHESTNUT GROVE YELLOW CORN

WHITE FIELD CORN

G. & T. CO.'S IMPROVED MARYLAND WHITE DENT CORN.—After years of careful selection we have secured this improved White Field Corn; grows good-sized ears and makes splendid meal. Produces better crops on average land than most any other variety. 1¾ lbs., (about 1 qt.) 20c. 14 lbs., (about 1 pk.) \$1.00, 56 lbs., (about 1 bu.) \$3.50.

Postage, 8c. per lb. extra.

BOONE COUNTY WHITE.—We believe this to be the best all around White Corn in existence. It is a heavy yielder; has large ears, deep grain, small cob and produces good-sized fodder, free from barren stalks. Matures in 110 to 115 days. Prices: 1¾ lbs., (about 1 qt.) 20c. 14 lbs., (about 1 pk.) \$1.00, 56 lbs., (about 1 bu.) \$3.50.

Postage, 8c. per lb. extra.

HICKORY KING WHITE CORN.—Produces very large, broad, flat, white dent grains which are closely placed on a very slender cob. 1¾ lbs., (about 1 qt.) 20c. 14 lbs., (about 1 pk.) \$1.00, 56 lbs., (about 1 bu.) \$3.50.

Postage, 8c. per lb. extra.

90-DAY CORN (White with red Cob).—This is an elegant corn for truckers and market gardeners, as it is as good a seller as green corn. Is suitable for either early or late crop. 1¾ lbs., (about 1 qt.) 20c. 14 lbs., (about 1 pk.) \$1.00, 56 lbs., (about 1 bu.) \$3.50.

Postage 8c. per lb. extra.

WHITE ENSILAGE CORN.—Specially adapted for ensilage. 56 lbs., (about 1 bu.) \$3.50.

POPCORN POPPERS.—35c. each.

Postage 8c. per lb. extra.

Maryland White Dent Corn.

JOHNSON COUNTY WHITE CORN

A favorite white corn in the Western Corn Belt. Ears are a little longer than the Boone Co. White, but about the same diameter. Good deep grain on small, white cobs, and not quite so indented as the Boone Co. It will shell from six to seven bushels per barrel.

We recommend it as a fine general main crop sort. Will mature in about 120 days. Has abundant foliage, which makes it also valuable for ensilage purposes.

1¾ lbs., (about 1 qt.) 20c. 14 lbs., (about 1 pk.) \$1.00, 56 lbs., (about 1 bu.) \$3.50.

Postage, 8c. per lb. extra.

SEED OATS

IMPROVED WHITE TARTAR.

The most remarkable Oats now under cultivation. Our customers say they will sow no others. These grand Oats outyield all others. The very best for all-around purposes. Greatest yielding variety in existence and rust-proof. Succeeds well on all soils. Straw is of golden yellow color, while the grains are white, with a slight golden cast. Withstands stormy weather. A measured bushel weighs from 36 to 42 pounds. Would highly recommend these oats to all our customers. Change your seed this season. Bushel of 32 lbs., Write for price.

WHITE-SEED OATS

For spring sowing. 32 pounds to the bushel. Extra heavy fancy White Oats. Ask for prices.

WINTER TURF OATS

Perfectly hardy in the Southern and Middle States, standing the winter nearly as well as wheat. Yields, on good land, from 50 to 70 bushels to the acre, of fine, heavy grain weighing from 30 to 40 pounds to the measured bushel. Furnishes excellent fall, winter and early spring grazing, without injury to the grain crop. Write for prices first of August.

SEED WHEAT AND RYE

We can offer choice stocks of Seed Wheat and Rye, re-cleaned and at reasonable prices. Write us August 1 for special prices for fall sowing.

SEED BUCKWHEAT

JAPANESE.—The best sort. The plants are large and vigorous, maturing their seed early and resisting drought and blight remarkably well, while the grain is much larger and at the same time has a thinner hull than the common or the Silver Hull. Owing to its branching character, only one-half the seed is required per acre, while the straw is much stiffer and stands up better. We recommend this especially for well-drained or sandy land and the dry climate of the western plains.

BARLEY

BEARDLESS FALL BARLEY.—A fall variety without beards. Ask for prices.

BEARDED FALL BARLEY.—A heavy yielder, much better than spring sown. Sow in September for best results. Ask for prices.

WRITE FOR PRICES OF FIELD SEEDS IN QUANTITY

HIGH-GRADE GRASS SEEDS

TIMOTHY

TIMOTHY (Phleum pratense). This makes one of the most popular, nutritious and salable of hay grasses. It is best adapted for sowing on clay or heavy loams, low lands, or in mountainous districts, although it will do well on any good, stiff, loamy soils, provided moisture is abundant. It does not succeed nearly as well, however, as Orchard Tall Meadow Oat or Herd's Grass on soils of a sandy or light loamy texture, and is not of as much value for pasturage as other grasses. The stand of Timothy will also be injured if grazed or cut too closely. The yield of hay on good ground is from one and a half to three tons per acre. The best clover to sow with Timothy is either the Sapling or Alsike, as they mature and ripen with Timothy. **Bushel, 45 lbs.**

RED TOP, OR HERD'S GRASS (Agrostis vulgaris).—This grass makes excellent pasturage and good crop of fine quality hay, and succeeds on a greater variety of soils than any other grass in general use, giving very good results on light soils and the very best results on heavier, moist or low ground soils. It is rather late in starting in the spring and matures its crop at the same time as Timothy. It is excellently adapted for seeding with Timothy for hay, and furnishes excellent pasturage afterwards. When it gets well established it will gradually supplant other grasses. The grades of seed usually sold are:

UNHULLED RED TOP.—Seed in hull but free of chaff and impurities. Sow 2 to 3 bushels to the acre; 14 lbs. to the bushel.

FANCY CLEANED RED TOP.—Hulled seed, free from all impurities. We would advise our customers to sow the Extra Cleaned Unhulled or Fancy Cleaned Seed.

FANCY CLEANED RED TOP.—Sow 12 to 15 lbs. to the acre. **32 Lbs. to the Bushel.**

RED FESCUE.—It is a densely tufted perennial grass for dry, sandy and rocky soil where scarcely any other species will grow. It roots deeply, and forms a dense short tuft, suitable for lawns and pleasure grounds where the soil is sandy. It affords wholesome food for all cattle, especially sheep.

Specially recommended for pasturage mixtures. Sow about 30 pounds per acre. **14 Lbs. to Bushel**

ITALIAN RYE GRASS.—Is an annual and should be sown every year at the rate of 50 pounds per acre. It can be sown during August, September or October. It should be mown as early as the blossoms appear, or the hay will not be so good, and it can be cut every month from early spring if the soil and weather are suitable. **20 Lbs. to Bushel.**

ENGLISH RYE GRASS (Lolium perenne).—This makes a quick growth very early in the spring, and is adapted for cool, moist locations. **60 lbs. to the acre. 24 Lbs. to Bushel.**

KENTUCKY BLUE GRASS.—It is rather sensitive to heat, but not so to cold weather, and on this account does its best in the fall, winter and spring. It grows slowly at first, forms a very compact turf, making a fine pasturage when once established. It is much the best, however, to combine other grasses with it for either lawn or pasturage. Sow in the spring or fall. **14 Lbs. to Bushel**

ORCHARD GRASS (Dactylis glomerata).—One of the best and most reliable grasses for the Middle and Southern States, either for hay or pasturage. It succeeds well on nearly all soils, but does best on upland, loamy or moderately stiff soils. It starts early in the spring and continues well into winter. It is of quick growth and relished by stock, especially when young, and bears close grazing. It makes excellent hay, and gives the very best results mixed and grown with Tall Meadow Oat Grass and Red Clover, as suggested under the head of Tall Meadow Oat Grass. It should be cut when in blossom, as the hay is injured if the seed is allowed to ripen. It can be sown in the spring or fall either with grain or alone. Sow 3 bushels per acre if sown alone, or with Red Clover, one and one-half bushels of Orchard and seven pounds of Clover are the quantities usually sown. **14 Lbs. to Bushel.**

TALL MEADOW OAT GRASS (Avena elatior).—Most valuable for pastures on account of its early and luxuriant growth; it produces an abundant supply of foliage, which is relished by cattle, early and late. For hay it may be cut twice a year, and for green siloing it may be cut four or five times in favorable seasons. It is very hardy and withstands extreme drought and heat and cold. Height, 2 to 4 feet. 50 pounds to the acre. (10 pounds to bushel).

CREeping BENT GRASS (Agrostis stolonifera).—Excellent for lawns; succeeds well in all conditions; makes a low, velvety growth.

MEADOW FESCUE, RANDALL, or ENGLISH BLUE GRASS (Festuca pratensis).—This should be very much more largely used than at present. It makes a very good hay and pasturage grass, and is particularly valuable for fall and winter pasturage, as it remains green throughout the winter. It is very popular in Southwest Virginia, East Tennessee and the Mountainous districts of North Carolina, where it is very highly appreciated as a large-yielding, nutritious pasturage and hay grass. It succeeds well in nearly all sections of the South, and should be very largely used in pasturage and hay mixtures, being specially suitable for sowing with Red Top and Timothy for hay, or with these and Orchard and Tall Meadow Oat for permanent pasturage. Sow either in the spring or fall at the rate of 50 pounds to the acre. Thrives better under trees than other grasses. **22 Lbs. to Bushel.**

KENTUCKY BLUE GRASS

ORCHARD GRASS

	1 Lb.
TIMOTHY	\$.12
RED TOP UNHULLED	.20
RED TOP FANCY	.25
RED FESCUE	.50
ITALIAN RYE GRASS	.20
ENGLISH RYE GRASS	.20

	1 Lb.
KENTUCKY BLUE	\$.28
ORCHARD GRASS	.25
TALL MEADOW OAT GRASS	.25
CREeping BENT GRASS	1.50
MEADOW FESCUE	.25

Ask for prices in quantity.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

Grass Mixture for Hay and Permanent pastures

Prepared especially to meet the demand for a mixture that will be desirable for cutting for Hay or to use for Pasture, and contains such grasses as are best adapted for these purposes. In ordering, please state whether you want a mixture for upland or low ground.

MIXTURE FOR UPLAND.—14 lbs. to the bushel, 3 bushels to the acre. Per bushel, \$4.50; 10 bushels for \$42.50.
MIXTURE FOR LOWLAND.—14 lbs. to the bushel, 3 bushels to the acre. Per bushel, \$4.50; 10 bushels for \$42.50.

Grass and Clover Seed Mixtures, for Mowing the Hay, But Can Be Grazed

We have in the following mixtures combined grasses suitable for the various soils for which they are recommended. They are composed of grasses which will give an even growth for mowing for hay. We have also combined them so as to give a splendid pasture from early spring until late fall if desired.

The different mixtures are prepared from seeds of the finest quality, and only those are used best adapted to the soils and situation for which they are intended.

MIXTURE No. 1.—For Moist Bottom Lands. Sow 25 lbs. to the acre. Price, Lb., 35c. 10 lbs. and over, 30c. per lb.
MIXTURE No. 2.—For Light, Dry, Gravelly or Sandy Soils. Sow 35 lbs. to the acre. Price, Lb., 35c. 10 lbs. and over, 30c. per pound.

CLOVERS

ALSIKE CLOVER.

CRIMSON CLOVER.

WHITE CLOVER.

RED CLOVER.

LUCERNE OR ALFALFA CLOVER.

RECLEARED RED CLOVER.—We take great pains to supply an extra quality of Red Clover at a reasonable price. Farmers should not sow a poor quality of Clover Seed. We have however, cheaper grades for those who wish them. 35c. lb.

Ask for prices in large quantities.

ALSIKE OR SWEDISH CLOVER.—Hardest of all the Clovers, and on rich, moist soils yields an enormous quantity of hay or pasturage. Valuable for sowing with other Clovers or grasses, as it forms a thick bottom and increases the yield of hay. Sow, either fall or spring, 6 pounds per acre when used alone. Lb., 35c.

Ask for prices in quantity.

WHITE DUTCH CLOVER.—Thrives most everywhere. The best to sow with lawn grass and valuable to sow with blue grass for permanent pastures. 1/4 lb., 20c. 1/2 lb., 30c. 1 lb., 50c. By mail, lb., 60c. 10 lbs., by express, not prepaid, \$5.00

LUCERNE OR ALFALFA CLOVER.—One of the most valuable among Clovers, resisting drought and remaining green when other sorts are dried up. Sow on rich, moist loam or sandy soil. Prepare the land thoroughly and sow, either fall or spring, 20 pounds to the acre. Lb., 30c.

Special prices in large quantities on application.

CRIMSON CLOVER (The Great Nitrogen Gatherer).—The best crop for hay, silage and green manuring—all winter and spring pasturage. For hay it must be cut before it comes into full bloom, as otherwise it may cause hair-balls to form in the animal's stomach. It is used on poor and rich land. It is seeded in this country in June, July, August, September and October, and will produce an enormous crop early in the following spring, suitable either for consumption as green food or for hay. 15 to 20 pounds should be sown to the acre, according to the quality of the ground. 24c. per lb. Write for prices in quantity.

WRITE FOR SPECIAL PRICES ON ABOVE.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

LAWN GRASS SEED

PREPARATION AND CARE OF LAWNS

The ground should be thoroughly drained and well enriched before sowing. Work the soil until well pulverized, and have the surface as smooth as possible, so that the grass may present an even appearance. After sowing, cover seed lightly and follow with roller. The best results are obtained by using plenty of seed, four bushels to the acre being about the right quantity. One quart is sufficient for 300 square feet. Let the grass obtain a good start before cutting, and then it should be trimmed with a lawnmower about every ten days. Old lawns may be improved and renewed by the application of fertilizers and seeding about half the quantity of seed required for new lawns. This should be done whenever they show any thin places.

GRIFFITH & TURNER CO.'S EVERGREEN LAWN GRASS

This is a first-class mixture, prepared by ourselves, and containing nothing but choice seeds—just the thing for tennis, croquet and ball grounds, remaining green and fresh during the hot summer months. Widely known and extensively used on the finest private and public grounds around Baltimore, Washington and elsewhere with the most satisfactory results. Nothing adds to the attractiveness of suburban homes more than a well-kept, close-cut, velvety lawn; hence the importance of securing the best seeds. This we offer in our selected Evergreen Lawn Mixture, containing different varieties that grow and flourish at different months of the year, so that a rich, green, velvety lawn is constantly maintained. It is adapted to the small grass plots of city homes. $\frac{3}{8}$ lb., (about 1 pt.) 20c., $\frac{3}{4}$ lb., (about 1 qt.) 30c., by mail 35c.; 1 $\frac{1}{4}$ lbs., (about 2 qts.) 60c., 2 $\frac{1}{2}$ lbs., (about $\frac{1}{2}$ peck) \$1.15, 5 lbs., (about 1 peck) \$2.00, 20 lbs., (1 bushel) \$7.00. By freight or express not prepaid.

GRIFFITH & TURNER CO.'S GOLF LINK MIXTURE

There being a growing demand for a grass mixture suitable for golf and cricket grounds, we have made a study of the grasses best adapted to these purposes, and have been mixed in proper proportion to give desired results. Many of the public and private grounds around Baltimore and other places have been sown with our mixtures, and the grounds have won the admiration of thousands of visitors. It is highly essential that golf and cricket grounds should be mowed closer than ordinary lawns. 14 pounds to hushel. Bushel, \$7.00.

SHADY NOOK GRASS

On nearly all lawns there are bare spots under the shade of trees. With this mixture the above can be easily corrected. It is a combination of grasses which are found growing in the woods in their natural state. Ground that has been densely shaded by trees is frequently "sour" and is apt to be covered with moss. In such cases apply slacked lime at the rate of one hushel per thousand square feet, but the moss should be first removed with a rake. Price: Lb., 50c. 5 Lbs., \$2.25. Bu. of 20 lbs., \$8.00. Add 8c. per lb. for postage.

"TERRACE" SOD MIXTURE

A special mixture of grasses best suited for sowing on terraces, railroad embankments and side hills—grasses that produce strong spreading roots, thus preventing heavy rains from washing them out; that will withstand drought and exposure, thrive on shallow soils, and at the same time will produce a rich, velvety green turf throughout the season. Pound, 50c. Peck, about 5 lbs., \$2.50. Bushel of 20 lbs., \$9.00.

WHITE DUTCH CLOVER (*Trifolium Repens*)

The best variety for lawns, as it forms a close herbage and remains green throughout the season. It is also valuable when mixed with grass seeds for pasture. Sow in spring at the rate of 6 pounds per acre when sown alone; half the quantity when sown with other grasses. Pound, 50c. By Mail, 60c. 10 pounds, by express, not prepaid, \$5.00.

FORAGE AND SILO SEEDS

SHOULD BE SOWN IN THIS LATITUDE, NOT BEFORE MAY 15th. AS THE SEED WILL NOT STAND COOL, WET WEATHER.

COW PEAS

The great soil enricher. Makes poor land rich and good land better. They also make good green forage for ensilage, and the best quality of Hay when cut and cured.

The sowing of **COW PEAS** is one of the cheapest as well as the best means of improving the soil. They can be turned down for green manuring, or, if allowed to ripen, cut Peas off and cure for hay; turn down roots, which will give as good results as when whole plant is used. For ensilage they are unsurpassed, being more nutritious than green corn, but when used for this purpose, would advise sowing Sugar Cane or Sorghum in connection with them. The two combined will make one of the very richest feeds. Ask for prices.

BLACK—This is the standard variety, and the one most largely grown in this immediate section. It is very prolific, makes a fine growth, both of vine and leaves and a good yield of peas. It is a splendid land improver, and most valuable as a forage crop, and makes an enormous yield of rich, nutritious feed.

WHIPPORWILL—A favorite, early, upright-growing variety, more largely used and sold than any other kind. Has brown speckled seed, which are easily gathered. Makes a good growth of vine, which can be easily cut and cured as dry forage. We recommend this where an early variety of good growth and height is desired.

WONDERFUL, OR UNKNOWN—This makes an enormous and remarkable growth of vines, but requires the full growing season to make its crop. In yield and growth of vines it surpasses any of the varieties of Cow Peas, and it produces very largely of the shelled peas. This variety should be planted in May in order to come to full maturity.

COW PEAS

NEW ERA—An early maturing variety which has proved very popular and satisfactory. It is upright growing, quick to mature, and remarkably prolific of peas. Rather small vine, which cures easily, making splendid dry forage. The seed are smaller in size than the ordinary cow pea, so that it does not require as many to seed an acre; from three-fourths to one bushel per acre will give ample seeding. **PRICES ON APPLICATION.**

SORGHUM, OR SUGAR CANE, FOR FODDER

EARLY AMBER grows 10 to 12 feet high, and yields large crops of fodder, which is relished by all kinds of stock. It will produce two cuttings during the summer. Sow 3 or 4 quarts per acre in drills and cultivate same as corn. For hay, sow one bushel per acre broadcast. **Pound, 10c. Peck, —.**

EARLY ORANGE has a large, strong growth, but requires longer time to mature than the Early Amber. Very popular in the South, where there are long seasons. **Prices same as Early Amber.**

SOJA BEANS

The great drought-resisting forage crop; unsurpassed in nutritive value for feeding; also makes a splendid soil improver. Sow broadcast one-half bushel to the acre, or it may be planted in drills three feet apart and one foot between plants. Price on application.

MAMMOTH YELLOW SOJAS

The largest-growing and most popular of soja beans for forage purposes. A little later in maturity than other kinds, but makes larger yields, both of forage and seed. Especially valuable for the South.

HOLLYBROOK EARLY SOJAS

Makes a quicker growth and matures their crop two to three weeks earlier than the mammoth Yellow Soja. It makes a large yield, both of forage and peas, and the added advantage of its earliness makes it a most distinct and valuable acquisition. It is a sure cropper and a vigorous, quick-growing variety. Sown as a forage or hay crop, it is much easier to cure and handle, and makes even a more nutritious crop than cow-peas.

WILSON BLACK SOJAS

One of the best, in our opinion, for the Northern States, where a quick, early variety is desired. Average height on good land is 2½ to 3 feet. A prolific variety, and requires about 90 days to be ready to cut for hay.

KAFFIR CORN

The heads contain small white seeds, which make an excellent flour. They are greedily eaten by horses and cattle, and make fine feed for poultry, either fed in the grain or ground and cooked. Use 4 to 5 lbs. to acre.

EARLY AMBER CANE

SOJA BEANS

GENUINE KAFFIR CORN

ASK FOR QUOTATIONS ON ABOVE.

GERMAN MILLET.

GERMAN MILLET

GERMAN MILLET.—A fine, quick-growing summer Hay crop. Produces splendid crops of fine nutritious hay. Grows quickly and easily cured. Should be sown thick, not less than one bushel per acre. Cut while in flower. Do not wait until seed becomes hard in head. If allowed to get too ripe stalks get hard and do not make as good quality of hay as when cut at proper time. It should be sown any time after middle of May up to first of August. Should not be sown too early, as seed will not germinate until soil and weather is warm. A crop will mature in seven to eight weeks in ordinary warm growing weather. Price, **Lb., 10c. Peck, —.** Ask for price by the bushel.

HUNGARIAN MILLET

HUNGARIAN MILLET is of the same family as German Millet, but is not used as extensively, as it requires stronger soil. However, it makes a very fine quality of hay, and like German Millet is fairly good substitute for Timothy. Hungarian Millet can be sown at the same time as German. Price, **Lb., 10c. Peck, —.** Ask for price by bushel.

CANADA FIELD PEAS

Sown in February, March or April, with a small quantity of oats, they make large yield of forage. Sow 1 to 1½ bushels per acre broadcast with half bushel of oats. Cut for hay before the peas mature.

Write for Special prices if a quantity is required.

BROOM CORN

50 Pounds to Bushel.

To grow Broom Corn successfully the ground should be rich and well prepared. Plant seeds in rows 3 feet apart by 18 inches. The plants should be cultivated as soon as they are out of the ground. Harvesting should be done when the seed is in a soft, milky condition.

IMPROVED EVERGREEN.—This is the favorite sort; has a fine brush, yields well and keeps green. Height, 8 to 9 feet. **Lb., 30c. postpaid. 10 lbs. @ 25c. 1b.**

RUSSIAN SUNFLOWER

Growing to double the size of the common sunflower and the yield of seed is twice as great. It is highly recommended for poultry—the best egg-producing food known. **Lb., 15c.**

DWARF ESSEX RAPE

It can be sown all through the season; being perfectly hardy, withstands the drought, and will produce a crop in any soil by sowing broadcast at the rate of 5 lbs. to the acre, or 2 to 3 lbs. in drills. It is unequaled as a pasture for sheep, and as a fattening food for all kinds of live stock it is without a rival. **Lb., 12c.;** by express, 10 lbs. and over, **10c. lb.,** not prepaid; **\$9.00 per 100 lbs.** If wanted by mail, add 8 cents for postage.

VETCHES.

VETCHES OR TARES

SPRING VETCHES (*Vicia sativa*).—Closely associated with peas in character. Highly valuable for soiling or for green manuring. Sometimes grown with oats for mowing and feeding to stock. Use 40 to 60 lbs. to the acre. Sow in spring while ground is cool and moist, or in early autumn. **Pound, 11c. Peck of 15 Pounds, —.**

WINTER VETCHES (*Vicia villosa*).—Also called Sand Vetch or Hairy Vetch. Recommended for fall sowing with rye, as in many localities in the North it is hardy, remaining green all winter. A valuable food for stock in early spring. Use 30 to 50 lbs. per acre. **Pound, 25c.**

TEOSINTE

A most valuable and enormous-yielding cutting forage crop, but should be planted very early to succeed well. Good to use as green food, and also makes an excellent fodder. It branches as many as 50 stalks from one seed. Plant in May or June in rows 4 to 5 feet apart each way.

FLAXSEED.—**Lb., 12c. 3 lbs., 35c.**

PRICES SUBJECT TO CHANGE. ASK FOR QUOTATIONS ON QUANTITIES

SELECTED FLOWER SEEDS

GENERAL DIRECTIONS FOR CULTIVATION

Hardy Flower Seeds should be sown in the open, after danger of frost is past, in well-worked and moist soil. Seeds of medium size, put at depth of one-quarter to one-half inch. Very fine seeds press into the soil, and cover slightly with a little sand or sphagnum moss. If seed is not deep, water frequently. When up, transplant from two to twelve inches apart, according to variety of plants. Do not leave too thick as the plants will be weak and spindling. Keep weeds out of the flower beds. Annuals may be planted in early spring, and bloom the first season only. Biennials bloom the second year from seed, and then die. Perennials bloom the second year from seed, and plants live to bloom during successive years. Varieties marked ("A") stand for Annuals. Marked ("B") Biennials. Marked ("P") Perennials.

ANNUALS

Ageratum	Summer Chrysanthemum	Hollyhock
Alyssum		Larkspur
Aster	Clarkia	Lobelia
Balsam	Convolvulus Minor	Marigold
Calendula	Cosmos	Marvel of Peru
Calliopsis	Dahlia	Mimulus
Candytuft	Escholtzia	Mignonette
Marguerite carnation	Gaillardia	Forgetmenot
	Godetia	Pansy
Celosia	Helichrysum	Petunia
Cockscomb	Heliotrope	Phlox Drummondii

HARDY PERENNIALS

Canterbury Bell	Gaillardia
Coreopsis	Hollyhock
Delphinium	Hardy Phlox
Chinese Pink	Orientele Poppy
Foxglove	Sweet William

ASTERS

ORDER BY NUMBER

Amaranthus

1. AGERATUM MIXED (A).—Valuable for bedding as it is literally covered with blossoms all summer. Sow the seed early in the spring, either in boxes to transplant, or outdoors and thin to 4 to 6 inches.

Packet, 10c.

10. ALYSSUM (A).—The Sweet Alyssum has pretty little flowers, useful in making small bouquets, and its fragrance, while sufficiently pronounced, is very delicate. The Alyssum grows freely from seed, blooms the whole season.

Packet, 10c.

11. ALYSSUM (A) (Tom Thumb).—Of dwarf, compact habit, each plant covering a circle from 15 to 30 inches. It will bloom when small and remain covered with bloom from spring to autumn.

Packet, 10c.

20. AMARANTHUS, MIXED (A).—Showy, blooming plants, with long, racemes of curious-looking flowers, and brilliant foliage; half hardy annuals. Packet, 10c.

21. AMARANTHUS, TRI-COLOR (Joseph's Coat) (A).—Red, yellow and green foliage. Packet, 10c.

22. AMARANTHUS CAUDATUS (Love Lies Bleeding) (A).—Graceful and handsome flowers of blood-red hue. Pkt., 10c.

24. ANTIRRHINUM, or Snapdragon has become very popular both for forcing and outdoor growing. The flowers coming in shades of pink, rose, salmon and other light colors are very attractive, while the stronger orange-scarlet and scarlet tints are glorious. They are a biennial and may be sown in fall or spring out doors. Set out the young plants not less than twelve inches apart. Packet, 10c.

35. BACHELOR'S BUTTON, or BLUE BOTTLE (A) (Centaurea Cyanus).—A very old favorite garden annual with handsome flowers of various colors. It does best if sown in a hot-bed; half hardy annuals; two feet. Packet, 10c.

40. DOUBLE BALSAMS, CAMELIA FLOWERED (A) (Lady Slipper or Forget-Me-Not).—The well-known balsams are one of the finest summer blooming annuals, free bloomers and highly colored. By transplanting them once or twice, the flowers are apt to be more double. Packet, 10c.

41. BALSAM PERFECTION WHITE (A).—This resembles the mixed Balsams in shape, but the flowers are of a pure white, and is the variety usually grown by florists.

Packet, 10c.

Sow seed in March and April in cold-frame or boxes in the house, covering them ¼ inch deep, and when plants have three or four leaves, transplant about 18 inches apart each way in well prepared beds.

25. ASTERS, CHINA (A).—Choice mixed varieties. Well-known and beautiful flowers; should be in every garden. Packet, 10c.

27. ASTER, TRUFFAUT'S PERFECTION (A).—A very favorite class; thrifty, upright growers; flowers large, almost perfectly round with incurved petals. Packet, 10c.

30. VICTORIA ASTER (A).—The most beautiful of all Asters, bearing flowers of all colors and shades; the colors include many extremely delicate and gorgeous shades. Very double and four inches across; height, 15 to 18 inches. Packet, 10c.

31. COMET ASTER (A).—This class of Asters has long, slender and curled petals, forming loose yet dense flowers of semi-globe shape, 3½ inches to 4½ inches in diameter, which resemble the Japanese Chrysanthemum. Packet, 10c.

33. SEMPLE'S BRANCHING ASTER, MIXED (A).—The finest, late blooming Aster. The deep, heavy, incurved flowers on rigid stems often 2 feet and more in length, which makes it one of the most valuable varieties for cutting.

34. BRANCHING ASTER (A) (White).—Very choice. Packet, 10c.

BRANCHING ASTERS.—Pink, purple, crimson. 10c. each.

CORNFLOWER

FLOWER SEEDS THAT GROW

45. **CANDYTUFT, MIXED (A).**—Well-known favorite, hardy annuals; very pretty in beds or masses; useful for bouquets. Seeds may be sown in the fall for early flowering. **Packet, 10c.**

46. **CANDYTUFT, WHITE (A).**—Treated and used same as the mixed. **Packet, 10c.**

53. **CALENDULA (Pot Marigold) (A).**—Very hardy annual, one foot high, blooming freely. Is of the easiest culture; desirable for rather inferior soils, where less sturdy flowers do not thrive. **Packet, 10c.**

55. **CANNA, MIXED (Extra Choice) (A).**—The Cannas are desirable not only for the beauty of their spikes of scarlet flowers, but for their highly ornamental leaves. They make superb beds for the lawn. Soak the seeds thoroughly before planting, and keep in a warm spot. Very slow to germinate. **Packet, 10c.**

CANTERBURY BELLS

A hardy biennial, blooming the second year from seed, or the first year if sown early. Easily grown and preferring rich, moist soil. Valuable for beds and borders.

60. **CANTERBURY BELLS, SINGLE MIXED.**—Pkt., 10c.

61. **CANTERBURY BELLS, DOUBLE MIXED.** Pkt., 10c.

70. **CHRYSANTHEMUMS, SINGLE MIXED (A).**—Showy and effective garden favorites extensively grown for cut flowers. The hardy annuals are summer flowering border plants; good for pot culture and quite distinct from the autumn flowering varieties. **Packet, 10s.**

71. **CHRYSANTHEMUMS FRUTESCENS (A).**—(The Marguerite, or Paris Daisy).—Immense quantities are grown by French florists, and find a ready sale. It produces freely its white, star-like flowers under the most favorable conditions. **Packet, 10c.**

76. **CINERARIA HYBRIDA (P).**—Large flowering prize varieties; very attractive, free blooming plants, producing large and brilliant flowers. **Packet, 25c.**

77. **CINERARIA HYBRIDA DWARF (P).**—Large flowered, dwarf prize varieties; splendid strain. **Packet, 25c.**

80. **CLARKIA, MIXED (A).**—An old favorite hardy annual plant, growing in any garden soil and producing freely its cheerful flowers early in the season. **Packet, 10c.**

85. **COCKS-COMB (Celosia Cristata).**—A half-hardy annual, growing 6 to 8 in. high, bearing a wide, wavy blossom that resembles a cock's comb. In brilliant colors; fine for massing or border work. **Pkt., 10c.**

86. **COCKS-COMB (Celosia Plumosa).**—The plumes are splendid and 2 to 3 feet tall. Strain is fine. **Packet, 10c.**

88. **COWSLIP (P).**—Beautiful hardy spring flowers of different colors. **Packet, 10c.**

90. **CONVOLVULUS, TRICOLOR MINOR (Dwarf Morning Glory) (A).**—A beautiful class of hardy annuals, affording a large, showy mass of flowers from July to October. **Packet, 10c.**

CALLIOPSIS

93. **COREOPSIS (A).**—Quick growing, free-flowering annuals, fine for bedding and make quite useful cut flowers of yellow and brown color. Sow where they are to bloom and thin out to 6 to 12 inches apart. Height 18 inches to 2 feet.

93a. **COREOPSIS LANCEOLATA (P).**—This is one of the finest of hardy plants, with large, showy, bright golden-yellow flowers, freely produced on long stalks, from June till frost. Excellent for cutting; will thrive in almost any situation. **Packet, 10c.**

COSMOS

COSMOS. One of the very finest late summer and fall flowers; excellent cut flowers. The bushes grow tall, six to eight feet, and are loaded with large, showy blossoms, in white, pink or crimson. Cosmos should be in every garden. Sow the seed early and transplant, or later in spring where it is to remain. Hardy annual.

94. **EARLY FLOWERING. (Dawn) (A).**—This early Flowering strain will begin blooming as early as July and will continue until frost; flowers large. **Packet, 10c.**

95. **COSMOS, Mixed (A).**—Packet, 10c. Oz., 35c.

95a. **COSMOS, Pink (A).**—Packet, 10c.

95b. **COSMOS, White (A).**—Packet, 10c.

95c. **COSMOS, Crimson (A).**—Packet, 10c.

95d. **MARGUERITE or Crested Mixed (Anemone Flowered).** New early flowering strain. Sometimes called double. **Packet, 10c.**

CHOICE FLOWER SEEDS

BELLIS perennis (Double Daisy.)
Low growing plants entirely hardy. Seed may be sown early in shallow drills and later thinned out to stand one foot apart.

97. DAISY, MIXED (P).—
Packet, 10c.

98. DAISY, LONGFELLOW (P).
—This is a very pretty, large, double pink variety. Pkt., 10c.

99. DAISY, SNOWBALL (P).—An unusually large-flowered variety, and produces very double, pure white flowers. Packet, 10c.

DAHLIA.—These will bloom the first year from seed if sown in February or March. However, roots are more satisfactory.

100. DAHLIA, SINGLE MIXED (A).—Large, showy single flowers. Packet, 10c.

100a. DAHLIA, CACTUS (A).—A most curious and desirable variety of many colors. Pkt., 10c.

103. FEVERFEW (GOLDEN FEATHER) (Pyrethrum Aureum) (P).—A highly ornamental golden-yellow foliage plant, unexcelled for bedding. Hardy perennial; 1½ feet. Packet 10c.

105. FORGET-ME-NOTS (Myosotis) (P).—Neat and beautiful little plants, with star-like flowers, succeeding best in a shady, moist situation; half-hardy perennials; blooming the first year from seed, if sown early. Packet 10c.

106. FOXGLOVE (DIGITALIS) (P).—A handsome and highly ornamental, hardy perennial plant of stately growth; fine for shrubberies and other half-hardy places. Packet, 10c.

107. GERANIUM (New Zonale) (A).—A grand strain of Geraniums, containing all shades of colors. Packet, 10c.

109. GAILLARDIA (A).—Very attractive plants, producing a profusion of bloom the entire summer and autumn. Half-hardy annuals. Packet, 10c.

110. GILIA MIXED (A).—Very pretty dwarf plants, early, free blooming, fine for massing and rock work. Hardy annuals. Packet, 10c.

112. HELIOTROPE (A).—These are deliciously fragrant flowers remaining in bloom a long time; fine for pot culture or bedding; half-hardy annuals. Pkt., 10c.

113. HELICHRYSUM.—The most popular of all Everlasting Flowers. In form somewhat like an Aster. The colors are bright and the flowers are very attractive when dried. Pkt., 10c.

HOLLYHOCK

Produces tall spikes of blooms the second spring from seed. Although a bi-annual, in some localities it is perennial. The height is varying but the plants usually grow from 6 to 8 feet tall. They should be spaced at least two feet apart.

115. HOLLYHOCK, CHATERS SUPERB MIXED (P).—This is one of the oldest inhabitants of our gardens; now ranks as one of the finest autumn flowers. Pkt., 5c.

116. HOLLYHOCK, CHATERS DOUBLE WHITE (P).—Packet, 10c.

HOLLYHOCK, ROSE—Packet, 10c.

HOLLYHOCK, PINK—Packet, 10c.

DELPHINIUM

(Hardy Perennial Larkspur)

Sow seeds in early spring, in hot bed or shallow boxes indoors. When seedlings are about ¾ in. high, transplant to flats, three or four inches apart each way; transferring them to open ground when weather is suitable. Seeds can also be sown in open ground, but would not be likely to bloom until second year. Packet of mixed varieties, 10c. each.

DELPHINIUM—LIGHT BLUE—Packet, 10c.

DELPHINIUM—DARK BLUE—Packet, 10c.

LARKSPUR

LARKSPUR (Annual)

—Best known of garden flowers. Sow seed in open ground, before close of April, for plants to begin flowering in July, and then a continuous succession of blooms until frost. Effective for beds and fine for cut flowers. Mixed varieties. Pkt., 10c.

LARKSPUR—Emperor.—Best Double Varieties. Pkt., 10c.

LOBELIA

A beautiful and popular flower, very desirable for pot culture, beds or hanging baskets because of its trailing habits. Grows easily and does well in beds and rockeries. Bears a profusion of blue and white flowers.

122. MIXED VARIETIES (A).—Pkt., 10c.

123. CRYSTAL PALACE COMPACTA (A).—Rich deep blue. The finest for bedding. Packet, 10c.

125. MARIGOLD, DOUBLE AFRICAN (A).
—A well-known free-flowering plant, of easy culture, with rich and beautiful double various-colored flowers. Pkt., 10c.

MARIGOLDS

126. MARIGOLD, DOUBLE FRENCH (A).
—Of compact habit, with numerous bright, showy flowers. Very fine. Packet, 10c.

130. MARVEL OF PERU, or FOUR O'CLOCK (Mirabilis Jalapa) (A).—Very pretty annual of vigorous growth. The flowers are brilliant, singularly mixed and varied on the same plant. Two feet. Packet, 10c.

133. MESEMBRYANTHEMUM CHRYSALINUM (Ice Plant) (A).—Dwarf spreading plants of great beauty, blooming the entire summer, succeeding best in dry, sandy or loamy soil, and in a warm locality. Half-hardy annuals. Pkt., 10c.

134. MIMULUS—The beautiful Monkey Flower. Packet, 10c.

MIGNONETTE.—The delightful fragrance of the Mignonette makes it a universal favorite. Sow seed in the fall for early blossoms in the spring. Valuable for potting, bedding or for border.

135. MIGNONETTE—SWEET (Reseda Odorata)—A well-known and universal garden favorite, and one that requires no extra instructions for growing. Hardy annuals. Pkt., 10c. Oz., 20c.

136. MIGNONETTE—PYRAMIDAL—Large flowered. The largest flowered of all Mignonettes. Annual. Packet, 10c.

137. MACHET—True dwarf-growing variety; enormous spikes of beautiful, deep reddish crimson flowers; height 1 foot. Packet, 10c.

138. MIGNONETTE VICTORIA (A).—A splendid new, compact-growing variety of dense pyramidal, growing about six inches high. The flowers are of a brilliant red, and are suitable for pot or garden. Packet, 10c.

139. ALLEN'S DEFIANCE (A).—When grown under favorable conditions, and with proper care, spikes will not only be of remarkable size—from 12 to 15 inches long—but deliciously fragrant; much more so than any other variety. Packet, 10c.

STIM-U-PLANT—Makes a Wonder Garden.

CHOICE FLOWER SEEDS

PANSIES

NASTURTIUM

NASTURTIUMS

Sow the seed where it is to remain late in the spring and after danger of frost is over. It is seldom necessary to thin the young plants, as they will bloom if close together. Nasturtiums prefer dry, rather rocky soil, and bear their flowers in such locations in greater profusion than in a rich garden where they run too much to leaves.

142. DWARF MIXED.—The dwarf variety of Nasturtiums is among the most useful and beautiful of annuals for bedding, massing, etc., owing to their compact growth, richness of color, and profusion of bloom; mixed colors. **Oz., 10c.**

143. DWARF NASTURTIUM—AURORA—Blush white and salmon, blotched with garnet. **Oz., 15c.**

144. DWARF NASTURTIUM BEAUTY.—Bright scarlet striped with yellow. **Oz., 15c.**

145. DWARF NASTURTIUM (Empress of India).—Very dark foliage with deep crimson flowers. **Oz., 15c.**

146. DWARF NASTURTIUM (Golden King).—Brilliant yellow. **Oz., 15c.**

147. DWARF NASTURTIUM (King of Tom Thumb).—Brilliant yellow flowers blotched with maroon. **Oz., 15c.**

148. DWARF NASTURTIUM (Ruby King).—Light ruby red. **Oz., 15c.**

149. DWARF NASTURTIUM (Cloth of Gold).—Golden yellow foliage, light scarlet flowers. **Oz., 15c.**

150. KING THEODORE—DWARF—Black-brown foliage. **Oz., 15c.**

310. TALL OR CLIMBING NASTURTIUM.—Of quick growth, covering a wall, hedge or trellis in a short time. The seed pods can be gathered while green and tender for pickling. **Oz., 10c.**

OXALIS

153. Pretty little, half-trailing annuals for hanging baskets. Mixed annual sorts. **Packet, 10c.**

Thrive best in a moist, shady location, and in rich loamy soil. Seed should be sown in the autumn for early spring blossoms, or can be sown early in the year for good flowers late in the spring. The plants must be transplanted twice in order to get the largest flowers; once from the seed box to a chosen bed, and again to the open garden.

155. HEARTSEASE.—Mixed. An old but universally admired plant, producing an endless variety of color. They may be treated as annuals. **Pkt., 10c.**

156. GIANT TRIMARDEAU.—Remarkable for the extra large size of the flower and an endless variety of beautiful shades. **Packet, 10c.**

157. G. & T. CO.'S EXTRA MIXED.—This mixture, containing the finest blotched varieties, is grown and selected with special care, and has given the most satisfactory results to both florists and amateurs in the past. **Packet, 15c.**

PETUNIAS

Petunias grow with little attention or care and in any soil when once started and bloom profusely all spring and summer.

165. FINE MIXED.—Good mixture of small, free-blooming colors. **Packet, 10c.**

168. PETUNIA.—Double Mixed. —The flowers of this sort are very beautiful. **Packet, 50c.**

PETUNIA, Single.—Fringed, mixed. Extra choice. **Packet, 50c.**

175. PHELOX DRUMMONDII (A).—A most brilliant and beautiful hardy annual, about one foot high, well adapted for bedding, making a dazzling show through the whole season. It succeeds well on almost any soil. **Packet, 10c.**

176. PHELOX DRUMMONDII—Nana Compacta.—(A).—Very fine mixed. This new strain is of dwarf compact habit, and makes desirable pot plants; also excellent for ribbon lines and massing. **Packet, 10c.**

180. PINK CARNATION, or PICOTEE.—Carnation and Picotee Pinks are generally favorites for their delicious fragrance, richness of colors and profuse bloom. Perennial. **Pkt., 10c.**

181. PINK CARNATION (Riviera Market, or Gillaud).—This is the only variety that will produce flowers the first season. They will thrive either in open ground or in pots. **Pkt., 25c.**

182. PINK CARNATION (Marguerite) (P).—Will produce flowers in a few weeks from seed. Profuse bloomers, producing very double flowers of all shades. Will bloom all summer until frost or indoors in winter. **Pkt., 10c.**

185. PINK—CHINA Dianthus Chinen-sis) (P.).—Free bloomers, and a general favorite for bouquets; also a useful bedding plant. **Packet, 10c.**

200. POPPY—CARNATION (Papaver) (A).—A showy and easily cultivated hardy annual, with large, brilliant colored flowers, growing freely in any garden soil. **Packet, 10c.**

201. POPPY—PEONY FLOWERED (A).—A magnificent species, large, showy, double globule flowers, resembling Peonies in shape. **Pkt., 10c.**

PANSIES

202. SHIRLEY POPPY (A).—These beautiful Poppies are generally single or semi-double. The colors, extending from one extreme to the other, are so varied that scarcely two are alike, while many are striped and blotched. The blooms, if cut when young, will stand for two or three days. **Pkt., 10c.**

203. TULIP POPPY (A).—A magnificent species. The plants attain a height of 14 to 16 inches, and produce from about 50 to 60 flowers of the brightest scarlet. **Pkt., 10c.**

204. ICELAND POPPIES, MIXED (A).—Although hardy perennials, these Poppies bloom the first season from spring-sown seed. **Pkt., 10c.**

ESCHSCHOLTZIA (California Poppy).—A bright and handsome flower. Grows easily and will re-seed itself. **Pkt., 10c.**

ORIENTALE.—The large Oriental Poppy. A hardy plant, bearing large, brilliant crimson flowers with black blotch on each petal. **Packet, 10c.**

195. PORTULACA (Mexican Rose) (A).—One of the finest hardy annual plants, of easy culture, thriving best in rather rich, light, loam or sandy soil; fine for massing in beds or edgings of rock work. **Pkt. 10c.**

196. DOUBLE PORTULACA (A).—**Packet, 10c.**

212. RICINUS, CAMBOGIENSIS (A).—Ornamental plants of stately growth and picturesque foliage; fine for lawns, massing or center plants for ribbon beds; half hardy annuals. **Packet, 10c.**

212½. RICINUS ZANZIBARIENSIS, MIXED (A).—Their immense leaves and gigantic plants exceed all other varieties. **Packet, 50c.**

213. SCABIOSA (Mourning Bride) (P).—especially adapted for cutting and massing. Flowers are double clear to the center, covering the thimble-shaped cone. Height 2½ ft. **Pkt., 10c.**

HIGH-GRADE FLOWER SEEDS

240. SWEET WILLIAM (Dianthus Barbat) (P).—A well-known, free flowering, popular favorite; the great improvements upon the old varieties made within the last few years have rendered it still more desirable. Hardy perennials. **Packet, 10c.**

243. SWEET VIOLET.—Although these flowers do best propagated from cuttings, they grow readily from seed, and have very fragrant blossom. **Packet, 10c.**

245. MAMMOTH VERBENA (A).—One of the most popular and useful bedding plants. Verbenas delight in sunny situations, rich soil and thorough cultivation. **Packet, 10c.**

250. VINCA ROSA (A).—Rose with dark eye. **Packet, 10c.**

251. VINCA ALBA (A).—White with crimson eye. **Packet, 10c.**

255. WALLFLOWER, DOUBLE (A).—Well known, deliciously fragrant plants, with large spikes of double flowers similar to the Gilliflower. Succeed in light, rich soil, in a moist atmosphere. Perennials. **Packet, 10c.**

ZINNIAS

One of the most popular of our hardy annuals for beds, mixed borders and for cutting purposes; easy to grow in any good garden soil. They commence flowering early in the summer and continue until frost.

258. ZINNIA ELEGANS (A).—This is one of the most brilliant of annuals, having been a general favorite. The flowers are large, finely formed, in great variety of colors, and continue to bloom the entire season. Half-hardy annuals. **Packet, 10c.**

GIANT DAHLIA FLOWERED ZINNIAS. A beautiful new type closely resembling decorative dahlias in form and in the arrangement of the petals. They attain a height of 3 feet, producing large blooms of distinctive colorings.

GOLD MEDAL MIXTURE.—**Packet, 10c.**

ZINNIA: DAHLIA-FLOWERED—Old rose. **Packet, 10c.**

ZINNIA: DAHLIA-FLOWERED—Golden gate. **Packet, 10c.**

ZINNIA: DAHLIA-FLOWERED—Lemon beauty. **Packet, 10c.**

ZINNIA: DAHLIA-FLOWERED—Purple prince. **Packet, 10c.**

259. ZINNIAS CURLED AND CRESTED (A).—New, odd and superb. Petals twisted, curled and crested into fantastic contortions and graceful forms. A magnificent variety of colors. **Packet, 10c.**

260. ZINNIA—DOUBLE POMPON (A). Long, coneshaped flowers, very fine. **Packet, 10c.**

ZINNIA—CRIMSON—**Packet, 10c.**

ZINNIA—WHITE—**Packet, 10c.**

SALVIA Flowering Sage

The flowering sages are half hardy perennials but best results are obtained by using fresh plants each year from seed sown indoors.

215. SALVIA SPLENDENS (A).—Tall, erect, green foliage. A favorite greenhouse and bedding plant, bearing long spikes of flowers in great profusion from July to October; half hardy perennial, blooming the first year from seed. Three feet. **Packet, 10c.**

220. SENSITIVE PLANT (Mimosa)—Curious and interesting plants, with pinkish-white flowers; the leaves close in and droop when touched or shaken; tender annual. **Packet, 10c.**

STOCKS.—No matter if situation is cold and windy, stocks will bloom there and give the garden color when otherwise it might be bare. Stocks are of easy culture, are hardy, very beautiful and satisfactory.

230. TEN WEEKS STOCKS (Gilliflower)—A world-wide favorite, brilliant and varied in color, equally well-adapted for massing, bedding, edging or pot culture. Very profuse bloomers. Should be grown in rich soil. **Packet, 10c.**

231. STOCKS—SNOWFLAKE IMPROVED—A beautiful dwarf-growing variety; very large, double, snow-white flowers. Our seed of this variety is grown by a specialist, and will produce a large percentage of double flowers. **Pkt., 10c.**

237. SWEET ROCKET (Hesperis).—A hardy perennial growing 2 to 3 feet high. This old-fashioned, fragrant flower is of the easiest culture, and bears clusters of white and purple blossoms. Mixed. **Packet, 10c.**

DAHLIA FLOWERED ZINNIA

FLOWER SEEDS

GENERAL LIST OF CLIMBERS

270. BALSAM APPLE (Momordica) (A)—Very curious trailing vines, with ornamental foliage; fruit golden yellow; when ripe, opens, showing the seeds and its brilliant carmine interior. **Packet, 10c.**

272. BALLOON VINE (Love in a Puff) (A)—A rapid growing plant; succeeds best in light soil and warm situation; flowers white; half-hardy annual. **Packet, 10c.**

275. CANARY BIRD FLOWER (Peregrinum)—A tender climbing annual of the nasturtium family. Blossoms have curiously wrinkled petals and are light yellow. Soak seed over night before planting. **Packet, 10c.**

276. COBEA SCANDENS (P)—A beautiful, rapid-growing climber, with handsome foliage and large bell-shaped flowers; blue; half-hardy perennial; grows 20 to 30 feet high. **Packet, 10c.**

278. CYPRESS VINE, RED (Ipomea Quamoclit) (A)—One of our most popular vines, with very delicate, fern-like foliage and masses of beautiful, small, star-shaped flowers. Sow last of May; 15 feet. **Packet, 10c.**

279. CYPRESS VINE, WHITE (A)—Usually grown with the red, making a handsome effect. **Packet, 10c.**

295. HEAVENLY BLUE IPOMEA (A)—The flowers are in large, airy clusters, and that lovely hue so rarely seen. Flowers four to five inches across. **Packet, 10c.**

300. MORNING GLORY (Convolvulus Major)—One of the most free-flowering and rapidly-growing plants in cultivation, thriving in almost any situation. The beauty and delicacy of their brilliant flowers are unsurpassed; hardy annuals. **Packet, 10c.**

302. GIANT JAPANESE MORNING GLORY—These are by far the handsomest of the Morning-Glories, of gigantic size. **Packet, 10c.**

305. MOON FLOWER (Ipomea Noctiflora)—Charming and popular blooming climbers; of rapid growth and showy effects; warm, rich soil, with a sunny exposure, suits them. **Packet, 10c.**

320. SCARLET RUNNERS—Very handsome climbing Beans, with bright scarlet flowers. **Packet, 10c.**

326. SMILAX—Charming climber for greenhouses or window gardens. **Packet, 10c.**

285. MIXED GOURD (Cucurbita) (A)—**Packet, 10c.**

286. NEST EGG GOURD (A)—White fruit shaped like an egg. Used as a substitute for nest eggs. **Packet, 10c.**

287. DISHCLOTH GOURD—Many women prefer a dish cloth made of this Gourd to anything else, as it is always sweet and clean as long as any part is left. **Packet, 10c.**

288. DIPPER GOURD (A)—Makes an excellent dipper. **Packet, 10c.**

290. MOCK ORANGE (P)—Fruit shaped like an orange. **Packet, 10c.**

291. CALABASH OR PIPE GOURD—Odd shaped fruit which is used to advantage in making pipes. **Packet, 10c.**

ORNAMENTAL GOURDS

SWEET PEAS

SWEET PEAS should be sown in drills latter part of November for fall planting, or as early as possible in spring, in rich, friable soil. Prepare the bed thoroughly, working in a quantity of well-rotted manure, if it can be done, making a furrow four to six inches deep. In this sow the seed and cover two inches deep. As soon as the plants begin to show through, fill in the furrow. This will secure a deep planting without the bad effect of deep covering of the seed at first, and so enable the plant to bloom continuously through the heat of summer.

The roots should not be allowed to become too dry. Water applied thoroughly once or twice a week, preferably early in the morning or in the evening, is usually better than light sprinkling more frequently.

The blooms should be picked before they form pods or the plants will soon stop flowering.

For the aphid or plant louse, spraying with solutions of some tobacco extract or whale-oil soap is usually effective; and for the Red Spider, which also causes trouble at times, spraying with pure water is usually sufficient. A frequent change of location has also been found important.

377. G. & T. CO.'S EXTRA FINE MIXED—Consists of the very choicest varieties mixed in the newest colors and shades.

Oz., 10c. ¼ Lb., 25c. ½ Lb., 40c. 1 Lb., 75c. Postage, extra.

379. SUPERB SPENCER MIXTURE—This group includes the largest and most beautifully formed sweet peas. The Spencers have very large waved flowers which are produced abundantly on long, strong stems, making the blossoms most desirable for cutting.

The plants of Spencer varieties when grown outdoors are usually in bloom much longer than other sweet peas, as most of the blossoms fall off after maturity without setting pods.

Per oz., 15c. ¼ Lb., 50c. 1 Lb., \$1.50. Postage, extra.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

SELECT GLADIOLUS

Gladiolus are the most attractive and useful for cut flowers of all the summer flowering bulbs.

Plantings each ten days from April to mid-June will provide flowers from August to October.

Price, 6c. each. 60c. dozen, \$3.50 per 100. Postage 10c. dozen extra.

GLADIOLUS

AMERICA—This is one of the finest Gladiolus ever produced, and ranks as the best sort for cutting, as well as all-around purposes. The color is a very beautiful soft pink, the coloring and texture resembling those of the Orchid.

AUGUSTA—A lovely and useful variety, pure white with blue anthers.

BLUE JAY—Porcelain blue.

GRETCHEN ZANG—Soft shade of pink, blending into scarlet on lower petals. Large, heavy blooms.

HALLEY—Predominating color, delicate salmon pink, with slight roseate tinge, though the lower petals bear a creamy blotch with a stripe of bright red through the center, the whole producing a wonderful effect.

LE MARCHAL FOCH—Rose-pink, resembling America in color but deeper. Blooms same time as the Halley.

LILY WHITE—Pure white and very early forcer.

MAIDEN'S BLUSH—Beautifully formed flowers on long stems; early flowering; apricot pink.

MRS. FRANCIS KING—Long, strong stalks, bearing flowers of vermilion-scarlet color. Very effective for cutting.

MRS. DR. NORTON—Pure, soft white, with tips of petals suffused La France Pink. Wonderful variety.

PANAMA—An improved American, largest and most notable spike of bloom among all pink sorts.

PEACE—Immense, pure white flowers, with touch of carmine in lower petals. These are borne on tall, graceful spikes; a beautiful variety.

ROSE, 1910—Early: Rose color, with white vein through centre of petal.

SHAYLOR—Pure deep pink. Large flowers on tall stems.

SCHWABEN—Clear canary yellow, shading to soft sulphur. Largest flowering stalk and leaves of all. Planted 7 or 8 inches apart in rich soil produces wonderful blooms.

WILBRINK—A favorite forcing variety for cutting. Early-flowering, color delicate pink.

Caladiums

ELEPHANT EAR

The Caladium Esculentum is one of the handsomest of the amental-leaved plants. It will grow in any good garden soil, but where it will obtain plenty of water and an abundance rich compost.

SMALL SIZE (5 to 7 inches)—Each, 5c.; doz. 50c.

FIRST SIZE BULBS (7 and 9 inches)—Each, 7c.; doz., 75c.

LARGE BULBS (9 and 11 inches)—Each, 10c.; doz., \$1.00.

EXTRA LARGE BULBS (11 inches and upwards)—Each., 15c.; doz., \$1.75.

by mail, add single bulbs, 5c. Dozen, 15c.

TUBEROSES

TUBEROSES

One of the most fragrant and popular of the summer flowering bulbs. May be started early in hot-beds or pots, or planted in open ground after the first of May.

EXCELSIOR PEARL—Double white; dwarf. Each 5c.; dozen, 50c.; per 100, \$4.00. If by mail, add dozen, 10c.

CALADIUMS

STRAWBERRY PLANTS

DIRECTIONS FOR CULTURE

Strawberries require well-tilled soil; the plants should be set 15 inches apart, in rows 2 feet wide. Firm the plants well in the soil and keep thoroughly cultivated.

In early winter when the ground is frozen, cover the whole with long straw, which should be removed from the plant in the spring, but allowed to remain on the ground as a mulch, to keep the berries clean next summer. When strawberries are moved in the fall, they should be left until October or the first of November.

BIG JOE—This variety was introduced about twenty years ago, and proven a wonderful discovery. It is a mid-season to late variety, equally in size, firmness and yield as the Chesapeake, and superior in flavor and color. Succeeds on a great variety of soils.

CHESAPEAKE—Late. Large, firm and productive. One of the fanciest varieties grown.

GANDY—Late. Large and firm.

KLONDYKE—Medium Early. Very productive, berries large and firm.

LUPTON—Large, fine, medium early. A beautiful berry, solid and delicious.

PREMIER—One of the very best of extra early varieties; succeeds on almost all soil (if well drained). Produced in vast quantities, berries of good size, attractive appearance and excellent quality. Above varieties \$1.75 per hundred

FROST-PROOF CABBAGE PLANTS

WILL MATURE HEADS TWO TO THREE WEEKS EARLIER THAN YOUR HOME-GROWN PLANTS.

VARIETIES

Early Jersey Wakefield, Charleston Wakefield, Succession and Early Flat Dutch

These plants are grown in the open field during the fall and winter months, which causes them to make a slow, tough hardy growth—so hardy that the outer leaves turn to a reddish brown. They can be shipped to distant points without danger of spoiling, and should be planted in the open ground from four to five weeks earlier than frame plants.

They will stand a temperature of 10 to 15 degrees above zero without injury. Will do very much better planted early, they will take root and start to grow as soon as warm weather sets in.

Orders filled from December 1 until May 1. We do not advise planting later than this time.

Prices by Parcel Post, postage paid. In lots of 100, 200, 300-400 plants at 50c. per 100 plants; 500 plants for \$1.60, 1,000 or more at \$3.00 per 1,000 plants.

Orders are filled by the 100, not 250 or 350. These prices are for even quantities of one variety to package; if you order 200 of one variety and 300 of another variety you would pay at the 100 rate.

Prices by Express, buyer paying express charges. In lots of 1,000 to 4,000 plants at \$2.00 per 1,000; 5,000 or more at \$1.00 per 1,000. Plants packed for express shipment, 1,000 or 2,000 plants of a variety to package, they weigh about 25 pounds per thousand plants, packed for shipment.

We also offer **YELLOW BERMUDA** and **PRIZETAKER ONION PLANTS**, at same prices as above.

TERMS, CASH WITH ORDER, PLEASE. No Plants Shipped C. O. D.

VEGETABLE ROOTS

ASPARAGUS ROOTS

A saving of one to two years is effected by planting roots. A bed 12x feet, requiring about 100 roots, should give a sufficient supply for an ordinary family; 8,000 roots will plant an acre. Select good, loamy soil, plow deep, put in good quantity of manure and 100 pounds of kainit to 1,000 square feet of bed. Incorporate thoroughly, make a trench 8 inches deep set plants 12 inches apart. In field culture rows are placed 4 feet apart.

Palmetto—Per 100, \$1.25. Per 1,000, \$9.50

Washington—Per 100, \$1.75. Per 1,000, \$12.00. Postage extra.

See Pages 3 and 27.

HORSE RADISH ROOTS.

The land should be rich, well manured, plowed deeply, harrowed and freed from lumps. Plant in a roomy space, by itself. Make rows 15 inches apart, set plants 12 inches from each other. Plant shoots about five inches long, making holes for same with a stick, and set them about two inches under the soil. Have the shoots cut squarely across the bottom, but c slanting at the top, in order that one side may be a little longer than the other. Keep free from weeds for the first and second seasons, after which the Horse Radish will take care of itself. Dozen, 20c. By mail, 25c. Per 100, \$1.00. By Mail, \$1.25. Per 1000, \$8.00. By Express, not Prepaid.

RHUBARB, OR PIE-PLANT.

This very desirable vegetable comes early in the spring. The large stems of the leaves are used for pie-making and stewing. A deep, rich soil is indispensable to secure large, heavy stalks. Plant in rows 4 feet apart, with the plants 3 feet distant. Set so that the crowns are about 1 inch below the surface. Top-dress annually in the fall with stable manure and fork under in the spring. 20c. each. By Mail, 25c. Dozen, \$2.00. By Express, not Prepaid.

Asparagus Roots

CANNAS

POTTED PLANTS ONLY

From 3 in. pots, and ready about May 1st to 15th, when danger of frost is past. All are, of course, subject to return of crop.

Prices, except where otherwise noted, 20c. each—\$2.00 per dozen. Add 5c. each, for Postage.

AUSTRIA.—Lemon chrome, spotted red; green foliage; 5 ft.

ALLEMANIA.—Mottled yellow; deep orange red blotches on petals; light green foliage; 5 feet.

APRICOT.—Buff yellow base, overspread with salmon pink; green foliage; 4 feet.

CHARLES HENDERSON.—Crimson-scarlet, with rich yellow throat; 4 feet.

EUREKA.—The best white variety; free bloomer; strong, vigorous plants; green foliage; 4 feet.

FLORENCE VAUGHAN.—Yellow, spotted crimson; green foliage; 5 feet.

HUNGARIA.—One of the best bedding pink Cannas. Clear rose. About 3½ ft.

KING HUMBERT.—The finest type of orange-scarlet flowers, with bronze foliage. 4-5 ft., price, 25c. each, \$2.50 per doz.

THE PRESIDENT.—Flowers are produced in immense masses, of the most brilliant red, combined with healthy foliage. 5 ft. Price, 50c. each, \$3.50 per dozen.

PENNSYLVANIA.—Scarlet, with green foliage; flowers lightly tinged with yellow in throat; 5 feet.

RICHARD WALLACE.—Large canary yellow, green foliage. ½ ft.

RUBIN.—Bright scarlet flowers, dark foliage. 4 ft.

SHENANDOAH.—Small salmon-pink flowers; 4 feet.

UNCLE SAM.—Clear, deep orange flowers, borne in large clusters, handsome, luxuriant, rich green foliage. Six feet.

VENUS.—Gay, rosy-pink, with mottled border of creamy white. 4 ft.

FOLIAGE CANNAS

with bronze leaf, but do not bloom. Dormant roots at 6c. each; 60c. per dozen. By post, 10c. per dozen extra.

MIXED CANNA ROOTS IN SPLENDID VARIETY

OUR SELECTION.

Each; per Dozen, 60c.; per 100, \$5.00. By Express, Not Prepaid. By Parcel Post, add 10c. per Dozen, Extra.

GERANIUMS

FROM 2 INCH POTS

Price, 15c. each; \$1.50 per dozen. By express, not prepaid.

3 Cents Each For Postage.

IVY-LEAVED VARIETIES

ALLIANCE.—Delicate lilac white, upper petals blotched with light crimson rose, semi-double flowers.

CÆSAR FRANK.—Soft rich crimson, shading to rose at base of petals.

JAMES ATTFIELD.—Extra large double flowers, of pretty tint of soft pink.

JAMES T. HAMILTON.—Intense carmine-crimson.

MRS. BANKS.—Blush white, upper petals feathered reddish. Neyron. Light green foliage.

PIERRE CROZY.—Semi-double bright scarlet flowers.

STANDARD DOUBLE VARIETIES

M. A. ROSEMEUR.—Deep rose-pink.

MARQUISE DE CASTELLANE.—Soft red crimson.

MISS F. PERKINS.—Charming shade of deep rose.

MISS KENDAL.—Dark carmine red.

MME. RECAMIER.—Pure white.

MARYLAND.—Handsomely marked foliage, with a chocolate zone. Intense dazzling fiery-red color.

MME. F. SARLOVEZE.—Exquisite shade of light rose, shading to white at centre; immense semi-double flowers.

ORNELLA.—Deep rich scarlet.

S. A. NUTT.—Dark, velvety crimson.

SCARLET BEDDER.—A bright scarlet bedding variety; free bloomer.

SCENTED-LEAVED VARIETIES

BALM.—Upper petals light lilac; lower petals dark.

CAPITATUM.—Small leaf, rose-scented.

DALE PARK BEAUTY.—Small, fragrant foliage.

FAIR ELLEN.—Fragrant and beautiful; large oak-leaved foliage.

LADY MARY.—Sweet-scented; rose-lake color.

LEMON.—Lemon-scented.

NUTMEG.—Dwarf; bright green foliage; nutmeg scented.

ROSE.—Rose-scented.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

HARDY POMPON CHRYSANTHEMUMS

All from 2-inch pots, for bedding outdoors, for cut flowers, but not the large greenhouse varieties.

They are, however, being cultivated extensively for garden purposes.

Price: 10c. Each; per Dozen, \$1.00; per 100, \$6.00.

By Express, Not Prepaid. Add 3c. each for postage.

LARGE-FLOWERING OR ASTER VARIETIES

(These are not for exhibition purposes, but good results can be obtained by slight disbudding, leaving from six to eight flowers on a spray. Should also be protected from frost when desired for cutting).

DIANA—Creamy white, full flowers. A favorite for cutting.

FAIRY QUEEN—Light pink.

FIREBIRD—Good red.

GOLDEN CLIMAX—Yellow, good for cut flowers.

IZOLA—A true shade of amaranth

JULIA LAGRAVERE—Deep red.

LILIAN DOTTY—Large-flowering pink. Best of the Pompon family.

RED DOTTY—Bright red, one of the finest.

VOLUNTEER—(Anemone) Golden yellow. Single.

QUEENOLA—Yellow.

UVALDA—White. Good for cutting.

WESTERN BEAUTY—Rose pink, long stem.

WHITE DOTTY—Pure white, similar to Lilian Dotty.

YELLOW DIANA—Pure golden Yellow. Splendid for cutting.

SINGLE VARIETIES

GOLDEN ORIOLE—Early, light yellow.

MRS. GODFREY—Rose-pink. Late bloomer.

MRS. BUCKINGHAM—Light Pink—mid-season.

MENSA WHITE—White, for cut flowers.

MENSA YELLOW—Yellow, for cut flowers.

CHRYSANTHEMUMS

Small flowering or Button varieties.

BRIGHT EYES—Blush white.

CHRISTMAS GOLD—Very bright yellow; late flowering. does not come into bloom until December.

EUGENE LANGUTH (Anemone)—Deep Golden Yellow; late bloomer.

HILDA CANNING—Attractive bronze.

BEGONIAS

GLORIE DE CHATELAINE—Dwarf, compact grower, Always full of flowers of a lively pure pink color. Popular for pot and bedding plant. 15c. Each.

LUMINOSA—Red flower, foliage turning reddish bronze, when growing in sun. 15c. Each.

GRACILIS PFITZERI TRIUMPH—Pure white, free flowering. 15c. Each.

PRIMA DONNA—Limped-rose, shading to carmine at centre, everblooming. 15c. Each.

Postage 3c. extra.

HARDY ENGLISH IVY—15c. each, \$1.50 per dozen
GERMAN OR PARLOR IVY, for window boxes—15c. each, \$1.50 per dozen.

LEMON VERBENA—15c. each, \$1.50 per dozen.

MOON VINES

15c. Each. \$1.50 per Dozen.

NOCTIFLORA—The standard white Moonvine.

LEARI (Blue Dawn Flower)—Generally known as the Blue Moonflower.

Postage 3 cents each extra.

SCARLET SAGE

SALVIA SPLENDENS—Tall, erect, green foliage. T. well-known Salvia.

10c. Each. \$1.00 per Dozen.

Add 3c. each for Postage.

DAHLIAS

THE FOLLOWING NAMED VARIETIES SUPPLIED IN
 POTTED PLANTS ONLY. (Ready About May 1st-15th).
 Prices, except where otherwise noted, 15c. each; \$1.50 per doz.
 By Parcel Post, add 3 cents each for Postage.

CACTUS VARIETIES

ABERDEEN.
 —Deep carmine,
 bright shading
 cactus. 35c.
 each.

ATTRACTION—A beau-
 tiful and large
 Dahlia, with
 curled or twist-
 ed petals, of
 soft silvery
 mauve-rose,
 with white suf-
 fusion. 75c.
 each.

**COUNTESS
 OF LONSDALE**
 —Rich salmon.

KALIF — Co-
 lossal; pure
 scarlet and per-
 fect form. 50c.
 each.

LAWINE—White, showing blush as flower matures. 15c.
 each.

MARGUERITE BOUCHON—Magnificent shade of brilliant,
 yet soft rose, with white centre and white tips. 25c. each.

PINK PROFUSION (Cactus)—Pink, shading slightly to
 flesh in centre. Early and profuse bloomer. Dwarf grower.
 50c. each.

PRINCE OF YELLOW—Rich canary yellow.

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WOLFGANG VON GOETHE—Large, gracefully arranged,
 perfect flowers of rich apricot, with carmine shading. 25c.

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D. LIVONII—Rich Sea Shell Pink.

HAS. LANIER—Yellow amber, shaded buff.

THEL MAULE—Pure white, tinged pale lavender in
 tre.

JEAN KERR—Pure White Bloom. Strong grower and free-
 vering, 50c. each.

QUEEN OF YELLOWS—Rich canary yellow; best for cut-
 E.

DOUVE MME. MOREAU—Deep rich pink. 25c. each.

TEBRA—Pearl white, edged deep pink. 25c. each.

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BIG CHIEF—Brilliant cherry-red, margined rich velvety
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FRINGED TWENTIETH CENTURY—Similar to twentieth
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ROSE PINK CENTURY—Clear rose pink; immense size.

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SENSATION—Vivid scarlet, heavily tipped white. 25c. each.

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NURSERY DEPARTMENT

Before planting fruit trees, the soil (excepting new ground) should be made mellow by repeated plowing. When trees are received the root should be covered with a blanket, sack or straw until they reach their destination; the bundle should then be opened, and the trees separated from the moss in which they are packed; if the roots have become dry, from too long exposure, straw should be spread on the ground, the trees laid upon it, then covered entirely, roots and tops, with straw, and the whole well watered. In this condition they should remain for forty-eight hours, when they will be found as fresh as when first found in the nursery. Where only a few trees are to be planted, and the soil has not been sub-soiled, or where trees are to be planted in sod, then the holes ought to be at least four feet wide and eighteen to twenty inches deep, the sub-soil brown back, and the holes filled up to a proper depth to receive the tree with fine top soil.

SUMMER APPLES.

YELLOW TRANSPARENT—Early and prolific; clear white skin, changing to yellow. July.
VENONI—Very early, skin dark rich red; flesh white; juicy, slightly tart.

AUTUMN APPLES.

RAVENSTEIN—Orange-yellow, overlaid with broken striped of light and dark red. Flesh yellowish. One of the finest fall apples. Fruit produced freely. September to October.
SUMMER RAMBO—One of the best. Smooth skin, streaked dull yellowish; red, rich, spicy; sub-acid flavor. October to January.
MOKEHOUSE—Large fruited, striped red on yellow ground; sub-acid; productive and good for culinary purposes. September to October.

WINTER APPLES.

LACK BEN DAVIS—Red all over. Medium to large. Flesh white. Tree strong growing and very productive. Fruit will keep until late in season.
TAYMAN'S WINESAP—Superior to old Winesap; large, bright red, very productive, adapting itself to different soils. Good marketing variety.
TARK'S DELICIOUS—Brilliant dark red, shading to yellow at blossom end. Flesh white and tender. Large size.
RIMES GOLDEN—Yellow sub-acid; spicy and rich fruit. January to March.
ONATHAN—Small, with yellow skin, almost covered red; fine flavor; popular everywhere. November to April.
ORK IMPERIAL—Medium size, skin greenish-yellow, nearly covered with bright red; tender flesh, crisp and juicy; good bearer and keeper. February to April.
HOME BEAUTY—Large, yellow, striped and mixed with light red; flesh yellow, breaking coarse-grained, sub-acid; valuable for market on account of its productiveness, size and beauty, as well as for certain bearing. November to January. Can always be depended on for a full crop.

Price, \$1.25 each.

CRAB-APPLES.

CYSLOP—Fruit large for its class; produced in clusters; dark rich red, covered with thick blue bloom; good for culinary purposes and for cider.
TRANSCENDENT—Golden yellow, with beautiful rich crimson cheek; flesh creamy yellow; crisp, sub-acid, pleasant and agreeable. Tree a rapid grower and productive. September.

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PEARS.

ARTLETT (Summer)—Yellow, with soft blush, fine-grained, sweet and juicy; good bearer. July and August.
MOONCE (Summer)—Handsome fruit, good bearer, frost-proof and free from blight.
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BECKEL (Autumn)—Rich quality, hardy and productive. September to October.

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PEACHES.

GEORGIA BELLE—Fine White Free Stone Peach ripens just ahead of Elberta.
ELBERTA—An exceedingly large high-colored Peach. A cross between Crawford's and Chinese Cling. Juicy, well flavored. Said to be finest yellow freestone in existence. Ripens early in August.
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MOCK—Rather large yellow, with red cheek; flesh yellow, red at stone; very productive; not of high excellence but valuable as a market variety. Most extensively grown in Delaware and Maryland. Middle to last of September.

Price, 50c. each.

CHERRIES (Sweet).

BLACK TARTARIAN—Fruit large size, sweet and productive. June.
GOV. WOOD—Fruit large, yellow-shaded red; juicy and sweet. June.
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CHERRIES (Sour).

MORELLO—Above medium size, skin dark red, becoming nearly black; flesh juicy, sub-acid, rich. July.
MONTMORENCY—Large red acid Cherry; very prolific and hardy.
RICHMOND—Medium size, red, flesh melting, juicy and at maturity a rich acid flavor. Very productive and fine for cooking. Commences ripening about last of May, and hangs long on tree.

Price, \$1.75 each.

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ABUNDANCE—Lemon-yellow ground, nearly overspread with Cherry, with heavy bloom; flesh yellow and very juicy; sub-acid, with Apricot flavor; highly perfumed, stone small; tree hardy; bears regularly; early heavy bearer. August 1st.
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CONCORD—Vigorous growing vine and enormously productive. Comparatively free from disease; bunches large, compact; berries, large round black, with a blue bloom. Profitable market sort.
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RASPBERRIES.

GREGG—Large firm fruit, sweet and rich; strong grower and ripens late. Black and juicy.
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BLACKBERRIES.

ELDORADO—Berries very large; jet black, sweet melting, no hard core. Splendid keeper and shipper.
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 { Peanuts
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 { Garden Beans
 { Lima Beans

20 bushel size.....	\$8.00
5 bushel size.....	2.25
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1 bushel size.....	.60
Garden size (composite culture for Garden Beans, Garden Peas, Lima Beans and Sweet Peas).....	.35

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 photographed on same scale. Plant on
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Rax has no equal as a destroyer of Rats and Mice. Directions with every package. Price, 75c. By Parcel Post, 85c.

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HORTICULTURAL TOOLS AND SUPPLIES

GRASS HOOK

No. 1 1/2 German Grass Hook.....	\$.70
No. 2 German Grass Hook.....	.75
Best English Grass—No. 2.....	.75
Best English Grass—No. 3.....	.80
Best English Hedge or Grass Hooks—No. 4.....	.90
Atkins' Perfection Grass Hook.....	.75
American—plain.....	.75
Lawn King—polished.....	.75
Long Handle Grass Hook.....	1.00

GARDEN TROWELS

TRANSPLANTING TROWEL

No. 217—5-inch blade.....	20c.
No. 217—8-inch blade.....	35c.

Galvanized Strong Steel Trowel, one piece, very durable.
Parcel Post weight, 1 pound. Price, 10c.

EUREKA HAND WEEDER

A Very Handy and Useful Weeder.

No. E—Grip handle.....	45c.
No. EL—2-foot handle.....	55c.

Parcel post weight, 1 pound.

LARGE HAND WEEDER

No. 400—4 Prong Hand Weeder.....	35c.
No. G—Solid Steel Hand Weeder.....	45c.

Parcel post weight, 1 pound.

DIBBERS

For transferring plants. By far the best thing for the purpose ever introduced.

Right-angle shape, steel-polished, wood handle, 80c.

SCUFFLE HOES

4-inch.....	\$.70
6-inch.....	.80
8-inch.....	1.00

Edging Knives

9-inch, American \$1.20

Grape Scissors

No. 4774 Grape Pickers.....	\$.60
Flower Scissors.....	1.75

FRUIT PICKER

This cut almost speaks for itself—the device, being so much like the human hand, shows at once the utility of the article. As a Fruit Picker it has no superior. It is made of heavy wire, and easily adjusted to a pole.

PRICE 50 cents

Pruning Knives

No. 66105—Cocoa Handle.....	\$1.00
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BUDDING KNIVES

No. 1508R.....	\$1.00
No. 1510B.....	1.25

ASPARAGUS KNIFE

Made of solid steel; see the cutting point. Price.. .40c. each
Parcel post weight, 1 lb.

Asparagus Buncher

Put your asparagus up in bunches, with this Improved Asparagus Buncher. It is adjustable for all lengths of bundles, correct in design and quick in operation. It makes a well-formed, compact bundle, adding greatly to the looks of the vegetable.

Parcel post wt. 5 lbs. Price each., \$4.50

GARDEN REELS

Every gardener should have one of these handy reels. Straight rows add greatly to the looks of the garden. These reels are made of heavy iron, and will last a life time.

Large size reel to hold 100 feet of line.....	\$3.15
No. 1 Garden Reel.....	1.00

GARDEN LINE.

Best grade 3/16-in. Cotton Garden Line, in any desired length.

Price, per 100 feet..... \$1.50

MOE'S LINE

MOE'S LINE

MOE'S LINE

MOE'S ALL STEEL GARDEN TROWELS AND WEEDERS

Heavy pressed steel black enamel finish with polished points. No loose wooden handles.

No. 80—Garden trowel, 6-in. blade. Each.....	20c.
No. 81—Transplanting trowel. Each.....	20c.
No. 82—Garden Weeder. Each.....	20c.

HORTICULTURAL TOOLS AND SUPPLIES—CONTINUED

"LITTLE WONDER" HEDGE TRIMMER

By having a machine of your own, you can trim your hedge when it needs it and not wait for some one until the hedge has grown straggly and disgraced the entire property for several weeks.

Hedge will improve in appearance after it is trimmed with the "Little Wonder," by reason of the straight

cutting, no dips or round corners and many other common faults often noticed in hedge trimmed by hand shears.

It is not near as hard work trimming with the "Little Wonder" as the hand shears, it does not tire the wrists; in fact, it is a pleasure to walk along the hedge and turn the crank and see the hedge fly; it really operates astonishingly easy.

30-inch machine.....\$25.00
40-inch machine.....27.50
60-inch machine.....35.00

HEDGE SHEARS

(Plain)

No. 100—8-inch..\$2.00
No. 100—9-inch.. 2.25
No. 100—10-inch.. 2.50
No. 100—12-inch.. 3.00

(With Notch)

No. 101—8-inch..\$3.25
No. 101—9-inch.. 2.50
No. 101—10-inch.. 2.75
No. 101—12-inch.. 3.25

Lawn Shears

No. 1062—2 wheels, 8-inch blade, for cutting on narrow borders, under fences and shrubs..\$4.50

GRASS SHEARS

Bent Handle.....35c.
Trowel Handle.....60c.

BORDER SHEARS

No. 105

With Wheel

Price,
\$4.25

Sheep Shears

No. 055.....\$1.00
No. 3755—Full
polish..... 1.25
No. 3075..... 1.50

Pruning Shears

No. 4—Flat Spring, Steel Blade.....\$.60
No. 33—Coil Spring, Mal. Handle, Steel Blade..... .60
No. 4665—Solid Steel, 9-inch..... 1.00
No. 4666—Solid Steel, full polish, 9-inch..... 1.50
No. 544—Ladies', nickel-plated, 6-inch..... 1.75
Parcel post weight, 1 pound.

ALL PRICES IN CATALOG SUBJECT TO CHANGE
WITHOUT NOTICE.

WATERS
IMPROVED
TREE PRUNER.

Actually doing more work with less work. Accomplishing in an hour what formerly took four hours with the old style shears.

SIMPLICITIES cut both in opening and closing. Think of it! What a time and energy saver this is.

SIMPLICITIES seem to almost work automatically and you must actually try them to realize how easy they work.

SIMPLICITY TRIMMER for first year growth only, weighs but two pounds.

SIMPLICITY PRUNER AND TRIMMER for pruning back old growth of hedge and shrubbery and trimming new growth as well, weighs but three pounds.

SIMPLICITIES are made of the finest High Grade Carbon Steel and will give you long service and satisfaction.

Trimmer.....\$4.00 Pruner & Trimmer.....\$6.00

Water's Tree Pruners

4 feet.....\$1.60
6 feet..... 1.80
8 feet..... 2.00
10 feet..... 2.20
12 feet..... 2.40
14 feet..... 2.60
Extra Knives......20

Telegraph Tree Pruners

Price, without pole.....\$1.40
Lineman Tree Pruner, No. 2.....\$4.00

SIMPLICITY TRIMMER

SIMPLICITY PRUNER & TRIMMER

Lopping Shears

The Baltimore Draw Cut Shear is extra strong, and will cut large limbs with the least exertion.

The No. 5406 Shear is light and strong and is very handy for light work. It will not tire you to handle it.

No. 5406—20-inch Hdles.....\$1.60
No. 5406—24-inch Hdles..... 2.00
No. 5402—Baltimore Draw Cut, 24-inch handles..... 3.50
No. 5403—Baltimore Draw Cut, 22-inch handles..... 3.00
No. 5408..... 3.00

"McKENNEY" TREE PRUNERS

No. 1
Small
Pruner
No. 2
Large
Pruner

PRICE

No. 0—15-inch..\$1.50
No. 1—23-inch.. 3.00
No. 2—30-inch.. 4.00

No. 0 Hand Pruning Shear

It has two cutting blades drop forged from tool steel, and with the patented leverage is the most powerful pruner built.

Besides the double leverage this Pruner has an addition of two separate cutting powers which is provided by the slots in the handles.

PRUNING SAWS

E.C. ATKINS & CO. INDIANAPOLIS

No. 3 Saws.
16-inch double.....\$1.45
18-inch double..... 1.55
20-inch double..... 1.65
No. 1 Saws.
16-inch single.....\$1.40
18-inch single..... 1.50
20-inch single..... 1.60

FLORISTS AND GARDEN SUPPLIES

PLANT SPRINKLERS

PUTTY BULB

This Improved Putty Bulb is made from a good grade of rubber. For glazing greenhouses, new or old; will be found very handy.

Price\$1.75

Parcel Post weight, 1 pound. We do not guarantee rubber goods.

For sprinkling cut flowers, seedlings, plants, clothes, etc.
No. 1—Standard, 12-ounce\$1.75

Parcel post weight, 1 pound.

MASTICA

Mastica.—For glazing greenhouses, sashes, new and old. It is elastic, adhesive and easily applied. It is not affected by dampness, heat or cold. "Mastica," when applied, in a few hours forms a skin or film on the entire mass, hermetically sealing the substance and preventing the evaporation of the liquids, and remains in a soft, pliable and elastic condition for years. "Mastica" is of great value in going over old houses with a putty bulb or machine on the outside of sash, as it makes it perfectly tight and saves the expense of relaying the glass.

1-Gallon Cans.....\$2.25

MASTICA GLAZING MACHINE

OUR SPECIAL PRICE.....\$2.85

Iron Clad Watering Pots

4-qt.\$0.70
6-qt.80
8-qt.90
10-qt. 1.05
12-qt. 1.30
16-qt. 1.45

HOT-BED MATS WOOL-LINED

Made of strong Drill, interlined with wool.

Price, 40 x 76,
Each, \$1.90

Price, 76 x 76,
Each, \$3.25

Special Price in
Dozen Lots.

UNGLAZED HOT-BED SASH

3 ft. 2 in. x 6 ft.

Price, \$2.00 each.

PEERLESS GLAZING POINTS

(Imp. Van Reyper.)

The finest glazing points on the market. The glass cannot slip; they are quickly and easily put in with special pincers: no "rights" or "lefts" to bother with.

Per box of 1,000.....75c.

Pincers, per pair.....85c.

Parcel post weight, 2 pounds.

ASPARAGUS TAPE

Spools of about 1,000 yards, \$2.50 each. Postage extra. Parcel Post Weight, 2 lbs.

RAFFIA

The best material for tying Plants, Vines, etc. Per pound25c.

GRANULATED PEAT MOSS

Used extensively by florists and growers of flowers for potted plants, shrubbery and lawns. Per Bale\$3.00

SPHAGNUM MOSS

For packing growing Orchids, Plants, etc. Per bale.....\$3.25

GRAFTING WAX

¼-lb.....15c. ½-lb.....25c. 1-lb.....40c.

Wotherspoon

Watering Pots

These pots are made from the best grade of galvanized iron, and are very heavy and strong. The long spout makes them very desirable for greenhouse and flower bed use. Each can is equipped with a fine and coarse nozzle, with copper perforation.

6-quart.....\$4.80
8-quart..... 5.25
10-quart..... 5.60
12-quart..... 6.10

TOILET AND FETLOCK CLIPPERS

No. 671—Fetlock Clipper.....\$1.75
Khedive Clipper..... 1.50
Parcel post weight, 1 pound.

Horse or Dog Clippers

No. 169—Coates' Ball-Bearing Horse Clipper.....\$3.50
Parcel post weight, 2 pounds.

FLORIST AND GARDEN SUPPLIES--Continued

OUT-OF-SIGHT MOLE TRAP

Considered to be one of the best and cheapest Mole Traps on the market. Especially valuable for hot-beds and frames on account of convenient size.

Price\$1.25
Parcel Post weight,
2 pounds.

No. 1

No. 2

No. 2

No. 1

BIRD HOUSES

These houses are made from $\frac{3}{4}$ inch White Pine, nicely painted, white enamel bodies with the roofs painted green, or finished in rustic brown stain. Both making a very fine finish, and a handsome house.

The No. 1 House is made with slanting sides so arranged that the bottom dovetails in, making it so it can be pulled out as a slide for cleaning the house. It can also be mounted on a pole by nailing the bottom on top of pole and sliding the house over it. The mounting cleat on the back can be used in putting the house up in many places, and if not needed can be taken off.

The No. 2 House has a removable bottom held in place by four screws, and this house can be mounted on a pole by nailing the bottom on top of pole, placing the house in position and replacing the screws, or can be nailed or hung up in numerous ways.

No. 1 Bird House for Wren, Painted	.....	\$1.25
No. 1 Bird House for Blue Bird, Painted	.....	1.25
No. 1 Bird House for Wren, Rustic Brown	.....	1.25
No. 1 Bird House for Blue Bird, Rustic Brown	.....	1.25
No. 2 Bird House for Wren, Painted	.....	1.00
No. 2 Bird House for Blue Bird, Painted	.....	1.00
No. 2 Bird House for Wren, Rustic Brown	.....	1.00
No. 2 Bird House for Blue Bird, Rustic Brown	.....	1.00

LITTLE GIANT MOLE TRAP

Self-setting by pressing down on lever. Very convenient feature found on no other trap. Made from best spring steel, thoroughly galvanized. Simple and durable in its construction.

Price\$1.00
Parcel post wt.,
2 pounds.

Adjusto

PLANT SUPPORTS

A sturdy, hard-wood stake seven-eighths inch square, 3, 4, or 5 feet long with a strong wire support instantly adjustable to any height.

Saves space because it keeps your plants in the air and sun, and from the ground. Enables you to cultivate close to the plant. "Adjusto" supported tomatoes ripen to perfection. "Adjusto" supports bring out the full beauty of Dahlias, Chrysanthemums and all the slender, tall-growing varieties.

4 feet, each.....\$.30
5 feet, each......35

POT LABELS

Plain Painted.

4 -in. per 1000	\$1.55	\$2.00
4 1/2 -in. per 1000	1.70	2.25
5 -in. per 1000	1.90	2.45
6 -in. per 1000	2.35	2.95
12 -in. per 100	1.10	

Special price in quantities to florists.

PAINTED TREE LABELS

Per 1000

3 1/2 -in. notched	.....	\$1.90
3 1/2 -in. iron wired	.....	2.35
3 1/2 -in. copper wired	.....	2.70

4 feet, each.....	\$.30
5 feet, each.....	.35

HEAVY OR DAHLIA STAKES

	Ea.	Per Doz.	Per 100
3 ft. ....12c.	\$1.35	\$9.90	
4 ft. ....17c.	1.50	13.10	
5 ft. ....20c.	2.20	16.80	
6 ft. ....25c.	2.85	20.60	

LIGHT PLANT STAKES

	Ea.	Per Doz.	Per 100
1 1/2 ft. ....3c.	\$.30	\$1.75	
2 ft. ....5c.	.45	3.25	
2 1/2 ft. ....8c.	.65	4.75	
3 ft. ....10c.	.85	6.25	

GALVANIZED STEEL STAKES

	100 weigh	Per doz.	Per 100	Per 1000
2 ft. .10 lbs	.25	\$1.25	\$9.75	
3 ft. .14 lbs	.40	2.00	13.75	
3 1/2 ft. .17 lbs	.45	2.25	16.50	
4 ft. .19 lbs	.50	2.50	18.55	
5 ft. .24 lbs	.65	3.40	22.50	

CANE STAKES

5 to 7 feet long.
per 100..\$.75 Per 1000..\$6.00

THERMOMETERS

No. 5120—6-inch Cabinet, magnifying tube, black oxidized scale, white figures and graduation, brass screw clasp and guard, back of oak finished, natural.....\$1.25

No. 5140—8-inch Cabinet, magnifying tube, black oxidized brass scale, white filled figures, nickled straps and guard, wood back, finished in birch......65c.

No. 5440—10-inch tin japanned, 30c.

No. 5442—12-inch Tobacco Curing, best quality, tested.....75c.

No. 5170—8-inch Distance Reading; an excellent thermometer for green-houses and for use where it is necessary to get a quick reading.....40c.

No. 5770—Incubator Thermometer may be used for a stand-up, or reclining with proper holder.

Without holder, each.....\$1.00

No. 5792—Brooder Thermometer for Prairie State Brooders, each.....75c.

No. 5794—Thermometer for all Brooders.....75c.

No. 5316S—Temprite Window Thermometer with hanger for outside of window or door, Red Spirit, Large figures, easy to read.....\$1.25

No. 5452—Self-Registering, box-wood scale, black filled figures, japanned tin case, 10-in.....\$6.00

No. 5981—Hot Bed, 16-in., wood frame, with handle, brass pointed ferrule, brass oxidized scale, white-filled figures and graduations.....\$3.50

No. 5730—Standard Dairy, stands boiling water; black oxidized brass scale, white-filled figures and graduations, range from 20 to 220 degrees.....\$1.25

No. 5715S—Floating Glass Dairy 30c.

No. 7236—Milk Hydrometer (Quevne).....\$1.50

No. 7240—Lime-Sulphur Hydrometer.....\$1.50

No. 7410—Lime-Sulphur Hydrometer, with test jar.....\$2.25

If thermometers are wanted by parcel post, add 10 cents for postage and packing.

No. 5715S No. 7410 No. 5792 No. 5120

No. 5981 Figures, easy to read.....\$1.25

ALWAYS ORDER BY FIGURE AND NUMBER WHERE GIVEN

This Duster is somewhat like the Champion Duster, except it is lighter and has a smaller capacity. A fine machine for use on small places. And will do the work well. It is nicely made and very strong. Illustration shows pipes and nozzle.

OUR SPECIAL PRICE.....\$11.00

LEGGETT'S CHAMPION DRY POWDER DUSTER

Dusts potato vines as fast as you walk, two rows at a time. Illustration below shows tubing and nozzles. Anyone can use it.

Weights, cased for shipping, 17 lbs.

PRICE.....\$16.50

LEGGETT'S STANDARD DUSTER FOR HEAVY DUTY

PRICE.....\$18.00

AUTO SPRAY No. 5

GENERAL PURPOSE HAND PUMP

It is made entirely of brass, doing away with all danger of corrosion.

The pump is double-acting. This feature makes the spray continuous. Anyone who has used a single acting pump of this kind will immediately recognize the advantage in a pump that works on both the up and down stroke.

The pump itself is so constructed that it can be taken apart.

OUR SPECIAL PRICE.....\$4.80

THE ACME POWDER GUN

Consists of a tight valveless bellows equipped with a distributing tube or nozzle, a funnel, a spreader for diffusing the spray and an elbow for placing the spray on the underside of the leaves. Handles of convenient length and bellows of fine russet leather. A very practical and convenient way of applying Paris Green, Lice Killers, Insect Powder, etc. Parcel post weight, 2 pounds.

OUR SPECIAL PRICE, \$1.50.

Midget Tin House Sprayer

Similar to Tin Can Sprayer, only smaller. Holds half pint. Indispensable in every household. Just the thing for disinfecting sick rooms, drains, vaults, kennels, etc. Also rose bushes or any small shrubbery. Will successfully apply any non-sedimental liquids. Parcel post weight, 1 pound.

Price 35 cents.

GRITCO TIN CAN SPRAYER

For spraying insecticides on plants and flowers, disinfectants in sick rooms, kennels, cellars, drains, vaults, poultry houses, etc.

Tank, 4 inches in diameter, 4 inches deep; air chamber, 1 1/2 inches long, 1 3/4 inches in diameter. Coppered steel plunger rod. Made of heavy tin plate. Each one tested for leaks and sprays. Capacity, one quart. Parcel post weight, 2 pounds.

OUR SPECIAL PRICE.....50c.

AUTO COMPRESSED AIR SPRAYER No. 26

This efficient outfit is so designed that the down stroke generates

sufficient pressure to produce a continuous mistlike spray. A decided advantage over intermittent sprayers. Container may be detached for refilling and cleaning by simply unscrewing from the pump cylinder. The ball valve may also be readily removed. Extra nozzle is supplied for spraying at an angle.

For spraying home gardens, in greenhouses, applying floor oil, handling disinfectants and insecticides. Can be used with all spraying solutions. Every household should have one for fly and ant extermination and for mothproofing clothes.

No. 26A—1 qt., all tin.....\$.90
No. 26B—1 qt., tin pump, brass tank.....1.15
No. 26D—1 qt., tin pump, galvanized tank.....1.05

Compressed Air Sprayer No. 23

A high-grade heavy-duty spray that only requires an occasional stroke of the pump to maintain working pressure.

Handles all spraying solutions, disinfectants, deodorizers, vermin-destroying oils and floor oils. Especially designed for disinfectants and spraying cows. Capacity, One-half Gallon. No. 23B, Galvanized\$2.25
No. 23C, Brass\$3.00

LEVER BUCKET SPRAY PUMPS

Fig. 632.

Fig. 632 represents the Myers Lever Bucket Spray Pump, made of brass, and fitted with brass ball valves and patented agitator. The cylinder is $1\frac{1}{2}$ inch in diameter with solid plunger. The air chamber is fifty per cent larger than the ordinary bucket spray pump, has malleable iron foot rest and malleable lever. This pump can be operated with one-half the power of the ordinary bucket spray pump, owing to the advantage of the lever handle. This pump can also be used as a barrel spray pump the head having two holes in for bolting same to the barrel.

We recommend a Bordeaux Spray Nozzle for whitewashing and painting, if you desire the Vermorel Nozzle instead of the Bordeaux, please specify.

Fig. 632, No. R 324 Lever Bucket Spray Pump, with agitator, complete with hose, Bordeaux, coarse spray and solid stream nozzle.

Our Special Price....\$7.00

No. R 324A Lever Bucket Spray Pump, with agitator, complete with hose, Bordeaux, coarse spray and solid stream nozzle and eight foot pipe extension.

Our Special Price....\$7.65

No. R 324B Lever Bucket Spray Pump, with agitator complete with hose, Bordeaux coarse spray and solid stream nozzle and eight foot pipe extension with stopcock.

Our Special Price....\$8.65

LITTLE GIANT BRASS SPRAY PUMP AND FIRE EXTINGUISHER WITH AGITATOR

Fig. 639.

Fig. 639 Spray Pump is constructed entirely of brass. They are so arranged that the labor of pumping is all on the downward stroke of the piston and nothing on the up. The effect of this operation while pumping is to hold the pump down. The foot rest steadies the pump, holding it in proper position. It is provided with a large air chamber and has brass ball valves and detachable hose; the nozzle throws a continuous spray, and is not affected by the movement of the plunger. Will throw a solid stream fifty feet, and is of unusual value in spraying trees, washing windows and buggies, extinguishing fires, spraying flowers and etc.

No. 327 $\frac{1}{2}$, Fig. 639. Bucket Brass Spray Pump, complete with hose and combination fine, coarse spray and solid stream nozzle.

Our Special Price....\$4.50

No. 328, Fig. 639. Bucket Brass Spray Pump, complete with hose and combination fine, coarse spray and solid stream nozzle, and an eight-foot pipe extension.

Our Special Price....\$5.15

THE MYERS WHITEWASH, COLD WATER PAINTING MACHINE AND GENERAL PURPOSE SPRAYER No. 329

This General Purpose Sprayer with patent Double Agitator is a most complete and serviceable outfit. The tank is made of heavy galvanized iron with a wide bottom so as to set steady in operation. The cover is removable, is held securely in place by two thumb nuts, one on each side, which holds the cover tight and prevents spilling or splashing of the liquid. Holds 7 gallons.

This is an excellent outfit for whitewashing chicken houses, fences and outbuildings. For spraying trees, shrubbery, plants and in fact anything where a small sprayer can be used. This outfit will be found just the thing.

The pump used in this outfit is the same as the No. 324 Sprayer as shown under Fig. 632, fitted with Bordeaux nozzle, brass ball valves and has jet and dasher agitator.

Complete with Hose, Nozzle, Agitator and Extension Rod.

Our Special Price, \$13.50

THE LEVER KNAPSACK SPRAY PUMP

Fig. 547.—No. 330 Galvanized.

Tank holds 5 gallons, is fitted with lid, and strainer, which can be removed. This Pump has lever, large air chamber, ball valves, solid plunger and agitator. Fitted with 5 feet $\frac{1}{2}$ -inch hose, pipe extension and Bordeaux spray nozzle; can be graduated from a fine mist to a solid stream, or shut off entirely.

Our Special Price, \$12.50

The Perfect Knapsack Spray Pump

Fig. 547.—No. 331. Copper.

Is the same as No. 330, except tank is constructed entirely of copper. Complete with hose, stop-cock, pipe extension and Bordeaux nozzle.

Our Special Price.....\$18.00

FOR SPRAYING MATERIALS, SEE PAGES 76 TO 79

ALWAYS ORDER BY FIGURE AND NUMBER WHERE GIVEN

AUTO SPRAY No. 1

Weight empty, 7 lbs.
Weight loaded, 39 lbs.
Weight shipping, 15 lbs.

A Self-Operating or Automatic Sprayer.

The Auto-Spray No. 1 is one of the best on the market. It is very strong and practical. When properly charged contains three gallons of solution and one gallon of compressed air. Ten to twelve strokes of the plunger will compress the air and two pumpings will empty the entire contents.

All parts which come in contact with solution are made of brass, and the handle and other parts are made of malleable iron.

Length of cylinder, 21 inches; diameter of cylinder, 7 inches; capacity, about 4 gallons; weight, empty, 7 pounds.

Auto-Spray No. 1C—Galvanized Reservoir, Stop Cock. Our Special Price, \$6.25.

Auto-Spray No. 1D—Galvanized Reservoir, Auto-Pop. Our Special Price, \$6.75.

Auto-Spray No. 1A—Brass Reservoir, Stop Cock. Our Special Price \$9.25.

Auto-Spray No. 1B—Brass Reservoir, Auto-Pop. Our Special Price, \$9.75.

Auto-Pop Nozzles..... \$1.50
Extension Pipe, brass, 2-foot length, 50c.;
Brass Elbow Extension..... .35
Double Row Attachment..... 1.50
Brass Strainer for straining solutions used in Auto-Spray.... 1.20

AUTO SPRAY No. 40B

Capacity, 8 gallons.
Net weight, 33 pounds.
Shipping weight, 45 pounds.

The Auto-Spray No. 40B is especially adapted for spraying whitewash, cold-water paint, as well as for spraying trees, garden vegetables, vines and plants.

Correctly designed on mechanical principles, with every unnecessary part eliminated.

The machine is equipped with 8-foot high-grade spray hose, 8-foot iron extension rod, lever shut-off and latest pattern Vermorel Nozzle.

Auto-Spray No. 40B, with 8-gallon galvanized tank equipped as described above.

OUR SPECIAL PRICE..... \$17.40

AUTO SPRAY No. 40D

The Auto-Spray No. 40D is mounted on a steel truck, with a 20-inch steel wheel with a broad tire, and is especially adapted for garden, lawn and vineyard work.

The tank is made of heavy galvanized steel with a broad, flat bottom, which rests firmly on the ground while in operation.

Plunger Brass 1½ inches in diameter, 3 to 4½-inch stroke as desired. The plunger operating in connection with the air chamber ensures greater reserve capacity than is usually found in this size machine. Plunger style pump. Graphite packing adjustable from the outside by tightening two bolts. Brass ball valves. Suction pipe fitted with brass strainer. Mechanical agitator operated from the handle.

The top casting on tank has broad flange, which prevents the solution from slopping over.

Equipped with 8 ft. ¾ heavy spray hose, 8 ft. iron extension, lever shut-off and latest pattern Vermorel nozzle.

Repair list, with formula for mixing whitewash and cold-water paint, with each machine.

Price, complete with 12-gallon galvanized steel tank, \$26.00

Victory Automatic Compressed Air Sprayer

This sprayer is similar to the No. 1 Auto Sprayer, only the locking device is different.

The locking device is simple, effective and very positive.

The tank is very high-grade galvanized steel, having a capacity of 3½ gallons, 23 inches high and 7 inches in diameter. Weighs about 9 pounds.

Equipment is complete for spraying, including 2 feet ½-inch 5-ply Spray Hose and Automatic Nozzle, which is very sensitive and effective, making a very fine and wide misty spray.

Will handle all spraying materials that any sprayer of this type will operate with.

Victory Sprayer, with Galvanized Tank and Automatic Nozzle \$5.85

SPRAYING TANK

We are having our Spray Tanks made of 1½-inch clear cypress, which has proven to be the best material for this purpose. The tanks are gripped with steel rods.

Style No. 2—Weight, 175 lbs.; capacity, 150 gallons; dimensions, 4 feet long, 3 feet wide, 2 feet 6 inches high.

Price, complete, without Agitator, but with Bolsters.

OUR SPECIAL PRICE..... \$32.00

Other sizes quoted on application.

Fig. 1188.
Weight, 41 lbs.

GOULD'S "Fruitall" Spray Pump

All Working Parts Bronze.

The Fruitall Sprayer is first-class in every respect. While the simplicity of its design allows it to be sold at a very reasonable price, and although lighter in weight and smaller in capacity than the "Pomona," we offer it as a thoroughly serviceable sprayer. The sprayer is held in place in the barrel by an adjustable clamp at

the top fitting over the end of a stave, and an anchor at the bottom of the barrel. The plunger is packed from the outside, so it is not necessary to take the entire pump apart to repack.

Plunger, 2 inches diameter; stroke, 4 inches.

Fig. 1100.
Weight,
66 lbs.

GOULD'S POMONA Spray Pump

Plunger—Diameter, 2½ inches; stroke, adjustable to 3, 4, 5 inches; discharge, ½-inch hose.

Outside Packed Plungers. No Leather Packings.

For small orchards of a few acres; a good barrel sprayer that will meet every requirement. The factory has devoted much time to the study of practical barrel sprayers, and it is with the utmost confidence we list the "Pomona" as first in our complete line. All of the working parts are solid bronze.

The pump has a steel air chamber, extending from top of pump to valve chamber, making it easy to get up sufficient pressure to continue spraying for some time after pumping has stopped. It is equipped with a long adjustable handle. The pump may be placed in any length barrel, as the barrel plate is adjustable. The agitator is simple, but very effective.

	List Price.	Our Special Price.
Fig. 1188.—Pump only with Agitator and Hose Couplings	\$19.20	\$12.00
Fig. 1188.—Outfit A.—Pump with Agitator, Hose Bands and Couplings and one Mistry, Jr. Nozzle for one lead of hose, but without Hose.	21.52	13.45
Fig. 1188.—Outfit B.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle and 15-foot lead No. 1 Spray Hose.	25.12	15.70
Fig. 1188.—Outfit C.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-ft. lead No. 1 Spray Hose, fitted in barrel	35.12	20.70
Fig. 1188.—Outfit D.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 1 Spray Hose, 8-foot Iron Extension Rod with Brass Stop-Cock, fitted in Barrel	37.76	22.35
Fig. 1188.—Outfit E.—Pump with Agitator, Hose Bands and Couplings, Two Mistry, Jr. Nozzles, two 15-foot leads No. 1 Spray Hose.	32.80	20.50
Fig. 1188.—Outfit F.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr. Nozzles, two 15-foot leads No. 1 Spray Hose, fitted in Barrel	42.80	25.50
Fig. 1188.—Outfit G.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr. Nozzles, two 15-foot leads No. 1 Spray Hose, two 8-foot Iron Extension rods with Brass Stop-Cocks, fitted in Barrel.	42.80	28.80
Fig. 1188.—Outfit H.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 2 Wire-Wound Spray Hose	25.84	16.15
Fig. 1188.—Outfit J.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-ft. lead No. 2 Wire Wound Spray Hose, fitted in Barrel.	35.84	21.15
Fig. 1188.—Outfit K.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 2 Wire Wound Spray Hose, 8-foot Iron Extension Rod with Brass Stop-Cock, fitted in Barrel.	38.48	22.80
Fig. 1188.—Outfit L.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr. Nozzles, two 15-ft. leads No. 2 Wire-Wound Spray Hose.	34.08	21.30
Fig. 1188.—Outfit M.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr. Nozzles, two 15-foot leads No. 2 Wire Wound Spray Hose, fitted in Barrel.	44.08	26.30
Fig. 1188.—Outfit N.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr. Nozzles, two 15-foot leads No. 2 Wire Wound Spray Hose, two 8-foot Iron Extension Rods with Brass Stop-Cocks, fitted in Barrel.	49.36	29.60
No. 1 Spray Hose, in longer lengths, per foot.	28	17
No. 2 Spray Hose, in longer lengths, per foot.	34	20

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

	List Price.	Our Special Price.
Fig. 1100.—Pump only with Agitator and Hose Coupling	\$35.20	\$22.00
Fig. 1100.—Outfit A.—Pump with Agitator, Hose Bands and Couplings and one Mistry, Jr. Nozzle for one lead, but without Hose.	37.52	23.45
Fig. 1100.—Outfit B.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle and 15-foot lead No. 1 Spray Hose.	41.12	25.70
Fig. 1100.—Outfit C.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 1 Spray Hose, Fitted in Barrel	51.12	30.70
Fig. 1100.—Outfit D.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-ft. lead No. 1 Spray Hose, 8-foot Iron Extension Rod with Brass Stop-Cock, fitted in Barrel	53.76	32.35
Fig. 1100.—Outfit E.—Pump with Agitator, Hose Bands and Couplings, Two Mistry, Jr. Nozzles, two 15-foot leads No. 1 Spray Hose.	48.16	30.10
Fig. 1100.—Outfit F.—Pump with Agitator, Hose Bands and Couplings, 2 Mistry, Jr. Nozzles, 2 15-ft. leads No. 1 Spray Hose, fitted in Barrel.	58.16	35.10
Fig. 1100.—Outfit G.—Pump with Agitator, Hose Bands and Couplings, Two Mistry, Jr. Nozzles, two 15-foot leads No. 1 Spray Hose, two 8-foot Iron Extension Rods with Brass Stop-Cocks, fitted in Barrel.	63.44	38.40
Fig. 1100.—Outfit H.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 2 Wire-Wound Spray Hose.	41.84	26.15
Fig. 1100.—Outfit J.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 2 Wire Wound Spray Hose, fitted in Barrel.	51.84	31.15
Fig. 1100.—Outfit K.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 2 Wire Wound Spray Hose, 8-foot Iron Extension Rod with Brass Stop-Cock, fitted in Barrel.	54.48	32.80
Fig. 1100.—Outfit L.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr. Nozzles, two 15-ft. leads No. 2 Wire-Wound Spray Hose.	49.60	31.00
Fig. 1100.—Outfit M.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr. Nozzles, two 15-foot leads No. 2 Wire Wound Spray Hose, fitted in Barrel.	59.60	36.00
Fig. 1100.—Outfit N.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr. Nozzles, two 15-foot leads No. 2 Wire Wound Spray Hose, two 8-foot Iron Extension Rods with Brass Stop Cocks, fitted in Barrel.	64.88	39.30
No. 1 Spray Hose, in longer lengths, per foot.	28	17
No. 2 Spray Hose, in longer lengths, per foot.	34	20

THE MYERS POWER SPRAY GUN

LENGTH OVER ALL, 26 INCHES.

Utilizes the Entire Capacity of any Power Spray Pump and Does Away With All Bamboo Extensions, Nozzles and Fittings.

All Working Parts on the Outside. Not Subject to Corrosion. Fig. 1824.

Fitted for 3/4-inch Hose Coupling and 1/4-inch Pipe. LIST PRICE, \$9.60. OURS PECIAL PRICE, \$6.00.

The Myers Overhead Sprayer

FOR POTATOES, COTTON OR OTHER FIELD CROPS
Nozzles Adjustable to Any Required Height and to Any Width Row.

No. 6, Myers Hand Overhead 4 Row Adjustable Sprayer. Complete with all necessary Hose and Nozzles (Pump and Barrel not included).

LIST PRICE \$32.00. OUR SPECIAL PRICE, \$20.00.

Double-Acting Spray Pump

MOUNTED ON SKIDS

The general construction of this Spray Pump Outfit cannot be too highly commended. This desirable outfit meets the demand for a pump that can be used in a wagon or cart. It cannot upset. One of the most desirable outfits on the market.

Outfit A—Pump, complete, 50-gallon barrel mounted on skids, with pressure gauge; one 15-ft. lead 1/2-in. discharge hose, 8-ft. pipe extension with lever shut-off, spray nozzle and mechanical agitator.

Price...\$54.00

Outfit B—pump, complete, 50-gallon barrel mounted on skids, with pressure gauge; two 15-ft. leads of 1/2-in. discharge hose, 8-ft. pipe extension with lever shut-off, spray nozzles and mechanical agitator.

Price \$60.00

Gould's New Combination Hand and Power Sprayer

Vertical Outside Packed, Bronze Plungers, Bronze Glands, Valves, Etc.

High-Grade Sprayer for Orchard Work. Also for Whitewashing.

Fig. 1640—Has two bronze plungers operating in two vertical cylinders, which are packed with a material unaffected by spraying solutions. This construction permits all gritty particles to pass through valves and out; does not grind the cylinder. Ports are large and direct. Valves are bronze, ground to fit their bronze seats, are accessible through handholes. This is the easiest operated Pump of its capacity on the market. Diameter of Cylinder, 2 inches; Suction Hose, 3/4 in.; Discharge Hose, 1/2 in.

Fig. 1640
Weight, 110 lbs.

	Our List Price.	Special Price.
Fig. 1640—Pump only with Suction Strainer and Hose Coupling.....	\$68.80	\$43.00
Fig. 1640. Outfit A—This outfit includes Pump, Suction Strainer, one Mistry, Jr., Nozzle, Hose Bands and Couplings for one lead, but without Hose.....	71.76	44.85
Fig. 1640. Outfit B—This outfit includes Pump, Suction Strainer, two Mistry, Jr., Nozzles, Hose Bands and Couplings for two leads, but without Hose.....	75.20	47.00
Fig. 1640. Outfit C—This outfit is the same as Outfit A, except with one 15-foot lead of No. 1 1/2-inch Discharge Hose and 5 feet 3/4-inch Suction Hose.....	76.80	48.00
Fig. 1640. Outfit D—This outfit is the same as Outfit B, except with two 15-foot leads No. 1 1/2-inch Discharge Hose and 5 feet 3/4-inch Suction Hose.....	83.84	52.40
Fig. 1640. Outfit C2—This outfit is the same as Outfit A, except with one 15-foot lead No. 2 Wire-Wound 1/2-inch Discharge Hose and 5 feet 3/4-inch Suction Hose.....	77.44	48.45
Fig. 1640. Outfit D2—This outfit is the same as Outfit B, except with two 15-foot leads No. 2 Wire-Wound 1/2-inch Discharge Hose and 5 feet 3/4-inch Suction Hose.....	85.28	53.30
If Pressure Gauge is wanted, add.....	4.00	2.50

Gould's Dreadnaught Duplex Power Sprayer

WITH AUTOMATIC GOVERNOR

This Gould's Duplex Spray Pump is a high grade, medium size, single-acting power spray pump, designed for pressures up to 250 pounds and is fitted with double reduction spur gearing. This gearing permits the pump to be direct-connected to an engine shaft without the use of a jack or extra gearing. The gear ratio is 9 to 1. When operated at the speeds recommended—50 to 67 revolutions per minute—engines with speeds of 450 to 600 revolutions per minute can be used. At a speed of 50 revolutions per minute it has a capacity of 5.30 gallons per minute, and at 67 revolutions per minute, 7.00 gallons.

This pump is equipped with an automatic governor which operates as follows:

When the pump is in operation and the spray nozzles open the flow of liquid has free access to the air-chamber and thence to the spray nozzles. Any excess pressure causes a diaphragm to open an overflow outlet which automatically relieves the pressure by allowing the surplus liquid to return to the tank.

The over all dimensions are: Width, 18 1/2 inches; length, 24 inches; height, 19 1/2 inches. This makes a very compact outfit.

Fig. 1705—Power Sprayer with Automatic Governor.

Pump with Strainer and Hose Couplings	Cylinders		Suction Hose	Discharge Hose	Approx Weight Lbs.	List Price	Our Special Price
	Diam. Ins.	Stroke Ins.					
	2 1/2	2 1/2	1-in	1/2-in	210	\$170.00	\$100.00

THE MYERS SELF-OILING POWER SPRAY OUTFIT

FITTED WITH AUTOMATIC DUPLEX PUMP.

Complete Except Engine

Belt Driven. Simple, Strong and Efficient.

The Automatic Pressure Governor Insures Safety, Secures Uniform Pressure and Eliminates Unnecessary Wear. Relief Valves Not Required.

Fig. 2193

Fig. 2193 represents the Myers Self-Oiling Spray Outfit, which is furnished complete including hose, spray gun, pump, tank, agitator, etc.; in fact everything with the exception of the engine and wagon truck. The pump is supported on channel bars riveted to the frame. The engine is mounted on a 2 inch plank platform, the object being to supply a construction so that the consumer who is familiar with the use of the ordinary gas engine, can set it on the rig and dismount when wishing to use it for other purposes without requiring the services of a machinist. The entire framework is made of channel and angle iron, producing a very stiff frame with the least possible weight. The tank is made of selected cypress which makes a flexible joint and relieves the tank from all strain. The frame is fitted with two cross channel bars on the underside, which fit over the bolsters of the wagon, preventing forward or backward movement. The cab has heavy curtains for protection of the engine and pump.

Fig. 2193, No. 28, Myers Self-Oiling Spray Outfit, with 150-gallon Cypress Tank, fitted with Self-oiling 2 1/2-in. Duplex Power Spray Pump, equipped as follows: One Myers Spray Gun, 25 ft. 1/2 in. Power Spray Hose, Coupled; Double Cut-Off for discharge lines; Pressure Gauge; Rotary Agitator; Belt Tightener, Suction pipe taken from bottom of tank, with cut-off. As shown in illustration \$250.00

No. 28, Outfit, with 2 H. P. Fuller and Johnson Engine and Belt 330.00

No. 28, Outfit with 2 H. P. Fuller and Johnson Engine and Belt, Mounted on Low Down Farm Truck, with Doubletrees and Neck Yoke 387.00

Hudson Moro Spray Pump

The Hudson Moro Spray Pump handles all spray solutions. Its high pressure adapts it for use in small orchards, vineyards and truck gardens; for use with whitewash and cold water paints, with insecticides, fungicides, disinfectants, stock dips, etc. A convenient portable outfit because it can be used with any bucket, pail or small tank. Unusually long foot rest permits using higher bucket than most pumps will accommodate. All working parts are brass. Valves and nozzle parts are easily accessible for cleaning, etc. Nozzle discs are reversible producing any desired spray from finest mist to coarse stream.

No. 126. Moro. Price \$5.90

HUDSON MODOC SPRAY PUMP

The Modoc is a double acting high pressure spray pump of large capacity. It will develop 150 pounds pressure at the nozzle. Can be used with any bucket or small tank. Valves and plunger can be removed with a common wrench for cleaning or inspection. All parts except the handle and foot-rest are brass so that the working parts can not corrode, rust or get out of order.

Price \$4.20

Hudson Ideal Sprayer

The Ideal is a high pressure portable outfit. It is equipped with a regular barrel pump which develops and maintains a working pressure of 200 pounds. Has capacity for two lines of hose if desired. It is a strong, durable machine, very well designed. Because of its portable construction, it is an exceptionally handy outfit for the orchardist or fruitgrower. It is also a great favorite in the stock barns, cattle pens, poultry houses, etc. It is a practical outfit for whitewash, cold-water paints, insecticides, stock dips and remedies, etc. It can be used in a variety of ways throughout the entire year.

Tank. Heavy copper-bearing galvanized, reinforced at top and bottom with channel iron hoops. Easily removed. Capacity 15 gallons.

Frame. Heavy steel tubing.

Wheel. 18 inches diameter, 2 1/2 inch tire; strong, light and rigid.

Discharge Equipment. 6 feet of 3/4 inch spray hose and a 4 foot 1/4-inch pipe extension—total 10 ft., angle Ideal spray nozzle and leakless shut-off.

Shipping Weight. Crated securely, 75 pounds.

No. 32. IDEAL, Galvanized Tank. Price each....\$23.25

HUDSON SPRAYERS

HUDSON PERFECTION SPRAYER

For work of any kind requiring a high pressure compressed air sprayer, the Perfection is supreme. It provides an easy and economical means of whitewashing, cold water painting, disinfecting, etc. It is very practical for use around the orchard, barn, or outhouse; on small truck farms; in onion, melon and small potato fields; for removing old wall paper, spraying stock dip, etc.

Tank. 7½ inches diameter, 20 inches high; capacity approximately 4 gallons. All seams are riveted and soldered.

Pump. Seamless brass tubing, 1¾ inches diameter, 15 inches long.

Nozzle. Is especially designed for high pressure work.

It is automatic in action and operates perfectly under all pressures. Fitted with standard ¼ inch pipe threads so an extension rod can be used with it.

No. 110G. **PERFECTION**, Galvanized Tank. Price each...\$7.00
No. 110B. **PERFECTION**, Brass Tank. Price each.....10.00

HUDSON LEADER SPRAYER

The **LEADER** is of the same high grade construction as the **PERFECTION SPRAYER**, having heavy galvanized tank, hose connection at the right angle to prevent hose from breaking, standard length hose, and with automatic nozzle.

The locking device for attaching the pump in tank is very positive and strong, quick of action and very handy.

Will do any work any other sprayer of this type will do. Capacity of tank about 4 gallons. A real value.

Price\$5.50

HUDSON JUNIOR SPRAYER

The Hudson Junior Sprayer is made for the man who needs a high pressure compressed air sprayer of small capacity. It is particularly adapted for the back-yard garden or small truck farm, for use around the chicken house, in the dairy barn, hog pen, for disinfectants in the home or in hotels, restaurants, theatres and other public buildings.

Tank. 6½ inches diameter, 17 inches long; capacity about 2½ gallons.

Pump. 1¾ inches diameter, 15 inches long; seamless brass tubing.

Nozzle. Our "Perfection" automatic shut-off nozzle, which will handle all solutions perfectly. Operates positively under all pressures. Fitted with ¼-inch pipe thread so that an extension rod can be used with it.

No. 140G. **JUNIOR**, Galvanized Tank. Price each.....\$5.00

HUDSON MIDGET SPRAYER

A small, well made sprayer for general purposes and especially adapted for use in and about the home. Will handle all kinds of liquids satisfactorily.

No. 202 Price.....\$.35

HUDSON MISTY SPRAYER

The Hudson Misty is universal favorite for use about the house, yard, back-yard garden, poultry house, etc. Note its sturdy appearance and construction, which combines strength, simplicity and neatness. The point of the pump passes through the tank and is firmly soldered. Spray tube is aligned before soldering so that the air and syphon tubes are always in line. Every Sprayer carefully tested and inspected before packing.

No. 452 Tin. Price\$.50

HUDSON CONTINUOUS LACQUER SPRAYER

The Continuous Lacquer Sprayer has an air chamber and valve assembly for storing up air pressure. This head of air produces a continuous spray with no break between strokes.

The nozzle is adjustable for various densities of spray, enabling the operator to tone down the finish, produce shading effects and retouch delicate jobs.

Discharge tube, valve assembly and nozzle easily removed for cleaning. Pump is equipped with special cup leather, heavy plunger rod and comfortable wood handle. Capacity one quart.

An exclusive feature of this sprayer is the air valve on top of pump, permitting an immediate release of pressure in the tank. Price each\$1.75 Extra Cans Price each .75

HUDSON TROMBONE SPRAYER

The Hudson Trombone Sprayer is a high pressure spray pump adapted for spraying orchards, vineyards, shrubbery, shade trees, potatoes and field crops; for whitewashing, disinfecting, spraying stock dip and fly oils, washing windows and automobiles, fighting fires and numerous other purposes.

Equipment. Fitted with 3 feet of ¾ inch spray hose, brass intake pipe and strainer, weighted so as to remain in barrel or pail when being used. Fog nozzle with reversible discs for various jobs. Can be used with extension if desired, for reaching under sides of plants, etc.

No. 123. **TROMBONE** Price each.....\$4.35

HUDSON MAJOR DUSTER

The Hudson Major Duster handles Paris Green, Arsenate of Lead, Calcium Arsenate and similar poisons very efficiently. It is used in the home garden, on truck plots, in cotton, potato and tobacco fields, in the dairy barn, around the poultry houses, etc.

Pump. Heavy tin, 2¾ inches diameter, 9 inches long. Fitted with special Hudson plunger leather and heavy rod.

No. 665. Price\$1.25

Sectional View.

MISTY JR. NOZZLE

THE BEST
NOZZLE YET.

The Misty Jr. Nozzle is made from Brass with hardened tool steel disks in discharge cap. The steel disks can be inserted without the least trouble.

This nozzle has been tested under all conditions, and found to give entire satisfaction. It produces a perfect mist and covers a wide area. This nozzle is in our opinion the best that can be had. Brass, with extra steel disk.....\$1.00

Can also supply these nozzles with 45-degree angle. Same prices as above.

Extra Steel Disks for Misty, Jr., Nozzle.....5c.

Extra Caps for Misty, Jr., Nozzle...30c.

BORDEAUX NOZZLE

The Bordeaux Nozzle can be readily changed from a solid stream to a mist-like, fan-shaped spray. Should there be any clogging of the nozzles with the spray material, it is easily remedied by turning the handle.

An excellent nozzle for white-washing.

Price...\$1.25

VERMOREL NOZZLE

This is an improvement on the old style Vermorel Nozzle spray is finer and more evenly distributed. The cap with smaller hole makes finer spray.

Fig. 55—Gould's Vermorel Nozzle, each, One Discharge, \$1.00.

Caps for above, 25c. each.

HOSE COUPLING

Fig. 1284.

BRASS HOSE COUPLINGS, FIG. 1284.

Fig. 1284 is a special Brass Hose Coupling, made with double length nipples, with heavy ribs, of sufficient length to use two hose bands if necessary. Especially adapted for use with Power Spray Pumps. Made in 1/2-in. size. Price, each.....60c.

Spray Pump Accessories

LEVER SHUT-OFF COCK, NO DRIPPING

Fig. 64.

Fig. 64—Lever Shut-off Cock, all brass. Made for use with Pipe Extension. Requires quarter turn only to shut off complete. This quick action makes it a practical device for the purpose. Tapped 1/4-inch pipe size. Price, each...\$1.00

LONG SHANK HOSE COUPLING

Fig. 67—Brass coupling, has one end cut 1/4-inch gas pipe and other end shank to wire into hose. Made from solid brass. Price, each...35c.

45° BEND BRASS Y

Fig. 1584—Brass Y with the two branches of the Y bent as shown.

Price.....50c.

Fig 1074 1/2 — Brass Y straight.

Price.....50c.

Fig. 49 1/2

BRASS Y

Brass Y is cut 3/4-inch. Female Hose inlet, with lateral discharges to fit 1/2 and 3/4-in. Hose Couplings.

Price.....75c.

60° BRASS ELBOW

Fig. 1107—Sixty degree brass elbow, threaded both ends 1/4-inch pipe for use with any nozzle.

Price.....30c.

REDUCING COUPLING

Fig. 65—Coupling small end cut 1/4-inch pipe thread to fit our spray nozzles, large end cut to fit 3/8-inch, 1/2-inch or 3/4-inch male hose coupling.

Price.....30c.

PRESSURE GAUGE

Fig. 30 1/2.

Brass Pin Silvered Dial, with black figures. Up to 200-pound pressure, with stop-cock.

Price—

2 1/2 in...\$3.25

3 in.....3.75

FUNNEL STRAINER

For straining spray solutions.

Heavy Galvanized Strainer with Brass Mesh.....\$1.75

Fig. 1346

Relief Valves

FOR POWER SPRAY AND OTHER POWER PUMPS.

3/4-inch.....\$6.00

Hose Nipples

1/2-in. or 3/4-in. hose, 3/4-in. iron pipe...\$4.40
1/2-in. or 3/4-in. hose, 1-in. iron pipe...40
1/2-in. or 3/4-in. hose, 1 1/4-in. iron pipe...70
1-in. hose, 1-in. iron pipe.....60

RUBBER GLOVES

EXTRA HEAVY, ALL-RUBBER, SEAMLESS GLOVES

Just the thing to handle the poisonous chemicals used in the different spraying mixtures. Can be worn with canvas gloves inside or outside.

Price.....\$3.00

EXTENSION SPRAY-RODS

Fig. 1536.

Fig. 1535.

BAMBOO

8 ft. with stop cock...\$4.20
8 ft. without stop cock...3.25
10 ft. with stop cock...4.75
10 ft. without stop cock...3.75

Fig. 480—8-foot pipe extension, with couplings.....\$.65
Fig. 1535—8-foot pipe extension, with stop-cock.....1.65

GARDEN HOSE

Our brands of hose are all made up to our order, experience having taught us that High-Grade Hose is the cheaper. Low-Grade Hose will not give satisfaction.

These brands of hose are guaranteed to be as represented, and have given our trade satisfaction for years.

	Per Ft.
ORIOLE —5-ply, $\frac{3}{4}$ -in., in 25 and 50-foot lengths (75 lbs. pressure)	\$0.14
GRIFFITH & TURNER CO'S EXTRA —3-ply, $\frac{3}{4}$ -in., in 25 and 50-foot lengths (80 pounds pressure)	.16
GRIFFITH —6-ply, $\frac{3}{4}$ -in., in 25 and 50-foot lengths (125 pounds pressure)	.18

GRITCO MOULDED GARDEN HOSE

The construction of this Hose is entirely different from regular Hose. Over a seamless tube of high-grade rubber is braided two plies of tightly twisted cotton yarn.

Between each ply is placed a distinct layer of high-grade rubber.

The Hose is protected by a cover made of rubber specially compounded. It is vulcanized in patented moulds under very high pressure.

This Hose is manufactured in continuous lengths up to five hundred feet.

$\frac{3}{4}$ -inch, per foot, coupled, 18c.

HOSE FOR SPRAY PUMPS

We do not recommend a cheap Hose for spray work. Large sprayers handling a high pressure should use our No. 2, $\frac{1}{2}$ -inch spray Hose. This Hose is made especially for this work. It is extra strong and is wire wound, adding to its strength, and insuring long life, as the wire also protects it from rough usage.

The No. 1, $\frac{1}{2}$ -inch Spray Hose will be found satisfactory for the various hand pumps.

Spray Hose is made especially for spray pumps, being so constructed that spraying solutions have the least possible effect on them.

	Per Ft.
$\frac{1}{2}$ -inch Oriole	\$0.13
$\frac{1}{2}$ -inch Spray No. 1	.16
$\frac{1}{2}$ -inch Spray No. 2, wire wound	.18
1-inch 3-ply Hose	.30
1-inch Hard Rubber Suction Hose	.40
2-inch Wire-Lined Suction Hose	.75
$\frac{1}{2}$ -inch Hose comes in 10, 15, 25, 30 and 50-foot lengths. We cannot cut other lengths. 2-inch Hose comes in 5, 10 and 20-foot lengths.	

HOSE COUPLING

Fig. 504.

These Hose Couplings are made from brass, thoroughly machined, and are in perfect shape. The $\frac{3}{4}$ -inch are made from spun brass, and are very light and neat, assuring a large flow of water, as the opening is not reduced.

Fig. 504—Brass Hose Couplings:

Size, inches,	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$
Complete	30c.	30c.	35c.	\$1.00 \$1.75
Female Half	15c.	20c.	25c.	.75 1.30

SHERMAN'S BRASS HOSE CLAMPS

Fig. 1272, each, $\frac{1}{2}$ -in., 5c.; Brass Hose $\frac{3}{4}$ -in., 5c.; 1-in., Clamps, 15c.

COOPER HOSE MENDER

No clamps necessary. Impossible to pull out of hose. Each, 10c.; dozen.....\$1.00

HOSE REELS

PARK REEL NO. 21.

A tubular iron reel and frame mounted on steel wheels, tires $1\frac{1}{2}$ inches.

Height of wheels.....28 in.
Outside width over all. 26 in.
Shipping weight.....45 lb.
Capacity, $\frac{3}{4}$ -in. hose. 200 ft.
Capacity, 1-in. hose.....100 ft.

Price.....\$12.00

The No. 20 Tubular—

Wheels, 24 inches; weight 20 lbs. Capacity, 150 feet; $\frac{3}{4}$ -inch hose.

Price.....\$6.00

No. 200 ALL-STEEL REEL

Diameter of wheels....7 in.
Diameter of reel.....20 in.
Diameter of drum.....9 in.
Width of drum.....10 in.
Height of handle.....39 in.
Capacity, 100 ft. $\frac{3}{4}$ -in. hose.
Weight about 25 lbs.

The weight of the hose is on the wheels, not on the hands when being moved about. This reel is light, yet rigid and durable.
Price\$5.00

"Victor."

"VICTOR" REEL

is constructed with channel steel frame; strong, cast-iron wheels; solid steel reel arms and 9-inch drum of heavy corrugated steel.

Weight, 12 $\frac{1}{2}$ lbs., bundled for shipping. Capacity, 100 ft. of $\frac{3}{4}$ -inch rubber hose.
Price....\$3.00

GIBBS HOSE MENDER

In the Gibbs Hose Mender we believe that we have a device that possesses some unusual points of excellence. The Gibbs has a cast tube, which supplies a solid foundation

for the steel fingers and which will withstand more abuse and hard knocks than a tube of lighter weight and construction.

The steel fingers of the Gibbs Mender are scientifically designed to grip the hose without injury to the fabric, and when properly applied, are sure to hold the ends of the hose in position.

The convenience of this mender lies in its simple application. Simply cut the hose apart where a leak occurs, insert the tube and hammer down the steel fingers.
Price, each $\frac{3}{4}$ in.....\$1.10
Price, dozen $\frac{3}{4}$ in.....1.15

No. 10 All-Steel Reel.

Diameter of wheels...22 in.
Diameter of drum....9 in.
Width between wheels.10 in.
Length of handle....28 in.
Capacity, 100 ft. $\frac{3}{4}$ -in. hose.
Weight about 17 lbs.

The large wheels roll easily over rough or soft ground. Nothing to get out of order.

Rigid, Durable, Attractive.
Price\$3.25

Rain King Hose Nozzle

The First Perfect Hose Nozzle
A New Patent

The world has never seen the equal of this wonderful hose nozzle. Picture any conceivable adjustment from a long, solid stream to the finest mist spray—and only a quarter turn of the nozzle from one extreme to the other.

This is the only hose nozzle without moving parts to wear, clog or give trouble. The different sprays are obtained by a new and unique principle. Throws more water farther than any other hose nozzle made.

Combines unusual simplicity with greater efficiency. Wear-proof, leak-proof and guaranteed forever.

The Rain King Hose Nozzle is packed in individual boxes.

Weight, 10 Ounces.

Price, each\$1.50

HOSE NOZZLE

This nozzle is made from solid brass and is adjustable for all kinds of spraying, from solid stream to the finest spray, or can be shut off entirely.

¾-in. Justrite Nozzle.....80c.
Parcel Post Weight 1 Pound.

THE FOUNTAIN SHOWER

A Hose Nozzle with the "Mist-Like Spray"

This shower Sprinkler is the best thing for attaching to the hose to be used like a watering pot. It gives a fine gentle shower and does not injure the plants as a heavy stream might do.

P. P. Weight 1 lb.

Price40c.

THE RAIN KING

Absolutely nothing to get out of order.

Set instantly as a revolving or stationary sprinkler.

Distributes water perfectly at any pressure, either revolving or stationary.

Nozzles adjust immediately to a fine spray or coarse spray, with any pressure.

Waters a greater area than any other sprinkler, under any water pressure.

Waters a small or large circle, from 8 to 80 feet in diameter. Instantly adapted to surface to be covered.

Waters strips, corners or any odd-shaped places, or sprays trees, shrubs, flower beds, etc., without "slopping over" on walks or adjacent buildings.

Lacks the troubles common to the ordinary sprinkler.

Runs fast or slow, as wanted.

Price.....\$3.50

REVOLVING SPRINKLER

The Sprinklers are compactly and strongly made, with phosphor-bronze bearing.

Eureka Sprinkler, 12 in. high....\$2.50

Newport Sprinkler, 24 in. high.....4.50

Parcel Post Weight, 5 Pounds.

Fountain Ring Sprinkler

MADE OF HEAVY BRASS.

Easily moved over the lawn without turning off the water. The mist-like spray is a veritable "thing of beauty."

Price85c.

The Double Rotary Sprinkler

STANDS EVERY TEST

PATENTED

Price\$12.50

You can now plan a beautiful flower garden, plant your vegetables and dress up the lawn with an assurance of moisture throughout the entire summer.

All you need is water pressure and the Double Rotary Sprinkler. Many users tell us they save the wages of a man. Think of a machine weighing

only seven pounds, yet capable of covering an area of from 15 to 80 feet in diameter according to pressure. You control distance by turning faucet. Not a spray, but penetrating drops like rain. So simple a nine-year-old child can attach the hose and turn on the water. Nothing to go wrong. Built of best materials and will last for years. The Double Rotary requires no watching, yet your friends and neighbors will gaze with admiration on this faithful servant.

Many times you have admired the greens of a Golf Course and wondered how they were kept so beautiful. Nearly 400 Golf Courses in the United States use the Double Rotary Sprinkler exclusively for their greens.

Price\$12.50

B. D. Sifter

Made from heavy tin, bottom and side perforated. Can be adjusted to put on a small or large quantity of dust on potatoes or other vines. Parcel post weight, 2 lbs. Price75c

Dickey Duster

Parcel Post Weight, 2 pounds.

Price.....50c.

C. B. G. SPRINKLER

No. 54

Price, 40c.

U. S. PLANT TUBS

These plant tubs are made from best grade cedar, with strong iron handles and feet. Just the thing for Palms, Rubber Plants, etc. Painted Green with Black Trimmings.

Painted Green.

No.	Outside Diameter.	Top Depth.	Price.
1.....	12	10 3/4	\$2.50
2.....	13	12 3/4	3.25
3.....	14 1/2	14 3/4	4.00
3 1/2.....	16 1/2	15 3/4	5.50
4.....	19 3/8	16 3/8	6.00
5.....	22 3/8	18 1/2	8.00

RICHMOND STYLE

The Richmond style fills a long-felt want for a cheap type of plant tub and is being used by many large florists in place of earthen pots. These plant tubs are nicely painted with the best oil paints—a handsome green color inside and out. The tops of the staves are slightly beveled, which gives them a neat, trim finish.

Size	Inside Top Diam. Inches.	Inside Bot. Diam. Inches.	Inside Depth Inches.	Thickness of Stave Inches.	Price Each.
No. 3.....	8	6	8	3/8	\$.65
No. 4.....	9	7	9	3/8	.70
No. 5.....	10	7 1/2	9	7/16	.80
No. 6.....	11	8 1/2	10	1/2	1.00
No. 7.....	12	9	11	1/2	1.20
No. 8.....	13	10	12	1/2	1.50
No. 9.....	14	11	13	5/8	1.70
No. 10.....	15	11 1/2	14	5/8	1.85

CEDAR PLANT TUBS

PLANT BOXES—Galvanized Green Finish

Sub-irrigating device insures uniform distribution of water and air throughout the entire length of box. Best results obtained by putting gravel, charcoal, moss or something of the kind in bottom of box up level with top of horizontal water conductor. Then fill with rich earth. Water through upright tube.

Size	24"x8 1/2"x7 1/4	.....	\$1.25
	30"x8 1/2"x7 1/4	.....	1.60
	36"x8 1/2"x7 1/4	.....	2.40

THE SÄVÖ STEEL All-Year-Round Flower Box

Patented Jan. 23, 1910

Model A—8 in. high, 9 1/2 in. wide, 23 in. long.....	\$3.00
Model B—8 in. high, 9 1/2 in. wide, 29 in. long.....	4.00
Model C—8 in. high, 9 1/2 in. wide, 35 in. long.....	4.50
Model D—8 in. high, 9 1/2 in. wide, 41 in. long.....	5.00
Model E—8 in. high, 12 in. wide, 12 in. long.....	3.00
Model F—12 in. high, 12 in. wide, 12 in. long.....	3.50
Model G—Round box with stand complete.....	6.00

Self-Watering and Sub-Irrigating for Windows, Porches, Sun Parlors, etc. Perfect AIR Circulation and Drainage Leakproof and Rustproof Most Efficient, Durable, Artistic

FIBRE FLOWER VASE

Moulded seamless in one piece, without rivets or joints. Absolutely waterproof. Cannot rust or corrode, scratch furniture or leave rust marks. Noiseless. Will harmonize with the most luxurious surroundings.

Size	Height	Top.	Price.
2.....	8 3/4"	4 3/4"	\$1.00
33.....	12"	4 3/4"	1.25

New Way to Grow Vegetables, Flowers and Potted Plants!

If you feed your potted plants, flowers and vegetables on Plantabbs each week or ten days they'll grow lots better than any fertilizer will make them grow. Plantabbs are a complete food in odorless tablet form—guaranteed to contain 11% nitrogen (ammonia), 15% phosphoric acid and 20% potash. Include in your next order. Price: 30 tablets 25c.; 65 tablets 50c.; 150 tablets \$1.00; 1000 tablets \$3.50.

FULTON'S
Plantabbs
ODORLESS PLANT FOOD TABLETS

STIM-U-PLANT

PLANT STIMULANT TABLET

1. Gives an EXACT FEEDING UNIT—No guesswork.
2. Provides for ABSOLUTE CONTROL of feeding, eliminating the danger of overfeeding.
3. No MESSY MIXING.
4. No unpleasant ODOR.
5. Is EASIEST to APPLY.
6. Insures MAXIMUM EFFICIENCY because the plant gets all the food-value—none being lost through scattering where not available to the plant, leaching and run-off of surface soil-water.

7. Makes REPOTTING of house plants UNNECESSARY, as it replaces the food withdrawn by the growing plant. Because of its ready solubility, STIM-U-PLANT can easily be used as a liquid manure, by dissolving the tablets in water at the rate of four to the gallon. Small size, 30 tablets... \$0.25 Large size, 100 tablets... .75

WATER TRUCKS AND COMBINATIONS WITH STEEL WHEELS

Fig. 1 represents our Barrel Cart, to which can be attached any of our Barrel Spray Pumps. This is a convenient combination, and may be found useful in various ways, such as watering gardens, spraying fruit trees, etc.

Fig. 2 shows Truck with Leaf Rack Attachment. Fig. 3 shows Truck and Barrel with Sprinkler Attachment.

Fig. 4 shows Truck and Box, with Barrel Detached. Dimensions: Height of Wheels, 2 ft. 9 in.; Distance between Trunnions, 2 ft. 2½ in.; Width Tire, Steel, 1½ in., 2½ in., 3½ in.; Wood, 1½ in., 2½ in., 4 inches.

Box Inside Measure: Width, 22½ in.; Length, 24 in.; Height, 8½ in. Box has tail door.

Prices.

	List Price.	Special Price.
Water Truck, with Regular 1½-inch Tire Steel Wheels.....	\$20.70	\$13.75
Water Truck and Barrel	29.40	18.75
Water Truck and Box	28.20	18.25
Water Truck, Barrel and Box.....	37.20	23.25
Sprinkling Attachment	10.00	6.00
Leaf Rack	15.00	9.00
Barrel	9.00	5.00
Box	7.50	4.50
Trunnions, per pair.....	1.60	.90

Trucks with 2½-in. Tire Steel Wheels, add to regular Tire Truck.....	1.60	1.00
Trucks with 3½-in. Tire Steel Wheels, add to regular Tire Truck.....	3.20	2.00
Trucks with regular 1½-in. Tire Wood Wheels.....	20.70	13.75
Trucks with 2½-in. Tire Wood Wheels, add to regular Tire Truck.....	1.60	1.00
Trucks with 3½-in. Tire Wood Wheels, add to regular Tire Truck.....	3.20	2.00

Extra Truck Wheels.

	List Price.	Special Price.
1½-in. Tire Wood or Steel Wheels, each	\$4.80	\$3.00
2½-in. Tire Wood or Steel Wheels, each	6.00	3.50
3½-in. Tire Steel Wheels, each.....	6.50	3.75
3½-in. Tire Wood Wheels, each.....	6.50	3.75
Axles, with Trunnion Holders, each.....	4.00	2.50

WHEELBARROW LEAF-RACK ATTACHMENT

Can be attached to any style or size wheelbarrow with removable sides. Most convenient for gathering leaves, cut grass and rubbish. One of these attachments should be in use on every small suburban place, as well as the larger estates. Capacity, 10 bushels; made of galvanized wire, bolted to a wooden base. List Price, \$12.00. Our Special Price, \$7.50

Fig. 7.

BALTIMORE LAWN AND STREET SPRINKLER

LIST, \$250.00
RETAIL, \$150.00

Parks, Cemeteries and Country Places having a considerable amount of Roadway, Walks and Lawns will find that the Baltimore Lawn and Street Sprinkler will greatly improve their condition. For this purpose our Sprinkler will meet every requirement. It may also be used for carrying water and other purposes.

It is a substantial and well-made Sprinkler in every respect. Driver can operate it from the seat.

Capacity About 160 Gallons.

BALTIMORE PUSH CART

For the merchant, printer, farmer, etc., to have one of these carts on his premises it will be found a most useful vehicle. There are so many purposes for which they can be employed—carrying bundles, printers' forms, farmers' tools and light implements, etc. It is never out of place, and always ready to pick up at short notice. They are nicely finished; higher wheels, better ironed and altogether superior to anything of its kind on the market. There is now an immense demand for these carts, but notwithstanding we have placed the price low.

Retail.....\$18.00 List.....\$27.00
Extra wheels, each—List, \$5.20. Retail, \$3.25.

Monitor Cart No. 53

The Monitor Construction. The frames of the bodies are made of special carbon steel, riveted together with best Norway rivets. It is very light and strong, with durable first quality bass-wood box inside, and have oil-tempered half elliptical springs. The leg being V-shaped and pivoted at its two extremities to the bodies, forms an effective handle brace.

Lightness. We claim for the MONITOR Hand Cart extreme lightness. These carts weigh about one-third as much as the old-fashioned wooden cart.

They are especially adapted to the use of manufacturing or mercantile business, and are indispensable to grocers, bakers, laundries, printers, painters, plumbers, paper-hangers, carpenters, tin smiths, gardeners and general family uses.

No. 53—Box 29x44x10 inches. 30-inch wheels. 3—16-inch spokes. Weight, 110 pounds.

OUR SPECIAL PRICE..... \$23.80

Monitor Cart No. 23

The great convenience of a three-wheel cart will be appreciated when you realize that the weight is all upon the ground and none on the party pushing it. This cart is especially designed for convenience. It is nicely made, the body is finished in green nicely striped and varnished, the gear is finished in red.

It is just the thing for printers, grocery stores, factories, and in fact its many uses would be hard to enumerate.

The frame of bodies are made of special carbon steel, riveted together, the bodies are large, giving ample room for a large load. In the construction of MONITOR CARTS we use the very best material, making this the **lightest and strongest** cart obtainable.

No. 23 MONITOR—Box 23x41½x10 inches. Capacity, 600 lbs. 30-inch wheels. 3—16-inch spokes. Weight, 103 pounds.

OUR SPECIAL PRICE..... \$19.80

The Deshler R. F. D. Mail Box

Will last a lifetime and sells at sight. Made of 20-gauge galvanized iron, painted aluminum, absolutely storm-proof, perfect in operation, positive locking signal in either position—up or down, weather-proof slot in door for depositing the mail without unlocking the box. No rivets or bolts required to set it up.

When the patron nails the box on a post this fastens the box so that it cannot be taken apart. One-half dozen to a crate. Shipping weight, 72 pounds to the dozen.

List Price, \$2.10 each. Our Special Price, \$1.25 each.

Handy Low Platform Cart

Crated for Shipment.

Shipping Weight, 100 lbs.

OUR SPECIAL PRICE..... \$12.00

A handy cart for Farm and Dairy use. The low-down platform makes loading and unloading easy. It will carry five milk cans, water barrel or farm produce in sacks. The parallel steel bands on the sides and wooden back rest make possible a wider range of use and permits carrying small packages or merchandise.

SIZE OF PLATFORM
27 x 30 inches.

Woodwork painted red, wheels and iron work black.

Merimac Cart No. 132

Body is finished in green, nicely striped and finished in red.

Box 23 x 41½ x 9½ inches.
26-inch wheels

Capacity, 250 lbs.
Weight, 66 lbs.

OUR SPECIAL PRICE..... \$12.20

This cart is built especially for country use, where there are not any pavements, and a three-wheel cart is not necessary. In the construction it is just as high-grade as other carts listed and will be found a very useful addition on every place. The running gear is made of steel, the wheels are of the bicycle pattern, steel spokes, electrically welded tires and malleable hub, this construction gives the greatest strength.

The springs are so constructed and arranged as to carry the load in a way that makes the cart easy to push. The gear is

BALTIMORE PUSH CARTS, with Springs, \$20.00

LOCKS

ALL THESE LOCKS ARE TESTED BEFORE LEAVING FACTORY

List Price, Dozen. Special Price, Each.

4031—Pressed steel, brass plated, with 2 keys.	\$ 3.84	\$.20
6160—Green enameled, with 2 keys.....	5.67	.30
4012—Wrought metal, self-locking, with 2 keys	3.84	.20
1903—High grade bronze, with 2 flat keys....	8.64	.45
1902—Bronze metal case, with 2 keys.....	10.56	.55
4067—Seamless steel shell, with 2 keys.....	7.68	.40
16022—Wrought steel, six levers, with 2 keys..	7.68	.40
1904—Highest grade brass case, with 2 keys..	13.44	.70
16034—Wrought steel, eight levers, with two double fitted drilled barrel keys....	14.40	.75
9902—Mail lock, no chain.....	12.48	.65
9902—Mail lock, with chain.....	13.44	.70

SPRAY CALENDAR

WHAT TO SPRAY	FOR WHAT TO SPRAY	WITH WHAT TO SPRAY	First Spraying	Second Spraying	Third Spraying	REMARKS AND CAUTION
Apple	Codling Moth	Kaylox	As soon as blossoms fall	7 to 10 days later	30 days later	Later spraying if made should be made with diluted solutions. Use Lime-Sulphur only when trees are dormant
	San Jose Scale	Lime-Sulphur Scalecide	Late in fall, late in winter or early in spring			
	Scab	Kaylox	Just before blossoms open	Within a week after blossoms have dropped	Same 7 to 10 days later	The spray just before blossoms open is very essential for scab. Don't use strong emulsion when tree emulsion when trees are in full leaf
	Woolly Aphis	Kerosene Emulsion	When trees are in full leaf	In fall		
Asparagus	Asparagus rust	Kaylox	After cutting crop	10 days later	10 days later	Repeat 3 to 4 times. Burn rusted brush in the fall
Bean	Anthracnose	Kaylox	On 2 or 3-inch plants	10 days later	After blossoms	
	Cabbage and Cauliflower...	Kaylox	With first appearance of worms	Whenever worms are observed	Same	1 oz. to 30 gals. of water
Cherry	Rot	Bordeaux	Before blossoming	After blossoming drop on fruit	Two weeks later on fruit	When fruit is large
	Curculio	Arsenate of lead	Before blossoming	As blossoms dry up	One week later	Avoid strong solutions. Do not use other arsenicals than arsenate of lead. Week after fourth
Cucumber	Cucumber Beetle	Kaylox	Soon as plants appear	Week later	Week after second	
Currant	San Jose Scale	Lime-Sulphur	As with apple	In spring as with apple		
	Worm	Kaylox	When worms first appear	Repeat in 3 or 4 days	Repeat as second	Look for worms on under side of leaves first
Gooseberry	Mildew	Kaylox	Before blossoms open	After blossoming	Two weeks later	
Grape	Worm	Kaylox	As on Currants			
	Anthracnose	Kaylox	Just before buds open	Just before blossoming	Just after fruit has set	
	Powdery Mildew and Rot	Kaylox	Just before blossoming	Just after fruit has set	7 to 10 days later	Follow by two or three sprayings
Peach	Leaf Curl	Kaylox	In fall or spring	As buds are opening		
	Borer	Para Dichlorobenzine	May	September		
	Rot and Scab	Atomic sulphur	As buds are swelling	Just after calyxes drop	2 to 3 weeks later	Destroy all mummies
	Bud Moth	Arsenate of Lead	With opening of buds			Use only half usual amount of poison
	San Jose Scale	Lime-Sulphur Scalecide	In late fall or early spring			
Pear	Scab	Kaylox	When leaves are half grown	After blossoms drop		
	Codling Moth	Kaylox	As with Apple	Same as first		See Apple
	San Jose Scale	Lime-Sulphur	In fall or early spring			
Plum	Rot	Kaylox	As buds are swelling	Atomic Sulphur Just after calyx drops	3 to 4 weeks later as second spray	Repeat every 7 or 10 days as third spray. Destroy all mummies. Gather and destroy curculios and stung plums
	Curculio	Kaylox	With starting of buds	Arsenate of Lead Just after calyx drops	5 days later	
	San Jose Scale	Lime-Sulphur or scalecide	In late fall or early spring			
Potato	Early Blight	Kaylox	When plants are 6 inches high	Two weeks later	Two weeks later	
	Scab	Soak seed in	Corrosive sublimate	Solution (2 oz.) As for first	In 16 gallons	90 minutes
	Colorado Beetle	Kaylox	When beetles or young appear			Kaylox, 7 lbs. to 50 gals. of water
Quince	Fruit and Leaf Spot	Kaylox	Just before blossoms open	After blossoms drop	Two weeks later	
Raspberry and Blackberry...	San Jose Scale	Lime-Sulphur	In late fall or early spring			
	Anthracnose	Kaylox	Before leaves open	Oncanes 6 inches high	Repeat second 1 week later	Keep spray from leaves on bearing canes
Rose	Leaf Spot	Kaylox	With first appearance of fungus	2 or 3 weeks later	Repeat if necessary	
	Slug Aphis	Lemon Oil Co.'s Standard Insecticide	On appearance of slugs	Repeat if necessary		
Strawberry	Leaf Spot	Kaylox	On new growth after crop	2 or 3 weeks later		
Tomato	Blight	Kaylox	Soon after fruit begins to set	Three weeks later	Three weeks later	

It will pay you to use this insecticide in green-houses and on potted plants.

This insecticide destroys insects in poultry-houses and homes.

LEMON OIL COMPANY'S STANDARD

Soluble **INSECTICIDE** in Water

NO DISAGREEABLE ODOR

THIS INSECTICIDE

is death to pests—is safe to plants—is harmless to user—is low in price—is free from disagreeable odor.

We recommend Lemon Oil Co.'s Standard Insecticide. It is used by the most prominent florists and seedsmen to destroy scale, Mealy Bug, Rust, Aphid, Caterpillar, etc., on Palms, Rose Bushes, Rubber Plants, Ferns, etc. It leaves no disagreeable odor on blooms or foliage—advantages over the vile-smelling soaps and powders—especially for indoor use. Being Poisonless, it is not dangerous to use.

This will be found an excellent wash for dogs and other animals; it relieves Mange, destroys Lice and other insects, and gives the coat a beautiful, glossy appearance. Contains no poison to injure the animal, and being liquid, gets through the hair to the hide.

It will destroy Lice and other insects in poultry houses.

It will also kill Roaches, Ants and other insects that infest houses.

NO POISON DIRECTIONS FOR USE

For Mealy Bug.—½ Pint Standard Insecticide to 4 to 6 quarts of luke-warm water or 1 tablespoonful to 2 cups of luke-warm water. When dipping for this insect the plants should remain in the liquid from 10 to 15 seconds and kept in continual motion. When syringing use the finest sprayer and apply the liquid with force.

For Brown and White Scale on Palms, Rubber Plants, etc.—½ pint Standard Insecticide to 4 quarts warm water or 1 tablespoonful to 2 cups warm water, applying with sprayer or sponge.

For Thrip, Red Spider, Caterpillar, Black and Green Fly.—½ pint Standard Insecticide to 2 or 3 gallons of water or 1 tablespoonful to 3 or 4 cups water. Either spray or dip.

For Destroying Mites.—½ pint Standard Insecticide to 4 or 6 quarts of water. Water the plants with liquid 2 or 3 times at intervals of 6 days.

For Destroying Ants.—½ pint Standard Insecticide to 1 gallon water. Well water their nests and runs several times in the course of a few days.

For Destroying Fleas, Insects, Relieving Mange and Skin Diseases on Dogs and Other Animals.—1 tablespoonful of Standard Insecticide to 1 cup warm water; rub well into the hide letting lather remain a few minutes.

For Destroying Lice and Other Insects in Poultry Houses.—1 part Standard Insecticide to 10 parts water.

For Destroying Roaches Ants and Other Insects in Houses.—1 part Standard Insecticide to 5 parts water.

PRICES:

½ Pint	\$.35	1 Gallon	\$ 3.00
1 Pint	.60	5 Gallons	12.00
1 Quart	1.00	10 Gallons	22.50
½ Gallon	1.75	Directions on every Can.	

POISON

KILL-WEED

POISON

NOT TO BE USED ON LAWNS

A SCIENTIFIC WEED DESTROYER. FREE FROM ODOR

By Analysis It Has Been Found There is No Stronger Weed Killer on the Market.

An unsurpassed preparation for the removal of grass, weeds, vines and bushes from paths, roadways, gutters streets and any other place from which it is desired to remove any and all vegetable growths, thus destroying the breeding ground for mosquitoes. The work can be done in a speedy, thorough, economical and easy manner. The material has no bad effect on the ground, neither does it injure or discolor the brick, stone or marble curbing.

No more digging and disfiguring of paths and roadways. Saves expense of several men. **KILL-WEED** not only kills weeds but destroys seed germs and roots of plants. Can be used with an ordinary sprinkling can. **One gallon KILL-WEED will make 30 gallons treating liquid when mixed with water.** One man with a sprinkling can in one hour can do as much or more than six men could do in one-half day, and do the work better.

Judgment should be exercised in using **KILL-WEED**, as it is impossible to give full directions to suit every case. If the weeds are large and strong, the solution should be made stronger than for ordinary grass and weeds. They should be cut down so that the solution can reach the roots.

1-Quart Can.....	\$0.50	5-Gallon Can.....	\$ 7.00
½-Gallon Can.....	.90	10-Gallon Can.....	13.00
1-Gallon Can.....	1.50	1 Barrel, per gallon.....	1.00

NO CHARGE FOR CONTAINERS

FULL DIRECTIONS WITH EVERY CONTAINER

WRITE FOR SPECIAL CIRCULAR

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

TRADE

KAYLOX

Registered in U. S. Patent Office.

MARK

INSECTICIDE AND FUNGICIDE

KILLS INSECTS AND PREVENTS BLIGHT

KAYLOX is adapted for spraying for late broods of Codling Moth on Apples, for Potato Beetles, most Caterpillars and many Leaf-eating Insects on fruit and other trees, Tomatoes, Grapes, Currants, Celery, Cabbage, Cauliflower and many other Plants.

A preventive of many Blights and certain Fungous diseases. Used as a general spray—1 pound to 10 gallons or 5 pounds to 50 gallons of water. For Potatoes, Bitter Rot and Blotch on Apples. Use 1 pound to 7½ gallons or 6½ or 7 pounds to 50 gallons of water.

Not to be used for late Spring or early Summer application on Apples, and not to be used on Peaches or Japanese Plums after blooming.

CONTAINS { **Active ingredients:**
Dry Lead Arsenate, not less than.....30.0%
Copper (Cu) not less than.....15.0%
Inert ingredients:
Not more than.....55.0%

KAYLOX IS A POWDER, NOT A PASTE

HIGH FREIGHT RATES make it imperative that you buy **KAYLOX**, a highly concentrated spraying material, as you then do not have to pay freight on a preparation that is 50% water.

KAYLOX never spoils, **KAYLOX** never freezes, **KAYLOX** never becomes worthless, **KAYLOX** is always at your service, **KAYLOX** should be used, because it is your best insurance for a full crop.

KAYLOX is the outcome of many years of development in the use and manufacture of insecticides and fungicides. It meets the requirements of the largest growers as well as the small home gardener. **KAYLOX** is in convenient size packages.

½ Pound makes 5 gallons of spray	\$.30	10 Pounds make 100 gallons of spray	\$ 4.50	100 Pounds make 1,000 gallons of spray	\$35.00
1 Pound makes 10 gallons of spray	.55	25 Pounds make 250 gallons of spray	10.00		
5 Pounds make 50 gallons of spray	2.50	50 Pounds make 500 gallons of spray	19.00		

WRITE FOR SPECIAL CIRCULAR.

LIME SULPHUR SOLUTION

The universally accepted spray material for dormant use is lime sulphur solution. Chemically made lime sulphur solution has now almost entirely supplanted the home-made solution because it is better.

This material combines the great fungicidal properties of sulphur with the scale remedy, and is especially recommended for peach and plum trees which need the combined treatment in the fall and spring. In spraying this material care should be exercised to avoid getting it in the eyes, and gloves should be worn to protect the hands.

Lime-Sulphur Solution is used both as an insecticide and a fungicide. As an insecticide it is used principally against scale insects, especially the San Jose Scale. For scale insects it is applied while the trees are dormant and is diluted with 8 or 9 parts of water. As a fungicide it is used chiefly for the control of apple scab, 1½ gallons to 50 gallons of water. Lime-Sulphur may be used in combination with arsenate of lead and tobacco extracts. Paris Green should not be used with Lime-Sulphur.

1-qt. Can.....	\$.30	5-gal. Can.....	\$3.00
½-gal. Can.....	.55	10-gal. Can.....	5.00
1-gal. Can.....	.90	30-gal. Drums, per gallon.....	.20

*Drums about 50 gal., per gal.\$.18
*Drums charged at \$3.00; 30 gallon Drums \$1.50 each, subject to return credit.

DRY LIME SULFUR

Dry Lime Sulfur is the most valuable new spraying product that has been developed in recent years. For a long time Lime-Sulfur Solution had been the standard dormant and summer spray for apples, pears, plums and many other tree fruits. Orchardists are familiar with the disadvantages connected with the use of Lime-Sulfur Solution. These include heavy handling of barrels, losses due to leakage, crystallization and freezing and freight on water.

This Dry Lime-Sulfur is a true Dry Lime-Sulphur. It is not a substitute for Lime-Sulfur Solution, but is standard 33° Baume Lime-Sulfur Solution in dry powdered form. It dissolves readily in water and will control insects and diseases just as effectively as Lime-Sulfur Solution.

Dry Lime-Sulfur is an effective remedy for San Jose and Oyster-Shell Scale, Peach-Leaf Curl, Peach Blight, Peach Twig Borer, Blister-Mite, Apple and Pear Scab, Brown Rot of Apricot, Powdery Mildew of Apples, Red Spiders, Mites and Thrips of Citrus fruits.

200-lb. steel drums	Pkg. \$22.00	10-lb. cans	Pkg. \$ 2.00
100-lb. steel drums	12.00	5-lb. cans	1.25
50-lb. steel drums	7.00	1-lb. cans	.30
25-lb. steel drums	4.00		

The Complete Dormant Spray

Pleasant to Use.

Reduces Sprayer Troubles.

Prolongs the Life of Your Sprayer.

Spreads into Cracks and Crevices.

Saves Half the Labor of Spraying

—One spray tankful of dilute Scalecide goes as far on your trees, as two spray tankfuls of dilute lime-sulphur.

Let SCALECIDE be your dormant spray. Then you will know that you have done all that can be done at that particular time by any dormant spray or combination of sprays. Fall spraying with SCALECIDE controls pear psylla and peach leaf curl. Spring application controls aphids, pear thrips, leaf minor, case bearer and leaf roller. Either fall or spring spraying with SCALECIDE controls scale, bud moth, European red mite, fungus or blight cankers from which are spread fire blight, collar rot and root rot. And in addition to controlling these insects and diseases, year after year use of SCALECIDE invigorates the trees.

PRICES

A Size for Every Need

One gallon makes 16 gallons of spray.

1 qt. can.....	\$.75
1 gal. can....	1.75
5 gal. can....	6.25
10 gal. can....	10.60
15 gal. drum..	13.50
30 gal. drum..	26.00
50 gal. bbl....	38.00

A 50-gal. barrel of Scalecide sprays the same trees, until they drip, as three and one-half barrels of lime-sulphur.

SCALECIDE

COPYRIGHT 1922 **THE COMPLETE DORMANT SPRAY** B.G. PRATT CO.

SCALECIDE

ARSENATE OF LEAD

Arsenate of Lead is an arsenical poison for use against insects that chew and for such insects as the fruit-flies that lap and suck up sweetened liquids. It has also been shown to have considerable fungicidal value both when used alone or used in combination with lime-sulphur.

Arsenate of Lead is prepared in powdered form. The powdered form can be used in liquid sprays. The powdered form is also used for dusting.

The principal insects for which Arsenate of Lead is used are: Apple-maggot, brown-tail moth, bud-moth, cankerworm, codling moth, fruit-tree leaf roller, gypsy moth, tent caterpillar, pear slug, curculio, etc.

Directions: 1 to 1½ lbs., powder to 50 gallons of water.

Powdered Form.

1-lb. pkg., per lb.....25c. 4-lb. pkg., per lb.....20c.
48 lbs. pkg., per lb.....18c.

ARSENITE OF ZINC (POWDER)

Arsenite of Zinc.—This is a combination of arsenic with zinc to form a quick acting, adhesive insecticide for use on potatoes and some other truck crops. It is much more adhesive and less caustic than Paris Green and kills quicker than Arsenate of Lead.

The great advantages of Arsenite of Zinc are:

First—It kills the bugs so quickly they do not have a chance to cause serious injury to vines.

Second—It sticks to the vines so that it is not necessary to respray after every rain.

Third—It can be used at sufficient strength to insure results without burning or injuring the vines.

Directions: 1 to 1½ lbs. powder to 50 gallons of water.

First—Apply as soon as eggs begin to hatch. For spraying use at rate of two pounds to the acre—this may require one or two pounds or more of the powder to fifty gallons of water depending upon the quantity of liquid distributed per acre by the spraying outfit. The spray tank should be partly filled with water and the powder sifted in slowly while the agitator is running.

Second—Make second application ten days to two weeks later in order to cover new growth.

Third—Make third application ten days to two weeks after second.

1-lb. pkg., per lb.....25c. 4-lb. pkg., per lb.....21c.
48 lbs. pkg., per lb.....19c.

BORDEAUX MIXTURE

BORDEAUX MIXTURE is a combination of copper sulphate and lime. It is a standard fungicide and may be used in combination with insecticides. Its use is indispensable in the control of black rot of grapes and the blight of potatoes. It is also used for apple-scab, bitter-rot, cedar rust, leaf spot and downy mildew.

Directions: 6 to 7 pounds to 50 gallons of water

1-lb. pkg., per lb.....20c.
4-lb. pkg., per lb.....18c.
100-lb. pkg., per lb.....15c.

BORDEAUX ARSENATE OF LEAD

USE KAYLOX—SEE PAGE 84

ATOMIC SULPHUR

This is pure sulphur treated by a special process to convert it into a very finely divided state in the form of paste, so it can be readily diluted with water and applied as a spray to coat fruit and foliage with a thin film of sulphur to prevent germination of fungous spores.

It is recommended for the control of scab on peaches, brown rot on peaches, plums and cherries and cedar rust on apples.

Directions: 5 to 7 lbs. to 50 gallons of water.
25-lb. pkg., per lb.....15c. 100-lb pkg., per lb.....11c.
Barrels, 300 lbs., per lb.....10c.

DRITOMIC SULPHUR

The extended use of sulphur in the past decade has fully established its fungicidal value and the advantages of its use as a foliage spray to prevent russetting of fruit when the temperature is above 70 degrees Fahrenheit.

There has been a growing demand for fungicides in dry form. To meet this demand, the General Chemical Company has developed a highly concentrated sulphur product; a product that combines the advantages of Atomic Sulphur with the advantages particular to dry powdered materials. This new product will give the fruit the well-known sulphur finish, without interfering with the assimilatory functions of the foliage or the development of the plant treated.

DRITOMIC contains 90% available sulphur and 10% inert matter. The inert matter, an adhesive and a spreader, is a stable and non-injurious combination of ingredients which do not yield readily to decomposition, even when spread in a thin film on fruit and foliage. This eliminates any detrimental effect of changing chemical character.

DRITOMIC permits the use of an arsenical with a small amount of lime added, the same as with other fungicidal sprays. The adhesive character of **DRITOMIC** prevents loss, thereby adding to the value of the arsenical because of its more permanent adhesion to fruit and foliage.

The spreading character and free flowing nature of **DRITOMIC** enables the covering of a larger area with less material and permits the application to be made with a lower pressure, thereby eliminating the chances of mechanical injury and saving wear and tear on both pump and engine.

PRICE

4 lb. Bags, per lb.....20c.
48 lb. Pkgs. per lb.....16c.
96 lb. Pkgs. per lb.....15c.

KAYSO

KAYSO is the combined casein spreader and adhesive which makes orchard and garden spraying more economical and more efficient. Kayso is now used by fruit and vegetable growers in all parts of the United States.

KAYSO should be added to all sprays, both summer and winter. Use it with all spray materials and with any combination of materials.

Ordinary spray collects in drops on the smooth surfaces of buds, twigs, branches, leaves and fruit. Between the drops of spray are numerous unprotected spaces which permit infections by worms and diseases. This deficiency of sprays is of great importance when one considers that the hole made by the newly hatched Codling Moth worm or the Corculio on entering the fruit is about the size of a pin-head; the San Jose Scale, Psylla, Thrips, Red Spider, etc., and the eggs of all fruit pests are very small, and the spores or "seeds" from which Brown Rot, Scab, Leaf Curl and all other diseases develop are microscopic in size. Kayso enables you to get your trees completely covered by a protective film of poison, with no unprotected spaces.

PRICES

8 oz. Package.....\$.25 10 lb. Package..... 2.10
1½ lb. Package..... .40 50 lb. Package..... 9.50
2 lb. Package..... .53 100 lb. Package..... 18.00

INSECTICIDES CANNOT BE SENT BY PARCEL POST

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

"BLACK LEAF 40"**NICOTINE SULPHATE—40% NICOTINE**

This is the insecticide that is so highly recommended by Experiment Stations. It destroys Aphis (plant lice), Thrips, Leaf-hoppers on all tree, bush and vine fruits, vegetables, field crops, flowers and shrubs; also Apple Red Bug, Pear Psylla and similar soft-bodied sucking insects—all without injury to foliage.

May be combined with other sprays. Highly concentrated. Soluble in water—easy to mix—does not clog nozzles.

You cannot go wrong by ordering "Black Leaf 40" for sucking insects.

PRICES

1 oz.—\$0.35—makes 6 gallons spray. 2 lb.—\$3.50—makes 160 to 500 gallons spray.
 ½ lb.—\$1.25—makes 40 to 120 gallons spray. 10 lb.—\$13.50—makes 800 to 2,500 gallons spray.

NIKOTEEN

Is the most powerful known insecticide and will be found more economical and convenient than weak tobacco extracts. Price: Pint cans, \$2.25.

VAPORIZING PANS (for above).....\$.60

IRONS......60

3 PANS, 3 IRONS and 1 HOOK.....3.50

NICO-FUME

Nico-Fume is a Tobacco Paper insecticide for fumigating greenhouses. Extensively used by prominent florists. Very easy to apply. Prices: 24 sheets, \$1.25; 144 sheets, \$5.25, and 288 sheets, \$9.50. Directions on each package.

APHIS PUNK (NIKOTEEN)

Especially designed for use in private places and in houses without convenient furnaces for heating irons necessary for vaporizing Nikoteen or Tobacco Extract. It is very effective as an insecticide. The Punk is lighted with a match and allowed to burn, which it does without flaming, at the same time giving off dense white fumes of Nikoteen that kill aphis and thrip very effectively. Per box, \$8.00.

TREE TANGLEFOOT

For protecting trees against climbing insect pests in a simple, economical and effective way, use Tree Tanglefoot—a sticky substance applied directly to the bark of trees. One application remains sticky on the trees three months fully exposed to the weather. Easily applied with a small wooden paddle. One lb. will spread 8 feet long by 5 inches wide, 1-16 inch thick. Will stay on tree three months.

1-lb. can.....\$.50
 5-lb. can.....2.25
 10-lb. can.....4.25

HAMMOND'S SLUG SHOT

A non-poisonous powder; it requires no further mixing or preparation; easily applied; not injurious or dangerous to animals, the person applying it or fruits and vegetables treated; destroys potato bugs and beetles, green and black fly, slugs, worms, caterpillars, etc. Ten to forty pounds is sufficient for an acre.

1-lb pkg.....20c.

5-lb. pkg.....50c.

HAMMOND'S GRAPE DUST

5 lbs.....75c.

CYANOGENAS G FUMIGANT

REG. U.S. PAT. OFF.

FOR GREENHOUSES

This form of cyanide slowly undergoes a change in the presence of air, liberating hydrocyanic acid gas, which kills the pests.

One-eighth ounce to 1000 cubic feet is a sufficient dose if the house is fairly tight.

Always start the fumigation about one hour after sundown—never before. Choose a still night.

The house should not be watered for at least twenty-four hours before fumigation.

Some plants will not stand the treatment and should be removed from the house.

Cyanogas G Fumigant—1-pound packages.....\$.75
 5-pound packages.....3.00

It cannot be mailed.

"NICO-FUME" TOBACCO POWDER

Tobacco Powder impregnated with a high-strength nicotine solution. Effective for fumigating in greenhouses to destroy Aphis, Thrips, etc.

Fill an ordinary 2½-inch flower pot heaping full of 'Nico-Fume' Powder (this being equal to about three heaping tablespoonfuls).

Pour the 'Nico-Fume' Powder out upon the bare ground or cement walk in a narrow pile about seven inches long.

For Moderately Rapid fumigation, light the pile at one end.

For Extra Rapid fumigation, light the pile at both ends.

1 Pound....\$1.00 5 Pounds....\$4.00 10 Pounds.....\$7.50
 F. O. B. Factory.

PURE WHITE HELLEBORE

The cheapest and best preparation for destroying rose slugs, currant worms, etc. One-quarter pound, 15c.; half-pound, 30c.; pound, 50c.

PARIS GREEN

¼ pound.....\$.10 2-pound package.....\$.60
 ½ pound......20 5-pound package.....1.50
 1 pound......32

TOBACCO STEMS

Indispensable for fumigating greenhouses and conservatories for the destruction of green and black aphis and other insects.

Dampen thoroughly a few hours before using, place about a half-pound over a handful of shavings in a fumigator, and light. 50-pound bale, 5c. pound.

TOBACCO DUST

For green and black aphis, fleas, beetles, etc. Splendid fertilizer and preventive for insects in the ground and around roots. For insects on plants apply with powder duster or bellows. For worms or grubs in the soil, apply liberally to the surface and rake in or strew thickly in the drills before planting.

Price: 5 pounds, 30c.; 20 pounds, \$1.00; 100 pounds \$5.00.

TOBACCO SOAP

3-oz. cake makes 1½ gallons prepared solution, 10c. Mailed, postpaid, for 13c. 8-oz.

cake makes 4 gallons prepared solution, 20c.

Mailed, postpaid, for 25c.

DUPONT SEMESAN SEED DISINFECTANT

Give Your Seed The Advantage Over Unfavorable Weather And Costly Blighting Diseases.

The Dupont Semesan Seed Disinfectants

SEMESAN—Du Pont Semesan is the only disinfectant which can be applied in either the liquid or convenient dust forms to prevent or control effectively a most diversified variety of parasitic diseases and fungoid growths borne by seeds, bulbs and other types of seed pieces, plants and grafts, as well as many of those which infest the soils. It is just as effective for flower and nursery seeds or plants as for cleansing the diseases from field, forage, grain and vegetable seeds. Semesan is harmless to seed and plant life but thoroughly sterilizes practically all kinds of seed pieces against the disease germs or fungous spores that adhere to the seed coats, as well as many of those that exist internally. Unhandicapped by diseases, Semesan-treated seeds are thus stimulated to vigorous sprouting during the critical period of their early growth and consequently bear larger and finer crops than can untreated seeds. Semesan completely eradicates and controls the various "damping-off" diseases.

SEMESAN JR.—This disinfectant is a modified form of the parent substance, Semesan, and is exclusively a dust disinfectant for preventing and controlling the ear, root and stalk rots of field and sweet corn. Semesan Jr., is easily applied to seed corn by the common dusting method at the rate of 2 to 3 ounces per bushel of seeds, and by effective control of the common corn diseases it not only increases both the speed and percentage of germination but also stimulates both the root and foliage development of the seedling, thereby producing healthy and sturdy plants that mature earlier and bear heavier yields of unblemished crop. Including Government-conducted and commercial tests throughout the United States, Semesan Jr., invariably produces increased yields from even average quality seeds that range from 20 to over 50% above the untreated check plots.

Semesan Jr., Increases Seed Corn Germination

The Semesan Jr.-treated corn seeds in the right-hand dish germinated 100%, while only 85% of the untreated in the left sprouted and of the latter three-quarters later died from diseases.

SEMESAN BEL—This disinfectant for both white and sweet potatoes, as well as other similar roots and tubers of flowers and vegetables, is unquestionably the most easily applied and most effective antiseptic ever devised for the purpose, and is fast displacing formaldehyde, mercuric bichloride (corrosive sublimate and sulfur. In addition to controlling the common potato diseases, such as scab, rhizoctonia, black rot, scurf, black leg, etc., Semesan Bel actually preserves the seed pieces against soil-borne organisms, promotes earlier and more profuse sprouting, and increases yields by 10 to 20% or more.

Semesan Bel Doubled Yield and Improved Quality

PRICES

Semesan		Semesan Jr.		Semesan Bel	
		4 oz.	\$.60		
		1 lb.	1.75		1.75
2 oz.	\$.50	5 lbs.	8.00		8.00
8 oz.	1.60	25 lbs.	37.50		37.50
1 lb.	2.75	50 lbs.	72.50		72.50
		100 lbs.	140.00		140.00
5 lbs.	\$ 13.00				
25 lbs.	62.50				
50 lbs.	122.50				
100 lbs.	\$240.00				

VOLCK

VOLCK is one of the most powerful insecticides known. It is effective on practically all insects on ornamental and flowering plants. Wonderful results have been obtained against red spiders, cyclamen mite, aphids (green fly), scale, mealy bug, thrips, and caterpillars. Many pests that could not be controlled before are now killed with Volck. Even mildew and rusts are prevented and stopped by Volck. Not only does Volck give effective control of pests, but it also prevents reinfestation for a considerable period. Volck is odorless, colorless and non-poisonous. There is no unsightly residue. Plants are deep, glistening green after using Volck.

VOLCK DOES NOT BURN

The most tender foliage is safe where Volck is used. Coleus, cyclamen, evergreen, ferns, orchids and many other types of plants can be sprayed with safety. Volck is the most effective remedy known for red spider on indoor vegetables. It is used because it is safe and sure.

Prices, ½ pt., 50c; 1 pt., 75c; 1 qt., \$1.00; 1 gal., \$3.25; 5 gal., \$12.50; 14 gal., \$25.00; 28 gal., \$40.00.

POMODUST ROSE SPECIAL

Pomodust is a combination of highly effective fungicides and insecticides in combination for the prevention of many blights, mildews and fungus troubles and to kill external leaf eating insects.

Pomodust is especially adapted to use on roses, and is used and recommended by many prominent growers.

It is also adapted for use on many other plants.

Pomodust is a very fine powder and can be readily dusted on the plants giving them a thin coat of very effective blight, mildew and fungus preventing remedy and at the same time coating the plants with a poison that is deadly to many external leaf-eating insects.

PRICE

1 Pound Package	\$.50
5 Pound Package	1.35
10 Pound Package	2.00
25 Pound Package	4.00

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

BUG DEATH

BUG DEATH kills Potato, Squash and Cucumber Bugs, Currant and Tomato Worms, and all bugs and worms that chew the leaves of plants; non-poisonous.

Directions for Applying Dry:

For potato and other vines which require a top application, apply dry with Shaker or Shifter at the rate of 15 to 25 pounds per acre to an application, according to size and conditions of the vines.

1-pound package.....	\$.20
3-pound package.....	.40
5-pound package.....	.60
12½-pound package.....	1.45
100 pounds.....	8.75

FISH OIL SOAP WITH TOBACCO

Apply for green-fly or aphids, one-half ounce to gallon of water; one ounce for mealy bugs and two ounces for most greenhouse scale. Outside purposes, double the strength for same kind of pest.

½ lb.	\$0.15	5 lbs.	\$1.25
1 lb.	.25	10 lbs.	2.00
2 lbs.	.50	25 lbs.	3.75
100 lbs.			\$12.00

FLOUR OF SULPHUR

1 lb.	\$0.12	25 lbs.	.08
5 lbs.	.10	50 lbs.	.07
10 lbs.	.09	100 lbs.	.06

COMMERCIAL FLOUR OF SULPHUR

Sold in 150-lb. bags only. Per 100 lbs., \$3.50

Bluestone (or Copper Sulphate)

5 lbs., per lb.	15c.	50 lbs., per lb.	10c.
10 lbs., per lb.	12c.	100 lbs., per lb.	9c.

FORMALDEHYDE, 40% SOLUTION

IT IS VALUABLE AS A GERMICIDE, FUNGICIDE
AND DISINFECTANT.

1-Pt. Bottles, 50c. 1-Qt. Bottles, 90c. 1-Gal. Jug, \$3.00.

KEY BRAND CUT WORM KILLER

FOR USE AS POISONOUS BAIT AGAINST

CUT WORMS AND SLUGS by placing around plants subject to attack. It has an enticing odor that worms prefer to vegetation.

NOTE: One pound is sufficient for 100 plants in hills or 75 in rows.

5-lb. packages, \$1.50. 1-lb. packages, 35c.

KEY BRAND TREE WOUND PAINT

PREVENTS DECAY AFTER PRUNING.

This residuum, penetrating antiseptic paint is not affected by heat, cold or moisture. Does not peel, crack or get brittle. Stops tree bleeding.

NOTE: Antiseptic paint for wounds and pruning purposes.

1-Gal. Cans, \$3.00. 1-Qt. Cans, \$1.25.

PARA-DICHLOROBENZINE

FOR PEACH BORER CONTROL

Remove all grass, weeds and rubbish from around the tree, make a smooth, bare surface about sixteen inches wide around the tree at the soil level.

Remove any gummy exudation adhering to the crown or collar of the tree.

After the ground is prepared, distribute the crystals of Para-Dichlorobenzine evenly in a narrow circular band around the tree, keeping the inner edge of the band at least two inches away from the bark of the tree.

After the crystals are placed on the soil around the tree cover them with earth, at first lightly so as not to disturb the chemical, and complete by mounding the earth against the trunk of the tree until a cone-shaped mass of dirt four or five inches deep has been made, tamping the dirt down with the back of the shovel.

Use one ounce to a tree 6 years old or older; in case of very large tree, 1½ ounces may be needed to form a satisfactory band. On trees four or five years old, use ½ to ¾ ounces to a tree. We do not recommend using it on younger trees. Do not use on apple trees.

Spring application in May, Fall application in September.

1-lb. package, per lb.	\$0.60	25-lb. package, per lb.	.35c.
5-lb. package, per lb.	.45	100-lb. package, per lb.	.30c.

SULFOCIDE

A Better Summer Spray

A concentrated liquid sulfur fungicide. Used on both peaches and apples and on all kinds of fruits, vegetables, and flowers. Controls: apple scab; brown rot of peaches, plums and cherries; blight and rot of potatoes, tomatoes and melons; mildew and rust of flowers and shrubs. Convenient, economical, effective. Dilute 1 to 200.

Prices: 1 Pt., \$0.70; 1 Qt., \$1.00; 1 Gal., \$2.75; 5 Gals., \$8.75; 10 Gals., \$15.00; 30 Gals., \$39.00; 50 Gals., \$60.00.

DUSTING SULPHUR

\$5-15 Dust. Contains 15% Dry Arsenate of Lead and 85% Flour Sulphur. A very effective dusting material for Strawberries, Canteloupe and other Melons, and in fact is an ideal dust for many uses.

100 Pound Bags, per bag.....\$7.00.

FUNGI DUST

This material has won its way to a high position in the spray world, being made from an especially prepared sulphur, all of which will go through a screen as fine as 300 mesh screen. This fineness permits it being carried to every remote part of the tree or plant that is being treated, permitting the material to get its effective work to a degree that is impossible with a material that has not this wonderful construction.

100 Pound Bags, per bag.....\$6.00

COPPERCARB

A new remedy for bunt or stinking smut in wheat. Being a powder which can be applied without any further mixing directly to the grain, makes it more economical than the old wet system, and as it can be done at any time, even months before sowing, does away with the evils of any soaking or wet process.

The seed is left in better condition, sows as rapidly and the germination is rather helped more than injured as with the soaking treatments.

Raise clean wheat and save the loss in reduced prices when you sell your crop.

Use 2½ to 3 ounces to treat one bushel of wheat.

5-Pound Packages, per pound...\$0.20

CARBOLA Saves Time and Labor Gives Better Results

Carbola is used by thousands of poultry, dairy and breeding farms and by many agricultural colleges and experiment stations to increase the light in their farm buildings, and help put them in that clean, sweet-smelling sanitary condition that is such an aid in avoiding the losses caused by lice, mites and many of the contagious diseases that affect poultry and livestock.

CARBOLA is a white paint in powder form combined with a disinfectant many times stronger than pure carbolic acid. It is non-poisonous and non-caustic. It kills mice, mites, fly eggs, etc., and helps prevent the start and spread of contagious diseases that affect man, beast and fowl. **CARBOLA** is two things in one—a paint that disinfects or a disinfectant that paints. It dries a clear, snow white. It saves labor, time and money. It paints and disinfects at one operation in the same time and with the same labor required to paint or disinfect only.

CARBOLA is recommended for use instead of whitewash in every place where whitewash ordinarily is used.

Garages Warehouses Outbuildings
Factories Cellars Tree Trunks

It is recommended for use instead of whitewash and disinfectants in

Stables Rabbit Hutches Hog Pens
Kennels Barns Dairy Buildings
Poultry Houses Creameries

It is recommended for use as a disinfectant.

PRICES

(Paints and disinfects 200 square feet.)

5 pounds (5 gallons).....	\$.75
10 pounds (10 gallons).....	1.25
50 pounds (50 gallons).....	5.00

PYRENE FIGHT FIRES AT THEIR START

**SAFEGUARD YOUR
PROPERTY WITH
PYRENE**

The surest way to avoid serious fires is to have **Pyrene** on hand when the fire comes. It may save your home, your barn, your stock, your crops your machinery and your automobile. **Pyrene** is a great economy even if you never have to use it because of the reduced rates you can obtain if you have it.

All insurance companies in the United States allow 15 per cent. reduction in automobile fire insurance rates if car is equipped with **Pyrene** Extinguisher.

PRICE

Brass Extinguishers	\$12.00
Liquid, per quart	1.80
Guardene Fire Extinguisher.....	20.00

Write for booklet:

"THE VITAL FIVE MINUTES."

A MEAN JOB MADE EASY

The United States Department of Agriculture estimates the loss of farm livestock from contagious disease at over \$200,000,000 each year. A large part of this stupendous loss could be prevented by proper sanitation in poultry houses, stables and pig pens. In addition to reducing this expense, clean living quarters also help to increase production. Next to a proper supply of feed and water nothing is more important than keeping the buildings clean. Sickness or disease usually start in unclean quarters, and in such quarters lice and mites always are more plentiful.

Dethol (IMPROVED)

Kills Bugs and Insects

Such as Flies, Mosquitoes,
Roaches, Water Bugs, Ants,
Bed Bugs and Fleas

~ Moth Preventive ~
Disinfectant ~ Deodorant
 A Household Necessity

IMPROVED DETHOL is made from a new and secret formula that cannot be duplicated. Nothing like it before—nothing its equal now. Simple—Safe—Sure. There can be no substitute for it. Accept no imitations.

Spray in the Home and on the Farm

IMPROVED DETHOL, sprayed lightly on tile, porcelain, wash basins and bath tubs, immediately loosens grime and grease, which can then be quickly and easily removed by wiping with rag, leaving a spotless and glistening surface. Also aids in disinfecting and deodorizing, and helps to purify foul-smelling air. Its cleansing spray penetrates where neither brush nor broom can reach.

On the farm, **IMPROVED DETHOL**, sprayed freely in hen houses, etc., and sprayed lightly and regularly on poultry and stock, keeps them free from many kinds of insects and vermin. Do not spray **IMPROVED DETHOL** on young animals, cats or vegetation.

½ Pint	\$0.50
1 Pint	.75
1 Quart.....	1.25
1 Gallon	4.00

SO-BOS-SO

Trade **KILFLY** Mark.
Cows will give 13 to 20 per cent more milk if protected from the torture of flies with **So-Bos-So-Kilfly**. Kills flies and all insects; protects horses as well as cows. Perfectly harmless to man and beast. Rapidly applied with sprayer, 30 to 50 cows sprayed in a few minutes.

What is more trying to the patience than to milk a cow when she is continually stepping back and forth and lashing her tail under the irritation of a lot of flies? A moment's work with a sprayer and a little **So-Bos-So-Kilfly**, and all is quiet and serene. From 30 to 50 cows can be sprayed in a few moments.

1-quart can.....\$.50
1/2-gallon......75
1-gallon can.....1.25
Sprayer for applying
So-Bos-So, 50c.

DR. HESS DIP AND DISINFECTANT

Non-poisonous and non-irritating and guaranteed to be absolutely uniform in strength at all times. One gallon of Dip makes from 70 to 100 gallons effective solution. Spray it on roosts. Sprinkle it over the runs and in all cracks and crevices. Spray it on cattle and horses. Makes a splendid dip for hogs and sheep. It's a sure parasite and disease germ destroyer. Purifies stables, troughs, sinks, drains.

Household size.....\$.40
1 Quart......60 1 Gallon..... 1.75
1/2 Gallon..... 1.00 5 Gallons..... 8.25

GUARANTEED.

CREONOID

LICE DESTROYER AND FLY SPRAY

Takes the worry off your hens. Protects your cattle and horses.

CREONOID means animal comfort. It effectively keeps them free from the persistent Texas and other flies. It means comfort in milking and increased yield in milk. Eliminates fretting and nervousness.

Use it freely to keep the hen-house clears of pests.

PRICE: Gallon Cans.....\$1.50

Dr. Hess Fly Chaser

Drives flies away. One application lasts six hours. Prevents milk slump. Keeps cattle and horses contented during the fly season. Most humane idea of the age. Its use during summer months will insure good profits. **GUARANTEED.**

One Gallon.....\$1.50

GRADE 1 CREOSOTE OIL

Grade One Liquid Creosote Oil is coal-tar creosote refined sufficiently to give the maximum efficiency to the convenient and inexpensive Brush and Open Tank methods of treatment. Briefly, Grade One Liquid Creosote Oil is superior to the commercial coal-tar creosote for use by the small consumer, because

It is liquid. It is free from water.
It has low evaporation loss. It has high specific gravity.
It has low viscosity, and, being liquid, penetrates readily and deeply into the wood.
It has increased antiseptic and decay-preventing qualities.

It is a clean oil and imparts a pleasing, dark-brown color to the wood.

It is uniform, standardized material.

1-Gallon Can.....\$1.00 5-Gallon Can.....\$4.50

COW-EASE

RELIEVES CATTLE AND HORSES FROM FLIES

A liquid preparation carefully compounded from effective materials. It is of the right consistency for applying with a sprayer, and it will not gum the hair or blister the skin.

A SURE PREVENTATIVE FOR LICE, TICKS AND VERMIN

A light application of **Cow-Ease** will relieve cattle from lice, also prevent tick—the cause of Texas Fever.

Cow-Ease is an excellent article for spraying the interior of hen houses, also roosts and dropping board; it will prevent head lice and fleas and keep the house in a sanitary condition.

PRICES: Qt., 50c.; 1/2 Gal., 85c.; Gal., \$1.50; 5-Gal.-Can., \$7.00

DOMINION FLY SPRAY

is an oil heavily charged with chemicals, having the peculiar property of giving off for a long time a vapor which drives away all kinds of flies. **DOMINION FLY SPRAY** contains about 4 per cent. Cresol, and is perfectly safe for use on all animals. If the animal licks it, no harm will result. Cows sprayed with this every morning go through the heat of the day with ease and comfort. Such cows keep up their flesh and their flow of milk; where cows are left to the ravages of flies, they fall off in flesh and the flow of milk is greatly reduced.

1-Gallon Cans.....\$1.25
Sprayers used for putting on Fly Spray, 50 cents.

DISINFECTANT DEODORANT ANTISEPTIC

1-Gal. Bottle.....\$1.25
1-Quart Bottle..... 3.00
1-Gallon Bottle..... 12.50
5-Gallon Carboy..... 12.50

ARROW CARBOLINEUM

Formerly Avenarius Carbolineum

Made in U. S. A.
PRESERVES WOOD EVERYWHERE

against rot and decay, adding at least 100 per cent to the life of fence posts, poles, sills, floors, bridge timbers, porches and to wood embedded in concrete.

FOR STAINING BUNGALOWS AND FARM BUILDINGS

Arrow Carbolineum is brushed on the wood and is self-absorbing, therefore need not be rubbed nor worked into the wood like paint.

COVERING CAPACITY
350 square feet on dressed lumber.

250 square feet per gallon on rough lumber.

100 square feet per gallon on shingles.

Second coat only requires one-third or one-fourth the quantity for first coat.

KILLS MITES IN POULTRY HOUSES

PRICE
1-Gallon Can.....\$1.75
5-Gallon Can..... 7.00

Pratts, Poultry, Horse and Cattle Remedies

HEALTHY HENS AND LOTS OF EGGS

You may expect vigorous, laying, paying birds when you give them

PRATT'S POULTRY REGULATOR

daily. It contains just those elements needed to keep poultry in perfect health. Both a tonic and digestive. Prevents common poultry ailments. Produces growth, gives increased vitality, and hastens maturity. Makes pullets early and constant layers.

Packages 25c. and 50c., 9 lb. Pkg., \$1.10; 12 lb. Pkg., \$1.40; 12 lb. Pail \$1.65; 25 lb. Pail \$3.00; 25 lb. Bags, \$2.50; 100 lb. Drums, \$10.00.

Intelligent, humane and prudent owners of horses, cows and other live stock realize the value of good tonics, regulators and remedies. For nearly half a century Pratts has been adding to its successful record.

Pratts Animal Regulator

Packages: 25c. and 50c.
12-lb. pails.....\$2.15
25-lb. pails.....\$3.40

Pratts Conditioner for Horses and Cattle

(Formerly called "Pratts Food for Horses and Cattle.")

7-lb. pkg.....\$.60
12-lb. bags..... 1.00
25-lb. bags..... 1.90
100-lb. drums..... 6.80

PRATTS BAG OINTMENT—50c. boxes.

PRATTS COLIC REMEDY—60c. and \$1.20 bottles.

PRATTS HEALING OINTMENT—30c. and 60c. boxes.

PRATTS HEALING POWDER—30c. boxes.

PRATTS LINAMENT—35c. and 70c. bottles.

Keep your cows thrifty while forcing milk production, without increased cost for feeding or care by giving them

PRATTS COW TONIC

Promotes healthy appetite, good digestion, increased vigor, greater milk production. A wonderful all-around tonic.50c.

As a dip, spray and highly superior germ destroyer and deodorizer for home and farm, use

PRATTS DIP AND DISINFECTANT

PRATTS DIP AND DISINFECTANT
1-qt., 55c.; 2-qt., 90c.; 1-gal., \$1.50.

PRATTS POULTRY DISINFECTANT

1/4 Gallon \$.55
Gallon 1.50

Three times as powerful as crude carbolic acid. A sure deodorizer, germicide and liquid lice killer. Use it in Roup, Colds and other contagious diseases.

PRATTS Red Mite Special

An effective liquid for exterminating the blood-sucking mites. To be sprayed or painted on roosts, dropping boards, nests, and other places where mites hide. Use these preparations regularly.

PRATTS RED MITE SPECIAL
1 Ct. 50c; 1/2 Gal. 90c; 1 Gal. \$1.50

PRATTS WHITE DIARRHOEA TABLETS

To protect your chicks from white diarrhoea, the most destructive of all chick diseases, it is only necessary to give this remedy in the drinking water from the first drink. This remedy has saved many dollars worth of chicks to poultry raisers. You can depend on it.

25c. and 50c.

EVERY PRATT REMEDY IS GUARANTEED TO SATISFY OR MONEY REFUNDED

PRATTS ROUP REMEDY

Tablets or Powder: \$1.00, 50c., 25c. Contains remedies which are quickly absorbed, purify the blood and reduce fever. Pills are convenient for individual treatment. Many poultrymen use this remedy the year round as an effective preventive.

PRATTS POWDER LICE KILLER

25c. and 50c.

Effective, non-poisonous, non-irritating. May be used wherever a powder is suitable. A splendid deodorizer. Will kill lice on horses, cattle, dogs or cats.

PRATT'S CONDITION TABLETS.....25c. & 50c. Pkgs.

PRATT'S GAPE REMEDY.....25c. & 50c. Pkgs.

PRATT'S SCALY LEG REMEDY.....30c. & 60c. Boxes

PRATT'S SORE HEAD CHICKEN POX REMEDY.30c. & 60c. Pkgs.

PRATT'S HEAD LICE OINTMENT.....30c. Boxes

RAISE EVERY LIVEABLE CHICK
WITH

Pratt's BUTTERMILK BABY CHICK FOOD

Remember, every one of these ingredients is present in a definite quantity that never varies with the price or market and each is of the very highest quality. We never lower our standard.

PRATTS BUTTERMILK BABY CHICK FOOD is appetizing, harmless, wholesome, non-stimulating, highly digestible, clean, low in moisture, high in quality, always uniform and complete in every element needed for bone, muscle, feathers and health.

MONEY CAN BUY NO BETTER

100 lbs., \$5.25; 50 lbs., \$2.75; 25 lbs., \$1.50; 10 lbs., \$.70;
5 lbs., \$.40.
Packages 25c. and 50c.

PRATTS CHICK SCRATCH FEED

Pronounced by authorities everywhere to be the finest, cleanest, purest, most economical and highest quality chick scratch ever offered to the public.

BRAINS CAN THINK OF NO BETTER, WE CAN MAKE NO BETTER, YOU CAN BUY NO BETTER, CHICKS CAN WANT NO BETTER.

Every ingredient is of the highest quality, carefully cracked and processed and repeatedly cleaned to free it of all dust, hulls, flour or other useless or wasteful parts. Contains no large pieces that might choke the chicks.

Supreme, 100 lbs., \$4.25; Victory, 100 lbs., \$3.75; Circle A, 100 lbs., \$3.50.

PRATTS

Intermediate Scratch or Developing Feed

Never in your life have you seen such a splendid scratch feed. Clean cut, uniform in size, attractive in variety and appearance, free from every particle of dust, hulls, chaff, weed seeds, or foreign materials, perfectly milled and mixed. Pratt's Intermediate Scratch Feed is the envy and despair of other feed makers and the delight of the chickens.

Supreme, 100 lbs., \$4.15; Victory, 100 lbs., \$3.40

THEY CERTAINLY SCRATCH FOR THIS

No wonder! Every grain of it is a real treat for poultry and they work and search eagerly in the litter for every hidden food treasure. That's why.

PRATTS Large Scratch Feed

Gives such splendid results. Made only of the best of plump, sweet, well-seasoned grains—it is the very acme of quality and gives the maximum of results.

**EVERY SINGLE GRAIN OF PRATTS
IS REAL FOOD**

Victory, 100 lbs., \$3.25; Circle A, 100 lbs., \$3.10; Utility, 100 lbs., \$3.00.

PRATTS Buttermilk Growing Mash

It produces more pounds of weight on less food. So skillfully and thoroughly processed that all dust, hulls, or other foreign particles are removed. Every ounce is solid food that will build muscle, bone, nerve, feathers and health:

**DIGESTIBLE APPETIZING
ECONOMICAL**

100 lbs. \$4.50

The one feed above all others that will give you more eggs per pound of feed consumed,

PRATTS Buttermilk Laying Mash

This remarkable mash is the standard by which all others are judged. Not alone theoretically right but proven by practical test to be the greatest "egg producer" ever made. There is a good reason for every ingredient in this splendid mash.

Pratt's Buttermilk Laying Mash produces more eggs at less cost per dozen and gives greatest profits.

Supreme, 100 lbs. \$4.25

Victory, 100 lbs. \$4.00

We are in position to furnish the following feeds and materials at current market prices:

Pratts Supreme Dairy Rations	Middlings Flour or Red Dog
Pratts Victory Dairy Rations	Middlings Standard
Pratts Utility Horse Feed	Rolled Oats
Pratts Alfalfa Horse Feed	Oat Groats Whole Hulled Oats
Cracked Corn	Linseed Oil Meal
Corn Feed Meal	Cottonseed Meal
Ground Oats	Corn Gluten Feed
Pin Head or Steel Cut Oats	Fish Meal for Poultry
Bran Standard	Dried Buttermilk

TONO-SHEL is a product that contains the following minerals:
Calcium Sulphate
Sulphur Trioxide
Calcium Carbonate
Magnesium Carbonate
Trace of Iron

TONO-SHEL not only supplies the most essential minerals needed for egg and bone building, but supplies the necessary grit. Hens confined and allowed no other mineral than **Tono-Shel** thrive and hold up in egg production.

Calcium or lime is the mineral needed in the greatest quantity in the feeding of poultry. It is supplied in **Tono-Shel** both in the form of calcium carbonate and calcium sulphate (gypsum), and in gypsum is the most soluble and quickly available form in which calcium can be secured.

100-lb. bags. \$1.25
Gypsum for Poultry Houses, 50-lb. bag, \$.75; 100-lb. bag, \$1.25

DR. HESS POULTRY AND STOCK PREPARATIONS

Dr. Hess Roup Tablets

For Roup, Diphtheria, Chicken Pox and all catarrhal Diseases. It has three distinctive features. It is antiseptic, slightly astringent, non-irritating and healing: 50c. and \$1.00 GUARANTEED

Dr. Hess Poultry worm Powder

The ingredients in this worm powder are of the highest efficiency and the most dependable that could be compounded. It contains:

Powdered Areca Nut 10% destroys most forms of parasites (Worms) infesting the digestive tract. It contains an active principle which produces a laxative action, thereby assists in the expulsion of the worms from the bowels, American Wormseed, Quassia, Powdered Tobacco, Sodium Sulphate and Sodium Hyposulphite. Each assisting the other in producing the results. 1½-lb. Pkgs., 50c.; 4-pound pkgs., \$1.25; 10-lb. pkgs., \$2.75; and 25-lb. pails, \$6.25.

Dr. Hess White Diarrhoea Tablets

No disease in chicks and chickens is as destructive as White Diarrhoea. For best results you should use Dr. Hess White Diarrhoea Tablets from the first in the drinking water. It is much better to prevent the disease than to have to cure it later. Package, 50c.

Instant Louse Killer

Kills Lice on Poultry, Horses, Cattle, Sheep Ticks, Bugs on Cucumber, Squash and Melon Vines; Cabbage Worms, Slugs on Rose Bushes, etc. Sold in sifting-top cans—look for the word "Instant" before buying. Price: 1 lb. 25c.; 2½ lbs. 50c. GUARANTEED

Dr. Hess Dip and Disinfectant

Non-poisonous and non-irritating and guaranteed to be absolutely uniform in strength at all times. One Gallon of Dip makes from 70 to 100 gallons effective solution. Spray it on roosts. Sprinkle it over the runs and in all cracks and crevices. Spray it on cattle and horses. Make a splendid dip for hogs and sheep. It's a sure parasite and disease germ destroyer. Purifies stables, troughs, sinks, drains. GUARANTEED. 1 Qt., 60c.; ½ Gal. \$1.00; 1 Gal. \$1.75; 5 Gal. Can, \$3.25; 50 Gal. Drum, per gal., \$1.25.

One Drop

Bourbon Poultry Remedy

A few drops in fowls' drinking water cures and prevents white diarrhoea, cholera and other chick diseases. Use daily to keep your chicks healthy. Don't wait until disease strikes. Get it today. Small size 60c, half-pint \$1, pint \$1.50. At druggists, or by mail postpaid. Bourbon Remedy Co., Lexington, Ky.

BOURBON REMEDIES

Burbon Poultry Remedy, Trial Bottle	.....	\$ .60
Burbon Poultry Remedy, Half Pint Bottle	.....	1.00
Burbon Poultry Remedy, Pint Bottle	.....	1.50
Burbon Poultry Remedy, Quart Bottle	.....	2.25
Burbon Poultry Remedy, Half Gallon Size	.....	3.50
Burbon Poultry Remedy, Gallon Size	.....	6.00
Burbon Hog Remedy, Quart Size	.....	2.25
Burbon Hog Remedy, Half Gallon Size	.....	3.50
Burbon Hog Remedy, Gallon Size	.....	6.00
Burbon Egg Producer	.....	.30
Burbon Insecticide	.....	.30
Burbon Stock Tonic, 25-Lb Pail	.....	3.60
Burbon Stock Tonic, Package	.....	.60
Burbon Stock Tonic, Package	.....	.30
Burbon Colic-Relief, for Horses	.....	1.20
Kentucky Horseman's Condition Powder	.....	.60
Kentucky Horseman's Distemper Remedy	.....	.60
Kentucky Horseman's Healing Oil	.....	.30

ROUP-OVER

A wonderful, new, prompt and positive treatment for Roup, Canker and Colds in Poultry.

Roup works fast. It usually begins with a cold; after that the disease progresses rapidly. Roup is one of the most serious of poultry diseases. Stop it quickly with Roup-Over. Large Bottle \$.50 Extra Large Bottle 1.00

Dr. Hess Poultry Pan-a-cea

makes poultry healthy; makes hens lay; not a stimulant, but a tonic, that tones up the dormant egg organs, brings back the scratch and cackle, and compels each hen to put her share of eggs in the market basket.

It also contains internal antiseptics that counteract disease; insures a healthy, singing poultry flock. Cost but a trifle—a penny's worth enough for 30 hens per day.

1½ lbs, 25c.; 5 lbs., 75c.; 12 lbs., \$1.50; 25-lb. pail, \$3.00. 50 lbs., \$5.50; 100 lbs., \$10.00

Dr. Hess Stock Tonic

Formula Printed on Every Package

Every ingredient indorsed by the U. S. Dispensary and other high medical authorities. It aids digestion, makes stock healthy, and expels worms. Helps stock convert more ration into milk, flesh, blood and muscle. Every pound backed by the Dr. Hess & Clark unqualified guarantee. Prices: Packages, 3½ lbs., 50c.; 10-lb. pkg., \$1.25; 25-lb. pail, \$3.00; 50-lb drum, \$5.50; 100 lbs., \$10.00.

Dr. Hess Worm Powder

For Horses, Sheep, Cattle and Hogs. It is highly concentrated, and is an effective vermifuge. Dr. Hess' own prescription that proved effective in his practice. Price, 1½ lbs., 50c. Guaranteed.

Dr. Hess Healing Powder

The modern Gall Cure Cures Galls, Cuts, Wounds, Ulcers, Grease Heel. Antiseptic and soothing. Heals everything it touches by forming a coating, cleaning and closing up wounds. Comes in sifting-top cans. Price 4-oz., 25c.; 10-oz., 50c. ABSOLUTELY GUARANTEED

Dr. Hess Fly Chaser

Drives flies away. One application lasts six hours. Prevents milk slump. Keeps cattle and horses contented during the fly season. Most humane idea of the age. Its use during summer months will insure good profits. GUARANTEED. 1 Gallon..... \$1.50

Dr. Hess Heave Powder

A dependable preparation for relieving horses of heaves, chronic coughs, asthma, bronchitis, etc.; with careful diet, the frequent use of this valuable preparation will afford permanent relief in the majority of cases. Price, 1½-lb. package, 50c.

Dr. Hess Colic Remedy

A reliable preparation for the treatment of Spasmodic and Flatulent Colic, Gripes, Acute or Chronic Indigestion, Impaction of the Stomach, Bowel Inflammation, etc. Price \$1.00. GUARANTEED

Dr. Hess Distemper Remedy

A reliable preparation for Distemper, Acute Colds, Fever and Cough. Price, 50c. GUARANTEED.

SODIUM FLUORIDE

Sodium Fluoride for lice is the method recommended and endorsed by the United States Department of Agriculture, by Purdue University and most other leading agricultural colleges and experiment stations everywhere.

½-pound box, with sifter top..... 35c. 1-pound box, with sifter top..... 65c.

BLATCHFORD'S CALF MEAL

DOUBLED FARM PROFITS

Maturing or weaning all your calves rapidly on **Blatchford's Calf Meal**, at a cost of about one-fifth of what you get for your milk, then selling all the milk at a good profit, should appeal to you and to every wide-awake farmer as a good, profitable proposition. These profits both ways, need not be guessed at; they are discernible at a glance. Another source of profit that heretofore has been overlooked by most farmers is the raising of the fall and winter calf on this same milk-substitute. Many farmers and dairymen have taken up winter dairying, reaping the extra big profits on milk and cream during the winter months, but often the calf has been immediately "murdered." Calves raised during the winter give you veal during the term of high prices and are just as easily raised then as during the summer. Fall "freshening" is greatly to be desired. With the help of the silo or an abundance of alfalfa hay the winter feeding keeps up the milk supply until the new grass comes in the spring. The new pastures stimulate the milk-flow and keep it up through the summer. The winter milk prices more than offset the cost. When you stop to consider that this complete milk substitute costs you less than skim milk and is far better for calf-raising—made expressly for the calf—you will get some idea of its high efficiency. It is made from the several kinds of whole grains and seeds, and includes oil, sugar and albuminous compounds, pure locust-bean meal and pure flaxseed ground, with the oil left in. You cannot begin to get the results from any other method of calf-raising that you can get from feeding **Blatchford's Calf Meal**, the complete milk equal. **PRICES:** 25-lb. bag, \$1.50; 50-lb. bag, \$2.75; 100-lb. bag, \$5.50.

BLATCHFORD'S CHICK MASH

IT
GIVES
THE
CHICKS
A
CHANCE

Many poultrymen lose from one-third to one-half of all their chicks before they feather out. Improper feeding is the cause. Others are finding they can raise 90 to 95 per cent. of their chicks by starting and growing them on **Blatchford's Chick Mash**. It is the favored starting and growing feed of the most prominent and successful poultrymen in the country. It contains all the feeds and nourishment chicks need right from the start and shields them from **White Diarrhea**, **Bowel Trouble** and **Leg Weakness**.

4 lbs., 50c. 25 lbs., \$1.50. 100 lbs., \$5.50

BLATCHFORD'S "Fill the Basket" Egg Mash

The excess nutriment taken by the hen from **Blatchford's "Fill the Basket" Egg Mash** causes the development of eggs so that she has to lay during the winter, while the ordinary unbalanced rations tend to produce fat hens, but lean profits.

Blatchford's "Fill the Basket" Egg Mash is made up of **Blatchford's Calf Meal**, the complete milk-equal, combined with the best quality meat and fish scraps and alfalfa and grain meals. This makes a perfect, balanced egg-producing mash, consisting of protein, 19 per cent.; fat, 4 per cent.; fiber, 10 per cent.

25-pound bags \$1.25
100-pound bags 4.25
500-pound lots 20.00

Blatchford's Essential Minerals for Cattle, Sheep, Hogs and Poultry

FOUR DISTINCTLY DIFFERENT FEEDS

The recent recognition by authorities and the growing demand for minerals has encouraged many companies and individuals to compound and market minerals for livestock and poultry. Naturally, many of these compounds are of questionable value, if not harmful, and are in some cases compounded without adequate knowledge of the subject.

Blatchford's Essential Minerals are made in four distinct products—one for cattle, one for hogs, one for sheep and one for poultry, according to the different needs of these animals. **Blatchford's Essential Minerals** are not tonics nor medicines, but feeds that balance the ration. By correcting the ration, **Blatchford's Essential Minerals** will give you healthier, more virile stock, you will avoid many ailments that result from lack of minerals in the feed, and will obtain bigger profits through increased production from your flocks and herds.

100 lbs. \$6.00

HOG OR-DIGESTER TANKAGE

50%—100 lbs., \$4.25

FISH MEAL TANKAGE

100 lbs., \$4.25

G. & T. CO'S HIGH GRADE PURE BEEF SCRAP OR MEAT MEAL

40-50 AND 55 PER CENT. PROTEIN

This Beef Scrap is the highest possible grade, and is made from Pure Beef Trimmings and packings, and has no pork or other materials to cheapen same. It is fully guaranteed as to quality and will keep indefinitely. **Price:** 5 lbs., 50c. 100 lb. bag, 40% \$4.50; 50% \$4.75; 55% \$5.00.

ALFALFA MEAL

This is a green feed all the year round. Everyone knows that alfalfa is fast supplanting clover. It is very high in protein, and furnishes the chicks a growing food which, at the same time, has a medicinal value. 5 lbs., 25c. 50 lbs., \$1.80. Per 100-lb. sack \$3.00.

Chick Manna or Health Food (FOR LITTLE CHICKS)

Chick Manna is one of the first foods put up especially for baby chickens. It is the best thing on the market, and should be used exclusively for the first ten days. It will save many little chickens, and will repay many times its cost. The first ten days will decide whether the chick will grow into a profitable chicken.

Prices:

With **Chick Manna** you are sure of a prime healthy chicken, one that will pay you to raise.
1-pound package \$.15
3-pound package40
25 lbs. \$2.00
5-pound package \$.60
15-pound package 1.45
100 lbs. \$7.00

FOR PREVENTION - FOR CURE White Diarrhoea and Chicken Cholera can be cured and prevented by **AVICOL**.

STOP THE LOSSES!

AVICOL SAVES THE CHICKS—Avicol has a specific and selective action on the germs causing Cholera and White Diarrhoea. It knocks the germs and gives the chick a chance.

Prices: 50c. and \$1.00

HACKETT'S GAPE CURE

CURE FOR CHICKEN GAPES

No drugging; simply confine the chicks and dust the powder over them; they inhale it; kills both worm and germ; treat the whole brood at once in less than five minutes.

Package, 40c. Postage on single package, 5c. extra.

DON SUNG

TABLETS FOR EGG LAYING Scientifically compounded to make a balanced tonic and regulator for hens and to stimulate egg laying.

A concentrated Medicine—no filler.
Price 50 cents and \$1.00 Packages

SUCCULENTA TABLETS

do away with all the bother, the time and labor of feeding your chickens green sprouted oats, cabbage, beets, roots and all other green food. Simply dissolve a tablet in the drinking water; fowls drink it with a relish.

Via parcel post direct to you:
100 Large Tablets \$.60
250 Large Tablets 1.00
500 Large Tablets 2.00

GRANULATED CHARCOAL

A little ground charcoal mixed with the soft feed in the morning, once or twice a week, is an excellent corrective for the fowls, and keeps them healthy. We carry three sizes, one for grown fowls, one for small chicks, and pulverized. 5 lbs., 50c. 25 lbs., \$1.25. 50-lb. sack, \$2.00. 100 lbs., \$3.00.

GRANULATED MILK FOR POULTRY

1 lb., 15c. 25 lbs., \$2.00. 100-lb. bag, \$7.00.

SAVE YOUR COWS **KOW-KARE** **THE GREAT COW MEDICINE**

the milk. It is a medicine for cows only. Prices, small size, 65c.; large size, \$1.25.

Watch every cow, and at the first sign of disorder in appetite, digestion or flow of milk, give a dose of **KOW-KARE**. Carefully follow the directions as given on the box, and that cow will get well.

KOW-KARE is in powder form, to be given in regular feed. It cures abortion, barrenness and scours, caked udder, removes retained afterbirth, purifies the blood, strengthens the appetite, vitalizes the nerves and prevents disease. It increases

BAG BALM

For all diseases of the cow's udder and teats there is no remedy so quick and certain in its curative powers as **Bag Balm**. It is a soothing, penetrating ointment, especially adapted for all those serious and annoying troubles known as caked bag, cow pox, chapped, cracked and sore teats, bunches, chafing and inflammation of all kinds. **Bag Balm** penetrates through the skin and inner tissues at once, reaching the glands, where it reduces the inflammation, breaks up the bunches and spreads its cooling, softening effect to all the affected parts. This remedy has met with unequalled success, and is found on the most progressive farms in the country. Price60c.

BONE MEAL FOR POULTRY

This is exactly the same as the Cracked Bone described below, only it is ground much finer. 5 lbs., 40c. 10 lbs., 60c. 50 lbs., \$2.10. 100 lbs., \$3.50.

CRACKED BONE FOR POULTRY

This article is manufactured from fresh, clean bones, and is perfectly pure and sweet. We carry two sizes—No. 1 for grown fowls, and 2 for young chicks. 5 lbs., 40c. 10 lbs., 60c. 50 lbs., \$2.00. 100-lb. sack \$3.50.

CRUSHED OYSTER SHELLS

It aids digestion as well as supplying lime. No. 3 for young chicks. 5 lbs., 15c. 100 lbs., \$1.00. 500 lbs., \$4.50. Special prices in larger quantities.

MICA QUARTZ GRIT

5 lbs., 25c. 100-lb. sacks, \$1.00. 500 lbs., \$4.50. (Poultry, Pigeon and Chick Sizes.)

BLACKMAN'S SALT BRICKS

Easiest and best way to give medicine to stock. It salts them too.

Blackman's Medicated Salt Brick, originated by a noted Veterinary Surgeon, insures stock getting the needed medicine without trouble or loss of time to their owners. When dropped in the feed-box, the brick is licked by the animal as needed, just as people use salt with their meals. Contains Copperas for Worms, Sulphur for the Blood, Saltpetre for the Kidneys, Nux Vomica, a blood tonic, and Pure Dairy Salt. It is a wonderful improvement over the old plan. Why not try it?

DOZEN\$3.00

WATER GLASS

Put up expressly for packing away eggs, when they are plentiful and cheap. During the summer months especially eggs are much cheaper than they are in the winter time. With this preparation you can pack them away, and have a supply of fresh eggs all winter. One gallon of this solution is sufficient to mix with enough water to pack away fifty dozen eggs. Use 1 part **Water Glass** to 9 parts of water.

At a cost of only one cent a dozen, you will be able to save anywhere from fifteen to thirty cents on the dozen, and have the satisfaction of having your own eggs.

PRICE 1-Quart Can ..\$.30 1-Gallon Can .. 1.00
5-Gallon Can .. 4.00

AMERICAN HORSE TONIC

This tonic is a specific for horses, an actual medicine that goes to the root of all horse ailments and removes the cause of the trouble. A few doses will send a dull, listless horse on its way rejoicing.

Its curative power is wonderful. **AMERICAN HORSE TONIC** is the best remedy known for worms, stoppage of water, all bowel complaints, inflammation of the lungs, recent foundlers, distemper, coughs, colds and swelling of the glands of the throat. Small size, 35c.; Large Size65c.

HORSE COMFORT

The Most Remarkable Remedy Ever Compounded for Healing Cuts and Open Sores of Every Kind. **HORSE COMFORT** is a liquid preparation which is unequalled in its power to quickly cure all kinds of open sores or abrasions of the skin. It is used by simply wetting the sore spot. No bandages or filthy rags, no rubbing or heating it in. Simply wet the spot and the cure begins. Price per bottle, 35c. and 65c.

GRANGE GARGET REMEDY

This remedy has stood the test of twenty years as a successful remedy, and is indorsed by thousands of dairymen. Price, Per Can65c.

SPRATTS DOG REMEDIES

These remedies have been on the market for fifty years, and are sold in most every country in the world. In offering them for sale we recommend them as being the best in their line, and properly used will give satisfactory results.

We do not list but a few of the various remedies of this standard make and if you desire any of those we do not list, we will be glad to get them for you.

Spratt's Dog Cake, the standard dog food used at the different kennels and dog shows throughout the world. Prices, small carton, 20c.; medium carton, 40c.; large carton, 75c.; 100-lb. bags, \$12.00; 25-lb. boxes, \$3.25; 50-lb. boxes, \$6.35; 100-lb. boxes, \$12.50.

Spratt's Puppy Cake, small carton, 20c.; medium carton, 40c. **Spratt's Puppy Meal**, carton, 20c. **Spratt's Pheasant and Turkey Meal**, carton, 40c.; 25 lbs., \$3.25; 50 lbs., \$6.10; 100 lbs., \$12.00.

Spratt's Fiho\$.40
Spratt's Alternative Cooling Tablets60
Spratt's Anti-Vomit Tablets60
Spratt's Digestive Tablets60
Spratt's Diarrhoea Tablets 1.00
Spratt's Distemper Tablets60
Spratt's Hair Stimulant and Restorer60
Spratt's Kidney Tablets60
Spratt's Liniment60
Spratt's Pneumonia Tablets60
Spratt's Purgative Tablets60
Spratt's Worm Capsules for Puppies60
Spratt's Tonic and Condition Tablets for toy dogs and puppies60

Spratt's Distemper Tablets for toy dogs and puppies.... .60
Spratt's Vermifuge Capsules for toy dogs and puppies.... .60
Spratt's Eczema and Sarcopic Mange Remedy60

Spratt's Patent Improved Dog Soap (White), for fleas, lice, etc. It is entirely free from poison and at the same time most effective in the destruction of lice and fleas. Per cake25

Spratt's Patent Antiseptic Soap (Black), for veterinary uses, etc. Per cake50

SAL-VET

SAL-VET is a medicated salt—a safe, simple, inexpensive remedy which gives stock the medicines they need along with the salt they crave. It requires no dosing, no drenching, no starving. It goes into the stomach and intestines and loosens the leach-like hold these blood-sucking parasites have on the tender linings. It drives the robbers out—without bother or trouble to you. Your animals eat **SAL-VET** in place of common salt and thus doctor themselves.

A SINGLE WORM-INFESTED HOG IN YOUR HERD IS A CONTINUAL MENACE TO YOUR HOG PROFITS

It is the worm-infested, half-starved animals that spread the deadly worm-curse over your farm. They are disease-breeders and disease-carriers of the worst kind. Helpless themselves to resist contagion, they let down the bars to the cholera scourge and death stalks through your herd. They are the danger spots in every herd.

10-lb. packages "Sal-Vet"at \$ 1.00 each
15-lb. packages "Sal-Vet"at 1.50 each
50-lb. pail "Sal-Vet"at 4.00 each
100-lb. kegs "Sal-Vet"at 6.75 each
200-lb. barrels "Sal-Vet"at 12.00 each
300-lb. barrels "Sal-Vet"at 16.00 each

BANNER ROOT CUTTERS

No. 7

EXCLUSIVELY FOR POULTRY

It cuts fast and is easy running. Leaves the feed in fine brittle, ribbon-like strips that make choking impossible. Fowls large or small can safely eat the feed. The knives are adjustable and made of the very best of steel. An iron grate in bottom of hopper lets dirt and gravel escape before reaching the knives. In this cutter we offer the poultrymen a low-priced, high-grade, nicely-finished and mechanically constructed machine, and feel that anyone who desires to feed Roots and Vegetables to their flocks can well afford to own one. Two to five minutes will cut enough feed for a large flock of birds.

Price.....\$7.50

Banner No. 7

BANNER No. 28

A New Root Cutter. A Shredder. Using the Patent Banner Knife. For Poultrymen, for Sheepmen, for Stockmen.

Banner No. 28

A Root Cutter that cuts all roots and vegetables like Beets, Carrots, Potatoes, Onions, Apples, Turnips, Cabbage or anything else of the same nature into ribbons, literally shredding the material into feed cut so fine that all stock and poultry can feed without danger of choking. Built strong and stout to stand power use, and furnished with a crank so it can be used by hand also. This cutter has a large capacity, is supplied with eight steel knives. It has a heavy cast iron Platter Wheel, 28 inches in diameter to which the knives are attached by bolts. The hopper is such shape that the machine feeds itself and the roots cannot possibly get away from the knives until they are all cut. A grate in the bottom of the hopper allows the dirt to escape before going to the knives. This cutter is designed more particularly for power use for the large Poultrymen and Sheepmen. Weight of machine complete, 150 pounds. Capacity of hopper about 2½ bushels. Speed by power 125 to 150 Rev.

Price, Complete, with Pulley and Crank, \$29.25.

BANNER No. 20

Banner No. 20

The No. 20 Banner Root Cutter. It is made for hand power. It has a capacity of 30 to 50 bushels per hour, although it will cut at the rate of a bushel a minute easily on the test.

It is well built, nicely finished, runs easily, feeds itself, separates the dirt from the cut feed. Price, \$18.50

BANNER No. 25—FOR HAND OR POWER.

This is a new style machine.

It can be used by hand or light power. Is very strong and durable. Capacity 30 to 60 bushels per hour.

Weight, 100 lbs.

Price, with crank....\$17.50

BANNER No. 16

A GRAND MACHINE FOR HAND AND POWER USE—

Supplied with crank also for hand use. Capacity by hand, 30 to 50 bushels per hour. Weight, 150 lbs. Capacity by power, 2 to 3 bushels per minute. Our Retail Price, \$26.75.

No. 35—BANNER ROOT CUTTER.

Heavy construction for hand or power, weight, complete, 185 pounds; capacity of hopper about 3 bushels.

This is a cylinder type cutter and is made strong to stand power. The hopper is large and deep. The Cutting Drum to which the knives are attached is strong and will not break or wear out. It is positive feed as the roots lay on top of the Cutting Drum. It has 30 gouge-shaped knives.

Price, complete, with Pulley and Crank.....\$37.50

NEW BANNER "30" ROOT CUTTER

Turns easily by hand. At 60 revolutions, the knives hit and cut the roots 1800 times. The result being at a low estimate 1½ to 2 bushels per minute of cut feed. Cut feed left in long half round slices that has made the Banner Root Cutter a popular machine for this work for 20 years.

Weight, 175 to 190 lbs.

Price, \$40.00.

WILSON No. 0 FAMILY GRIST MILL

This mill is especially made for grinding Graham Flour or Cornmeal; can be adjusted for cracking grain if desired. Weight, 30 lbs., \$7.50. With iron stand; weight, 65 lbs. Price, \$10.50. Diameter of hand wheel, 20 in.

WILSON No. 1 BONE AND SHELL MILL

Weight, without stand, 33 lbs...\$7.50
Weight, with stand, lbs.....\$10.50

No. 10

COMBINED HAND AND POWER MILL.

No. 20—Power Mill for two-horse engine; tight and loose pulley, best of bronze boxes and cold rolled steel axle, capacity 10 to 20 bushels per hour. Has no equal. Price, \$22.00.

Corn Sheller Attachment, shells the corn and grinds at the same time. Price, extra.....\$10.00

Table Meal Separator, makes fine table meal while grinding stock feed. Price, extra.....\$7.00

Black Hawk

Grist Mill

Black Hawk Feed and Grist Mill

Just the thing for cracking corn, etc. for poultry. Makes best Graham flour and meal for table use.

Grinds corn, wheat, rye, rice, spices, etc. Weight, 17 pounds. Price....\$3.75

MANN'S GREEN BONE CUTTER

No. 5BM.

No. 5C.—This machine is exactly the same as the No. 5B, with a crank handle instead of a balance wheel. Capacity not quite equal to 5B. Weight, 35 lbs. \$12.00

No. 5E.—This machine is exactly the same as the No. 5BM, except that it has not the iron stand. The capacity is the same. Weight, 60 lbs.....\$15.00

No. 5BM.—Intended for flocks of 15 to 25 hens. Mounted on iron stand. Cylinder 6 inches diameter, 4 inches deep. Cutter plate has 4 knives instead of 3.....\$18.00

No. 7.—Intended for flocks of 40 to 100 hens. Mounted on strong iron stand with large table for box or pan to receive cut bone. Weight, 107 lbs. Cylinder, 7¼ in. in diameter, 5¼ in. deep. Capacity, ½ to 1 lb. per minute...\$19.75

No. 11.—Intended for large flocks of over 100 fowls. Capacity 100 lbs. per hour. Horse-power required, 1 to 1½. Weight, 215 lbs. Diameter of pulley, 15 inches; 3½-inch face; speed of pulley, 300 to 350 revolutions per minute. Capacity, 100 lbs. and upward per hour.....\$45.00

Poultryman's Clover Cutter

Designed for cutting, either green or dry, such growths as clover, alfalfa, vegetable tops, etc. These growths are the cheapest and most productive egg-forming poultry foods for cold weather.

With four 7-in. knives; weight K. D., 60 lbs...\$20.00
Gem Clover Cutter.....\$34.00
Gem Clover Cutter with legs.....\$35.00

QUEEN INCUBATORS

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

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

Most of the chicks you lose in the first few weeks die because they did not have, when hatched, enough strength or vitality for a good start. Queen Incubators are famous the country over for big hatches of strong, healthy chicks that live and grow.

PROPER INSULATION

The Queen is doubly insulated. First we use double walls of California Redwood, forming a dead-air space. Second, corrugated strawboard is used between the wooden walls. Proper insulation adds considerable expense to the manufacturing cost. However, it is an absolute requirement of a good incubator.

QUEEN HOT WATER HEATING

The Queen System of hot-water heating prevents the drying-out tendencies found in other incubators and provides a soft, uniform heat over every part of the egg chamber—a heat that is most natural for the hatching eggs. The circulation of water through the radiator prevents any moisture being added or taken away from the eggs. When it becomes necessary to remove the lamp, the hot-water circulating through the radiator maintains an even heat within the egg chamber without the slightest variation.

Queen Incubators are not cheap, but they are cheap in the long run. They will be turning out good hatches years after the cheap machines have been junked. The Queen line has all copper heater and pipes.

SIZES AND PRICES

No. 20 Style K—70-egg size...\$16.50	No. 3 Queen—180-egg size...\$44.50
No. 21 Style K—100-egg size... 27.50	No. 4 Queen—275-egg size... 57.75
No. 22 Style K—220-egg size... 36.75	No. 5 Queen—400-egg size... 68.00
No. 1 Queen—85-egg size... 27.50	No. 25 Queen—550-egg size... 103.00
No. 2 Queen—135-egg size... 37.50	No. 40 Queen—1000-egg size... 200.00

NEW EGG-TURNING TRAY

Queen Incubators may be equipped with Egg-Turning Trays if desired, but will not be unless so ordered.

The 26-inch Egg-Turning Tray fits the No. 22 Queen Incubator. The price of this Tray is \$5.00 each tray.

The 30-inch Egg-Turning Tray fits Queen Incubators Nos. 4, 5 and 35. The price of the 30-inch Trays are \$5.00 each tray.

The 32-inch Egg-Turning Tray fits the No. 25 Queen Incubator. The price of this Tray is \$5.00 each tray.

The 40-inch Egg-Turning Tray fits the No. 45 Queen Incubator. The price of this Tray is \$7.50 each tray.

Queen Incubators equipped with these Egg-Turning Trays retain all the advantages of the small machine plus the labor-saving devices of mammoth machines.

The Prairie State Sand Tray Incubator

No. 1—50 hen eggs; 125 lbs. crated.....	\$25.00
No. 1—150 hen eggs; 160 lbs. crated.....	35.00
Keystone Incubators.....	20.00

QUEEN INDOOR LAMP-HEATED BROODER

Queen Indoor Brooders are made of the same selected, high-grade lumber that is used to construct the outdoor brooders, and painted with two coats of paint.

No. 8—165-chick size, shipping weight 78 lbs.....	\$22.75
No. 9—250-chick size, shipping weight 80 lbs.....	25.50

INCUBATOR LAMPS

No. 1 Lamp and Burner, using 1/2-in. wick.....	\$1.50 each
No. 2 Lamp and Burner, using 1-in. wick.....	2.00 each
No. 3 Lamp and Burner, using 1 1/2-in. wick.....	2.50 each
Brooder Lamp, complete.....	2.00 each
No. 1 Sun Hinge Burner.....	.75c.
No. 2 Sun Hinge Burner.....	\$1.00
No. 3 Sun Hinge Burner.....	1.00
No. 1 Wick.....	.30c. doz.
Nos. 2 and 3 Wicks.....	.50c. doz.

Queen Tested Thermometers

Queen Incubator Thermometers, postpaid.....	\$1.00
Queen Brooder Thermometers, postpaid.....	.85
No. 5775 Incubator Thermometer; postpaid.....	1.00

EGG TESTER

PRICE 25c

POSTPAID 35c

QUEEN STOVE BROODER

The **Queen Colony Brooder** is a new and improved design of brooder stove. It is made of highest quality iron castings that will wear and last indefinitely.

There are no drafts on the smoke pipe of the **Queen**. The check rests on top of the stove and opens outward when fire is too warm, thus giving a gentle inflow of air to retard the heat. While the opening of the draft to increase the fire is located at the top of the stove, it opens into the fire at the base through an opening extending down the side to the bottom. This feeds the draft into the fire from underneath, with no opening below the hover.

BURNS ANY KIND OF FUEL

The **Queen** stove burns any kind of fuel with equally satisfactory results. We recommend chestnut sizes in all kinds of fuel, and hard or soft coal, coke or charcoal burn equally well. Of course, hard coal will not cause the pipe to become dirty as quickly as the others, but it will give no better heat.

	Capacity	Diameter of Canopy	Height	Diameter Of Cyl.	Diameter Of Grate	Dia. of Pipe Collar	Ship. Weight.	Price
No. 0 Stove ...	400 chicks	42	18 in.	10 in.	9 in.	4 in.	76 lbs.	\$16.50
No. 1 Stove ...	800 chicks	52	23 in.	10 in.	9 in.	4 in.	83 lbs.	21.50
No. 2 Stove ...	1200 chicks	56	26 in.	11 in.	10 3/4 in.	4 in.	104 lbs.	26.50

PIPE FOR STOVE BROODERS

4-inch Galvanized Pipe in 10-foot Lengths, per foot.	12c.
5-inch Galvanized Pipe in 10-foot Lengths, per foot.	18c.
4-inch Galvanized Elbows.	35c.
5-inch Galvanized Elbows.	40c.

QUEEN OIL BURNING BROODER

STRONG SIMPLE SERVICEABLE
Broods Chicks That Live and Grow

CONSTRUCTION

This picture shows the construction of the legs. See how they are braced. An innovation in Brooders.

Prices

300-Chick size, 32-inch hover	\$16.00
600-Chick size, 42-inch hover	18.00
1200-Chick size, 52-inch hover	20.00

THE NEW QUEEN MAGAZINE BROODER STOVE

Here's the brooder stove that ends the trouble and work of constant refueling, that assures you more even heat every hour of the day and night. This latest model **Queen Brooder Stove** has a fuel magazine which will hold as much as 75 pounds of coal. Just fill magazine and you can forget about your fire for hours at a time. Coal is fed into stove from magazine evenly and gradually as needed. Your fire never gets too low from lack of fuel. You don't have to be constantly bothering yourself or disturbing your chicks with refueling. No worry while you are away from home. It feeds itself from the magazine until every chunk of the 75 pounds of coal is burned.

SPECIFICATIONS ON DIMENSIONS

Height over all	37"	Depth of fire box	14"
Depth of Magazine	15"	Diameter of Grate	13 1/2"
Pine Opening	5"	Diameter of Canopy	60"
Coal Capacity, lbs.	75"	Stove and Canopy, lbs.	165
1600 Chick Capacity			\$32.50

Wick of indestructible asbestos. No solder used on burner. All welded. Cannot leak. Oil cannot overflow. Attractive guard around burner and cross pipes.

Two-gallon metal tank. Metal tank minimizes fire risk. No overflowing. No bottle to break. Few moving parts. All visible. Parts seldom need renewal.

The canopy is made from heavy galvanized iron, with a special beading and crimping process on the edge, which adds greatly to its strength and rigidity.

The top ventilator provides a good circulation of heat and air at all times.

Clean the wick occasionally. Refill the tank every 48 hours and it will take care of itself. Nothing to break.

DREW Thermo-Regulated Oil Brooder

DB-832 with 32-inch Canopy (300 chick size).....	\$15.90
DB-842 with 42-inch Canopy (500 chicks size).....	\$18.25
DB-852 with 52-inch Canopy (1000 chick size).....	\$19.50

The Drew Line "Thermo-Regulated" Wickless Blue Flame Oil Burning Brooder Stove is the most practical, most accurately controlled oil brooder ever offered to the poultry raiser. It insures uniform temperature for the baby chicks regardless of weather conditions outside.

You can go to bed without a worry about your chicks! They are positively protected against changes of temperature and against extremes of cold and heat. This simple thermostatic mechanism raises and lowers the oil pipe line so that the flame of the burner increases or decreases and the amount of heat generated is thus effectively controlled, the chicks always getting the desired amount of warmth.

Drew Brooders with 46-inch and 60-inch Hover

We manufacture two sizes of hovers for the Drew Coal Brooders but only one size stove. What does that mean to you? It makes no difference what size brooder you buy, you get a big capacity stove.

Every Drew hover is built of copper bearing, tight coat galvanized sheet steel and will last just as long as the cast iron stove. The hover bolts rigidly to the body of the stove, no danger of knocking down the stove pipe. The two handy doors make it easy to remove the ashes, adjust the thermostat, sweep out from under the hover, and care for the chicks without raising the hover and losing heat valuable to the chicks. An unusual hover and a most practical one.

PRICE: Brooder with 46-inch Hover...\$22.50 Brooder with 60-inch Hover...\$26.45

DREW ALL-METAL, LICE-FREE NESTS

Drew Line of Sanitary Nests are made in three combinations—3-hole, 6-hole and 10-hole. Drew nests are neat, they are pleasing in appearance, they are sanitary, they are comfortable. Built of first-grade copper-bearing galvanized steel sheets, they are quality nests that will withstand hardest service for many years.

The nest boxes are 11½ inches wide and 13 inches deep, with a 9¼-inch nest-hole, sufficiently large for average flocks.

We recommend one nest for every five hens. To clean nest, swing the section out from the wall and the old nesting material will drop out. The all-steel construction eliminates harboring places for lice and mites. All nests are designed to suspend from the wall.

Drew Trap attachment with special double hinge, sure-drop construction as shown on DB-830 Nest Section above. Can be furnished if desired.

DB-823B Drew All Metal Nests, 3-hole section, weight 25 pounds. Price..... \$5.25

DB-826B Drew All Metal Nests, 6-hole Double Tier section, weight 35 pounds..... 7.85

DB-831 Drew Trap Attachments, weight 1 lb..... .45

DB-830B Drew All Metal Nests, 10-hole Double Tier Section, weight 55 lbs... \$10.85

Drew Poultry Mash Feeder

Here is the greatest mash feeder on the market today—a real egg-maker and a big mash saver. It has a large egg-mash capacity.

The 50-pound size is equipped with a mash hopper 24 inches long, 22 inches deep. The extra deep feed troughs on both sides of the hopper enable a large number of hens to feed at one time without wasting valuable feed. This size is designed to accommodate 75 hens.

The 100-pound size is similar in design and construction, but is just twice as large in egg-mash capacity. Both sizes are made of the best galvanized steel and are of particularly sturdy construction.

DB-850A Drew Mash Feeder; weight 40 lbs.
Capacity 50 lbs. egg-mash\$7.85

DB-800A Drew Mash Feeder; weight 60 lbs.
Capacity 100 pounds egg-mash....\$11.90

The Drew "GIANT" Chick Feeder

DB-836 Giant Chick Feeder

A removable cover at top is provided for convenience in filling. The wire tilting device on the cover prevents chicks from roosting on the top and fouling the feed and spreading disease.

DB-836 Drew Line "Giant" Chick Feeder; weight 23 pounds.\$5.95

The Drew Giant Chick Feeder is especially designed to care for flocks of 200 to 300 chicks. The feeder is 35 inches long, 17 inches high and 11 inches wide at the base. It holds about 50 pounds of chick mash and it will permit about 50 chicks to feed at one time.

Drew Wall Mash Feeder

DB820

The Drew Wall Mash Feeder holds 20 pounds of egg-mash. It was designed particularly for flocks of twenty to thirty hens. It is built with a special deep feed trough to prevent hens from wasting mash. Made of hot galvanized copper steel—will last a life time. Designed to be hung on wall—a convenient feature.

DB-820 Drew Wall Mash Feeder, weight 15 lbs. \$3.00
Holds 20 lbs. mash.

DB-840 Drew Wall Mash Feeder, weight 25 lbs. \$4.00
Holds 40 lbs. mash.

Wet Mash or Green Feed Trough

All flocks require green feeds and wet mashes if best results are to be obtained. Why waste valuable feed? This trough will last a lifetime and will save its price many times over. It is made of the best galvanized steel with a trough 60 inches long and 21 inches wide over the perches. It stands 21 inches high to top of guards. The wire guards keep the feed clean and prevent waste. A mighty good investment for any poultry man.

DB-525 Drew Wet Mash or Green Feed Trough, weight 30 lbs....\$5.95

Drew Droppings Board Scraper

Here is a quality scraper at a price that is right. The blade is of heavy galvanized steel, 18 inches long and 6 inches wide. The handle is 70 inches long. This handy scraper makes cleaning the poultry house an easy task.

DB-540 Drew Droppings Board Scraper, weight 5 pounds. Price.....\$1.25

Drew Handy Feed Scoops

Drew Line Handy Feed Scoops are a necessity around the poultry house. Strong construction with handle securely riveted to body of scoop. Can be used for many other purposes on any farm. Made in two sizes, capacities of 2 quarts and 4 quarts, respectively.

DB-542 Drew Handy Feed Scoop, 2-quart capacity;

weight 1½ pounds. Price.....\$0.50
DB-544 Drew Handy Feed Scoop, 4 quart capacity;
weight 2 pounds. Price.....\$0.75

DREW LAMP-HEATED WATERER

A great waterer, 8 gallons capacity, built of 26-gauge, hot-galvanized, copper-bearing steel sheet. The drinking pan extends all the way around the waterer, allowing ten to fifteen birds to drink at one time.

The water level is controlled by a copper float.

This waterer will take care of 150 hens for a full day. The lamp is exceptionally well made and will burn for at least 90 hours without refilling.

For ease of cleaning there is nothing else like it and in general it is the greatest value on the market in a heated waterer. An excellent investment. A special stand with perches as shown in cut can be supplied for this waterer. This sanitary feature holds the water sufficiently high from the floor so that the hens can not scratch filth and litter into the drinking pan.

DB-812 Drew Lamp Heated Waterer, with lamp and lamp base; weight 21 pounds. Price.....\$7.90
DB-845 Stand for 8-Gallon Waterer; weight 20 pounds. Price 1.50

The Drew Line Chick Feeders

Large capacity Drew Self-Feeders are for baby chicks and for chickens up to three months old. They are made of heavily galvanized copper-bearing sheet steel, designed specifically to meet the peculiar requirements which have been found necessary for the successful Self-Feeder. The trough is deep—3 inches wide at the bottom, 5 inches wide at the top, with body below the feed holes over 2 inches deep.

DB-813, 12-hole, 13 inches long

DB-825, 24-hole, 25 inches long

chicks from roosting on the cover and fouling the feed. Sanitary, thoroughly practical—an exceptional value, regardless of the size you require. Made in three sizes.
DB-807, 6-hole Self Feeder, 7 inches long, weight 1½ lbs. .\$.25
DB-813, 12-hole Self Feeder, 13 inches long, weight 1½ lbs. .50
DB-825, 24-hole Self Feeder, 25 inches long, weight 2½ lbs. .75

These feeders pay their own way through the feed they actually save. They not only do prevent waste but they also save time as they do away with the necessity of constant filling and attention. A practical money-making feeder. The egg-shaped feed holes have smooth, folded edges.

An important feature is the special tilter on the sliding cover. The tilter effectively prevents

DREW POULTRY WATERER

Non-Freeze Type

This is the most successful non-freeze waterer on the market today. It insures your flock of a fresh, clean water supply at all times—warm in winter, cool in summer. No lamps to fill and clean and no danger of fire. These are real money makers for you. Made in two sizes—2½ gallons and 4 gallons capacity respectively. Made of best galvanized copper-bearing steel—will not rust out.

Jacket of water is completely insulated with redwood and red cedar insulation, as shown in the illustration. A removable chaff cup is provided in the drinking trough to catch chaff and dirt. Waterer may be hung on the wall by a special attachment provided for that purpose, or it may be set on a box, up out of the litter. Bottom of waterer has double-crimped edge all around, which keeps the concave bottom out of any water, and prevents rusting.

Fill waterers with hot water at night when chickens have gone to roost and water temperature will be just right in the morning. Warm water in winter—cool water in summer means higher production at less cost for you. You cannot afford to do without one of these waterers.

DB-519 Drew Non-Freeze Waterer, 2½ gallon capacity; weight 25 pounds. Price.....\$4.25
DB-518 Drew Non-Freeze Waterer, 4 gallon capacity; weight 32 pounds. Price.....\$5.40

DREW CHICK TANK

The Drew Chick Tank has been used by thousands of poultry men who claim that it is the best thing of its kind on the market. This 1½ gallon capacity, 100-chick size is built of heavy rust-resistant copper-steel, heavily galvanized. It is rust proof and sturdy—an ideal, large capacity waterer.

There are only two parts to this waterer—the bucket and the watering pan. It saves time, worry, work and trouble in watering large flocks. You will appreciate the value of this economical Drew waterer.

DB-507 Drew Chick Tank; weight 6 pounds. Price....\$1.35

Nesco Cone-Shaped Drinking Fountain

1 Quart.....	\$.30
2 Quarts.....	.35
4 Quarts.....	.45

NESCO ECONOMY CHICK FOUNT

No	0
Diameter Pan, ins.	5
Height, inches....	4
Each.....	15c.

BOTTOM FILL FOUNTAINS

The round taper shape prevents damage from freezing.

No. Capacity Each	
19 1 Quart	\$0.25
Packed 24 to case.	
20 2 Quarts	.35
Packed 24 to case.	
24 1 Gallon	.50
Packed 12 to case.

DROP BOTTOM FOUNTAIN

Drop Bottom, easy to fill and to clean. Has wire handle and may be hung on the wall out of the litter and dirt.

No. Capacity Each	
40 2 Quarts	\$0.85
Packed 12 to case.	
41 1 Gallon	1.00
Packed 6 to case.	
42 2 Gallons	1.25
Packed 6 to case.

Wall Fountain

The covered outlet keeps out dust and dirt, and a removable plate prevents any floating rubbish from being drawn into the reservoir.

No. Capac. Each	
98 1 Gal.	1.00
Packed 6 to case.	
99 2 Gal.	1.40
Packed 4 to case.

MOE'S "TOP FILL" FOUNTAIN

Automatic Feed
Easy to Fill
and
Keep Clean

1 Gallon	\$1.50
2 Gallons	2.25
4 Gallons	2.75
Packed 1 to case.

FEED AND DRINKING CUPS

GALVANIZED
Especially suitable for Exhibition Coops.
No. 61—Each \$.15
Doz. 1.80

WATER PANS

12 in.	\$.50
11 in.	.60
16 in.	.70

MASON JAR FOUNTAIN

No. 142. Mason Jar Fountain, made of tin, and is screwed on an ordinary glass jar. Diameter 6 1/4 inches.

Price, each..	\$0.10
Dozen.....	1.20
Gross.....	14.40

(Glass jars are not included.)

Packed 6 and 12 doz. to case.

No. 32 Moe's Star Fountain and Feeder

Made of a single piece of heavy metal. No solder, no seams, no loose parts. Suitable for feed as well as water. Little chicks cannot drown. Fits any Mason jar in 1 Pint, 1 Quart, and 2 Quart sizes.

No. 32 (Glass jar not included), each 10c., doz., \$1.20.

Gross \$14.40 Packed 1 Gross to Case.

No. 133 MOE'S STAR BUTTERMILK FEEDERS

Made of Bright Charcoal Tin Plate, which is not affected by milk acids. The same material as is used in milk cans, cream separators, etc. Makes an absolutely safe and sanitary feeder for buttermilk and sour milk.

Moe's Famous Star Fountain, in Tin Plate, fits Mason Jars in 1-pt., 1-quart and 2-quart sizes.

Packed one gross in carton. Shipping weight per gross 35 lbs. Per dozen, 4 lbs.

No. 133. Star Fountain in Tin Plate.	
Price, each..	\$0.10
Dozen	1.20
Gross	14.40

MOE'S DOUBLE FEEDING TROUGHS

No. 58—12 in.	\$.30
Packed 24 to case.	
No. 59—18 in.	.45
Packed 12 to case.	
No. 60—24 in.	.60
Packed 12 to case.	
No. 21—12 in. Single Row	.25
Packed 24 to case.	
No. 22—18 in. Single Row	.45
Packed 12 to case.	
No. 23—24 in. Single Row	.60
Packed 12 to case.	
No. 55—12 in. Single Row	.25
Packed 24 to case.	
No. 56—18 in. Single Row	.35
Packed 24 to case.	
No. 57—25 in. Single Row	.45

BABY CHICK FEEDERS

No. 11—Diameter 6 in. with 8 holes, each 10c. Packed 1/2 Gross to Case.
No. 12—Diameter 8 1/4 in. with 12 holes, each 20c. Packed 1/2 Gross to Case.

Moe's Buttermilk Feeders

Made of Bright Charcoal Tin Plate, which is not affected by milk acids. Makes an absolutely safe and sanitary feeder for buttermilk and sour milk.

No. 131. Moe's Round Tin Feeders. Diameter 6 in., with 8 feeder holes. Packed 1/2 gross in a carton. Shipping weight per gross 55 lbs.; per dozen 5 lbs..

Price each \$0.15. Per doz.... \$1.80

No. 132. Moe's Round Tin Feeders. Diameter 8 1/4 in., with 12 feeder holes. Packed 1/2 gross in a carton. Shipping weight per gross 110 lbs., per dozen 10 lbs. Price each.... \$0.30 Per doz... \$3.60

Porcelain Enameled Feeders

Moe's Round Chick Feeder, white porcelain enameled inside, not affected by milk acids and just the thing for feeding buttermilk, sour milk and medicated feeds. Sanitary and safe. Easily kept clean. Diameter 8 1/4 inches with 12 feeder holes.

Packed 24 in a carton. Shipping weight 21 lbs. per carton.

No. 190. Moe's Enameled Feeder, ea. \$.75
Per doz. \$9.00

Moe's Eclipse Feeding Troughs

No. 27—10 inch, Galvanized	\$.20
Packed 24 to case.	
No. 28—12 inch, Galvanized	.30
Packed 12 to case.	
No. 69—16 inch, Aluminum	.50
Packed 24 to case.	
No. 70—20 inch, Aluminum	.90
Packed 12 to case.	

Grit and Shell Boxes

- No. 90—Four compartments..... 1.20
 Packed 6 to case.
 No. 45—Two compartments..... \$.40
 Packed 12 to case.
 No. 9—Three compartments..... .85
 Packed 6 to case.

Dry Mash Hoppers

- No. 35—Width 8½ in.\$1.50
 Packed 6 to case.
 No. 36—Width 12 in. 1.75
 Packed 4 to case.
 No. 13—Width 18 in. 2.25
 Packed 4 to case.
 No. 37—Width 24 in. 2.60
 Packed 2 to case.

Moe's Giant Fountains

**MOE'S
GIANT
TEN
GALLON
POULTRY
FOUNTAIN**

Made of heavy galvanized steel, sturdy and simple in construction. A large capacity, substantial fountain at a low price.

Height 24 inches. Diameter 12 in. Capacity 10 gallons. Packed 2 in a carton. Shipping weight 10 lbs.

No. 78. Giant Fountain. Each ...\$2.95

No. 193

MOE'S PEERLESS FEEDERS

For chicks and growing fowl. Made of heavy galvanized iron, with a large capacity and perfectly suited for either large or small flocks. The magazine or hopper is adjustable up or down for different kinds of mash and feed and can be set to feed slowly or rapidly.

Has a removable cover, so it is easy to fill, and the bottom is cone-shaped so the contents will not clog. The slotted openings are accurately formed with turned-over edges to prevent any injury to the fowl. The vertical feeder holes also make it impossible for the chicks to foul or waste the feed. Thirty chicks can feed at one time. No. 192. Peerless Feeder. Diameter of base 12 in. 30 feeder holes. Diameter of magazine 9½ in. Total height 12 in. Capacity 10 qts. Packed 1 in a carton. Shipping weight 6 lbs.

Each\$1.40 Per dozen\$16.80

No. 193. Peerless Feeder. Diameter of base 12 in. 30 feeder holes. Diameter of magazine 9½ in. Total height 18 in. Capacity 18 qts. Packed 1 in a carton. Shipping weight 7 lbs.

Each\$1.90 Per dozen.....\$22.80

Heavy Tin Buttermilk Feeders

Feeding Troughs in Tin Plate. Sliding Top. Easy to clean. No seams, rivets or solder. Clean, sanitary feeders.

No. 137—10 in. 10 holes.

Packed 24 to case.

Each... 25c. Doz...\$3.00

No. 138—20 in. 20 holes.

Packed 12 to case.

Each... 40c. Doz. \$4.00

**Moe's Magazine
Chick Feeder
and Waterer**

A new chick feeder and waterer with a magazine or container to hold a good quantity.

No. 18
2 Qts.50

Moe's Winter Fountain

Capacity
5 Gallons

A simple and reliable fountain with heater. Made of heavy galvanized iron, easily filled, with nothing about it to get out of order. Packed 1 to a case

- No. 75—Fountain Complete... \$3.60
 No. 74—Tank only..... 1.70
 No. 10—Heater only..... 1.90
 No. 79—10 Gal. Fountain Complete 4.85
 No. 26—1 Gal. Wall Fountain with Removable Bottom..... 75

**Adjustable Milk
Fountain**

Magazine Feeder in Tin Plate. Adjustable up and down to feed slowly or rapidly, for any kind of milk or feed. Capacity about 2 quarts. Has 12 feeder holes.

Packed 24 in a carton. Shipping weight 32 lbs.

No. 139. Magazine Tin Feeder. Each\$0.75 Per doz.....\$9.00

MOE'S WINTER FOUNTAINS

CAPACITY
2 GALLONS .

A fine practical winter fountain, with lamp heater. Made of heavy galvanized iron, easy to fill, and the fountain fits snugly on the heater base. It is similar to our No. 75 but smaller and the base has no hinged door. Capacity 2 gallons. The lamp is placed in the base from the top and the fountain can be used independently when desired. Lamp will burn continuously for one week without refilling.

Diameter 9½ in. Total height 16 in. Packed one in a carton. Shipping weight 6½ lbs.

No. 76. Each...\$2.50 Per doz...\$30.00

MOE'S INSULATED DOUBLE WALL FOUNTAINS

Moe's Insulated Poultry Fountains are made of heavy galvanized iron with thick double walls. The space between the outer and inner wall is packed with a highly efficient insulating material which keeps the water warm in winter and cool in summer.

In Winter. Fill at night with hot water, keep in basement or warm room, and in the morning the water will be of the right temperature for the poultry house. The hot water thoroughly heats the insulated walls during the night, so freezing is retarded during the day.

In Summer. Fill with cold water, place in shady spot, and the water will remain cool and fresh all day.

No. 5, 2-Gallons..... \$3.00
No. 6, 3-Gallons..... 3.50
No. 7, 5-Gallons..... 4.50

Made in three sizes. Packed one in a carton.

MOE'S FOUNTAIN AND BROODER HEATER

Can be used with all styles of fountains, and effectively prevents water from freezing.

Effectively solves the problem of a uniform supply of fresh, clear water at all times, no matter how cold the weather. It is also an excellent heater for small brooders.

The lamp fount or bowl holds sufficient kerosene to burn continuously for seven days. Simple and safe. Nothing to get out of order.

Packed 3 to case.

No. 10. Price, each.....\$1.90

Moe's Insulated Double Wall Fountain

Made of best quality galvanized iron, with double walls packed with an efficient insulating material.

The wrought iron stand or rest is hinged, and acts as a handle to carry the fountain.

Plenty of fresh water at the right temperature, in zero or torrid weather will keep your birds healthy and increase the egg yield.

Shipping weight, 16 lbs. Capacity, 3 gallons. Packed one in a box.

No. 8. Each.....\$4.00

MOE'S TRAP NEST FRONT

A new inexpensive and useful device which meets a popular demand. Made of best quality galvanized iron, simple in operation.

Can be easily fitted to any orange or ordinary wood box or coop and gives the breeder the opportunity to use a size nest adaptable to his birds.

Effectively traps the hen, yet allows ample ventilation.

Dimensions 11 in. wide by 12 in. high; 12 to case.
No. 63. Trap nest front. Each....\$0.50 Per dozen...\$6.00

MOE'S MAMMOTH DRY MASH HOPPER

A large capacity hopper built on correct principles. Made of heavy galvanized iron, strong and substantial in every detail.

The taper shape and interior construction provides a uniform automatic feed, and the wire grid and cross wires prevents any waste.

The stand is of heavy angle iron, painted, and has wooden bars for the poultry to rest on when feeding.

Length of hopper, 35 in. Width, 21 in. Height, 18½ in.

Capacity, 100 lbs. Height of stand, 15½ in. Total height, 34½ in.

Packed one in a box. Shipping weight, 50 lbs.

No. 3 Hopper and stand complete. Price each.....\$12.00

MOE'S FEEDER AND EXERCISER

Fill the hopper once a week and let the chicks do the rest. Moe's Automatic Feeder will save more time, and save more feed, than any other fixture in a poultry yard.

Guaranteed to be rain and weather proof, rat and bird proof. Always ready to feed the chickens just as often and just as much as they want to eat, and at the same time makes them scratch and exercise in order to get it. Packed 1 to case.

PRICE: No. 52—8 Qt.... \$1.25

No. 53—16 Qt.... 1.75

MOE'S LARGE CAPACITY FEEDER

A wonderful feeder for young growing stock, and a great time and labor saver when chicks are raised in large numbers. Made of heavy galvanized iron in two sizes, both with a large capacity.

Sliding top cover, easy to fill and clean, and the birds cannot roost on the cover or sides to foul the feed.

No. 140. Feeder, capacity 10 quarts, length 21 in., width 8½ in., height 7 in. 16 openings on each side, so that 32 chicks can feed at one time. Each.....\$1.20

No. 141. Feeder, capacity 17 quarts, length 35 in., width 8½ in., height 7 in. 27 openings on each side, so that 54 chicks can feed at one time. Each.....\$1.80

Extra Hopper for Large Capacity Feeder

No. 146 Hopper for No. 140 Feeder, each 50c.; doz., \$3.00. Packed 6 to case.

No. 148 Hopper for No. 141 Feeder, each 75c.; doz., \$9.00. Packed 4 to case.

WIDE RAIN COVERS

No. 147 for No. 140 Feeder, each 30c.; doz., \$3.60. Packed 12 to case.

No. 149 for No. 141 Feeder, each 50c.; doz., \$6.00. Packed 12 to case.

THE LAWN PARK COOP

IT TELESCOPES!

It is made entirely of galvanized material, will not rust and is proof against all chick enemies. The body of coop is made from strong 28 gauge galvanized steel, the wire park is made from heavy 1/2-inch mesh galvanized wire screen.

The Lawn Park is large and roomy, being 18 inches wide, 19 1/2 inches high and 24 inches long, with park closed and 48 inches long with park extended.

Gives absolute protection to chicks, permits chicks to grow and thrive nature's way.

PRICE, Each, \$4.00; 6 for \$22.50
Coop Without Park, Each, \$2.00; 6 for \$9.50

"Cymaco" Dry Mash Feeders

SOLVE THE FEEDING PROBLEM

The feeder that has won the highest favor among thousands of poultry men and farmers throughout the country. The **CYMACO** feeder is made of the best galvanized steel with enamelled steel legs to hold the feeder off the ground. The flow of the feed may be regulated by means of two thumb screws at either end of the feeder. Agitators are worked automatically by the fowls while feeding. The **CYMACO** accommodates twice as many hens as the ordinary hopper feeder. **CYMACO** is provided with a catch tray which prevents waste of feed and provides a means to close at night.

No.	Capacity	Shipping Weight	Each
12	1/2 bu.	11 lbs.	\$2.25
24	1 bu.	17 lbs.	3.25

IRON POULTRY TROUGHS

The above cut illustrates our new Cast-Iron Poultry Trough with arched lid, making it the best thing of its kind on the market.

Length, 12 inches; Width, 6 inches, with Arched lid.....	\$1.00
Length, 18 inches; Width, 6 inches, with Arched lid.....	1.25
Length, 24 inches; Width, 6 inches, with Arched lid.....	3.00
Length, 30 inches; Width, 6 inches, with Arched lid.....	4.50
No. 2—Length 6 inches, V-shaped with lid.....	.60
No. 4—Length 12 inches, V-shaped no lid.....	.75
No. 5—Length 18 inches, V-shaped no lid.....	.90
No. 6—Length 24 inches, V-shaped no lid.....	2.00

OAT SPROUTER

Steel frame, well braced and painted. With six heavy galvanized iron pans which are interchangeable. Provides the very necessary green feed at all seasons.

Total Height 3 ft. Size of Pans 16x18 in.
No. 110—Oat Sprouter Each \$6.00

MOE'S IDEAL POULTRY PUNCH

A new Improved Punch. Works easily, cuts clean, and does not pinch the foot. Length 3 1/2 in. Nickel plate.

No. 39—Moe's Ideal Punch Each 35c.

LANSDOWNE POULTRY MARKER

Our special price 25c.

PHILADELPHIA POULTRY MARKER

Large or small size, 25c.

CAPONIZING TOOLS

You can do your own caponizing easily with this set of tools. Each tool is made for this especial work, and are of the highest grade.

Philadelphia Set.....\$2.75
Farmer's Set..... 2.50

French Poultry Killing Knife

Expeditious and humane way of killing and dressing poultry. Price, with instructions, each, 50c.

PHILADELPHIA GAPE EXTRACTOR, 25c. each.

WIRE HEN NESTS

EACH.....25c. PER DOZEN.....\$2.50

PORCELAIN NEST EGG

The best and cleanest nest egg used. Each, 5c. Dozen, 35c. By mail, 45c.

LICE KILLER AND NEST EGG

COMBINED IN ONE.

Lasting, effective. Not expensive. Does not affect the flavor of the egg nor injure it for hatching.

60c. Dozen.

LEG BANDS

ALUMINUM

CELLULOID

Aluminum Bands		Celluloid Bands	
Per dozen.....	\$.15	Per dozen.....	\$.15
Per 50.....	.50	Per 50.....	.35
Per 100.....	.75	Per 100.....	.60

Parcel Post New Model Metal Egg Crate

The biggest thing to be said of the New Model is that it is designed and built—both inside and out—to eliminate waste of fillers and breakage of Eggs as well as deterioration of the carrier, thus insuring long life.

METAL EDGE FILLER

The new patented Filler made of cardboard, circular in shape (like an egg) and reinforced with Metal Edges to insure strength, yet retain lightness in weight, is a wonder for safety and durability.

2 Dozen Egg Size.....	\$1.50
3 Dozen Egg Size.....	1.75
4 Dozen Egg Size.....	2.00
6 Dozen Egg Size.....	2.50
9 Dozen Egg Size.....	3.25
12 Dozen Egg Size.....	4.00

COMBINATION CRATES

No. 1—2 lbs. and 1 dozen eggs.....	\$1.50
No. 2—4 lbs. and 2 dozen eggs.....	2.00
No. 3—4 lbs. and 3 dozen eggs.....	2.50

HUMPTY DUMPTY FOLDING EGG CRATES

The Humpty Dumpty Egg Carriers are strong and durable cases, the favorite of thousands of shippers in the poultry industry. It delivers the eggs in the best shape, giving the largest return. The eggs it saves soon pays for itself.

Size	Price
3 Dozen.....	\$0.60
6 Dozen.....	.75
9 Dozen.....	.80
12 Dozen.....	.90

CEL-O-GLASS

CEL-O-GLASS is a new, unbreakable glass. It is the most economical and practical glazing material on the

market. It replaces ordinary, fragile, costly glass for nearly every purpose.

CEL-O-GLASS is made of coarse mesh galvanized wire cloth, treated in such a manner that the spaces between the strands are filled with a clear, translucent, tough, flexible substance that will not rub off, peel, or become brittle.

Is **CEL-O-GLASS** affected by weather conditions?

No. **CEL-O-GLASS** sheds rain, hail and sleet like the proverbial duck's back. It is unaffected by extreme cold and will stand over 400 degrees Fahrenheit. **CEL-O-GLASS** cannot rust. Three ft. wide. Per running foot..... \$.48

Drew Line Oats Sprouter

It's a dandy in every way and the price is right.

It has been stated a good many times that the only oat sprouter that was right was the open type. Here is an open type sprouter built throughout of extra heavy, tight coat galvanized copper steel—that spells service.

A practical sprouter for any poultryman—made with sixteen square sprouting pans and a drip pan. Each sprouter will produce enough egg yielding green feed to care for 10 hens.

Shipped knocked down to save freight charges and to insure delivery to you in the best condition. Easy to set up and operate. Every poultryman needs one if the best results are gotten. A sprouter is a money maker.

Get a Drew sprouter for results and satisfaction. DB-59 Oats Sprouter; weight 36 pounds. Price..... \$7.9

BOXES FOR FRESH EGG FOR THE MARKET TRADE

This is not a Parcel Post or Express Box, but is intended for counter and private use. Any one selling eggs will find this box a great convenience, as it obviates any mistakes in the count and also avoids any breakage.

Delaware Egg Boxes, two rows for 12 eggs, per 100..... \$1.2

Eagle Egg Boxes, three rows for 12 eggs, per 100..... .8

SPECIAL PRICES IN QUANTITIES

MASTER BREEDERS LIVE CHICK BOX

Shipped Crated to Save Freight.

	Price Each	Per Dozen
25 Chicks. Size, 11x 9x5 1/2.....	20c.....	\$2.20
50 Chicks. Size, 18x11x5 1/2.....	30c.....	2.75
100 Chicks. Size, 22x18x5 1/2.....	40c.....	3.50

GLASS CLOTH MUCH CHEAPER THAN GLASS

GLASS CLOTH is a strong fabric treated by a patented process to make it transparent, weather-proof and waterproof. It costs much less than glass and for many purposes is superior. Any one can put it up. It admits abundant light which it diffuses and scatters to all parts of the enclosure. It comes in rolls 36 inches wide and any length.

The popularity of **GLASS CLOTH** has been sensational.

HUNDREDS OF USES

GLASS CLOTH is ideal for such things as windows of poultry and hog houses and barns, for scratch sheds, brooder houses, hot beds, cold frames, storm windows and doors, winter enclosures for porches and sleeping porches, etc. Use in new buildings saves expense of glass and costly sash. Cheap and handy for repairs.

PRICE

1 yard, (9 sq. ft.).....	\$.48
10 yards, (90 sq. ft.).....	3.48
15 yards, (135 sq. ft.).....	5.22
50 yards, (450 sq. ft.).....	16.20
100 yards (900 sq. ft.).....	32.40

THE NEW SHARPLES Suction Feed Tubular Cream Separator

When you buy a cream separator you naturally want the best—the separator that will net you the greatest dollar for dollar returns on your investment. The **SHARPLES** guarantees greater returns than any other. It is the only cream separator in the world guaranteeing a clean skim at any speed and delivering a cream of the same density all the time. That means a far greater saving of butterfat (money) for you.

Moreover, the **SHARPLES** is the easiest to clean, to operate, and is the most reliable.

The famous Sharples Tubular Bowl has only **one** piece in it—no 30 or 40 discs as you find in others; the supply tank is only knee high from the floor and you don't have to strain your back to pour in the milk. For your wife and your family it means less work and greater convenience, and for you it means the **best** separator investment you can make.

Sizes	Capacity	Shipping Weight	Prices
2S	300 lbs. per hour	190	75.00
3S	400 lbs. per hour	190	85.00
4S	500 lbs. per hour	260	95.00
6S	700 lbs. per hour	260	110.00
9S	900 lbs. per hour	260	135.00

G. T. CO'S PERFECTION SEPARATOR OIL

This Oil is put up expressly for the use of separators, and we recommend it to users of all hand machines, it being a light oil and having a very low cold test.

1-quart can.....	\$0.50
1/2-gallon can.....	.75
1-gallon can.....	1.25
5-gallon can.....	5.00

THE BOSS CREAM SEPARATOR

The **Boss Cream Separator** consists of a water vessel containing one or more milk vessels fastened together with our Patent Can Attachment.

The **Water Vessel** is made of the very best quality of 26 gauge galvanized iron, and is provided with a large water faucet at the bottom and overflow pipe at the top.

The **Milk Vessel** is made of the best grade 3XXX 4AAAA Charcoal Tin Plate. It is oblong and deep with a sloping bottom, milk and cream will drain off rapidly. All seams are carefully soldered both on the inside and outside, and there is no chance whatever for milk to lodge and sour. All milk vessels are coated with Aluminum which is the best rust preventative known.

No.	Height	Width	Weight	
No. 1—2 1/2 gal. milk vessel..	18 in.	13 in.	14 lb.	\$ 7.20
No. 2—4 gal. milk vessel..	20 in.	15 in.	17 lb.	8.00
No. 3—6 gal. milk vessel..	22 in.	17 in.	20 lb.	8.80
No. 4—8 gal. milk vessel..	24 in.	18 in.	22 lb.	9.60
No. 5—10 gal. milk vessel..	28 in.	18 in.	24 lb.	10.80

THE TWIN BOSS

The **Twin Boss** is especially adapted for farmers and dairymen who get more than 10 gallons of milk at a milking. A milk vessel that holds more than 10 gallons is hard to handle and will not produce as good results as smaller ones.

We would also recommend **The Twin Boss** to those who prefer a Separator with two milk vessels, so that one can be used in the morning and the other in the evening. This method has many advantages over the Separator with the single milk vessel.

No.	Height	Length	Width	Weight	
22 two 2 1/2 gal. milk vessels	18 in.	24 in.	13 in.	27 lbs.	\$14.40
24 two 4 gal. milk vessels	20 in.	30 in.	15 in.	33 lbs.	16.00
26 two 6 gal. milk vessels	22 in.	30 in.	17 in.	38 lbs.	17.60
28 two 8 gal. milk vessels	24 in.	30 in.	18 in.	41 lbs.	19.20
30 two 10 gal. milk vessels	28 in.	30 in.	18 in.	46 lbs.	21.60

THE BOSS

VENTILATING AND AERATING CREAM SEPARATOR

In the **Boss Dilutors** or **Water Mixers** the milk and water is mixed together or, in other words, the water is poured right into the milk so as to chill it instantly and cause the cream to raise in about one hour.

In ordering a separator of this kind, be sure and order one that will hold twice the amount of milk that you wish to put into it, so as to make allowance for water.

No.—Sizes	Prices
6—8 gal., holds 4 gals. milk..	\$4.80
7—12 gal., holds 6 gals. milk..	5.60
8—16 gal., holds 8 gals. milk..	6.40
9—20 gal., holds 10 gals. milk..	7.20
10—24 gal., holds 12 gals. milk..	8.00

THE TRIPLE BOSS

Too much can hardly be said in favor of the **Triple Boss**. It is fast getting to be our best seller and from all indications is the machine of the future. With two milk vessels, one for the morning's and one for the evening's milk, a cream can to keep the cream in the best condition for making first-class butter and room enough

back of the cream can to set another vessel, in which to keep the butter during hot weather, it is certainly all that one can desire in the line of a Cream Separator.

No.	Gallon	Gallon	Ht in.	L'g't in.	W'th in.	Wt lbs.
32 two 2 1/2 milk can, 2 1/2 cream can, 18	24	13	30	\$16.00		
34 two 4 milk can, 3 cream can, 20	30	15	37	17.60		
36 two 6 milk can, 3 cream can, 22	30	17	42	19.20		
38 two 8 milk can, 4 cream can, 24	30	18	45	20.80		
310 two 10 milk can, 4 cream can, 28	30	18	50	24.00		

MINNETONNA HOME CREAMERY

**CHURNS
THE BUTTER
AND
WORKS IT.**

The Minnetonna process of churning is the most efficient method of agitating the cream during churning yet discovered. It works on the same principle that is used in some of the most modern and approved big creamery churns.

Style No. 1-H hand-power plant; churning capacity, 12 to 15 gallons; working capacity, up to 25 pounds butter.

The style No. 1-H is a very good size for dairy farmers wanting to make butter once or twice a week by hand, and having from five to fifteen cows.

No. 1 H. P. Minnetonna Home Creamery; hand and power. Churning capacity, with barrel half full, 12 gallons. Working capacity, 3 to 20 pounds. Can be belted to your gasoline engine. Pulley, 8 x 2 1/4 inches. Speed, 200 R. P. M. Floor space required, 2 ft. 8 in. x 2 ft. 7 in. Shipping weight, 210 pounds.

IT WORKS THE BUTTER PROPERLY AND QUICKLY

Cross section view of Minnetonna Home Creamery, showing how the butter is worked between two rolls.

Here is another feature wherein the Minnetonna is away ahead of the old-fashioned farm churn. The working is done in the barrel after the churning and washing are finished. The butter-fat particles are all gathered together and thoroughly worked between the main roll in the center of the barrel and the small idle roll at the end of the basket. The main roll revolves when the working gear is thrown into place. The whole job is done with a few revolutions of the barrel.

	Factory Number	Churning Capacity With Drum Half Full	Butter Working Capacity	Shipping Weight	Style	Price
Minnetonna Home Creamery	No. OMB 1 H.	12 Gallons	3 to 20 lbs	195 lbs.	Hand Operated	\$60.00
	No. CMB 1 H. P.	12 Gallons	3 to 20 lbs	210 lbs.	Hand and Power	\$70.00
	No. OMB 2 H. P.	20 Gallons	5 to 40 lbs	270 lbs.	Hand and Power	\$75.00

CEDAR CYLINDER CHURN

There are a number of Cylinder Churns on the market sold at a lower price, but they are made of pine or other inferior wood, while these are all of selected cedar, free of knots.

No. 1—2 3/4 gallons....\$4.40
No. 2—4 gallons.... 5.20

No. 3—7 gallons....\$6.10
No. 4—10 1/2 gallons.... 6.95

Baltimore Favorite Churn

It is made of thoroughly seasoned material. It is finished smooth inside as well as outside. The iron ring head is strong and not liable to break. The bails are fastened to the iron ring, where they need to be fastened.

We furnish pulleys for power. Prices extra, according to size desired. Directions for using in each Churn.

No.	Capacity, Gallons	To Churn, Gallons	List Price	Retail Price
0-6	6	3	\$12.32	\$7.70
1-10	10	5	13.96	8.15
2-15	15	7	15.20	9.50
3-20	20	10	16.94	10.60
4-25	25	12	21.56	13.50
5-35	35	17	24.44	15.30
6-50	50	25	42.70	26.75
7-60	60	30	48.86	30.60
8-80	80	40	69.72	43.60

12-inch Single Pulleys with Trunnions for above List, \$7.00. Retail, \$4.25. Pulley only. List Price, \$4.00. Retail, \$2.50. Trunnion only. List, \$3.00. Retail, \$1.75.

Cotton Pads for Sanitary Milk Strainers

These pads are cut round to fit in the strainer and are a necessity in producing clean milk.

They fit the Sanitary Strainer, as listed on page 109.

300 in carton..... \$2.00

Perfection Anti-Cow Kicker

No Chain or Cutting-Edge Parts to Lacerate, Bruise or Blemish the Cow's Leg.

The grapple or hook parts are made from a special size round steel, so shaped and arranged to prevent torturing or injuring the animal's leg.

Price..... \$1.25

Perfection Cow Tail Holder

Will not annoy or excite the cow. Put on in a few seconds and taken off in less. Impossible for animal to switch when tail is placed between the springs.

Price..... .35

Aseptic Milking Tubes

FOR COWS WITH SORE TEATS.

Insert one in the teat and the milk will flow.

Self Retaining Tube, 25c.

Plain Tube, 25c.

CHAMPION AUTOMATIC MILK COOLER-AERATOR

To Operate—Set as low as possible where there is plenty of pure, fresh air; if the wind blows, the better. It can be used in the strongest wind without a drop being blown away. Use very cold water. Use a cloth or metal strainer over the top of milk receiver.

No.	Capacity of Milk Receiver	Size of Dairy.
2.....	18 quarts	10 to 25 cows
3.....	34 quarts	25 to 50 cows
4.....	52 quarts	50 to 100 cows

No.	Takes Care of	Our Special Price.
2.....	3 milkers	\$ 9.25
3.....	5 milkers	11.00
4.....	8 milkers	13.75

The "FROST KING" Steel Frame Single Motion Freezer

Is a single-motion freezer, and is accordingly sold at a lower price than our other makes. It is, however, of exactly the same high-grade construction. The mechanism is very easy to operate, and the can being of the narrow model type makes the freezing very rapid. The operation of this freezer is extremely simple. The wood scrapers

on the dasher press automatically against the sides of the revolving can. These remove the frozen cream and throw it to the centre where the spoons on the beater mix it with the cream still unfrozen and return the whole to the sides to be refrozen. The "Frost King" Steel Frame freezer will produce a rich

and evenly frozen ice-cream in about three minutes.					
Sizes	2-qt.	3-qt.	4-qt.	6-qt.	8-qt.
Retail Prices.....	\$2.80	\$3.35	\$4.10	\$5.20	\$6.90

"SNOW BALL" FREEZER

Has three motions. The can revolves from right to left, the outer beater from left to right, the two wood scrapers removing the frozen cream from the sides with the unfrozen cream in the center, and throws all back to the side to be again frozen and removed by the scrapers. The continuous action of the can and two

beaters moving in opposite directions keep the cream ever changing position, producing in about three minutes a very smooth, well-beaten, velvety cream. Virginia white cedar, bound with electric welded wire hoops. Fitted with new cross bar lock and reinforced cross bar.

Sizes	2-qt.	3-qt.	4-qt.	6-qt.	8-qt.
Retail Prices.....	\$3.40	\$4.05	\$5.00	\$6.30	\$8.10

SHAW'S CALF WEANERS

The **SHAW'S CALF WEANER** is thoroughly practical. The action is entirely in the basket, it being hinged to the end of the nose piece. The basket is made of heavy galvanized wire, with extra bars running through. The halter that goes over the neck is made of solid leather, and can be adjusted to suit the calf's head.

Prices: No. 1, 50c. No. 2, 65c. No. 3, 80c.

Reid Corrugated Milk Cooler

The Reid Corrugated Cooler is made of non-rusting or corroding material. The corrugations or cooling surface are of heavy tinned copper. The heads are made of castings of solid manganese bronze, which is the strongest tin and copper alloy made. The sheets are sweated to the heads and the inlet and outlet are made of seamless tinned brass tubing. The top and bottom troughs are made of tinned copper. The ends are of tinned brass. There is absolutely nothing about the body of the cooler to rust or wear out.

The standard reservoir is made of tinned steel with a sanitary removable plug faucet. If desired, a tinned copper reservoir can be furnished.

	Cooling capacity in gals. per hr.	of body	Capacity of reservoir	Price
No. 1.....	45	12 in.	5 1/2 gals.	\$31.50
No. 2.....	55	15 in.	8 gals.	35.00
No. 3.....	65	18 in.	9 gals.	38.00
No. 4.....	80	21 in.	11 gals.	43.00

Aluminum Scoops

Made of pure aluminum, cast in one piece, Light and convenient—Absolutely indestructible.

Our Special Price.

No. 1—Size, 4x11 inches, each.....	\$1.45
No. 2—Size, 5x12 inches, each.....	1.80
No. 3—Size, 5 1/2x14 inches, each.....	2.50
Per Set.....	5.50

RICE'S CALF WEANERS

ALSO PREVENTS COWS FROM SUCKING THEMSELVES.

No. 1—For Calves. Retail Price.....	.50
No. 2—For Heifers. Retail Price.....	.75
No. 3—For Cows. Retail Price.....	1.00

Reid's Self-Gauging Butter Printer

Prints butter very neatly and quickly. Weighs into pounds or half pounds as desired. Does it in one-quarter the time it can be done by hand, making prints of uniform weight. Moulds are square. Both pound and half pound combined. \$20.00
 Either pound or half pound 15.00
 Extra for initials and monograms 1.50

Lafayette Butter Printer

This is also self-gauging. Intended for use in creameries, but more especially for re-printing. Very simple and handy.

Either pound or half pound, with table, \$33.00.

Either pound or half pound, without table, \$15.50.
 Extra for initial or monogram, \$1.50

Reid's Butter Worker

Inside No. Measurement	Capacity, Pounds.	Weight, Pounds.	Retail Price.
4-14x24x2 1/2 in.	10	20	\$12.00
3-17x27x2 1/2 in.	20	25	14.00
2-20x36x2 1/2 in.	30	29	16.50
1-23x36x2 1/2 in.	50	45	19.00

Large size especially designed for mixing, reworking and coloring, or creamery use.

Inside No. Measurement	Capacity, Pounds.	Weight, Pounds.	Retail Price.
0-23x37x3 in.	75	60	\$27.00
00-23x56x3 in.	112	80	30.60
000-23x72x3 in.	150	100	39.60

When desired, we can send legs along with any size machine for \$5.00 extra, which can be set up after arrival at destination.

Polished Maple Bowls

Made from Hard Maple turned from a solid block. Every Bowl is first quality, smoothly finished and polished.

Bowls, 15 in... \$1.00
 Bowls, 17 in... 1.75
 Bowls, 19 in... 2.40

SPECIAL CARVED DESIGNS

The prices given below are for special carved blocks, pound or half pound, for any of the above printers.

Plain Block, no carving..... \$.50
 Plain Sheaf Blocks, chain border..... 1.00
 Initial on Block, up to five letters..... 1.50
 Blocks with more than five letters, \$1.50, with an additional charge of 10 cents for each letter over five.
 For Lafayette Printers, add price of plate..... .25

Baltimore Pattern, Hand-made Butter Mould

This Butter Print is hand-made out of solid hardwood, and is put together with brass screws, making it indestructible. Being a two-piece print makes it very handy to use. 1/2 lb Sheaf of Wheat Print, \$1.25; 1 lb. Sheaf of Wheat Print, \$1.50. 1/2 lb. Special Print, Carved with Initial, \$2.50; 1 lb. Special Print, Carved with Initial, \$2.75.

Extra Heavy Brick Butter Mould

Philadelphia Pattern, 1/2 pound.. \$2.00
 Philadelphia Pattern, 1 pound.. 2.00

Can furnish moulds to order with initials cut at an extra cost of \$1.50

Butter Mould

SEELEY PATTERN

Furnished with Sheaf of Wheat. Movable block. 1/2 pound..... 65c.
 1 pound..... 85c.

Economy Butter Printer

The Economy Printer is one of the most popular hand printers. It is of wood put together with brass screws, and has brass gauge screws at the top, making it self-gauging. With it butter may be printed very rapidly. Cutting the butter from the churn batch on the table, pressing the hopper full, leaving contents of hopper in a neatly formed block of butter which is pressed from the printer by pressure on the wood stem of block extending through the printer head block.

1/2 lb., complete, with sheaf of wheat block..... \$2.25
 1 lb., complete, with sheaf of wheat block..... 2.25

LADLES AND SPADE

4x12 Butter Spade..... 15c. No. 1 Butter Ladle..... 25c.

BUTTER BOXES

These boxes are iron bound at the edges and capped at the corners. An ice box is fitted in the center, which can be removed at will and the space utilized.

Capacity	Price.
20-pound prints.....	\$13.75
30-pound prints.....	16.00
40-pound prints.....	20.00
56-pound prints.....	23.75
80-pound prints.....	26.25
96-pound prints.....	28.75
120-pound prints.....	32.45

PELOUZE DAIRY SCALE

Graduated by Tenths of a Pound.
GUARANTEED ACCURATE

Made to comply with Departments of Weights and Measures. Large Circular Brass Dial, with distinct, black figures and graduations.

Patent adjustable hand. First get exact weight of empty pail, then loosen screw on hand and turn back to zero. The results then obtained is the exact contents of the pail.

Very attractive and durable.

"PELOUZE" DAIRY SCALE.

No. D 40—Capacity, 40 lbs.....	\$4.75
No. D 60—Capacity, 60 lbs.....	5.00

MILK BOTTLE BASKET

These baskets are made from the best grade of flat and round steel wire. The welded joints make them the same as one piece, hence, all strain and shocks are distributed over the entire body.

No rivets being used in its construction, there is no part to get loose and at the same time is not weakened by rivet holes.

It has no crevices in which dirt can collect consequently it is easy to clean and sterilize.

6 bottles...	\$1.75
8 bottles...	2.00

DOMINION DAIRY AND HOUSEHOLD CLEANSER

An improved cleanser and purifier for all dairy and household purposes. Just the thing for Churns, Pails and anything used in dairies. For household use, laundry work, all kitchen use, house-cleaning, public buildings, hotels and factories.

Dissolves with greatest ease in either hot or cold water, and rinses off perfectly clean without leaving a soapy scum. Price: 5-lb. bag, 35c.; 25-lb. bag, \$1.50

MILK BOTTLES

These bottles are made by a factory devoted especially to bottle making. The glass is clear flint. This makes a bottle that the milk shows up to the best advantage. They are made to stand the rough usage of the street delivery and collection on routes, and washing and sterilizing in the dairy house. These bottles are made with a long neck, and will show a deep cream line. Prices named are for bottles F. O. B. Baltimore.

If you desire name plates, same can be put on any order of five gross or more of one size, at an additional cost of \$2.50 for each name plate. Each size bottle will require a different plate. On second orders, there will not be any extra charge for lettering.

	Quart	Pint	¼ Pint	½ Pint
One dozen.....	\$ 1.10	\$.80	\$.70	\$.70
One gross.....	10.50	8.00	6.50	6.50
Two gross and over.....	10.45	7.95	6.45	6.45
Five gross and over.....	10.40	7.90	6.40	6.40
Fifteen gross and over.....	10.35	7.85	6.35	6.35

MILK BOTTLE CAPS

The great convenience of this cap will be appreciated, as it is made with a lift to take the cap out. This prevents spilling the milk, or having to use anything to pry it out. These caps are made from 40-point thick board, and are thoroughly waterproofed with paraffine.

One thousand.....	\$.65
Five thousand.....	3.00
Twenty-five thousand.....	14.75

LARGER QUANTITIES—PRICE ON APPLICATION

PARCHMENT BUTTER PAPER

It can be used in all cases where wax paper, tin foil or muslin has been adopted, and in many cases where these cannot, for preserving goods from the effects of moisture, etc. In sheets 24x36, or can furnish the paper cut in the following sizes without extra charge: 6x9 for half pounds, 9x12 for one pound, and 10x15 for two pounds. Price, 30c. per pound; by mail 40c.; 6 pounds, \$1.75.

DAIRY SALT

25-pound sacks.....	\$.75
50-pound sacks.....	1.20
100-pound sacks.....	2.00

NEW YORK Pattern Milk Cans

Furnished with our new Umbrella Cover, with seamless rim welded to top. The malleable iron handle on the Cans we stock are stationary, making the Can Handler to handle and Noiseless in shipping.

20-quart	\$3.90
30-quart	\$5.00
40-quart	5.25

Special Prices in Quantities.

Our charge for marking name on can will be 40 cents each. Permit Plate 15c.

Iowa Pattern Milk Cans

IOWA PATTERN HEAVY MILK CAN.	
20-quart	\$3.15
32-quart	3.70
40-quart	3.90

Special Prices in Quantities.

Our charge for marking name on can will be 40 cents each. Permit Plate 15c.

Milk Cans or Kettles

Finest charcoal plate. Seamless cover and neck. Bottom reinforced with steel band. Heavy steel bail. Sanitary soldered. Full capacity.

2-quart	\$1.10
4-quart	1.25
6-quart	1.60
8-quart	1.75
10-quart	2.00
12-quart	2.25
16-quart	2.50
20-quart	2.75

CREAM PAILS

These pails are made from 5A Charcoal plate, Mirror Finish, are very strong and durable.

We furnish them in two sizes, with or without Gauge or Faucets and with outside lids.

14 Qt. Without Gauge and Faucet.....	\$1.30
20 Qt. Without Gauge and Faucet.....	1.50
20 Qt. With Gauge and Faucet.....	3.75

Double Bottom Cement Pail

Heavy reinforced Galvanized Cement Pail.....\$1.50

WELL BUCKETS

Crown, \$1.00.

Well Bucket Pulleys

10 in.....	\$.90
12 in.....	1.00

Wooden Stable Bucket

J. I. C. Cedar—Heavy ironbound stable bucket. Each.....\$1.50

MILK STRAINERS

NEW SANITARY

Milk strainer is made from heavy steel pressed in one piece, has heavy removable perforated steel well tinned discs, between which you use the Sanitary cotton filter pads. This is the heaviest and best sanitary strainer made, 14 quarts, Price.....\$1.75

REGULAR STRAINERS

These milk strainers are made of extra heavy tin and brass wire cloth. They are warranted not to rust.

Prices.

3-quart	\$1.15
6-quart	1.25
10-quart	1.65

Sanitary Fish Mouth Dairy Pail

Approved and recommended by State Dairy Inspectors. Used exclusively by many large and practical Dairy-men. Made from finest charcoal plate. One piece retinned top or hood. Steel Bail. Reinforced Ears. All seams sanitary soldered inside and out.

PLATE

IXX. HEAVY CHARCOAL

12-quart	\$2.00
14-quart	2.15

Dairy Strainer Pail

Coppered Bail. Natural finish Bail wood. Reinforced ears Handle near bottom to use when pouring from pail.

IXX. CHARCOAL PLATE

14-quart	\$1.60
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MILK PAILS

These pails are extra heavy block tin, heavy steel bail, coppered. Reinforced ears with four rivets, all sanitary soldered. Should not be confused with cheap tin pails.

EXTRA HEAVY IXX. BLOCK TIN

12-quart	\$.90
14-quart	.95

HEAVY PAILS

12-quart	.60
14-quart	.65

Extra Heavy Galvanized Pails

Made from extra heavy sheets, heavy steel bail, strong ears, are Hot Dipped Galvanized after making, practically indestructible.

12-quart	\$.65
14-quart	.70

Heavy Galvanized Pails

12-quart	\$.55
14-quart	.60

GALVANIZED STEEL BASKETS

With Reinforced or
Double Steel Bottoms.
Bushel—A 101—
Each\$2.25

UTILITY STEEL BASKETS GALVANIZED.

With Bale or Side Handles, ½ Bushel, \$1.00; 1 Bushel, \$1.25;
1½ Bushels, \$2.00.

OAK BASKETS.

1-Bushel Oak Basket (round splint).....\$2.25

SPLIT BAMBOO AND OAK BASKETS.

1 Bushel (iron bound).....\$1.50
1½ Bushels (iron bound)..... 1.75
2 Bushels (iron bound)..... 2.00

FLAT OAK SPLINT BASKETS.

1 Bushel (iron bound).....\$1.00
1½ Bushels (iron bound)..... 1.50
2 Bushels (iron bound)..... 1.75

DUST PROOF COAL ASH SIFTER

This Ash Sifter saves coal and is dust-proof. It is made from extra heavy galvanized sheets heavily wired and braced and equipped with a cover at top which prevents the dust from escaping. The revolving cylinder is made from extra heavy galvanized wire mesh, operated by handle or crank equipped with wooden grip. The lip at the end of sifter allows the coal to drop directly into the hod. A strong hook holds the hod securely in place.

PRICE.....\$3.50.

CHERRY SEEDERS

These cherry seeders are so constructed that they can be adjusted for different size cherries. They work very rapidly and do not tear up the fruit.

The No. 2 Seeder is made as shown in the illustration. The No. 1 Seeder has four legs which screw to the table.

PRICE No. 1.....\$1.00
PRICE No. 2..... 1.00

ALL PRICES IN CATALOG SUBJECT TO CHANGE
WITHOUT NOTICE.

CEDAR AND OAK MEASURES

Each.
¼ - Peck, wire
hoops\$.80
¼ - Peck, flat
hoops60
Peck & ½ - Peck
comb., wire hoops. 1.20
Peck & ½ - Peck,
flat hoops..... .90
½ - Bushel, wire
hoops 1.60
½ - Bushel, flat
hoops 1.20

WITT ASH CANS

CARBIDE CANS

No.	Cap.	Price
8004	5½ Gallons	\$1.40
8005	6¼ Gallons	1.50
6812	8¾ Gallons	1.65
6815	10¾ Gallons	1.80

GARBAGE CANS
No. 8 With Bale Handles..\$2.05
No. 9 With Bale Handles.. 2.25
No. 9½ With Bale Handles 2.50

ASH CANS
No. 10 With Side Handles. 3.00
No. 1 With Side Handles.. 4.30
No. 2 With Side Handles.. 5.00

LIGHTER CANS
00 5½ Gallons 1.05
02 6¼ Gallons 1.25
03 8¾ Gallons 1.50
04 10¾ Gallons 1.75

THE EAGLE SLAW CUTTER

Slaw Cutter and Vegetable Slicer is the speediest, handiest and most serviceable cutter on the market for cutting Slaw, Kraut, Noodles, Cucumbers, Potatoes, Onions, Parsnips, Pie Plant, Beets, Bananas, Turnips, Vegetable Oysters, String Beans, Pineapples, Saratoga Chips, Etc.

The cleanest, quickest and nicest way to prepare fruits and vegetables that require cutting is to use an "Eagle" Slaw Cutter and Vegetable Slicer.

PRICE.....\$3.25

1898 TURN- TABLE APPLE PARER

A strong, rapid, durable machine. Pares very close at both ends of the apple. When passing the end of the fork the knife recedes leaving ample room for placing the apple on the fork. Does not core or slice. Push-off is automatic. Price, each, \$1.25.

White Mountain Parer and
Corer\$7

MILK TESTERS AND GLASSWARE

WAGNER PRECISION BABCOCK GLASSWARE

For testing milk and its products, in accordance with specifications formulated by the Bureau of Standards, Washington, D. C., and adopted by the Official Dairy Instructors' Association. The markings are unusually exact, the lines being sharp and uniform. All the markings are permanent being filled with a red enamel which will not wash out.

P1000	10% Milk Test Bottles.....	Each	\$.25	Doz.	\$2.75
P1005	30% Cream Test Bottles.....	Each	.30	Doz.	3.00
P1011	50% Cream Test Bottles.....	Each	.35	Doz.	3.75
1014	1-100% Skim Milk Test Bottles.....	Each	.75	Doz.	8.00
1026	Acid Measures.....	Each	.15	Doz.	1.50
1019	17.6 c. c. Milk Pipette.....	Each	.30	Doz.	3.00
1023	9 c. c. Cream Pipette.....	Each	.30	Doz.	3.00

THE BABCOCK TESTER

No. 4-2 Bottle size for milk only.....\$7.50

No. 5-2 Bottle size for milk and cream...\$8.50

No. 6-4 Bottle size for milk only.....\$8.00

No. 7-4 Bottle size for milk and cream...\$9.00

Shipping weight about 17 pounds.

All Testers are equipped with full set of glassware for testing milk or milk and cream; also furnished with brush and bottle of acid.

THE "AGOS" BABCOCK MILK TESTER CAST IRON FRAME

The "Agos" Tester uses the ordinary Babcock bottle, the "B. & W." or the "Ohlson" patent. With each Tester is furnished the following outfit: Full set of regular Babcock milk bottles, pipette, acid measure, acid sufficient for making 50 to 100 tests, and directions for manipulating. They are made in five sizes, as follows:

6 Bottles...	\$19.00
8 Bottles...	20.00
10 Bottles...	21.00
12 Bottles...	22.00

SULPHURIC ACID FOR TESTING

9-Pound Bottles.....\$2.25
Larger quantities, price on application.

Acid Measure

Skim Milk Bottle

10% Milk Bottle

30% Cream Bottle

50% Cream Bottle

Pipette

FLOATING GLASS DAIRY THERMOMETERS

8-inch Flange Dairy Thermometer, stands boiling water Price
8-inch. Price, 35c. each.
Milk Hydrometer, No. 2085 (Quevenne), \$1.50
Add 8 cents each if by mail

WELL'S & RICHARDSON CO.'S

BUTTER COLORING

Will not color the buttermilk; w never turn rancid; gives the brightest and best color; butter never become reddish; perfect economy in use. It is cheaper than any other coloring.

Dandelion Brand Butter Color is guaranteed to be purely vegetable and that the use of same for coloring butter is permitted under all Food Laws—State and National

Put up in four sizes
Small size to color 500 lbs.\$.25
Medium size to color 1,250 lbs.\$.50
Large size to color 2,800 lbs.\$ 1.00
Gallon cans.....\$ 5.00

35c. and 65c. size by mail
Add 15c. for Postage and Packing

SHARPLES SEPARATOR BRUSHES

o. 1—Bowl Brush.....	\$0.35
o. 2—Bowl Brush.....	.35
o. 3—Bowl Brush.....	.35
o. 4—Bowl Brush.....	.35
o. 6—Bowl Brush.....	.35
out Brushes.....	.25
ed Tube Cleaner Brush.....	.10

HAND BOTTLE BRUSHES

No. 86—Prepared Stiff Bristle; brush part, 2 $\frac{1}{4}$ inches diameter, inches long; hickory handle, $\frac{1}{2}$ -inch in diameter, 9 inches long—dozen, \$6.00; each, 55c.

MILK CAN BRUSHES

Made of an excellent grade of durable fibre, very full, with solid backs. Unquestionably the best and most serviceable Milk Can brushes on the market.

No. 416—Stiff Palmetto; brush part, 4x5 inches. Dozen, \$1.50. Each, 40c.

No. 08—Stiff Palmetto Fibre; length on face, 9 inches; width on face, 5 inches. Dozen,

\$5.75; each, 50c.

FACTORY, WAREHOUSE AND RAILROAD BROOMS

These brooms are made with heavy steel bands or heads, securely filed together. By this method of construction it is impossible for the brooms to work loose on the handles. They will last longer and give better service than the ordinary corn broom.

o. 223—Japanese Fibre; length of broom part, 14 inches..	\$.60
o. 221—Japanese Fibre; length of broom part, 16 inches..	.75
o. 200—All-Corn Heavy Warehouse Broom.....	1.00
o. 211—Corn and Bamboo Broom.....	1.00

STABLE OR PUSH BROOMS

These brooms are of the highest quality. Made with heavy backs.
No. 0286—Genuine African Bass, 4 rows.....\$1.00

Improved Barrel Headers

The Nos. 1 and 2 Barrel Headers have the followers attached to the screw, which device is patented. The follower attached thus can revolve, and is taken up with the screw after the barrel is headed. The side clamps are steel and fastened with two bolts.

Price.

No. 1 and No. 1-A, with $\frac{3}{8}$ -inch screw.....	\$4.00
No. 2, with 1-inch screw.....	4.25
No. 6, with lever.....	3.50

Keystone Calf Feeder

A simple device, based on natural laws, for feeding calves without teaching them to drink. The food is sucked through a rubber nipple and is mixed with the saliva and the digestive juices in a natural way. This feeder will prevent scours. It will make the calves fat and healthy. Used by more than 30 agricultural colleges.

Price.....\$2.25

Keystone Dehorning Clipper

The practice of dehorning cattle is coming more into vogue. It is a mercy to the animals. Prevents goring. The blades on the Keystone are made of best steel. No twisting motion or second cut on horn. Parts are all interchangeable, and can be replaced. It is approved by veterinary surgeons and leading dairymen. The horns must go, and they cannot go too soon.

Clipper with leader and rope, extra blades and screw, fully warranted.

Our Special Price, \$18.00 Clipper alone; Our Special Price, \$16.00.

OX BALLS

PAIR.....40c.

BULL RINGS

2 $\frac{1}{2}$ -in. Copper Rings, 45c.

3-inch Copper Rings, 50c.

HEAVY BULL RING, \$1.60

HILL'S HOG RINGER

PRICE.....25c.
HOG SNUOT CUTTER. PRICE.....\$2.00
PIG RINGS.....20c.
SHOAT RINGS.....20c.
HOG RINGS.....20c. Box

BULL LEADER SNAPS

PRICE, WITHOUT POLE.....\$1.25

RANNEY REFRIGERATORS

These Refrigerators are constructed with an inside case of odorless and tasteless lumber, matched and clamped together, well nailed and glued, and fastened to hardwood cleats, making it a thoroughly air-tight strong cabinet in itself. The outside case is of solid hardwood lumber, and is nailed and glued to the cleats which bind the inside case, thus making it one of the strongest and most durable Refrigerators ever built. The ice rack is made of galvanized steel bars, welded together and most common sense ice rack made. The shelves are of genuine steel wire, woven on a heavy steel wire frame and heavily tinned. They are finished in three coats of best quality of filler and waterproof varnish, giving them a gloss finish that looks well and that will wear. The inside construction is neat and sanitary, containing many features covered by patents. These add much to the convenience of the user.

"Lapland Monitor" Refrigerators **WHITE ENAMELED** **Selected Ash Lumber—Golden Oak Finish**

Nos. 101½E and 103½E. Open.						
No.	Ice Cap.	Sh.	Wt.	Wth.	Dpth.	Ht.
	lbs.	lbs.	in.	in.	in.	in.
101½E	120	195	32	19½	48	
Ice Compartment.....	13¼			14½	18½	
Small Provision Comp.	13¼			14½	10	
Large Provision Comp.	13½			14½	31	
List Price, \$62.00. Retail Price, \$43.40						
103½E	130	240	38	20½	51	
Ice Compartment.....	16			15¼	24½	
Small Provision Comp.	16½			15¼	10½	
Large Provision Comp.	16			15¼	37	
101½E has three provision shelves only.						
List Price, \$70.25; Retail Price, \$49.25						

THE RANNEY SEAMLESS "WHITE COLLAR" PORCELAIN REFRIGERATOR

Selected Ash Lumber—Golden Oak Finish—Heavy Quilted Sea Grass Insulation

Nos. 861 and 871.						
No.	Ice Cap.	Sh.	Wt.	Wth.	Dpth.	Ht.
	lbs.	lbs.	in.	in.	in.	in.
861	80	232	33¾	18½	43¾	
Ice Compartment.....	14¼			13	15¾	
Small Provision Comp.	14¼			13	10¾	
Large Provision Comp.	12¼			13	27¾	
List Price, \$70.00. Retail Price, \$49.00						
871	100	257	34¼	19½	47	
Ice Compartment.....	14¾			14	18¼	
Small Provision Comp.	14¾			14	11¼	
Large Provision Comp.	12¼			14	31¾	
List Price, \$83.00. Retail Price, \$58.10						
Larger Size Refrigerators, Price On Application						

THE RANNEY "SUPREME" REFRIGERATOR **Seamless "White Collar" Porcelain Lining—Selected Ash Lumber—Golden Oak Finish—Heavy High-Grade Corkboard Insulation**

Nos. 1061 and 1071.						
No.	Ice Cap.	Sh.	Wt.	Wth.	Dpth.	Ht.
	lbs.	lbs.	in.	in.	in.	in.
1061	80	232	33¾	18½	44	
Ice Compartment.....	14¼			13	15¾	
Small Provision Comp.	14¼			13	10¾	
Large Provision Comp.	12¼			13	27¾	
List Price, \$83.50. Retail Price, \$58.45						
1071	100	257	34¼	19½	47¾	
Ice Compartment.....	14¾			14	18¼	
Small Provision Comp.	14¾			14	11¼	
Large Provision Comp.	12¼			14	31¾	
List Price, \$98.00. Retail Price, \$68.60						

Double Lid Ice Chests **Selected Hardwood Lumber, Mostly Ash Golden Oak Finish.** **Lined with Galvanized Iron.**

Nos. 774 and 777.						
No.	Sh.	Wt.	Wth.	Dpth.	Ht.	
	lbs.	in.	in.	in.	in.	
774	125	27¾	20	30		
Inside Dimensions.....	22¼			14½	17¼	
List Price, \$24.00. Retail Price, \$16.80						
777	142	32¾	21	32		
Inside Dimensions.....	26¾			15½	20	
List Price, \$28.85. Retail Price, \$20.25						
No. 770 has single lid only.						
679	175	38½	23¾	35¼		
Inside Dimensions.....	32¼			18	23	
List Price, \$41.00. Retail Price, \$28.70						
681	206	48	24¾	34		
Inside Dimensions.....	43			17¼	23	
List Price, \$55.00. Retail Price, \$38.50						

"Radium" Refrigerators **WHITE ENAMELED** **Selected Ash Lumber—Golden Oak Finish.**

Nos. 705E and 709E. Open.						
No.	Ice Cap.	Sh.	Wt.	Wth.	Dpth.	Ht.
	lbs.	lbs.	in.	in.	in.	in.
705E	75	155	25½	18½	43	
Ice Compartment.....	18¼			13½	10	
Provision Compartment.....	21			14	16¼	
List Price, \$36.00. Retail Price, \$25.2						
709E	110	195	30¾	20	47	
Ice Compartment.....	22½			14½	11½	
Provision Compartment.....	25			15	19	
List Price, \$49.15. Retail Price, \$34.5						

Ashwood Refrigerators **Selected Ash Lumber—Golden Oak Finish.** **White Enamel Lined**

Nos. BE and CE.						
No.	Ice Cap.	Sh.	Wt.	Wth.	Dpth.	Ht.
	lbs.	lbs.	in.	in.	in.	in.
BE	40	106	22¾	14½	40	
Ice Compartment.....	16¼			10¼	10	
Provision Compartment.....	18¼			11	14	
List Price, \$25.40. Retail Price, \$17.4						
CE	50	122	23¾	15½	42	
Ice Compartment.....	17			10¾	10	
Provision Compartment.....	19¼			11½	14	
List Price, \$29.05. Retail Price, \$20.4						
DE	75	145	25½	18½	44	
Ice Compartment.....	18½			13½	11	
Provision Compartment.....	21			14	16	
List Price, \$32.60. Retail Price, \$22.2						

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

The Universal Meat Chopper

The Universal is the most perfect meat chopper on the market. The feed screw is so constructed that it feeds the meat to the knives without mashing it. The knives work against the plate giving a good clean cut, producing the best grade of chopped meat. The grinders are made in three numbers. The No. 331 has a plate that fastens to the table, as shown in illustration. The No. 333 has an arm that clamps to the table. The No. 304 has a plate like the No. 331. These grinders are all heavily tinned and will not rust.

No. 331.....	\$5.00
No. 333.....	5.50
No. 304.....	8.75
stuffing Attachment for Nos. 331 and 333.....	\$1.00
stuffing Attachment for No. 304.....	1.15

THE UNIVERSAL FOOD CHOPPER

Chops all kinds of meat, raw or cooked, and all kinds of fruits and vegetables—in fact, everything that is ordinarily chopped in a chopping bowl—into clean-cut, uniform pieces, fine or coarse, as wanted, without squeezing or mashing, and with great rapidity.

No. 0, Small Family three cutters.....	\$1.85
No. 1.....	2.25

KEYSTONE FOOD CHOPPER

No. 10, weight 3½ lbs., will chop 1½ lbs. meat per minute. Price each.....\$1.60

No. 20, weight 4½ lbs., will chop 2 lbs. meat per minute. Price each.....\$1.90

No. 30, weight 6¼ lbs., will chop 3 lbs. meat per minute. Price each.....\$2.40

No. 40.....\$3.00

No. 45.....\$3.00

Stuffing Attachment for No. 20 or 30 Chopper.....85c.

SLIDING KRAUT CUTTER

Sliding Kraut Cutter with Two, Three or Four Knives.

No. 50—2 Knives, 8x26 inches.....	\$2.50
No. 55—3 Knives, 8x26 inches.....	2.75
No. 65—3 Knives, 9x30 inches.....	3.75
No. 80—4 Knives, 13¼x40 inches.....	8.00

HORSE RADISH GRATER

This Grater is designed for hand power only. Is constructed of wood, excepting Grating Drum, the sides of which are iron bolted together over which our Patent Double Grating Drum is riveted.

Besides horseradish, this machine will grate equally as well the following: Coconut, Potatoes, Bread, Turnips, Carrots and vegetables of all kinds.

PRICE.....\$35.00

UNIVERSAL ALL STEEL LARD and FRUIT PRESS and SAUSAGE STUFFER

PRICES.

No. 44—4 quarts..	\$10.50
No. 66—6 quarts..	11.50
No. 88—8 quarts..	12.50

This Machine is an unexcelled Lard Press, an equally good Sausage Stuffer, and is also extensively used for pressing the juices from fruit for making jelly, etc. The Universal Steel Press has many advantages over the old style cast-iron press. It is unbreakable, rigid and strong, and is more easily handled because it is lighter.

VIRGINIA HOME CAN SEALER

Virginia Home Can Sealer with can ready for sealing—Seals, Opens and Re-Seals. Enables you to use same Cans for next season.

With this Virginia Home Can Sealer and Virginia Sanitary Tin Cans, it is as easy and cheaply for you to do just as good canning in your own kitchen as if you had the finest canning plant in the world. In fact, you would have as good equipment only on a small, inexpensive scale with the additional advantage of having absolutely fresh-picked products to start with. It is far more economical to use Sanitary Tin Cans than it is to use glass jars for your canning. You can buy 100 Virginia Sanitary Cans for the price of two dozen glass jars.

Sealer.....\$21.00

SANITARY TIN CANS

For use with Virginia Home Can Sealer.

No. 2.....	\$.05
No. 3.....	.07

COOK STOVE FRUIT DRIER

To meet the demand for a small Drier, suitable for use on any ordinary room, kitchen, cook or gasoline stove, we offer the U. S. Drier. It is a very simple, economical, efficient and convenient arrangement, and for farmers use just what is wanted, a durable drier at a reasonable price.

Dimensions, 26 in. high, and takes up space on stove, 21x15 inches.

OUR SPECIAL PRICE, \$7.50

We always ship furnaces without firepot for coal unless otherwise specified. For wood fuel no firepot or grate is required, but for coal it is necessary to use firepot.

FIREPOT, Retail Price, \$7.50

HUDSON BOILER AND FEED COOKER

Heavy cold rolled steel furnace; extra large feed door; wrought iron handles, firmly riveted on. Kettles smooth, heavy cast iron. Door, frame and flue collar cast iron. Never buckles or warps from heat; designed to set on ground or brick foundation; especially adapted for cooking feed, rendering lard, making soap, scalding hogs, poultry, etc. Cast iron flues are constructed inside, thus retaining heat and economizing fuel. We always ship furnace for wood fuel unless otherwise specified. Also used for lime and sulphur.

Usual Rating.	Actual Capacity.	Circumference of Furnace.	Shipping Weight.	Retail Price. Furnace with Kettle.
No. 1—30 gallons.	24 gallons.	84 inches.	150 pounds.	\$19.50
No. 2—40 gallons.	36 gallons.	93 inches.	190 pounds.	21.75
No. 3—50 gallons.	42 gallons.	95 inches.	240 pounds.	24.00
No. 4—60 gallons.	54 gallons.	108 inches.	280 pounds.	26.75
No. 5—70 gallons.	63 gallons.	114 inches.	330 pounds.	32.75
No. 6—80 gallons.	72 gallons.	116 inches.	380 pounds.	36.25

Usual Rating.	Actual Capacity.	Furnaces Only.	Kettles Only.
No. 1—30 gallons.	24 gallons.	Price, \$10.50	Price, \$11.00
No. 2—40 gallons.	32 gallons.	11.50	12.15
No. 3—50 gallons.	40 gallons.	12.75	14.00
No. 4—60 gallons.	48 gallons.	13.75	15.75
No. 5—70 gallons.	56 gallons.	15.00	19.00
No. 6—80 gallons.	64 gallons.	16.50	22.20

STEEL HOG SCALDER AND COOKER

It takes the lead of anything on the market. When not used for scalding, can be used for feed cooker, boiling spray material, or for dipping sheep, can also be used for watering stock.

This outfit will save half of the time, and most of the hard labor in connection with Hog Killing, and will pay for itself in a very short time.

Plain Scalding does very well if placed over a ditch and fire built underneath, but most farmers prefer rack and fire-box complete. Shipping weight, 425 lbs.

Plain Scalding, with legs, 6 ft. x 30 in. x 18 in. deep. **Our Special Price, \$27.00.**

Fire-box with 5-inch pipe hole. **Our Special Price, \$15.00**

Dumping Rack with lever. **Our Special Price, \$15.00**

Scalding complete. **Our Special Price, \$55.00.**

IMPROVED KETTLE RANGE

iron firebacks on all sides. The size of the firebox is 12 inches wide and 24 inches long and supplied with grate and ash pit, and has ash pan so that ashes can be removed without use of shovel. Pipe opening for 6-inch pipe. Weight, 200 lbs. **Our Special Price, \$35.00.** Lighter and cheaper Range with not hole top and one ring. **\$30.00.**

This Kettle Range is made to accommodate any kettle a farmer may happen to have. Any copper or iron kettle up to 40-gallon capacity can be used. The largest opening, when all the rings are off, is 25 inches, and the smallest is 12 inches.

The outside of the fire-box is made of heavy steel plates and lined inside with cast-

IRON KETTLES

Capacity	Our Special Price.
No. 4.... 15 gals.	\$ 6.75
No. 5.... 20 gals.	7.50
No. 6.... 25 gals.	9.00
No. 7.... 30 gals.	10.50

FARMERS FAVORITE FEED COOKER AND AGRICULTURAL BOILER

The top section or boiler, is made of heavy galvanized steel that will not rust, and is also provided with four heavy tinned malleable iron drop handles.

The lower section or furnace is made with cast iron ends, and the center or body, of heavy steel plate. The door is extra large, which will allow large chunks and knots to be used without the labor of splitting. They are guaranteed exactly as represented, both as to construction and capacity of boilers.

With this cooker you are not obliged to have a special brick foundation to make it safe, thus making it necessary to use it in that particular place only. But it may be used anywhere, in the back kitchen, milk room, shop, wood house, cellar, hog house, barn, poultry house, or out of doors, with perfect safety. Wherever you want to cook food or heat water, set it up and use it.

The "Farmers Favorite" is used for a great variety of purposes, such as cooking grain and vegetables for stock and poultry.

Heating water for scalding hogs and poultry, Boiling Spraying Mixture, Heating Water on Wash Day, Heating Water for Washing Dairy Utensils, Rendering Lard and Tallow, Boiling Sorghum, Heating Drinking Water for Stock.

Capacity	Size Boiler	Lgh.	Fire Box	List
No. 1 25 gal.	22x22x12	24 in.		\$19.50
No. 2 30 gal.	22x24x13½	24 in.		20.00
No. 3 40 gal.	22x30x14	30 in.		22.50
No. 4 50 gal.	22x36x15	36 in.		25.00
No. 5 75 gal.	22x48x17	48 in.		30.00
No. 6 100 gal.	22x60x17	60 in.		31.25

TOP PLATES WITH HOLES FOR KETTLES	No. 4 Cooker.	No. 5 Cooker.	No. 6 Cooker.
No. 1 Cooker.....	\$3.75	\$5.30	
No. 2 Cooker.....	3.75	6.25	
No. 3 Cooker.....	4.50	8.15	

GRATES AND LININGS

For burning hard or soft coal or coke.....\$9.50

INTERNATIONAL ONEPIPE HEATER

THE ONEPIPE or, as termed by many manufacturers, the "pipeless" heater is the most modern development of the warm air heating system, and we unhesitatingly recommend the INTERNATIONAL ONEPIPE HEATER as one of the most practical, durable and efficient heaters of this type on the market.

INTERNATIONAL ONEPIPE HEATERS are adapted to many city houses as well as to country homes. They are especially efficient in the square type two-story houses with open stairways. They are ideal for heating churches, stores, etc., because of the recirculating feature which takes the cold air from the floors. Because of their low installation cost they are frequently placed in summer camps and cottages that are occupied in spring and fall, and for week-end parties in the winter.

The INTERNATIONAL ONEPIPE HEATER is simply a device for heating the air and causing it to circulate through the rooms. It is essentially the same as a regular INTERNATIONAL Warm Air Furnace—not a stove, but a furnace, properly designed to get the greatest benefit from the fuel burned, and all parts carefully mounted and fitted. Surrounding this are two casings, an inner and outer casing, and on top you can see the register.

This heater uses only the one large register, which is divided into two parts. It is a well-known fact—as old as nature itself—that air when heated expands and rises. As the warm air pours up through the central portion of the register it goes at once to the ceiling of the various rooms and floods the whole house with warmth.

This warm air displaces the cooler air, which falls to the floor and is then drawn down through the outer portion of the same register, between the outer and inner casings, and is then rewarmed and recirculated.

As the space between the outer and inner casings is always filled with the cooled air returning to be heated, an INTERNATIONAL ONEPIPE positively does not heat the cellar.

LIST PRICE, CAPACITY AND DATA

Number	List Price	Retail Price	Capacity No. of Rooms	Diam. Casing	Diam. Firepot	Diam. Smoke Pipe	SIZE OF REGISTER	
							Outside	Warm Air Pipe
*38-0	\$270.00	\$150.00	4 to 6	38-inch	18-inch	7-inch	24-in.x27-in.	18-inch
42-0	300.00	165.00	6 to 8	42-inch	20-inch	7-inch	30-in.x30-in.	22-inch
46-0	344.00	190.00	8 to 10	46-inch	22-inch	7-inch	35-in.x35-in.	26-inch
50-0	400.00	220.00	10 to 14	50-inch	24-inch	7-inch	40-in.x40-in.	30-inch

*The 38-0 size does not have coil opening.

These sizes have single feed door.

Furnace Pipe Lengths 7 in. 50c.; 8 in. 55c. Elbows 7 in. 65c.; 8 in. 70c.

All Double Door Heaters measure 7 feet 11 inches from base to register, but extension pipe telescopes, so as to fit without cutting, as low as 6 feet 11 inches. Special measurements can be furnished to order, when distance from basement floor to top of first floor is given.

The Moto-Mower has all the desirable features of previous models. It offers efficient power Mowing Service at a moderate cost. A twist of the wrist controls the power. The power from the engine is transmitted direct to the Cutting Reel, through Jack shaft, chain and Sprocket, the most efficient method of drive known.

It will operate on hills and terraces, and runs an average of eight hours on a gallon of gasoline.

THE "PENNSYLVANIA" "RIO" LAWN MOWER

Automatic Clutch. It is only necessary to lift the cylinders carrying the revolving knives to disengage them from the ears. The clutches are automatically operated by the lifting device. The cylinders immediately revolve when they are again lowered.

Wheels. The wheels are 18 inches in diameter and have a tread of 2½ inches. They are fitted with automobile-type ball bearings.

Cylinders. The knives are the same "PENNSYLVANIA" quality of crucible steel, oil-hardened and water-tempered.

Cylinder Bearings. The Cylinder carrying the knives revolves in a universally adjustable, bronze bearing. These bearings can be adjusted for wear and cannot get out of alignment. This insures true-running of the cylinder, and a bearing which will last indefinitely.

Rollers. Are entirely noiseless and will wear indefinitely. A most convenient feature is that they can be adjusted for light.

Complete Mower. \$450.00

Separate Cutting Units 112.50

Unit Super Fairway Tractor Mower or 4 Horse Mower 900.00

The machine is shipped assembled ready to go to work. Has a fine 4 Cycle valve in the head Motor. All parts accurately machined and ground. Splash Oil System is used, has no complicated parts in carburetor.

Lack of space prevents giving full description. Write for special catalog.

MOTO-MOWER

Prices Of Mowers

27 in. \$285.00
21 in. \$185.00

GRASS CATCHERS

21 inch \$5.00
27 inch 5.50

COLDWELL'S MODEL "L"

Price \$325.00

A Small Mower of Large Capacity (with the Fuller & Johnson Motor)

The Coldwell Model "L" Motor Lawn Mower and Roller, twenty-five inch cut, has been designed with a view of combining the extreme flexibility of the hand lawn mower with the large cutting capacity, rolling feature and other advantages and conveniences which can be obtained only with a motor mower.

This mower is adapted for use on private lawns, parks, cemeteries, public grounds and for fine cutting on tennis courts and bowling greens.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

WHITMAN & BARNES LAWN MOWERS **NEW NORKA MOWER**

9-INCH WHEEL.

Pawl and pinion attachment thoroughly tested; one of the best. Ratchet Clutch, cast solid with pinion; no extra pieces to break or get out of order.

Do not class with the cheap low-wheel machines.

Regular.	
12 inch.....	\$ 8.15
14 inch.....	8.50
16 inch.....	8.75
18 inch.....	9.10

Ball Bearings.	
14 inch.....	10.30
16 inch.....	11.00
18 inch.....	11.60

"NEW ELECTRIC" MOWERS

Wheels 9 inches diameter. Reel 5 inches diameter. Four blades. Special Ball Bearing Adjustment, high-grade hardened steel balls, cups and cones, ground, polished and dust-proof. Reel shaft cold rolled steel. Reel knives best grade Knives. Steel perfectly ground.

Regular.

12 inch.....	\$ 8.
14 inch.....	9.
16 inch.....	9.
18 inch.....	10.

Ball Bearings.

12 inch.....	\$10.
14 inch.....	11.
16 inch.....	11.
18 inch.....	12.

LITTLE SHAVER MOWER

Low priced and good. 12 in., \$6.90. 14 in., \$7.30. 16 in., \$7.75

W. & B. Jr. LAWN MOWERS

Strictly first-class, high-wheel, adjustable reel mower. Built very strong. Castings have long hubs, through which an 11-16 inch solid steel shaft is passed.

Regular.

14 inch....	\$10.65
16 inch....	11.25
18 inch....	11.90
20 inch....	12.50

Ball Bearings.

14 inch....	12.50
16 inch....	13.15
18 inch....	13.75
20 inch....	14.40

DIAMOND SPECIAL BALL-BEARING MOWER

This machine is built of highest quality material, and is fitted with Ball-Bearing Adjusting Device. The balls, cups and cones are of high-grade, uniformly hardened, polished and dust-proof. The reel has five blades of best knife steel, and is adjusted to the Center Bar by a special adjusting and locking device. Wheels, 14 inches in diameter.

14 inch.....	\$14
16 inch.....	15
18 inch.....	16
20 inch.....	17

BALTIMORE HORSE LAWN MOWER

The Baltimore Horse Lawn Mower is made of best material; most satisfactory adjustment of knives; strong and durable; heavy roller, which is a necessity to keep the lawn in good order; simplest and strongest machine in construction on the market, and most economical as far as repairs are concerned.

Our Special Price

25-inch Machine, with Draft Rod.....	\$110.00
30-inch Machine, with Draft Rod.....	123.00
30-inch Machine, with Draft Rod.....	143.00
25-inch Machine, Shafts and Seat.....	163.00

Pennsylvania Regular Horse Mower

Furnished with handles and draft irons, the latter arranged to swing to the side, thus permitting the horse to walk on the cut grass.

30-inch Machine, with Draft Rod.....	\$125.00
38-inch Machine, with Draft Rod.....	155.00
30-inch Machine, with Shafts and Seat.....	150.00
38-inch Machine, with Shafts and Seat.....	180.00

SENIOR MOWER

Timken Bearings, Self-Adjusting Triple Gear 5-Blade Reel, 10-inch Wheel, Open Spoke, 6-1 Reel, Triple Gears on both sides, Extra L Wheel Base. Raised Edge Bottom Knife, allow long wear without sharpening.

14-inch	\$2
16-inch	2
18-inch	2
20-inch	2

Lawn Mower Repairing and Sharpening

Our well-equipped shop and competent mechanics, that I have been repairing and sharpening lawn mowers for years, assure you of a first-class job. In a season we repair many hundreds of lawn mowers, and as most of them have to be repaired or sharpened before the first grass mowing, you will readily understand the necessity of sending your mower in early. During the early season we run our repair department many times a week so that we might give our patrons prompt service.

Our repair department does not confine its operation to sharpening and repairing lawn mowers only. We are in position to do general repair work and solicit your patronage in other lines of work.

PENNSYLVANIA HIGH-WHEEL MOWER

This high-grade Mower is constructed for cutting ordinary grass, as well as grass from 6 to 10 inches high. Wheel, 10 1/2 inches; cylinder, 6 1/2 inches. Four crucible steel knives.

	List	Retail		List	Retail
15 inches...	\$30.00	\$28.50	19 inches...	\$38.00	\$36.10
17 inches...	34.00	32.30			

HIGHEST AMERICAN BALL-BEARING MOWER

Every detail of this Mower is in keeping with the high grade of the Pennsylvania and Continental. Can be regulated to cut from 3/8 to 1 1/8 inches from the ground.

	List	Retail		List	Retail
15 inches...	\$30.00	\$21.00	19 inches...	\$38.00	\$26.60
17 inches...	34.00	23.80	21 inches...	42.00	29.40

HORSE LAWN BOOTS

Fastened firmly to hoof instead of around ankle, giving free action to horse's feet. Rolling toe prevents cutting of turf. Width inside, No. 2, 5 1/2 inches; No. 4, 6 1/2 inches; No. 6, 7 inches—the right sizes for Nos. 2, 4 and 6 horses-shoes. No. 0 Mule and No. 1 Pony. Special sizes to order.

Special Price, \$16.00

GRASS CATCHER

Stable to mowers 12 to 16 inches wide. Price.....\$1.25
No. 156 H—16 to 20 inches wide Price.....\$1.50

No. 110—**Canvas Catcher**, made of fine quality duck, heavy galvanized wire frame; adjustable steel hooks will fit any mower. 12 to 16 inches wide. Price, \$.75
No. 115—**Canvas Catcher**, made of fine quality duck, heavy galvanized wire frame; adjustable steel hooks will fit any mower. 12 to 16 inches wide. Price, \$.90
No. 151H—**METAL BOTTOM CATCHER**, 13 inches deep, made of heavy duck; heavy galvanized wire frame; adjustable steel hooks; adjustable steel clamps on cross bar. Price.....\$1.25

CONTINENTAL HIGH-WHEEL MOWER

This very high-grade machine will cut fine grass two inches high; also grass six to eight inches. We highly recommend this machine.

	List	Retail		List	Retail
15 ins.....	\$30.00	\$28.50	19 ins.....	38.00	\$36.10
17 ins.....	34.00	32.30	21 ins.....	42.00	39.90

Pennsylvania Jr. Ball-Bearing Mower

Same high-grade construction used in the Pennsylvania High-Wheel and Continental Mower.

	List	Retail		List	Retail
15 ins..	\$30.00	\$28.50	19 ins.	\$38.00	\$36.10
17 ins..	34.00	32.30	21 ins.	42.00	39.90

Pennsylvania Roller Mower For Putting Greens

This mower is unexcelled for cutting undulating or wavy greens, also tennis courts, cricket creases and other Lawns requiring an exceptionally close and smooth cut.

It has six crucible tool steel blades oil-hardened and water tempered Triple gears, insuring power and speed, cast iron roller, 7 inches in diameter, improved curved pattern tempered crucible steel tool bottom knife, cuts 3-16 to 1 1/4 inch. Staytite hardwood handle with adjustable steel clamps on cross bar.

PRICE

16 inch.....	\$35.25
18 inch.....	39.60

ORCHID BALL-BEARING MOWER

This machine is made from high-grade material. Its construction, while extremely simple, is very strong and durable.

16 inch,	Our Special Price,
	\$17.25
18 inch,	Our Special Price,
	\$18.00

WATER BALLAST LAWN ROLLER

filled with water to any desired weight. It can thus be regulated to suit soft turf, firm lawns or driveway, tennis court, etc. It can be emptied for storing away, making it light and easy to handle. The drum is high carbon steel with all seams electric welded. Edges are rounded back to prevent cutting of lawns, courts, etc.

The axle is mounted on roller bearings, making the roller run very easily.

Order No.	Diam. of Drum.	Length of Drum.	Weight, empty.	Filled with Water Weight	Price.
501	14 in.	24 in.	60 lbs.	250 lbs.	\$17.00
502	18 in.	24 in.	73 lbs.	330 lbs.	20.00
503	24 in.	24 in.	100 lbs.	440 lbs.	23.00
504	24 in.	32 in.	115 lbs.	590 lbs.	26.00

HAND LAWN ROLLER

(CAST IRON)

No.	No. Sec.	Width Face.	Diam. Sec.
504	2	10 in.	20 in.
507	2	10 in.	20 in.
509	2	10 in.	24 in.

Total Length.	Weight.	Our Special Price.
20 in.	250 lbs.	\$26.00
24 in.	300 lbs.	32.00
20 in.	400 lbs.	42.00

PUTTING GREENS ROLLER

In order to meet the demands from golf clubs for a substantial, smooth face, light roller for putting greens this roller was designed. It has outer drums with edge and will turn around within its own radius with each drum rolling without cutting the sod. The cast drums are ground perfectly smooth and are preferable to the old rough wood type.

Price\$32.00

STEEL LAND ROLLERS

This cut represents our **Three-Section Land Roller**.

Heavy iron brackets to support the bearings and which entirely surrounds them. An additional feature of this roller is the blocking in of the frame under the pole with a 4-inch hard wood block. This construction gives the roller perfect rigidity and absolutely springing of the steel frame when turning around, crossing dead furrows, etc. It is further braced with steel braces from the frame to the pole, which not only adds strength to the roller, but prevents breaking of the pole.

The drums are 24 inches in diameter, made from extra heavy hard steel sheets. The ends are made from pressed steel and fitted with heavy cast bearings which allows each roll to turn independently.

No.	Sections	Length feet	Diameter inches	Weight lbs.	Special Price.
No. 105 1/2	2	8	24	550	\$40.00
No. 106 1/2	3	8	24	585	42.50

Price does not include Doubletrees and Neck Yoke.
Doubletrees and Neck Yoke.....\$3.75

GOLF

ROLLERS

No.	Diameter	Lgt.
374	28 in.	4 ft.
376	28 in.	6 ft.

No.	Wt.	Price
374	1350	\$127.50
376	1950	175.00

The Western Packer and Mulcher

For making a perfect seed bed.

For mulching or cultivating small grain in the spring.

For breaking the crust on grain or cotton fields, to allow young sprouts to come through.

For packing down soil heaved by frost and sprouts of wheat or clover in early spring.

For pulverizing soil in corn and tobacco fields before and after cultivating and on other plant crops to insure good cultivating and yields.

For packing down sod. For crushing and pulverizing clods.

Size and Length over all.	Weight Lbs.	Price
4-ft. Single section with shaft for one horse.	500	\$ 50.00
7-ft. Single section, medium two horse.....	800	76.00
8-ft. Single section, large two horse.....	900	85.00
10-ft. Single section, medium four horse.....	1,130	125.00

CRITCO DOUBLE GANG PULVERIZER

In presenting this **Double Gang Pulverizer**, we wish to call special attention to the construction of the end brackets, which are so constructed as to allow the trailer to raise and fall with the variations of the soil, thus insuring an even pressure from both gangs at all times.

No.	Size	Front Gang	Rear Gang	Weight	Price
626	7-foot	18-15 in. Discs	19-12 in. Discs	900	\$72.50
627	8-foot	21-15 in. Discs	22-12 in. Discs	1200	80.00
628	9-foot	24-15 in. Discs	25-12 in. Discs	1100	90.00

LAWN SWING—THE BONANZA

Accompanying cut represents our "Bonanza" four-passenger Lawn Swing. Made of hardwood, with $\frac{3}{4}$ -inch bolted frame.

Has three seat and foot-rest adjustments. Frame painted red; balance of swing golden oak. Hooks where swing bars hang on iron rods at top of frame.

Height	9 ft.
Seat Space	34 in.
Ground Space	9 ft 4 in. x 6 ft.
4-Passenger	\$11.75

Bausman Steel Lawn Swing

With Canopy ... \$21.50
Without Canopy 19.00

No. 6 Porch Settee

Made from 1-inch oak stock. In design lines are very much the same as the No. 8, made with formed seat, as shown in but without the paneled ends.

o. 6—3½-foot.	Our Special Price	\$4.30
o. 6—4-foot.	Our Special Price	4.90

WINNER LAWN SWING

This Lawn Swing is made of hardwood, frame painted a bright vermillion, chairs, hangers and foot-rest a beautiful golden oak, and is a splendid value for the money.

4-Passenger \$10.00

COMPETITION LAWN SWING

4-Passenger \$9.25

No. 7 Porch Settee

Very popular and durable. Finished in weathered oak. All slats bolted to frame; no rivets.

No. 7—4-foot. Our Special Price, \$5.80
No. 7—5-foot. Our Special Price, 6.80

No. 8 Mission Porch Settee

1½-inch oak stock, very strong and substantial, mission effect, saddle seat. Put together with rods and bolts.

No. 8—4-foot.	Our Special Price,	\$7.50
No. 8—5-foot.	Our Special Price,	8.75
No. 8—6-foot.	Our Special Price,	10.10

LAWN SETTEES

The Lawn Settees listed below, have strength and beauty, and at the same time are very reasonable in price. The frames are made from strong steel, and the seats and backs from smoothly finished hardwood.

Meadowbrook Settee

4 Foot.....	\$8.00
5 Foot.....	9.00

Commonwealth Settees

4 Ft.....	\$7.00
5 Ft.....	8.75

Country Club Settees

4 Foot.....	\$7.00
5 Foot.....	7.60

Parkside Settees

4 Foot.....	\$5.60
5 Foot.....	6.25

Perfection Fabric

Lawl Fence is made of No. 9 heavy galvanized wire spacing between uprights at the bottom, being 1 3/4 inches, and at the top 2 1/4 inches; the cables are of heavily galvanized wire, spaced about six inches apart, except the two at top, which are spaced 2 1/4 inches apart; furnished regularly in rolls of 200 feet. Any length cut to order.

PRICE OF PERFECTION FENCING

Height	List, Per Ft.	Our Price
36 inches.....	22c.	17c.
42 inches.....	24c.	19c.
48 inches.....	28c.	21c.

These prices are for the fence fabric only, and do not include posts. For prices of complete fence see below.

PRICE OF ECONOMY FENCING

Height	List Price	Our Price
36 inches.....	16c.	12c.
42 inches.....	18c.	14c.
48 inches.....	20c.	16c.

Economy Fabric

Perfection Gates

The frames are made of high grade heavy steel tubing, and are regularly finished in galvanized frames. Filling of these gates is the regular Perfection Fence Fabric, described at top of page, and as shown by illustrations the gates have ornamental scroll tops. In giving the dimensions of gates, state first the height, and then the width. The width of these gates means the distance between the posts. The factory makes proper allowance for hinges and latch.

WALK GATES

Ht. In.	Width Ft.	List Price	Our Special Price
36	3	\$5.00	\$4.20
42	3	5.20	4.35
48	3	5.40	4.50
36	3 1/2	5.20	4.35
42	3 1/2	5.40	4.50
48	3 1/2	5.60	4.75
36	4	5.40	4.50
42	4	5.60	4.75
48	4	5.80	5.00

SINGLE DRIVE GATES

Ht. In.	Width Ft.	List Price	Our Special Price
36	8	\$12.00	\$10.00
42	8	12.20	10.25
48	8	12.40	10.35
36	10	14.00	11.65
42	10	14.20	11.75
48	10	14.40	12.00
36	12	16.00	13.35
42	12	16.20	13.50
48	12	16.40	13.75
36	14	18.00	15.00
42	14	18.20	15.20
48	14	18.40	15.35

DOUBLE DRIVE GATES

Ht. In.	Width Ft.	List Price	Our Special Price
36	8	\$11.60	\$ 9.65
42	8	11.80	9.85
48	8	12.00	10.00
36	10	13.60	11.35
42	10	13.80	11.50
48	10	14.00	11.65
36	12	15.60	13.00
42	12	15.80	13.20
48	12	16.00	13.35
36	14	17.60	14.65
42	14	17.80	14.85
48	14	18.00	15.00

Perfection Complete Fence

Perfection Complete Fence is a pleasing dignified design which will harmonize with and add character to the property inclosed. Furnished in suitable heights for the home, private ground cemeteries and parks.

Height refers to fabric used. The complete fence, when erected, will measure a few inches higher than the fabric. Gates are not included in the line footage of fence, but are billed separately at regular prices.

All parts of fence are thoroughly galvanized.

Price per Foot F. O. B. Factory.

Height	Price
36 inches.....	84c.
42 inches.....	88c.
48 inches.....	92c.

Perfection Trellis

This trellis carries the general style of Perfection Fencing. It is extremely strong, embracing beauty and adaptability. Cut in any length desired.

Width	List Price	Our Price
18 inches	14c.	12c.

Perfection Flower-Bed Guard

Is 18 inches high above ground. Has 3 cables of two No. 13 wires. Has No. 9 crimped uprights. All heavy galvanized pickets project for insertion in ground. Requires no posts. Can be cut to length to any bed. It provides protection against dogs and chickens.

List Price, per foot, 13c.
Our Special Price, 11c.

American Walk Gate

Filled with 1 inch Diamond Mesh heavily galvanized Fabric, which is unclimbable. Furnish with galvanized Frames Plain Top.

	List Price	Our Special Price
3 ft. Wide, 50 in. High...	\$5.40	\$4.40
3 ft. Wide, 58 in. High...	5.70	4.70
3 1/2 ft. Wide, 50 in. High...	5.98	4.98
3 1/2 ft. Wide, 58 in. High...	6.35	5.35
3 ft. Wide, 72 in. High...	7.50	6.50

11 BARS 55 INCH

Zinc Insulated

U. S. FENCE

FIELD FENCE

For Horses, Cattle, Sheep, Hogs and all Farm Animals.
Stay wires either 6 or 12 inches apart.
This fence made in five heights is ample for general farm use.
The close spacing at the bottom turning hogs and the construction is such as to hold sheep, cattle and horses.
The top bar is No. 9, the bottom No. 10, the intermediate bar, No. 11 and the stays are No. 11 wire.

Style No.	Height in Inches	Approx. Weight per Rod, Pounds	12-in. Stays Retail Prices, per Rod	Approx. Weight per Rod, Pounds	6-in. Stays Retail Prices, per Rod
1155	55	11.8	\$0.71	15.9	\$3.99
1047	47	10.6	.63	14.1	.88
939	39	9.4	.57	12.4	.78
832	32	8.3	.50	10.8	.68
726	26	7.2	.44	9.3	.58

ACTUAL SIZE OF WIRES

Top Bar....9 Intermediate Bars 11
Bottom Bar..9 Stays 11

CATTLE FENCE

This is an ideal horse and cattle fence and is used largely for division fences. The stays are 12 inches apart, and we do not recommend use for hogs. The top bar is No. 9 the bottom No. 9, the intermediate bars are No. 11 and the stays are No. 11 wire.

Style Number	Height in Inches	12-in. Stays Approximate Weight per Rod, Pounds	Retail Prices per Rod
949	49	10	\$0.60
845	45	9	.55
635	35	7	.42

ACTUAL SIZE OF WIRES

Top Wire.....9 Intermediate Wires...11
Bottom Wire...9 Stay Wires.....11

DISTANCE BETWEEN BARS-INCHES

21 BARS 58 INCH

5"				
5"	19	11	48	11
4 1/2"				
4 1/2"				
4"	16	11	35	11
4"				
3 1/2"				
3 1/2"				
3"				
2 1/2"				
2 1/2"				
2"				
2"				
2"				
2"				
1 1/2"				
1 1/2"				
1 1/2"				
1 1/2"				

9 BARS 49 INCH

9"				
8"				
7"				
6"				
5 1/2"				
5"				
4 1/2"				
4"				

POULTRY and GARDEN FENCE

The illustration above shows the U. S. Poultry and Garden Fence, and the U. S. Field Fence is built of the same grade of wire as is used in the U. S. Field Fence, but of lighter gauge and the same excellent wrap is used. It is an ideal fence against poultry and small animals. The spacing is graduated from 1 1/2 inches at the bottom to 5 inches at the top, as shown by the illustration and the distance between the stays or uprights is 6 inches. We carry this fence in stock in the styles mentioned below. It is very extensively used as a protection for poultry yards, gardens and orchards. It meets the requirements; therefore it is a great favorite. Furnished regularly in rolls containing 10 rods or 165 lineal feet.

Style No.	Distance Between Stays	Height, Inches	Approx. Weight per Rod	Retail Prices per Rod
2158	6	58	12.5	\$0.77
1948	6	48	11.1	.69
1635	6	35	9.2	.57
2373	6	23		1.00

ACTUAL SIZE OF WIRES

Top Wire.....No. 11 Intermediate Wires..No. 1 1/2
Bottom Wire...No. 11 Stay Wires.....No. 1 1/2

BANNER POULTRY FENCE

3 7/8"	22 BARS	48 INCHES
3 7/8"		
3 7/8"	19 BARS	36 INCHES
3 7/8"		
3 7/8"	16 BARS	24 INCHES
3 7/8"		
1 7/8"	13 BARS	18 INCHES
1 7/8"		
1 7/8"	10 BARS	12 INCHES
1 7/8"		
1 7/8"		
1 7/8"		

Style.	Height.	No. of Bars.
1624	24 inches	16
1936	36 inches	19
2248	48 inches	22
2560	60 inches	25
2872	72 inches	28

Banner Fence meets the demand for a closely woven fence heavier than the light poultry nettings. The spacing between the six line wires at bottom of fence is only 1 1/4 inches and gradually increased to 3 3/8 inches at top, so the essential feature of a satisfactory poultry fence—closeness of mesh—is well taken care of in this fencing. The upright wires or stays run continuously across the fence and lock firmly around the intersecting line wires in a loop knot, forming a smooth, solid joint without any sharp, rough edges. Top and bottom wires No. 15; all other wires No. 17 gauge, hard steel, thoroughly galvanized.

Price per 10-rod Roll.	
List, \$7.10	Our Price, \$4.25
List, 8.80	Our Price, 5.25
List, 10.50	Our Price, 6.30
List, 12.30	Our Price, 7.40
List, 14.00	Our Price, 8.40

Galvanized Steel Fence Posts

**CHEAPER THAN WOOD AND MORE DURABLE—
GALVANIZED INSIDE AND OUT.**

These posts are neat, strong, durable and easy to erect. They will give you much more and better service than can be expected of wood posts because all being alike in size and quality of material, you get benefit of every post in the fence from year to year, while wood posts rot and decay. The line posts are strong enough to hold up any wire fencing, and furnish all necessary resistance. The end and corner posts are so strong that they will maintain any wire fence made.

Nos.	Length in Feet	Approx. Weight in Lbs.	Special Prices, Per Post
14 1/2 Line Post....	5	7.4	\$0.65
14 1/2 Line Post....	6	8.4	.70
14 1/2 Line Post....	6 1/2	9.3	.74
14 1/2 Line Post....	7	10.	.80
14 1/2 Line Post....	7 1/2	10.7	.85
14 1/2 Line Post....	8	11.4	.95
14 1/2 Line Post....	9	12.8	1.35
10 End Post....	7	51.	4.25
10 End Post....	8	59.	4.75
10 Corner Post....	7	75.	6.30
10 Corner Post....	8	86.	6.80
Junior End Post....	6		2.25
Junior End Post....	8		2.75
Junior Corner Post....	6		3.55
Junior Corner Post....	8		5.75
Ball Tops for Line Posts.....			.27
Ball Tops for End and Corner Posts.....			.54
Driving Caps for Line Posts.....			.54

PAGE RELIABLE FENCE

The fabric is of 2-inch mesh No. 9 (W. & M. Gauge) wire, heavily galvanized. Each picket is interlocking, thus preventing any spreading of the wires. It is non-climbable.

Height refers to height of fabric used. The complete fence, when erected, will measure a few inches higher than the fabric.

Gates are not included in the lineal footage of fence, but are billed separately at regular prices.

Height.	Complete Fence Retail Price
36 inches	\$.68 Per ft.
42 inches	.71 Per ft.
48 inches	.74 Per ft.

Fabric Only Retail Price
\$.34 Per ft.
.33 Per ft.
.42 Per ft.

Banner Steel Fence Post

The Banner Posts are made from a rolled section that represents an entirely new principle in post construction. Built like a railroad rail, offers greater strength in directions than it is possible to secure in any other section of equal weight. A study of the illustration on these pages will make clear the reasons why Banner Posts offer the greatest possible strength, and they are economical. No post holes dig, no tamping and no staples to buy.

Note the frequent notch on the face of the post, which firmly hold line wires in position and away from the face of the post, thus preventing accumulation of dirt or moisture. Any or every wire can be attached with a hump. Clamps for fastening furnished with each post.

Wt. lbs.	Price
5 ft.....	7.32
6 ft.....	8.65
7 ft.....	9.98
8 ft.....	11.31

General Purpose Farm Gates

The frame is made from heavy 1 1/4 inch outside dimension tubing. The wire filling is Heavy Galvanized No. 9 Woven Wire. The frames are Galvanized, and electrically welded at the joint thus insuring a gate that will not sag or twist out of alignment. In addition the gates are strengthened by internal braces.

The fabric is actually woven into the frame and not simply tied in with a lace wire.

Height	10 Ft.	12 Ft.	14 Ft.	16 Ft.
48 inches.....	\$8.85	\$10.20	\$11.30	\$12
54 inches.....	9.20	10.85	11.75	13

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

DIAMOND MESH POULTRY NETTING

The wire we offer is No. 20, double twist, 2-inch mesh, thoroughly galvanized. Sold in bales of 150 running feet.

No.	In. Wide.	Sq. Feet.	List Retail	
			Price	Price
			Per Bale.	Per Bale.
		Galv. After Weaving.		
20	12	150	\$2.14	\$1.25
20	18	225	3.08	1.75
20	24	300	3.92	2.25
20	36	450	5.35	3.00
20	48	600	7.13	4.00
20	60	750	8.91	5.00
20	72	900	10.69	6.00

Price 1½c. per square foot in less than bale lots. Staples for fastening, 10c. per pound.

ONE INCH MESH

Inch Mesh Galv. After Weaving.		List Price	Retail Price
Inches wide.	Square feet.	Per Bale.	Per Bale.
12	150	\$ 4.95	\$2.75
18	225	7.12	4.00
24	300	9.08	5.05
36	450	12.38	6.90
48	600	16.50	9.20
60	750	20.63	11.40
72	900	24.75	13.75

GALVANIZED STEEL WIRE CLOTH

Made from heavy wire thoroughly galvanized after weaving. This insures long life, as every part of the wire is coated by the dipping process.

Used largely in corn cribs to make them mice and rat proof, also for sieves and fan screens and over windows for protection.

We carry it in stock in widths 2, 2½, 3 and 4 foot.

The word mesh means number of meshes to the inch (2x2, 2 to the inch; 4x4 mesh, 4 to the inch, etc. Full rolls contain 100 running feet.

	PRICE.	
	Full Rolls.	Less Than Full Rolls.
2 Mesh, per sq. ft.....	\$0.05½	\$0.06½
3 Mesh, per sq. ft.....	.06	.07
4 Mesh, per sq. ft.....	.06½	.07½

AMERICAN BARBED WIRE

All brands of American Barbed Wire are plainly stenciled with the brand and registered trade mark. Customers who want good quality should insist on getting these well known brands.

New Wire Reel Patented

Price on Application.

AMERICAN RIBBON WIRE

Price on Application.

AMERICAN TWISTED STRAND WIRE

Price on Application.

American Plain Fence Wire
American Plain Annealed Wire

Prices on Application

"COTTAGE" Lawn and Garden Fence

This Fencing
IS
STRONG ENOUGH
FOR

LARGE ANIMALS,

AND

Small ones cannot pass

THROUGH THE
Fine Meshes.

Height, inches.	List Price, per rod.	Our Price, per rod.
24	\$2.00	\$1.35
36	3.00	2.00
48	4.00	2.70
60	5.00	3.35
72	6.00	4.00

FOLDING CLOTHES DRYER

This is the best folding dryer to be had. Takes up but little space in yard. Spruce arms and post, japanned castings. Made in two sizes.

Our Special Price.

No. 1 Dryer carries	
110-ft. line.....	\$ 9.00
No. 2 Dryer carries	
150-ft. line....	10.00

CLAY SUNSHINE FOLDING CLOTHES DRYER

Has tension adjuster, by merely raising arm one notch higher. Arms are easily raised like an umbrella on the steel center post. The ends of Drier Arms are Reinforced with steel bands. All parts are heavily galvanized, and varnished with a weather-proof varnish. High grade long fibre sea island cotton line is only used. Arm braces Angle iron. Price 15.00

REMOVABLE STEEL CLOTHES-LINE POST

NO. 1

Complete with base, Our Special Price, \$2.75

TRASH BURNER OR CONSUMERS

The best way to dispose of your waste paper and rubbish is to burn it in a **Consumer**. Avoids danger and helps to keep the yard and lawn clean and free from litter. Being made of heavy steel wire, with removable cover, it serves as a strong and neat waste basket.

No. 1—19 in. diameter, 30 in. high.

Retail Price.....\$2.50

No. 2—17 in. diameter, 24 in. high.

Retail Price.....\$2.00

GATE HINGES AND LATCHES

No.	Size	Price Each
H1 Walk Gate Hinge Eye	1 5/8 in. O. D.	.50
H3 Walk Gate Hinge Eye	1 1/8 in. O. D.	.45
H7 Post Hinge Hook	2 in. O. D.	.75
H9 Heavy Post Hinge Hook	2 1/2 in. O. D.	1.00
H10 Heavy Post Hinge Hook	3 in. O. D.	1.10
C105 2 Way Latch	2 1/2 in. O. D.	.75
C102 2 Way Complete Latch	2 in. O. D.	.50
Pig Ear Latch	3 in. O. D.	1.10
Spring Latch for Walk Gate		.75
Spring Latch for Drive Gate		.90

THE IMPROVED "NEVERSLIP" STRETCHER

The **Neverslip Stretcher** has no teeth to cut or injure wire. Simple and strong in construction. Made of strong, Malleable Iron and will last a lifetime. One man operates it, and both hands are left to drive staple. Price.....\$1.25.

AM. S. & W. CO.

LOTT STRETCHER

Clamp Bars made of reinforced with half-oval iron to keep wire from slipping.

Lott stretcher furnished complete except Lever. Use for this purpose an old piece of pipe or lever cut from wood. Price, \$9.00

"RIVAL" GARDEN PLOW COMPLETE

PRICE,
\$3.75

Extra Mould	50c
" Sweep	45c
" Large Blade	30c
" Bull Tongue	25c
" Rake	50c
" Wheel	\$1.50
" Weeder	40c

AMERICAN SINGLE JACK STRETCHER

Shipping weight approximately 82 1/2 lbs.

The American Single Jack Stretcher combines all the important features of a fence Stretcher—Simplicity, Strength and Safety.

It is made entirely of steel, therefore, strong and durable.

Its angle bars, or clamp bars, are rounded in such a way as to prevent injury to the wire during the stretching.

Only three bolts on Clamp Bars—which can be easily and quickly tightened.

It can be operated by one person.

This Stretcher consists of one pair of Clamp Bars, one Jack or Stretching Head, one set of Chains and Lever.

Price\$10.50

WIRE STRETCHER

No. 1

PRICE \$1.75

Five-Tooth Weeder Attachment

Can be attached to any of the Garden Plows

Price \$1.00 each.

No. 1 GRITCO GARDEN PLOW

PRICE,
\$3.75

Is constructed entirely of steel except cross handle bar, and is equipped with shovel, calf tongue, weeder, cultivator and mould-board.

PLANET JR. GARDEN TOOLS

PLANET JR. COMBINED SEEDER AND SINGLE WHEEL HOE NO. 4

The No. 4 Combined Seeder and Wheel Hoe is the most useful combination available for the Home or Market Gardener where the acreage does not warrant having separate Seeders and separate Wheel Hoes. More of them in use than any other tool of this kind. Sows all vegetable seeds in the drill or drops in hills 4, 6, 8, 12 or 24 inches apart. Fine assortment of cultivating attachments take care of all garden work.

Capacity of seed hopper 2½ qts. Quickly changed from hill to drill seeder and from seeder to wheel hoe.

o. 4 Hill and Drill Seeder and Single Wheel Hoe Combined\$18.00
o. 4-D Seeder only.....\$14.25

NO. 25 HILL AND DRILL SEEDER DOUBLE AND SINGLE WHEEL HOE COMBINED, PRICE \$21.50

Known by thousands of users as the "Complete Gardener." Sows all vegetable seed in the drill and drops in hills 2, 6, 8, 12 and 24 inches apart, at the right depth and thickness and economically. As a Double Wheel Hoe it straddles the row, cultivating both sides at one time until the plants are 20 inches high.

When used as a Single Wheel Hoe it does very effective cultivating on one side of each row and in between rows. Cultivating attachments consist of 1 pair of plows, 1 pair of 6-inch hoes, 4 steel cultivator teeth and a pair of leaf lifters.

NO. 5 PLANET JR. HILL AND DRILL SEEDER

Sows practically all vegetable seeds in straight drills or drops in hills 4, 6, 8, 12 or 24 inches apart. Opens the furrow, drops the seed to the right depth and thickness, covers them and marks out the next row—in one operation. Marks rows up to 20 inches apart. Capacity of hopper 5 quarts.

Price\$20.00

NO. 26 PLANET JR. DRILL SEEDER

The No. 26 was designed for sowing seed in muck land. The outstanding features that make it especially valuable in this type of soil also make it as valuable in other types,

including sandy and hard ground. Its broad tread wheels prevent sinking in muck and makes it easy to push. Opening plow opens a clean cut furrow and wings on opening plow prevent soil falling back and wind blowing the seeds away. New feed method insures accurate dropping of seed without breaking of any seed, large or small. Capacity 4 quarts.

Price\$20.00

No. 12 Planet Jr. Single and Double Wheel Hoe

The most popular combination of Double and Single Wheel Hoe for the Market Gardener and Home Gardener in use today. The assortment of cultivating attachments consisting of 1 pair of plows, 1 pair of 6-inch hoes, 4 steel cultivator teeth, and 1 pair of leaf lifters. Cultivates both sides at one time. Then it can be used as a Single Wheel Hoe on the sides of the rows and between and will do various kinds of cultivation.

Price \$10.75

No. 17 PLANET JR. SINGLE WHEEL HOE

The No. 17 Single Wheel Hoe will do about the same variety of work as No. 12 Double but is wider. Thousands of Market Gardeners and Home Gardeners buy them every year and there are more of them in use than any other tool of this kind. Equipment: 1 Garden Plow, 3 steel cultivator teeth, 1 pair of 6-inch hoes. The No. 17 will do practically all the work mentioned under the No. 12 and will do in one day work that would require several days with the old-style hand hoe.

Price \$7.75

No. 11 Planet Jr. Double and Single Wheel Hoe Combined

No. 11 Planet Jr. is the most complete combined double and single wheel hoe we offer, and has the largest and most useful set of attachments. The steel frame can be set at different heights to suit any kind or depth of work and the attachments or their position can be changed in a few seconds.

Equipped with the following attachments: One pair 6-in. hoes, one pair 4½-in. hoes, four steel cultivator teeth, one pair plows, two 3-tooth rakes, two 5-tooth rakes, and two leaf lifters. Combined.....\$13.75

No. 18 PLANET JR. SINGLE WHEEL HOE

The simplest equipment we offer and the cheapest for the work it does. It hoes completely all the space between 12 and 14 inch rows. It can be so changed that it can be used to cultivate both sides of a row, while the plants are small.

No. 18 Planet Jr. Single Wheel Hoe.....\$5.75

FIRE FLY GARDEN PLOW

This is an exceedingly useful tool to owners of small gardens. It will throw a furrow 4 to 6 inches wide and 1 to 3 inches deep, and deeper by going the second time in the same furrow. It opens furrows for manure or seed and covers them, and opens up rows for all kinds of plant-setting.

Fire Fly Garden Plow.....\$4.25

NO. 4-ED PLANET JR. HORSE HOE

The king of cotton and corn cultivators. The No. 4-ED Horse Hoe is the cotton and corn growers favorite cultivating tool in many sections. Adjustable swivel standards permit the cultivator teeth, sweeps and turning shovels on the third and fourth standards to throw a furrow to or from the row; can be adjusted to any position. The equipment of this popular tool is—four 3x8 inch cultivator steels and one 4x8 inch cultivator steel. Sweeps, furrowers and other Planet Jr. Horse tool attachments can be added when wanted.

Price\$9.00

No. 77.
Straight
Spout.

No. 77.
Bent Spout.

These oil
cans are
made from
Cold Rolled
Steel and
have Clock
Spring Steel
Bottoms.

Price
each
15c

OIL CANS

No. 620.
Copperized
Steel Mow-
ing Machine
Oiler.

No. 620.
Bent or
Straight
Spout.

Price
each
25c

Copperized Steel Oilers

Made from high-grade cold rolled steel, with guaranteed clock spring bottoms; seamless drawn steel bodies (collar included), all one piece; heavy rolled threads; bottom double seamed and rolled. Heavy electro copper plated, 1 3/4-inch wide mouth opening.

No.	Size	Lgt.	Spt.	Price
12	1/4 pt.	3 in.		15c.
13	1/2 pt.	3 in.		20c.
14	3/4 pt.	9 in.		25c.
15	1 pt.	3 in.		30c.
16	1 pt.	9 in.		35c.

HUSKING PINS

No. 06-Y

No. 06-Y—Large muleskin finger cot protected with steel washers from wear. Mounted on cold rolled steel pin, nickel-plated with two compartment finger strap and buckle adjustment 25c

No. 7-Y—Same as 06-Y, with cot more open between the fingers. Grain leather 25c

No. 41—Heavy, narrow steel pin, nickel-plated, with extra large elk leather shield covering the ends of the fingers or laced to form a finger cot, with divided finger strap to support knuckle. Sliding ring, making three compartments, and buckle adjustment 30c

No. 100-Y—Cold rolled steel, 4 1/2 inches nickel-plated pin, with split leather shield and double compartment, adjustable finger strap 15c

No. 00X—Clark's "Hickory" Pin, 4 1/2 inches long, made of best cold rolled steel with one compartment. 10c

No. 2300—Small, round handle that will not cut fingers and on which the front and back brace swing in and out of plane with each other when fingers open and close, preventing blisters. Perfect fit for every hand. Set rigid for any size. Heavy steel, nickel-plated 20c

Albany Grease or Hard-Oil

Every grease cup, axle cup and ball and roller bearing on your car should be filled with **Albany Grease** regularly. If you want a finely running car, with no danger of bearings burning out, always use **Albany Grease**. In the Spring, Fall and Winter use No. 0 or No. 1. In the Summer use No. 3 or No. X to secure best results. **Albany Grease** is packed in 5-10 pound cans.

5-lb. pkgs. \$1.25
10-lb. pkgs. 2.50

MICA AXLE GREASE

This is the highest quality of Axle Grease and contains ground mica, which forms a coating on the axle and makes a perfectly smooth surface. After this surface is formed you need use only half as much **Mica** as of any other axle grease.

Tin Box	.....	\$0.23
3-lb. Pail	.....	.40
15-lb Pail	.....	1.60
25-lb. Pail	.....	2.40

GRITCO AXLE GREASE

1 lb.	.....	\$0.15
10 lbs.	.....	1.20
25 lbs.	.....	2.25

HARVESTER OIL

1-gallon cans	.....	\$ .80
5-gallon cans	.....	4.00

Household Lubricant Oil

This very fine oil is put up in small oil cans, 1/2-pint sizes, very convenient to use. It is especially adapted for use on sewing machines, lawn mowers, hinges and locks.

1/2-pint cans		\$0.20
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G. & T. CO.'S PERFECTION SEPARATOR OIL

This oil is put up expressly for the use of separators, and we recommend it to users of all hand machines, it being a light oil and having a very low cold test.

1-quart can	.....	\$0.40
1/2-gallon can	.....	.70
1-gallon can	.....	1.20
5-gallon can	.....	5.00

MONARCH STEEL STUMP PULLERS

Monarch Stump Pullers embody in their construction special features which make them the strongest and most efficient machines for such work. The heavy, solid, one-piece main frame, the grooved drum, the drum clutch, the high-grade cable and other features place the Monarch Stump Pullers in a class to themselves. Special catalogue fully describing these features mailed free on application.

If interested in Stump Pullers, wire for our catalogue of the Monarch line, which is very complete and useful; also let us know how much stumpy land you have, the kind of soil, the kind and size of stumps, how close to the ground they are cut and whether they are green or dead. your work.

No. 2—Steel One-Horse Stump Puller, equipped with 50 feet of 3/4-inch pull cable and 8 feet of 3/4-inch anchor cable. For ordinary stumps. Weight 450 pounds. Our Price, \$153.25, with 75 feet of pull cable.

No. 4—Monarch Steel Stump Puller, 75 feet 3/4-inch pull cable, 10 feet 3/4-inch anchor cable. Weight 675 pounds. Our Price, \$191.75. Extra cable (to make pull cable any length you want), per foot,

No. 4—Cam Take-Up, with 10 foot 3/4-inch cable and steel cable hook. Weight 50 pounds. \$36.75

No. 4—Double Power Pulley, 12 feet 1-inch cable and steel cable hook. Weight 65 pounds. \$46.75

For larger sizes write for prices.

SPECIAL CATALOGUE ON APPLICATION.

This information will enable us to recommend the equipment most suitable for

MONARCH BESSEMER STEEL STUMP HOOKS.

Notice the sharp cutting edges on the inside of each prong and the heavy steel back of them, which counts for strength.

No. 4—Regular Mesquite Stump Hook, for use with No. 2 No. 3 and No. 4 Mighty Monarch Stump Pullers; used extensively for heavy brush hedge, palmetto, mesquite and old stumps. Weight 65 pounds. Our Price, \$31.75.

No. 7—Medium Mesquite Stump Hook, for use with No. 4 and No. 6 Mighty Monarch Stump Pullers; for heavy stump and heavy mesquite, etc. Weight 85 pounds. Our Price, \$43.20.

No. 8—Giant Mesquite Stump Hook, for use on No. 7 Mighty Monarch Stump Pullers or on large double, triple and quadruple power outfits for extra heavy work where no other stump hook will stand the strain. Weight 160 pounds. \$83.30

Cahoon's Broadcast Seed Sower

For sowing Clover, Timothy, Millet, Oats, Wheat, Hemp, Barley, Rye, Rice, Buckwheat, etc. Standard Seeder of the World—A Model for Accuracy and Durability—Malleable Iron Frame—Steel Hopper and Gate—Brass Discharger.

The breadth of the cast will be according to the weight of the seed. Wheat and Rye, 30 to 36 feet. Oats, 21 to 25 feet. Barley, 27 to 33 feet. Clover, Millet, Hungarian Seed, 20 to 24 feet. Hemp, 27 to 30 feet. Timothy, 15 to 18 feet.

OUR SPECIAL PRICE, \$5.00 Parcel post Weight, 8 lbs.

The Original Improved Cyclone

It differs materially and very advantageously from all other Sowers in having a slope feedboard with an oblong hopper which terminates in a metal edge, on which edge oscillates a feed plate which does not allow the seed to become clogged, but makes a positive force feed and insures a uniform flow

and even distribution of seed. Anyone practical and an all-round first-class grain and grass seeder, a good, large sower that will meet the most exacting demands, we cannot recommend the CYCLONE too highly.

PRICE, \$2.50. Parcel Post Weight, 6 lbs.

Meeker Smoothing Disc Harrow

Steel Disc. A perfect Harrow and Land Roller Combined.

The frame measures 6 feet 8 inches by 6 feet, and has four sets of rollers, having 58 discs, 8 inches diameter on them. The discs grind all the lumps so fine that the seed must come up, leveling and leaving the land fine and smooth, and doing its work far better than the rake.

Our Special Price.....\$33.50

PRICES CLIMAX PLOWS.

PONY—Light, 1-horse, 7-in. cut, wood beam, very popular. Price with extra steel point; weight, 37 lbs., \$5.50.

A. O.—1-horse, 8-in. cut, wood beam. Price, with extra steel point; weight, 41 lbs., \$6.00.

B. O.—1-horse or light 2-horse, 9-in. cut, wood beam. Designed for either stubble or light sod, doing both kinds of work in the most satisfactory manner; very light draft. Price, with extra steel point; weight, 43 lbs., \$7.00.

C. O.—2-horse, 10-in. cut, wood beam. Price, with extra steel point; weight, 63 lbs., \$9.00.

D. O.—2-horse, 11-inch cut, wood beam; it turns its furrow slice perfectly. Price, with extra steel point; weight, 66 lbs., \$10.30.

Thompson's Clover and Grass Seeder

Sows 14 to 16 Feet Wide, Any Amount Desired Per Acre. Will Sow 20 to 25 Acres Per Day.

This Grass Seeder is simple, without gearing, cams or intricate machinery. It cannot get out of order.

Perfection feed is attained in making it absolutely positive, yet a non-leaking carrier, when thrown out of connection. The quantity of seed to the acre is accurately shown by the index plate.

It is strong, yet weighs but 40 pounds.

No. 1—Complete Clover and Grass Seeder, the most popular style. 14-foot, \$11.50. 16-foot, \$12.50.

No. 5—Complete Seeder, with Double Hopper, sows Red Top, Orchard Grass, Blue Grass, Lawn Grass, as well as Clover. 14-foot, \$13.00.

MANILA ROPE FEEDER.

GRITCO No. 9 LAWN GRASS SEEDER.

Made especially for handling Lawn Grass Mixtures. These mixtures are generally composed of different kind of grasses, and the regular seeder will not handle them.

No. 9.....\$17.00

Thompson's Royal Clover and Grass Seeder

These Seeders are similar to the Thompson above, except they have Chain Feed.

No. 11—14 ft., single hopper.....\$11.50

No. 11—16 ft., single hopper.....12.50

No. 12—14 ft., double hopper.....13.35

LIGHTNING SEED SOWER

Cheap, durable, weighs only 12 oz. Simple; no repairs.

Will spread seed evenly from 30 to 40 feet. Method of sowing is by swinging tube in horizontal position from right to left which closely resembles the old method by hand. Gives control over seed on a circle of 8 feet before it leaves the tube and the wind has no chance to blow seed into bunches before it strikes the ground.

PRICE, \$1.00.

Parcel Post Wt., 1 lb.

CLIMAX STEEL PLOWS

All are made with steel standard and cap, sloping landside and adjustable slip heel.

PRICES OF EXTRAS.

	Points	Lands	Moulds	Beams without Clevis	Handles per pair, less bolts	Wood Beam Clevis
Pony.....	\$0.60	\$0.50	\$1.35	\$1.95	\$1.70	\$0.35
A. O.....	.70	.50	1.60	1.95	1.70	.35
B. O.....	.80	.50	1.85	2.45	1.70	.50
C. O.....	1.00	.90	2.15	2.80	2.05	.56
D. O.....	1.25	.90	2.60	2.80	2.05	.70

OLIVER CHILLED WALKING PLOWS No. 40-N SERIES

This series of chilled walking plows were first introduced by James Oliver, the inventor of chilled metal. They are popular with farmers everywhere because of their durability and quality of work. The mouldboard is so shaped that it thoroughly pulverizes the furrow slice. The shares extend to the top of the mouldboard in front renewing the shin of the plow with each new share. Because of their chilled construction these plows will wear for many years even in sand and gravel land.

STEEL BEAM PLOW

Number	Description	Capacity	Price
RH No. 10-N	Wood Beam, Chilled.....	5 1/2 "x11"	\$16.00
RH No. 13-N	Wood Beam, Chilled.....	6 "x11"	18.00
RH No. 19-N	Wood Beam, Chilled.....	6 1/2 "x12"	19.50
R&L No. 20-N	Wood Beam, Chilled.....	7 "x13"	21.00
R&L No. E-1-N	Wood Beam, Chilled.....	7 "x14"	24.00
R&L No. 40-N	Wood Beam, Chilled.....	9 "x16"	24.00
LH No. 40-XX	2-Horse Wood Beam, Chilled.....	9 "x16"	27.00
R&L No. 10-N	Steel Beam, Chilled.....	5 1/2 "x11"	16.00
R&L No. 13-N	Steel Beam, Chilled.....	6 "x11"	18.00
RH No. 19-N	Steel Beam, Chilled.....	6 1/2 "x12"	19.50
R&L No. 20-N	Steel Beam, Chilled.....	7 "x13"	21.00
R&L No. 40-N	3-Horse Steel Beam, Chilled.....	9 "x16"	24.00
LH No. 40-XN	3-Horse Steel Beam, Chilled.....	9 "x16"	24.00

Oliver Chilled Walking Plows A and B Series

The Oliver A and B chilled walking plows are small, one and two-horse plows particularly suited for small farms, gardens, orchards and vineyards. They are very popular for use in soils containing sand, grit or gravel. The mouldboards are so shaped as to thoroughly pulverize the furrow slice. The points are wedge-shaped.

WOOD BEAM PLOW

Number	Description	Capacity	Price
RH No. 6	Steel Beam, Chilled.....	4 1/2 "x 8"	\$ 8.25
RH No. A-2	Wood Beam, Chilled.....	4 1/2 "x 9"	10.00
RH No. A-C-2	Wood Beam, Chilled.....	4 1/2 "x 9"	10.00
RH No. A-2	Steel Beam, Chilled.....	4 1/2 "x 9"	10.50
RH No. A-C-2	Steel Beam, Chilled.....	4 1/2 "x 9"	10.50
RH No. B-N	Wood Beam, Chilled.....	5 "x10"	12.00
RH No. B-C-N	Wood Beam, Chilled.....	5 "x10"	12.00
RH No. B-N	Steel Beam, Chilled.....	5 "x10"	12.75
RH No. B-C-N	Steel Beam, Chilled.....	5 "x10"	12.75

**ALL PLOWS ARE PRICED
WITHOUT WHEEL AND
JOINTER**

Oliver Chilled Walking Plows Nos. 83-N and 84-N

The Nos. 83-N and 84-N are general purpose plows designed for use under a variety of conditions, such as work in sod, clay sandy land, and extreme stony land or shale. Ridged and well braced construction prevents breakage.

Number	Description	Capacity	Price
R&L No. 83-N	Steel Beam, Chilled or Comb....	7"x14"	\$21.50
R&L No. 84-N	Steel Beam Chilled or Comb....	8"x16"	24.50

Oliver Hillside Plows Nos. 512, 513 and 524

These are heavy and strongly built, reversible bottom plows. The bottoms are easily and quickly reversed and are held in place by a spring latch. A shifting clevis can be used for correcting line of draft.

Number	Description	Capacity	Price
No. 512	Truss Beam, Chilled.....	8"x13"	\$27.00
No. 513	Truss Beam, Chilled.....	8"x15"	28.00
No. 524	I-Beam, Chilled.....	8"x15"	23.75

Extra chilled share is regular equipment.

Genuine Oliver Plow Repairs and Attachments

CHILLED SHARES FOR WALKING PLOWS

No. 6.....	\$.30
Goobar.....	.30
Plain.....	.35
C-DS.....	.40
.....	.40
.....	.55
.....	.95
X-DDS.....	1.05
.....	.60
.....	.70
.....	.75
.....	.85
.....	1.55
.....	.90
-XX Medium.....	1.00
.....	.85
-88-11-inch DDS.....	.95
-88-12-inch DDS.....	.95
.....	1.15
.....	1.15
9-524.....	1.25
3-524.....	1.25

OLIVER SLIP NOSE SHARES

.....	\$.50
.....	.60
.....	.75
.....	.85
.....	.90
Right Hand only.....	1.05
.....	1.00
.....	1.05

BOWER SLIP NOSE SHARES

.....	\$1.00
.....	1.05
Right Hand only.....	.95
8-84-Right Hand only.....	1.05
8-89-Left Hand only.....	1.05

CHILLED REVERSIBLE SLIPS

.....	\$.10
.....	.15
0-0.....	.15
.....	.15
.....	.15
.....	.15
.....	.15
-X.....	.15
.....	.15
.....	.15

CHILLED SHARES FOR RIDING PLOWS

IC-23-16-inch QD.....	\$2.05
IC-23-14-inch QD.....	1.60
IC-23-12-inch QD.....	1.40
3-11-inch DS.....	.95
3-84-88-12-inch X DS.....	.95
4-88-12-inch DDS S.....	.95

REVERSIBLE WINGS

8.....	\$.55
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REVERSIBLE SLIPS

No. 99-X Oliver.....	\$.25
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STANDARDS

	Steel Beams	Wood Beams
No. 6.....	\$1.50	
Goobar.....	2.25	
No. A-2.....	2.65	2.90
No. AC-2.....	2.25	2.80
No. B.....	2.50	3.15
No. BC.....	2.35	3.20
No. 10.....	3.00	3.20
No. 13.....	3.25	3.55
No. 19.....	3.25	3.95
No. 20.....	3.50	4.15
No. E.....		4.50
No. 40.....	3.75	4.70
No. 40-XX.....		6.50
No. 82.....	4.75	
No. 84.....	4.80	
No. 88.....	5.40	
Tractor.....	6.25	

CHILLED MOULDBOARDS

No. 6.....	\$1.90
Goobar.....	2.00
A-2-4 Hole.....	2.10
AC-2.....	2.10
B or B-N.....	2.75
BC or BCN.....	2.75
E-1.....	5.00
3-X.....	5.80
10-N.....	3.00
13 or 13-N.....	4.00
19-N.....	4.25
20.....	4.50
24.....	6.35
40.....	5.00
40-XX.....	5.50
83-N.....	4.50
84-N.....	5.00
91-N.....	5.50
98.....	4.75
99.....	5.00
508.....	4.95
509.....	5.50
512.....	4.95
513.....	5.50
524.....	5.50

CHILLED LANDSIDES

No. of Plow	Part No.	Price
No. 6.....	F-1110	\$.65
Goobar.....	F-1283	.65
A-WB.....	F-1264	.70
A-SB.....	F-1263	.70
AC-WB.....	F-1266	.70
AC-SB.....	F-1265	.70
B-WB-DF.....	S-271	1.00
B-SB.....	F-1270	1.00
BC-WB.....	F-271	1.00
BC-SB-DF.....	F-325	1.00
E-WB-DF.....	F-297-R-F-298-L	1.45
3-X.....	F-1300-R-F-1301-L	1.60
10-SB.....	F-1224-R-F-1223-L	1.05
10-WB.....	F-1226-R-F-1225-L	1.05
13-SB.....	F-1230-R-F-1229-L	1.25
13-WB.....	F-1232-R-F-1231-L	1.25
19-WB-DF.....	F-432-R-F-431-L	1.35
19-SB-DF.....	F-444-R-F-443-L	1.35
20-WB-DF.....	F-448-R-F-449-L	1.40
20-SB-DF.....	F-462-R-F-463-L	1.40
24-IB.....	F-1244	1.60
40-WB-DF.....	F-484-R-F-483-L	1.45
40-SB-DF.....	F-494-R-F-495-L	1.45
82-N-SB-DF.....	F-715-R-F-1012-L	1.45
83-N-SB-DF.....	F-682-R-F-683-L	1.45
84-N-SB-DF.....	F-682-R-F-683-L	1.45
88-N-SB-DF.....	F-682-R-F-683-L	1.45
F-906-A.....	Tractor Land Long.	1.60
F-905.....	Tractor Land Short.	.70
91-N-SB.....	F-683	1.50
98-3-H.....	F-1310-R-F-1309-L	1.50
98-DF-3-H.....	F-2575	1.50
99-3-H-DF.....	F-2576-R-F-2577-L	1.50
508-509-TB.....	GY-300	1.45
512-513-TB.....	GY-300	1.45
524-IB.....	GY-310	1.45

WOOD BEAMS

	Price
A-B-10-13.....	\$3.85
19-20-E-40-40X.....	4.15
40XX.....	4.95

CLEVISES

Wood Beam—	Price
A.....	\$.35
B.....	.90
D.....	1.25
Steel Beam—	
No. 2.....	.95
No. 90A.....	1.40
No. 4-91.....	1.65

WOOD HANDLES (Single)

No. 1 R & G, each.....	\$1.20
All others, each.....	.85
Handle Rounds, each.....	.10
Sets, all numbers up to 13.....	2.20
Sets, all numbers above 13.....	2.75
(State if old or new style handles)	

WHEELS

No. 11-1-H. Str. Standard for A, AC, B, BC and 10 WB Plows.....	\$1.65
No. 12-2-H Str. Standard for 82, 83, 84 and 91 SB Plows.....	1.95
No. 18-1-H. Str. Standard for A, B, 10 and 13 SB Plows.....	1.95
No. 20-2-H. Brace Standard for 19, 20 E, 40, 40X and 98.....	2.50
plows.....	
No. 72 Universal Brace Standard for 19, 20, 40 and 40X SB.....	2.20
Plows.....	
No. 508 Str. Standard for 512.....	1.65
and 513 Plows.....	1.10
No. 524 Wheel for No. 524 Plows Standards, one-horse, straight.....	1.00
Standards, two-horse, all kinds.....	.85
Wheels only, one-horse.....	.35
Wheels only, two-horse.....	.05
Hubs.....	
Center pins or hub bolts.....	
Note—In ordering wheels, say if for right or left-hand wood or steel beam plows.	

CHILLED JOINTERS

	Price
No. 60 for 10-13 WB Plows, R or L.....	\$3.60
No. 61 for 10-13 SB Plows, R or L.....	3.85
No. 63 for E, 19, 20, 40 and 40X WB Plows, R or L.....	4.40
No. 181 for 19, 20, 40 and 40X SB Plows R or L.....	4.95
Jointer Points, chilled, all numbers.....	.35
Jointer Mouldboards.....	.55
1-horse Jointer Holders, Steel.. Beam.....	.80
Wood Beam.....	1.60
2-horse Jointer Holders, Steel.. Beam.....	1.60
Wood Beam.....	1.95
One-horse Jointer Standards.....	1.20
Two-horse Jointer Standards.....	1.60

HILLSIDE PLOW REPAIRS

Plow No.	Chilled Mouldboard	Steel Mouldboard	Standards	Landsides	Chilled Shares	Set Handles
512	4.95	9.10	6.25	1.40	1.15	3.30
513	5.50	9.10	6.25	1.40	1.25	3.30
524	5.50	9.10	8.25	1.40	1.25	2.75

BOLTS

For shares, mouldboards and landsides, jointer and coulter standard No. 5, end of handle brace, each.....\$.05

For jointer and coulter holder, No. 6, wheel standards, straight, end or beam, wheel, hub, No. 14-A clevis bolts, Nos. 20 and 40 steel beam and landside bolts, No. 99 S. B. jointer holder bolts, each......10

For all standards and beams, spreading bottom of handles, Nos. 140 and 125 shin bolts, No. 40 S. B. jointer holder to block bolt, steel set-screws, all sizes, No. 99 S. B. standard bolts, 9-16x2 3/4, each......15

Wheel hook bolts......15
Cast Washers Are Not Included in Prices for Bolts

JAMES OLIVER NO. 11 SULKY PLOW

This sulky is the most popular plow of its kind ever built. It is used on tens of thousands of farms throughout the world and is unequalled for simplicity, lightness of draft, ease of operation and above all, field performance. Turns square in-and-out corners with the bottoms cutting full width and depth. Furnished in both right and left hand.

Regularly equipped with weed hook, steel evener and No. 90 Chilled Jointer.

Right Hand—All Chilled—12-inch.....	Pr \$61.5
Right Hand—All Chilled—14-inch.....	62.5
Left Hand—All Chilled—14-inch.....	62.5
For tongue and neckyoke, add.....	3.0
For combination rolling coulter and jointer, add.....	3.0
For chilled jointer instead of plain rolling coulter,.... deduct.....	1.5
For plain rolling coulter add.....	1.5

OLIVER NO. 23-A REVERSIBLE SULKY PLOW

Great strength, ease of operation and quality work are advantages of this two-way sulky. A heavy frame and beams give the great strength needed for plowing in stumpy and stony land. There is a wide range of pole shift to keep the plow cutting full width on hillsides. A horse lift put in operation by a foot trip when walking makes operation easy. A simple adjustment adapts this plow for use with two or three horses.

Regularly equipped with two and three horse steel evener, tongue, neckyoke, weed hooks and chilled jointer.

No. 23-A—All Chilled—12-inch.....	Price \$104.00
No. 23-A—All Chilled—14-inch.....	105.90
For plain rolling coulters, add.....	2.20
For combination rolling coulters and jointer, add.....	7.00

OLIVER NO. 1 IMPROVED GANG PLOW

The Oliver No. 1 Improved gang plow is so constructed that the hitch can be placed directly between the beams when four horses are used. None of the horses walk on the plowed land. There is natural draft, and freedom and comfort for the horses. Strong rigid construction—a powerful foot lift and easily operated lever convenient to the driver are other advantages of this plow.

Regularly equipped with a 4-horse evener, weed hooks, tongue, neckyoke and chilled jointers.

No. 1 Imp.—All Chilled—12-inch.....	Pr \$118.0
No. 1 Imp.—All Chilled—14-inch.....	120.0
For plain rolling coulters, add.....	2.0
For combination rolling coulter and jointer, add.....	7.0

OLIVER NO. 17-A GANG PLOW

The Oliver No. 17-A is fitted in type and size for use in orchards, gardens, vineyards, small fields and other places of a like nature. The land wheel can be brought within the cut of the rear bottom. Easy to handle and to adjust. Furnished with two or three bases.

Regularly equipped with a guide handle.

2-Base Chilled.....	Price \$49.00
3-Base Chilled.....	57.25

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE

OLIVER No 9-XX ADJUSTABLE TRACTOR PLOW

The Oliver No 9-XX adjustable plow can be set so that the bottoms will cut 11", 12", 13" or 14". When the ground is hard and plowing is difficult the bottoms can be set to cut narrow; when plowing conditions are favorable they can be set to cut at full width, or 14" per bottom. The adjustment is made by expanding or closing the frame.

An Easily Operated Plow

A powerful, ball-bearing screw control so multiplies human effort that it makes depth adjustment rapid and easy. It is an action almost without effort to pull the trip rod for raising and lowering the plow bottoms. The handy leveling lever is another advantage. Adjusting plowing depth, pulling the trip rod and leveling the bottoms—it is all done rapidly and easily.

A Trip Rod for the Power Lift

The use of a trip rod eliminates troublesome work with the dependable power lift into action for raising and lowering the bottom. Note another advantage of this plow which is the position of the wheels to carry the weight of the plow, eliminating drag weight and lessening draft.

The Ball Bearing, Depth Adjusting Screw

The ball-bearing depth adjusting screw is an exclusive Oliver feature found only on Oliver tractor tools. It has a wide range of adjustment and plowing depth can be changed with the outfit moving or standing to suit different soil conditions. For instance when the outfit strikes a soft, boggy spot or the bottoms encounter an obstruction, a few turns of the screw will raise the bottoms. The load on the tractor is removed and the outfit moves forward, without loss of time.

The Draw Bar

The draw bar is fastened well back on the frame at the center of draft and is adjustable up and down and sidewise so that it is possible to secure just the correct line of draft and the right degree of penetration.

The Advantage of Great Clearance

The Oliver No. 9-XX has unusual clearance under the bottoms and between the bottoms. This is a decided advantage when plowing under high weeds, corn stalks, wheat stubble, etc.

Price\$101.00

OLIVER No. 134-XX TRACTOR SULKY

The Oliver No. 134-XX sulky finds favor among farmers who practice deep plowing or who must do their plowing in soil that is very hard or weedy. The general construction of this plow is the same as the Oliver No. 9XX plow. Its operation is made easy and convenient by means of the powerful depth-adjusting screw and the handy leveling lever. The draw bar has the same wide range of adjustment fitting this plow for use with any standard light tractor. The 3-ply, heat-treated beams are extra strong.

Regularly equipped with combined rolling coulter and jointer.

No. 134-XX—14 or 16-inch Steel or Comb..... Price \$92.50

No. 134-XX—14 or 16-inch All Chilled..... Price 90.75

Oliver No. 24 Grading Plow

An extremely strong iron beam plow for road breaking, excavation work or the heaviest of field work. The beam standard and frog are one piece. This plow has a flared mouldboard and a deep suck cutter share.

24—Iron Beam equipped with a gauge iron.. Price \$33.95
2 1/2 Iron Beam Plain..... Price 15.75
2 1/2 Iron Beam with Wheel..... Price 17.70

Oliver No. 25 Pavement Plow

A popular plow for tearing up macadamized roads, streets, gravel roads, etc. Built extra strong and rigid, the beam standard and handle braces are cast in one piece. The pick is both reversible and adjustable. All wearing parts are renewable.

Regularly equipped with a gauge iron.

No. 25—Pavement Plow..... Price \$40.00
Reversible Steel Point or Spike..... Price 4.75

OLIVER UBC SPIKE TOOTH HARROW

The Oliver UBC harrow is a very strong, closed-end harrow. The side rails furnish extra strength and act as guards when working among trees or vines. Furnished with either horse or tractor hitch.

HORSE HARROW

Regularly equipped with evener bar

Number	Description
UBC—50-Tooth	2-section
UBC—60-Tooth	2-section
UBC—75-Tooth	3-section
UBC—90-Tooth	3-section

Price
\$19.
22.
31.
34.

TRACTOR HARROW

Regularly equipped with a tractor hitch

Number	Description
UBC—90-Tooth	3-section

Price
34.

OLIVER PB AND PBV SPRING TOOTH HARROWS

These are very strong and rugged implements well fitted for the hard work of spring-toothing. An inverted T-bar frame shod with a thick steel runner gives great strength and durability. The PB series are ordinary field harrows; the PBV are for vineyard and orchard use and fitted for that work by special levers which do not extend above the harrow when it is in working position. Furnished with horse or tractor hitch. The levers are reversible and are set on the rear of the sections for horse use and on the front for tractor use.

HORSE HARROWS

9-Tooth with handles and single-tree.....	\$16.87
15-Tooth, 2-section with draw bar.....	25.95
17-Tooth, 2-section with draw bar.....	27.50
23-Tooth, 3-section with draw bar.....	38.75
25-Tooth, 3-section with draw bar.....	40.35

Oliver PB 3-section Horse Harrow

TRACTOR HARROW

21-Tooth, 3-section with draw bar and tractor hitch. \$40.40

Note: PB and PBV Harrows are the same price

Oliver PB 3-Section Tractor Harrow

Oliver PBV Vineyard Harrow

OLIVER TPB TRACTOR SPRING TOOTH HARROW

This harrow is leverless. handy and quick-acting screw used to raise and lower the teeth and to regulate depth of penetration. The inverted T-bar frame is equipped with a heavy steel runner $\frac{3}{8}$ inches thick. The hitch is adjustable so that the harrow will run level under all conditions. TPB—25-Tooth, 3-section

Price \$60.00

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

OLIVER HDH DISC HARROWS—SINGLE AND DOUBLE

No other farm tool equals the disc harrow for quick and efficient seed bed preparation. These harrows penetrate easily because the pull of the draw bars is downward. The construction at each wearing point is especially durable.

SINGLE DISC HARROWS

Regularly equipped with hard oil cups, rigid scrapers, 2 or 3-horse evener, seat and rigid pole.

Number	Number of Discs	Cut in Feet	Size of Discs	Price
HDH-4	8	4	16"	\$43.90
HDH-5	10	5	16"	47.50
HDH-6	12	6	16"	52.10
HDH-4	8	4	18"	46.90
HDH-5	10	5	18"	51.25
HDH-6	12	6	18"	56.60

(*) Equipped with off-set irons and 3-horse eveners.

DOUBLE DISC HARROWS

Consists of single disc harrow and tandem complete, hard oil cups, rigid scrapers, 4-horse eveners, seat and forecarriage.

Number	Number of Discs	Cut in Feet	Size of Discs	Price
HDH-4	16	4	16"	\$ 100.90
HDH-5	20	5	16"	108.15
HDH-6	24	6	16"	113.85
HDH-7	28	7	16"	122.65
HDH-8	32	8	16"	129.90
HDH-4	16	4	18"	106.90
HDH-5	20	5	18"	115.65
HDH-6	24	6	18"	122.85
HDH-7	28	7	18"	133.15

OLIVER TDH TRACTOR DISC HARROW

A tractor harrow that is noted for its durability and its quality of work. This harrow digs because the pull of the draw bars is downward. Easily operated from the tractor seat by means of a handy, quick-acting screw.

Number	Number of Discs	Size of Discs	Cut in Feet	Price
TDH-5	20	16"	5'	\$ 92.50
TDH-6	24	16"	6'	97.65
TDH-7	28	16"	7'	108.75
TDH-8	32	16"	8'	121.90
TDH-5	20	18"	5'	100.00
TDH-6	24	18"	6'	107.15
TDH-7	28	18"	7'	119.25

Equipped with a horse hitch

OLIVER ROLLER PULVERIZER

The Oliver roller pulverizer crushes clods and firms the soil. It leaves the soil in shape to receive and retain moisture. By using the pulverizer directly after the disc harrow it leaves the ground in good shape for planting. Also used to good advantage to firm the soil about the roots of growing plants. The weight is automatically shifted to the front or to the rear gangs as it is needed. Easily converted from a horse to tractor pulverizer.

Equipped with a tractor hitch

Number	Length Over All	Actual Rolling Width	Number of Wheels	Price
NTP-7 Tractor	7'	6'-1"	37	\$ 76.60
NTP-8 Tractor	8'	7'-1"	43	82.50
NTP-10 Tractor	10'	9'-1"	55	101.25
NHP-6 Horse	6'	5'-1"	31	75.95
NHP-7 Horse	7'	6'-1"	37	83.45
NHP-8 Horse	8'	7'-1"	43	89.40

OLIVER No. 35 CULTIVATOR

This cultivator is built short and sturdy and the hitch is close and direct. The gangs extend back only a short distance beyond the wheels. This eliminates dipping and side-slipping and assures uniform work when going into depressions or over slight rises in the ground. The gang heads work on heavy steel bar. This wide bearing gives great durability and rigidity. It is an extremely simple and advantageous feature and does away with any possibility of the gangs getting out of alignment. In the single piece, heat-treated axles there are no weak parts to break or wear loose.

New and improved cultivator, better designed, more permanently constructed, easier operated—it is the Oliver No. 35.

With the new pedal guide construction it was possible to make an extremely simple cultivator using fewer and stronger parts. Strength to spare, and in addition, operation could not be made easier, so small is the effort necessary to shift the gangs or to make field adjustments. Perfect balance under all conditions adds to the ease of handling.

Every farmer is entitled to have his cultivating work done easier. With the Oliver No. 35 it can be done both easier and better.

No. 35 6-shovel, pin break gangs.....	\$57.20
No. 35 6-shovel, spring trip gangs.....	62.85
No. 35 8-shovel pin break gangs.....	59.10

No. 35 8-shovel, spring trip gangs.....	66.6
Front Disc Attachment 12".....	3.9
Tobacco Hoe Attachment.....	10.5

OLIVER No. 2 IMPROVED CULTIVATOR

A popular and well established favorite where either large or small acreages of cultivated crops are raised. Easy on the man because of the great ease with which it is handled. Lifting the gangs or shifting them to or from the row is an action almost without effort. Easy on the horses because of light draft and there is no neck weight. There is not a single unnecessary part; there is nothing to get out of order.

No. 2 FEC Imp 6-shovel spring trip gangs, Pipe Beam....	\$47.50
No. 2 FO Imp. 4-shovel, spring trip gangs, Pipe Beam....	43.75
No. 2 HO Imp. 6-shovel, pin break gangs, Pipe Beam....	41.90
No. 2 LPO Imp. 8-shovel, pin break gangs, Channel Beam	39.20

OLIVER NO. 25 CULTIVATOR

This is a light draft, easily operated and durable disc cultivator. It is equipped with the famous Oliver seat guide which pivots on ball and roller bearings, assuring easy shifting of the gangs. Good work can be done on hillsides and in crooked rows. The disc gangs swivel at two points. Adjustments are made without a wrench and without leaving the seat. The disc can be set to cultivate deep or shallow and as close to or far away from the row as desired. They are reversible for barring off or for throwing dirt to the row. Individual levers set the cultivating depth of each gang independently. The action of the main lever balances the cultivator.

No. 25 Cultivator, with 16" Disc gangs.....	Price \$72.50
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NEW ASPINWALL No. 5 POTATO PLANTER

About forty years ago, Mr. L. A. Aspinwall introduced the Automatic Potato Planter. The agricultural world was startled. Potato planting by hand was tedious, inaccurate and uncertain. Mr. Aspinwall's efforts were doubted at first, but were soon greeted with widespread enthusiasm and recognition. His Potato Planter proved its practicability, was developed and grew better and better. In 1921 the New Aspinwall No. 5 was invented. This is indeed the most perfect potato planter ever built—it leads everything in the field—and has made potato planting a science—is absolutely accurate in every degree at an immeasurable saving of time and labor.

The improvements in the pickers and concaves have made such excellent results possible—the misses have been reduced to about one in a thousand potatoes, with uniform properly cut seed.

No. 5 Plain Planter.....	\$120.00
No. 5 Planter with fertilizer attachment.....	140.00

ASPINWALL POTATO DIGGER

The Aspinwall Digger is favorably known throughout the potato growing sections of the world enjoying high prestige as it is unsurpassed in material, workmanship, serviceability and long life. It stands the wear and tear required from a machine of this type. The cost of upkeep is consequently low, which alone is of great value to the farmer. The Aspinwall Digger is the economic digger to use and the purchaser's investment in it is one of profit to him. The machine guarantees long service. The lightness of draft for which the Aspinwall Diggers have become so well known is in a large measure directly attributed to our system of bearings. The gear drive is the simplest, most powerful and efficient transmission of power for digger purpose on account of the short distance from center to center axle.

6-Foot Digger.....\$135.00

OLIVER TRACTOR DISC PLOWS

In conditions of extremely hard ground tough, waxy land where mouldboards will not scour, in fields with buried logs or other obstructions, Oliver tractor disc plows solve the plowing problem.

Advanced design overcomes the objectionable features commonly found in disc plows. In using Oliver disc plows you will be greatly pleased with their satisfactory work.

A power lift that operates on all three heels, raising all discs to a high, level position, ability to penetrate and stay in hard ground at full depth, strength for the most difficult conditions, ease of operation, free running discs, durable disc bearings, disc brackets that afford good clearance when plowing full depth, new design, mouldboard shape disc scrapers that turn the soil with a pulverizing effect, increasing the quality of the plowing—these are a few of the features of Oliver disc plows that guarantee complete satisfaction.

Oliver tractor disc plows have established a new standard for disc plow service, proving their superiority in public demonstration as well as on farms

Oliver D-43 Tractor Disc Plow

B 42—2—24 in. Discs.....	Price \$89.75	DB 43—3—24 in. Discs.....	Price 91.75
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ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

WHITE'S CLIPPER PLOW

Fig. 2 in cut is small mouldboard given with every plow.
Fig. 3 in cut is a point for digging peanuts, made with or without fingers.
Fig. 4 in cut is a scraper or weeder point.

Prices Clipper Plow and Extras.

No. 1 and 2, Cast, One-Horse.....	\$ 6.00
No. 12, Cast, Two-Horse.....	10.75
Cast Point for Clipper Plow, per pound.....	.08

STEEL BEAM MIDDLE BURSTER

SHARES FOR MIDDLE BURSTER

	Our Special Price.
Cuts	
8-inch	\$1.65
10-inch	1.70
12-inch	2.00
14-inch	2.15
16-inch	2.35

The Beam has a high throat, and wings are shaped especially for black, waxy lands. Wings and points are of high carbon steel. Points have reinforced nose. A strong, serviceable tool for two, four or six horses.

We can furnish them as follows:

	Our Special Price.
Cuts 8 inches; weight 77 pounds.....	\$12.25
Cuts 10 inches; weight 82 pounds.....	13.00
Cuts 12 inches; weight 87 pounds.....	13.75
Cuts 14 inches; weight 83 pounds.....	14.50
Cuts 16 inches; weight 98 pounds.....	16.25

Frank Beasley's Patent Disc Attachments

TO FIT ANY FIVE-TOOTH CULTIVATOR

If you have a good five-tooth cultivator, you can secure these parts to attach to same and make your old cultivator as up-to-date as it would be possible to have it. These Disc Attachments come in gangs of either six or eight Discs or can be had in combination of six and eight discs.

These disc gangs are sometimes used on Fertilizer distributors with fine results.
Six-Disc Attachment, Weight 43 lbs. **\$9.75**
Eight-Disc Attachment, Weight 53 lbs. **10.75**
Comb. Six and Eight Disc Attachment **12.00**

Frank Beasley's Patent Disc Cultivators

There are thousands of them now in use, all giving satisfaction. The Disc attachments are sold separately, as listed opposite.
Six discs go between rows $2\frac{1}{2}$ feet wide and up; Eight discs between rows $3\frac{1}{2}$ feet wide and up.
Price Complete, as shown in cut, including 4-tooth standards and teeth and combination set discs (meaning 8 discs and extra parts for changing to use six or less at a time)..... **\$25.2**

Farmers' Friend Plow

PRICES GENUINE FARMERS' FRIEND PLOW.

No. $\frac{1}{2}$	\$5.65	No. 1 Hillside.....	\$8.25
No. 5.....	\$5.65	No. 2 Hillside.....	8.25
No. 7 R.....	7.75	No. 3 Hillside.....	8.50
No. 7 L.....	8.15		
No. $7\frac{1}{2}$ R.....	8.15		
No. 8 R. and L., with clevis.....	9.50		
Plain Castings, per lb., 8c.		Polished Castings, lb., $9\frac{1}{2}$ c.	

"BOY" DIXIE PLOW

"Boy" Dixie.....	\$4.50
No. X.....	5.75
No. 1.....	6.00
No. 11.....	8.25
No. 2.....	9.00
Plain Castings, per lb., 8c.	

"GIRL" CHAMPION PLOW

No. "Girl".....	\$6.00
No. A.....	6.50
No. 2.....	7.00

Castings, per lb., Plain
 $8\frac{1}{2}$ c.; Polished, 10c.

Old Dominion Grub Plow

TWO-HORSE.. \$13.25

THREE-HORSE 14.25

COULTERS ... 4.10

BOTTOMS 7.60

It is peculiarly adapted to newly cleared ground that is encumbered with growth of hazel or other bushes. All wearing parts are of best steel, and it is so strongly built that it will withstand the hardest usage. It is the favorite plow of its class. It is built in right hand only, and cuts about 7 inches.

One of these Cultivators (with the extras that can be used on same) can be set

up and used for more style of work than any cultivator ever invented. In fact, there is no style cultivating among crops but what can be done better with these cultivators. It can also be used as a one-horse harrow. No crop too small to be successfully cultivated with the teeth or shovels, and never get too large to be successfully cultivated with the discs.

This Cultivator is not too small for the largest grower, not too large for the smallest grower.

The material used is the highest grade, nicely finished and painted, and guaranteed to work as represented.

Snatch Rod regularly furnished with No. 2½ and No. 3.

HASLUP WHEEL SCRAPERS

These scrapers are very popular with the contractor trade on account of their splendid construction and convenience. The wood wheels are made of thoroughly seasoned stock and are very strong. Metal wheels can be furnished on order. Tongues, best quality hardwood, heavily ironed, with double steel draft bars.

Size of Bowl.

			in.	in.	in.	in.	in.	in.
No. 1	9	Cu. ft.	36	36	12	36	3x½	1½
No. 2	13	Cu. ft.	37	38	13½	40	3x5-15	1¾
No. 2½	14½	Cu. ft.	41	38	14	44	3x5-16	1¾
No. 3	17	Cu. ft.	41	44	16	44	3x5-16	1¾
No. 1	—Weight, 450 lbs.						Price,	\$66.75
No. 2	—Weight, 600 lbs.						Price,	\$80.00
No. 2½	—With Snatch Rod, weight 675 lbs.						Price,	\$84.75
No. 3	—With Snatch Rod, weight 750 lbs.						Price,	\$93.50

Wood Doubletrees and Neck Yoke, \$6.00 extra.

The No. 24 Iron Beam, Right Hand Contractors' Plow

Strong, heavy. Furnished with either cast or steel cutter shares; with draft iron running from clevis to beam. With wheel jointer or hanging coulter as desired. R. H. only.

Oliver's Latest Pattern, Road and Grading Plow, No. 24. IRON BEAM.

Price, Plain, \$32.00 with Wheel, \$34.75
Above prices include one extra Share.

Haslup Round

Back, Solid Pressed Drag Scrape

Prices with 2 Steel Runners

Size.	Capacity.	Weight.	Price
No. 1	7 Cu. ft.	100 lbs.	\$10.50
No. 2	5 Cu. ft.	90 lbs.	10.25
No. 3	3½ Cu. ft.	80 lbs.	10.00

For extra Bottom Plate add \$1.00

LIGHT DRAG SCRAPER

Size.	Capacity.	Weight.	Price.
No. 1L	7 Cu. ft.	90 lbs.	\$9.00
No. 2L	5 Cu. ft.	80 lbs.	8.75
No. 3L	3½ Cu. ft.	70 lbs.	8.50

REPAIRS FOR CONTRACTORS' PLOWS,
Price List on Page 133

OLIVER CONTRACTORS' PLOWS

No. 1 Oliver Wood Beam Road and Grading Plow all steel with standing Coulter, Gauge iron.
Price, \$67.50.

No. 25 Oliver Iron Beam Pavement Plow with Gauge Iron.
Price, \$46.75.

"SSS" FRESNO SCRAPER

Contractors that are not acquainted with the "SSS" FRESNO SCRAPER are overlooking one of the best tools ever designed for moving earth rapidly and cheaply.

With this scraper dirt can be carried any distance and dumped

in bulk, or it can be scattered in layers from one to twelve inches deep simply by adjusting two tail nuts on the cross bar; no wrench required.

	Width.	Approximate Weight.	Price.
No. 1—4-Horse.....	5 feet	300 lbs.	\$34.50
No. 2—2 or 4-Horse.....	4 feet	275 lbs.	31.50
No. 3—2-Horse.....	3½ feet	250 lbs.	30.00

Syracuse Contractors' Plow No. 1

One of the best two-four horse contractors' plows. A great favorite.

Hard iron wearing parts. Extra heavy beam, share and strip, steel wheel standard. Turn furrow 5 to 9 inches deep, 12 to 15 inches wide. For general grading purposes. Two to four-horse. Weighs 185 lbs. with wheel, \$32.00

Syracuse Pavement Plow No. 98

Adjustable and double-bar steel point. Adjustable shoe in place of wheel. Loop handle wear irons. Very strong. Specially adapted

for tearing cobblestones and macadam pavements. Four or six-horse. Weight, 265 lbs. Without extra point. Price, \$40.00

SYRACUSE CONTRACTORS' PLOW No. 99
Four to Eight Horses. Weight, with Shoe, 310 lbs. Without extra Share \$70.00

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

Wood Single, Double and Tripletrees

26-in. Southern.....	.50c	36-in. So. Doubletrees...	\$1.25
28-in. Extra Nailed.....	.65	36-in. Hvy. Doubletrees...	1.50
28-in. Ex. Nailed. 3 Hks.	.75	40-in. Hvy. Doubletrees...	1.75
30-in. Hvy. Singletrees...	.80	Extra Hvy. Tripletrees...	3.50
32-in. Hvy. Singletrees...	.90	Singletrees, less irons...	.40
34-in. Hvy. Singletrees...	1.00	Doubletrees, less irons...	.60
Wagon Singletrees...	.60		

WOOD NECK YOKE

No. 6—40-inch....	\$1.50.	42-inch....	\$1.60.	48-inch....	\$2.25
WAGON, SINGLE AND DOUBLETREES.					
Wagon Singletrees, No. 9½, each.....	\$1.50				
Wagon Doubletrees, No. 12½, each.....	1.75				
Doubletrees and Singletrees, with neck yoke for low-down wagon trucks, per set.....	\$5.75				

STEEL SINGLE AND DOUBLETREES

Size 1—	Size 2—
Doubletree, 38 inches.	Doubletree, 40 inches.
Singletrees, 30 inches.	Singletrees, 34 inches.
Retail, Single Set... \$5.50	Retail, Single Set... \$6.00

U SINGLE, DOUBLE AND TRIPLETREES

Prices: Singletrees, with Malleable Hooks, 24-inch, 75c.; 26-inch, 80c.; 28-inch, 85c.; 30-inch, \$1.10. Doubletrees, with Hooks, 36-inch, \$1.25. Steel Tripletrees Set, complete per set of 6 pieces, \$6.00.

IMPROVED EUREKA THREE-HORSE EQUALIZER
RIGHT HAND ONLY.

This Equalizer, while simple in construction, is strong and durable; is perfect in equalization, and absolutely removes all side draft. Can be changed very quickly from a three-horse to a doubletree by removing the long bar. Price, \$9.50

SET OF WELDED CLIPS

CLIPS FOR DOUBLETREES.

No. 77—Southern; one ½-inch Center Clip and Hook, with hook and two ½-inch Clips. Set, 50c.
No. 76—Pennsylvania; one ¾-inch Center Clip and Hook, with ¾-inch hook and two 9-16-inch End Clips. Set, 60c.

CLIPS FOR SINGLETREES.

No. 75—One Center ½-inch Clip, and two ¾-inch End Clips; used on 28-inch Singletrees. Set, 30c.
No. 74—One Center 9/16-inch Clip, and two 7/16-inch End Clips. Set, 35c.
No. 73—One Center ¾-inch Clip, and two 7/16-inch End Clips; used on 34 and 36-inch heavy Singletrees. Set, 40c.
No. 72—One Center ¾-inch Clip, two ½-inch End Clips. Set, 45c.

Clips for Tripletrees—Three Pieces. Per Set, \$1.50.

Malleable Clevises

No. 2885.—2½-in. beam; 2½-in. from center of wrench to center of pin; 6½-in. extreme length; 6 holes; shackle and pin. For use on No. 5 F. F. and similar cast plows. List price, doz., \$6.00. Retail price, each, 35c.

No. 2895.—2½-in. beam; 3½-in. from center of wrench to center of pin; 7½-in. extreme length; 6 holes; shackle and pin. For use on No. 7 F. F. and similar cast plows. List price, doz., \$8.00. Retail price, each, 45c.

No. 2854.—2-in. beam; 5½-in. extreme length; 3-in. from center of wrench to end of beam. Patent wrench. For use on Girl Champion and similar cast plows. List price, doz., \$3.50. Retail price, each, 20c.

No. 2847.—2-in. beam; 5½-in. extreme length; 3-in. from center of wrench to end of beam. Patent wrench. For use on "Boy" Dixie and similar cast plows. List price, doz., \$3.50. Retail price, each, 20c.

No. 2806 B—End Clevis.—¾-in. inside measure; 3-in. extreme length. List price, doz., \$2.00. Retail price, each, 10c.
No. 2800—Flow Link.—3-in. long, 2½-in. wide. List price, doz., \$2.00. Retail price, each, 10c.

PLOW HANDLES—DRESSED

1½x2 inches, 5 feet long, per pair.....	\$0.75
1½x2¼ inches, 5 feet long, per pair.....	.80
1½x2½ inches, 6 feet long, per pair.....	1.00
1½x2¾ inches, 5 feet long, per pair.....	1.20
1½x2 inches, Side Bend, per pair.....	.80

Repairs For Syracuse Plows

Nos.	Wood Beam Chilled Plows.	Shares.	Land.	Moulds.	Beams.	Standards.	Shins.	Slip shares.	Slip points.
52	1 Horse R. H. only	\$.50	\$1.10	\$3.35	\$3.25	\$2.75	...	...	...
56	Reg. 2	.80	1.55	5.00	4.75	4.00	.70	1.00	.30
57	2 or 3 H	.85	1.70	5.50	4.75	4.40	.75	1.05	.30
95	2 Horse L. H.	.75	1.45	4.75	4.50	3.85	...	.95	.30
96	2	.80	1.55	5.00	4.75	4.00	...	1.00	.30
97	2 or 3 H	.85	1.70	5.50	4.75	4.40	...	1.05	.30
501	...	.90	1.50	5.50	4.15	4.00	...	1.10	.30
502	...	.85	1.50	5.00	4.15	3.75	...	1.05	.30
503	...	.85	1.40	4.50	4.15	3.60	...	1.05	.30
601	...	.90	1.50	5.50	4.15	4.00	...	1.10	.30
602	...	.85	1.50	5.00	4.15	3.75	...	1.05	.30
603	...	.85	1.40	4.50	4.15	3.60	...	1.05	.30

Repairs For Syracuse Contractors' Plows

Nos.	For Contractors' Plows, see page 121	Steel shares.	Moulds.	Beams.	Standards.	Shins.
99	...	\$7.75	\$6.00	\$16.50	\$19.25	\$1.10
98	...	5.50	...	23.50	...	...
1	Heavy Cast.	1.00	5.75	13.50	...	...

Extras for Iron Beams Syracuse Plows

Nos.	No. Horse.		Common shares.	Cutter shares.	Cast lands.	Moulds chilled	Beams.	Slip shares	Slip points
3.78	R. H. only	2	Horse...	\$.75	\$1.00	\$1.10	\$5.00	\$8.00	\$1.00
2.78	" " "	2	" " "	.80	1.05	1.25	5.50	8.75	1.05
1.78	" " "	2	" " "	.85	1.00	1.30	5.75	9.50	1.10
10.78	" " "	2	" " "	.95	1.10	1.45	6.25	12.00	...
20-78	L. H. only	2	" " "	.85	1.00	1.25	5.75	9.50	1.10
30-78	" " "	2	" " "	.95	1.10	1.45	6.25	12.00	1.25
15	R. H. only	3	" " "	1.05	1.25	2.00	6.25	7.00	...
35	L. H. only	3	" " "	1.10	1.30	2.00	6.25	7.00	...

Jointer Points for any of above Syracuse Plows, 35c. Syracuse Base Bolts, 5c.

Repairs For Chattanooga Plows

Nos.	No. Horse.	Plain Shares.	Cutter Shares.	Slip Nose Shares.	Slips.	Landslides.	Mould-boards.	Beams.	Handles with Braces, Set.	Standards.
45	2-Horse, W. B.	.....	.85	1.05	.20	1.50	4.50	4.25	3.25	4.0
45	2-Horse, S. B.	.....	.85	1.05	.20	1.50	4.50	6.50	3.25	4.0
46	3-Horse, W. B.	.....	.40	1.10	.20	1.50	4.75	4.25	3.25	4.3
46	3-Horse, S. B.	.....	.90	1.10	.20	1.50	4.75	7.50	3.25	4.3
62	1-Horse, W. B.	.40	.....	.50	10	.70	2.00	3.50	2.50	2.2
62	1-Horse, S. B.	.40	.....	.50	10	.70	2.00	5.00	2.50	2.2
72	1-Horse, S. B.	.....	.45	.55	10	.70	2.10	5.00	5.00	2.2
63	2-Horse, S. B.	.....	.60	.75	15	1.10	1.03	5.00	5.00	3.5
64	2-Horse, S. B.	.....	.75	.90	15	1.25	5.00	5.00	5.00	3.7
65	2-Horse, S. B.	.....	.85	1.05	20	1.50	5.00	5.00	5.00	4.0
66	2-Horse, S. B.	.....	.90	1.10	20	1.50	5.00	5.00	5.00	4.3

Rolling Coulters, complete, \$5.25; Wheels, complete, \$1.75

Jointers, complete, \$4.00; Bolts for Shares, Landsides, Mould-boards; Rear Beam Bolts on 1-Horse Plows, 10c. All other Bear Bolts, 15c.

Shovel Plow Clevises, Doz.....	List Price.	Retail Price.
Cultivator Clevises, Doz.....	\$7.20	Each, 40c.
	4.80	Each, 25c.

WIARD PLOWS AND REPAIRS

"WIARD" SWIVEL OR HILL-SIDE PLOW

- No. 127—Light 2-Horse with Cast Mold, Steel Beam.....\$19.00
- No. 120—Medium 2-Horse with Cast Mold, Steel Beam..... 26.00
- No. 126—Regular 2-Horse with Cast Mold, Steel Beam..... 27.00
- No. 15X—Light 2-Horse, with Cast Moldboard, Cast Beam..... 22.50
- No. 126X—2-Horse, with Cast Moldboard, Cast Beam..... 24.00

PRICES			Capacity Inches	Weight Lbs.	Price of Plow.	Plain Shares	Cutter Shares	Plain Slip Shares	Slip Nose	Landslides	Mould Board	Steel Beam	Handles Pair, Complete	Standards
WIARD STEEL BEAM PLOWS AND EXTRAS														
No. 210—R. H.	1-Horse.....	4½x 8	60	\$9.25	\$.35					\$.75	\$2.00	\$4.50	\$2.25	\$2.25
No. 212—R. H.	1-Horse.....	4½x 9	71	10.25	.45					.75	2.25	4.50	2.25	2.50
No. 215—R. H.	1 or 2-Horse.....	5½x11	93	15.00	.50					1.00	3.25		2.25	2.50
No. 218—R. H.	2-Horse.....	6 x11	99	17.00	.70					1.25	4.20	5.50	2.50	3.25
No. 219—R. H.	2-Horse.....	6½x12	110	19.50	.85			\$1.00	.20	1.40	4.50	6.00	2.50	3.50
No. 220—R. H.	2-Horse.....	7 x13	120	21.00	.85			\$1.00	.20	1.40	5.00	6.00	2.50	3.50
No. 420—L. H.		9 to 13		21.00	.85			\$1.00	.20	1.10	4.50	6.00	2.50	3.50
No. 440—L. H.		11 to 15		24.00	.90					1.50	5.00	7.00	2.50	3.75
No. 220—R. H.		9 to 13		21.00	.85			1.00	.20	1.40	5.00	6.00	2.50	3.50
No. 240—R. H.		11 to 15		24.00	.90			1.10	.20	1.50	5.00	7.00	2.50	3.75
No. 546—L. H.	2 or 3-Horse.....	11 to 15	130	21.50	.85	1.00	1.00	.20	.20	1.60	5.00	6.00	2.50	4.00
No. 44—R. H.	2 or 3-Horse.....	11 to 15	130	21.50	.85	1.00	1.00	.20	.20	1.25	5.00	6.00	2.50	4.00
No. 45—R. H.	3-Horse.....	12 to 17	150	25.00	.95	1.10	1.10	.20	.20	1.25	5.50	6.00	2.50	4.50
No. 103—L. H.	2-Horse.....	9 to 13	120	19.75	.85	1.00	1.00	.20	.20	1.25	4.50	6.00	2.50	4.00
No. 104—L. H.	3-Horse.....	11 to 15	130	21.50	.85	1.00	1.00	.20	.20	1.25	5.00	6.00	2.50	4.00
No. 106—L. H.	3-Horse.....	12 to 17	150	25.00	.95	1.10	1.10	.20	.20	1.25	5.50	6.00	2.50	4.50
No. 80—L. H.	2 or 3-Horse.....	11 to 15	132	22.00	.85	1.00	1.00	.20	.20	1.00	5.00	5.50	2.50	4.50
No. 81—L. H.	2-Horse.....	10 to 14	128	21.00	.85	1.00	1.00	.20	.20	1.00	4.50	5.50	2.50	4.50
No. 90—R. H.	2 or 3-Horse.....	11 to 15	132	22.00	.85	1.00	1.00	.20	.20	1.00	5.00	5.50	2.50	4.50
No. 91—R. H.	2-Horse.....	10 to 14	128	21.00	.85	1.00	1.00	.20	.20	1.00	4.50	5.50	2.50	4.50

Wheels with Standards, \$2.20; Joiners or Coulters with Holder and Attachment, \$4.75; Bolts for Shares, Moulds, Lands and Joiner Points, 6c. each. Wheel Standard Bolts. Each, 15c.

- No. 65—Iron Beam Contractor Plow, R. H., Cast Points, with Clevis and Shoe.....\$33.00; Cast Point, \$1.15
- No. 65—Iron Beam Contractor Plow, R. H., Steel Points, with Clevis and Shoe..... 38.50; Steel Point, 6.50
- No. 67—Iron Beam Contractor Plow, R. H., Steel Points, with Clevis and Shoe..... 43.50; Steel Point, 7.75
- No. 67—Steel Beam Contractor Plow, R. H., Steel Points, with Clevis and Shoe..... 60.50; Steel Point, 7.75
- No. 67—Steel Beam Contractor Plow, R. H., Steel Points, with Clevis and Shoe..... 42.25; Steel Point, 5.75

"A. W. R." One Hoss Riding Cultivator

The A. W. R. Cultivator has been thoroughly tried out under arying farm conditions since 1918, and has proven its worth. There are many farms upon which there is too large an acreage of row crops to be handled by a walking cultivator, but where two-horse machines will not work satisfactorily.

While no expense has been spared to make this tool right, the price is very reasonable, especially when you consider that it will do practically the same amount of work as the two-horse machine—do it easier, cheaper and better. The wheels and cultivator frame are adjustable for width and the depth is easily controlled by removable key pin. It will cultivate corn up to three or even four feet high, or those who seed to grass and clover at the last cultivation of corn, this cultivator leaves the ground in perfect condition.

- Price of Cultivator.....\$45.00
- Price of Weeder Attachment..... 15.00

"MOON" ROLLING COULTER

The shoe presses down all weeds and trash and holds same firmly while being cut by the coulters.

- No. 1— 8-inch disk.....\$5.00
- No. 2—10-inch disk..... 6.00
- No. 3—12-inch disk..... 7.00

FAIRBANKS WAGON AND STOCK SCALES

For outdoor weighing with any of these scales a substantial wood beam box is usually supplied but for office weighing a short iron pillar outfit is preferable. A full capacity type registering beam may be used instead of the full capacity plain beam. On special order they may be equipped with extension levers to increase the distance from the edge of the platform to beam rod to suit a required special beam location.

Capacity Platform

5 Tons	14'1"x 8'1"
6 Tons	14'1"x 8'1"
6 Tons	22'1"x 8'1"
10 Tons	16'0"x 8'0"
10 Tons	18'0"x 8'0"
10 Tons	22'0"x 8'0"
10 Tons	22'0"x 10'4"

WRITE FOR CATALOGUE & PRICES

PIT SCALE

PITLESS SCALE

Fairbanks Portable Scale

This type of Portable Platform Scale is one of the most efficient for general use and is furnished either with or without wheels. It is equipped with arrow-tip single beam having a center indicating sliding poise with set-screw, all of brass.

Durably and attractively finished in blue with bronze stripe, all well varnished for protection.

No.	Capacity	Size of Platform	Price
1124	1000	18"x27"	\$26.00
1128	500	16"x25"	22.25

Model 20

Reversible Adjustable

THE MARTIN FARM DITCHER AND TERRACER

Crystal Metal Farm Bells

Prices, including hangings complete. Bronzed.

No.	Wgt. of plate	Diam. of Bell	Re-com- of tail	Price
1.	40 lbs.	15 in.		\$4.00
2.	50 lbs.	17 in.		5.00
3.	75 lbs.	19 in.		8.00
No. 4	Bell has a stand instead of Yoke.			
4.	100 lbs.	21 in.		10.00

Steel Alloy Church and School Bells

Cast from an alloy of cast steel and crystal metal, and can be relied on under all circumstances and in all seasons.

Tolling hammer not furnished with No. 22. When furnished with No. 24; Retail \$6.00. Prices on above named are for complete Bells, and include wood sills and iron Wheels.

No.	Diam.	Weight Bell only	(MOUNTED) Wt. complete	Reta Price
20.	20 in.	110 pounds	165 pounds	\$20.00
22.	22 in.	122 pounds	205 pounds	22.50
24.	24 in.	153 pounds	250 pounds	27.50

Specifications:

Landside, 10 inches by 3/4-inch by 9 1/2 feet. Bessemer steel. Rear guide fins, crucible plow steel. All steel stationary footboard built into center landside. Gooseneck, clogless hitch, heavy steel forging extends from draw bar to center of cutting blade. Steel rail handle to control cutting blade. Rolling coulter in front.

Model 20—Standard Double Edge Cutting Blade, Steel Beam, reversible.

No seat. 2 to 4-horse.....\$65.00

Model 20-B—Like Model 20, but smaller; for 2 horses. Price without seat 60.00

Seats, extra.....3.00

Road Drag and Snow Blade for any model, extra.....11.00

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

MASSEY-HARRIS DRILL

Main frame is equal to severest strains. It is bent from a single high grade steel angle to form three sides of a rectangular figure. Its corners are reinforced by steel plates, and its two sides or ends are tied by a high carbon I-beam. In addition, the beam and frame are tied near their centers by two angle bars which extend beyond the beam sufficiently to furnish a support for the continuous steel axle. The frame, corner plates, I-beam and angle bars, all are riveted together in the most substantial manner. On this exceptionally strong frame the hopper is mounted with steel brackets and is further secured by a tie bolt. The result is an exceedingly strong and rigid construction which keeps all parts in perfect alignment.

Direct positive drive from both wheels.

9 Disc.....	\$139.70	9 Spring Hoe.....	\$136.25
11 Disc.....	161.85	11 Spring Hoe.....	154.40
13 Disc.....	180.70	13 Spring Hoe.....	172.20

GRITCO-B

Furrower and Marker

Neck Yoke
and Whiffle
Trees, \$4.50.

Strong, light and durable. A half-dozen tools in one. Runs steadily and cannot be choked. Adjustable throughout. Broad runners of wrought T-angle iron with rib to prevent sliding on side hill. Revolving discs or furrows, with chilled hub and steel axle.

PRICE, \$25.00.

3 Row Shovel Marker
\$18.00

The Gritco Wheel Marker

The Marker will open rows from 2 to 6½ feet. By the use of the lever they can be opened any depth desired. The Marker is light draft and easily controlled. It can be used for laying off rows, listing or covering. The Marker is equipped with marker pole, doubletrees and neckyoke.

Price.....\$40.00

PERFECTION CORN GRADER

NO ONE WHO PLANTS CORN CAN AFFORD TO BE WITHOUT A CORN GRADER.

Every farmer now knows his seed corn should be graded. No planter will drop right with ungraded seed.

Graded seed insures perfect dropping, stronger plants, and in-

creases the yield 5 to 15 bushels per acre. This has been proved over and over by the Experiment Stations and by thousands of farmers.

List Price, \$24.00 Dozen. Our Special Price, \$1.25 Each.

GRAIN DRILL POINTS

We are one of the largest distributors of
GRAIN DRILL POINTS AND TUBES

in the Country.

For All the Leading Grain Drills.

IN ORDERING POINTS, either send an old one or give name of Drill, length of point, and be sure to give distance from center of hole to end of point. It is always best, if possible, to send an old sample.

Price, Points, each.....18c.

GRAIN DRILL TUBES

Plain Top.

IN ORDERING TUBES it is always best to send an old tube as a sample. If that cannot be done, be sure to state name of Drill, the kind of Tube, whether ring flange or plain top, or special bell-shaped top with straps, and by all means the length and diameter at top and bottom.

Plain Tubes, each 45c. Bell Top Tubes, with strap, each 65c.

Gritco Hand Corn Planter

In the Gritco there is no chance of cracking the corn, beans or other seed, because of the Chinese bristle brush cut-off. The stamped steel slide is formed on a segment of the circle, whose center is the pivot of the blades. Slide quickly adjusted for different sized seeds. Galvanized iron hopper.

List, each, \$3.20. Retail, each, \$2.00.

Acme Hand Corn Planter

ITS ROTARY SLIDE has a motion two ways—back and forth. It prevents skips. No matter how short the stroke, the pocket is pushed into the corn and back into the conveyor tube.

This motion is positive. It breaks up all bridging and fills the pocket uniformly—it counts the kernels for each drop.

List, each, \$4.00.

Retail, each, \$2.50.

CHECK-ROWER WIRE FOR ALL THE LEADING PLANTERS.

Carry in stock the following sizes:
3 ft., 3 ft. 2 ins., 3 ft. 4 ins.,
3 ft. 6 ins., 3 ft. 8 ins., 3 ft. 10 ins. and 4 ft.

The above comes in 10, 20, 40 and 80-rod rolls. Per Rod, List, 10c. RETAIL, 8c.

BLACK HAWK ALTERNATING DRILL No. 76

For Altering Corn and Peas
or Corn and Beans

Planting cowpeas and soybeans along with the corn crop has been proven to be a good practice and is increasing in popularity.

When the corn is used for silage the peas or beans make a more complete and balanced ration than corn alone.

When the corn ears are to be harvested in the regular way, many farmers turn the cattle and hogs into the field to eat the bean plants after the corn is harvested, thus returning the valuable manure to the soil. The field will grow the two crops as well as one.

The Black Hawk Alternating Drills handle both seeds with one can, the peas or beans being in an inner compartment and the corn in the outer. This makes a neat appearing, convenient assembly. Separate spouts are provided for the corn and for peas or beans.

No. 76 Planter, \$27.50.

GRITCO STALK CUTTER

7-Blade, single row.....\$50.00
9-Blade, single row..... 55.50

Practically an all-steel frame machine, making it neat of construction and giving it ample strength. The wheels are all steel, with removable box and 2-inch tire. The lever is within easy reach of the operator and is connected with pressure spring

Without Hitch

which connects with the cylinder or knife heads, and with which can be produced an even pressure at all times on the knives.

Our Special Fertilizer Distributor

This cut shows Our Special Fertilizer Distributor, which has become very popular. It has a positive force feed, and will sow all kinds of fertilizer. It is made of the best material, and is practical. **OUR SPECIAL PRICE, \$22.50.**

For Raised Hopper add, \$1.50.

Planter Runner Shoe

Intended for use on most old worn-out runners where a new runner cannot be obtained, and it will answer the purpose, but where new runners can be had it is much preferable.

Per Pair, List Price, \$3.00. Our Special Price, \$2.00.

Black Hawk Corn and Cotton Planters

No. 128 is operated with an inside Pitman drive. This drive is direct and being placed within the frame cannot be damaged by bumping stalks, corn stalks, weeds, trash, etc. Gauge shoe is furnished as a part of the regular equipment.

No. 128—Plain\$22.50

Corn Planter Runner

In ordering Planter Runners always state, as near as possible, the year Planter was made; whether steel or wood frame; or, better still, a diagram showing position of hole and size of bend.

RUNNERS FOR SINGLE ROW PLANTERS.

	List Price Each.	Our Special Price Each.
For Rock Island	2.80	2.00
For Twentieth Century	2.80	2.00
For Empire	\$2.80	\$2.00
For Hench & Dromgold		
Daisy	\$2.80	\$2.00
For Hoosier	2.80	2.00
For Keystone, No. 6 1/2	2.80	2.00
For Farmers' Friend	2.80	2.00
For Evans	2.80	2.00
For J. I. Case	2.80	2.00
For Black Hawk	2.80	2.00
For Avery No. 27	4.00	2.75

For Double Row Planters.

	List Price Per Pr.	Our Special Price Per Pr.
For Janesville, Nos. 1, 5, 7 and 8	\$6.00	\$3.00
" Black Hawk, No. 1	6.00	3.00
" Black Hawk No. 3	5.50	3.00
" Black Hawk, No. 4	5.50	3.00
" Black Hawk, No. 5	5.50	3.00
" Deere, No. 999	5.50	3.00
" New Way	5.50	3.00
" Black Hawk No. 15	5.50	3.00
" Deere, No. 9	5.50	3.00
" International	5.50	3.00
" J. I. Case	5.50	3.00
" Evans' Steel Frame	5.50	3.00
" Evans' Wood	5.50	3.00
" Evans' Simplex	5.50	3.00
" Superior	5.50	3.00
" Hoosier, No. 10	5.50	3.00
" Hoosier, No. 11	5.50	3.00
" Tiger, No. 4	5.50	3.00
" Tiger, No. 10	5.50	3.00
" Bullseye	6.00	3.00
" Union Victor	6.00	3.00

New Way Corn Planter

One of the greatest features of the New-Way Corn Planter is that the "drop," or the number of kernels planted to the hill, can be changed instantly by simply a touch of the toe. With this planter it is not necessary to change the seed plates in order to change the drop from two to three or four as is true of other planters. By simply shifting a lever with the toe of the shoe the drop can be instantly changed as desired while the planter is in operation.

The Rotary Fork Reduces Wear

Another great advantage which the New-Way possesses over all other planters is its rotary or revolving forks. Unlike other planters, it throws practically no strain whatever upon the wire when in operation. The button on the wire is not compelled to operate the valves and dropping mechanism by forcing the forks back six or eight inches, as is usually the case. The only thing the button does with the New-Way is merely to "trip" the fork, or carry it about three-quarters of an inch.

One of the greatest defects common with other planters has been overcome by making our seed plates extremely large. They contain twenty cells each, almost twice as many as the ordinary planter plates contain.

The extremely large seed plates and the many other improved features of its dropping mechanism, if combined with only one style of drop, would give the flat and the edge drop in conjunction with

New-Way a decided advantage over all other planters. But by these other advantages, we have perfected a corn planter which is in a condition.

embodying both the flat and the edge drop in conjunction with is positively unequalled for accuracy of drop under every pos-

Plain Check Rower Planter.....	\$75.00	For Disc Furrowers add.....	\$5.00
Check Rower Planter with Fertilizer Attachment.....	\$97.50	For Automatic Marker add.....	2.00

No. 7 Twentieth Century Corn & Cotton Planter

WITH PRESS WHEEL ATTACHMENT

One of the features which makes the Twentieth Century Planter No. 7 so popular is the famous Double Pitman drive. Two strong driving arms, both inside the frame, drive the bevel gear under the seed box, which meshes into and drives the bevel gear at the bottom of the seed box, revolving the seed plates.

This drive is very simple, substantial and does the work right.

The frame is constructed from high carbon channel steel and is properly braced. The handles are adjustable to suit the operator.

Adjustable bail hitch is provided so that the drive wheel will always have proper traction.

The Twentieth Century will plant corn, cotton, kaffir corn, peas, beans and sorghum.

The corn plates used are the celebrated Rock Island combined edge and flat drop.

This planter is not built for fertilizer attachment.

Price \$22.50

Rock Island No. 7 Corn Drill

CONVERTIBLE EDGE OR FLAT DROP

The Rock Island No. 7, plants corn of all kinds, sorghum, kaffir corn, beans and peas. The Seed Box tilts forward to change the plates. You don't have to empty the box. This planter is strong and substantial, easy to handle, convenient in every way, reliable and accurate.

The steel wheel is strong, with broad concave tire.

To provide ample power when fertilizer attachment is used, we furnish driving lugs with the fertilizer attachment which can be quickly attached to the wheels if needed.

Handy foot trip throws machine in and out of gear, handles are adjustable and the hitch can be adjusted up or down as required.

The fertilizer attachment is driven by the same chain that drives the dropping mechanism. Easy to attach and adjust. The feed spout is behind the runner boot which permits the seed to be slightly covered and kept from direct contact with the fertilizer.

No. 7 Corn Drill without Fertilizer

Attachment \$22.50

No. 7 Corn Drill with Fertilizer

Attachment \$29.00

Gritco Broadcast

Lime Distributor

Lime Sower—Rear View

Note—Truss Rods, Self-Aligning Bearings, Right and Left Lever Throw for Broadcasting or Top Dressing

The cut-off slide moves easily in a groove in the cast-iron bottom plates. When the cut-off lever is moved to right all the feed holes are open for broadcasting. When the lever is moved to left of center, three holes only are open for drillir Box is full eight feet long; holds about ten bushels; will sow from 200 to 4,000 lbs. per acre, depending on conditi and kind of fertilizer.

AXLE—1½-inch cold rolled steel; has renewable bearings which are self-aligning. This prevents undue wear and lighte the draft. The distributors or feed wheels are fastened directly over the feed holes. Each distributor has five prongs. A ste agitator rod runs through the feed wheels, keeping fertilizer well mixed and preventing clogging or binding above the fee End castings are slotted, so that the clearance between distributors and feed plates can be adjusted. This and the lar five-pronged distributors are exclusive features and assure an even distribution of any quantity of material, in any conditi Oats, barley and similar grains can be broadcasted, as proper adjustment of scatter-board will insure even seeding a windy day.

Wheels are all steel, with wide concave tires to prevent sliding on side hill. They operate the axle with the universal used ratchet drive.

This Lime Sower is cheap only in price. We use the very best material obtainable. The few parts and simplicity of co struction enable us to make a superior machine at a reasonable price.

Stock sizes: 8-foot Box with pole, \$55.00;

General Features

HOPPER—Cast-iron ends project ing over and protecting ends of sid boards. Screws are put in across t grain; not in the end with the gra Truss rods on both sides, with brace rod and board in the cente make an exceptionally rigid constru tion. There can be no sag or war Axle and bearings cannot get out alignment, no matter how heavy t load or rough the land.

Two-piece cover secured wi heavy hinges, nicely fitted to ma the top rainproof. Hopper is fitt with two screens to sift out lum which might cause breakage or clo ging.

Scatter-board is adjustable. Wh clear down, fertilizer will drop rows six inches apart or can be rais and will broadcast evenly over str nine feet wide. Sides of box a steep, so contents will not stick clog.

Peoria Harrow Grass and Alfalfa Seeder

HARROW AND PLANT AT ONE OPERATION

Save Time—Save Labor—Save Speed

When renovating old turf or in new construc tion always harrow after seeding.

Harrowing loosens the top soil; opens up the turf so air and moisture can get in. Gives a healthier, sturdier, closer growing stand of long wearing sod. Lively up the soil, strengthens the plant roots so that divots will fill up quickly; worn and burned spots will come back in record time.

GIVES THE SEEDS A CHANCE

It cuts fairway seeding labor in half; makes power go twice as far—the only tool of its kind in the world.

Attaches to the even bar of any old or new, wood or steel harrow. Quickly detached by removing coupling pins. Need little storage space. Sows all grass seeds more uniformly than by any other method. Covers seed to proper depth. The ool tool that will not bury seed too deep. Force feed. Adjustable to any desired quantity. Seeds close to the ground. No sc tering or wastage from wind. Made in 10, 12, 15 and 16 foot lengths for 2 and 3 section harrows. Feeds are only 4 in. apa insuring even distribution.

Greens committees, superintendents and professionals are buying this new machine for the time it saves and the bet work it does. Revolutionizes work—cuts it in half. Pays for itself the first time over.

10 ft....\$27.00. 12 ft....\$29.25. 15 ft....\$32.50. 16 ft....\$35.50.

THOMPSON'S GOLF SPECIAL SEEDER

Golf greens, fairways and lawns must be seeded evenly to produce the desired uniform turf.

Thompson Golf Special Seeders are used on America's leading golf courses and private estates because they are speedy, accurate and economical. Wind or mud do not interfere with their accurate work because they sow close to the ground and cannot clog.

The light weight, perfect balance and few working parts appeal to the man who uses the seeder and permit him to do more and better work. Sowing by hand is slovenly and wasteful. The safe, sure and economical method is with the Thompson Golf Special Seeder.

For a large amount of ground to cover we suggest two or three of these Seeders, providing the job of seeding needs to be done quickly. Just when the ground is in the right condition to receive the seed.

No. 106 SEEDER, 10-ft. HOPPER complete; weight 60 lbs. \$22.00

PEORIA Wagon Fertilizer

Sows damp or dry lime Uniformly spreads 16f Force feed. No windag waste. No clogging. Dou double the work of the seeder—costs much les Attaches to wagon wit out removing endgate strengthens wagon bo No shifting. No clea ing or repair of cleas to attac Half the gears and sprocket Capacity 100 to 10,000 lb Fully guaranteed. Increas your profits. Low in pric Write for circular on this ar giv other new farm too

The spreading of Calcium Chlor and other materials on park drives a city streets to prevent excessive dus or salt to thaw sleet and ice—is acc plished equally as effectively by t machine as lime or other fertilizers farms. Numerous machines are new use for this purpose—all are giv highly satisfactory results.

Fairways of golf courses can be tre ed uniformly and economically with s phosphate of ammonia with equal succes Price \$50.00

Massey-Harris No. 7 Light Draft Manure Spreader

Low Down

Tight Bottom

Narrow Tread

Wide Spread

Well suited to dairy and hilly farms

Regularly supplied with 2-Horse Hitch but can be had with one for three horses if desired
Wheel Brakes for use in hilly country are available

All kinds of manures are handled to advantage with this machine. It has a tight bottom, is low down, is easy to load, is easy to draw and is narrow enough to be taken into the stable for loading from the gutters if desired. Besides, it is built according to a design which has proven to be both practical and efficient. It is well adapted to every use to which a spreader can be put and furnishes splendid equipment. The front bolster is made in trussed form from steel angles of 3 in. by 2 in. by 3/16 in. dimensions and is so placed that the wheels come directly under the load. It extends the full width of the box and is securely bolted to the side sills, thus forming an additional tie for the bed and giving the frame added strength.

A lathe cut cold rolled steel shaft 1 1/4 inches in diameter furnishes the rear steel axle which turns in large cast boxes that are bolted directly to the sills.

Auto truck at front. The front wheels track with the rear ones and are mounted in the front bolster on 1 1/2 in. cold rolled steel stub axles similarly to the front wheels of an automobile.

Abundant power for every condition is generated by the rear wheels, both of which are drivers. These wheels are 40 inches high with 5 1/2 inch flanged tires.

Two beaters and a wide spread distributor do the pulverizing and spreading. Friction is minimized by the use of self-aligning bearings.

Power for the beaters is furnished direct from a large sprocket by a heavy pin link chain.

An endless conveyor made up of two chains and several angle steel bars which are riveted to the chain, moves the load to the beaters.

By simply shifting the feed lever it is possible to spread at the rate of 8, 12, 16 or 20 loads to the acre as may be desired.

Price \$167.20

GRITCO STEEL BEAM DIVERSE CULTIVATORS WITHOUT LEVERS

These cultivators are also very popular in the South for cotton cultivation.

Each, List, \$16.00. Retail, \$10.00.	
Fenders for above, List, \$2.00. Retail, \$1.25.	
For Reversible Point Teeth, add per cultivator, List, \$1.60. Retail, \$1.00.	
Gauge Wheels, List, \$2.00. Retail, \$1.25.	

	EXTRA TEETH.	
	List Price.	Retail Price.
Plain	\$1.20	\$0.70
With Rev. Points.....	1.40	.80

WEEDERS AND ATTACHMENTS

By the use of Weeders much time and labor are saved and better crops grown. These weeders or shallow cultivators, as they are sometimes called, can be worked in dry or wet weather. They will not cut the roots of the crop, but cultivate just deep enough to retain the moisture where it is most needed. Use a weeder early and often, and you will be surprised at the results. It is a good policy to use the weeder after a heavy rain, when the ground has been beaten down, to avoid the forming of a hard crust which retards the growth and development of the crops.

GRITCO FLAT TOOTH WEEDER

7 1/2 FT.

GRITCO WOOD BEAM DIVERSE CULTIVATORS WITHOUT LEVERS

Each, List, \$13.00; Retail, \$8.00.
Fenders for above, List, \$2.00; Retail, \$1.25. For Reversible Point Teeth, add per cultivator, List, \$1.60; Retail, \$1.00.

	List Price.	Our Special Price.
7 1/2-foot Gritco Flat-Tooth Weeder....	\$22.00	\$13.50
9-foot Gritco Flat-Tooth Weeder....	26.50	16.25
Extra Teeth.....	.40	.30

O. K. CHAMPION POTATO PLANTER No. 22

The O. K. Champion No. 22 Planter is automatic in every detail; it needs but one man to operate it, a driver.

It will plant either cut or round potatoes as accurately as mechanical skill has yet been able to devise a planter.

It opens a V shaped trench for reception of the seed.

Planting is done by a system of cups on an endless chain which enters the seed hopper from below. Each successive cup takes a seed potato at the bottom of the funnel, carries it up into the down-spout where the seed falls on the back of the preceding cup, and is then carried down to within about six inches from the ground.

The driver sits in a position where he can oversee the entire work of the machine. All he has to do is to drive his team slowly and keep the two bushel hopper filled with potatoes.

No. 22 Plain Planter.....\$ 90.00

No. 22 Planter with Fertilizer Attachment..... 105.00

O. K. CHAMPION POTATO DIGGER

NO. 8

Weight 685 Pounds.

Send for Special Catalog.

The New No. 8 Digger, 22 inches wide, has been designed with the purpose in mind to give the farmer a Two-Horse Digger that embodies efficiency, lightness or draft, strength and durability. Steel is used in every place where it helps to reduce breakage and wear, thereby reducing the cost of upkeep.

It will get all the potatoes out of the ground under the most severe conditions of soil.

It is positively a Two-Horse Digger, pulls easily. It has a full floating axle that runs in roller bearings, the gear shaft likewise runs in roller bearings. Pressure Grease Cups are provided for both axle and gear shaft bearings.

Price, 22 inch Digger.....\$125.00

O. K. Champion Hand Pototo Cutter

Price\$4.00

Success Junior Potato Digger

PRICE \$13.50

The **SUCCESS JUNIOR POTATO DIGGER** does cleaner digging in one trip over the row, and the tubers are left in better condition for picking up. It greatly reduces the labor, and saves many potatoes.

Master's Rapid Plant Setter

All kinds of Plants, such as Cabbage, Tobacco, Tomatoes, Cauliflower, Strawberries, Sweet Potatoes, Sugar Beets, etc.. The only Hand Mechanical Plant Setter on the market; is built on scientific principles throughout. Its conical jaws are made of heavy sheet steel and the main body or water reservoir and plant tube of heavy tinned plate. The water valve is of brass with rubber packing. The valve rod and trip spring are of steel wire; thumb button and other fittings are also of brass. The machine is well put together with rivets and solder and should last for years.

Price, each.....\$6.00

Acme Tubular Hand Potato Planter

THE LIGHTEST TUBULAR PLANTER MADE.

Its spring-closed jaws are especially designed to enter the sod easily, yet open wide enough to drop the largest seed. The dropping lever or dump is adjustable for any depth of planting. The conveyor tube is galvanized iron.

OUR SPECIAL PRICE.....\$2.00

Directions for Using.—Walk erect, plunge planter into the soil, press forward as you withdraw it; seed is left in moist soil, not dry, as is usually the case when seed is dropped by one man and left to be covered by another.

THE GEM SEED POTATO CUTTER

The construction of the **Gem Seed Potato Cutter** is very simple, and is built for accuracy as well as convenience. It is strong and durable; the knives are of good quality steel and are fitted to grooves in frame, making them easy to remove if necessary. It will cut any size potato in pieces uniform in size, thereby insuring more accurate planting when power planter is used. **Size, 24 inches long, 8 inches wide. Weight, 8 pounds. List Price, \$8.00. Our Special Price, \$5.00.**

All bearings are held in positive alignment by a one-piece frame which is accurately bored in one operation by a lathe especially designed for the purpose, Power is evenly applied from both wheels, Strong, perfectly meshed gears transmit the power to the knife with comparatively no friction loss. Being made with large teeth, they wear long, Splendid balance obtains. The gearing is located back of the axle, where, aided by drawing the machine from beneath the pole, it successfully balances the cutting apparatus.

The knife works without clogging. Its head travels in a close fitting bearing on the inner shoe for which the head is specially milled and its sections are held to their work by a series of malleable clips.

Self-aligning pitman bearings, consisting of a double spoon at the lower end of the pitman which clasps the ball of the knife head and a double cone at the upper end which swivels in the pitman box, keep the pitman and knife properly aligned at all times.

A perfectly lined cutter bar enables the knife to work effectively. Both the guards and the bar itself are planed or milled to fit one another perfectly. This assures an alignment that is not otherwise possible to get.

The swathboard vibrates. It is controlled by a thick, flat, steel spring which imparts a vibratory motion to it and thus enables it to always clear a good track without bunching the hay.

Ample speed to cut clean. The speed of the gearing is such that the forward advance of the cutter bar is only about 1 3/4 inches for each stroke of the knife. Clean cutting is thus always assured and yet because of the high, broad-faced, well-lugged wheels, the perfect alignment of all parts, the splendid balance and the use of roller and self-aligning bearings, the draft is never excessive.

4 1/2 Ft. \$82.85
5 Ft. 84.10

Massey-Harris Two Horse Mower No. 22

Combined Plain and
Vertical Lift

Massey-Harris No. 11 One-Horse Mower

3 1/2 Ft. Vertical Lift \$79.10
4 Ft. Vertical Lift 80.25

This mower is especially designed for a strictly one-horse machine and well supplies the need of those who require one of that kind. It has ample weight and traction to cut all kinds of hay crops and yet, is of such construction that one horse handles it easily. Light draft is one of its salient features and in combination with power and durability, makes it good equipment.

Main frame is in one piece, accurately bored to hold the gears and shafting in positive alignment.

Roller bearings are used for both the main axle and the cross shaft where they reduce the friction to a minimum.

A simple, powerful gearing system located back of the main axle, where it counteracts the weight of the cutting apparatus, transmits the power to the knives through a crank shaft which is fitted with separate removable boxes—a brass one at the front and a self-aligning cast iron one at the rear.

Cutter bar is of cold rolled steel fitted with malleable guards and shoes all of which are carefully aligned to insure the knife working properly. Steel plates take the wear of the knife and malleable Caps hold it in line.

Convenient levers control the bar and enable placing it in any position that may be necessary. If desired, you can, by means of the raising lever, fold the bar to a vertical position without getting out of the seat. A simple automatic throw-out device, mounted on the bevel wheel shaft, works in connection with the lever.

Massey-Harris Steel Hay Rake

Strength, convenience of operation and efficient work in the field are pronounced features of this rake. It is built almost entirely of steel, is well adapted for both heavy and light hay and can be dumped either by hand or by an automatic trip controlled by the foot, as desired.

Stiff, steel angles are used for both rake head and the draw frame.

The trip rods of high carbon steel, in one piece, and are well supported.

The teeth are of special steel, oil tempered, and will interchange. A coil near their upper ends enables them to spring back and up without breaking when encountering obstructions.

The wheels are of steel, of good height and are mounted on removable steel stub axles which are securely fastened to the rake head.

	Price
8 Ft.—24 Tooth.....	\$42.20
9 Ft.—22 Tooth.....	43.45
10 Ft.—26 Tooth.....	45.95
12 Ft.—38 Tooth.....	58.15

Massey-Harris No. 3 Combined Side Rake and Tedder

Foundation is substantial. A very strong main frame of high carbon angle steel, well-braced and trussed, carries the raking cylinder in detachable, easy running bearings, and holds all parts in perfect alignment, giving the machine light draft and long life. Power is applied from both sides by two strong, steel main wheels of 46-in. diameter and with wide tires on which traction spuds are placed at frequent intervals.

Only three gears are used. A raking and a tedding gear on the main axle, working in conjunction with a bevel pinion on the axle of the raking cylinder, comprises the entire gearing system.

Quickly changed from rake to tedder. A convenient lever, having a range of three positions, controls the raking cylinder. Moving this lever to the forward position places the cylinder in gear at the lower speed of raking. Reversing its position—moving it to the rear—places the cylinder in gear at the higher speed for tedding. At the center position it holds the cylinder out of gear. These changes are practically instantaneous and can be made by the operator from the seat.

Lever adjustment for working height. At the rear the frame is carried by two strong castor wheels which can be quickly adjusted to carry it at any height desired. 9 1/4 Ft. **\$115.00**

Massey-Harris No. 5 Drop Deck Cylinder Hay Loader

This latest addition to the Massey-Harris line of warranted farm implements has already proven to be the leader of the new class of hay loading machinery. Has the Drop Deck feature now so greatly in demand by modern farmers. The deck has been built as strong as possible and is carried by an angle steel support which can be easily seen from the illustration. This method of support has proven to be the most successful yet designed. The sides and wind break hinge with the deck, and, by simply dropping the deck to its lowest position, you can store the machine in a shed with a clearance of only 8 ft. 10 in. By removing one pin the foreridge can be detached so that the loader can be stored in a building having a clearance of less than 7 ft. These are points of particular interest when you realize that the ordinary loader requires almost 11 ft. clearance for storage. Strong coil springs carry the deck and can be easily raised without getting down from the load. A special folder describing the machine in detail is yours for the asking.

Price \$120.

Massey-Harris Steel Hay Tedder

Good hay under the most adverse conditions is possible when the services of this implement are employed. It kicks up the swath into loose, fluffy mass through which the air circulates freely, with the result the curing process is hastened and hay of a high quality is obtained. And besides, it's built in such a way that it will give many years of satisfactory service.

Four steel angle frame sills, tied by a steel angle cross beam and two heavy steel pipes, finish the foundation.

It is built in two sizes, 6-fork and 8-fork and is regularly supplied with forks of the tines each.

High, interchangeable, steel wheels, with large hubs and wide channel tires (concave side out) give ample traction. Power is applied simultaneously from both sides.

6 Fork..... \$75.
8 Fork..... 85.
2 Horse Hitch with neck yoke..... 10.

MASSEY-HARRIS No. 5 GRAIN BINDER

You can rely upon this binder, absolutely, to withstand the hardest kind of work incident to the harvesting of a grain crop. It is built for use with either horses or tractors and is made to give you satisfaction in every respect. Right from its foundation up through every part of its structure it is built for service, the principle of its design is correct, none of the materials are skimmed and the manufacturing operations are most carefully performed.

Main frame is trussed like a bridge. Seldom in agricultural implement construction do you find a frame which has the strength and rigidity of this one. Lengthwise and crosswise, it is made up of a series of high carbon steel truss-like forms which are so arranged and united that the strength of each one is contributed to and supplemented by that of the others. Indeed, so substantially is it tied, trussed and reinforced at every supporting point there isn't the least chance of sagging, twisting or any other kind of distortion, and a positive alignment of all bearings is assured.

Roller and self-aligning bearings lighten the draft. Special care has been exercised to provide bearings that would insure light draft and long life. For both the main and the grain wheels for the cross and crank shafts, and for the rollers that drive the elevators, roller bearings in cages are used. Then, in addition, self-aligning boxes are provided wherever they are of advantage, as at the rear of the crank shaft, at the sprocket end of the inner platform roller, etc. Friction is minimized at every bearing point.

The platform is of good width for handling the different crops and is representative of great strength and rigidity. It is reinforced at the under side by angle steel ribs to which it is securely riveted and at the grain wheel end by a trussed construction—one of the strongest forms possible. It is also substantially reinforced where it connects to the main frame. These various reinforcements are further supplemented by a steel T cutter bar which prevents sagging and retains the alignment of the guards.

6 Foot with Bundle Carrier and 3 H Hitch	\$216.60
7 Foot with Bundle Carrier and 3 H Hitch	223.50
8 Foot with Bundle Carrier and Tongue Truck	249.70

MASSEY-HARRIS No. 3A CORN BINDER

Whether your corn is the large firm varieties which stand erect; the supple, spindly kind that often become lodged; or the short growths which are mixed with grassy bottoms, this machine will harvest it to your entire satisfaction. It is of an improved type and has several exclusive features of considerable merit outstanding among which is a wider range of adjustment for accommodating all heights and kinds of corn than is found in other machines of its class.

Built low with stable foundation. No corn binder of greater stability than this one is on the market.

The largest drive wheel used on a corn binder generates the power. This wheel stands 40 inches in height, has a 9-inch face, and is well lugged.

Cutting apparatus is simple and efficient. It consists of only two stationary knives, one on each side, and a single section sliding knife which is driven by a steel pitman.

No. 3A with Bundle Carrier.....	\$216.90
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ALFALFA BELTING

Alfalfa water-proof belting is a belt woven especially with a view of obtaining great tensile strength. Nothing but the finest long staple cotton is used.

	List.	Our Price.
2-inch, 4-ply.....	\$0.40 ft.	20c. ft.
3-inch, 4-ply.....	.51 ft.	25c. ft.
4-inch, 4-ply.....	.70 ft.	35c. ft.
5-inch, 5-ply.....	1.08 ft.	54c. ft.
6-inch, 5-ply.....	1.24 ft.	62c. ft.

We have been able to develop by the use of the best raw material obtainable, and by a direct system of impregnation a fabric belt, which has a breaking strain of 6,730 pounds per square inch, which is equal to, if not in excess of, the breaking strain of any belt that has been produced.

RUBBER BELTING

	List.	Retail.		List.	Retail.
3-in., 3-ply..	55c. ft.	33c. ft.	5-in., 3-ply..	\$0.87 ft.	53c. ft.
3-in., 4-ply..	65c. ft.	39c. ft.	5-in., 4-ply..	1.02 ft.	61c. ft.
4-in., 3-ply..	70c. ft.	42c. ft.	6-in., 4-ply..	1.22 ft.	74c. ft.
4-in., 4-ply..	82c. ft.	50c. ft.	Special Prices for		

Larger and smaller sizes on application.

POWER JACK

The **POWER JACK** is a simple and handy device for using the power of a Ford, Chevrolet, Overland or other light car to run power machinery.

It requires no special attachment to the car, but is applied by simply sliding it under the rear axle and raising both wheels clear of the ground as shown in the accompanying cut. Will develop more than 12 H. P. and will drive a saw, feed grinder, pump, fodder cutter, etc., satisfactorily. Driving pulley has 8 inch diameter and 6½ inch face.

Weight about 175 lbs. Shipped knocked down.

Price\$48.00

Raw-Hide Belt Lacing

	List Price.	Retail Price.
¾-in., per 100 ft.....	\$3.75	\$3.00
½-in., per 100 ft.....	5.50	4.40
⅜-in., per 100 ft.....	6.50	5.15
¼-in., per 100 ft.....	7.50	5.95

The H. & Z. Concrete Mixer

No. 1

No. 3

No. 4

Saves Cement and Insures Better Concrete
Eliminates Much Hard Work and Does a Better Job

Hand mixing is a hard, back-breaking job, and because it is difficult it is often slighted—the concrete is poorly mixed, cracks, crumbles and goes to pieces. To insure a good job the concrete should be mixed with an H & Z Mixer—and that is the most economical way in the end.

A Fast Working Machine

The H & Z Mixer will mix a batch of thoroughly mixed concrete in a minute or less. The drum is always revolving and as soon as any material is put into it the mixing begins. The revolving discharge insures a quick pouring of the entire contents of the drum, throwing out the heavy and lighter materials in an even flow and not draining off the water and sand first as would be the case in a stationary discharge.

No. 1 2½ cu. ft. capacity.....	\$34.00
No. 3 3½ cu. ft. capacity.....	70.00
No. 4 3½ cu. ft. capacity with 1½ H. P. Engine.....	176.00

National Block Machine

To produce this leader of Cement Block Machines, the "NATIONAL" was built on the INTERCHANGEABLE UNIT system so that each machine can be used for hand tamping or for power tamping. This enables anyone to start small by hand tamping and to expand gradually or to add to an operating plant without replacement, but by maintaining the original investment with every advantage.

Simplicity in the construction of equipment, as well as in its operation, is paramount and therefore is made INTERCHANGEABLE in preference to adjustable. By interchangeable we mean that the base and operating structure of the machine is always used, and the mold box and cores only are changed for blocks of varying wall thickness, etc. This is the simplest and most successful method. It eliminates the extensive use of bolts, nuts, and threaded holes of the

adjustable method, which through rust cause a great deal of trouble, when not breakage, and generally harder handling.

A Face-Down machine, making stronger and more perfect blocks, providing for the making of Ornamental and Fancy-face blocks.

It produces blocks of two core hole type, which are the most approved standard, in all standard sizes, shapes and faces.

Either wood pallets, which you can make yourself, or cast iron pallets, which we can furnish, may be used with the National Block Machine. Solid blocks may also be made on same, regardless of what type pallet is used.

Price, Less Hopper.....	\$195.00
Hopper Extra.....	30.00
Extras, Price on Application.	

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

CULTIVATORS AND HORSE HOE STEELS

	List Price.	Our Special Price.
No. 0—1½-in. Diamond Point Steel..	\$17.00 per 100	\$0.11 ea.
No. 1—2-in. Diamond Point Steel..	19.00 per 100	.12 ea.
No. 89—2½-in. Diamond Point Steel..	22.00 per 100	.14 ea.
No. 82—3-in. Diamond Point Steel..	24.00 per 100	.15 ea.
No. 83—3½-in. Diamond Point Steel..	26.00 per 100	.16 ea.
No. 84—4-in. Diamond Point Steel..	28.00 per 100	.18 ea.
No. 68—Oval or Jersey Point Steel..	32.00 per 100	.20 ea.
No. 10—Turn Shovel, right or left....	42.00 per 100	.26 ea.
No. 16—Turn Shovel.....	38.00 per 100	.24 ea.
No. 11—6-in. Sweep, about 7-in. across	50.00 per 100	.31 ea.
No. 11—8-in Sweep, about 11-in. across	56.00 per 100	.33 ea.
No. 12—Horse Hoe, Steel only, without shank, R. & L.....	57.00 per 100	.36 ea.

	List Price.	Our Special Price.
Horse Hoe, Steel, with Shank or Standard, per pair.....	\$2.00	\$1.25
Horse Hoe Attachments, complete, per set of three pieces.....	2.40	1.50
No. 18—6-in. Sweep, each.....	.48	.30
No. 18—8-in. Sweep, each.....	.54	.33
No. 18—10-in. Sweep, each.....	.60	.37
No. 18—12-in. Sweep, each.....	.70	.42
No. 18—15-in. Sweep, each.....	.84	.52
Wheels for Cultivator, each.....	1.50	.95
Levelers for Cultivators, each.....	1.40	.90
Cultivator Plate Bolts, 1½, per 100....	4.00	ea. .03
Cultivator Plate Bolts, 2½, per 100....	4.00	ea. .03
Cultivator Frame Bolts, per 100.....	4.00	ea. .03
Wheel Cultivator Clamps, each.....	.64	.40
Set Screw Cultivator Clamps, each.....	.60	.38
Teeth for Baltimore Combined Harrow and Cultivator, Diamond Shaped Steel, each.....	.22	.15
Cultivator Handles, finished with rod and round, per pair.....	2.40	1.50

All of the above goods are of the best steel and highly polished.

SHOVEL PLOW HANDLES

Finished, for Single or Double Shovel Plows, complete with round and rod, per set.....	\$1.50
Finished without round and rod, per pair.....	1.40
Finished and bored, right and left, each.....	.75

Steels for Riding Cultivators

WITH AND WITHOUT BACKS

For Round and Open Foot Shanks. For Brown, Brown-Manly, Buckeye and Deere Cultivators.

No. 5—Back for convex or open foot shanks.
The steel shown with No. 5 back is 5x11 straight top.

No. 2—Back for round shanks.
The steel shown with No. 2 back is 5x11 flared top.

This cut shows 3x10 reversible steel.

Back No. 2

Back No. 5

In ordering 5x11-inch Steels in less than sets of four, always specify whether wanted with straight top or flared top, and right or left hand.

STEELS FOR RIDING AND WALKING CULTIVATORS

	List Price.	Our Special Price.
1½x10½ inches, Reversible with Back.....	\$0.62	\$0.39
2 x10½ inches, Reversible with Back.....	.68	.42
2½x10½ inches, Reversible with Back.....	.72	.45
3 x10½ inches, Reversible with Back.....	.78	.49
3½x10½ inches, Reversible with Back.....	.80	.50
1½x10½ inches, Reversible without Back.....	.27	.17
2 x10½ inches, Reversible without Back.....	.28	.18
2½x10½ inches, Reversible without Back.....	.30	.19
3 x10½ inches, Reversible without Back.....	.32	.20
3½x10½ inches, Reversible without Back.....	.34	.22
5 x11 inches, With Back.....	1.20	.75
5 x11 inches, Without Back.....	.80	.50
5 x11 inches, Not Bored.....	.80	.50
1½x10½ inches, Bull Tongues, with Back.....	.72	.45
2 x10½ inches, Bull Tongues, with Back.....	.74	.46
2½x10½ inches, Bull Tongues, with Back.....	.76	.47
1½x10½ inches, Bull Tongues, not Bored.....	.40	.25
2 x10½ inches, Bull Tongues, not Bored.....	.42	.26
2½x10½ inches, Bull Tongues, not Bored.....	.44	.27

Spike Harrow Teeth

½ and 7-16 in., lb.....	8¼c
¾ in., lb.....	8c
¾ in., lb.....	7¾c

Special Price in Quantity.

STEELS

SIZES SHOVEL PLOW STEELS

For Single and Double Shovel Plows.

DRAG BLADES.
4"x7", 4½"x7", 5"x8"

D. S. BLADES
5", 5½", 6", 6½", 7" wide.
8", 10" and 11" long.

S. S. BLADES
All sizes from 8" to 19" wide by 11" to 16" long. In 1 and 2 hole.

CALF TONGUES—1½", 1¾", 2" wide by 8" long.
BULL TONGUES—1¾", 2" and 3" wide by 11" long.

Above can be furnished in 1 or 2 hole.

Full and complete line of polished steels for Single and Double Shovel Plows made in both one and two-hole styles. Genuine Malta Double or Single Shovel Plow Steels, per pound.....	12½
Farmers' Favorite Triple Shovel Plow Steels, per pound.....	.13
Farmers' Favorite and Double Shovel Plow Steels, per pound.....	.12
Bolts for Shovel Plow Blades, each.....	.05
Shovel Plow Fender.....	.75

**Lord Baltimore
Cultivator and
Horse Hoe**

FIG. 21

The same tool as shown in Fig. 20, with the addition of the Lever Wheel Attachment and Rear Wheel Depth Regulator. Weight, 80 lbs. List Price, \$18.00. Our Special Price, \$11.00.

LORD BALTIMORE CULTIVATOR AND HORSE HOE FIG. 20

Equipped with our latest improved **Hollow Pressed Steel Standards, Lever Expander and Outside Handle Braces**. Extra high Steel Frame. Standards are interchangeable, there being no "right" nor "left" as in the solid standards in general use.

The **Horse Hoe Standards** differ from the other three, and take either the regular Cultivator Teeth or Hilling Attachments. They have two holes to accommodate Hillers, and may be turned all the way around, thus giving any sideways angle desired. Hillers are reversible, and may be used with either point or rounded edge foremost. Weight, 60 lbs.

With Lever, List Price, \$14.00. **OUR SPECIAL PRICE**.....\$8.50

With Lever
and Wheel,
List Price,
\$15.50.

**OUR
SPECIAL
PRICE,
\$9.50.**

**Baltimore
Combined
Harrow and
Cultivator**

List Price, with-
out Lever, \$10.20.
Our Special Price,
\$6.35.

List Price, with
Lever, \$11.20. Our
Special Price
\$7.00.

Baltimore Combined Harrow and Cultivator

The teeth have four positions—first, position shown in cut, in which case can be used for working very close to small plants. Thoroughly pulverizes, throws no dirt on plants. Second position, as a straight tooth harrow. Third position, teeth can be arranged as a smooth harrow, with sharp points down, in order to cut and level surface. Fourth position, teeth can be set with sheared end down, being less liable to injure young plants.

Can be contracted to 9
inches and expanded to 21
inches.

Weight, 51 pounds.
14-TOOTH.

Oriole and
O. D. have
Plates
No. 89

SHOVEL PLOWS

The cost of these goods is not so much in finish as in the construction and material, these being the principal requisites in an implement.

Farmers' Favorite, single-shovel Plow. . . \$4.00
Farmers' Favorite, double shovel Plow. . . 4.50
Triple-shovel Plows, regular. 6.25
Extra Heavy three-shovel Plows. 6.50

These Cultivators
can be contracted to
about 9 to 10 inches,
and expanded to
about 26 inches.

WEIGHT
42 lbs.

wherever sold it becomes a favorite. Both have No. 89 plates.

Cultivator, plain	.....	List Price	\$9.00	Special Price	\$5.50
Cultivator with Lever	.....	.....	10.30	.....	6.25
Horse Hoe Attachments, complete, per set of three pieces	.....	.....	2.60	.....	1.60
Wheels for Cultivators, each	.....	.....	1.30	.....	.80

Old Dominion Oriole and Cultivator

The difference between Oriole and Old Dominion Cultivators is: The first has bent frame and the other has straight frame. The Old Dominion Cultivator is sold principally in Virginia and the South, and

GRITCO STEEL BEAM FOUR SHOVEL PLOWS

PRICE, \$7.10.

Both the Steel Beam and Wood Beam four shovel Plows are special favorites in the South, particularly in North Carolina and Virginia.

Three Shovel,
Steel Beam,
\$6.35.
Four Shovel,
Steel Beam,
\$7.10.

GRITCO WOOD BEAM FOUR SHOVEL PLOWS

Both Wood and Steel Beam are furnished with reversible plates.
PRICE.....\$6.50

The Original and Genuine "Malta" Iron Beam Single and Double Shovel Plows

Has 1 1/4 x 3/4-inch
Beam.

PRICE:

Extra Heavy
Double Shovel
Plow \$5.40

Extra Heavy
Single Shovel
Plow \$4.50

**ALL PRICES IN CATALOG SUBJECT TO CHANGE
WITHOUT NOTICE.**

15 TOOTH,
258 LBS.
17 TOOTH,
276 LBS.

GRITCO RUNNER SPRING TOOTH LEVER HARROW

15 TOOTH, \$28.50 23 TOOTH, 3 SECTION, \$41.00
17 TOOTH, 30.50 25 TOOTH, 3 SECTION, 42.50

An All-Steel, Low-Down Lever Spring Tooth Harrow with Renewable Steel Runners. 15 or 17 Teeth. Two Sections. The Frame is made of special "T" Steel forged in one piece. Renewable Steel Shoes are bolted on to the underside of the frame to take the wear, so that no wear comes on the frame itself. These shoes can be renewed at a slight expense, making the harrow practically indestructible.

The Teeth are made from the best Open Hearth Steel, finely tempered in oil and fully warranted, and can be instantly raised or lowered by means of the levers. As the point of the tooth wears, same can be lowered by adjustment on the tooth bars.

The Shape of the harrow is correct to make it run steadily and smoothly and permit the teeth always to work at a uniform depth: teeth can be easily raised or lowered, to transport from field. Construction is simple. It is durable and does not require a man and wrench to keep it in working order.

GRITCO LEVER WHEEL HARROW

The Main Frame is constructed entirely of double "I" steel of high carbon. The frame surrounds the teeth, and there are no projecting parts to engage obstruction. Cross Bars are 1 1/4-inch structural tubing, and have no holes drilled through them; compression clamps instead of bolts being used for fastenings.

The Arrangement of Teeth—The front bar carries four, middle bar six, and rear bar seven teeth in the 17-tooth machine. Best arrangement possible.

Teeth are of regulation size, 1 3/4 inches wide, 1/4-inch thick, are made of best quality of spring steel and fully guaranteed against imperfection.

Tooth Holders—By our method of constructing tooth holders, or clamps, teeth may be readily adjusted and kept in line.

The Carrying Wheels are constructed with broad rims and the bearing surfaces are chilled. The Lever Racks are strong and durable, being made of malleable iron. It is painted with a heavy coat of green paint.

15 TOOTH.....\$30.00	19 TOOTH.....\$35.00
17 TOOTH.....\$32.00	23 TOOTH.....\$43.50

THE BUTTS REVERSIBLE HARROW TOOTH POINTS

Can be used on all Spring Harrow Teeth.
List Price, 42c. Price, each, 25c.
Osborne. List, 34c. Our Price, 20c.
Deering. List, 34c. Our Price, 20c.

SYRACUSE REVERSIBLE HARROW TOOTH POINTS.

List Price, 32c. Retail Price, 20c.
Michigan List Price, 45c. Retail, 25c.

ACME OR

GRITCO PULVERIZING HARROW

No. 26
16-Blade
Flexible
\$33.00

This Pulverizing Harrow will pulverize either light or heavy soil, and do it better than other harrows. The action of the blades is to pulverize the soil and at the same time put the ground in a smooth condition, thus producing an ideal seed bed.

It produces the work of a disk and spike tooth harrow. It can be adjusted by the use of the lever to any desired depth, and will not drag out the filth, but cut it up underneath where it will rot and improve the soil.

It is the lightest weight and lightest draft harrow on the market.
No. 6—12-Blade Riding Harrow.....\$24.00
No. 5—8-Blade Riding and Walking Harrow..... 20.00
No. 3—6-Blade Walking Harrow..... 13.50
Coulters or Blades..... .75

SPRING HARROW TEETH

For All Leading
HARROWS.

Price.....55c. each

When taken in full sets, special price.

WOOD FRAME HARROW, STEEL LINED

Lined, Guarded, Protected Bolt Heads, Perfect Tooth Seat. The best of "Wood Frame" Harrows.

16-Tooth Harrows.....	22.00
18-Tooth Harrows.....	18.00
20-Tooth Harrows.....	20.00
22-Tooth Harrows.....	22.50
24-Tooth Harrows.....	25.00

Made in 25 and 30-tooth section and with 9/16-in. teeth.

Style E

Gritco Guarded Frame Lever Harrow

The U-bars, channels, oscillating bars and teeth are made of high carbon steel. The channels, being placed at the ends of the U-bars, prevent them from catching on obstructions, as is frequently the case with the open-end harrow. Strong and well made, but carrying no superfluous weight. Corner braces, oscillating castings, and lever castings of malleable iron. List Our Price. Price

25-Tooth Harrow, 9/16-in. Teeth; Weight, 190 lbs. .	\$14.40	\$8.75
50-Tooth Harrow, 9/16-in. Teeth; Weight, 195 lbs. .	33.50	20.25
60-Tooth Harrow, 9/16-in. Teeth; Weight, 215 lbs. .	37.70	21.75
75-Tooth	52.80	31.75
90-Tooth	59.30	35.75

BALTIMORE DOUBLE HINGE HARROW

	List Price.	Our Price.
40-Tooth	\$27.00	\$17.00
50-Tooth	30.00	18.00

This is a two-section, wood-frame, spike tooth Harrow. The runners, as seen in the cut, are intended to be used in carrying the Harrow from one field to another.

GARDNER'S HARROW

This Harrow is similar to the Baltimore Double Hinge Harrow, noted above, only it is made in one section instead of two. It is designed to be used with one horse. We furnish this harrow with 30 teeth, which cuts 4 feet 6 inches wide, and with 25 teeth, cutting 3 feet 8 inches wide.

25-Tooth	\$16.00	\$10.00
30-Tooth	17.00	11.00

CRITCO WOOD BAR LEVER HARROW

Bars of heavy seasoned oak, riveted at each tooth. Teeth headed and made from best quality steel. Framed painted red, teeth black; combination draw bars furnished for two, three and four-section harrows when ordered. List Our Price. Price

No. 2450—2-Section, 50-9/16-inch Teeth	\$40.00	\$25.00
No. 2560—2-Section, 60-9/16-inch Teeth	43.50	27.50

Massey-Harris Spike Tooth Harrow

Service of a lasting order is built into this simple implement just the same as it is into the Massey-Harris machines that are far more complex. High carbon steel predominates throughout the construction and all the parts have ample stiffness both to retain their shape under real hard usage and to resist the twisting strains to which they are subjected in field operation.

Stout Frame Sections. Two end bars made from steel channels, five cross bars made from steel "U" bars and a wide steel centre bar make up the frame sections. The channel bars tie the cross or tooth bars at their ends, hold them in line and prevent them from catching trash. The center bar acts as an additional tie for the cross bars and also furnishes support for the shifting lever ratchet. At the left rear corner of the sections and at the right front one a stout brace of malleable iron is used. The arrangement of the cross bars is such that although each of them has the same tooth spacing none of the teeth trail.

Strong tooth fastening. Each tooth is held in place by a U-shaped steel clamp and one bolt. The clamp furnishes a double bearing for the tooth, around which it fits snugly at two points and sets in the "U" of the bar so that the back edge of the tooth is brought up tightly into notches provided for the purpose in the two bar edges. The tooth is thus rigidly held at four points. Sufficient clearance is provided between the clamp and the bottom of the "U" of the tooth bar for taking up wear.

Flexible construction. The tooth bars are joined to the end bars in such a way that they can hinge perfectly and still permit each frame section to conform to the lay of the land. The harrow thus given ample flexibility to work successfully in all fields. This flexibility is increased by the method of hitching the sections to the draw bar wherein each one is attached separately. The position of the teeth in relation to the surface of the ground is controlled by a lever on each section and is easily and quickly changed. At the four corners of each section a runner tooth is placed to facilitate transportation to and from the field.

50-Tooth	\$19.50	60-Tooth	\$22.00	75-Tooth	\$31.00
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Clark
"CUTAWAY"

BUSH AND BOG PLOW AND HARROW

On many farms are fields lying out as waste, simply because their owners do not now how cheaply and quickly they may be put under cultivation. The old, expensive and-labor method is no longer necessary. Much work that could be done heretofore only by slow, tedious and hard labor with an axe and bush-knife, shovel and pick, can now be done with the CLARK "CUTAWAY" Bush and Bog Plow and Harrow.

For cutting brush land and cut-over timber land, for plowing bogs, or for doing any extraordinary hard plowing and disking the CLARK "CUTAWAY" Bush and Bog Plow and Harrow stands in a class absolutely by itself. It will subdue rough land that can not be worked with ordinary implements. This is not a new, untried machine; it has been on the market for more than thirty-five years. Thousands of acres of virgin land have been turned into productive farms with this remarkable implement and new uses are being found for it constantly.

Land reclaimed by the Bush and Bog Plow and Harrow pays over and over. An increased value alone, the cost of the machine, time and labor. This moreover does not end the usefulness of the machine, for it can afterward be used for any regular tillage and is especially good for disking heavy stubble such as corn. Among those farmers and orchardists who till unusually deep it is used for general cultivation. Since tractors have come into general use, the Bush and Bog Plow and Harrow has become very popular as an orchard implement or chopping up sod and disking in cover crops.

The late model tractor machine has heavy angle steel frame, and the large steel weight box which is furnished as an extra at a very low price is strongly recommended. Either lever or screw control will be furnished at the same price.

The disks on an implement subjected to such extraordinary abuse as the Bush and Bog Plow and Harrow must be of the very highest quality, and that is another reason for insisting upon a genuine CLARK "CUTAWAY" Implement

TRACTOR BUSH AND BOG PLOW WITHOUT WEIGHT BOX

Junior Bush and Bog Plow and Harrow

This implement is made for the farmer who has only two horses available but needs an implement to do the same kind of work as the large four-horse or tractor-type Bush and Bog Plow and Harrow. The Junior Machine is constructed exactly the same as the larger type so an extra illustration is unnecessary. But the Junior size instead of having 24-in. disks is equipped with 8 20-in. disks, and all other parts of the implement are correspondingly lighter. Long pole, two-horse doubletrees and neckyoke make up regular equipment. This machine is furnished with lever for adjusting the gangs and has a seat. The frame is of heavy first grade hardwood. It can be equipped with tractor hitch in place of the two-horse hitch on special order at the same price. Tongue Truck equipment can also be supplied if preferred.

4-H BUSH AND BOG PLOW AND HARROW

TRACTOR BUSH AND BOG PLOW WITH WEIGHT BOX

with the famous forged-edge disks of cutlery steel which are also heat-treated. Cut-out disks are regular equipment and are recommended for quickly and thoroughly chopping up the toughest kind of soil, but if the purchaser has a personal preference for solid disks, they can be supplied for the same price. Oiling is done through the hollow standard by means of spring cap oil cups. Bearings are of oil-soaked hardwood which have long been demonstrated to be the best bearings for disk implements.

For many years before tractors were used, the CLARK "CUTAWAY" Bush and Bog Plow and Harrow was sold in large quantities for horse use and many horse-drawn machines are still used. The small illustration below shows the implement equipped with long pole and four-horse hitch which includes double neckyoke. The frame on the horse-drawn tool is made of heavy selected oak. Four fairly good horses are required but where only two horses are available the Junior Bush and Bog Plow and Harrow can be used. The horse-drawn Bush and Bog Plow and Harrow can be furnished with a tongue truck, stub pole, and four-horse eveners if preferred at slight cost.

A Fordson Tractor can easily handle the regular Tractor Bush and Bog Plow and Harrow with 8 24-in. disks. A new size has just been added to the line for 15-30 tractors, having 12 24-in. disks.

A transport truck for transporting the implement from one field to another can be furnished as an extra

SIZES AND SPECIFICATIONS

TRACTOR BUSH AND BOG PLOW AND HARROW

No. of Disks	Diam. of Disks	Width of Cut	Frame	Wt.	Retail Price
8	24-in.	5 1/2 ft.	Steel	655.....	\$110.70
Steel Weight Box, Extra				90.....	6.00
12	24-in.	8 ft.	Steel	915.....	175.95
Steel Weight Box, Extra				100.....	7.00

4-HORSE BUSH AND BOG PLOW AND HARROW

No. of Disks	Diam. of Disks	Width of Cut	Frame	Wt.	Retail Price
8	24-in.	5 1/2 ft.	Wood	680.....	\$110.70

JUNIOR BUSH AND BOG PLOW AND HARROW

No. of Disks	Diam. of Disks	Width of Cut	Hitch	Wt.	Retail Price
8	20-in.	4 1/2 ft.	2-h	440.....	\$ 73.30

Clark

"CUTAWAY"

SINGLE ACTION DISK HARROW

The **CLARK "CUTAWAY"** Single Action Harrow will appeal to the practical farmer who wants a harrow that will give him the greatest amount of work with the least draft and with the least cost. Note in the illustration that the head is built directly on top of the gangs, with the tongue, seat, braces and levers all fastened to it, thereby making the disks carry the entire weight of the machine. This construction gives such perfect balance that there is practically no weight on the horses' necks, and makes the use of a tongue truck a matter of choice. Without the tongue truck the hitch is placed back close to the machine and the draft is the very minimum. The illustration below shows the Single Action Harrow equipped with the **CLARK "CUTAWAY"** Tongue Truck.

There is no heavy truss construction forward of the gangs which would tip the harrow down in front, thereby increasing the draft. Instead of power being wasted in lifting the harrow out of the ground, it is all utilized in pulling the harrow in a horizontal direction and allows the machine to "take" the ground. The weight of the driver and most of the entire weight of the machine is carried by the disks themselves, increasing the efficiency of the harrow by the weight forcing the disks into the ground.

The gangs on the **CLARK "CUTAWAY"** Single Action Harrow can be swung end for end, so that the soil may be thrown either out or in. To reverse, it is only necessary to pull the cotter pins that hold the lever links, drop the links, swing the gangs around and reattach links. This reversible feature is especially valuable in orchard work for it enables the fruit grower to throw the soil towards his trees or pull it away. On account of the way the harrow is built the reversing feature does not increase the cost nor does it necessitate buying a special harrow.

The fact that a tongue truck is not absolutely necessary on a **CLARK "CUTAWAY"** Single Action Harrow means a saving of several dollars as well as giving the advantages described above. The steel head forms a weight box so weight can be added without the necessity of spending more money for weight pans as extras. Harrows can be furnished with wood heads instead of steel at a slight reduction in price.

One of the outstanding features of all **CLARK "CUTAWAY"** Harrows is the quality of the disks. They are made of better steel than used in ordinary harrow disks but their strength and wearing qualities are greatly increased by forging the edge and heat-treating. **CLARK "CUTAWAY"** disks are the only ones that have forged edges; this forging process makes a hard tough edge which will not bend, crack or chip. Cutout disks are regular equipment but solid disks will be furnished at the same price. At the left is illustrated the eight-disk size harrow with solid disks.

Below are listed the more popular sizes although there are some larger sizes made and also any of these harrows can be purchased with different hitches than listed at a slight variation in price.

Size	No. of Disks	Diam. of Disks	Width of Cut	Hitch	Wt.	Retail Price
A-4	8	16-in.	4-ft.	2-h	255	\$42.30
A-5	10	16-in.	5-ft.	3-h	295	49.90
A-6	12	16-in.	6-ft.	4-h	350	56.65
A-7	14	16-in.	7-ft.	4-h	460	64.35
X-4	8	18-in.	4-ft.	2-h	300	46.35
X-5	10	18-in.	5-ft.	3-h	350	54.35
X-6	12	18-in.	6-ft.	4-h	430	64.85
Extra for Tongue Truck						
						11.75

Single Action Harrow--Extension

The importance of thorough orchard tillage is now so well recognized among fruit growers that they want tillage implements which will give them not only the highest quality of work but which will also cover the maximum amount of area possible. In orchards where the trees are headed low ordinary disk harrows can do only part of the work.

Size	No. of Disks	Diam. of Disks	Width of Cut	Hitch	Wt.	Retail Price
A-4	8	16-in.	6-ft.	2-h	280	\$44.55
A-5	10	16-in.	7-ft.	3-h	320	52.20
A-6	12	16-in.	8-ft.	4-h	395	60.70
X-4	8	18-in.	6-ft.	2-h	340	48.90
X-5	10	18-in.	7-ft.	3-h	385	57.20
X-6	12	18-in.	8-ft.	4-h	460	67.85

Solid or cutout disks will be furnished at the same price.

One Horse Disk Harrows

The Utility Harrow as is true of the other **CLARK "CUTAWAY"** One Horse Disk Harrows, is designed and constructed special for one-horse requirements.

While the harrow is light and easy to handle, at the same time it is a very sturdy machine and does a thorough job of disking. It is particularly popular among truck farmers and market gardeners.

The **CLARK "CUTAWAY"** Utility Harrow has 10 14-in. disks, cuts 4 feet wide. The gangs can be reversed in the same manner as the larger Single Action Disk Harrows described above. One handy lever easily sets the gangs at different working angles. The frame is of angle steel construction and all parts are of the same high quality as in a other **CLARK "CUTAWAY"** implements. Disks are of heat-treated cutlery steel with the edges forged sharp. Cutout disks are regular equipment but solid disks will be furnished at the same price.

No. of Disks	Diam. of Disks	Width of Cut	Hitch	Wt.	Retail Price
10	14-in.	4-ft.	1-h	200	\$34.00

CLARK "CUTAWAY" DOUBLE ACTION TRACTOR DISK HARROWS

The CLARK "CUTAWAY" Double Action Tractor Harrow was the first disk harrow built specially for tractors. Purchasers of tractor disk harrows should make sure that they get a machine that is constructed specially for tractor use and not simply a horse-drawn harrow with tractor equipment. While the harrow may be of similar design as a horse-drawn harrow, it should, however, be made of heavier material, have more standards and be strongly braced to withstand the more severe strain caused by tractor power.

The CLARK "CUTAWAY" Double Action Tractor has all of these qualities, but at the same time is a light draft machine both on account

of its type of construction and because it is not exceptionally heavy due to the fact that lightness and ample strength secured by the use of good material.

This tractor disk harrow is built along the same lines as the famous Double Action horse-drawn harrow illustrated and described below. Be sure to read this description so you will be acquainted with these exclusive features which make for more thorough work but with surprisingly light draft.

Cut out disks are regular equipment but solid disks will be furnished at the same price or any combination of the two types of disks. Both kinds are of Cutaway quality being made of high grade steel, heat-treated and with the edges forged sharp. Harrows will be equipped with levers or with screw control as preferred, at the same price.

The unit main frame construction forces the rear disks to cut exactly half way between the front disks at all times, and also makes the front and rear disks cut the same depth and do the same amount of work. The new channel steel pole equipment and the improved special hitch give ample flexibility and easy turning without sacrificing the indispensable value of the unit frame construction.

SIZES AND SPECIFICATIONS

Size	No. of Disks	Diam. of Disks	Width Cut	Weight	Retail Price
C-4	16	18-in.	4½ ft.	585	\$ 92.10
C-5	20	18-in.	5½ ft.	675	108.45
C-6	24	18-in.	6½ ft.	835	120.00
C-7	29	18-in.	7½ ft.	965	130.00
C-8	33	18-in.	8½ ft.	1085	165.00
C-9	37	18-in.	10½ ft.	1506	210.00
A-6	24	16-in.	6½ ft.	790	113.50
A-7	28	16-in.	7½ ft.	910	122.40

The farmer who realizes the value of thorough tillage and wants a harrow that saves time, saves horses and gives long service, will appreciate the superiority of the CLARK "CUTAWAY" Double Action Harrow. Letters from farmers who have received twenty years' service, and more, from their CLARK "CUTAWAY" Double Action Harrows, testify to the long life and satisfactory results given by these good harrows.

CLARK "CUTAWAY" Double Action Harrows are known for their light draft as well as for the amount and quality of work they do. Notice in the illustration how all four gangs of disks are attached to one main frame. This unit main frame construction makes a very compact machine. The front and rear gangs of disks are close together and the horses are hitched close to the harrow, all of which means light draft. More important still, the rear disks must always cut exactly half way between the front disks. As the disks are spaced six inches apart, this means there is a disk cutting the soil every three inches; the front disks throwing out and the rear disks throwing in. You can easily see that this means the most thorough pulverizing you can possibly get with a disk harrow. Such results cannot be obtained with a loose-coupled tandem harrow which permits the rear disks at times to trail in the tracks of the front disks.

The harrow is self-supporting so no tongue truck is necessary. The pole is jointed so there is no weight on the horses' necks, but the doubletrees can be moved forward and the harrow used without the tip pole if desired.

SIZES AND SPECIFICATIONS

Size	No. of Disks	Diam. of Disks	Width Cut	Hitch	Wt.	Retail Price
A-3	12	16-in.	3½ ft.	4-h	385	\$59.95
A-4	16	16-in.	4½ ft.	4-h	465	77.85
A-5	20	16-in.	5½ ft.	4-h	570	89.50
A-6	24	16-in.	6½ ft.	4-h	630	97.35

Solid or cutout disks will be furnished at the same price or any combination of the two types, but cutout disks are regular equipment unless otherwise ordered. These harrows are also made with 18-in. disks and different hitches can be obtained on any sizes. Prices on application.

Double Action Disk Harrows

For Horses

Orchard Disk Plows For Horses and Tractor

The illustration at the left shows the CLARK "CUTAWAY" horse-drawn Orchard Plow which has been so popular among fruit growers throughout the country for more than thirty years. It may be familiar to some as the California Orchard Plow which it was called until recently.

The machine is built to reach out underneath low-hanging branches where it is not possible to cultivate with ordinary implements. The flat coulter disks and the steering wheel absorb the side thrust and keep the machine running straight. These implements can be furnished with extension head which increases the reach of the plowing gang by two feet. Specifications of the three sizes are given below.

The Tractor Orchard Plow is built along the same lines as the horse-drawn machine. It is constructed much heavier throughout and has a galvanized sheet iron shield. There is a large under-slung weight box at the rear. The machine measures ten feet wide over all and specifications are given below. Send for special folder describing these implements in detail.

SIZES AND SPECIFICATIONS

Size	Plowing Disks	Coulter Disks	Width of Cut	Hitch	Wt	Retail Price	Plowing Disks	Coulter Disks	Width of Cut	Weight	Retail Price	
No. 3	3, 22-in.	2, 17-in.	24-in.	2-h	340	\$54.75	6, 22-in.	4, 18-in	36-in.	775	\$125.00	
No. 4	4, 22-in.	3, 18-in.	30-in.	2-h	410	69.00	Same machine without tree guard					115.00
No. 5	5, 22-in.	3, 18-in.	36-in.	2-h	440	74.65						

BALTIMORE GARDEN BARROWS

Made of seasoned wood, double frames, firmly bolted, iron braced.

No. 4, MEDIUM SIZE OR MAN'S BARROW.

Inside measurement of box—Width at wheel, 19½ inches; depth, 11 inches; width at handles, 23¾ inches. Length of handles, 48 inches; wheel, diameter, 18 inches; tire, 1¾x3-16-inch. Sides painted green, balance of barrow red, sides striped. Weight, 50 lbs.

Steel or Wood Wheel, List Price, \$12.00. Our Special Price, \$7.50.

No. 5, LARGE SIZE OR MAN'S BARROW.

Inside measurement of box—Width at wheel, 21 inches; depth, 12 inches; width at handles, 23¾ inches. Length at handles, 51 inches. Wheel diameter, 18 inches; tire, 1¾x3-16 inches. Weight, 60 lbs. Finished as above.

Steel or Wood Wheel, List Price, \$13.00. Our Special Price, \$8.00.

No. 1 SPECIAL GARDEN BARROW

Size—30 inches long, 24 inches wide in front, 25 inches in back. Sideboards—12 inches high, 30 inches long. Handles—5½ feet long, 2¾x1¼ inches. Wheel—21 inches diameter, 6 spokes. Hub—3-inch diameter in center. 2-inch diameter at ends.

No. 1 Barrow, with 1½-inch tread. Weight, 60 lbs. Six crated in one package, 56½ cubic feet.

Steel or Wood Wheel, List Price, \$14.40. Our Special Price, \$9.00.

THE BALTIMORE CANAL BARROW

Full-sized tray, edges shaved, bolted to legs and well bolted and braced in front. Handles and legs of selected hardwood, wheels

Steel Wheel, List Price, \$8.00. Our Special Price, \$5.00. painted. Furnished in steel wheel.

Weight, with steel wheel, 48 lbs.

THE PLAIN BOLTED CANAL BARROWS.

Ordinary size; bent tray; legs bolted to handles and well braced. Furnished with steel wheel. Weight, with steel wheel, 45 lbs.

Steel Wheel, List Price, \$6.40. Our Special Price, \$4.00.

SOLID PRESSED STEEL TRAY BARROW

No. 100

Malleable iron wheel; channel steel legs; improved steel nose guard; tray riser and dash straps.

List Price, \$10.80
Our Special Price, \$6.75

RIVETED STEEL TRAY BARROW

No. 333

Riveted steel tray with channel steel legs; malleable iron wheel, improved steel nose guard, tray riser and dash straps.

Capacity, 4 cubic feet; weight about 65 pounds.

List Price, \$11.60 Our Special Price \$7.25

ALL STEEL BARROW

No. AX All-Steel Tubular Frame Barrow.

List Price....\$10.00

Our Special Price, \$6.25

TUBULAR FRAME SOLID PRESSED STEEL TRAY BARROW

No. A4—Tray 15 gauge steel; capacity, 3 cu. ft.; weight 70 pounds; wheel, 17 in. diameter; tire, 1¾x½ in. nine 9-16 in. spokes, shouldered and riveted; axle, ¾ in. For moving earth, ashes and light work.

List Price, \$11.20 Our Special Price..... \$7.00

No. B5—Tray, 14 gauge steel; capacity, 5 cubic feet; weight 85 lbs.; mounted on same frame and wheel as No. 4. For general purposes and light running. It will stand hard usage.

List Price, \$13.20 Our Special Price..... \$8.50

WHARF OR OYSTER BARROW

Top is iron-banded, strongly braced and bolted; 3 bushels capacity; weight, 60 lbs.

Steel Wheel, List Price, \$14.00.

Our Special Price, \$8.50.

Solid Pressed Steel Tray Coal and Coke Barrow No. 10

One-piece tubular steel frame extending around front of wheel. Frame strongly braced and well rounded. Tray of best quality steel, with wired edge. Size No. 10—Gauge of steel in tray, 13; length of top of tray, 41½ in.; width of top of tray, 33 in.; depth of wheel, 12 in.; depth at handle, 6 in.; capacity, 6 cubic feet; weight, 110 lbs. **List Price, \$15.60. Retail, \$9.75.**

Steel Wheels. **List Price, \$4.00; Retail, \$2.50.**
Extra Trays. **List Price, \$11.50; Retail, \$6.75.**

Straight Handle Stone Barrow

Strong, well made, iron strapped over bottom, and well bolted together. Handles 6 feet long; legs, 12 inches long; bottom, 1½ inches thick by 23 inches wide by 27 inches long; dash, 10 inches high; weight, 54 pounds. **List Price, \$13.60; Retail, \$8.25.**

Straight Handle Brick Barrow

List Price, \$17.20. Retail, \$10.75.

Plain Platform Truck

We are prepared to quote special prices on Trucks of every description. If you want anything special, write us for prices.

No.	Size of Platform.	Diam. Wgt. Whts.	Lbs.	Ins.	List.	Retail.
2	2 ft. 4 in. by 3 ft. 4 in.	100	7½		\$33.60	\$21.00
3	2 ft. 6 in. by 3 ft. 6 in.	115	7½		36.00	22.50
4	3 ft. by 4 ft.	125	8½		40.80	25.50

Can furnish Special Trucks at lowest prices; also Truck Wheels. Write for prices.

Improved Four-Wheel Platform Truck

For Can-
ing House,
Railroad
Stations and
Warehouse.
Cheap
strong and
well made.

Size Platform	Diam. Whts.	Diam. Caster	Weight	List	Retail
No. 1—2x4 ft.	12 in.	6 in.	152 lbs.	\$48.00	\$30.00
No. 21—3x5 ft.	18 in.	9 in.	255 lbs.	72.00	45.00

Concrete and Mortar Barrow

Made especially to carry a full load of soft concrete or mortar without slopping

4 cubic feet.

Weight, 75 lbs.

No. 115—Deep, Narrow Tray, straight front	\$12.00	\$ 7.50
No. 444—Deep, Narrow Tray, rounded front and corners	12.40	7.75

EXTRAS FOR BARROWS.

	List Price.	Our Spec'l Price.
Wood Wheels for Nos. 4 and 5 Garden Barrows	\$4.00	\$2.50
Steel Wheels for Nos. 4 and 5 Garden Barrows	3.50	2.25
Wood Wheels for No. 1 Garden Barrow	4.50	3.00
Steel Wheels for No. 1 Garden Barrow	4.00	2.75
Steel Wheels for Nos. A4 and B5 Barrows	3.50	2.25
Steel Wheels for Solid Pressed Steel Tray Barrow	3.50	2.25
Steel Wheels for No. 10 Barrow	4.00	2.50
Wood Wheels for Canal Barrow	3.00	2.00
Steel Wheels for Canal Barrow	3.60	2.00
Tray—No. 4 (All Steel Barrow)	8.00	5.00
Tray—No. 5 (All Steel Barrow)	9.00	5.75

BALTIMORE STORE TRUCK.

STORE TRUCKS

Baltimore Store Trucks

LIST PRICE, \$6.50.

RETAIL, \$4.00.

NEW YORK PATTERN

HALF STRAPPED.

No.	List Price.	Retail Price.
No. 1	\$11.76	\$ 7.50
No. 2	13.44	8.50
No. 3	16.16	10.10
No. 4	19.36	12.10

FULL STRAPPED.

No.	List Price.	Retail Price.
No. 1	\$13.04	\$ 8.75
No. 2	14.40	9.00
No. 3	16.80	10.50
No. 4	20.48	12.80

BARREL AND WESTERN PATTERN TRUCKS. PRICE ON APPLICATION.

NEW YORK PATTERN.—SIZES.

	Length Handles	Width Nose	Width at Upper Bar	Diam. Whts.	Weight
No. 1	4'0"	12½"	18"	8"	42 lbs.
No. 2	4'5"	14"	19½"	9½"	44 lbs.
No. 3	4'8"	15"	21"	9½"	72 lbs.
No. 4	5'0"	16"	22½"	11"	85 lbs.
No. 5	5'3"	17"	24"	11"	90 lbs.

NEW YORK PATTERN.

Wagon or Truck Skids

These skids are made from strong, select hickory side bars one end being ironed with wedge shaped steel points, between which the side bars extend which prevents them from splitting. The upper end is ironed in a similar way only it is equipped with hooks to fasten to the body of the vehicle.

Size	List Price	Retail Price	Size	List Price	Retail Price
6 Ft.	\$13.60	\$ 8.00	10 Ft.	\$19.56	\$11.50
7 Ft.	15.30	9.00	12 Ft.	22.96	13.50
8 Ft.	17.00	10.00			

Blocki Windrowers and

Pea Harvester

Use the Blocki Windrower for harvesting the seed crops of red, alsyke, mammoth and alfalfa clovers. Sometimes also used for harvesting flax, buckwheat, and even short tanged grain. Is an excellent tool to harvest cow peas, beans, etc. Can be readily attached to any mower and gives the best satisfaction. The guards are strong, being made of malleable iron; the rods retain their shape because they are made out of the right kind of steel.

Blocki Pea Harvester No. 7X consists of 7 Guards, 7 Rods and Divider.

Blocki Pea Harvester No. 8X consists of 8 Guards, 8 Rods and Divider.

Blocki Pea Harvester No. 9X consists of 9 Guards, 9 Rods and Divider.

Prices:

No. 7X.....	\$25.00
No. 8X.....	27.50
No. 9X.....	30.00
Extra Guards, each.....	3.00

Windrower for 4½- or 5-ft. Mower, Rods Only ... 15.00
Windrower for 6-ft. Mower, Rods Only..... 17.25

KEYSTONE TONGUE SUPPORT

**For Harvesting Machinery
and Disk Harrows.**

This Tongue Support is simple and light in weight. The springs are made of best ¾-inch spring steel. The coils are 4½ inches in diameter, and have arms extending 12 inches. The wheel is 11½ inches high, with 2¾-inch tread, thus assuring a light draft. No holes need to be bored in the tongue to fasten this support, thus allowing the tongue all its strength. **Price, \$5.00.**

Plow Bolts

Lgth	List	Retail	List	Retail	List	Retail
3/8	Each	Each	7/16	Each	1/2	Each
1 ¼	\$2.75	4c	\$3.75	4c	\$5.25	4c
1 ½	2.90	4c	4.00	4c	5.50	4c
1 ¾	3.05	4c	4.25	4c	5.75	4c
2	3.20	4c	4.50	4c	6.00	4c
2 ¼	3.35	4c	4.75	4c	6.30	4c
2 ½	3.50	4c	5.00	4c	6.60	4c
2 ¾	3.75	4c	5.30	4c	6.90	5c
3	4.00	4c	5.65	4c	7.25	5c

Binder or Conveyor Canvases

No.	To ft Osborne Binder:	Size	Year	Price
CA2012	Upper Elevator, New Osborne	87x48½	1906-09	\$6.25
CA2023	Upper Elevator, New Osborne	88x42¾	1909	6.25
CA2023	Lower Elevator, New Osborne	90x48½	1909	6.75
CA2008	6-ft. Platform, Columbia and New Osborne Binder.....	134x42¾	1896	8.75
CA2009	7-ft. Platform, Columbia and New Osborne Binder.....	158x42¾	1896	10.00
CA2010	8-ft. Platform, Columbia and New Osborne Binder.....	182x42¾	1904	11.50

To fit Deering Binder:

HA3199	Upper Elevator, Ideal Binder.	92x43	1899-09	6.25
HA4562	Upper Elevator, Ideal Binder.	90x47	1908	6.25
HA1775	Lower Elevator, Ideal Binder.	89x50¾	1899	6.50
HA1772	6-ft. Platform, Ideal Binder.	133½x43¾	1899	8.75
HA1773	7-ft. Platform, Ideal Binder.	157½x43¾	1899	10.00
HA2791	8-ft. Platform, Ideal Binder.	182x43¾	1901	11.50

To fit McCormick Binder:

BD45	Upper Elevator, R & L Binder.	91x47¼	1901	6.25
BD46	Lower Elevator, R & L Binder.	97x51	1901-13	6.75
BD467	6-ft. Platform, R & L Binder.	134x45	1901	8.75
BD468	7-ft. Platform, R & L Binder.	158x45	1901	10.00
BD469	8-ft. Platform, R & L Binder.	182x45	1902	11.50

LINK CHAIN BELTING

No.	Lgth	Av. Ult.	Price	Price
	per ft.	lbs.	strength per ft.	all per plain links link
25	13.3	700	17c.	3c.
32	10.4	1100	17c.	3c.
33	8.6	1190	16c.	3c.
34	8.6	1300	18c.	3c.
35	7.4	1200	20c.	3c.
42	8.75	1500	19c.	4c.
45	7.4	1600	18c.	3c.
48	6.	1660	23c.	4c.
50	8.7	1900	22c.	5c.
51	10.4	1900	24c.	6c.
52	8.	2300	23c.	5c.
52½	7.9	2866	32c.	6c.
55	7.4	2200	20c.	5c.
62	7.25	3100	27c.	6c.
65	5.66	2460	30c.	8c.
72	5.9	4240	45c.	8c.
72½	7.25	4590	55c.	9c.
76½	5.8	3590	42c.	9c.
77	5.2	3600	35c.	9c.

KNIFE

CLIPS

WOOD PITMANS

PITMAN STRAPS OR CLASPS

WEARING PLATES

BINDER CANVAS SLATS

Each, 10c.

KNIFE CLIPS

To Fit the Following Machines:	Price, Each.
Champion, A413, A468, A467, A693.	\$.15
Deering, F94, E461.....	.15
McCormick, M254, M533, H496, H919, L39.....	.15
McCormick, M290, M293, M652.....	.25
Milwaukee, J1, Osborne, E36.....	.15
Osborne (Columbia), K256.....	.15
Plano, J46, J106, J325.....	.15
Wood, 171, 1432.....	.15

WOOD PITMANS

(Without Pitman Box and Bolts.)

To Fit the Following Machines:	Price, Each.
Deering (Ideal Mower), 1901 and since, D1471.....	\$1.75
McCormick (Big 4 Mower), 1896 and since, M392.....	1.75
Milwaukee (No. 6 Mower), 1894 and since, PN290.....	1.75

WEARING PLATES

To Fit the Following Machines:	Price
Champion, H315, Under Shoe Cap.	
Champion, H282, Under Clips.	
Deering, D1038, Under Clips.	
Deering, 1040, Under Shoe Cap.	
Deering, D1455, Under Shoe Cap.	
McCormick, M468, Under Clips.	
McCormick, M490, Under Shoe Cap.	
Milwaukee, PK156, Under Clip P.J.I.	
Milwaukee, PG157, Under Shoe Cap.	
Osborne, K325, Under Clips	
Osborne, K326, Under Shoe Cap.	
Price	\$0.15

PITMAN STRAPS OR CLASPS

To Fit the Following Machines:	Price
Malleable Deering, D164, D465, D605, D606, D170, D607, Each.....	\$.30
Malleable McCormick, M556, M557, M147, M304, M315, Each.....	.30

SPRING COTTERS

Assorted, box of 100.....75c

PITMAN WOODS

Finished and Bored, Without Straps Bolts and Boxes. To fit the following machines: Deering (Ideal Mower) McCormick (Big 4 Mower), Milwaukee (No. 6 Mower), Plano (Jones Mower) Each, 60c.

PITMAN BOLTS

To Fit the Following Machines:
Deering Knife End, Deering Box End McCormick, M322, with Nut; M483 with Nut 2½x1-16; with Nut 3x1-16. Milwaukee, with Horn Nut, PG174. Milwaukee, with Ratchet Nut, PG175. Osborne, Box End (Long). Osborne, Knife End (Short). Wood, with Nut.....\$ 1.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

PITMAN BOXES

KNIFE HEAD.

GUARD.

GUARD BOLT. SMOOTH SECTION. LEGER PLATE.

MOWER SMOOTH SECTIONS, KNIVES AND GUARDS

Made to fit the following Machines.	Size of Section.	Retail Price of Section	No. of Guard.	Retail Price of Guard	No. of Knife Head.	Retail Price of Knife Head.	Knives complete.	Pitman Boxes No.	Retail Price of Pitman Boxes.
							4 1/2 ft. 5 ft.		
Wood.....	3x3 1/4	.08	L	.35	K366	.55	\$3.00 \$3.25	AK124	\$1.45
Wood.....	3x3 1/4	.08	2355	.35	2479	.55	3.00 3.25	A2301	1.45
Wood.....	3x3 1/4	.08	A	.35	1680	.55	3.00 3.25	A2301	1.45
Wood.....	3x3 1/4	.08	L	.35	2862	.55	3.00 3.25	2941	1.20
Wood.....	3x2 3/4	.08	P. P.	.35	1810	.55	3.00 3.25		
Deering.....	3x3 1/4	.08	D698	.35	D463	.55	3.00 3.25	D711	.65
Deering.....	3x3 1/4	.08	D698	.35	F123	.35	3.00 3.25	D334	.90
McCormick.....	3x3 3/16	.08	M462	.35	M139	.55	3.00 3.25	M317	.60
McCormick.....	3x3 1/16	.08	M253	.35	M139	.55	3.00 3.25		
Champion.....	3x3 3/16	.08	A881	.35	A870	.55	3.00 3.25	B683 1/2	.30
Champion.....	3x3 5/16	.08	A 41	.35	A415	.55	3.00 3.25		
Champion.....	3x3 9/16	.08	A 42	.35	A415	.55	3.00 3.25	A747	.75
Champion.....	3x3 3/16	.08	A811	.35	A415	.55	3.00 3.25		
Osborne.....	3x3 3/16	.08	K514	.35	K774	.55	3.00 3.25	K826	.80
Osborne.....	3x3 High Punch	.08	K280	.35	K284	.55	3.00 3.25	K278	.80
Osborne.....	3x3 Low Punch	.08	K 72	.35	K212	.55	3.00 3.25		
Johnston.....	3x3 3/4	.08	1811	.35	2211	.55	3.00 3.25	2207C	.75
Johnston.....	3x3 1/4	.08	77	.35	124	.55	3.00 3.25	257	.75
Plano.....	3x3 1/4	.08	J110	.35	J 94	.55	3.00 3.25	J100-J99	.70
Milwaukee.....	3x3 1/4	.08	P.K.5	.35	P.G.6	.55	3.00 3.25	P.J.50	.70
Adriance Buckeye	3x3 1/4	.08	3087	.35	557F	.55	3.00 3.25		
Dain.....	3x3 3/16	.08	Z 5	.35	Z 4	.55	3.00 3.25	Z162	.80

BINDER SICKLE SECTION, GUARDS AND KNIVES

Machines.	Size of Section	Retail Price of Section.	No. of Guard.	Retail Price of Guard.	No. of Knife Head.	Retail Price of Knife Head.	Knives complete
Made to fit the following							6 ft. 7 ft. 8 ft.
Wood Binder.....	3 x 2 1/4	\$0.03	W	\$0.35	H 2139	\$0.55	\$3.50 \$3.75
Wood Binder.....	3 x 2 3/16	.03	H171	.35	H 1150	.55	3.50 3.75
Deering Binder.....	3 1/4 x 2 1/4	.08	286	.35	H 877	.55	3.50 3.75
Deering Binder.....	3 1/4 x 2 1/4	.08	286	.35	H 260	.55	3.50 3.75
McCormick Binder.....	3 x 2 1/4	.08	H495	.35	B 23	.55	3.50 3.75
Champion Binder.....	3 x 2 1/4	.08	U 53	.35	1852	.55	3.50 3.75
Osborne Binder.....	3 x 2 1/4	.08	D300	.35	B 587	.55	3.50 3.75
Johnston Binder.....	3 x 2 1/4	.08	50 A	.35	L 296	.55	3.50 3.75
Plano Binder.....	3 x 2 3/16	.08	L 300	.35	L 395	.55	3.50 3.75
Plano Binder.....	3 x 2 1/4	.08	L 67	.35	L 66	.55	3.50 3.75
Milwaukee Binder.....	3 1/4 x 2 1/4	.08	J 76	.35	H 41 1/4	.55	3.50 3.75
Adriance Binder.....	3 x 2 1/4	.08	1265	.35	1245A	.55	3.50 3.75

Leger Plates for all Machines, 6c. each. Section and Guard Rivets, 15c. lb. Guard Bolts for all Machines, 5c. each.

Above we give a table of sizes, numbers and prices of Sections, Guards, Knife Heads and Knives complete, and combinations generally used. In some cases more than one Knife Head and Guard have been used with the same section. In ordering, always give number of Guard and Knife Head, also drawing of Section wanted, showing holes punched in Section. In ordering Knives complete, always give number of old Knife Head; also give number of cutting sections.

REAPER SICKLE.

GUARD RIVETS

SECTION AND

Griffith & Turner Ball-Bearing Grindstone

The G. & T. B. E. Grindstone has a combination steel and hardwood frame. Stone carefully selected Berea grit. Ball-bearing steel journals and axles. Stones usually furnished vary in thickness from 1 1/4 to 2 1/4 inches. Weight of frame and fixtures only 32 lbs. Shipped knocked down unless ordered otherwise. If crated, an additional charge will be made

No. 1 Stone, 90-110 pounds, each.....	\$9.75
No. 2 Stone, 70-80 pounds, each.....	8.75
No. 3 Stone, 40-50 pounds, each.....	8.00

Gritco Ball-Bearing Grindstone

The Gritco Ball-Bearing Grindstone

is one of the strongest built, and is practically indestructible.

PRICE\$8.75

No. 82-C Sickle and Tool Grinder

The No. 82C Grinder is a simple, compact and serviceable hand-power sickle and tool grinder, especially suited to farm work. It can be clamped either to a mower wheel or to a bench. The tool wheel is 4 1/4 x 1 3/4 inches.
82CW—With Bevel and Flat tool Wheel \$7.50
82C—With Bevel Wheel..... 6.50

No. 86 Sickle and Tool Grinder

A useful farm grinder for tools and sickle sharpening. Made especially to take care of all general grinding on the farm. This machine can be quickly attached to a mower wheel or bench.

PRICE

\$10.00

SCYTHE STONES

Each	
Western Red End.....	10c.
Quinnebog	15c.
English Round	25c.
Darby Creek	20c.

Harvest King Power Grindstone

The frame is constructed of heavy angle steel strongly braced. It is equipped with high-grade selected Grindstone 24-in. by 2-in., furnished with 12-in. pulley with 2 3/4-in. face, and heavy steel roller bearings, drip cup and hand cranks.

The frame is shipped folded complete, stone crated, to save freight. Weighs about 125 lbs.

Price, regular, which includes 24-in. x 2-in. Stone, 12-in. x 2 3/4 in. Pulley, Hand Crank and Drip Cup\$13.50

EXTRAS

Trough	\$1.75
Treadle, Pitman and Bearing	1.75

Cast Grindstone Fixtures with Shaft.

15-in., per set, 80c. 17-in., per set, 90c. 19-in., per set, \$1.00.

TOOL GRINDERS

Domestic Kitchen Grinder, with smooth stone for sharpening knives.....\$2.25
No. 24—It is equipped with a 4x1-in. Grinding Wheel, and is intended for a Household Grinder. Weighs 6 lbs. boxed. Price.....\$3.50
No. 25—It is equipped with a 5x1-in. Grinding Wheel, and will be found a very handy tool for mechanics. Weighs 7 lbs. boxed. Price.....\$4.00
No. 26—It is equipped with a 6x1-in. Grinding wheel. Weighs 11 lbs. boxed. Price\$5.00

No. 309-C POWER BENCH GRINDER

This grinder is constructed along the best mechanical lines. It can be bolted to any bench and its heavy design makes it the ideal grinder for power of any sort. It is equipped with two sharpening wheels of Light Dimo-Grit, 7 inches in diameter and 1 1/2 inches wide, one medium grit and the other coarse.

and two universally adjustable tool rests. Weight, boxed 32 pounds. **PRICE**\$15.00

No. 306 Power Bench Grinder.....\$8.00

WE CARRY A FULL LINE OF LOOSE STONES

Prices: From 40 lbs. to 200 lbs., per lb., 5c. Under 40 lbs. per lb., 5 1/2c. Over 200 lbs., per lb., 6c.

THE NEW CLIPPER Grain, Seed, and Bean Cleaner

These Cleaners are guaranteed to be first-class in every respect. They are built by competent and skilled workmen and nicely finished in three coats of paint and varnish.

We furnish the best outfit of screens ever sent out with a Farm Mill. Our perforated zinc screens are graduated in 64ths of an inch in both round and oblong holes. Our woven wire screens are made of plated wire with the meshes uniform and true to count. The zinc screens will not rust and our plated wire screens will last for years if properly cared for.

VERTICAL AIR BLAST. This is a feature that no other cleaner has and it makes possible some very difficult separations that can be made in no other way. For instance, when cleaning seed wheat, if the blast is properly regulated and the mill turned just fast enough, all the light, shrunken kernels can be blown out or separated, leaving only the largest, heaviest, plumpest grain which is the choicest kind of seed. The same is true when cleaning seed oats—The Vertical Blast blows out all the light shrunken kernels and "pin oats" leaving heavyweight high grade seed. The same is true of Barley and Rye. If you use an air blast sufficiently strong on your seed grain, you can raise the weight from three to five pounds per bushel. That is, the grain will weight that much more per measured bushel, after being graded on the Clipper Cleaner, than it did before the light immature kernels were removed.

The No. 2-B differs from the No. 1-B only in size and capacity. Both machines are equipped with a set of 12 screens for general farm use. The No. 2-B is larger.

No. 1-B	\$48.00
No. 2-B	55.00
Pwer Attachment extra.....	5.00

Baltimore Improved Grain Fan

Will clean from 60 to 100 bushels per hour. Made of best material and finished in a neat and tasty manner.

List Price, \$70.00.

Our Special Price, \$45.00.

Sieves, List Price, each, \$3.00.

Retail, \$2.00.

No. 9 Royal Pea Huller

No. 9 Royal Pea Huller

Owen's Bean and Pea Thresher

**STRONG
AND EFFICIENT.
(No. 4).**

It will thresh all varieties of beans and peas directly from the vines as taken from the field, without splitting the grain, and at the same time shred the vines, the same as the larger size threshers. We wish to make one exception to the above, and that is in cow peas, where the vines grow very rank and heavy. You will readily see that, on account of its size, the No. 4 could not possibly be expected to handle these like one of our larger threshers, but where the vines do not grow too large and where care is exercised in feeding, it does very good work, indeed. We have shipped a great many of the No. 4 threshers to all parts of the South, and they are giving excellent satisfaction, especially with those who simply wish to save the seed and do not care for a large capacity. Capacity, 10 bushels per hour. One to three horse-power.

The No. 4 will also thresh buckwheat. Weight, 400 pounds. Price, \$120.00. 16x20 Thresher \$225.00.

New model No. 9, with heavy bearings, wooden frame and box; malleable iron cylinder and concave sections. Teeth do not break. Heavy fly-wheel and two cranks. Patent revolving screen, which insures absolutely clean peas and carries the refuse through a separate outlet. Reversible hopper to allow use of machine for cleaning wheat or other small grain. Cleans and threshes the peas thoroughly without breaking them. Shipping weight, 260 pounds. Can be furnished for operation by power by substituting a pulley and heavier shaft for one of the cranks at an additional net cost of \$2.50. Cow Peas intended for seed should be allowed to get more mature. These will unavoidably lose most of the leaves, but will still be good feed after the Peas are picked and threshed.

The **ROYAL PEA HULLER** will save a larger per cent. of all the Peas than any other method. The ownership of a Royal Pea Huller represents an outlay so small in comparison to the benefits, that no successful farmer will be without one.

Special and exclusive features to be had only with these machines are covered by patent, and cannot be had in any other make. Capacity, 8 to 15 bushels Dry Peas per hour. Price, \$60.00.

Cylinder Type Hand Cutter One Knife

No. 11 1/4—"ONE-KNIFE."

The feeding rolls on this cutter are operated by means of cog wheels and sprockets. The feed is constant and uniform, and the cutter has large capacity. The feed rolls are equipped with tension springs; the cutter has large heavy flywheel, large crank, chilled shear bar and hardwood frame. **Is Adjustable for Different Lengths of Cut.**

**OUR SPECIAL
PRICE, \$20.00**

2 Knife Ohio Cutter\$25.00
4 Knife Ohio Cutter 30.00

MARYLAND LEVER CUTTER

Strong, Cheap and Durable.

Retail\$6.00

BALING TIES

Cross Heads

Measure around the bale and add three inches to get the proper length.

CROSS HEAD BALE TIES—9-ft. No. 14, \$3.25. 8 1/2-ft. No. 15, \$2.70. 9-ft. No. 15, \$2.85.

SINGLE LOOP BALE TIES—9-ft., No. 14, \$1.85; 9 1/2-ft. No. 14, \$1.90; 10-ft., No. 14, \$2.05; 10 1/2-ft., No. 14, \$2.15; 8 1/2-ft., No. 15, \$1.55; 9-ft. No. 15, \$1.65; 9 1/2-ft., No. 15, \$1.70. A bundle contains 250 ties.

ANNEALED BALING WIRE—Nos. 11, 12, 13, 14, and 16 always on hand at lowest market prices on application.

Special prices in quantity to Threshermen and Balers.

Ross Standard Hay and Fodder Cutter

The excellence of the Ross Fodder Cutters is well known. They are the result of over 50 years' experience in manufacturing this class of machinery. They are built strong and durable, possess valuable features for convenience and efficiency, and are neatly finished. The manufacturers aim to construct a line of cutters which will not only do the work, but do it so well that the buyer is sure to be pleased in every way. On account of lack of space, we cannot give a full description of the exclusive patented features possessed by the **Ross Cutters**, but will be pleased to mail to anyone interested in the purchase of a cutter a special catalogue of the **Ross** line. Will mention briefly here that some of these features are: Very efficient feeding rolls.

which are positive, and which are provided with a knuckle-joint arrangement to allow the rollers to readily adjust themselves to uneven feeding of the machine without binding or causing friction; a special comb bar for keeping the spiked roller clear; a four-sided reversible steel cutting plate; an improved type of safety flywheel; a practical and convenient knife adjustments; a special starting and stop lever, and the **Ross** folding feed table.

Size	Knives Inches	Capacity per Hour on 1-Inch Cut		Power Required H. P.	Weight Pounds	Price with Either Cutter or Shredder	Price of 12-Foot Angle and Straigh Carrier
		Ensilage Tons	Dry Fodder Tons			Retail	
No. 111	4-11	3 to 4	1 to 1 1/2	2 to 3 1/2	425	\$70.00	Price on Application

Subject to prior sale.

Ross No. 30, No. 40, No. 50, and No. 60 Cutters and All Steel Blowers

The knives on flywheel type of Ross Silo Filling Machines with Blower have made a home for themselves with all their users. This is due to the fact that they possess the required strength and features to enable them to accomplish the work of filling silos in a way that brings comment from all. Realizing the fact that users of this class of goods expect more and more each year in the line of quality and quantity of work, they possess features fully described in the special catalogue, which we will be pleased to mail. namely: Four-sided reversible steel cutting plate, positive tension to the feeding rolls, special knife adjustment, self-aligning and adjustable main shaft bearings and roller shaft bearings, extra bearings for main shaft, special balanced main frame, etc.

Size.	Throat Capacity.	Capacity per Hour on 1- Inch Cut.		Power Required.	Weight With- out Truck.
		Ensilage.	Dry Fodder.		
No. 30	38 sq. ins.	4 to 6 tons	1 to 1 1/2 tons	6 to 8 H. P.	800 lbs.
No. 40	55 sq. ins.	6 to 8 tons	1 to 1 1/2 tons	6 to 8 H. P.	1250 lbs.
No. 50	72 sq. ins.	8 to 10 tons	1 to 1 1/2 tons	8 to 10 H. P.	1450 lbs.
No. 60	85 sq. ins.	12 to 18 tons	1 to 1 1/2 tons	12 to 14 H. P.	1800 lbs.

Cutter with Traveling Feed Table
and Blower, with 30-ft.
Blower Pipe and Elbow.
Pr. with Truck.

Retail.
\$187.50
262.50
277.50
296.25

Blower
Pipe, Includ-
ing Elbow,
per Foot.
Retail.
\$.75
.85
.85
.85

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE

**ONE HOLE
No. 3.**

Separates corn and cob. Corn discharged beneath Sheller, cobs at end. Easily adjusted for large or small ears. Capacity, 125 bushels a day. 130 pounds.

Plain, List Price,.....\$25.00
Our Special Price..... 15.00

**ONE HOLE
No. 4.**

Screens corn; side delivery; light running; strong, steel shafts. Capacity, 125 bushels a day. 130 pounds.

Plain, List Price,.....\$25.00
Our Special Price..... 15.00

THE BALTIMORE SHELLERS

No. 20 Double Spout

This sheller is built very strong from the best materials, and has a combination fly-wheel and pulley.

Hand and power, with shaker belt and flywheel. Capacity, 200 bushels per day. Capacity by power, 500 to 600 bushels.

Weight, 300 lbs.

No. 20, with Shaker, List Price, \$60.00; Our Special Price, \$36.00.

‘BLACK HAWK’ CORN SHELLE

Weight, 14 lbs. Shells fast, Clean and Easy. Black Hawk is simple, easily adjusted and will shell clean all kinds of field corn.

List Price,
\$4.80 each.

Our Special Price,
each\$3.00

RED CHIEF CORN SHELLE

This sheller is guaranteed to do good work. It is heavy in construction, with patent oval-shaped teeth, which are so arranged to shell more rapidly and avoid injuring the grain, thus making it safe for shelling seed corn. Adjusts itself to any size ear.

List Price, each \$4.50. Our Special Price, each, \$2.75. Weight, 12 pounds.

Black Hawk Feed and Grist Mill

Just the thing for cracking corn, etc., for poultry. Makes best Graham flour and meal for table use.

Grinds corn, wheat, rye, rice, spices, etc. Weight, 17 pounds. Price\$3.75

No. 20 RED CHIEF GRINDING MILLS

COMBINED HAND AND POWER MILL.

No. 20—Power Mill for two-horse engine; light and loose pulley, best of bronze boxes and cold rolled steel axle, capacity 10 to 20 bushels per day. Has no equal.

Our Special Price.....\$22.00

Corn Sheller Attachment, shells the corn and grinds at the same time, extra.

Our Special Price.....\$10.00

Table Meal Separator, makes fine table meal while grinding stock feed, extra.

Our Special Price.....\$7.00

All burrs are as hard as can be made, and all of our mills will grind in a satisfactory manner dry bone, oyster shells, old china, etc. New Feed Gauge enables the operator to grind fine without mill turning hard. New Burrs will grind fine and quick.

No. 20

No. 20

RED CHIEF GRINDING MILLS

No. 1—For Small Poultry Raisers. Price.....\$4.00

No. 2—Best Crank Mill on earth. Feed gauge to regulate grinding. Price\$5.50

No. 5—With large capacity, feed gauge and fly wheel. Clamps to box. Price.....\$7.75

No. 10—With feed gauge, fly wheel and handsome stand to screw on table. Price.....\$9.50

No. 12—Best Hand Mill on Earth; bronze boxes, steel axle, large fly wheel. Price.....\$16.00

No. 15—Power Mill for one-horse engine; strong, durable and easy running. Price..\$16.00

2 Set Burrs

Nos. 106, 108, Stover Special Feed Grinding Mills

For Grinding Dry Ear Corn, Shelled Corn, and All of the Small Grains. Capacity, from 3 to 6 bushels per hour per horse power, depending upon the grinding condition of the grain and the fineness of the feed. These mills, while somewhat lighter in construction, are equipped with the same style of white iron or chilled steel grinding burrs used in the corresponding sized mills.

No.	Speed, R. P. M.	Pulley	Horse Power Required	Weight	Price
106	6 in. 300 to 500	12x4 in.	2 to 5	200 lbs.	\$28.00
108	8 in. 400 to 600	12x6 in.	3 to 8	275 lbs.	38.25
31	6½ in. 200 to 750	12x4 in.	2 to 5	225 lbs.	39.50

No. 42 MILL

with 8-in. Burrs
\$52.25

NO. 45 STOVER FEED MILLS

PRICE

\$87.75

No. 68 Stover Combined Grinder

The No. 68 Stover General Purpose Grinding Mill will reduce to a fineness satisfactory for feeding all classes of live stock, poultry, etc., hay, straw, stalks, vines and roughage as well as ear corn with or without the shuck and all of the threshed grains.

Capacity, Grains and Kafir Corn, 3 to 6 bushels per hour per horse power. Capacity, Hay or Stalks, etc., 3 to 5 tons per day.

PRICE

\$258.85

SPECIFICATIONS

Power required.....	8 to 20 H. P.
Speed	600 to 1,000 R. P. M.
Weight	1,000 lbs.
Pulley, regular.....	10 in. x 8 in.
Burrs, diameter.....	8 in.

Capacity, 3 to 6 bushels per hour per horse power, depending upon grinding condition of grain and fineness of feed.

This mill will grind more rapidly and produce a greater capacity per horse power applied than any mill of corresponding size on the market today.

This grinder has many outstanding features, the most prominent being cast iron breaker case, cast iron legs, feed regulator and feed plate, safety spring, safety lever, agitator one-piece cob breaker, Universal grinding burrs, pivoted rear burr, and especially designed ball bearing cage for taking up end thrust, and all vital parts made of white iron or sometimes called chilled steel.

Regularly equipped with outboard bearing as illustrated above. Lack of space permits only a brief description. Our grinder catalog illustrating and describing all mills in detail, mailed to anyone interested.

SPECIFICATIONS

Speed, R. P. M.....	400 to 800
Horse power.....	12 to 25
Pulley	10 in. x 8 in.
Burrs, diameter.....	10 in.
Weight	555 pounds

"Williams" Advance Burr Mill

The cut shows the general design of the "Williams" Advance Burr Mill. Limited space prevents us from giving a full description, but we will gladly send a special circular giving full description and information.

The Mill Body is constructed in the most workmanlike manner, from the choicest selected forest timber, all well dried and very heavy.

The Burr Stones used in these mills are the very best Burr stock that can be secured, they are well mated and will give great service without requiring frequent dressing. They are mounted on large steel spindles and perfectly trued and balanced, and are so arranged that they cannot be set too close together and will not drift together when the grain runs out.

The grain hopper is large, with an improved feeding arrangement.

The high speed cleaning fan, latest improved folding bolter the latest and most perfect burr adjustment, makes this the lightest running and nicest appearing mill on the market.

Size of Burrs.	Weight.	Speed.	Horsepower.	Capacity per Hour.	Size of Pulley.	Price F. O. B. Factory
No. 14"-B	700	900	3 to 6	4 to 8	10 x 5	\$ 70.50
No. 16"-B	800	800	5 to 7	6 to 10	12 x 6	81.60
No. 20"-B	900	750	6 to 12	8 to 14	12 x 6	98.50
No. 24"-B	1200	700	10 to 15	10 to 20	14 x 6	126.60
No. 30"-B	1750	550	12 to 25	14 to 30	16 x 8	168.75

"JUNIOR" DOUBLE CAGE HAND APPLE MILL

This is a small double cage mill of good capacity, and will work in a very satisfactory manner. It is made of hardwood and, having specially constructed grinders, gives good results. Capacity, 2 to 4 barrels of juice per day. Weight, 220 lbs.

Our Special Price.....\$30.00

WAGNERS FRUIT & LARD PRESS

	Our Price.
2-Quart	\$5.00
4-Quart	6.75
6-Quart	7.50
8-Quart	8.35
Stuffing Attachment	1.50

"MEDIUM" DOUBLE CAGE HAND APPLE MILL

Is a good size for family use. It is built with iron beam and heavy gearing, and is perfectly adjustable for all sizes of apples. Capacity, 6 to 8 barrels of juice per day. Weight, 240 pounds.

Our Special Price.....\$35.00

BALTIMORE SPECIAL APPLE AND BERRY MILL

Weight, 140 lbs. This single cage mill is strongly built, has large Capacity Grinder which will take larger apples, and being a geared mill, will do very rapid work.

Our Special Price.....\$20.00..

"Senior" Hand and Power Apple Mill

SENIOR
Weight,
390 lbs.

They have adjustable Rollers and Feed Regulator and Double Crank. In these Mills the lower rollers are cast with alternate rims and grooves interlocking to draw in the Fruit, which is mashed between the smooth segments, thoroughly breaking all the apple cells so that juice is entirely extracted in press. Balance wheels are heavy and mill can be run by power. The mills are very strong. They are made of best material, nicely finished, and are easy to operate. Capacity, 6 to 12 barrels of juice per day. Our Special Price. \$52.50

Grape Crusher

No. 2. Hoosier Crusher ..	\$9.00
No. 1 Red Cross Crusher ..	15.00

BERRY PRESS

These presses are built heavy like the apple mills. The head block is heavy cast iron, giving it great strength. The frame is strong and rigid. The heavy screw wheel with long lever gives great power in pressing out the juice.

No. 1.....	\$14.00..
No. 2.....	18.50
No. 3.....	24.00

Light Berry Presses

No. 1 W	\$ 9.50
No. 2 W	11.00
No. 3 W	13.00

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WITHOUT NOTICE.

TILTING TABLE SAW

The table is of the slat type, has five flat steel strips or braces bolted to the same and bent at right angles so as to form a rigid guard for the wood. This construction adds materially to the life of the table, as the wood to be sawed does not come in contact with wood part of the table at any part of the frame. When the wood is thrown on the table it rests on the steel strips and when the wood is pushed toward the saw the steel braces carry the strain. The frames are strongly and carefully built and with ordinary care and attention will last indefinitely.

Weight, without Blade, 250 Pounds.

Size of Pulley, 5 or 8 in. Diameter by 6 in. Face.

Speed, 850 to 1,000 R. P. M.

Without Saw Blade.....\$34.80

With 22-inch Saw..... 38.80

With 24-inch Saw..... 39.40

With 26-inch Saw.....\$40.10

With 28-inch Saw..... 41.10

With 30-inch Saw..... 42.00

SLIDING TABLE SAW

Without Saw Blade.....\$45.65

With 22-inch Saw..... 49.35

With 24-inch Saw..... 49.95

With 26-inch Saw.....\$50.75

With 28-inch Saw..... 51.65

With 30-inch Saw..... 52.55

GRITCO CIRCULAR SAW

These Saws are the result of over 50 years' study and experience. Absolutely the best steel is invariably used and each blade is given a tough, even temper and perfect tension, all of which is essential to the successful running of the saw. The workmanship of these blades is unequalled. The prices given are for saws sharpened and set. All blades with 1 1/2-inch hole.

	Retail
22-inch, No. 12 gauge	\$.40.00
24-inch, No. 11 gauge	4.60
26-inch, No. 11 gauge	5.40
28-inch, No. 10 gauge	6.50
30-inch, No. 10 gauge	7.20

POLE SAW

The illustrated Pole Saw has the advantage of having the fly wheel underneath where it is out of the way and will permit the sawing of long poles. A compact outfit easy to move and anchor.

Without Saw Blade.....\$54.75

With 22-inch Saw..... 58.75

With 24-inch Saw..... 59.35

With 26-inch Saw..... 60.15

With 28-inch Saw..... 61.05

With 30-inch Saw.....\$61.95

EXTENSION TABLE POLE SAWS

Appleton Extension Table Pole Saw.

The table is so arranged as to extend nearly five feet beyond the saw blade. It makes a highly satisfactory combined pole and cord-wood saw, because the length and arrangement of the table is such as to enable the operator to handle long poles about as easily and rapidly as cord wood. To facilitate handling a roller is placed at one end of the table. Weight, 354 pounds. No. 3, Steel Frame. No. 4, Wood Frame.

Steel and Wood Frame Same Piece.

Without Saw\$35.80 With 28-inch Saw.....\$42.10

With 24-inch Saw..... 40.80 With 30-inch Saw..... 43.00

With 26-inch Saw..... 41.10

PORTABLE SAW RIG

The under carriage is an ordinary farm truck with steel wheels heavy enough to carry our 6 H. P. engine. The channels are steel I-Beams securely bolted to the truck bolsters to which is attached our No. 56 tilting wood sawing table with self-aligning, self-adjusting bearings, that was specially designed by us for mounting on a portable rig of any description for either custom or individual work. The equipment includes plain pulley on the engine, circular saw, belt, belt idler, pole, but no neckyoke or doubletrees.

No. 817
PRICE, \$404.25

LARGER SAW MILLS
LATHE MILLS
SHINGLE MILLS
BAND SAWS

Prices on Application

American
"Heacock"
Variable Belt
Feed Saw Mill
No. 1

SPECIFICATIONS

STANDARD NO. 1 VARIABLE BELT FEED SAW MILL.

Husk Frame is 7'x3', built of 3 1/4"x9 1/2" timbers, fitted with Mandrel 23 1/2"x58"; Pulley 20"x8"; Variable Belt Feed; Saw Guide, Board Mills and Spreader.

Carriage 16 ft. long, built of 3 1/4"x5 1/2" timbers; four trucks, set under carriage, having 1" axles, babbitted boxes with waste chambers and 6" flat and grooved wheels; 40 ft. flat and V rolled steel track, fitted to way timbers, framed up in sections; two head-blocks with "Champion" dogs, opening 34" from saw line; Ideal Set Works and quick cedar and 16 ft. of set shaft, key-seated full length. Also Belt Tightener, foundation

Its, cant hook, oil can, wrenches and a set of 4" feed belts.

Saws up to 52" diameter may be used, but are not part of regular equipment.

Weight with regular equipment, 3,150 lbs.

Weight with Heavy Balance Wheel Pulley, 3,500 lbs.

Any size of mandrel pulley up to 24", if ordered with mill, furnished without extra cost.

Longer carriage and track, additional head blocks, or extended mandrel furnished at additional cost.

When way timbers are not wanted they may be left off, track irons only being furnished, and price reduced accordingly.

Belt tightener is not needed when long thresher belts are used and may be left off and price deducted.

Right-hand mills are always furnished unless left-hand is specified in order.

When used with a Fordson Tractor we recommend that the Mandrel Pulley be our special 24"x8" heavy-rim Pulley,

high weights 400 lbs. and serves also as a balance wheel. This pulley is furnished at small extra cost.

No. 1—Standard Saw Mill with rack and pinion drive, without saw.

track with way timbers are not wanted, deduct

not wanted, deduct Write for Special Catalogue and Prices.

AMERICAN MILL SAWS

1-inch Inserted Tooth, Our Special Price.....	
1-inch Inserted Tooth, Our Special Price.....	
1-inch Inserted Tooth, Our Special Price.....	

NO. 57 SAW FRAME

QUICKLY ATTACHED

The frame is carried on four castings attached to the upper and lower ends of the radiator by four bolts that run front and in back of the radiator. Thus, you attach the over Frame without disturbing one single bolt or nut on the Fordson, also without drilling any special holes or furnishing any special equipment.

The frame is shipped knocked down with instructions for assembling with all of the equipment illustrated, and which includes the frame, 30-inch saw, sufficient length of 5-inch rubber belt, 8 x 6 inch pulley on saw mandrel, and special starting crank that slips through the frame to permit starting with the frame attached. Shipping weight, knocked down, 200 pounds.

PRICE\$54.50

SAW MANDRELS

No. 1 Saw Mandrel—made from finest cold-rolled steel, 1 1/4" diameter, 49 in. long. Has Self-Aligning Bearings, lubricated with hard oilers. Furnished with machined flywheel 15 1/2" diameter, weight 65 lbs., 6x6" pulley and is turned for saw with 1 3/8" hole.

Comes complete with saw collars, nut and keys.

Price\$16.00

CANT HOOKS

PEAVIES

Cant Hooks, No. 318B—2 1/2 in. x 4 ft.	Price.....\$4.00
Cant Hooks, No. 318B—2 1/2 in. x 4 1/2 ft.	Price..... 4.50
Peavies, No. 9—2 3/4 in. x 5 ft.	Price..... 5.00

ATKINS CELEBRATED SAWS

WOOD SAWS

No. 617—Wood brace frame; single rivet; painted red; plain tooth; breast-ed blade; 2½ inches wide. **Our Special Price, \$1.10.**

No. 523—Wood brace frame; single rivet; selected stock; high finish; painted red; jumbo rod tinued; Tuttle tooth; breast-ed blade, 2¼ inches wide. **Our Special Price, \$1.30.**

No. 923—Jumbo rod tinued; Tuttle tooth blade, breast-ed, 2¼ inches wide. Double brace, double riveted. Painted vermilion and varnished. **Our Special Price, \$1.50.**

Wood Saw Bucks, 75c.

Gritco Cross-Cut Saws, Narrow American.

NARROW AMERICAN

5 ft.—Our Special Price.....	\$2.60
5½ ft.—Our Special Price.....	2.90
6 ft.—Our Special Price.....	3.10

NARROW TUTTLE

5 ft.—Our Special Price.....	\$2.50
5½ ft.—Our Special Price.....	2.75
6 ft.—Our Special Price.....	3.00

Special Prices in Quantities.

Price of Cross-Cut Saw is Without Handle. Climax Handles, 40c. per Pair.

GRITCO CROSS-CUT SAWS, WIDE BACK, AMERICAN.

Wide American Tooth, Silver Steel, 5, 5½ and 6 Feet. Gauge, 14x16.

5 ft.—Our Special Price.....	\$4.05
5½ ft.—Our Special Price.....	4.50
6 ft.—Our Special Price.....	4.90

Tuttle Tooth, Cast Steel. Gauge, 14x16.

5 ft.—Our Special Price.....	\$4.25
5½ ft.—Our Special Price.....	4.65
6 ft.—Our Special Price.....	5.05

Special Prices in Quantities. Price of Cross-Cut Saws is Without Handle.

HAND SAW.

HAND SAWS.

No. 46—American straight back; plate on handle. **Our Special Price, \$1.40 each.**

No. 53—Sheffield Saw Works. Skew back; beech handle; polished edge; 7 to 9 points. **Our Special Price, \$2.25 each.**

No. 54—Silver Steel; beech handle; straight back; polished edge; 7 to 9 points. **Our Special Price, \$3.25 each.**

No. 53—Silver Steel; skew back; carved and polished apple handle, with Atkins' perfection handle. **Our Special Price, \$3.85 each.**

ONE MAN CROSS-CUT SAW AMERICAN TOOTH.

3 feet.....	\$3.00
3½ feet.....	3.50
4 feet.....	3.90

PRUNING SAW

PRUNING SAWS

No. 3 Double.	No. 1 Single.
16-inch.....\$14.5	16-inch.....\$1
18-inch.....1.55	18-inch.....1
20-inch.....1.65	20-inch.....1

The Schick All Steel Baler

This baler is a device that is so low in initial cost that the material which it conserves pays for it in a short time. It bales all kinds of material, such as paper, scrap, pasteboard boxes, excelsior, cloth clippings, old rags, tobacco stems, tin and galvanized scarp in can factories, steel shavings in machine shops, etc.

The great and increasing demand for all kinds of waste material of every description has put you in a position to change this waste into cash.

This shows the top of the **SCHICK BALEER**. Note the solid one-piece casting supporting the geared rack.

A pressure of three tons is obtained by means of the wheel and hand lever.

There are but five working parts. All made of crucible steel, case hardened, making it easy and simple to operate.

As waste paper accumulates it is emptied into the **Schick**; a turn of the wheel compresses it. When bale is compressed it is wired and ready to remove from the press.

No. 2—Open Top Schick All Steel Baler bales from 100 to 150 pounds.....	\$70.00
No. 3—Open Top Schick All Steel Baler bales from 150 to 200 pounds.....	85.00
No. 4—Open Top Schick All Steel Baler bales from 200 to 350 pounds.....	125.00

Short Handle Lopping Shears

NO. 5

These shears are the handiest tool ever used for trimming small limbs and twigs from trees. Every orchard man should have a pair for each trimmer. Twice as much work can be done in the same time, and many times easier with this handy little trimmer.

Price

MARION GRASSNIPPERS.

Here is a tool that will cut grass easier than a shear. Blades are forged steel, warren Handle is malleable will not break. Price

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

STAR WINDMILLS AND TOWERS

No. 2 FOR 8 AND 10-FOOT WINDMILLS.

Spokes 5 feet apart.
Braces 10 feet apart.

Prices:

Height, Feet.	Weight, Lbs.
30.....	\$46.50
40.....	67.75
50.....	94.00

MODEL 12-STAR GALVANIZED STEEL BACK-GEARED WINDMILLS

Size, Feet	Stroke, Inches	Weight, Lbs.	Price
8	4, 6, 8	425	\$48.50

MODEL 24-STAR GALVANIZED STEEL BACK-GEARED WINDMILLS WITH TIMKEN ROLLER BEARING

Size, Feet	Price
8 Foot	\$57.75
10 Foot	79.00

STAR GALVANIZED STEEL SUBURBAN TOWERS

FOR 8 OR 10-FOOT WINDMILLS

Star Suburban Towers come complete with anchor posts, plates and heavy steel supports for tank. Tower is of the same construction as the regular windmill towers, except the portion below the tank and the anchor posts are made of heavier material on account of supporting tank.

No.	Height of Tower, Feet	Elevation of Tank, Feet	Capacity of Cypress Tank, Bbls.	Weight of Tower, Lbs.	Price with Tank
T 4	40	20	21	1001....	\$200.00
T 5	45	25	21	1186....	212.50
T 6	50	30	21	1344....	225.75
T 8	60	40	21	1774....	260.00
T 14	40	15	40	1126....	240.00
T 16	50	25	40	1495....	278.00

STANDARD STEEL SUBSTRUCTURES

10-foot Tower for 6x6 Tank.....	\$107.00
10-foot Tower for 6x6 Tank.....	162.00
Steel Platform and Girders.....	21.00
Valkway and Pipe Hand Rail.....	59.00
Outside Steel Tank Ladder.....	4.85
Inside Wood Ladder.....	2.85
Steel Top Girders, only.....	11.00

For Price of Tank, See List Below.

ROUND-END GALVANIZED TANKS.

No.	Width, Ft.	Height, Ft.	Length, Ft.	Capacity, Gals.	Weight, Lbs.	Retail.
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E 224	2	2	4	91	74	\$12.60
E 225	2	2	5	117	88	15.20
E 226	2	2	6	144	102	17.70
E2525	2 1/2	2	5	145	93	17.00
E2526	2 1/2	2	6	173	110	19.80
E 326	3	2	6	213	134	21.80
E2528	2 1/2	2	8	245	141	25.50
E 328	3	2	8	295	156	28.10
E3210	3	2	10	384	185	34.40
E 428	4	2	8	386	169	32.40
E4210	4	2	10	496	203	39.30

ROUND GALVANIZED TANKS.

No.	Diam., Ft.	Height, Ft.	Capacity, Gals.	Weight, Lbs.	Retail.
32	3	2	91	69	\$12.50
42	4	2	166	97	15.80
43	4	2	254	115	20.40
44	4	4	338	145	21.10
45	4	5	423	168	29.60
46	4	6	508	191	31.40
54	5	4	548	181	21.50
55	5	5	675	211	21.50

Gulf Cypress Tanks With Round Hoops and Draw Lugs

These storage tanks are made of carefully selected red gulf cypress. We avoid the use of upland or cheaper grade of cypress, and in getting tanks from us you can rely upon high-grade material and workmanship.

Prices on Larger Tanks and Covers on request.

PRICE LIST.

Length of Stave, Feet.	Diameter of Bottom, Feet.	No. of Hoops.	Capacity, Gallons.	Price, 1 1/2-inch Cypress.	Price, 2-inch Cypress.
3	3	3	110	\$ 20.30	\$ 24.50
3	4	3	220	28.00	35.35
4	4	4	283	35.35	43.75
4	5	4	472	48.30	60.80
5	5	5	598	59.50	74.55
6	6	5	1062	77.35	97.30
7	7	6	1701	110.25	137.90
8	8	7	2646	.....	172.55

Fig. 1355-A Pump

ing cylinder and well pipe are not included as a part of this installation.

- Fig. 1356-A—With 66 gal. galvanized tank and fittings and ¼ H. P. Motor \$134.80
 Fig. 1356-B—With 100 gal. galvanized tank and fittings and ¼ H. P. Motor 144.90
 Fig. 1355—Without tank and fittings, but with ¼ H. P. Motor 87.50
 Fig. 1360-G—For deep wells, with 100 gal. galvanized tank and fittings and ½ H. P. Motor 189.00
 Fig. 1360—For Deep Wells Pump Only 63.00
 Fig. 1360—For deep wells, without tank and tank fittings, but with ½ H. P. Motor 121.00
 Fig. 1370—Pump only for engine power 54.70
 Anti-freezing attachment for any of the above pumps 5.85
 Cylinders—See page 179

HOOSIER WATER SUPPLY SYSTEM

HOOSIER GALVAZINC TWIN PUMP, as is used on complete outfits, Fig. 1963 1965 and 1967.

Galvazinc coating applied by hot dip process. Protects both outside and inside of pump.

Capacity, 240 gallons per hour, 200 R. P. M., Suction ¾ inch, Discharge ½ inch. Vertical suction, 22 feet. Double throw crankshaft, two cylinders and crossheads.

Cylinders bronze, 1½ in. in diameter, 1¼ inch stroke.

Plungers fitted with two 1¼ inch cup leathers, separated with center flange to keep the leathers from turning in cylinder.

Stuffing boxes located in end of pump opposite crank case.

Valves of pure rubber, seated on beaded bronze rings, the shape of which prevents particles of dirt remaining in seat. Valve springs are of brass.

Fig. 1961—Pump only, with ¼ H. P. Motor, 240 gal. capacity \$33.50

Fig. 1963—Complete outfit, with 33 gal. galvanized tank, ¼ H. P. Motor. Price 124.60

Fig. 1965—Complete outfit, with 66 gal. galvanized tank, ¼ H. P. motor. Price 133.70

Fig. 1967—Complete outfit, with 100 gal. galvanized tank, ¼ H. P. motor. Price 142.80

THE COMPLETE SYSTEM. This complete Hoosier

System consists of Fig. 1355 Electric Deep Well Pump, complete with ¼ horsepower motor for currents, as specified in price list, with belt and pump base, Hoosier Pneumatic Tank of vertical type, Fig. 1350 Controller, Fig. 1200 Pressure Gauge, Fig. 1201 Water Gauge, Fig. 1204 Relief Valve gate valves compression hose bibb, swinging brass check valve, together with pipe and close fittings for connecting pump and tank, and tank and service line, as illustrated. The pump-

Fig. 1963

Hoosier Automatic Pressure Controller

Fig. 1351—Automatic Pressure Controller is used for automatically controlling electric driven power pumps. It can be adjusted for any pressure up to 75 pounds and for a variation of 20 pounds. For domestic purposes, it is best to have it cut in and out at 30 to 50 pounds, respectively.

OUR SPECIAL PRICE \$7.70

The Hoosier Horizontal Double Acting Power Pump

A compact high-grade double acting horizontal pump for pumping from shallow wells to pneumatic water supply systems. The whole design of this pump is with a view to compactness, strength and accurate operation. The load is well equalized.

Size of Pulley.
 No. 1 10x2¼
 No. 2 12x3
 No. 4 20x4

Tapped Inlet Outlet.

No. 1 1¼ 1 in.
 No. 2 1½ 1¼ in.
 No. 4 2½ 2½ in. Fig. 1325

Fig.	Cylinder.	Capacity.	Price.
1325 No. 1.....	2½x4	510 gal.	\$44.80
1325 No. 2.....	3x5	850 gal.	77.00
1325 No. 4.....	5x5	2350 gal.	182.00

Hand Pumping attachment for No. 1... 3.00

HOOSIER GALVAZINC OILED PUMP

The HOOSIER GALVAZINC Oiled Pump may be had either with or without tank equipment. When supplied as a complete water service unit, it is so shipped that it is easily assembled.

If fresh water, direct from the well, is desired, so specify when ordering, and fresh water attachment, including Hoosier Silent Check Valve will be supplied at a small additional charge.

When using the Hoosier Galvazinc Oiled Pump on a suction greater than 15 feet, we recommend the use of Hoosier Silent Check Valve placed vertically in the suction line, as the use of this check valve will effect economy in current consumption.

Fig. 1950, Hoosier Water Service Galvazinc Oiled Pump includes motor, belt, controller pump, and vacuum chamber without tank.

Fig. 1952, Hoosier Water Service Galvazinc Oiled Pump consists of Fig. 1950 pump motor, controller, belt and vacuum chamber, together with 18 in x 30 in. galvanized tank, capacity 33 gallons, base gate valve, relief valve, combined pressure and water gauges and necessary fittings for connecting pump and tank.

SPECIFICATIONS

Fig.	Floor Space	Height	Weight Crated	Price
1950	13" x 20"	22½"	113 lbs.	\$77.00
1952	20" x 32"	34"	252 lbs.	116.90

Power Only

Hoosier Power Working Heads

Figure 1552, Center Pulley Drive, geared 6 to 1, tight and loose pulleys, underground discharge, and Fig. 1042 combination air cylinder and air chamber, for Pneumatic Water Supply System service.

Over-all measurements—height 3 feet 4 inches; length 2 feet 2 inches; width 1 foot 8 inches.

Fig. 1551 is Fig. 1552 with upground discharge.

Approximate Capacity—460 gallons per hour with 2 3/4-inch cylinder on 10-inch stroke at 30 strokes per minute, 150-foot maximum lift, or 70 pounds pressure; 1 H. P. required to operate.

Fig.	Pulley	Suc.	Dis.	Price
1551	16x3	3-in.	2-in.	\$58.75
1552	16x3	3-in.	2-in.	64.00

Hoosier Horizontal Double Acting Hand Pump For Shallow Wells

FIG. 1248

Fig. 1248—Hoosier Horizontal Hand Pump, double acting, for general purpose work or pneumatic water service, for use where the suction is not more than 18 or 20 feet. Pump is equipped with large air chamber and rack head, insuring ease of operation. It has 3x5" Brass Lined cylinder and a 3 to 5" adjustable stroke. The pump is tested to 100 pounds pressure. All valve caps, including suction cap, are on the outside and easily accessible. The body is detachable from the body of the pump and in case of breakage of the base it is unnecessary to purchase an entire new pump.

It is fitted with an intake air valve and it can pump both air and water at the same time.

Price of Pump.....\$18.90

Hoosier Tank Pump

Hoosier Double Acting Tank Pumps are strongly built, of very large capacity, and especially adapted for threshermen's use. The cylinder is carefully bored and polished. The cylinder has 5-in. stroke, the valves have brass valve seats, and the valves are accessible through hand-holes by removing the plugs. The suction and discharge have 2-in. openings with swivel connections. Furnished with suction connection for 2-in. pipe or 2-in. hose, and the discharge connection for 2-in. pipe or 1-in. hose.

As the pump heads are reversible, the handle can be attached to either end of the pump.

By opening the upper and lower drainage plug, water can be drawn off the pump to prevent freezing.

Price\$16.10

Hoosier Deep Well Outfit 1370A

The complete system consists of Fig. 1370 Deep Well Pump with floor base, Hoosier Pneumatic Tank of horizontal type, with wood supports, 1 1/2 horsepower gasoline engine, with Webster Magneto equipment, 15 feet rubber belting, Fig. 1287 Circuit Breaker, Fig. 1200 Pressure Gauge, Fig. 1201 Water Gauge, Fig. 1204 Relief Valve, gate valves, compression hose bibb, swinging brass check valve, together with pipe and close fittings to connect pump and tank, and tank and service line, as illustrated. Pumping cylinder and well pipe are not included as a part of this installation.

Fig. 1370

Hoosier Shallow Well Outfit 1325A—With Fig. 1325 Pump

Fig.	Description	Capacity of Tank, Gallons	Weight	Price
1325-E	Complete Hoosier System, as above described, with 30-inch by 8-foot Hoosier Pneumatic Tank....	295	1125	\$253.75
1326-E	With 1/2 H. P. Motor....	295	1030	273.00
1370-E	Complete Hoosier System, as above described, with 30-inch by 8-foot Hoosier Pneumatic Tank....	295	1150	\$262.50

Arrow Pneumatic Tanks

LIST OF PNEUMATIC TANKS. (Plain Tanks Without Fittings.)

Diameter in inches	Length in feet	Wt.	Capacity in gallons	Price Galvanized	Price Black
*24	5	260	120	\$ 52.25	\$ 34.50
*30	6	600	220	92.25	56.25
30	10	850	365	132.00	80.30
*36	6	750	315	114.25	68.75
36	10	1075	525	161.00	97.50

BALTIMORE TANKS

Diameter in inches	Length in feet	Capacity in gallons	Price Galvanized	Price Black
*24	5	120	\$ 47.00	\$ 33.00
*30	6	220	76.00	50.00
30	10	365	109.50	70.50
*36	6	315	97.00	62.50
36	10	525	134.50	86.00

Tanks marked * thus are vertical.

33-Gallon Galvanized Tank.....	\$18.20
66-Gallon Galvanized Tank.....	26.60
100-Gallon Galvanized Tank.....	36.00

ACCESSORIES FOR PNEUMATIC TANK

	Our Price.
Water Gauge.....	\$5.50
Pressure Gauge.....	4.50

FULLER & JOHNSON ENGINE—NEW "NC" LINES

1 1/2 H. P. Engine

Easy to Start: This most desirable feature is made possible by the individual design of the Fuller & Johnson fuel vaporizer which produces the correct mixture of gasoline and air for either starting or running; also to the accuracy with which each piston is individually fitted to its cylinder. This not only creates a good vacuum in drawing in the charge but also good compression when the mixture is compressed and ignited by the fat, hot spark. This one feature alone warrants using a Fuller & Johnson engine. Ask any user.

Simple to Operate: In the photograph above note the absence of complicated parts. Every unnecessary part is eliminated. This extreme simplicity makes it very easy to operate.

Well Balanced: Each fly-wheel is separately balanced before it is put on the shaft. Then as a final test, after the engine is completely assembled it is mounted on an iron plate with straight steel rollers where the slightest vibration can be detected. The engine must satisfactorily pass this test. In a well balanced engine internal strain and friction is reduced to a minimum. This assures steadier, more even power and much longer life.

Rigidly Tested: After assembly, each engine is thoroughly run in on the test floor. It is then checked by the inspector for compression, ignition, valvesetting, bearing adjustment, etc. After passing this test it is then brake tested for power. Each Fuller & Johnson engine must develop full rated horse power. Finally as an extra protection to the user, just before it is crated for shipment, every engine must pass a final running test by an engine expert. This assures the owner that the engine is not only properly designed and built but having been thoroughly tested and inspected before shipping, it is ready to put right to work.

Economical on Fuel: Our new, improved type of vaporizer reduces fuel consumption to the lowest possible notch. Recently several well known makes of engines on the market were given a 60-day test. The Fuller & Johnson engine showed the lowest fuel consumption of any engine tested.

Longer Life: Because of the simplified design, the freedom from vibration, the large bearings and oversize dimensions of all the parts subjected to hardest wear, together with the extreme care and accuracy exercised in building Fuller & Johnson engines, they give many additional years of service. It is not uncommon to find Fuller & Johnson engines in use 15 to 20 years and still running just as good as ever.

FULLER AND JOHNSON FARM PUMP ENGINE

This is the original Farm Pump Engine—the acknowledged leader in the pumping field. The many thousands now in daily use all over the world testify to the merit and popularity of this remarkable pumping engine.

Here are some short, right-to-the-point facts.

Attaches quickly and easily to pump standard. Simple, compact—no complicated parts. Direct connected—no belts necessary. Comes complete in crate; no braces, special platforms or extras of any kind needed. Air cooled—won't freeze or over-heat. Weatherproof—runs perfectly winter and summer alike. Protected gears—lasts longer—safe to operate. Capacity 370 to 2,450 gallons per hour. Also runs washing machine, churn, separator, etc.

The vital question of every farm is its water supply.

With Batteries\$95.00

With Magneto 105.00

Regular Equipment: Consists of a muffler, cylinder oil, grease cups, starter crank, and instruction book all packed in one crate.

Ignition: The Model NC engines are furnished with Wico magneto.

2—3 1/2—6 H. P. Engine

1 1/2 H. P. Engine	\$ 70.
2 H. P. Engine	80.
3 1/2 H. P. Engine	125.
6 H. P. Engine	200.

Artesian Well
Cylinder No. 445

Brass Lined Artesian Well Cylinders

A galvanized steel cased brass lined artesian well cylinder for deep wells. It can be used inside of cased or open wells.

It is fitted with bronze ball tubular well valves.

The check valve is seated on a shoulder in a special coupling at the lower end of cylinder. The plunger and lower valve can be inserted or removed through the connecting pipe, which is larger in diameter than the bore of the cylinder.

2-in. Diameter, 16-in. Stroke, 26-in. Length of Cylinder, Plunger fitted for 3/4 pipe thread\$12.00

2 1/2-in. Diameter, 16-in. Stroke, 26-in. Length of Cylinder, Plunger fitted for 3/4-in. pipe thread 19.75

3-in. Diameter, 16-in. Stroke, 28-in. Length of Cylinder, Plunger fitted for 1/2-in. pipe thread 26.25

No. 9171—Deep Well Brass Cylinder 1 1/4 for 1-in. pipe to be used in connection with 1355 and similar outfits, 6-in. Stroke, \$5.50.

Improved Bestway Well Cleaner

It makes this very important job easy. Designed to operate by one person from platform.

Made very strong and durable; will last indefinitely; the price is so small and the results so effective that several jobs

will more than pay for it.

Keep your water pure and healthful; clean the well often with a Bestway. \$15.00

GOULD'S UNIVERSAL HOUSE FORCE PUMP

The Universal House Force Pump is an easy working, compact and substantial pump. It is well adapted to house pumping, furnishing water either at the spout or through opening to storage tank. Can be used outdoors over wells and cisterns. Pump should not be placed over 22 feet above the water. Has 2 1/2-inch cylinder and 4-inch stroke. Tapped for 1 1/4-inch pipe.

Fig. 1169

Fig. 1168

No. 2, Fig. 1168—With Plain Spout.....\$7.50
No. 2, Fig. 1169—With Cock Spout..... 9.50

BRASS VALVES

11

13

4

FIG. 100

	1/4 in.	3/4 in.	1 in.	1 1/4 in.	1 1/2 in.
Globe and Angle Valves.....	\$1.35	\$1.65	\$2.40	\$3.35	\$4.65
Gate Valves.....	1.60	1.95	2.60	3.50	4.75
Swing Check Valves.....	1.50	1.70	2.10	2.75	3.60
Lever Handle Stop.....	.90	1.65	2.50	.....	.....
Stop and Waste.....	1.00	1.70	2.60	.....	.....
Compression Bibbs.....	.70	1.50	2.65	.....	.....
" Hose Bibbs.....	1.15	1.95	2.85	.....	.....
Galv. Foot Valves.....	.....	.....	.....	1.25	.....
Iron Body Foot Valves.....	.....	.....	.....	1.75	.....

GALVANIZED PIPE FITTINGS.

	1/2	3/4	1	1 1/4	1 1/2	2
Elbows	.12	.20	.22	.36	.44	.76
Tees	.17	.26	.28	.52	.64	1.02
Street Elbows.....	.12	.18	.22	.32	.44	.72
45-Degree Elbows.....	.12	.18	.20	.50	.40	.68
Cross	.20	.32	.33	.56	.70	1.18
Bushings	.10	.10	.12	.13	.15	.20
Lock Nuts.....	.05	.05	.06	.10	.12	.18
Caps	.06	.10	.12	.20	.28	.42
Reducers	.10	.13	.14	.20	.30	.50
Couplings	.10	.14	.16	.28	.34	.60
Galv. Unions.....	.36	.42	.52	.74	.94	1.42

GALVANIZED NIPPLES.

1/2x1 or 1 1/2.....	\$0.06
1/2x2, 2 1/2, 3, 3 1/2.....	.10
3/4x1 1/2 or 2.....	.10
3/4x2 1/2, 3, 3 1/2, 4.....	.12
1x1 1/2 or 2.....	.12
1x2 1/2, 3, 3 1/2, 4.....	.15
1 1/4x1 1/2 or 2 1/2.....	.15
1 1/4x3, 3 1/2, 4, 4 1/2.....	.20
1 1/2x1 3/4 or 2 1/2.....	.20
1 1/2x3, 3 1/2, 4, 4 1/2.....	.25

Additional for Fitting Pumps

We give below a table of the additional charge for fitting, and the amount stated in table has to be added to the price of the pump selected. In fitting pumps we use galvanized pipe and galvanized pump rod and a strainer for valve. For wells 26 feet deep or less we leave the cylinder 5 feet below platform. For wells deeper than 26 feet we place the cylinder close to the bottom of the well.

Prices Subject To Change Without Notice	With 1 1/4-in. Pipe for 2 1/2-in. and 3-in. Cylinder Pumps.	With 2-in. Pipe for 4-in. Cylinder Pumps.	With 2-in. Pipe fitted with 1 1/4-in. Wood Rod.	We Use an Extra Good Foot Valve Depth of Well.	With 1 1/4-in. Pipe for 2 1/2-in. and 3-in. Cylinder Pumps.	With 2-in. Pipe for 4-in. Cylinder Pumps.	With 2-in. Pipe fitted with 1 1/4-in. Wood Rod.
Depth of Well,							
10 feet.....	\$3.55	\$5.45	.....	32 feet.....	\$9.50	\$14.30	\$18.50
12 feet.....	4.00	6.10	.....	34 feet.....	10.00	15.10	19.60
14 feet.....	4.40	6.85	.....	36 feet.....	10.60	15.95	20.75
16 feet.....	4.85	7.55	.....	38 feet.....	11.10	17.55	22.65
18 feet.....	5.30	8.25	.....	40 feet.....	11.70	18.30	23.70
20 feet.....	5.75	9.00	.....	42 feet.....	12.25	19.20	24.80
22 feet.....	6.20	9.65	.....	44 feet.....	12.75	20.00	26.00
24 feet.....	7.30	11.00	\$14.00	46 feet.....	13.30	20.80	27.10
26 feet.....	7.80	11.85	15.15	48 feet.....	13.85	21.65	28.25
28 feet.....	8.36	12.65	16.25	50 feet.....	14.40	22.40	29.30
30 feet.....	8.90	13.50	17.40	Each additional ft..	.27	.40	.....

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

Showing
Rack Head

HOOSIER PUMPS

Fig. 7904

Fig. 7994.

Fig. 8113.

Fig. 8553.

Fig. 1050.

Fig. 1038.

Fig. 7904—Hoosier Open Top Hand Lift Pump, with wrought set length. It has large cast head, swivel bearer top, long handle and adjustable. The Standard or Barrel is made of 1½ in. pipe, and has the anti-freezing feature. 3-inch, iron cylinder. Price, \$9.25

Fig. 77715.—Hoosier Open Top Hand Lift Pump with wrought set length. The swivel bearer top permits of the handle being set in any direction. The standard is tapped for pipe immediately below spout, and with the usual drip hole in the set length pipe just above the cylinder, makes the pump anti-freezing. A substantial and serviceable pump for open and driven wells not exceeding 30 feet in depth. 3 inch Brass Lined Cylinder. Price, \$12.25.

Fig. 7994.—Hoosier Hand Force Pump, wrought set length, anti-freezing, has swivel bearer top, polished steel piston rod, brass stuffing box, compression cock spout and back inlet. Standard is tapped for pipe just below spout, and with the usual drip hole directly above cylinder makes the pump anti-freezing. Fitted with 3 inch brass lined cylinder. Price, \$15.25.

Fig. 7995.—Same pump as Fig. 7794, with the exception that it is equipped with Hoosier Hand Rack Head instead of Plain Head. Price, \$17.25.

Fig. 8113.—Hoosier Windmill Force Pump, wrought set length, anti-freezing; has detachable polished piston rod, brass stuffing box, swivel bearer top, back outlet and detachable compression cock spout. The bearer top has removable guide bushing to prevent pump rod wearing directly on bearer guide. 2½ inch Brass Lined Cylinder, 6 inch stroke, weighs 81 pounds. Price, \$17.25.

Fig. 8553.—Hoosier Windmill Underground Force Pump, double acting, with wrought set length, anti-freezing. The pump has brass upper cylinder, positive three-way cock with union connection. Has adjustable platform base, fitted with 1 inch goose neck spout, and 1 inch three-way discharge. By removing upper cylinder and cap, the plunger valve can be withdrawn without disturbing the pump. Suitable for well from 25 to 125 feet in depth. Without Cylinder, Price, \$16.75

Fig. 1050.—Hoosier Combination Set Length Pump and Jack. For hand, windmill or belt power. For shallow or deep wells. In this pump you get a true alignment of the jack and pump, with no side strain or uneven wear on the parts. Has cast gears and strong pitmans. Tight and loose pulleys. By removing upper cylinder and cap the plunger valve can be withdrawn without disturbing the pump. Can be used with 1¼, 1½, 2, 2½ or 3 inch pipe. Price, \$46.75

Fig. 1038.—Hoosier Combination Pump Standard and Jack. Back geared 5 to 1, is designed to be operated by hand, windmill or belt power, for shallow or deep wells. This combined pump and jack is compact, strong and easy to install. Built in two sections, between which is a detachable flange, the upper section being the large air chamber with flanged top to which is bolted the flange bearer, making a firm connection; the lower section or barrel and main frame of the jack are of one-piece construction. This gives a true and permanent alignment of the jack and pump. Equipped with cast gears. The pinion shaft is extra long. Pitmans are made of heavy angle steel. The pitmans, gears, pinions and all wearing parts have No-Oil-Em Bearings. Has tight and loose pulleys. Adjustable stroke, 6 to 10 inches. One piece 11-16 inch piston rod, brass covered; brass stuffing box; compression cock spout with hose connection and back outlet. The jack has sufficient clearance above floor to admit of pulley being used as large as 30 inches. Suitable for wells from 25 to 200 feet. Weighs 190 pounds. Price, \$37.00.

Fig. 8584.—Hoosier Easy-Fix Windmill Force Pump. Single Acting, with detachable cast standard, for heavy service. Has positive Three Way discharge and brass hand wheel screw for regulating the three way distributing valve. Underground discharge elbow as union connection, Brass Stuffing Box and Brass Covered Piston Rod, fitted with 1½ inch pipe air barrel.

The stuffing box is set in extra cap or flange which screws into the bottom casting. By removing stuffing box cap the plunger may be withdrawn without disconnecting the pump. Bearer is provided with removable pump rod guide bushing to prevent wear directly on the bearer guide.

The bottom flange is interchangeable for the size cylinder or pipe to be used. Price of pump without cylinder, \$21.75.

Artesian Well Cylinders—See Page 190

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

CLOSED TOP PITCHER SPOUT PUMP

SIZES AND PRICES.

No. 2—Diameter of Cylinder, 3 in.; Suction, 1½ in. Polished Iron Cylinder. Retail, \$2.50.

No. 3—Diameter of Cylinder, 3½ in.; Suction, 1½ in. Polished Iron Cylinder. Retail, \$2.75.

For 1½-in. Couplings add 15c.

PITCHER PUMP LEATHERS.

No. 2—Valve and flat Plunger Leathers, each, 16c.

No. 3—Valve and flat Plunger Leathers, each, 20c.

No. 2—3-inch Leather Cups, 19c.

No. 3—3½-inch Leather Cups, 25c.

BRASS JACKET DRIVE WELL POINTS

No.	Diameter of Pipe.	Length.	No. 60 Gauge, List Price, Per Doz.	Retail Price Each.
90	1¼	24 in.	\$36.00	\$1.70
94	1¼	30 in.	46.00	2.15
98	1¼	36 in.	56.00	2.60
102	1¼	48 in.	76.00	3.55
136	1½	24 in.	48.00	2.25
140	1½	30 in.	60.00	2.80
144	1½	36 in.	72.00	3.35
148	1½	48 in.	96.00	4.45

Malleable Drive Caps, Hexagon-shaped, for 1¼-inch Pipe.....55c.
Malleable Drive Caps, Hexagon-shaped, for 1½-inch Pipe.....55c.

IXL GALVANIZED STEEL CHAIN PUMP

Being made of No. 24 gauge galvanized steel, this pump will not rot, rust nor accumulate filth like pumps of less desirable construction, and it makes the water clear and pure. It is anti-freezing, as the reservoir piece has a small hole, which allows the water to run out. This style of pump is practical for use in wells as deep as 40 feet. The term curb means the complete upper part of pump with fixtures.

PRICES.

I X L Curb.....	\$ 6.50
Gem Curb.....	5.50
Tubing, per foot.....	.15
Coupling.....	.50
Rubber Buckets.....	.10
Iron Platform.....	9.00
Chain, per lb.....	.12

DIRECTIONS FOR FITTING UP CHAIN PUMPS

1. Use one foot more tubing than depth of well.
2. Multiply length of tubing by two and add 3 feet 6 inches to get proper length of chain.
3. Rubber buckets should be placed 6 or 7 feet apart.
4. See that tubing is held secure—by tubing brace at bottom of curb.

No. 30 STAR WATER ELEVATOR AND PURIFIER

Similar to the No. 2 Water Elevator, except that the buckets are slightly smaller, and there is a slight difference in the way the buckets are coupled together. On account of the smaller bucket, it is considered by some better for deep wells.

Price—Elevator and 25-foot chain and jappanned bottom wheel for 10-foot cistern, \$13.50. Extra chain, per foot, 25c.

E. Z. BUCKET PUMP OR WATER ELEVATOR

The strongest bucket pump built. It is made of the best No. 24 galvanized steel, painted two coats best gray paint, and varnished. It has roller bearings, and they make the pump work easier, wear longer and run practically noiseless.

It has steel top and bottom bands. The buckets are made from the best galvanized steel, roll locked seams throughout.

Fixtures are put on the pump complete, avoiding all trouble in fitting.

Price—Elevator, with 25-foot chain and galvanized bottom wheel for 10-foot cistern.....\$13.50

I X L Rubber Bucket.	The Queen Rubber Bucket.	Victor Anti-Freezing.	Crosby Swivel Link Bucket, 12c.
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Price, 10c.

Price, 10c.

Price, 10c.

Crosby Plain, 10c.

PUMP LEATHERS

Our pump leathers are cut from the best grade of selected Oak Tan leather. We offer only such leathers as we can recommend as being absolutely high grade.

Plunger Leather Crimped.

Suction Valve Leather.

CRIMPED PLUNGER OR CUP LEATHERS

	Each		Each		Each
1 inch.....	\$0.08	2½ inch.....	\$0.15	4 inch.....	\$0.35
1¼ inch.....	.08	2¾ inch.....	.18	4¼ inch.....	.38
1½ inch.....	.10	3 inch.....	.19	4½ inch.....	.40
1¾ inch.....	.10	3¼ inch.....	.22	4¾ inch.....	.45
2 inch.....	.11	3½ inch.....	.25	5 inch.....	.50
2¼ inch.....	.12	3¾ inch.....	.31		

PLUNGER AND LOWER VALVE LEATHERS AND RING PACKING

Outside Diam.	Cylinder Diam.	Each	Outside Diam.	Cylinder Diam.	Each
2 inch	1½ inch	\$0.10	3½ inch	3 inch	\$0.16
2¼ inch	1¾ inch	.10	3¾ inch	3¼ inch	.17
2½ inch	2 inch	.11	4 inch	3½ inch	.20
2¾ inch	2¼ inch	.12	4½ inch	3¾ inch	.25
3 inch	2½ inch	.13	5 inch	4 inch	.30
3¼ inch	2¾ inch	.15			

PUMP CYLINDERS

	Iron Our Price.	Brass Lined. Our Price.	Brass. Our Price.
2½x12.....		\$ 4.90	\$ 5.55
2½x16.....		5.65	6.30
3x10.....	\$2.25	5.30	6.25
3x12.....		6.15	6.90
3x16.....		6.25	7.00
3½x10.....	3.00	7.35	9.50
3½x12.....		8.50	10.90
3½x16.....		9.75	11.25
4x12.....			

2½ and 3-in. cylinders take 1¼-in. pipe; 3½-in. cylinders take 1½-in. pipe; 4-in. cylinders take 2-in. pipe.

Baltimore Wood Pumps

PRICES OF PUMPS FITTED COMPLETE.
With and Without Porcelain Cylinder.

Depth of Well.	6x6 Unlined. Price.	6x6 Lined. Price.	7x7 Lined Price.
10 feet.....	\$11.50	\$14.10	\$16.30
12 feet.....	12.10	14.70	16.95
14 feet.....	12.75	15.35	17.60
16 feet.....	14.30	15.95	18.20
18 feet.....	15.00	17.55	19.80
20 feet.....	15.60	18.15	20.40
23 feet.....		19.55	22.05
25 feet.....		20.45	23.20
28 feet.....		22.45	24.70
30 feet.....		23.95	27.45
33 feet.....		26.00	29.65
35 feet.....		29.00	32.90
40 feet.....		32.70	36.80
45 feet.....		37.00	41.40
50 feet.....		39.75	44.40

Baltimore Wood Pumps

NOT FITTED.

"No. 0."—STOCK PUMPS. 7x7 inches, 4-inch Bore.

	Porc. Lined. Price.
6 feet long.....	\$12.75
7 feet long.....	13.75
8 feet long.....	14.75
10 feet long.....	16.75
12 feet long, extension cylinder.....	17.25
6 feet long, reamed for 6x6 extension pipe, unlined.....	10.50

"No. 1"—The Favorite House Pumps

6x6 in., 3½-in. Bore.

	Porc. Lined. Price.
6 feet long.....	\$10.50
7 feet long.....	11.25
8 feet long.....	12.00
10 feet long.....	14.00
12 feet long.....	15.50
6 feet long, reamed for 6x6 extension pipe, unlined.....	8.50

Pump For Drive Wells

To Fit 1¼, 1½-inch Iron Pipe.

Special No. 1 House; 5 feet wood, Porcelain-lined
Cylinder, entire length 6 feet.

PRICE.....\$11.50

Tubing and Miscellaneous

	Retail Price.
4x4, 12 feet long and under, per foot.....	\$0.30
4x4, over 12 feet, per foot.....	.32
6x6 Extension Tubing, per foot.....	.75
Cylinder Block, Porcelain Lined, 3 feet long.....	4.40
Cylinder Block, Porcelain Lined, 4 feet long.....	5.20
Cylinder Block, Porcelain Lined, 5 feet long.....	6.00
Cylinder Block, Porcelain Lined, 6 feet long.....	6.50
Cylinder Block, Porcelain Lined, 7 feet long.....	7.60
Cylinder Block, Porcelain Lined, 8 feet long.....	8.40
6x6 Couplings for 4x4 Tubing.....	.90
Buckets, 5-in., each, No. 00, Price \$1.50; 4-in., each, No. 0.....	1.25
Buckets, 3½-in., No. 1, each, Price, \$1.00; 3-in., No. 2, each.....	.80
Handle, any size, each, Price, 40c.; Handle Links or Knuckles.....	.40
Check Valves, each.....	.14
Iron Connection for Drive Wells, fitted for 1½-in. and 1¼-in. iron pipe.....	1.50
Extra Iron Spout, with loose collar.....	.50
Extra Wood Spouts, each, Price 25c.; Extra Spout Braces, each.....	.40
Extra Bands, each.....	.12
Extra Ears or Brackets, Nos. 35 and 36, pair.....	.50
1-in. Rod Couplings, pair.....	.60
Plunger Rod, per foot.....	.05

GALVANIZED PUMP RODS AND COUPLINGS

¾-inch Round Galvanized Pump Rod
in 20-foot lengths, not threaded, per
foot, 5c.

7-16 in., 6c.

Threaded with coupling, add 1c. per
foot; cut lengths add 3c.Galvanized
Pump Rod
Couplings for
¾ or 7-16 in.
rod. 10c. each.

OCTAGON WOOD PUMP RODS.

Wood Pump Rod for artesian
wells is made of selected material
and fitted with galvanized forged
couplings.

Size of Rod	Size of Artesian Well Cylinder	Price, Per Ft.
1½ in.	1¾ in. to 2¼ in.	\$0.25

The above prices are for rod in
standard lengths or from 16 to 20
feet, couplings included.

WOOD PUMP ROD.

HOOSIER PUMP JACK

Fig. 1037—Hoosier Pump Jack.

Geared 6 to 1, with tight and
loose pulley. The main frame
of jack and tripod base are of
one piece construction. The
foot spread is extra wide. De-
signed to operate independent-
ly of pump standard. Adjust-
able cross head with wide range
of adjustments. The arrange-
ment of gear and pinion give
a direct even lift.

Weight 95 pounds.

Price, \$18.00.

Fig. 1037.
Pump Jack

HOOSIER PUMP JACK

Fig. 1031.

Figure 1031—Hoosier
Pump Jack, with tight
and loose pulleys for
gasoline engine or elec-
tric motor, with motor
speed reduced. The drive
shaft may be driven 200
R. P. M.; as a rule, how-
ever, we recommend 170
R. P. M., or about 34
strokes per minute.

The pitmans are made
of hard wood, and with
their wide range or ad-
justment the jack can be
attached to a windmill-
head pump without dis-
turbing the pump or pipe
connections.

This jack can be used
on the wall, floor or ceil-
ing.

Will operate a 3-inch
cylinder, 125 foot lift on
8-inch stroke.

Price.....\$9.75

MAJESTIC

**ROTARY WASHER
ELECTRIC WELDED
WIRE HOOPS.**

**VIRGINIA WHITE
CEDAR TUB.
ROLLER BEARINGS.**

This is the lightest-running and easiest-working Washing Machine made. Roller bearings; no friction. Works in both directions. Very simple; nothing to get out of order. Nicely corrugated on sides and bottom. Hoops are galvanized wire and are welded by electricity; these are much stronger than the old-style flat hoops, and CANNOT DROP OFF, being sunk in grooves.

OUR SPECIAL PRICE,

\$13.50.

THE R. C. W. WATER MOTOR WASHER

THE R. C. W. WATER MOTOR WASHER is equipped with the Horizontal, Piston Type of Water Motor, some users prefer this type of motor, which is a very good one.

The tub is made from first-grade white cedar, which is the best material obtainable for this purpose.

The construction of this machine is the best, and with proper care should last many years, and give the very best service. **PRICE \$21.50**

BICYCLE WRINGER

Warranted three years for Family Use. This is an exceptionally strong wood frame wringer. Specially constructed Ball Bearing, Cog Gears, inclosed in specially constructed shields. No danger of getting fingers in cogs..

The construction of bearings is such that there is not any danger of getting grease on to the rolls.

No. 770 Bicycle, Rolls 10x1 3/4 inches **Price.....\$6.60**

No. 771 Bicycle, Rolls 10x1 3/4 inches **Price.....7.00**

This Wood Frame Wringer is warranted for three years for family use. Has Galvanized Metal Bearings. Flat Steel Spring, easily adjusted with thumb screws for light and heavy work.

No. 110
\$6.00
No. 111
\$6.30
No. 112
\$6.75

Domestic Wringer

DOMESTIC WRINGER

Steel Spiral Springs, adjusted with thumb nuts for heavy or light work.

The Cog Wheels on rollers

prevents strain.
No. 22 Domestic,
Rolls 10x1 3/4 in.
Price\$5.50.

BICYCLE WRINGER

This wringer is constructed on the general principal of the Domestic Steel Frame Wringer, but has ball bearings.

No. 740 Bicycle Rolls, 10x1 3/4 in. **Price...\$6.60**

No. 741 Bicycle Rolls, 11x1 3/4 in. **Price... 7.00**

Wringer Rolls, as Extras.
10 in. **Price...\$2.15** 11 in., \$2.05 12 in., \$2.55,

Majestic Electric Power Washer

The Tub of the MAJESTIC POWER Washer is made of selected Virginia White Cedar,—the best known wood for making Washing Machines. No danger of copper stains—and the tub is staunch, and specially designed to give real service over a period of years. Virginia White Cedar is a non-conductor of electricity.

The powerful 1/4 H. P. Motor, belted to the well-balanced fly wheel drives the mechanism noiselessly, and operates the Washer and Wringer with power to spare.

The specially designed, aluminum dolly agitates the suds and water, with sufficient force and speed to wash the clothes spotlessly clean in a few minutes.

The entire mechanism, including the Angle Iron Stand, is designed and co-ordinated so as to make an attractive, powerful and efficient household necessity, and priced within the reach of the medium buyer.

The MAJESTIC is built to last

Now the Wringer comes into play. This is arranged to lock in any position desired, by a simple but effective device, and this aluminum wringer, with 5-year rolls, is a gem.

Price\$62.50

Richmond Highspeed Washing Machine

The mechanical principle of this machine is positive in its action, and as you will see from the cut—the segment lever directly drives the dolly pinion, and all gears are incased in accident-proof covers, reducing danger to minimum.

We use cut gears on this machine, and a heavy fly wheel hung parallel with the hinge line, so that the lid can be raised easily, while the mechanism does not get out of gear. You will note the segment lever has a piston type head, ending in a ball which travels in the machined raceway, so arranged as to produce the reverse action of the dolly.

PRICE \$18.35

No. 23 Domestic,
Rolls
11x1 3/4 in.
Price \$5.85.

Open view with cylinder lifted out to clean machine.

"BOSS" WASHING MACHINE

When the top is down and the "BOSS" is operated, the two rub-boards oscillate in opposite directions twice to every revolution of the crank, or 180 times to every turn of the wheel—90 forward and backward strokes every minute. It is this quick double action, and the pressure to the upper rub-board that produces the action similar to the rubbing and squeezing process of washing by the hand method. The clothes, being placed between the two rub-boards, are rubbed and squeezed, rubbed and squeezed, many pieces at a time.

Made in three sizes—

	Capacity	Weight	Our Special Price
No. 1—Small Family	10 Shirts	100 Lbs.	\$14.75
No. 2—Medium Family	12 Shirts	105 Lbs.	16.00
No. 5—Large Family or Hotel	15 Shirts	110 Lbs.	17.75

**BANNER
GEARLESS
MOTOR**
FOR CITY WATER
POWER—Guaranteed for any pressure over 20 pounds.

Motor is constructed on the turbine principle of direct action—no gears or racks—only two self-lubricating bearings—only two well-protected and practically indestructible springs—heavy brass cylinder—and parts perfectly machined—perforated metal screen before intake port to prevent anything getting into the cylinder. Consumes less water than most washer motors, and will operate on very low pressure. Dasher post adjusts through top of motor—no projection below dasher.

Furnished with high-grade intake and exhaust hose. Large cypress tub—natural finish—with all improved features. Capacity 8 shirts. Shipping weight 60 lbs. Our Special Price.....\$16.00

Happy Day Electric Washer

IN CONSTRUCTION AND FINISH this machine is unexcelled. It is very simple and every part of the mechanism is not only carefully fitted, but of great strength. With proper care the "Happy Day" Electric Home Laundry Machine will last for many years.

No. 44—ELECTRIC WASHER....\$68.75

No. 43—Happy Day Engine Power

Washer. Price.....\$52.00
Above have Swinging Wringers.

The Electric Washer and the Power Washer are the same construction the difference being the power used.

Power Washer

THE FRAME, OR STANDARD is made of angle steel, the different pieces being securely riveted to each other forming an exceedingly strong and rigid frame, which at the same time is not heavy nor cumbersome. The entire frame has electro galvanized, non-rust finish, and is mounted on strong steel casters which allow the machine to be readily moved from place to place.

THE STEEL EXTENSIONS for holding three extra tubs are hinged to the sides of frame, and provide substantial supports for the tubs.

No. 34—PRICE, \$85.00. Without Extension Table, \$3.00 Less.

No. 33—Gasoline Power Washer.....\$61.50

CINCY HIGH SPEED WASHER

FOR HAND OR MOTOR

Is operated by lever with high-speed flywheel geared to make 300 revolutions per minute—this terrific momentum creating sufficient power to practically run the washer without exerting the operator. The flywheel is grooved so a belt may be used on it, making this a hand and power washer in one. Machine can be directly belted to an engine or line shaft and can be opened or closed without shutting off the power or throwing off the belt. Large cypress tub—natural finish and all improved features.

Capacity, 8 shirts. Shipping weight, 90 lbs. Belt Pulleys, extra, \$3.50.

OUR SPECIAL PRICE.....\$18.25

BOSS 62

This Boss "62" model was designed to give dependable and economical power washer service to the many country homes not supplied with electric power. It carries its power with it, making it possible for every home to enjoy power washer benefits.

The AEROWING is the secret of the wonderfully fast and clean washing obtained with the "62" Washer. The polished aluminum wings, with their perforations, produce a ceansing action that can hardly be described. Linens are washed snowy white and the dirtiest clothes come out immaculately clean in a remarkably short time.

The Boss "62" is made in standard family size only. Capacity, 16 gallons; shipping weight, 260 lbs.

Price.....\$130.00

STANDARD PERFECT

An excellent moderate-price washer, constructed on the rubbing-suction principle—with justable cylinder above—removable rubberboard below. Made of cypress; natural finish. Galvanized castings and hardwood

No. 4—Medium size.....\$

No. 6—Large size.....\$

G. & T. Co.'s Farmers Handy Outfit of Blacksmith's Tools

Consists of the following: 1 100-LB. EAGLE STEEL FACE ANVIL, 1 35-LB. WROUGHT IRON SOLID BOX BLACKSMITH'S VISE, 1 (No. 102) CO-LB. DOUBLE GEARED SELF-FEED HAND POST DRILL; 1 (No. 85) PORTABLE FORGE, 33" high, 22" hearth, 9 1/2" fan. Fireplace separate from hearth, which saves breakage in expansion and shrinkage, heats 2" diameter iron to welding heat; one set of stocks and dies to cut 1/4 to 1 1/2", 1 3/8" hot cutter, 1 3/4" cold cutter, 1 hardie, 1 2-lb. blacksmith's hand hammer, 1 farrier's hammer, 1 20" straight lip tongs, 1 20" bolt tongs, 1 4" pincers and 1 IXL farrier's knife.

SPECIAL PRICE ON COMPLETE OUT-FIT AS DESCRIBED, \$84.00.

STOCKS AND DIES.
 No. 1B—Cuts 1/4"—20; 5-16"—18; 3/4"—16; 7-16"—14; 1/2"—13; right hand; 5 taps and 5 sets dies. Each.....\$12.50
BLACKSMITH'S HARDIES.
 No. 18—Shank, 7/8-inch. Each..... .75
BLACKSMITH'S HOT CHISELS.
 No. 6—Each..... .85
BLACKSMITH'S COLD CHISELS.
 No. 5—Each..... .85

SOLID BOX VISES.
 No. 35—Width of Jaw, 4 inches. Each.....\$9.00
FARRIER'S KNIVES.
 Each..... 1.00
BLACKSMITH'S TONGS.
 Straight Lip, 20 inches. Each..... .95
 Round Jaw or Bolt, 20 inches. Each..... 1.25
BLACKSMITH'S PINCERS.
 14 inches. Each..... 1.50
BLACKSMITH'S HAND HAMMERS.
 No. 191—2 lbs., with Handle. Each..... .80
FARRIER'S HAMMERS.
 No. 160—Each..... 1.00

Portable Forges

The Champion Easy Screw Plates

No. 43
 No. 150 Hearth—18 in.; Height, 30 in.; Fan, 8 in.; Weight, 80 lbs. \$13.50.
 No. 85 Hearth—22 in.; Height, 33 in.; Fan, 9 1/2 in.; Weight, 100 lbs. \$18.75.
 No. 43 Hearth—23 in.; Height, 33 in.; Fan, 12 in.; Weight, 110 lbs. \$33.00.
 No. 150 and 85 Forges are like one shown with Blacksmith's Outfit.

No. 1 Plate Complete in box. Length of stock, 18 inches. Cutting 1/4, 5-16, 3/8, 7-16 and 1/2 inch. Standard threads. Weight, 12 lbs. Price, \$12.50.

FIG. No. 102—DRILL PRESS.
 Floor space over all, 9x16 inches; total height, 37 inches; upright column, 1 1/2 inches diameter; drive gear wheel, 8 inches diameter; table, 6 inches diameter; greatest distance from spindle to table, 10 1/2 inches; fly-wheel diameter, 14 1/2 inches. Has extension crank and adjustable feed. Uses 1/2-inch straight shank drills. Each \$11.25. 102 drill with tight and loose pulleys for power, \$15.00.
 No. 91—Drill Press.....\$16.00

SILVER & DEMING DRILLS

No. 112.
 Fitting Boynton & Plumer and Silver & Deming Blacksmith's Drill Presses, Nos. 1 and 2, with shanks 1/2-inch diameter.

Diam.	Length, in.	List Price	Retail Pr. ea.
1-8	6	\$0.45	\$0.35
3-16	6	.50	.38
1-4	6	.60	.46
5-16	6	.70	.53
3-8	6	.80	.61
7-16	6	.90	.69

Diam.	Length, in.	List Price	Retail Pr. ea.
1-2	6	\$1.00	\$0.76
5-8	6	1.30	.89
3-4	6	1.70	1.30
7-8	6	2.10	1.60
1	6	2.50	1.90

ROCK ISLAND OVAL SLIDE VISE

A superior vise in this style. Has cool steel jaws.

No.	Size.	Opens.	Weight.	Retail Price.
60	2 1/2 in.	3 1/4 in.	8 lbs.	\$3.10
61	3 in.	4 in.	14 lbs.	3.75
62	3 1/2 in.	4 1/2 in.	22 lbs.	4.60
63	4 in.	4 3/4 in.	30 lbs.	7.25
65	5 in.	4 1/2 in.	35 lbs.	10.00

ROCK ISLAND ANVIL VISE

Anvil and vise combined, with jaws for holding pipe.

This vise is intended only for light work. This is the best finished vise of this type on the market. Has steel screw with cut threads, steel nut, and cold-rolled steel handle. Anvil and all finished parts highly polished and lacquered.

No. 380—Width jaw, 3 inches; opens 5 inches; weight, 26 pounds. Retail Price, \$4.00.

ANVILS

These anvils are ideal for farm and shop use.

Eagle cast steel with steel face. 100 lbs., per lb., 23c.

Rock Island Semi-Steel, each, 50 lbs., \$6.00; 75 lbs., \$9.60; 100 lbs., \$12.00.

BLACKSMITH SLEDGES.

10 lbs., 15 lbs., 20 lbs. Per lb.....15c.

STONE SLEDGES.

10 lbs., 15 lbs., 20 lbs. Per lb.....15c.

FARRIER HAMMERS.

1 1/2 to 2 lbs. Per lb.....25c.

COLEMAN QUICK-LITE

LAMPS AND LANTERNS

"Lights of a Thousand Uses."

It is always ready, safe and dependable. Gives 300 candle power of wonderful white light.

It is economical—48 hours' light on one gallon of gasoline.

Makes and burns its own gas from common motor gasoline.

Lights with matches.

Wind proof; storm proof; bug proof; wildest gale can't blow it out.

Can't spill fuel or explode even if tipped over.

No wicks to trim, no chimneys to wash; no daily filling necessary.

No smoke; no soot; no odor.

Built of brass, inspected, tested, guaranteed. Will last a life time.

Lamp is used daily in over a million homes. "Just the Thing" wherever light is needed about the house—reading, sewing, studying, playing and the evening "get-together."

Lantern is "Just the Thing" for all kinds of outdoor night work—hunting, fishing, camping, harvesting, feeding, milking, plowing, repairing.

No. 1 327
Lantern, \$7.50.
No. 2 427, With
Built-in Pump
Lantern, \$8.50.

No. C 329
Price of Lamp,
\$9.00.

No. C 335 D
Price, \$12.25.

No. CC
333.
PRICE,
\$10.00.

GENERATORS
35c. each.

COLEMAN MANTLES

Two for.....\$0.20
Per Dozen.....1.00

COLEMAN FLATIRON

It is simple in design, highly polished ironing surface of 15 square inches. Double point makes it wrinkle proof. Fuel tank capacity, one-half pint. Two-part lid, separated by asbestos, keeps handle cool. Price, \$5.50

COLEMAN RADIANT HEATER

Clean, fresh, invigorating heat, and lots of it! Glowing warmth and cheerful comfort! That's what you get when you have a Coleman Radiant Heater on the job. This handy heater is made to provide plenty of heat quickly—and it does this wherever and wherever you want it. Price, \$30.00

COLEMAN CAMP STOVE

Price, \$12.00

No. 0 DIETZ VICTOR.

"The 'Victor' meets every requirement in situations where dependable lighting power is required. It gives the best light obtainable in a hot blast lantern with 3/4-inch wick. It has strong, beaded, square ribbed tubes and is a constant burner in any weather. Price, \$0.90.

No. 2 DIETZ BLIZZARD

"The No. 2 'Blizzard' signifies the best to be had in large lanterns of high globe, cold blast type. It has patented reinforced tubes, with a specially braced lift guide. Price, \$1.35.

DIETZ JUNIOR WAGON LANTERN.

Dietz "Junior" Wagon Lantern is much in demand because of its fine appearance, small size and cold blast light, which equals in power that of much larger lanterns of ordinary construction.

It has a law-abiding ruby rear lens and fits round or flat holders. Price, \$1.90.

DIETZ EUREKA DRIVING LANTERN.

Dietz "Eureka" is a highly dependable small Driving Lantern, ideal for any light vehicle.

It is made of cold rolled steel, with positive locking oil fount and lawful ruby rear lens. The Eureka is also used as an automobile parking lamp to save battery current. Its handy bail makes it a very convenient portable light in case of mishaps on the road. Price, \$2.00.

HAY FORKS

-
- Each.
 No. 26—Two-tine hay, common ferrule, 6-foot straight handle.....\$1.30
 No. 026—Two-tine, strap ferrule, 6-foot straight handle... 1.45
 No. 027—Two-tine, strap ferrule, 7-foot straight handle... 1.75
 No. 028—Two-tine, strap ferrule, 8-foot straight handle... 1.95
 No. 36—Three-tine, 6-foot handle, common ferrule..... 1.40
 No. 036—Three-tine, 6-foot handle, strap ferrule..... 1.55
 No. 037—Three-tine, 7-foot handle, strap ferrule..... 1.80
 No. 038—Three-tine, 8-foot handle, strap ferrule..... 2.00

Long Handle Manure Forks

-
- Each.
 No. 044½ Z—Four tine, 4½-foot handle, strap ferrule....\$1.30
 No. 054½ X—Five-tine, ferrule, long handle..... 1.85
 No. 064½ X—Six-tine, ferrule, long handle..... 1.75
BATCHELOR FORK.
 No. 044—Four-tine, 4-foot handle, strap ferrule.....\$1.60
 No. 44—Batchelor Fork, four-tine, 4-foot handle, plain ferrule..... 1.45
D-HANDLE MANURE FORKS.
 No. 04 DZ—D Handle, four-tine.....\$1.30
 No. 4 W—D Handle, four-tine, plain ferrule..... 1.85
 No. 05 D—D Handle, five-tine, cap ferrule..... 1.80
 No. 06 D—D Handle, six-tine, cap ferrule..... 2.00
 No. 151—Four tine, diamond tine, heavy, malleable D handle..... 2.55
 No. 153—Four 16-inch extra heavy tines. 27-inch wood D handle 2.75
 No. 157—Five 16-inch extra heavy tines. 27-inch wood D handle 3.45

SPADING FORKS

-
- No. O H W—Four-tine, angular back.
 Price, each.....\$2.10
 No. O L D—Medium weight, angular tine, malleable D handle, strap ferrule. Price.....\$1.55
 No. J O W—Jumbo, 4 polished tines, extra heavy strapped ferrule, wood D handle. Price..... 2.20
 No. J O 4—4 polished tines, extra heavy strapped ferrule, 4-foot handle. Price..... 1.80
 No. B 4 D—Boys' four-tine. Price..... .95

SCUFFLE HOES

-
- 4-in., Eng....\$0.70 8-in., Eng....\$0.90
 6-in., Eng.... .80 10-in., Eng.... 1.00
 No. X G S Brace or Shank Scuffle Hoe.
 8-inch Steel Blade, with Handle... 1.20

EDGING KNIFE

- No. 040—Solid Steel Turf Edger, \$1.15

GENERAL UTILITY FORK

- No. 910—Ten-tine, scoop shape, malleable D handle, strap ferrule. Each.....\$2.80
 No. 912—Twelve-tine, scoop shape, malleable D handle, strap ferrule.
 Each\$3.15

- No. 714 — Coke
 Forks, fourteen-tine, D handle, strap ferrule. Each... \$4.20
 No. 100 S—Ten-tine, D handle, stone fork..... 2.80
 No. 102 S—Twelve-tine, D handle, stone fork..... 3.25

WIRE POTATO SCOOP

-
- CHAMPION SCOOP.... \$2.65

STEEL BARLEY FORKS

- No. B 0185—Four 18-inch oval tines, strap ferrule, 5-foot bent handle.....\$2.15

ENSILAGE FORKS

- Each
 No. 508—Eight 16-in. tines, strap ferrule, iron D handle...\$2.45
 No. 510—Ten 17-in. tines, strap ferrule, iron D handle...\$2.90

GARDEN SETS

- 5-T Rake, Shovel and
 No. 3 P F—Three-piece,
 Shovel and
 Hoe, \$1.85

Planet Jr. No. 2 Lawn Edger

Everyone who uses a lawn mower has work for one of these Edgers; adjustable for a tall or short person. Indispensable in keeping grounds looking neat and attractive, the No. 2 Edger will quickly edge the grass bordering all walks, straight or curved, cement, stone or brick. It is easily operated; in fact, it is so much like play to use it that you will find pleasure in keeping your lawn always neatly edged.
 Price, \$1.60.

Invincible Garden Cultivators

The leading Cultivator of its kind on the market. Made of best material. Tines can be adjusted by simply turning a nut. Price... .95c.

SIDEWALK CLEANERS

- No. O S C—7-inch Solid Socket; Handle..... .95
 No. X 8—8-inch Steel Blade.....\$0.90

SHOVEL HANDLES.

- Doz. Ea.
 No. X.—L. H., 4½ feet\$5.70 \$0.45
 No. X.—D. H..... 9.00 .65

RAKE HANDLES.

- List, Ret'l
 Doz. Ea.
 No. X—5 ft....\$3.90 \$0.30

GARDEN HOE HANDLES.

- Doz. Ea.
 No. X..... \$3.40 \$0.25

EYE HOE HANDLES.

- List, Ret'l
 Doz. Ea.
 No. X—5 ft. 2 in. butt.....\$5.40 \$0.40

MANURE FORK HANDLES.

- List, Ret'l
 Doz. Ea.
 No. X—4½ ft.\$4.40 \$0.35

HAY FORK HANDLES.

- Plain. Doz. Ea.
 No. X—6 ft.....\$6.70 \$0.50
 No. X—7 ft..... 10.00 .75
 No. X—8 ft..... 14.20 1.10

WITH PLAIN

ND STRAP FERRULE.

- No. X.—4½ ft., with plain rrule, with cap. List, Doz., .90; Retail, Each, 55c.
 No. X.—4½ ft., with strap rrule and cap, List, Doz., .70; Retail, Each, 55c.

STEEL RAKES

- No. 10 C—Curved tooth, 10-tooth...\$0.95
 No. 12 C—Curved tooth, 12-tooth... 1.00
 No. 14 C—Curved tooth, 14-tooth... 1.15
 No. 16 C—Curved tooth, 16-tooth... 1.25

- No. 10—Straight tooth, 10-tooth...\$0.90
 No. 12—Straight tooth, 12-tooth... .95
 No. 14—Straight tooth, 14-tooth... 1.05
 No. 16—Straight tooth, 16-tooth... 1.10
 No. 18—Straight tooth, 18-tooth... 1.20

BOW STEEL RAKES

- No. B 12—Prize bow-braced rake, solid steel, 12 teeth. Price, \$1.10 each.
 No. B 14—Prize bow-braced rake, solid steel, 14 teeth. Price, \$1.20 each.
 No. B 16—Solid bow-braced rake, solid steel, 16 teeth. Price, \$1.30 each.

PRESSED STEEL RAKES

- Each
 No. 10 S M—10-tooth, single shank...\$0.50
 No. 12 S M—12-tooth, single shank... .55
 No. 14 S M—14-tooth, single shank... .60
 No. 16 S M—16-tooth, single shank... .65

- No. 10 B M—10-tooth, braced shank... .60
 No. 12 B M—12-tooth, braced shank... .65
 No. 14 B M—14-tooth, braced shank... .70
 No. 16 B M—16-tooth, braced shank... .75

EXTRA HEAVY STEEL ROAD RAKES

- No. X 14—14-tooth...\$1.35
 No. X 16—16-tooth... 1.45

STEEL ASPHALT RAKES

- No. 1014—14-tooth, strap ferrule...\$2.05

WIRE LAWN RAKES No. 220

As can be seen by the shape of the teeth, these rakes run smooth and will not dig in the sod. By reversing the double teeth are used for leaves and rubbish. 21-inch head. 24 Teeth, with Handle, 80c. each.

BAMBOO RAKES

PRICE, \$.75

MITCHELL WOOD LAWN RAKE

- No. 120—20-tooth...\$1.00
 No. 122—22-tooth... 1.10
 No. 126—26-tooth... 1.25

GRITCO WOOD RAKE

24-Tooth, 3 Wire Bows...\$.75

GARDEN HOES

- No. G 67—Solid Steel Garden Socket Hoe, XX Handle; each...\$1.05
 No. G 67—Solid Steel Garden Shank Hoe, XX Handle; each...\$0.95
 No. L Y 5—Solid Steel Lady's Shank Hoe, XX Handle; each...\$0.75
 No. 2 P—Two-Point Solid Steel Weed Hoe; each...\$0.50
 No. 1 P—Sharp-Point Steel Blade Weed Hoe; each...\$0.45

PLANTER HOES

- No. P 75—Heavy-Handled Planter Shank Hoe, 7-in. blade...\$0.95
 No. P 7½-5—Heavy-Handled Planter Shank Hoe, 7½-inch blade... 1.00
 No. P 8½-5—Heavy-Handled Planter Shank Hoe, 8-inch blade... 1.05

COTTON HOES

- No. C 75—7-inch-Handled Cotton Hoe...\$0.90
 No. C 85½—8-inch-Handled Cotton Hoe... .95

MORTAR HOES

- No. 9—9-inch Blade, Solid Steel Shank, 5½-foot Handle...\$1.20
 No. 10—10-inch Blade, Solid Steel Shank, 6-foot Handle... 1.30
 No. S 9—9-inch Blade, Solid Socket, 5½-foot Handle... 1.30
 No. S 10—10-inch Blade, Solid Socket, 6-foot Handle... 1.40

WARREN HOE

Very useful in making rows and weeding onions. Hilling, drilling and weeding, covering seeds, etc.

- W 7—Polished Steel Garden...\$1.1
 W 7½—Polished Steel Field... 1.2

CRESCENT CULTIVATOR HOE

- No. 67—7-inch steel blade, 4½-foot handle...\$1.00

HOE AND RAKE COMBINED

- No. 4 P—Four-Point, Steel Weed Hoe and Rake...\$1.0

STREET HOE

- No. 12 S—12-inch blade, steel shank, 6-foot handle...\$1.6

DIG-EASY MATTOCK HOES

This Hoe is similar to Crescent Double-Bit Hoe, and is made in three sizes.

- No. D E 2—1½-inch and 2-inch blades...\$0.9
 No. D E 3—1½-inch and 3-inch blades... 1.0
 No. D E 3½—1½-inch and 3½-inch blades... 1.0

Bush and Brier Hooks

No. 380—Axe Handle Hook\$1.35
 No. 390 — Two-Ring Bush Hook....\$1.35

American—No. 23.....\$1.70
 Backs polished, polished web.
 American Grain Scythe No. 60..... 2.00
 No. 52—Weed, Beaded..... 1.75
 No. 50—Best Bush or Briar Scythe, Beaded, American Pointed. Price..\$1.75
 Austrian Scythes.....\$2.25

English T. Waldron, 36 in.....\$2.85 English T. Waldron, 40 in.\$3.06
 English T. Waldron, 38 in..... 2.95 Eng. Waldron Grain Scythes, 52 in. 3.60

SCYTHE

SNATHS

No. 55—Patent Loop, solid plate, iron trimmed. Retail price.....\$1.45
 No. 100—Two Rings, Bush Snath. Retail price 1.65
 No. 105—Patent Bush Snath. Retail price 1.65

Scythe Stones

Each

Western Red End.....10c.
 Minnebog15c.
 English Round25c.
 Parby Creek20c.

Lightning Pattern Hay Knife

Price\$1.75

The American Sickie Edge Hay Knife

The best cutting knife made. Right of left hand. Section can be easily replaced. Price.....\$2.00

CORN HOOKS

No. 2—Cast Steel, not finished... ..\$0.35
 No. 1—Tempered Steel, full polish.... .40
 No. 5—Serrated Edge, not adjustable... .50
 No. 6—Serrated Edge, adjustable..... .55
 Quynn Corn Chopper..... .65

CORN KNIVES

No. 21—"Will Cut" or Clipper.....\$0.50

POTATO HOOKS

No. 4 B. O. H.—Heavy Broad Oval Tines, Bent Head, 5-Foot Handle\$1.20
 No. 5 B. O. H.—5 Tines, Heavy, Broad Oval Tines, Bent Head, 5-Foot Handle 1.45

MANURE HOOKS

No. M 40—Four Oval Tines, Bent Head, Plain Ferrule, 6-Foot Handle\$1.25
 No. M 60—Six Oval Tines, Bent Head, Plain Ferrule, 6-Foot Handle 1.40

Premium Balance Long Sweep Grain Cradle

The Premium Balance Cradle is made from best material and nicely finished with English Waldron Blade. Four-finger, \$7.25; Five-finger, \$7.75; with Four-finger American Blade, \$5.50; Five-finger, \$6.00.

Oil Sprung Cradle Fingers, 30c. each.

HOLLOW BACK SCOOPS.

	List	Retail
274 Oriole—D Handle, West. Pattern, Size No. 4..	\$29.76	\$1.55
276 Oriole—D Handle, West. Pattern, Size No. 6..	31.68	1.65
278 Oriole—D Handle, West. Pattern, Size No. 8..	34.56	1.80
264 Oriole—D Handle, East. Pattern, Size No. 4..	28.80	1.50
265 Oriole—D Handle, East. Pattern, Size No. 5..	29.76	1.55
266 Oriole—D Handle, East. Pattern, Size No. 6..	30.72	1.60

PLAIN BACK SHOVELS—Carbon Steel.

	List	Retail
512 Gritco—D Handle, Square Point, Size No. 2..	\$30.72	\$1.60
513 Gritco—D Handle, Square Point, Size No. 3..	31.68	1.65
514 Gritco—D Handle, Square Point, Size No. 4..	32.64	1.70
712 Balto.—D Handle, Square Point, Size No. 2..	24.96	1.30
713 Balto.—D Handle, Square Point, Size No. 3..	25.92	1.35
714 Balto.—D Handle, Square Point, Size No. 4..	26.88	1.40

HOLLOW BACK SHOVELS—Carbon Steel.

	List	Retail
212 Oriole—D Handle, Square Point, Size No. 2..	\$24.00	\$1.25
213 Oriole—D Handle, Square Point, Size No. 3..	24.96	1.30
214 Oriole—D Handle, Square Point, Size No. 4..	25.92	1.35
215 Oriole—D Handle, Square Point, Size No. 5..	26.88	1.40
216 Oriole—D Handle, Square Point, Size No. 6..	27.84	1.45

PLAIN BACK SHOVELS—Carbon Steel.

	List	Retail
532 Gritco—D Handle, Round Point, Size No. 2..	\$30.72	\$1.60
533 Gritco—D Handle, Round Point, Size No. 3..	31.68	1.65
732 Balto.—D Handle, Round Point, Size No. 2..	24.96	1.30

PLAIN BACK SPADES.

	List	Retail
552 Gritco—D Handle Spades, Size No. 2	\$33.60	\$1.60
752 Balto.—D Handle Spades, Size No. 2.....	24.96	1.30

SNOW SHOVELS.

	List	Retail
Long Handle, Steel Socket.....	\$12.50	\$0.75

PICKS, MATTOCKS AND GRUB HOES

No. 1 Gritco—6 to 7, 7 to 8 and 8 to 9 lbs., Best Quality Warranted Steel Railroad Picks.....	1.35
No. 2—6 to 7, 7 to 8 and 8 to 9 lbs., Regular Iron Railroad Picks	1.05
No. 1—Gritco—5-lb. Best Quality War. Steel Mattocks.....	\$1.15
1—Gritco—6-lb. Best Quality War. Steel Mattocks.....	\$1.35
2—5 and 6-lb. Best Refined Iron Mattocks (Steel Cutters).....	Each, 1.05
1 and 2 Gritco—Warranted Steel Grub Hoes.....	Each, 1.00

PICK AND MATTOCK HANDLES

	List	Retail
First Quality Hickory Pick Handles.....	\$0.50	
1—Good Quality White and Red Hickory Pick Handles...	.45	
2—Mixed White and Red Hickory Pick Handles.....	.40	

PLAIN BACK SHOVELS—Carbon Steel.

No.	List	Retail
542 Gritco—Long Handle, Round Pt., Size No. 2..	\$33.60	\$1.6
742 Balto.—Long Handle, Round Pt., Size No. 2..	24.96	1.3

HOLLOW BACK SHOVELS—Carbon Steel.

	List	Retail
722 Balto.—Long Handle, Square Pt., Size No. 2..	\$24.96	\$1.3

HOLLOW BACK SCOOPS.

	List	Retail
264 Oriole—Long Handle, East. Pat., Size No. 4..	\$28.80	\$1.5
265 Oriole—Long Handle, East. Pat., Size No. 5..	27.76	1.5
266 Oriole—Long Handle, East. Pat., Size No. 6..	30.72	1.6
274 Oriole—Long Handle, West. Pat., Size No. 4..	29.76	1.5
276 Oriole—Long Handle, West. Pat., Size No. 6..	31.68	1.6
278 Oriole—Long Handle, West. Pat., Size No. 8..	34.56	1.8

FURNACE SCOOP

D Handle.....	\$1.75
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PLAIN BACK SPADES.

	List	Retail
554 Gritco—Long Handle Spades, Size No. 2.....	\$33.60	\$1.6
754 Balto.—Long Handle Spades, Size No. 2.....	24.96	1.3

DITCHING SPADE

	List	Retail
518—18-inch Blade	\$33.60	\$1.6

AMES SHOVELS & SPADES

Ames Long Handle Round Point Shovel.....	\$1.00
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Ames D. H. Spades.....	\$1.00
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Ames Nursery spades.....	\$2.00
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WROUGHT SCREW AGRICULTURAL WRENCHES.

	6 in.	8 in.	10 in.	12 in.	15 in.
Retail price, each.....	\$0.50	\$0.60	\$0.80	\$0.85	\$1.20
List price, per dozen.....	10.00	12.00	14.00	17.00	24.00

MACHINISTS' KNIFE HANDLE WRENCHES.

	6 in.	8 in.	10 in.	12 in.	15 in.	18 in.	21 in.
Retail price, each....	\$1.15	\$1.35	\$1.65	\$2.10	\$2.55	\$3.60	\$4.55
List price, doz.....	15.00	18.00	22.00	23.00	38.00	48.00	58.00

STILLSON WRENCHES.

Size.	Grips.	List.	Retail.
6 in.	1/8 wire to 1/2 pipe.	\$2.00	\$0.95
8 in.	1/8 wire to 3/4 pipe.	2.25	1.05
10 in.	1/8 wire to 1 pipe.	2.50	1.20
14 in.	1/4 wire to 1 1/2 pipe.	3.50	1.65
18 in.	1/4 wire to 2 pipe.	5.00	2.30
24 in.	1/4 wire to 2 1/2 pipe.	7.25	3.45
36 in.	1/4 pipe to 3 1/2 pipe.	13.50	6.25
48 in.	1 pipe to 5 pipe.	20.00	9.25

TWIN WRENCHES.

Twin, 10 in. long. List, per doz., \$18.00. Retail, 75c. each.

COLD CHISEL.

PUNCH.

	1/2 in.	5/8 in.
Retail price, each....	\$0.20	\$0.25

MACHINE BOLTS

Length, Inches.	List, 100.	Retail, Each.	List, 100.	Retail, Each.	List, 100.	Retail, Each.	List, 100.	Retail, Each.	List, 100.	Retail, Each.
	1/4	5/16	3/8	7/16	1/2					
1 1/2	\$1.60	\$0.3	\$2.30	\$0.3	\$2.95	\$0.3	\$4.75	\$0.4	\$5.65	\$0.5
2	1.80	.03	2.60	.03	3.25	.03	5.20	.04	6.10	.05
2 1/2	2.00	.03	2.85	.03	3.60	.03	5.70	.04	6.55	.06
3	2.15	.03	3.05	.03	3.90	.04	6.10	.05	7.00	.06
3 1/2	2.35	.03	3.30	.03	4.25	.04	6.55	.05	7.45	.06
4	3.05	.03	3.55	.03	4.60	.04	7.00	.06	7.90	.07
4 1/2	3.20	.04	4.25	.04	4.90	.04	7.40	.06	8.35	.07
5	3.35	.04	4.50	.04	5.55	.05	7.85	.06	8.80	.07
5 1/2	3.50	.04	4.70	.04	5.85	.05	8.30	.07	9.25	.08
6	3.65	.04	4.90	.04	6.20	.05	8.75	.07	9.70	.08
6 1/2	3.80	.04	5.10	.04	6.50	.05	9.20	.08	10.15	.08
7	4.00	.04	5.35	.04	6.85	.06	9.65	.08	10.60	.09
7 1/2	4.15	.04	5.55	.04	7.15	.06	10.10	.09	11.05	.09
8	4.35	.05	5.80	.05	7.50	.06	10.55	.09	11.50	.09
9	4.70	.05	6.25	.05	8.15	.06	11.45	.10	12.40	.10
10	5.05	.05	6.70	.05	8.80	.06	12.35	.10	13.30	.10
11	5.40	.05	7.15	.05	9.50	.07	13.20	.10	14.70	.12
12	5.75	.05	7.60	.05	10.20	.08	14.05	.10	15.60	.15
13					11.30	.08	15.35	.12	16.50	.16
14					11.95	.08	16.20	.12	17.40	.17
15					12.60	.09	17.15	.12	18.30	.18
16					13.25	.09	18.05	.12	19.20	.18
17									20.10	.18
18									21.00	.18
19									21.90	.18
20									22.80	.18

All 1/4-inch bolts are packed 100 in package. All 5/16-inch, 3/8-inch and 1/2-inch bolts are packed 50 in package.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

BELT PUNCHES

REVOLVING

Retail Price, Each, Four-tube, \$0.95. Six-tube, \$1.15. Single-tube, \$0.50.

ROCK ISLAND, Combination Forge, Anvil, Vise, Drill and Pipe Vise

Frame—The frame is steel, center casting is used for shelf for tools.

Forge—Pan in oval shape, 12x15 in., stands 27 inches from floor. Pan is 7 inches.

Anvil—3 1/2 inches wide, 12 inches long.

Vise—Jaws are 3 1/2 inches wide and opens 11 inches.

Drill Chuck takes 1/2-in. Round Shank Drill.

OUR SPECIAL PRICE...\$26.00

Champion Combination Tool, same as above, but has grinding attachment.

OUR SPECIAL PRICE...\$28.50

MONARCH RIVETING MACHINE

This is the best lowest-priced Riveting Machine made. Warranted to set Tubular Rivets perfectly.

PRICE\$5c.

TUBULAR RIVETS

10015c.

CARRIAGE BOLTS

Length, Inches.	List, 100.	Retail, Each.	List, 100.	Retail, Each.	List, 100.	Retail, Each.	List, 100.	Retail, Each.	List, 100.	Retail, Each.
	1/4	5/16	3/8	7/16	1/2					
1 1/2	\$1.50	\$0.3	\$2.20	\$0.3	\$2.80	\$0.3	\$3.80	\$0.4	\$5.25	\$0.5
2	1.65	.03	2.40	.03	3.12	.03	4.25	.04	5.70	.06
2 1/2	1.85	.03	2.65	.03	3.45	.03	4.75	.04	6.15	.06
3	2.00	.03	2.85	.03	3.75	.04	5.15	.05	6.60	.07
3 1/2	2.20	.03	3.10	.03	4.10	.04	5.60	.05	7.05	.07
4	2.90	.03	3.35	.03	4.45	.04	6.05	.05	7.50	.07
4 1/2	3.05	.03	4.05	.04	4.75	.04	6.45	.05	7.95	.07
5	3.20	.04	4.30	.04	5.35	.05	6.90	.06	8.40	.07
5 1/2	3.35	.04	4.50	.04	5.65	.05	7.35	.06	8.85	.08
6	3.50	.04	4.70	.04	6.00	.05	7.80	.07	9.30	.08
6 1/2	3.65	.04	4.90	.04	6.30	.05	8.25	.07	9.75	.08
7	3.85	.04	5.15	.04	6.65	.06	8.70	.08	10.20	.09
7 1/2	4.00	.04	5.35	.05	6.95	.06	9.15	.08	10.65	.09
8	4.20	.04	5.60	.05	7.30	.06	9.60	.09	11.10	.10
8 1/2	4.35	.05	5.80	.05	7.60	.07	10.05	.09	12.05	.11
9	4.55	.05	6.05	.06	7.95	.07	10.50	.09	12.50	.11
9 1/2	4.70	.05	6.25	.06	8.25	.08	11.05	.10	13.05	.12
10	4.90	.05	6.50	.06	8.60	.08	11.40	.10	13.40	.12
11	5.25	.05	6.95	.06	9.30	.09	12.25	.11	14.30	.13

SNOW SCRAPER

SNOW SCRAPER BLADES made of high carbon shovel steel. Will wear a long time. Castings of best malleable fastened to blades and handle; Handles of ash, tough, strong and smoothed. All metal parts given a coat of black paint.

15-inch wide.....\$1.90
24-inch wide..... 2.25

THE STANDARD EARTH AUGER

No. 5—10 lbs.
No. 8—13 lbs.
No. 10—14 lbs.

Closed.

Open.

Prices.
No. 5 bores four different size holes, 5, 6, 7 and 8 inches in diameter, 3½ feet deep. Each, \$6.00.
No. 8 bores seven different size holes, 8, 9, 10, 11, 12, 13 and 14 inches in diameter, 3½ feet deep. Each, \$7.00.
No. 10 bores nine different size holes, 8, 9, 10, 11, 12, 13, 14, 15 and 16 inches in diameter, 3½ feet deep. Each, \$8.00.

GIBBS' POST-HOLE DIGGER

Digs faster, works easier than any other on the market. All wearing parts have steel pins. Makes a hole of any desired diameter. First-class for tree-planting.

PRICE\$2.50

Iwan Post-Hole Auger

3-inch Iwan Post-Hole

Auger.....\$4.00

4-inch Iwan Post-Hole

Auger..... 4.50

Tethering Anchor

This simple little device is a very handy anchor for tethering animals. It is constructed on the cork-screw principle, making it easy to work into the ground, and after being placed it makes a strong anchor.

Price\$1.00

Cast Mauls with Wood Ends and Wood Handle

10 Pounds, Each.....\$1.90
12 Pounds, Each..... 2.10
16 Pounds, Each..... 2.70

Tampers for Post, Sod and Cement

With extra large wood handles, 2¼ inches in diameter.
No. 2 Round Tamper, 5 in. Diameter, 15 lbs., Price.....\$1.80
No. 5 Square Tamper, 6 in. x 6 in., 12 lbs., Price..... 1.60
No. 6 Square Tamper, 8 in. x 8 in., 17 lbs., Price..... 2.10
No. 7 Square Tamper, 10 in. x 10 in., 20 lbs., Price..... 2.50

ICE HOOKS

No. 1 H 6—6-ft. Handle, Strapped Ferrule.....\$1.25
No. 1 H 7—7-ft. Handle, Strapped Ferrule..... 1.50
No. 1 H 8—8-ft. Handle, Strapped Ferrule..... 2.00

KELLY AXES

Our Axes are of best quality. We only sell those we know to be first class, and have an established reputation.

Kelly, Single Bit—3 to 4 lbs., 3½ to 4½ lbs., 4 to 5 lbs., 4½ to 5½ lbs. Each \$1.75.

Kelly Axes

complete with handle.

Price\$2.25

KELLY HALF-HATCH.
ETS. Price.....\$1.25

AXE HANDLES

No. Excelsior—Extra Selected Second Growth. All White Hickory Axe Handles.....\$0.50
No. 1—Selected White Hickory Axe Handles......40
No. 2—White and Red Hickory Axe Handles......35
No. 3—White and Red Hickory Axe Handles......20

STEWART HORSE CLIPPING AND SHEEP SHEARING MACHINES

The Stewart No. 9 Ball-Bearing Sheep Shearing Machine

A very strong and durable machine, shipped knocked down in compact case. Gears are all cut from solid tool steel, are hardened and are enclosed in dust-proof metal box. Has large balance wheel to assist in easy running. Every joint in the shaft and shearing head is fitted with ball-bearings, producing the most easy running and efficient shearing machine ever made. This is the machine to buy. Fitted with No. 7 ball-bearing shear, four combs and four cutters. Weight, 50 pounds.

Price,\$24.00

The Stewart No. 1 Ball-Bearing Horse Clipping Machine

Standard of the World.

A very rigid and very durable machine. Shipped knocked down in compact box, weighing, complete, 36 lbs. Anyone can set it up. Gears enclosed in dust-proof metal box are cut from special steel and hardened. Has six-foot, easy running, flexible shaft and famous Stewart clipping head.

Price, complete,\$14.00

STEWART No. 11

Improved
Grinder
Attach-
ment

Attaches to a No. 1 Stewart Horse-Clipping Machine or Stewart No. 8 or No. 9 Sheep-Shearing Machine. Puts a perfect edge on horse-clipping or sheep-shearing knives. Every user of a horse-clipping or sheep-shearing machine should have one. Price, \$6.75.

Sheep-Shearing Attachment

For Use on Our No. 1

This attachment consists of complete No. 5 Stewart Shear Head, four sets of shearing knives, the solid core, universal jointed shaft and cogs, as shown here. Weight, boxed, 15 lbs. Price of complete attachment, as described, \$14.00.

Horse Clipping Attachment

Will fit any Stewart Sheep-Shearing Machine.

Consists of eye spindle and six feet of high quality flexible shaft. Also the famous Stewart clipping head. Can be attached in a few seconds. Owners of a Stewart Sheep-Shearing Machine who have horses should have this attachment. Packed in box. Price, \$10.50.

Part of Handle and Knife Used on All Stewart

Horse
Clipping
Machines
Before
Jan. 1st, 1915

No.	Net Weight and List.
C-1 Stewart horse clipper handle and knife, complete	20 oz. \$4.50
C-2 Pair Stewart horse clipper blades, top and bottom	8 oz. 3.50
C-3 Horse clipper handle, complete, without knives	10 oz. 1.50
90 Top plate	3 oz. 1.50
91 Tension spring of handle	1-1/2 oz. .15
92 Tension bolt of handle	1-6 oz. .10
93 Eccentric roll of handle	1-15 oz. .15
94 Tension nut of handle	1-6 oz. .10
95 Pin and shaft of handle	2-1/2 oz. .35
96 Shank of handle	3-1/2 oz. .50
97 Front part of handle	4 oz. .60
98 Bottom plate of handle	5 oz. 2.00

PARTS FOR STEWART LATEST MODEL CUTTING HEAD

FOR HORSE-CLIPPING MACHINES. Patented.

CAUTION!
Do not file or grind any part of the clipping head in any way. It is exactly right to cut best. The only grinding to be done is to resharpen the cutting plates when they get dull, and that must be done right.

Be sure to let parts Nos. 358 and 359 alone. If they should be removed in any way, do not attempt to use the clipper head until they are properly replaced. Remove before grinding and replace after.

B-1 Clipper and Handle complete	\$4.50.	B-3 Handle only	\$1.50.
B-2 Clipper Blades only	\$3.50.		
No. Part. Price, each	Weight	No. Part. Price, each	Weight
351 Taper sleeve	.50 2 oz.	358 Ball boss	.05 1-7 oz.
352 Drive pin	.35 2 oz.	359 Socket boss	.10 1-7 oz.
353 Drive ball	.15 1-16 oz.	360 Top plate	1.50 2 oz.
354 Brace	.75 5 oz.	361 Bottom plate	2.00 3 oz.
355 Cross head	.50 1 oz.	92 Tension bolt	.10 1-5 oz.
356 Cross head pin	.15 1-3 oz.	91 Tension spring	.15 1-16 oz.
357 Guide pins	.10 1-7 oz.	94 Tension nut	.10 1-7 oz.

TOILET AND FETLOCK CLIPPERS

No. 671—Fetlock Clipper \$1.75
Khedive Clipper..... 1.50
Parcel post weight, 1 pound.

Horse or Dog Clippers

No. 169—Coates Ball-Bearing Horse Clipper.....\$3.50
Parcel post weight, 2 pounds.

GRITCO SWIVEL REVERSIBLE STEEL TRACK HAY CARRIER No. 4

Gritco Steel Track Hay Carrier

Car is easily and quickly reversed from the floor, contains no lugs or pins to break; heavier than cars ordinarily sold through this section.

Entirely of malleable iron and high grade. Track traveler and rope pulley sheaves revolve on turned iron bushing. Car will not pass the trip-block while in operation.

Steel Track Carrier.
Our Special Price, \$9.00.

Steel Track for Gritco Car. Per Ft., 23c.

GRITCO WOOD TRACK HAY CARRIER

Wood Track Carrier.

Our Special Price, \$9.00

Harpoon Hay Fork

No. 1—Double Harpoon Hay Fork, 25-in. tines. Retail, \$2.75.

No. 1½—Double Harpoon Hay Fork, 31-in. tines. Retail, \$3.00.

G. & T. No. 1.

No. 2—Nellis Single Harpoon Fork. Retail, \$5.50.

No. 2

GRAPPLE FORKS.

G. & T. No. 3.

No. 3—4-Tine Aut. Grapple Fork. Retail, \$12.50.

No. 3—6-Tine Aut. Grapple Fork. Retail, \$14.50.

PULLEYS

No. 9

No. 10

No. 11

No. 12

No. 9 Maple Sheave 65c.

No. 10 All Iron.... 65c.

No. 11 Knot Passing 75c.

No. 12 Wood Frame with Hook..... 65c.

No. 13 Wood Frame with Eye..... 65c.

G. & T. No. 14.

SWIVEL ROPE HITCH

No. 14—Swivel Rope Hitch. Retail, each, 40c.

Hudson No. 326 Adjustable Hay Carrier

A long wheel-base, heavy duty fork carrier, embodying all important features, such as Hudson dead-lock, swivel base, turned steel axles recessed into the frame, wide mouth and interchangeability of parts. The 16-inch wheelbase distributes the load over a greater portion of the track. Carries load 15 inches from track. Shipped complete with Fork Pulley Trip Block and two End Stops.

When ordering for other than Hudson Track, specify name of track so that proper Trip Block can be furnished.

No. 326 Hudson Hay Carrier. Will fit any steel track.

PRICE, \$10.25.

Steel Track, Price 26c. per foot.

Rafters Brackets

G. & T. No. 4.

No. 4—Rafters Bracket, steel.

Retail, each, 6c.

No. 4—Rafters Bracket, malleable.

Retail, each, 6c.

FLOOR HOOKS.

G. & T. No. 5.

No. 5—Floor Hook, ¾-inch.

Retail Price, 18c. each.

No. 5—Floor Hook, ½-inch.

Retail Price, 15c. each.

HUDSON TRACK HANGERS.

G. & T. No. 6.

No. 6—Hanging Hook, steel track. Retail, 18c. each.

WOOD TRACK HANGERS

G. & T. No. 7.

No. 7—14-in. Hanging Hook, wood track. 15c. each.

GRITCO TRACK HANGERS.

G. & T. No. 8.

No. 8—Hanging Hook Steel Track. Retail, 15c. each.

SLINGS

Made adjustable to suit any length of rack, from 17 to 20 feet.
 G. & T. No. 15.

Our
 Special
 Price.
 Each.

No. 15—Center Trip Sling, 4-foot bars.....\$4.75
 No. 15—Center Trip Sling, 5-foot bars..... 6.50

Sling Pulleys

G. & T. No. 16.

Our
 Special
 Price.
 Each.

No. 16—Universal Sling Pulley.....\$4.50
 No. 16—Ideal Sling Pulley..... 4.50
 No. 16—Baltimore Sling Pulley..... 4.50

RAFTER GRAPPLE

G. T. No. 17.

No. 17—Rafter Grapple, Steel,
 \$1.25 each.

Our
 Special Price.

No. 18—Hoisting Single Tree.....Each, \$2.00
 No. 19—Snatch Blocks.....Each, 1.35
 No. 20—Extra Trips or Stops for Cars.....Each, 1.00
 No. 21—Coupling for Track.....Each, .35
 Rafter Nails, per pound.....Each, .15
 Steel Track, per foot.....Each, .26

ROPE

Our stock of rope includes all sizes, from 3-16-inch up to 1 inch. These sizes we carry in stock and can furnish same in full coils or by the piece as desired. The quality of our rope is the best, and we will be pleased to name you the best possible price consistent with quality. We are unable to give prices here, as the market changes.

For Hay Forks we recommend ¾-in., 13-16-in. and ½-in., according to the length of rope.

Approximate length of Manila rope per pound, ¾-in., 6 feet to pound; 13-16-in., 5 feet to pound, and ½-in., 4 feet 3 inches to the pound.

Write for Prices.

Binder Twine

It is impossible to give the price of Binder Twine in advance, as the price is subject to market changes.

WRITE FOR PRICES.

FODDER YARN

PRICES ON APPLICATION.

Material Required for a Steel Track Outfit

For a 40-foot Barn—One Carrier, 40 feet of steel track, 21 hanging hooks, 21 rafter brackets, 5 knot passing pulleys, 1 D. H. Fork, 6 floor hooks, 110 feet 13-16-inch manila rope, 40 feet ¾-inch reverse rope.

For a 50-Foot Barn—One Carrier, 50 feet of steel track, 25 hanging hooks, 25 rafter brackets, 5 knot passing pulleys, 6 floor hooks, 130 feet 13-16-inch manila rope, 50 feet ¾-inch reverse rope.

For a 60-Foot Barn—One Carrier, 60 feet of steel track, 31 hanging hooks, 31 rafter brackets, 5 knot passing pulleys, 6 floor hooks, 160 feet 13-16-inch manila ropw, 60 feet ¾-inch reverse rope.

IRON-STRAPPED BLOCKS

Size of Sheave, Inches.	Diam. Rope, Inches.	Length Shell, Inches.	Common Iron Bushed.			
			Single.	Double.	Triple.	
			List Price	Retail Price	List Price	Retail Price
3½ x 1 x 1½	¾	6	\$1.10	\$.88	\$2.00	\$1.60
4 x 1 x 1½	7/8	7	1.30	1.04	2.40	1.92
4½ x 1½ x 2	1	8	1.65	1.32	2.85	2.28
5½ x 1½ x 2	1 1/8	9	1.85	1.48	3.40	2.72
6½ x 1½ x 2	1 1/4	10	2.75	2.20	4.50	3.60
7½ x 1½ x 2	1 3/4	11	4.45	3.56	7.50	6.00
8 x 1½ x 2	1 3/4	12	4.45	3.56	7.50	6.00
3½ x 1 x 1½	¾	6	\$1.50	\$1.20	\$2.85	\$2.28
4 x 1 x 1½	7/8	7	1.70	1.36	3.35	2.68
4½ x 1½ x 2	1	8	2.25	1.80	4.15	3.32
5½ x 1½ x 2	1 1/8	9	2.50	2.00	4.70	3.76
6½ x 1½ x 2	1 1/4	10	3.50	2.80	6.00	4.80
7½ x 1½ x 2	1 3/4	11	5.30	4.24	9.20	7.36
8 x 1½ x 2	1 3/4	12	5.30	4.24	9.20	7.36

Common Iron Bushed.

Patent Roller Bushed.

GRITCO HOIST

No. 40.—Two sheaves above, two sheaves below; for ½-inch rope; capacity, 1500 lbs. One man can lift 400 lbs. 3-inch sheaves.

Factory 11 s t.
\$4.00. Our Special Price, \$3.00.

No. 34.—Two sheaves above, 2 sheaves below; for ½ inch to ¾ inch rope; capacity, 3000 pounds. One man can lift 500 pounds 4-inch sheaves. **Factory 11 s t.** **\$6.00. Our Special Price, \$4.50.**

No. 28.—Two sheaves above, 2 sheaves below; for ¾ inch to 1 ½ inch rope; capacity, 4000 pounds. One man can lift 600 pounds 5-inch sheaves. **Factory 11 s t.** **\$10.00. Our Special Price, \$7.00.**

Rope Not Included in Price

Hudson Cow Stalls and Stanchions

All Hudson Stalls are furnished with long Angle Iron Base Anchors as illustrated on this page, unless otherwise ordered. When anchor is not desired a slight reduction from regular list price of stalls is allowed the purchaser.

As may be seen from the illustration, the two angle iron anchors extend the full length of the stall row. To the front one are bolted all the stall uprights and pipe anchors for stanchions, and the partitions are bolted to the one at the rear.

This makes it possible to ship the stalls in batteries of 2 or 3 stalls each, all set up ready to install. The entire row can be put together and will stand without the maze of props and braces which are such a nuisance when setting up many other makes of stalls. Think of the possibility of having your entire installation bolted together and standing in position, enabling you to judge of the final suitability of your layout before beginning to pour cement. For should this "size-up" indicate the desirability of a slight shift, one way or the other, it can be made before it is too late.

No. 1A66 Stall.

No. 1A66—One Post Stall, with No. 66 Tubular Steel Stanchion. **Price, \$10.35**
No. 1A105—One Post Stall, with No. 105 Wood Lined Steel Stanchion. **Price, \$11.00**

No. 2A66 Stall.

No. 2A66—Stall with No. 66 Tubular Stanchion. **Price, \$11.50**
No. 2A105—Stall with No. 5 Wood Lined Stanchion. **Price, \$12.15**

SHOWING HUDSON STALLS AS SHIPPED

Assembled at the factory instead of on the farm. No chance for shortage. Job always complete.

SHOWING METHOD OF INSTALLING HUDSON STALLS

All uprights and partitions securely bolted to angle iron anchor. Angle also acts as base to hold uprights and partitions in proper place, and reinforces the concrete.

After the cement has been poured, the stalls will never become loosened in the cement, while the anchors and tubing furnish a re-inforcement between the floor and curb. We are fully convinced by the results during the year we have used it that our methods of anchoring is the very best that can be devised.

NO. 4B 100 STALL

with swinging sure stop and with No. 100 adjustable wood lined stanchion. **Price, \$14.75**
No. 4B105 Stall with swinging sure stop and No. 105 stanchion. **Price, \$13.85**
No. 4B66 Stall with swinging sure stop and No. 66 Tubular steel stanchion. **Price, \$13.20**

HUDSON STANCHIONS

HUDSON STANCHION No. 66.

Rust-resisting steel tubing assembled with certified malleable castings. Absolute cow proof latch. Smooth round surface which is very easy on cow's neck. Finished in special grey enamel. Approximate weight, 19 lbs.

Price\$3.75

HUDSON STANCHION No. 90

Steel U. Bar Stanchion with heavy steel fittings; no castings used. Latch made of pressed steel, protected so the cow can not open it. Weight 19 lbs.

Price\$3.00

HUDSON STANCHION No. 90W

This stanchion is the same as the No. 90, only that the steel U bar has a wood lining on it. Weight, 20 lbs.

Price\$3.25

HUDSON STANCHION No. 105

This stanchion has been made for over 25 years, and is one of the highest grade stanchions that sells for a reasonable price. High carbon, rust-resisting steel U bar and non-breakable malleable fittings. Wood linings specially seasoned hardwood, finished in oil. Linings are pressed in to the steel U Bar so they can never split. Latch is of One Hand Lift type, locks automatically by the weight of the stanchion itself. Neck Space is adjustable from 6½ in. to 8 in., which is ample to take care of any cow. Weight approximately 23 lbs.

Price\$4.40

HUDSON STANCHION No. 110

This stanchion is offered to dairymen who want the very best. It is the strongest and most easily operated stanchion ever built. High Carbon, rust-resisting steel U Bar and certified malleable fittings. Selected Hard Wood Linings thoroughly seasoned and polished. Inserted into U Bar under pressure and securely fastened. Adjustable Neck Space from 6½ to 8 inches. Weight approximately 27 lbs.

Price\$5.30

HUDSON STEEL WATER BOWL

The Hudson New Steel Water Bowl will not break. The bowl has a greater capacity and is easier handled; made of one piece of heavy gauge steel, galvanized, and attached by means of a special designed clamp, which grips the bowl so firmly that there is no possibility of it being knocked off by the cow.

Made of 14-gauge steel; formed with a heavy rolled rim and galvanized afterwards, so that the galvanizing will not be cracked in the process of manufacture.

Size, 4½ inches deep, 10 inches across the top.

Best Malleable Fittings, Brass Valve Fitted with standard size

Rubber Fuller Ball, same as used in any ordinary water faucet; easily replaced. Valve seat of brass; will not rust. Pressure plate made of Malleable Iron, and rests low in the bowl, thus avoiding interference with the cow's muzzle in drinking. 1-inch pipe should be used for main supply pipe and ¾-inch for the short length to connect the bowl to the main supply pipe.

Bowl weighs 6½ pounds each.

Price\$3.75

HUDSON SANITARY STEEL PENS

No. 58A—Steel Cow Pen illustrated below is ideal for a maternity pen and can be used for a testing or feeding pen.

Specifications: The panel bars of the No. 58A Pen are 1 1/16 in. O. D. High Carbon Steel Tubing, spaced not over 6 in. on center with strong malleable iron fittings. Corner posts, Intermediate Posts, Gate Posts, Top and Bottom Rails and Gate Frame are 1½ in. O. D. High Carbon Steel Tubing. The gate is furnished with heavy malleable hinges and is supplied with a latch that has a gravity lock, which can only be opened by the operator. The pen is 4 ft. 9 in. high.

Hudson Cow Pens can be furnished with any style corner or square manger, and with adjustable stanchion built in panel if desired. Weight, 22 lbs. per lineal foot. Price, per foot, \$2.90.

Cow Pen Gate Fittings and Arch, per set\$7.05

Cow Stanchion Built in Panel, Each.....4.70

No. 62 Cow Pen, Galvanized Tilting Manger.....18.8"

Write for prices on Calf and Bull Pens.

No. 58A

Hudson Chain Hoist Litter Carrier

No. 58B.—Rigid Track Only.

This Hudson Heavy Duty Back Geared Litter Carrier is the result of long years experience in the carrier business. This carrier combines great strength and rapid action. It will carry the heaviest loads with perfect ease. The hoisting chain is of special strength and is of a length to correspond with the shaft on which it winds. Longer chains furnished if specified for special jobs. Carrier is equipped with friction brake. The tub is made of heavy galvanized sheet steel reinforced around the top and ends with 1 inch angle iron closely riveted. The carrier locks at both ends, which increases the life of the carrier. The bale is constructed of 1 inch by 1½ inch channel steel strongly reinforced. The chain shaft is 1 inch cold rolled steel. Full swiveled, tandem trucks which give greater bearing on the track and ease in turning corners.

No. 58B—Tub, 44 inches long, 26 inches wide, 22 inches deep, inside measurements, capacity, 13 bu. Weight, 200 lbs. Price, \$47.85.

HUDSON FEED CARRIER

No. 40C.

The Hudson Raising and Lowering Feed Carrier has all the track operating features found in our celebrated line of litter carriers, and is furnished with a tub or a carrier box, that is made of selected materials, and shaped so that the operator can work from either end when feeding.

Equipment can be furnished for the installation of a system of trackage in connection with the litter carrier system.

Capacity, 16 bushels. Weight, 225 pounds. Price, \$48.40.

Hudson Track Equipment

No. 101.

No. 102.

No. 90A.

No. 102—I-Beam Track—This track with hangers placed two feet apart will carry many times the load it will ever be called upon to sustain. It is not necessary to have bends made at the factory as the track can be curved to fit when being installed, extension desired.

No. 103—Two Way all Steel Mounted Switch.
No. 104—Three Way all Steel Mounted Switch.

High quality steel and malleable iron are used in the construction of these switches, insuring durability.

Mounted and ready for installation—need no assembling on the job.

Either two or three way switches, right or left hand, can be furnished. Both styles operate in same manner.

No. 102—Track per foot	\$.22
No. 90B—Hangers, 4 inch, each	.32
No. 90F—Hangers, 8 inch, each	.36
No. 90L—Hangers, 12 inch, each	.39
No. 90P—Hangers, 16 inch, each	.43
No. 103—Two Way Switch	8.25
No. 104—Three Way Switch	10.35

Hudson Floor Feed Truck

This a very convenient and durable truck, built of selected lumber well put together and strongly reinforced.

Load is evenly balanced on wheels, making truck easy to handle. Wheels are located so that truck may be turned in its own length.

Main wheels are fourteen inches high with a two inch face. Castor wheel is seven inches in diameter. Axle is one inch cold rolled steel shafting. Capacity sixteen bushels.

This truck can be furnished with or without the Hudson Scale Arch.

No. 141 Hudson Floor Feed Truck, galvanized steel bottom. Weight, 210 pounds. Price, \$38.50.

TROLLEY ROLLER-BEARING STEEL BARN DOOR HANGER No. 20

The only difference between the No. 25 and 20 is the No. 25 has return apron, as shown in No. 25 cut below, and the No. 20 has not.

Weight, per pair, 10 lbs. Pendant, 6 inches long, 3 1/2 inches wide, 3-16 inch thick. These Hangers have lateral adjustments, and are suitable for doors from 1 1/2 to 2 1/4 inches thick. Hangers and track are sold separately. A pair of Hangers consists of two hangers and carriers, one right-end bracket, No. 51; one left-hand bracket, No. 50, and one center bracket, No. 52, complete with wood screws for hangers and lag screws for brackets. When ordering always give thickness of doors, the exact width of opening, and state whether for double or single doors. No. 31 track, No. 16 gauge, price, per foot, 25c. Hangers, No. 20, per pair, \$2.30.

No. 25 Trolley Roller-Steel Barn Door

Has two adjustments—vertical and lateral. Has return apron. (See cut). Pendant 9 inches long, 3 1/2 inches wide, 3-16 inch thick. Suitable for doors 2 to 3 inches thick and weighing from 400 to 600 pounds. Made to run on No. 31 track. A pair of hangers consists of two hangers and carriers, one right and one left-hand bracket, complete with screws for hangers and lag screws for brackets. Hangers and track sold separately. When ordering always give thickness of door, exact width of opening, and state whether for single or double door.

Per pair, \$2.70. No. 31 Track, per foot, 25c.

Anti-Friction Barn Door Hanger No. 2

PRICE, PER PAIR, \$1.20.

Has roller bearings, which cause the wheel to roll easily and prevent wear. Frame of open-hearth steel, strength sufficient for heaviest doors; standard tread, can be used on other tracks.

The track is made of special carbon open-hearth steel, 1x3-16 stock; has heavy brackets well and substantially riveted every 12 inches. Ends made with tongue and groove to match. Track made in 4, 6, 8 and 10-foot lengths. Price, per foot, 10c.

STAY ROLLERS

For use with Barn Door Hangers. Price, each, 20c.

Bearing Hanger

Extra Brackets for Trolley Track, each, 2c.

One Bracket should be placed every three feet.

Double Brackets, each, .70c.

No. 24

Roller-Bearing Steel Bar and Fire Door Hanger

A pair of hangers consists of two hangers, one each right and left-hand brackets, and one center bracket, complete with wood and lag screws. The only Adjustable Double Apron made Suitable for doors weighing

400 to 600 lbs. Adjustment lateral only. No. 1—For doors, 1 1/4 to 2 1/4 inches thick; weight, 12 lbs. No. 2—For doors 2 1/4 to 3 inches thick, weight, 12 lbs. This Hanger has return or double apron. Per pair, \$2.60. No. 31 Track, per foot, 25c.

FLEXIBLE HINGE BARN DOOR HANGER

No. 843.

The door can be swung out from the bottom at any angle. The flexible feature allows the top of the door to move away from the building at least one-half an inch. The track is heavy special high-carbon flexible steel, 3-16x1 1/4 inch, supported by a heavy steel bracket with square shoulder mortised through the track every 17 inches. Weight, dozen pairs, 70 lbs. Weight, track, per 100 feet, 105 lbs. Retail, per pair, \$1.25. Track, Retail, 12c.

R-W SLIDETITE GARAGE DOOR ROLLER BEARING HANGERS

Garage doors equipped with this fixture fold and slide inside building, requiring only minimum space. Recommended for doors not over three feet wide.

With this equipment, four doors hinged together in pairs make an ideal arrangement for the ordinary garage doorway, one pair folding to each side of the opening. When desired, however, three, five or six doors can be used, in which case the center doors swing free, making convenient entrance doors.

SETS

Up to 9-ft. opening.....	\$11.60
Up to 12-ft. opening.....	13.50
Up to 15-ft. opening.....	20.00

SAMPSON HANGERS

No. 121—Sampson Hangers, per pair.....	\$5.80
No. 33—Sampson Track, per foot.....	.70
Sampson Brackets, each.....	.70

Cannon Ball Barn Door Hanger

No. 1068

No. 1068—Adjustable Barn Door Hanger; has roller bearings, flexible joint, tandem wheels, underslung carriage, lateral and vertical adjustments. For doors from 1 1/4 to 2 1/2 in. thick, up to 400 lbs. Price, per pr., \$2.65

No. 1061

No. 1061—Cannon Ball Jr. Barn Door Hanger, flexible, non-adjusting roller bearing machined wheels, one-piece heavy steel door strap. Price, per pair.....\$1.25

No. 1062—Cannon Ball Jr. Adjustable Barn Door Hanger. Lateral and vertical adjustments, tandem roller bearing machined wheels, heavy one-piece door strap, for doors weighing up to 250 pounds, 2 inches thick. Price, per pair.....\$1.75

No. 384

No. 384—Non-Adjustable Barn Door Hanger, pressed steel ball wheels, roller bearings, underslung tandem truck, flexible joint, heavy steel straps for 2-in. doors, weighing up to 400 lbs. Price, per pair.....\$2.25

Track Brackets not included in price of hangers.

Track Brackets, Joint, Center and End, each.....	\$0.20
Cannon Ball Track, in lengths 3, 4, 6 or 8 feet, per foot.....	.31 1/2
Cannon Ball Jr. Track, 3, 4, 6 and 8 feet, per foot.....	.18
Lag Screws for Track Brackets, each.....	.03
Flexo No. 397 for 1 1/4-in. Flat Track.....	\$1.50
Flexo No. 949 for 1 1/4-in. Flat Track.....	2.30
1 1/4-in. Track for 947 and 949 Hangers, per foot.....	.11 1/2

STRAP HINGES

	Light Strap. Retail, Per Pair.	Heavy Strap. Retail, Per Pair.
4 inch	\$0.10	\$0.12
6 inch	.16	.16
8 inch	.20	.27
10 inch	.40	.47
12 inch	.55	.72

SCREW HINGES

6 to 12 inches, per lb.....	10 c.
14 to 20 inches, per lb.....	9 1/2 c.
22 to 36 inches, per lb.....	9 c.

T-HINGES

	Light T. Retail, Per Pair.	Ex. Heavy T. Retail, Per Pair.
4 inch	\$0.10	\$0.16
6 inch	.15	.20
8 inch	.20	.35
10 inch	.32	.50
12 inch	.45	.78

HINGE HASPS

	Retail, Each
3-inch.....	.08
4-inch.....	.09
6-inch.....	.10
8-inch.....	.15

IRON, FLAT HEAD WOOD SCREWS

1/2-inch	List, Gross.	Retail, Dozen.	3/4-inch	List, Gross.	Retail, Dozen.
No. 4	\$.75	\$.05	No. 6	\$.85	\$.07
No. 5	.78	.05	No. 7	.90	.07
No. 6	.80	.07	No. 8	.95	.08
No. 7	.84	.07	No. 9	1.00	.08
1-inch	List, Gross.	Retail, Dozen.	1 1/4-inch	List, Gross.	Retail, Dozen.
No. 8	\$1.05	\$0.08	No. 10	\$1.30	\$.10
No. 9	1.10	.08	No. 11	1.40	.10
No. 10	1.20	.09	No. 12	1.55	.10
No. 11	1.30	.09			
No. 12	1.40	.09			
1 1/2-inch	List, Gross.	Retail, Dozen.	2-inch	List, Gross.	Retail, Dozen.
No. 11	\$1.50	\$.10	No. 12	\$2.00	\$.16
No. 12	1.65	.11	No. 13	2.20	.18
No. 13	1.80	.14	No. 14	2.45	.20

In Gross Lots. Retail, 60 Per Cent. from List.

CROWBARS

Crowbars with Pinch Point, from 20 to 25 lbs., per lb., 10c.
Crowbars with Wedge Point, from 20 to 25 lbs., per lb., 10c.
Digging Bar and Rammer combined, each \$2.20.
Digging Bar with Loop Handle, each, \$2.20.

WEDGES

Strong steel wedges for splitting wood, have the right taper and will stick in the wood.

Weight from three to six pounds.

Price, per pound.....11c.

GALVANIZED STEEL STOCK TROUGHS

These troughs will not rust or corrode, and will not damage by freezing.

Length.	Width.	Capacity.	Weight.	Price.
3 ft.	16 in.	18 gals.	54 lbs.	\$8.00
4 ft.	16 in.	24 gals.	61 lbs.	8.80
6 ft.	16 in.	36 gals.	75 lbs.	10.60
8 ft.	16 in.	48 gals.	90 lbs.	12.35
10 ft.	16 in.	60 gals.	105 lbs.	14.85
12 ft.	16 in.	72 gals.	120 lbs.	17.60
4 ft.	20 in.	40 gals.	100 lbs.	11.00
6 ft.	20 in.	60 gals.	125 lbs.	13.20
8 ft.	20 in.	80 gals.	150 lbs.	15.40
10 ft.	20 in.	100 gals.	170 lbs.	18.70
12 ft.	20 in.	120 gals.	195 lbs.	22.00
6 ft.	24 in.	84 gals.	155 lbs.	17.60
8 ft.	24 in.	112 gals.	185 lbs.	20.90
10 ft.	24 in.	140 gals.	215 lbs.	24.20
12 ft.	24 in.	168 gals.	240 lbs.	27.50

Galvanized Hog and Sheep Troughs

(With Guards)

Length	Width	Capacity	Weight	Price
3 ft.	10 in.	6 gals.	30 lbs.	\$4.70
4 ft.	10 in.	8 gals.	35 lbs.	5.35
5 ft.	10 in.	10 gals.	40 lbs.	6.00
6 ft.	10 in.	12 gals.	45 lbs.	6.65
8 ft.	10 in.	16 gals.	55 lbs.	7.98
10 ft.	10 in.	20 gals.	65 lbs.	9.25

Heavy Cast-Iron Hog Troughs.

Iron Hog Troughs

No danger of them bursting in winter. Twelve inches wide at the top, 2 inches wide at the bottom and 7 inches deep. Made in lengths from 2 feet up to 12 feet, every 12 inches. Weight, 19 pounds to the foot. Price, \$1.00 per foot.

We also carry in stock a lighter weight trough like the one illustrated above. Price, \$0.90 per foot.

Special Shaped Galvanized

Hog Troughs

The trough is built of 18-gauge galvanized sheet iron, ends are locked seamed, with reinforcing plates on the corners; angle iron dividers across the trough at intervals of 12 inches, riveted to the galvanized sheets.

These angle iron dividers are so strong that a man can stand on them without bending them; they not only give the trough great rigidity and strength so it cannot wrack, but they also separate the hogs, keeping any one hog from monopolizing the entire trough. Hogs cannot tip the trough.

The legs of the trough are on angle steel, fastened to the trough with heavy rivets.

The bottom of the trough is V shaped, and sides have a flare. 4-ft. length, \$8.00. 6-ft. length, \$12.00.

ROTO SALTS

SALT CAKES. Each, 25c.

ROTO SALT HOLDERS, 50c.

HORSE MUZZLES

Well made and of good stout wire.
No. 18—Plain. List Price, dozen, \$1.20. Our Special Price, each 10c.
No. 16—Braced. List Price, dozen, \$2.00. Our Special Price, each, 15c.
No. 15—Braced. List Price, dozen, \$2.50. Our Special Price, each, 20c.

Cast Iron Corner Mangers

With Roll Front Food Guard.

No. 6—17 in. long, 17 in. wide, 10 in. deep. Price,\$3.75
No. 7½—20 in. long, 20 in. wide, 10 in. deep. Price,\$6.75

Wrought Iron Hay Rack

No. 12—Frame, 1 inch channel, 8 uprights, ½ inch round bar, exceptionally strong and heavy. Price\$4.00

Heavy Harness Hooks

No. 1—Upper Hook projects 12 in., lower hook projects 5 in. Approximate weight 4 lbs. Price.....\$.90

No. 2—Extra Heavy. Upper Hook projects 12 in., lower hook projects 7 in. Approximate weight 8½ lbs.

Price\$1.70

BALTIMORE STRAP HAME

$\frac{7}{8}$ x 7/32-in. flat steel selected second growth, air seasoned timber, extra wide woods, superior finish, hand forged, extra heavy steel hook, 17 to 24 inches.
Per Pair....\$2.25

No. 1 HAME
An excellent light hame and has three top strap loops instead of two as shown in cut. **PRICE,** per pair, \$1.25

VIRGINIA CART NO. 61

Rock elm or ash wood. $\frac{1}{8}$ -inch stiff-bottom loops. $\frac{3}{4}$ x $\frac{1}{4}$ -in. steel backs. Three mortise top loops. Heavy wrought steel hooks. Var-nished, polished irons. Size, 19- to 22-inch.

PRICE,

Per

Pair,

\$2.25

VA. Cart

No. 61.

COW CHAINS

TRIUMPH CHAINS—Very light; possess great strength; all links have equal strength. Do not kink; no welds to give way; no sharp edges.

No. 3-0—Bulldog Cow Tie (Ohio pat.), each, 30c.
4-0.....\$0.40
No. 3-0—4 $\frac{1}{2}$ -ft. Halter, each, 40c. 6-ft......45
No. 0—20-ft. Bulldog Tethering Chain, each... .80
No. 00—20-ft. Bulldog Tethering Chain, each... 1.00
No. 000—20-ft. Bulldog Tethering Chain, each... 1.15
No. 0—30-ft. Bulldog Tethering Chain, each... 1.00
No. 00—30-ft. Bulldog Tethering Chain, each... 1.25
No. 000—30-ft. Bulldog Tethering Chain, each... 1.40

OPEN SIDE LAP LINKS

Open Side Lap Links, polished, $\frac{1}{2}$ x 2 $\frac{1}{2}$15c.
 $\frac{5}{8}$ x 3.....20c. $\frac{3}{4}$ x 3.....25c.

Chain Repair Links

Chain Repair Links, $\frac{1}{4}$ or 10-2, dozen\$0.25

9-32, or 10-1, dozen..... .30

REGULAR IRON TRACE CHAINS.

Retail Price.

6 $\frac{1}{2}$ -10-3.....\$.90 pair
7 - 8-2..... 1.00 pair
7 -10-2..... 1.10 pair
7 -12-2..... 1.30 pair
7 -14-2..... 1.50 pair
7 -16-2..... 1.90 pair

SPREADER CHAINS.

Straight Link Slack Spreader Chain, 11/32. **Our Special Price...**\$4.00
13/32. **Our Special Price...**\$5.00
 $\frac{3}{8}$ Close Link Straight Spreader Chain for two horses, with three hooks each.
Our Special Price.....\$7.00

TUG CHAINS.

Cart Tug Chains, 18-10-1. **Our Special Price,** 60c. per pair.

BUTT CHAINS.

3 ft.—8-2, Per Pair.....\$1.00
3 ft.—10-2, Per Pair..... 1.10

LOG CHAINS.

Long Link Log or Ox Chain, 5/16 in., 12 or 14 ft. **Retail Price,** 16c. lb.
Long Link Log or Ox Chain, $\frac{3}{8}$ in., 12 or 14 ft. **Retail Price,** 15c. lb.
Long Link Log or Ox Chain, $\frac{1}{2}$ in., 12 or 14 ft. **Retail Price,** 14c. lb.

BREAST CHAINS.

Single Slack.

27—5-16 to $\frac{1}{4}$ Taper Slack.....\$1.00
27— $\frac{3}{8}$ to 5-16 Taper Slack..... 1.25
28 in. No. 10-2—Single Slack, pair..... 1.00
28 in. Double Slack, pair..... 1.10

FIFTH CHAINS WITH SPREADER.

No. 67—**FIFTH CHAIN**—Round hook, ring and swivel; black; made with spreader 8 $\frac{1}{2}$ ft. long to spreader 13-32. **Our Special Price,** \$7.00.

KINNEL EMERGENCY CHAIN OVERSHOE FOR HORSES

NO EXCUSE FOR HORSES SLIPPING

Put the Kinnel Emergency Shoe on Your Horses. Prevents suffering and loss. Just the thing to prevent horses from breaking legs, causing innumerable falls, delay, suffering and financial loss on account of icy, snowy weather.

Special Chain Shoes for Mules; small, medium and large. The average 1400-lb. horse requires a No. 5. The average 1600-lb. horse requires a No. 6.
Price, per Set of 4, \$6.00. Pair, \$3.00

CURRY COMB

ALL-STEEL CLOSED BACK

No. 800.

No. 800—All Steel closed back, lacquered, extra size, oval face, curved knockers, braced shank, extending through handle and riveted, enameled handle, brass ferrule, 8 bars.
Our Special Price, 30c. ea.

No. 167—All steel, closed back, 6 bars.

Our Special Price, 25c. each.

No. 167

No. 083—Open Back Curry Comb.
Our Special Price, 20c. each.

DANDY BRUSHES

No. 985—Oval Brush\$0.60 each
No. 940—Palmetto Dandy50 each
No. 950—Palmetto Dandy45 each
Leather Back Bristle Army Brush..... 1.00 each

FOLDED DUCK BACK BANDS.

42 and 44
inch... \$0.90
48 inch.. 1.00

Boss Back Band Hooks.
Per pair, 3 1/2 in.... \$0.25
Per pair, 4 in.... .30

WEB BACK BANDS.

Less Hooks.
No. 1—3 1/2-in., 42-in. long.... \$0.40
No. 1—4 in., 42-in. long.... .45
No. 2—3 1/2-in., 42-in. long.... .35
No. 2—4 in., 42-in. long.... .40

BACK BAND HOOKS.

3 1/2-in. \$0.25
4 in.30

HAME STRINGS. Black.

5/8x42-inch slit, each. \$0.20
3/4x42-inch slit, each.... .25

Rawhide.

5/8x42-inch slit, each..... \$0.20

HAME STRAPS.

1 inch riveted..... \$0.25
1 1/8 inch riveted and sewed.. .30
1 1/4 inch riveted and sewed.. .35

SHAFTS

Ironed complete, painted, for
Buggies. **Our Special Price, \$9.00.**

Ironed complete, painted, for
Daytons and Surreys.
Our Special Price, \$10.00

"Baltimore" Ironed Buggy Pole

Is well ironed with
wrought-iron tees, heavy
drop-forged stay irons. In
every way suitable for
medium grade work. Prices
are for pole complete, which
include neck yoke, double
and single trees and check
straps. Ironed, complete,
painted. **Our Special Price,**
\$12.50. Dayton Pole, **Our**
Special Price, \$15.00.

Gemaco Hotkaps

Besides protecting the plant from the elements and from
insects, "Hotkaps" are worth their cost alone because they
aid in maturing crops earlier. That is the all-important thing
to the grower, FOR IT MEANS THAT HE CAN BE FIRST
TO MARKET AND SO COMMAND A BETTER PRICE FOR
HIS CROP. Thus, "Hotkaps" far more than pay for them-
selves. They represent one of the best investments a farmer
can make. Thousands have proved it; thousands more are
discovering it every season.

Price.

100 Hotkaps..... \$1.50
1000 Hotkaps..... 10.00
Hotkap Setter..... \$2.50
Hotkap Carrier..... 2.75

THE FARRELL GEARED POWER HOISTS

The hoists shown on this page are designed to meet the
needs of the farmer and others who have gasoline, electric or
steam power. The advantages of a hoist in unloading hay
are that it does the work of a team, and does not require
an extra man to operate it, since it can be operated by the
man on the load, and it also saves time, because there is
no delay due to hitching the team to the draft rope, and in
returning the carrier, when a wait for slack rope is necessary.
Our return drum hoist pulls the carrier back as soon as the
fork is tripped. A hoist also saves wear on rope because it
is not dragged over the ground.

The advantages in using a hoist in unloading hay are
many. If the fork is caught in the rigging the fork can
be stopped instantly and released, thus doing away with
possibility of breaking rigging or fork. The forkful of
hay is separated from the load without a sudden jerk and
is carried up smoothly and easily to the carrier, avoiding
the flirt when the carrier leaves the stop. The load is
not torn to pieces and the hay shaken off in raising the
fork to the carrier.

These hoists are simple in construction and positive in
operation. They can be used for many purposes where power
is at hand and time is an object. Some of
these uses are: Hay
Unloading, Car Pull-
ing, Handling Feed,
Ice, Concrete, Coal,
etc., and any light
contractor's work.

1924 MODEL A HOIST

with Lock Brake

PRICE, \$60.00

1924 MODEL B DOUBLE DRUM HOIST

with Lever-Lock Brake

PRICE, \$70.00

BADGER and BEAVER AUTOMOTIVE CASINGS and TUBES

An unusually complete line of Standard Quality Casings and Tubes, made by one of the largest Companies in the industry. It is complete in types and sizes to meet any service requirement, is easily competitive in quality and price, carries the Standard Warranty, and is a popular and profitable line for Dealers.

HIGH-PRESSURE CASINGS

BADGER
Commercial Cord

BADGER
Standard Cord

BEAVER
Cord

BALLOON CORD CASINGS

BEAVER
Balloon

BADGER
Heavy Duty

BADGER
Standard

BADGER TUBES

Extra Heavy Red

Red Balloon

BADGER TIRES AND TUBES

Sizes	Badger Cord Casings		Badger Tubes
	Badger Standard	Badger Commercial	Badger Red Ex. Heavy
30x3 1/2 Cl. Reg. O.S.-360	\$ 9.10	.....	\$1.80
30x3 1/2 Cl. Full O.S.-385	10.95	14.70	2.15
30x3 1/2 S.S.	12.85	.....	.....
31x4 S.S.	16.25	.....	2.45
32x4 S.S.	17.20	20.65	2.60
33x4 S.S.	18.15	.....	2.70
32x4 1/2 S.S.	24.37	29.35	3.25
33x4 1/2 S.S.	23.45	.....	3.40
30x5	.....	41.25	3.70
33x5	.....	39.70	4.10
34x5	.....	35.00	4.20

BEAVER TIRES AND TUBES

Sizes	Beaver Cords	Beaver Standard Grey Tubes
	Cords	
30x3 Cl.	\$ 6.60	\$1.35
30x3 1/2 Cl. Reg-350	7.65	1.60
30x3 1/2 Cl. Full O.S.-385	8.45	1.85
30x3 1/2 S.S.	10.35	.....
31x4 S.S.	13.20	2.15
32x4 S.S.	13.95	2.20
33x4 S.S.	14.70	2.25

BALLOON CORD CASING AND TUBES

Sizes	CORD CASINGS			INNER TUBES	
	Badger Standard	Badger Heavy Duty	Beaver	Badger Extra Hvy. Red	Beaver Standard Grey
29x4.40	\$11.45	\$14.35	\$9.45	\$2.35	\$1.95
28x4.75	13.75	.....	.....	2.65	.....
29x4.75	14.40	.....	11.81	2.70	2.20
30x4.75	15.00	.....	12.35	2.75	2.25
29x5.00	.....	18.75	.....	2.75	.....
30x5.00	16.25	.....	13.25	2.85	2.35
31x5.00	16.90	.....	13.75	2.90	2.40
29x5.25	18.35	.....	.....	3.10	.....
30x5.25	18.95	.....	15.45	3.20	2.70
31x5.25	19.60	23.50	15.95	3.35	.....
29x5.50	.....	23.65	.....	3.35	.....
30x6.00	21.60	25.85	.....	3.65	.....
31x6.00	22.20	26.60	.....	3.75	.....
32x6.00	22.85	27.32	18.10	3.90	3.20
33x6.00	23.45	28.10	.....	4.00	.....
34x6.00	.....	29.35	.....	4.25	.....
30x6.20	.....	31.25	.....	4.15	.....
32x6.20	27.35	32.75	.....	4.40	.....
32x6.75	.....	35.00	.....	5.25	.....
33x6.75	.....	35.95	.....	5.50	.....

BEAVER TUBES

Standard Grey Balloon

Standard Grey

Modell First-Aid Tire Chains

MODELL FIRST-AID TIRE CHAINS are unequaled in design, construction and general appearance and are being accepted by discriminating motorists as the latest word in anti-skid devices. The Modell Tire Chains are equipped with Modell Cross Links which are finished in natural color, showing the temper of the steel, and likewise constructed with Lubinized Side Chains and fitted with Open Easy Fasteners.

Size	Price per set	Size	Price per set	Size	Price per set
30x3 1/2	\$4.50	35x4	\$6.75	33x5	\$7.50
32x3 1/2	5.00	32x4 1/2	6.25	34x5	7.50
31x4	5.50	33x4 1/2	6.50	35x5	8.00
32x4	5.50	34x4 1/2	6.75	36x5	8.00
33x4	5.75	35x4 1/2	7.25	37x5	
34x4	6.25			36x5 1/2	

Cross Chains.

Size	Price	Size	Price
3 1/2 in.	\$0.10	4 1/2 in.	\$0.14
4 in.	.13	5 in.	.16
		5 1/2 in.	.18

PARA-TITE

An all-rubber, self-vulcanizing repair material for inner tubes, and other soft rubber products. Makes a quick, secure and permanent repair.

In Screw Top Cans, per can **Price \$0.50**
(56 sq. in. Para-Tite.)

No. 340 DEFENDER INSIDE

SLEEVES

(All Fabric)

Made with white face and gray inside frictions with multiple plies heavy square woven duck. Red rubber tipped. Branded Defender. An attractive medium-priced sleeve of excellence and durability.

Size	No. Pliers	Length	Width Incl. Flaps	Price
3"	3	8"	11 1/4"	\$0.35
3 1/2"	4	9"	12 1/2"	.40
4"	4	10"	13 1/4"	.50
4 1/2"	4	11"	15 1/2"	.55
5"	5	11"	17"	.60

OFF'N'ON

TIRE CHAINS PRICE LIST

OFF'N'ON CHAINS FOR BALLOON TIRES

For Balloon Sizes Marked	Off'n On Catalog No.	Price Per Pair
27x4.40	1002	\$4.50
28x4.40		
29x4.40		
30x3 1/2 Cord		
*29x4.40 Special	1003	5.00
28x4.75	1098	6.25
29x4.75		
30x4.75		
29x4.95	1099	6.25
30x4.95		
31x4.95		
30x5.00	1081	7.25
31x5.00		
28x5.25		
29x5.25		
30x5.25		
31x5.25	1083	7.25
30x5.77		
31x5.77		
32x5.77	1091	8.25
33x5.77		
30x6.00	1092	8.50
30x6.20		
31x6.00		
32x6.00	1063	9.00
32x6.20		
33x6.00		
33x6.20		
30x6.75	1086	10.00
33x6.60		
32x6.75		
33x6.75		

*A special chain of a size and weight between the regular (No. 1002) and the heavy duty (No. 1052). Recommended for use on Ford, Chevrolet, Star 4 and Erskine 6, where certain conditions may require additional strength and durability. Use cross-chain No. 1102.

THE SPRINGFIELD PUMP

A dependable single cylinder tire pump of large capacity and quick action, particularly recommended for inflation of Balloon Tires.

Carefully designed and skilfully made to meet exacting demands.

Attractive in appearance and especially constructed to withstand hard usage and abuse, and will last indefinitely.

Extreme ease of action permits inflation of tires quickly and with the least physical exertion.

Cylinder, 20 Gauge Steel Tubing. Full 7 inch Hard Wood Handle, Black Enamelled. Polished Brass Handle Trimmings. Malleable Iron Base. 24 inch, 3-Ply, High Pressure Hose, Lock-on Connection. Knurled Brass Cylinder Cap, Polished. 3/4-inch Tempered Steel Plunger Rod. Specially and Chemically Treated Leather Plunger Valves, Insuring High Compression and Indefinite Life.

Price **\$2.00**

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

CHAMPION SPARK PLUGS

DEPENDABLE FOR EVERY ENGINE

Standard For Ford Cars - Ford Trucks
Fordson Tractors

Champion is outselling because it is the better spark plug—better because of its wonderful **double-ribbed sillimanite** core. This core is the finest insulator ever devised. It is exclusively Champion's, because Champion controls the only known commercial supply of **sillimanite**.

It is far superior to ordinary porcelain and is practically immune to breakage. **Sillimanite** resists shocks so well that it makes possible the semi-petticoat tip of Champion cores. This tip becomes so hot in service that it remains free from carbon under the most trying engine conditions. Yet it never causes preignition or mis-firing because of its high heat conductivity.

To this distinct advantage add the Champion two-piece construction, patented gaskets, manganese nickel electrodes and skilled workmanship with most exacting standards of supervision, inspection and thorough test.

FOR FORD

1/2 Inch Long Price 60c

FOR FORD
X Long

1/2 Inch Long
Price 60c

THE SEVEN BLUE BOX TYPES FOR OTHER CARS

No. 1
3/8 Standard
Price 75c

No. 2
3/8 Long Regular
Price 75c

No. 3
3/8 Long Body Regular
Price 75c

No. 4
3/8 Long Regular
Price 75c

No. 5
3/8 Long Standard
Price 75c

No. 6
1/2 In. Long Standard
Price 75c

PRIMING PLUG

1/2 In.—H-14
3/8 In.—H-44
Price \$1.00

We give a partial list of cars the above Champion Plugs are adapted for:

NO. 1 and 2 Columbia Durant 6 Haynes Lexington Locomobile Overland 6 Saxon Studebaker, Big and Special 6	Star Stutz 6 Willys Knight	Oldsmobile 8 Packard Peerless Pierce Arrow Ranger Roamer Rolls-Royce A 6 R. & V. Knight Standard 8 White Wills Ste Claire Winton from '20	Chevrolet Marmon Oakland 6-24 Stutz D. D. Winton to '20
NO. 3 Chalmers Dodge Bros. Hupmobile Jewett Liberty Paige Rollins	NO. 4 Cadillac Case Chalmers Chrysler Cleveland Cole Crawford Davis Hudson Jordan Moon Maxwell Lincoln Kissel	NO. 5 Buick to 8-1-23	NO. 6 Buick from 8-1-23 Durant 4 Kessler Mercer 4 Nash Oakland Oldsmobile 4 Oldsmobile 6 Stearns Knight Studebaker Light 6

For Trucks, Tractors, Motorcycles, Farm, Stationary, Marine and Lighting Engines, write for list. A Champion for every service.

A-104 A-204 A-105 A-205

CHAMPION CORES Gaskets Furnished

Core	Plug Type	List Price
A-104	No. 1, A74	\$0.40
A-105	No. 8, A64	30
A-205	X Long-A25	30
A-204	No. 3, No. 4 No. 5, No. 6 No. 7	40
A-304	A-34	40
B-103	B-43	40
H-104	H-14, H-44	40
Extra Gaskets 4c each.		

ALL PRICES IN CATALOG SUBJECT TO CHANGE
WITHOUT NOTICE

Automobile and Carriage Heaters

No. 5-B

**Strong, Ornamental,
Convenient.**

**No. 5B—Clark
Heater, 12 inches
long, otherwise same
as 3D, except carpet
is not braid-bound.
Weight, 4 lbs. Price,
\$3.50.**

No. 3-D

**No. 3D—Clark
Heater 14 inches long,
sheet metal case,
stamped white metal
ends, covering of
braid-bound Brussels
carpet. Weight, 7 lbs.
Price, \$4.00.**

No. 7-C

or diminish the heat or entirely stop combustion and save coal for future use. Weight, 7 lbs. **Price, \$4.00.**

PREPARED COAL

One cake will last 15 to 16 hours. No smoke, odor, flame or gas. **Price, case of one doz. cakes, \$1.20. 100 Bricks in Wood Case, \$9.50.**

Acme Dump Wagon

Improved Sampson Jack

MALLEABLE IRON.

Best Jack on the market. Can be used for any height axle. Standard cannot drop back on cogs when raised to extreme height. No breaking of cogs and standards.

No. 1—Will raise vehicles weighing 2 tons **\$5.00**
No. 2—Will raise vehicles weighing 5 tons **6.25**
No. 3—Will raise vehicles weighing 5 tons, with drop hook **7.25**
Can also furnish other Jacks. **Prices on application.**

BELL BOTTOM JACK SCREWS

These Jack Screws have cast-iron stands, with forged head screws. For workmanship and durability they cannot be excelled. Our

Diam. Screw	Height Stand	Height over all	Special Price
1½ in.	12 in.	15 in.	\$4.00
1½ in.	14 in.	17 in.	4.50
1½ in.	16 in.	19 in.	5.10
2 in.	10 in.	14 in.	5.10
2 in.	12 in.	16 in.	5.65
2 in.	14 in.	18 in.	6.20
2 in.	16 in.	20 in.	7.00
2 in.	18 in.	22 in.	7.70
2 in.	20 in.	24 in.	

Capacity 1½-in. diameter screw, 10 tons.
Capacity 2-in diameter screw, 12 tons.

Other sizes. Prices on Application.

WOOD WAGON JACK

No. 1—Adapted for buggies or light work. Capacity, 1000 lbs. **\$1.50.**

No. 2—For heavy wagons, transfer wagons, trucks, etc. Capacity, 3000 lbs **\$2.00**

No. 3—**\$2.50.**

AUTOMOBILE JACK

This Jack is made from best quality refined malleable iron, with high-grade Steel Screw, aluminum finish, and by single turn of the pawl raises or lowers. It is compact, neat and has sufficient strength to raise any automobile made.

No.	Capacity, Pounds.	Height, Lowered, Inches.	Raises, Inches.	Wgt., Lbs.	Price, Each.
1...	2000	10	6	5	\$1.50
2...	5000	10	6	8	3.00

Unequalled for strength, efficiency, durability and ease of operation. The doors overlap each other, thus making it sand-tight.

Heavy steel plates on outside of body over wheel house, making it very strong, and making it practically unbreakable at this point.

With Brake, 3-in. Tires.
1½-Yd. Wagon.....\$235.00

GRIFFITH & TURNER

**SOLID STEEL AXLE,
STEEL SKEIN AND
TUBULAR AXLE**

WAGONS

We carry the Solid Steel and Steel Skein Wagons in stock, and can furnish the Tubular Axle Wagons at short notice.

**Best Wagons on the Market
for the Money.**

**1-HORSE
WAGON**

Size of S'1 Axle	Size of Tubular Axle	Size of Tires	Height		Wheels Rear Ft. In.	Dimensions of Body				Weight	Capacity	Wagon Complete No Brakes		Wagon Complete With Brakes		Gears Only With Brakes		Gears Only No Brakes				
			Front Ft. In.	Ft. In.		Length Ft. In.	Width Ft. In.	Depth In. In.	List			Retail	List	Retail	List	Retail	List	Retail				
1 1/4	1 1/4	1 1/4 x 5-16	3	2	3	8	9	0	3	2	9	4	500	1000 to 1200	\$137.24	\$82.35	\$150.74	\$90.50	\$119.24	\$71.55	\$105.74	\$63.35

No. 40 ONE-HORSE WAGON.

Size of Nos. S'1 Axle	Size of Tubular Axle	Size of Tires	Height Front Ft. In.	Wheels Rear Ft. In.	Dimensions of Body Length Width Depth Ft. In. Ft. In. In. In.	Weight	Capacity	Wagon Complete No Brakes List Retail	Wagon Complete With Brake List Retail	Gears Only With Brakes List Retail	Gears Only No Brakes List Retail		
1 1/4	1 1/4	1 1/4 x 5-16	3	2	3 8	9 0	3 2 10 4	650	1500 to 1800	\$150.74 \$90.50	\$164.24 \$98.55	\$136.74 \$80.00	\$119.24 \$71.55

For G. & T. One-Horse and No. 40 Wagons with 2-inch tires, add List, \$9.00; Retail, \$5.40.

For G. & T. One-Horse and No. 40 Wagons with tongue instead of shafts, add List, \$11.25; Retail, \$6.75.

2-HORSE WAGON

THESE WAGONS ARE HEAVILY IRON AND BRACED. THEY ARE MADE OF THE BEST MATERIAL THROUGHOUT. THE WHEELS ARE DIPPED IN BOILING OIL. HAVE ROUND EDGE TIRES, WHICH PROTECT THE FELLOES AND PAINT. THEY ARE VERY LIGHT RUNNING.

FOR TIRES OF EXTRA WIDTH AND THICKNESS, ADD THE FOLLOWING AMOUNTS TO WAGON PRICES BELOW:

For tires wider than regular on Nos. 42, 44 and 46, add List, \$13.50; Retail, \$8.10 per inch or fractional part thereof. On Nos. 48, 50 and 52, add List, \$18.00; Retail, \$10.80 per inch or fractional part thereof.

For tires thicker than regular, add List, \$11.24; Retail, \$6.75, for every 1/4 inch additional thickness on 3 inches wide and upwards.

Size of S'1 Axle	Size of Tub lar Axle	Size of Tires	Height Front Ft. In.	Wheels Rear Ft. In.	Dimensions of Body Length Width Depth Ft. In. Ft. In. In. In.	Weight	Capacity	Wagon Complete No Brakes List Retail	Wagon Complete With Brakes List Retail	Gears Only With Brakes List Retail	Gears Only No Brakes List Retail
42 1 1/4	1 1/4 x 8	1 1/4 x 7-16	3 8	4 0	9 6 3 6 12 6	.....	2000 to 2500	\$211.50 126.90	\$229.50 137.70	\$191.24 114.75	\$173.24 104.00
44 1 1/4	1 1/4 x 8	1 1/4 x 1 1/2	3 8	4 0	10 6 3 6 12 6	900	2500 to 3000	\$227.24 136.35	\$249.74 149.85	\$204.50 122.70	\$186.74 112.00
46 1 1/4	1 1/4 x 9	1 1/4 x 1 1/2	3 8	4 0	10 6 3 6 12 8	1000	3000 to 3500	\$252.00 151.20	\$270.00 162.00	\$229.50 137.70	\$211.50 126.90
48 2	2 x 10	2 x 1 1/2	3 8	4 0	10 6 3 6 14 8	1200	4000 to 4500	\$274.50 164.70	\$292.50 176.50	\$257.50 149.50	\$229.50 137.70
50 2 1/4	2 x 11	2 x 3/4	3 8	4 0	Running Gear	1200	6000	.....	.....	\$270.00 162.00	\$252.00 151.20
52 2 1/2	2 1/2 x 12	2 1/2 x 3/4	3 8	4 0	Running Gear	1200	8000	.....	.....	\$285.74 171.50	\$267.74 160.65

Nos.	Size of Axles	Size of Tires	Height		Wheels Rear Ft. In.	Dimensions of Body				Weight	Capacity	Wagon Complete No Brakes		Wagon Complete With Brakes		Gears Only With Brakes		Gears Only No Brakes			
			Front Ft. In.	Rear Ft. In.		Length Ft. In.	Width Ft. In.	Depth In. In.	List			Retail	List	Retail	List	Retail	List	Retail			
1...	2 3/4 x 8 1/2	2 x 3/8	3	2	3 8	9	6	3	6	12	6	800	2000 to 2500	\$223.74	133.75	\$240.74	144.45	\$202.50	121.50	\$184.50	\$110.70
2...	3 x 9	2 x 1 1/2	3	6	4 0	10	6	3	6	12	6	1100	2500 to 3000	\$238.50	143.10	\$260.74	156.45	216.00	129.60	198.00	118.80
3...	3 1/4 x 10	2 x 3/4	3	6	4 0	10	6	3	6	12	6	1200	3000 to 4000			240.74	144.45	233.74	133.75		
4...	3 1/2 x 11	2 x 3/4	3	6	4 0	10	6	3	6	12	8	1400	4000 to 5000			259.74	155.35	240.74	144.45		

EXTRAS FOR G. & T. WAGONS.

	Special One-Horse List Retail	No. 40 List Retail	No. 42 List Retail	No. 44 List Retail	No. 46 List Retail	No. 48 List Retail	No. 50 List Retail	No. 52 List Retail
Bodies	\$40.50 \$24.50	\$40.05 \$24.50	\$47.24 \$28.50	\$47.24 \$28.50	\$49.50 \$29.75	\$54.00 \$32.50	\$67.50 \$40.50	.....
Spring Seat	9.00 5.40	9.00 5.40	9.00 5.40	9.00 5.40	9.00 5.40	9.00 5.40	9.00 5.40	.....
Tongues	18.00 10.80	18.00 10.80	.....	.....	.....	.....	.....	.....
Shafts	15.20 9.50	15.20 9.50	.....	.....	.....	.....	.....	.....
Wheels, Reg., per set	54.56 33.75	60.74 36.56	68.89 52.50	97.30 58.50	105.18 61.25	113.62 68.25	141.74 85.00	154.12 92.50
Solid Steel Axles..	11.24 6.75	12.10 7.55	13.22 8.22	16.40 9.75	19.42 11.75	23.92 14.50	27.30 16.50	.....

THREE SPRING DELIVERY WAGON

Size	Steel	Dimensions of												Wagon									
		Height		Wheels		Body		Front		Rear		L'gth		Width		Depth		Cap	List	No Brakes	Complete		
		Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In						
Axle	Tires	Ft <td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td></td></td></td></td></td></td></td></td></td></td></td>	In <td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td></td></td></td></td></td></td></td></td></td></td>	Ft <td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td></td></td></td></td></td></td></td></td></td>	In <td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td></td></td></td></td></td></td></td></td>	Ft <td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td></td></td></td></td></td></td></td>	In <td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td></td></td></td></td></td></td>	Ft <td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td></td></td></td></td></td>	In <td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td></td></td></td></td>	Ft <td>In<td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td></td></td></td>	In <td>Ft<td>In<td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td></td></td>	Ft <td>In<td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td></td>	In <td>Ft<td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td></td>	Ft <td>In<td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td></td>	In <td>Ft<td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td></td>	Ft <td>In<td>W'ght</td><td>Cap</td><td>List</td><td>Retail</td></td>	In <td>W'ght</td> <td>Cap</td> <td>List</td> <td>Retail</td>	W'ght	Cap	List	Retail		
1½	1½	x5-16	3	3	3	3	8	7	0	3	1	9	5	500	1000	170.00	200.00						
Brake for above.....																		List,	\$13.50;	Retail,	\$ 8.10		
Tops for above.....																		List,	63.00;	Retail,	37.80		

Duplex Spring Delivery Wagon

Similar to above, except it has a duplex spring gear.

Dimensions of															Wagon
Size	Height Wheels		Body		Front		Rear		L'gth		Width		Depth		Complete
Steel															No Brakes
	Axle	Tires	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Wght	Cap	Retail
1½	1½	x5-16	3	3	3	8	7	0	3	1	9	500	1000	162.20	96.00
Brake for above.....														List, \$13.50; Retail, \$ 8.10	
Tops for above.....														List, 63.00; Retail, 37.80	

METAL TRUCK WHEELS

Diagram Showing How To Measure Your Skains.

As nearly every set of steel wheels we sell has to be made especially to correspond with measurements of axles for which it is intended, we generally make shipment direct from factory.

PRICES PER WHEEL WITH 4x½ TIRES.

24-inch—Our Special Price.....	\$6.60
26-inch—Our Special Price.....	6.90
28-inch—Our Special Price.....	7.30
30-inch—Our Special Price.....	7.70
32-inch—Our Special Price.....	8.40
34-inch—Our Special Price.....	8.80
36-inch—Our Special Price.....	9.50

For 4x½ Tire, prices on application. Wood Wheels, prices on application. Prices on other sizes quoted on application.

HEAVY STUDEBAKER ROAD CART

No. 178 Heavy Road Cart has two-passenger slat seat, slat foot-rack, 1-inch double collar steel axle, ¾-inch wheels, 46 inches high, and hickory shafts. Shipping weight, 125 pounds. List Price, \$50.00. Our Special Price, \$32.00.

LIGHT ROAD CART

No. 4½ Light Road Cart has low seat support, two-passenger slat seat spring hung in swinging shackles, ¾-inch wheels, 46 inches high, 1-inch double collar steel axle and hickory shafts. Shipping weight, 125 pounds. List Price, \$48.00. Our Special Price, \$30.00.

BUGGY

DESCRIPTION.

Gear—Arched Axle, Four plate graded and tempered springs, Reaches ironed full length. Wheels—Best grade split hickory, ¾ or 1 inch tread. Shafts—XXX Hickory, ironed to heel, 36 inch genuine leather points. Body—Piano, with high panel back seat. Trimmings—Soft leather throughout. Painting—Body and seat black, gear red or black. Top—Leather Quarter.

PRICE\$125.00

Cheaper Buggy with Art Leather Trimmings\$108.75

BUGGY TOPS

Drill Top, lined with nice union cloth. Tubular sockets and second-growth bows, wrought rail and joints, stitched front valance, does not show nails or tacks. Will keep in shape. Side Curtains are included, making top complete. Retail\$20.00

Rubber Top, cloth lined, tubular sockets and second-growth bows, wrought rail and joints, stitched front valance, no nails or tacks exposed. Will keep shape for years. Complete with side curtains. Retail, ..\$24.00

WAGON CUSHION

Black Enamelled Drill, 20 to 34 inches long, stitched edge.

Retail\$4.75

OUR HANDY STEEL WHEEL FARM TRUCKS

All wood parts hardwood and well painted. Note the grooved tire, which protects the spokes of the wheel, and they last much longer than flat tire wheels. Made in two sizes. No. 22 with 3x9 skeins, capacity 3,000 lbs. No. 24 with 3½x10 skeins, capacity 4,000 lbs.

Both Nos. 22 and 24 Trucks have 28-inch front and 30-inch rear wheels, 4x½ tires.

Weights—No. 22, 475 lbs.; No. 24, 510 lbs.
No. 22 Truck—List Price, \$83.00: Our Special Price, \$50.00.

No. 24 Truck—List Price, \$84.00. Our Special Price, \$51.50.

PRICES OF EXTRAS.

Brake—List, \$12.50. Our Special Price, \$7.75.
Double Trees and Neck Yokes—List, \$9.50. Our Special Price, \$6.00.
Shafts—List, \$14.50. Our Special Price, \$8.25.

Wood Hounds, Well Braced. Hickory Axles.

OUR NO. 34 LOW-DOWN WOOD WHEEL FARM TRUCK

Weight, 610 lbs.

This truck has low-down wood wheels 32 and 36 inches in height, with 4-inch tires. Furnished with hickory axles. 3½x10-inch skeins, hardwood gear parts; both front and rear hounds, and has regular wagon standards, ironed and ringed. Truck nicely painted and striped. Capacity 4000 lbs.

With 3-inch tires—

List Price,	Our Price,
\$126.00	\$77.00

With 4-inch tires—

List Price,	Our Price,
\$137.50	\$82.50

PRICES OF EXTRAS—Brake, List, \$12.50; Our Special Price, \$7.75. Double Trees and Neck Yoke, List, \$9.75; Our Special Price, \$6.00. Wood wheels for No. 34, per set of 4, List Price, \$96.00; Our Special Price, \$55.00.

3x9—Skein Wagon, 3-in tires \$75.00.
3x9—Skein Wagon 4-in. tires \$80.00.

THE OLD DOMINION WAGON

3½x10-inch hickory axle, wood-wheels, 36-in. front, 42-in. rear, 3x½-in. tire. A serviceable wagon at a low price.

Weight, 675 Lbs.

List Price,	Our Price,
\$160.00	\$100.00

PRICES OF EXTRAS—
½ Brake, List, \$12.50.
Our Special Price, \$7.75.

Double Trees and Neck Yoke. List, \$9.75. Our Special Price, \$6.00.

STUDEBAKER

For Steel Skeins on No. 2 Wagons; add to Retail, \$8.00.

For Steel Skeins on No. 3 and 4 Wagons; add to Retail, \$9.00.

If WAGONS are wanted without brake, deduct on No. 2, \$7.25. On Nos. 3 and 4, deduct \$7.65. On No. 5, deduct \$8.10. If GEARS are wanted without brake, deduct for No. 2 \$6.30. For Nos. 3 and 4 \$6.75. For No. 5 \$7.25.

Size of Skins	Height of Wheels				Size of Tire	Dimensions of Box				Approximate		Wagon complete with brake	Gear only with brake
	Front		Hind			Lower	Top	Length	Weight	Capacity			
Inches	Ft.	In.	Ft.	In.	Inches	In.	In.	Ft.	In.	Lbs.	Lbs.	Retail Price	Retail Price
2½ x 8	3	6	3	10	2 x ¾	12	8	10	0	825	2000	\$139.50	\$109.80
2½ x 8	3	6	3	10	2½ x ¾	12	8	10	0	825	2000	144.00	117.00
2½ x 8	3	6	3	10	3 x ¾	12	8	10	0	825	2000	150.30	121.50
2½ x 8	3	6	3	10	2 x 7-16	12	8	10	0	850	3000	146.70	115.20
2½ x 8	3	6	3	10	2½ x 7-16	12	8	10	0	850	3000	150.30	121.50
2½ x 8	3	6	3	10	3 x ¾	12	8	10	0	850	3000	158.40	123.75
2½ x 8	3	6	3	10	4 x ¾	12	8	10	0	850	3000	166.50	137.25
3 x 9	3	6	3	10	2 x ½	13	8	10	6	1000	4000	150.30	121.50
3 x 9	3	6	3	10	2½ x ½	13	8	10	6	1000	4000	157.50	124.00
3 x 9	3	6	3	10	3 x ½	13	8	10	6	1000	4000	159.75	127.25
3 x 9	3	6	3	10	4 x ½	13	8	10	6	1000	4000	171.00	141.75
3½ x 10	3	6	3	10	2 x ½	14	10	10	6	1100	4500	157.50	126.00
3½ x 10	3	6	3	10	2½ x ½	14	10	10	6	1100	4500	161.10	131.40
3½ x 10	3	6	3	10	3 x ½	14	10	10	6	1100	4500	163.80	135.00
3½ x 10	3	6	3	10	4 x ½	14	10	10	6	1100	4500	173.25	144.00

RURAL TEAM TRUCK WITH DROP TONGUE.

No. 415 1/4—3 1/4 x 10-in. Cast Skeins 30 inches Front Wheel. 36 inches Rear Wheel. Drop Tongue 4 x 3/4 in., wood wheels, Gear Only, No Brake \$83.25

FARM AND CONTRACTOR'S CARTS

With 5 and 6-inch Tires and extra heavy Contractors' Carts made specially to order when wanted. These Carts are very strong, heavily ironed nicely painted, striped and varnished.

	List Price	Our Special Price
1 1/2 inches. 3 inches. 4 ft. 8 in.	\$130.56	\$78.30
1 1/2 inches. 4 inches. 4 ft. 8 in.	146.24	87.75
2 inches. 3 inches. 4 ft. 8 in.	150.74	90.55
2 inches. 4 inches. 4 ft. 8 in.	166.50	100.00

FARM AND CONTRACTOR'S CART WHEELS

	List Price, Per Pair.	Ret'l Price, Per Pair.
For Farm Cart, 1 1/2-inch axle, 3-inch tire.....	\$54.56	\$33.75
For Farm Cart, 1 1/2-inch axle, 4-inch tire.....	73.56	39.15
For Contractors' Carts, 2-inch axle, 3-inch tire.....	66.94	40.25
For Contractors' Carts, 2-inch axle, 4-inch tire.....	75.94	45.65

	List Price.	Ret'l Price.
Shafts for 1 1/2 or 2-in. Axle Farm Cart, no irons, per pair.....	\$15.18	\$9.10
Shafts for 1 1/2 or 2-in. Axle Farm Cart, with irons.....	22.56	14.00
Axles for 1 1/2-inch Axle Farm Cart.....	17.44	10.50
Axles for 2-inch Contractors' Cart.....	23.62	14.25
Bodies for Farm Cart.....	60.74	36.50
Bodies for Contractors' Cart.....	60.74	36.50

HARVEY XXX BOLSTER SPRINGS

These springs are made from select steel, tempered under the manufacturers' personal supervision. Twenty years' experience back of every Harvey Bolster Spring. They raise the box but a few inches, which decreases as the load is increased. The only spring that can be completely shut down without crushing.

Capacity	42-inch	Capacity	42-inch
1500.....	\$11.00	5000.....	\$22.50
2500.....	14.25	6000.....	24.50
3000.....	16.50	8000.....	28.50
4000.....	19.75	10000.....	32.25

BROWN WAGON

Axles are made of dried selected hickory. Brown's Patent Extension Chilled Skeins. These Skeins support the axle where it has the greatest load to bear. Tongue Chains and Stay Chains fitted with springs. The Tongue Chains have a branch chain to prevent jerking and switching of the tongue, and eases the draft on the horses' necks. Wheels all positively soaked in hot oil. Tires never get loose. Write for special circular fully describing these Wagons.

Coil springs are applied to tongue—eases draft on team's neck when chains are forced to control tongue or hold back. They supply the place of the vibrating neck yoke. Yield to pull of chain or branch chain, saving team from jerking of tongue. Branch chains are added to each tongue, practically destroying side jerking and whipping motion. Acts same as neck yoke.

No.	Size of Cast Skein.	Height of Front Wheels.	Height of Rear Wheels.	Size of Tire.	Depth of Box.	Capacity, Pounds.	Complete with Brake.	Gear only with Brake.
							P-price.	Price.
000	2 1/2 x 8	3 1/4"	3'8"	2 1/2 x 1 1/2	20"	2000	\$156.75	\$120.65
000	2 1/2 x 8	3 1/4"	3'8"	3 x 1 1/2	20"	2000	161.80	125.70
00	2 3/4 x 8 1/2	3 1/4"	3'8"	2 1/2 x 1 1/2	22"	2500	159.50	123.30
00	2 3/4 x 8 1/2	3 1/4"	3'8"	3 x 1 1/2	22"	2500	164.60	128.50
1	3 x 9	3 1/4"	3'8"	2 1/2 x 1 1/2	24"	4000	165.10	127.15
1	3 x 9	3 1/4"	3'8"	3 x 1 1/2	24"	4000	170.30	132.40
1	3 x 9	3 1/4"	3'8"	4 x 1 1/2	24"	4000	181.30	144.60
2	3 1/4 x 10	3 1/4"	3'8"	2 1/2 x 1 1/2	26"	4500	178.70	140.75
2	3 1/4 x 10	3 1/4"	3'8"	3 x 1 1/2	26"	4500	189.50	146.90
2	3 1/4 x 10	3 1/4"	3'8"	4 x 1 1/2	26"	4500	197.10	159.15
All of above Complete Wagons have Seats and Gear Brakes.								
Following Special Gears have Linch Pin Steel Skeins, Gear Brakes, and Nos. 3, 4 and 5 have Side and Back Action Brakes with Round Coupling Poles:								
2	3 1/4 x 10	3'8"	4'4"	4 x 5/8	...	4500	.....	\$173.75
3	3 1/2 x 11	3'8"	4'4"	4 x 3/4	...	5500	.....	202.10
4	3 3/4 x 12	3'8"	4'4"	4 x 7/8	...	6500	.....	231.10
5	4 x 12	3'8"	4'4"	4 x 1	...	7500	.....	247.50

Patent Steel Skeins

Revised Price List
PATENT
STEEL
SKEINS.

No.	Size.	Skeins with Boxes, per Set.	
		With Nuts.	Boxes Only, per Set
2	2 1/2 x 8"	Price.	Price.
3	2 3/4 x 8"	\$15.70	\$2.80
6	3 x 9"	16.25	3.20
9	3 1/4 x 10"	17.60	3.50
11	3 1/2 x 11"	20.35	4.00
14	3 3/4 x 12"	23.10	4.50
15	4 x 12"	27.50	5.00
17	4 1/2 x 13"	31.90	6.00
		47.85	8.00
No.	Size.	With Linch Pins.	
		Price.	Price.
21	3 1/4 x 10"	\$20.35	\$4.00
23	3 1/2 x 11"	23.10	4.50
25	3 3/4 x 12"	27.50	5.00
26	4 x 12"	31.90	6.00

Made of the best grade of plate steel. Solid extension back of the collar keeps the wet and grease from working in on axle. Extension back of collar covers all tapering portions and more of the wood of the axle than any other skein.

STEEL SKEINS FOR PETER SCHUTTLER WAGONS.

Size.	Skein Only	
	with Nut or Linch Pin, no Box, each.	Box Only, each.
3 1/4 x 10"	\$5.50	\$1.25
3 1/2 x 11"	6.60	1.50
3 3/4 x 12"	7.15	2.00
4 x 12"	8.25	2.25
4 1/4 x 12"	9.00	2.75
4 1/2 x 13"	12.40	3.30

ALL PRICES IN CATALOG SUBJECT TO CHANGE
WITHOUT NOTICE.

S. B. Trade Cast Skeins

All sizes, from 2 1/2 x 8 to 4 x 12, inclusive, are made with truss attachment, as shown in cut. These skeins are made of a better quality of iron than the ordinary trade cast skeins.

No.	Size.	Cast Skeins, with Boxes.	
		Our Special Price.	Boxes Only, Our Special Price.
		Per Set.	Per Set.
9	2 1/2 x 8"	\$6.30	\$2.50
10	2 3/4 x 8"	6.35	2.70
13	3 x 9"	7.75	3.00
16	3 1/4 x 10"	9.35	4.00
19	3 1/2 x 11"	11.00	4.50
22	3 3/4 x 12"	11.85	5.00
23	4 x 12"	13.75	6.00

D. V. TRADE SKEINS FOR STEEL WHEEL TRUCK

Size.	Skeins With Boxes.	
	Set.	Boxes Only, Set.
3x9	\$7.75	\$3.00
3 1/4 x 10	9.35	4.00

PATENT TRUSS CAST SKEINS AND BOXES FOR STUDEBAKER WAGONS.

No.	Size.	Our Special Price.	
		per set.	per set.
No. 3—Size, 2 1/2 x 8"; with nuts, per set.			\$8.00
No. 4—Size, 2 3/4 x 8"; with nuts, per set.			9.00
No. 5—Size, 3 x 9"; with nuts, per set.			10.00
No. 6—Size, 3 1/4 x 10"; with nuts, per set.			12.00
No. 7—Size, 3 1/2 x 11"; with nuts, per set.			13.50

CAST AND STEEL SKEINS FOR BROWN WAGONS.

Size.	Cast Skeins, pat. extension for bolt or clip, no box.	
	per set.	per set.
2 1/2"	\$2.40	2.40
3"	2.75	2.75
3 1/4"	3.00	3.00
3 1/2"	6.50	6.50
3 3/4"	7.65	7.65
4"	9.00	9.00

SAFETY FIRST SPRUCE LADDERS

We carry a complete line of ladders for every purpose

GRITCO WITH AUTOMATIC HOOKS SUPERIOR LUMBER: (Spruce).

The sides or rails are made from light, clear selected stock, bored mechanically correct for rounds and measure 1½ x 2¾ inches finished, both top and bottom sections. All 18, 20 and 22 bottom sections have 1½ x 3 inches.

RUNGS: (Hickory. Creosoted Ends).

Clear, second growth, straight grained HICKORY, smoothly finished to 1½ inches in diameter, and 12 inches apart.

CASTINGS:

Top guides made from wrought forgings with roller guides. This allows top section to be extended freely.

AUTOMATIC HOOKS: (Put on all our Extension Ladders).

Are made from soft malleable iron, self-balancing, simple in construction and work automatically. All castings are galvanized.

LENGTH OF SECTIONS

20-ft. Extension—Top Section, 10 ft.; Bottom Section, 10 ft.....	\$11.00
24-ft. Extension—Top Section, 12 ft.; Bottom Section, 12 ft.....	13.20
26-ft. Extension—Top Section, 12 ft.; Bottom Section, 14 ft.....	14.30
28-ft. Extension—Top Section, 14 ft.; Bottom Section, 14 ft.....	15.40
30-ft. Extension—Top Section, 14 ft.; Bottom Section, 16 ft.....	16.50
32-ft. Extension—Top Section, 16 ft.; Bottom Section, 16 ft.....	17.60
36-ft. Extension—Top Section, 18 ft.; Bottom Section, 18 ft.....	19.80
40-ft. Extension—Top Section, 20 ft.; Bottom Section, 20 ft.....	26.00
44-ft. Extension—Top Section, 22 ft.; Bottom Section, 22 ft.....	30.80
48-ft. Extension—Top Section, 24 ft.; Bottom Section, 24 ft.....	33.60

More people are injured by defective ladders than any other implement sold with the exception of automobiles.

Do not overload or use a ladder for any other purpose than which it was intended to be used.

Do not try to economize on buying cheap ladders as they are very dangerous. Buy the very best that can be had as your life is worth more than the price of several carloads.

Our ladders are equipped with the very latest improvements and manufactured from strictly first class material. We use modern machinery and employ skilled workmen.

LENGTH OF SECTIONS

20-ft. Extension—Top Section, 10 ft.; Bottom Section, 10 ft.....	\$ 9.00
22-ft. Extension—Top Section, 10 ft.; Bottom Section, 12 ft.....	9.30
24-ft. Extension—Top Section, 12 ft.; Bottom Section, 12 ft.....	10.80
26-ft. Extension—Top Section, 12 ft.; Bottom Section, 14 ft.....	11.70
28-ft. Extension—Top Section, 14 ft.; Bottom Section, 14 ft.....	12.60
30-ft. Extension—Top Section, 14 ft.; Bottom Section, 16 ft.....	13.50
32-ft. Extension—Top Section, 16 ft.; Bottom Section, 16 ft.....	14.40
36-ft. Extension—Top Section, 18 ft.; Bottom Section, 18 ft.....	16.92
40-ft. Extension—Top Section, 20 ft.; Bottom Section, 20 ft.....	18.80
42-ft. Extension—Top Section, 20 ft.; Bottom Section, 22 ft.....	22.68
44-ft. Extension—Top Section, 22 ft.; Bottom Section, 22 ft.....	23.76

SCAFFOLD

Our Painters' Scaffolds are made from seasoned and selected stock. Slats are securely fastened on the top of the rungs making a smooth platform. Our scaffolds are light in weight, but very strong and durable. 16-18, 20 and 22 ft., without floor, per ft., \$.70. With floor..... \$1.00

EXTENSION PLANKS

These adjustable Planks are used by Painters and Decorators and are now a part of their equipment. We can furnish Extension Planks in three sections in 8 and 10-foot lengths.

6-foot, extends to 10 feet	\$5.75
8-foot, extends to 14 feet	7.00
10-foot, extends to 18 feet	8.50

GRITCO SINGLE LADDERS

10, 12, 14, 16 Foot.....	\$.42 per foot
18, 20, 22 Foot	.47 per foot.

GRITCO STANDARD

MASON OR BRICKLAYERS' LADDER

Made from clear, selected stock, carefully bored. Rounds made from Hickory properly spaced for easy climbing. 16, 18, 20 and 22 Foot, per foot \$.05

GRITCO TRUSS

The GRITCO TRUSS STEP with 1/4-in. rod and truss block under each step with malleable iron washers, wood handle, four arm steel lock, malleable ears, wide cap and steps, dowel in the back legs opposite each step, solid risers made from Genuine Spruce.

4 ft.....\$2.80	8 ft.....\$5.60
5 ft.....3.50	10 ft.....7.00
6 ft.....4.20	12 ft.....8.40
7 ft.....4.90	

GRITCO SECURITY

GRITCO STEP is standard built, 1/4-inch rod under every step, non-slip washers, wood handle, four arm lock, galvanized double ear, dowels in the back opposite each step.

4 ft.....\$2.60	8 ft.....\$5.20
5 ft.....3.25	10 ft.....6.50
6 ft.....3.90	12 ft.....8.40
7 ft.....4.55	14 ft.....9.80

GRITCO ELECTRIC

The GRITCO ELECTRIC is our very latest design and is intended for heavy work. It is made from selected SPRUCE, has wide steps, steel lock, malleable ears, truss block and is full rodded. Has reinforced back legs with 1/4-inch bolts and 1 1/4-inch HICKORY Rungs, so that ladder can be used on either side.

4 ft.....\$4.00	12 ft.....\$12.60
5 ft.....5.00	14 ft.....14.70
6 ft.....6.00	16 ft.....17.20
7 ft.....7.00	18 ft.....21.60
8 ft.....8.00	20 ft.....24.00
10 ft.....10.00	

BALTIMORE

BALTIMORE STEP LADDER

Full Rodded. Steel Lock with Handle.

3 ft.....\$1.05	7 ft.....\$2.45
4 ft.....1.40	8 ft.....2.80
5 ft.....1.75	10 ft.....3.50
6 ft.....2.10	

GRITCO PAINTERS' TRESTLES

STRONG AND LIGHT

Made in all sizes, from 6 feet to 12 feet.

2 6-ft.	Pair \$10.00
2 8-ft.	13.25
2 10-ft.	16.50
2 12-ft.	22.00

GRITCO DECORATORS

This ladder is for paper hangers, painters and interior decorators.

Made of Spruce material, approved specifications.

4 ft.....\$2.60	10 ft.....\$ 6.50
5 ft.....3.25	12 ft.....8.40
6 ft.....3.90	14 ft.....9.80
7 ft.....4.55	16 ft.....11.20
8 ft.....5.20	

GRITCO ADJUSTABLE JACKS

Above illustration shows four Adjustable Scaffold Jacks ready for use.

It requires Four Jacks to properly scaffold a room, on which Planks can be laid, thus giving a safe platform to work on.

These Jacks are made in various sizes from 3½ ft. to 20 ft. Each size can be quickly adjusted to various heights. These Jacks are so constructed that they can be assembled ready for a job in five minutes and when the work is finished, they can be folded up thus requiring very little space and take a very low freight rate in shipping.

The legs of the Jacks are made out of 1½x4 and 2x4 Clear Straight Grain Spruce. The Hardware consists of malleables, steel stampings, and heavy bolts and rivets to stand real hard usage. Jacks that are 8 ft. and longer are made with reinforced braces and supports.

ADJUSTABLE SCAFFOLD JACKS		
No.	Length of Jacks	Price Ea.
3	4 ft. extend to 6 ft.....	\$6.50
3½	5 ft. extend to 8 ft.....	7.50
4	6 ft. extend to 9½ ft.....	8.25
5	8 ft. extend to 13 ft.....	11.00
6	10 ft. extend to 16 ft.....	16.25
7	12 ft. extend to 20 ft.....	19.75
Adjustable Scaffold Jack Iron Brackets, set of four.....		4.20

GRITCO SECTIONAL LADDERS

Made in 6-ft. sections, each end protected with iron plates, and equipped with large bolts with thumb nuts, making them safe and durable.

Hickory Rungs.
Sections 6 ft. 5 in.
\$3.50

WINDOW BRACKET

Made in Two Sizes
No. 1—4 foot, 4-inches\$10.00
No. 2—6 ft... 12.00

GRITCO EXTENSION TRESTLES

Extension Trestles manufactured from selected stock, made in lengths from 6 to 16 feet. This is exclusive of the extension part. The extension part of each trestle is the same length as the trestle. These ladders are very convenient for interior work. Hickory Bars or Rungs.

EXTENSION TRESTLES		Each
6 ft. extending to 10 ft....	\$11.25	
8 ft. extending to 14 ft....	14.00	
10 ft. extending to 18 ft....	16.00	
12 ft. extending to 22 ft....	19.60	
14 ft. extending to 24 ft....	25.25	
16 ft. extending to 26 ft....	31.50

Gritco Window Cleaners

A very convenient ladder for window cleaning purposes or where a ladder has to be carried from one place to another.

It is made in sections, which makes it convenient to handle.

All sections are fitted into each other.

These ladders are made in 6-foot lengths.
\$2.50

Ladder

This old reliable and well-known ladder hook needs very little explanation. The cut explains all its merits and utility for a roof ladder. It can be quickly attached or detached.
Price\$1.50

ROOF AND GUTTER HOOKS

For Hanging Swinging Stages or can be used for many other purposes, strong and durable. Per Pair \$7.00.

TRIANGLE

24½-in. and 30½-in. wide, inside measurement.
\$8.00 per pair.

TRIANGLE FOR GUARD

RAIL

20½-in., 24½-in. and 30½-in. wide measurement.

\$12.00
per pair.

COASTER WAGONS

The Paris Coaster Wagons are made from clean, seasoned hardwood, nicely ironed and are very strong and durable, and have become the favorite of all boys. The bodies and underworks are made of birch or maple, and bottoms of clear basswood which is light and strong.

No. 400—All Steel Gear, Wood Body, 36" x 15" Rubber Tired Disc Wheels, Roller Bearing.....	6.00
No. 419—16x38 Removable Body, 10 in. Rubber Tired Wheels, Ball Bearing.....	\$11.00
No. 420—18x40 Removable Body, 12 in. Rubber Tired Wheels, Ball Bearing.....	12.25
No. 404A—14x34 Body, 8 in. Rubber Tired Wheels, Ball Bearing.....	8.75
No. 19—16x38 Removable Body, 11 in. Spoke Wheels, Roller Bearing.....	9.05
No. 20—18x40 Removable Body, 12 in. Spoke Wheels, Roller Bearing.....	10.25

All sizes are fitted with smooth, cold-rolled steel axles rigidly fastened to gear. The wheels are the latest type of Disc or Artillery style, nicely enameled and are fitted with nickel plated hub caps.

They have heavy, strong King Bolts and strong, well-braced draw irons, making them a real wagon.

THE VACUUM TANK WATERER

Nos. 3, 4, 5 and 6. The simplest and most efficient Hog Waterer that can be built. Made of corrugated, galvanized steel, giving it strength to stand the hard knocks which hogs will give it.

Tank is reinforced with heavy strap iron braces. A full bottom in the casing makes a lamp chamber that cannot be disturbed by the rooting of the hogs, and also permits a center support of the inner tank.

No. 3—15-Gallon.....	\$20.00	No. 52—Fitted with two Drinking Troughs....	\$35.00
No. 4—30-Gallon.....	24.00	No. 62—Fitted with two Drinking Troughs....	42.50
No. 5—60-Gallon.....	30.00		
No. 6—100-Gallon.....	40.00		

Ideal Waterer for Poultry, 5 gallons.....\$6.50

IDEAL HOG FEEDERS

No. 12—8 to 10 bushels.....	\$27.50
No. 14—18 bushels.....	37.50
Extension Tops, 12 bushels.....	6.50
Hopper for Tankage, 2½ bushels.....	4.50

GRITCO WAGONS

Entire wagon made of selected hardwood. Construction closely follows that of regular farm wagon, having bent hounds and adjustable reach. All parts heavily braced and ironed.

	List.	Price.
Acme Jr. Wagon, with pole.....	\$20.00	\$12.50
Shafts.....	2.50	1.50
Wheels.....	2.30	1.35

THE GRITCO HOG OILER SIMPLE IN CONSTRUCTION.

You may see by the picture that the Gritco Hog Oiling Machine is very simple and that there is no possible chance for waste of oil nor is there any chance for dirt to interfere with the working principles of this machine. You will notice there are three rubbing bars, making it possible for two or three hogs to rub on the Oiler at the same time.

As soon as the hog starts to rub on the bar this will open the feed allowing the oil to run down the bar placing oil on the infected part. The bars are held firmly in place by guides and the opening which gauges the feed is governed by a spring, which prevents all possible chance for waste of oil.

There is nothing to break or get out of order. This machine will last a life time.

DON'T TAKE CHANCES.

For years the successful hog raisers have been looking for an Oiler that would work perfectly. There have been a large number of Hog Oilers placed on the market, each and every one has its merits, while at the same time there are with a great many of them a host of disadvantages which the manufacturers cannot avoid.

In considering the advisability purchasing the GRITCO HOG OILER we want you to feel perfectly satisfied before placing your order that you are giving your patronage with the right concern, and that you may confidently expect in return the best of service and that you are buying an article that is thoroughly reliable, desire any further information we respectfully solicit your inquiry for such and your request shall have our immediate attention. **PRICE OF HOG OILER COMPLETE.....\$10.00**

Made of Cast Iron—
Weighs 45 Pounds.

SPECIAL OIL FOR HOG OILERS.

5-Gallon Cans	\$4.50	10-Gallon Cans	\$8.00
Barrels, 50 gallons, per gallon.....		.50 cents.	

**ALL PRICES IN CATALOG SUBJECT TO CHANGE
WITHOUT NOTICE**

Certain-teed Roofing

CERTAIN-TEED ROOFING

When you want a smooth surfaced Roofing for your House, Barn, Garage, Factory, Warehouse, Sky-scraper, Church, Apartment Building, or Farm Building, get

CERTAIN-TEED

—guaranteed 5, 10 or 15 years for No. 1, 2 or 3 respectively—backed by the responsibility of the World's greatest and biggest Roofing and Building Mills. The **Certain-teed** label on this Roofing stands for a definite guaranteed service—a protection for you. Why try to save a dollar or two by putting on a cheap Roof that is not guaranteed when you can buy **Certain-teed** for just a little more money and get much longer service on your Roof. In the long run it's less expensive to buy **Certain-teed**.

No. 1, 108 square feet.....	\$1.20
No. 2, 108 square feet.....	1.70
No. 3, 108 square feet.....	2.20
No. 4 108 square feet	2.70

GUARD ROOFING

GUARD (Special Quality)

This roofing is offered as a good average quality product. It will give good service on the roof. Where the highest quality roofing is not necessary this product is recommended.

No. 1—Light, about 35 lbs., per square.	\$1.15
No. 2—Medium, about 45 lbs., per square.	1.50
No. 3—Heavy, about 55 lbs., per square.	1.90

CORPORAL (Competition Quality)

Not a quality product.

Made to meet price competition. Should be sold only where price is the principal consideration.

No. 1—Light, about 35 lbs., per square..	\$.95
No. 2—Medium, about 45 lbs., per square.	1.20
No. 3—Heavy, about 55 lbs., per square..	1.30

Slatesurfaced Roll Roofing

CERTAIN-TEED EXTRA QUALITY

BLUE-BLACK, RED, OR GREEN

Weight, 90 lbs., Guaranteed 10 Years, per Square.... \$2.25

Major Regular Quality

BLUE-BLACK, RED, OR GREEN

Weight, 80 lbs., Guaranteed 8 Years, per Square..... \$1.95

SHINGLES SLATE SURFACED

CERTAIN-TEED (Extra Quality)

Individual—Blue-Black, Red or Green.

Marked for spacing and nailing.
Weight about 245 lbs. Size 8"x12 3/4". Put up four packages per square.

Guaranteed 10 years, per square..... \$6.65

Certain-teed 4-Width Shingle

Blue-Black, Red or Green.

These shingles, when properly laid, offer weather protection in all climates. They are unaffected by atmospheric changes or by heavy rain or snow. Extreme heat or cold will not materially cause them to expand or contract. As an insulator they keep the house cooler in summer and warmer in winter.

Marked exactly 4 in. from the butt for spacing.

Weight about 196 lbs. Size 10"x32". Put up two packages per square.

Guaranteed 10 years, per square \$5.35

CERTAIN-TEED STRIP SHINGLES

SLATE SURFACED

RED, BLUE BLACK AND GREEN

These shingles possess all the durability, attractiveness, weather protection and fire-resisting qualities of the modern asphalt shingle—plus 50 per cent. or more saving in the cost of application, because they can be laid so quickly.

Four shingles laid at a time—no spacing—no chalk line—one-half less nails—one-half less nail holes—four-fifths less cracks—no painting—no repairs.

CERTAINTEED STRIP SHINGLES are water-proofed, with pure refined asphalt. The wearing surface is natural chipped slate in handsome blue-black red and green colors. The colors are absolutely permanent.

Price, per square..... \$6.25

Certain-teed Hexagonal Shingles

BEAUTY AND PERMANENCE FOR YOUR ROOF

The **Certain-teed Hexagonal Slab Shingle** is a shingle of beauty and permanence. It is made of highest grade, long-fibered felt, heavily saturated with asphalt, and surfaced with a rugged coat of natural colored crushed slate. This surface cannot fade but will always add the same pleasing touch of color to your home.

Price, Blue-Black, Red, or Green..... \$4.85

Color-Blend \$5.10

TARRED FELT

No. 15—
 Rolls 432
 square feet
 65 lbs.
 \$2.55.

Slater's Felt

500 sq. ft rolls, 30 lbs., \$1.15

Insulating Paper

500 Square feet rolls, 35 lbs., \$2.15

ROSIN SIZED SHEATHING PAPER

In Rolls of 500 Square Feet Each.

20-lb. Sheathing Paper, per roll of 500 square feet....	\$.60
30-lb. Sheathing Paper, per roll of 500 square feet....	.90
40-lb. Sheathing Paper, per roll of 500 square feet....	1.20
Special Prices in 10-roll lots; also by the ton.

CERTAIN-TEED Asphalt Roof Coating

1 Gallon Cans.....	\$0.90
5 Gallon Cans.....	3.25
50 Gallon Barrels.....	22.00

CERTAIN-TEED Asbestos Roof Coating

1 Gallon Cans.....	\$1.00
5 Gallon Cans.....	\$4.00
50 Gallon Barrels.....	29.00

Certain-teed Plastic Cement

Leaks in new or old roofs of wood, metal, slate, tile or prepared roofing may be repaired quickly, easily and permanently with **Certain-teed Plastic Cement**. It is excellent also for flashing around chimneys, metal cornices and skylights; for relining old gutters and metal valleys; and for use at all other points where there are leaks, holes, breaks, or cracks caused by contraction or expansion, or where the material has worn out or broken away.

1 lb. Packages.....	\$.20
5 lb. Packages.....	.65
10 lb. Packages.....	1.10
25 lb. Packages.....	2.50
50 lb. Packages.....	4.50
275 lb. Packages.....	15.50
450 lb. Packages.....	23.00

GALVANIZED ROOFING NAILS

With extra large heads, per pound.....\$0.12

ROOFING CAPS

Per Pound.....\$.12

Safety First Winans Ladder Jack

The Winans Ladder Jack is absolutely the strongest and best made; all other ladder Jacks are only as strong as the weakest rung of the ladder. Attaching these Jacks on the standard of the ladder instead of the rungs, gives it much greater strength. It can be raised or lowered to any desired height or angle, or reversed to either the outside or under side of the ladder in a minute's time without removing the plank or scaffolding from the Jack. They are self-locking and adjust themselves to any standard make of ladder. Being made of "Best Grade" 1½ x

1½ angle steel we guarantee them to support one thousand pounds; net weight but 4½ pounds each, and can be folded into a small compass for convenient carrying.

PRICE PAIR, \$4.50.

Seaman Safety Ladder Brackets

Prevent the top of the ladder from sliding, rolling or being blown over by the wind. Insure safety; save labor (about 2 hours per day per man); make handy place for pots. A valuable aid to carpenters, painters, tinners, millwrights, employees of light, power and telephone companies and, in fact, to everyone who uses a ladder.

Quickly and easily adjusted; fit any ladder; work equally well on wood, brick or stone. Span, 42 inches; hold ladder out

14 inches. Made of best quality malleable iron. Packed one set in a carton (weight 8 lbs.) Our Special Price, \$5.00 a set.

Galvanized Steel Corrugated Roofing

1¼ and 2¼-inch corrugations, standard 29 gauge open hearth steel thoroughly galvanized. Made in sheets 26 inches wide; 6, 7, 8, 9 and 10 feet long. 12 foot sheets 25c. a square extra.

Galvanized Ridge Roll, both in corrugated and plain.	
No. 29 Gauge. Per Square.....	\$5.75
Ridge Roll, Plain per Foot.....	.10
Ridge Roll, Corrugated per Foot.....	.12

LEAD WASHERS

Per Pound.....\$0.30

Certain-teed PAINT

HOUSE PAINTS

	Gals.	½ Gals.	Qts.	Pts.
400 Inside Gloss White..	\$3.25	\$1.75	\$.91	\$.50
402 Gray Tint.....	3.25	1.75	.91	.50
403 Pearl Gray.....	3.25	1.75	.91	.50
404 Steel Gray.....	3.25	1.75	.91	.50
407 French Gray.....	3.25	1.75	.91	.50
408 Light Slate.....	3.25	1.75	.91	.50
411 Dark Lead.....	3.25	1.75	.91	.50
412 Light Blue.....	3.25	1.75	.91	.50
414 Blue	3.25	1.75	.91	.50
416 Cream	3.25	1.75	.91	.50
418 Colonial Ivory.....	3.25	1.75	.91	.50
419 Primrose Yellow...	3.25	1.75	.91	.50
424 Warm Buff.....	3.25	1.75	.91	.50
425 Rich Buff.....	3.25	1.75	.91	.50
426 Black	2.05	1.15	.61	.35
427 Light Terra Cotta..	3.25	1.75	.91	.50
429 Dark Red.....	2.20	1.20	.65	.38
430 Oxide Red.....	2.50	1.35	.73	.42
434 Golden Brown.....	2.75	1.48	.79	.44
435 Bungalow Brown...	2.60	1.38	.74	.41
437 Brown	2.40	1.30	.69	.39
439 Maroon	2.50	1.35	.73	.41
440 Apple Green.....	3.25	1.75	.91	.50
443 Window Blind Green	2.90	1.55	.82	.45
445 Olive Green.....	2.45	1.35	.70	.40
446 Dark Bronze Green..	2.95	1.60	.83	.47
448 Outside White.....	3.45	1.85	.95	.53
449 Inside White.....	2.50	1.35	.73	.42

DECORATIVE ENAMELS

	½ Gals.	Gals.	Qts.	Pts.	½ Pts.
25 Snow White—Gloss	\$4.95	\$2.60	\$1.35	\$.95	\$.40
25A Snow White—Egg Shell.....	4.60	2.40	1.25	.70	.40
27 Ivory—Gloss.....	4.15	2.20	1.13	.61	.35
28 Gray—Gloss.....	4.15	2.20	1.12	.61	.35
29 Cream—Gloss....	4.15	2.20	1.13	.61	.35

BATH ROOM ENAMEL

	½ Gals.	Qts.	Pts.	½ Pts.
23 White	\$2.40	\$1.25	\$.70	\$.40

ENAMEL FIRST COATER

Made in white only. Covering capacity about 400 to 500 sq. ft. per gallon, one coat.

	Gals.	½ Gals.	Qts.	Pts.	½ Pts.
24 First Coater...	\$3.65	\$1.95	\$1.00	\$.55	\$.33

INTERIOR ENAMEL

	Gals.	½ Gals.	Qts.	Pts.	½ Pts.
600 Gloss White..	\$3.85	2.00	\$1.05	\$.58	\$.35
601 Flat White...	3.15	1.70	.88	.50	.30
602 Gloss Black...	2.70	1.45	.77	.45	.27
604 Light Ivory...	3.90	2.05	1.07	.58	.34
605 Pink	3.95	2.10	1.08	.59	.34
606 Puritan Gray...	3.90	2.05	1.07	.58	.34
607 Blue	3.90	2.05	1.07	.58	.34
608 Light Blue...	3.90	2.05	1.07	.58	.34
609 Cream	3.90	2.05	1.07	.58	.34
610 Green Tint...	3.95	2.10	1.08	.59	.34
612 Light Gray...	3.95	2.10	1.08	.59	.34

STAIN—Shingle

	5 Gal. Cans	1 Gal. Cans
1 Bungalow Brown.....	\$1.00	\$1.05
2 Weathered Brown.....	1.15	1.20
3 Red	1.10	1.15
4 Moss Green.....	1.30	1.35
5 Sylvan Green.....	1.40	1.45
6 Silver Gray.....	1.60	1.65
8 White	1.40	1.45
9 Light Green.....	1.30	1.35

MOTOR CAR ENAMEL

Highest grade products for re-finishing automobiles. Made in all the most popular shades. Easily applied and give a beautiful, hard, lustrous finish. Will dry overnight under ordinary conditions. One quart sufficient for the average car.

	Gals.	½ Gals.	Qts.	Pts.	½ Pts.
962 Light Red...	\$3.90	\$2.05	\$1.07	\$.58	\$.34
963 Dark Red...	4.15	2.20	1.13	.62	.35
964 Blue	4.10	2.15	1.12	.61	.35
965 Gray	4.15	2.20	1.13	.62	.35
968 Dark Green...	3.85	2.00	1.05	.59	.34
970 Black	3.60	1.88	.99	.54	.32
972 Flat Black... Primer	2.35	1.25	.68	.39	.24
973 Black Fender Enamel	3.60	1.88	.99	.54	.32
905 Motor Car Finishing Varnish (Clear)	2.95	1.57	.83	.37	.28
714 Auto Top & Seat Dressing (Black)			.45	.30	

ALUMINUM BRONZE FINISH

Packed in two compartment containers, the liquid in one compartment and the powder in the other.

	Pts.	½ Pts.	¼ Pts.
710 Aluminum	\$.80	\$.50	\$.30

GOLD BRONZE FINISH

Packed in two compartment containers, the liquid in one compartment and the powder in the other.

	Pts.	½ Pts.	¼ Pts.
763 Gold	\$.80	\$.50	\$.30

STAIN—Varnish

Covering capacity, one coat, about 600 sq. ft. per gallon, one coat. Dries dust-free in from 4 to 5 hours and hard overnight.

	Gals.	½ Gals.	Qts.	Pts.	½ Pts.	¼ Pts.
30 Ground Color...	\$2.60	\$1.40	\$.75	\$.42	\$.25	\$.17
31 Mahogany ..	2.20	1.20	.65	.38	.23	.15
32 Light Oak...	2.25	1.25	.67	.38	.24	.15
33 Dark Oak...	2.20	1.20	.65	.38	.23	.15
34 Walnut	2.15	1.20	.63	.37	.23	.15
35 Cherry Red...	2.35	1.25	.68	.39	.24	.15
36 Golden Oak...	2.22	1.25	.67	.38	.24	.15

FLAT WALL PAINT

Covering capacity, one coat, about 700 sq. ft. per gallon on smooth plaster, and about 500 to 600 sq. ft. per gallon on rough plaster.

	Gals.	½ Gals.	Qts.	Pts.	½ Pts.	¼ Pts.
471 Twilight Gray...	\$2.25	\$1.25	\$.67	\$.38	\$.25	
472 Turquoise Blue...	2.25	1.25	.67	.38	.25	
474 Golden Buff....	2.35	1.25	.68	.39	.25	
476 Royal Tan.....	2.15	1.17	.63	.37	.25	
477 Harvest Brown...	2.10	1.18	.62	.35	.25	
479 Old Rose.....	2.45	1.32	.70	.40	.25	
482 Seafoam Green...	2.40	1.30	.70	.40	.25	
483 Leaf Green.....	2.35	1.25	.68	.40	.25	
486 Ivory	2.25	1.25	.68	.38	.25	
487 Silver Gray....	2.25	1.25	.68	.38	.25	
488 Buff Stone.....	2.40	1.30	.70	.40	.25	
489 Cream	2.25	1.25	.68	.38	.25	
490 White	2.10	1.15	.62	.35	.25	
494 Pink	2.45	1.32	.70	.40	.25	

STAIN—Penetrating Oil

Especially adapted for staining all kinds of woodwork, not previously oiled, painted or varnished. It brushes on uniformly and penetrates deeply, giving a permanent color to the finished surface.

Covering capacity approximately 800 to 1,000 sq. ft. per gallon, depending on the grade of wood.

	Gals.	½ Gals.	Qts.	Pts.	½ Pts.
620 Light Oak	\$1.65	\$.95	\$.50	\$.30	\$.20
622 Dark Oak.....	1.95	1.10	.60	.35	.25
624 Mahogany	2.00	1.10	.60	.35	.25
626 Walnut	1.85	1.00	.55	.35	.25

BARN, BRIDGE and ROOF PAINT For outdoor purposes only.

	Price Per Gallon	
	5-Gal. Cans	1-Gal. Cans.
460 Slate.....	\$2.20	\$2.25
461 Red	1.20	1.25
462 Green	1.55	1.60
466 Bright Red.....	1.60	1.65

BRONZING LIQUID

A vehicle for use in connection with gold and aluminum powders.

	Gals.	Qts.	Pts.
913 Bronzing Liquid...	\$1.75	\$.55	\$.32

FLOOR, PORCH AND DECK ENAMEL

Covering capacity about 250 to 300 square feet per gallon, two coats. Dries overnight with an enamel-like finish.

	Gals.	Gals.	Qts.	Pts.	Pts.
	1/2				1/2
575 Light Gray...	\$3.15	\$1.70	\$.90	\$.50	\$.30
576 Silver Gray...	3.15	1.70	.90	.50	.30
577 Stone Gray...	3.15	1.70	.90	.50	.30
578 French Gray...	3.15	1.70	.90	.50	.30
579 Medium Lead...	3.15	1.70	.90	.50	.30
580 French Yellow	2.85	1.70	.90	.50	.30
581 Dark Oak.....	2.70	1.45	.80	.45	.30
582 Brown	2.70	1.45	.80	.45	.30
583 Dark					
584 Mahogany ...	2.70	1.45	.80	.45	.30
584 Red	2.90	1.55	.85	.45	.30
585 Light Oak....	3.15	1.70	.90	.50	.30

KALSOMINE

5 Pound Packages \$.50.

300	
301	315
302	319
303	321
306	322
307	323
308	324
309	325
310	327
312	328

WAGON IMPLEMENT AND CARRIAGE PAINT

	Gals	1/2-Gals.	Qts.	Pts.
50 Black	\$2.25	\$1.25	\$.70	\$.40
51 Yellow	2.70	1.45	.80	.45
52 Light Green.....	2.40	1.35	.70	.40
53 Wagon Red.....	2.85	1.50	.80	.45
54 Dark Green.....	2.45	1.35	.70	.40
55 Light Red.....	2.70	1.45	.80	.45

DRYER—JAPAN (Master Painters')

A strong, pale dryer for mixing paints, colors and linseed oil. Will not curdle.

	Gals.	Gals.	Qts.	Pts.	Pts.
	1/2				1/2
924 Master Paint-ers Japan Dryer	\$1.70	\$.95	\$.55	\$.32	\$.20

STOVE and PIPE ENAMEL

	Pts.	1/2	Pts.	1/4	Pts.
760 Black	\$.30	\$.25	\$.15		

STUCCO and CEMENT PAINT

	Gals.	Qts.
500 White	\$3.35	\$.95
501 Cement Gray.....	3.35	.95
502 Dark Stone.....	3.35	.95
503 Caen Stone.....	3.35	.95
506 Dark Red	3.35	.95

TINNERS' RED

Recommended only for tinner's use in painting gutter spouting, cornices, etc.

	5-Gal.	1-Gal.
469 Tinner's Red.....	\$1.50	\$1.55

FLOOR PAINT—Cement Floors

Covering capacity about 500 square feet per gallon, one coat.

	Gals.	1/2	Gals.	Qts.
510 Light Gray	\$2.70	\$1.45	\$.80	
511 Stone Gray	2.75	1.50	.80	
512 Torpedo Gray.....	2.70	1.45	.80	
513 Tan	2.40	1.30	.70

VARNISHES

Covering capacity all varnishes from 600 to 700 sq. ft. per gallon, one coat.

UNIVERSAL VARNISH

Unexcelled for all general interior and exterior purposes. This varnish is a very superior product and gives satisfaction in all its many uses. It is pale in color, highly lustrous, waterproof and weather-resisting, very tough and elastic. Can be rubbed and polished if desired. Will dry dust-free in from 4 to 6 hours and hard overnight.

	Gals.	Gals.	Qts.	Pts.	Pts.
	1/2				1/2
900 Universal Varnish	\$3.00	\$1.60	\$.85	\$.50	\$.30

EXTRA COACH VARNISH

Dries dust-free in 6 hours and hard in from 24 to 36 hours.

	Gals.	Gals.	Qts.	Pts.	Pts.
	1/2				1/2
921 Extra Coach...	\$2.45	1.35	\$.70	\$.40	\$.25

FLAT VARNISH

Dries dust-free in from 3 to 6 hours and hard in from 12 to 18 hours.

	Gals.	Gals.	Qts.	Pts.	Pts.
	1/2				1/2
915 Flat Varnish...	\$2.40	\$1.30	\$.70	\$.40	\$.25

FLOOR VARNISH

Dries dust-free in 3 hours, and dry enough overnight to be walked upon.

	Gals.	Gals.	Qts.	Pts.	Pts.
	1/2				1/2
911 Floor Varnish...	\$2.35	\$1.25	\$.70	\$.40	\$.25

FURNITURE VARNISH

Dries dust-free in from 3 to 4 hours, hard in about 12 hours, and can be rubbed after 48 hours and polished after 72 hours.

	Gals.	Gals.	Qts.	Pts.	Pts.
	1/2				1/2
923 Furniture Varnish	\$2.70	\$1.45	\$.80	\$.45	\$.30

INTERIOR SPAR VARNISH

Dries dust-free in about 4 hours, and hard in 18 to 20 hours, rubbed in about 72 hours.

	Gals.	Gals.	Qts.	Pts.	Pts.
	1/2				1/2
916 Interior Spar...	\$2.45	\$1.35	\$.70	\$.40	\$.25

LINOLEUM VARNISH

Dries dust-free in about 3 to 5 hours and hard in 12 to 18 hours.

	Gals.	Gals.	Qts.	Pts.	Pts.
	1/2				1/2
914 Linoleum Var-nish	\$2.45	\$1.35	\$.70	\$.40	\$.25

MOTOR CAR FINISHING VARNISH—Clear

Dries dust-free in from four to six hours and hard over night.

	Gals.	Gals.	Qts.	Pts.	Pts.
	1/2				1/2
905 Motor Car Fin-ishing Varnish —Clear	\$2.95	\$1.60	\$.85	\$.50	\$.30

OUTSIDE SPAR VARNISH

Will dry dust-free in from 4 to 6 hours and hard over night.

	Gals.	Gals.	Qts.	Pts.	Pts.
	1/2				1/2
910 Outside Spar...	\$3.00	\$1.60	\$.85	\$.50	\$.30

Covering capacity of all varnishes from 600 to 700 sq. ft. per gallon, one coat.

PAINT and VARNISH REMOVER

936 Paint and Var-nish Remover \$1.90 \$1.05 \$.60 \$.35 \$.25

POLISH—Auto and Furniture

A clean liquid polish for use on highly finished surfaces.

	1-Gal.	Per Dozen Bottles
	Cans	16-Oz. 12-Oz. 4-Oz.

715 Certain-teed Polish	\$1.60	\$3.45	\$3.15	\$2.20
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POLISH—Metal

	Gals	1/2	Gals.	Pts.	Pts.
	1/2				1/2
736 Metal Polish...	\$1.65	\$.91	\$.30	\$.20	

SCREEN PAINT

	Qts.	Pts.	1/2	Pts.
740 Black	\$.55	\$.35	\$.25	
741 Green	.60	.35	.25	

SHELLAC

Pure Shellac. Cut in alcohol.

	Gals.	1/2	Gals.	Qts.	Pts.
	1/2				1/2
931 Orange	\$3.50	\$2.25	\$1.15	\$.70	
932 White	4.00	2.50	1.35	.75	

SHELLAC SUBSTITUTE

Will serve every purpose where shellac has heretofore been used. Dries dust-free in about one hour and hard enough overnight to sand-paper.

	Gals.	1/2	Gals.	Qts.	Pts.	1/2	Pts.
930 Shellac							

Substitute	\$1.75	\$1.00	\$.55	\$.35	\$.25		
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Baby Chicks

Bred to lay from big, healthy stock. We start shipping about March 1st, and will continue until June 1st.

We will commence booking orders in February for future shipment, so, send in your order early to get prompt service.

Owing to the perishable nature of Baby Chicks, we ask orders to be accompanied with cash or money-order.

Prices for March subject to change without notice, in the following strains, only:

	25	50	100
SINGLE COMB WHITE LEGHORNS	\$4.00	\$8.00	\$15.00
SINGLE COMB BARRED LEGHORNS	4.00	8.00	15.00
BARRED PLYMOUTH ROCKS	4.50	9.00	17.00
RHODE ISLAND RED	4.50	9.00	17.00

APRIL and MAY prices\$1.00 per 100 less than above

JUNE prices\$1.00 per 100 less than May prices.

All prices prepaid by parcel post and subject to change without notice.

All orders for Baby Chicks, subject to our confirmation. Kindly send cash or money-order with your orders, please.

Geo. H. Lee's---The Gizzard Capsule

FOR ROUND WORMS, TAPE WORMS AND PIN WORMS IN CHICKENS.

This capsule has an insoluble coating which carries it to the gizzard intact. There it is broken or ground up, releasing its contents for full action in gizzard and intestines. Because of the medicine not coming in contact with the mucous lining of the mouth, throat, crop and glandular stomach, the fowls are less apt to be sickened or thrown off feed. It is important that hard grit be furnished the birds.

These capsules have shown, on hundreds of tests, proven by post-mortems, an average one dose efficiency of better than 95% on Tape and Round Worms, where the infestation does not exceed 50 worms per bird; with greater numbers present, two doses a week apart, are needed. On Pin Worms, inhabiting the ceca, which are off-shoots from the intestines and with but one opening, the efficiency ranges from 0% to 100% and depends entirely upon whether the ceca opening is plugged, congested or otherwise partially or entirely closed.

Directions:—Hold the bird with head pointing straight up and mouth open. Dip a capsule in linseed oil or any kind of vegetable or animal oil, and drop the capsule far back in the mouth into the throat. Two capsules may be used if fowls are very heavily infested with worms; or the dose of one capsule may be repeated in ten days. It is well to give the fowls a dose of Epsom Salts in wet mash on the evening of the day following administration of the capsule—one pound of salts to each 100 full grown fowls or 200 half grown.

....Important:—See that the birds are supplied with hard "grit." Grit is necessary at all times, but especially when these insoluble capsules are used.

50 Capsules in Box\$1.00 100 Capsules in Box\$1.75 500 Capsules in Box\$7.00

VARNISH BRUSHES

' 1 in. Harmony Varnish	\$.15
1½ in. " "	.25
2 in. " "	.30
2 in. Loyal "	.35
2½ in. " "	.45
3 in. " "	.65
No. 1 Stag Varnish	.30
No. 2 " "	.40
No. 3 " "	.65
No. 4 " "	.80
No. 5 " "	1.00
No. 2 Sash	.20
No. 4 "	.25
No. 6 "	.35
No. D	.55

WALL BRUSHES

3 in. Ching Wan	\$.75
3½ in. " "	.85
4 in. " "	1.25
4 in. O. K. Diamond Wall	\$2.25
4 in. Diamond Wall	3.00
No. 10/0 Pound Brush	2.10

PAINT BRUSHES

SIMPLEX WATERPROOF PLANT LABEL

Made of Celluloid with transparent mica cover. Including copper wire for attaching.

No. 1—Per Doz. \$.45	Per 100 \$3.00
No. 2—Per Doz. .80	Per 100 5.00
No. 3—Per Doz. 1.00	Per 100 7.00

SIMPLEX GARDEN LABELS

With stake 24-in. long, ea.\$.25
Postage Extra.

PRUNING SAW

No. 16—14 inches	\$2.25
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SEEDS		Blatchford's Calf Meal	94	Copper Sulphate	88	Flower Vases	79
Asparagus Bunchers	3	Blatchford's Chick Mash	94	Cotton Hoes	188	Fly Spray	90
Asparagus Knives	3	Blatchford's Egg Mash	94	Cotters, Spring	164	Fodder Yarn	195
Asparagus Roots	3	Blatchford's Essential Min-		Coulters, Rolling	143	Food Choppers	117
Barley	46	eral Feed	94	Cow Bowls	197	Forges	185-191
Room Corn	48	Blocks and Tackle	195	Cow Ease	90	Forks	188
Buckwheat	46	Bluestone	88	Cow Remedies	95	Formaldehyde	88
Caladiums	53	Boilers	118	Cow Stalls	196	Fruit Dryers	117
Canada Field Peas	48	Bolster Springs	212	Cow Tail Holders	108	Fruit Pickers	67
Canna Roots	55	Bolts, Carriage & Machine	191	Cradles, Grain	189	Fruit Presses	171
Cannas	55	Bolts, Plow	164	Cream Pails	112	Fungi Dust	88
Chrysanthemums	56	Bone and Shell Mills	96	Cream Separator	107	Furnaces	119
Clover Seeds	45	Books	62	Crenoid	90		
Corn, Sugar	16-17	Bordeaux Mixture	85	Creosote	90	Gang Plows	134
Corn, Field	46	Border Shears	66	Crow Bars	200	Gape Cure	94
Cow Peas	47	Bourbon Remedies	93	Crushed Oyster Shell	95	Gape Worm Extractors	105
Dahlia Roots	57-58	Bowls, Cow	197	Cultipackers	122	Garage Door Hangers	199
Dahlia	57-58	Breast Chains	203	Cultivator Repairs	155	Garbage Cans	11
Flax Seed	48	Brood Coops	100	Cultivators	156	Garden Cultivators	128-132
Flower Seed	43-53	Brooders	97-98-99	Cultivators, Hand	128-129-181	Garden Hoes	188
Forage and Silo Feed	47	Brooder Stoves	98-99	Cultivators, Horse	129-138-181	Garden Hose	77
Geraniums	55	Brooms	115		143-156	Garden Line	65
Gladiolus	53	Brushes, Horse	203	Cultivator Steels	155	Garden Rakes	188
Grass Seeds	44-45	Brushes, Separator	115	Cultivators, Walking	138-140	Garden Reels	65
Herbs	32	Buckets	112	Curry Combs	203	Garden Sets	187
Kaffir Corn	47	Budding Knives	65	Cut Worm Powder	88	Garden Tools	128-129-187-188
Lawn Grass	46	Bug Death	88	Cyanogas—A Dust	64	Garden Trowels	65
Maderia Vine Roots	53	Bug Death Shaker	78	Cyanogas Fumigant G.	86	Garret Remedy	95
Millet	48	Buggies	210			Gasoline Engines	178
Mushroom Spawn	27	Buggy Poles	204	D		Gates	124-125
Nasturtiums	51	Buggy Shafts	204	Dairy Cleanser	111	Gizzard Capsules	232
Oats	46	Buggy Tops	210	Dairy Thermometers	114	Glass Cloth	106
Parcel Post Rates—	(Front Cover)	Bull Leader Snaps	115	Dairy Scales	111	Glazing Machines	67
Plant Department	55-58	Bull Rings	115	Dairy Supplies	107-115	Glazing Points	67
Potatoes	41	Bull Tongues	155	Dehorning Clippers	115	Glazing Putty	67
Raffia	3	Bush and Bog Plows	159	Delivery Wagons	210	Golf Rollers	122
Rape	48	Bush Hooks	189	Dethol	89	Grafting Wax	67
Roots	3-27-56	Butt Chains	203	Developing Food	92	Grain Cradles	189
Sunflower Seed	48	Butter Bowls	110	Dibbers	65	Grain Drills	145
Sweet Peas	53	Butter Boxes	111	Digging Bars	200	Grain Fans	167
Teosinte	48	Butter Coloring	114	Dip	90	Granulated Milk for Poultry	94
Tube Roses	53	Butter Ladles	110	Disinfectants	90	Grape Crusher	171
Vegetable Plants	54	Butter Paper	111	Disk Harrows	137-159-161	Grape Dust	86
Vegetable Seeds	3-44	Butter Printers	110	Disc Plows	139	Grape Scissors	65
Vetches	48	Butter Spades	110	Ditchers	144	Grass Catchers	121
Wheat	43	Butter Workers	110	Diverse Cultivators	149	Grass Hooks	65
White Clover	46			Dog Remedies	95	Grass Seeders	131
A		C		Dominion Cleanser	111	Grass Shears	66
Acid for Testers	114	Calf Feeders	115	Dominion Fly Spray	90	Green Bone Cutters	96
Alfalfa, Meal	94	Calf Meal	94	Don Sung	94	Grinding Mills, Hand	96-169
American Horse Tonic	95	Calf Weaners	109	Door Hangers	199-200	Grinding Mills, Power	170
Anti-Cow Kicker	108	Cane Stakes	68	Doubletrees	142	Grindstone Fixtures	166
Anvils	185	Can Sealer	117	Drag Scrapers	141	Grindstones	166
Aphis Punk	86	Cant Hooks	173	Drills, Grain	145	Grit for Poultry	95
Apple Mills	171	Caponizing Tools	105	Drills, Machinists'	185	Grit and Shell Boxes	103
Apple Parer	113	Carbola	89	Drill Points	145	Grub Hoes	190
Arsenate of Lead	85	Carbolineum	90	Drill Tubes	145	Grub Plows	140
Arsenate of Zinc	85	Carriage Heaters	208	Drinking Fountains	92-105		
Artesian Well Cylinder	179	Carriage Poles	204	Dritomic Sulphur	85	H	
Ash Cans	113	Carts	212	Drive Well Points	181	Hackets' Gape Cure	94
Ash Sifters	113	Cattle Ties	202	Dropping Board Scraper	100	Halter Chains	203
Asparagus Bunchers	65	Cel-O-Glass	106	Dry Mash Hoppers	100-103	Halters	202
Asparagus Knives	65	Cement Block Machine	154	Dusters	78	Hames	203
Asparagus Tape	67	Cement Pails	112	Dusting Sulphur	88	Hame Strings	204
Atomic Sulphur	85	Chain Horse Shoes	203	Dump Wagon	208	Hammers	185
Atomizers	69	Chains	203			Hand Corn Planters	145
Auto Jacks	208	Charcoal	94	E		Handles	187
Automobile Accessories	206	Check Rower Wire	145	Earth Augers	192	Harness	202
Automobile Heaters	208	Cherry Seeders	113	Edging Knives	187	Harness Hooks	201
Automobile Tires	205	Chick Feed	92	Egg Boxes	106	Harrow and Cultivators	
Auto Sprayers	71	Chick Fount	102-104	Egg Testers	97	Combined	156
Avicol	94	Chick Manna	94	Electric Pumps	176-177	Harrows	136-137-157-158-159-160-161
Axe Handles	192	Chisels, Cold	191	Engines	178		
Axes	192	Church Bells	144	Ensilage Cutters	168	Harrow Teeth Spikes	155
Axle Grease	130	Churns	108	Ensilage Forks	187	Harrow Teeth Springs	157
B		Cider Mills	171	Extension Rods	76	Harrow Teeth Points	157
Baby Chicks	222	Circular Saws	172	Equalizers	142	Hasps	200
Back Bank Hooks	204	Cleanser, Dominion	111	F		Hatchets	192
Back Bands	204	Cleives	142	Fanning Mills	167	Hay Forks	187
Bag Balm	95	Clippers	67-193	Farm Bells	144	Hay Knives	189
Bale Ties	168	Clothes Dryers	127	Farm Carts	212	Hay Loaders	152
Baling Presses	174	Clothes Line Posts	127	Farm Ditchers	144	Hay Racks	201
Barley Forks	187	Clover Cutter	96	Farm Gates	126	Hay Rakes, Horse	151-152
Barn Door Hangers	199-200	Coal, Prepared	208	Farmogerm	63	Hay Tedders	152
Barn Equipment	196-198	Coal Sifters	113	Feed Carriers	197	Hay Tools	194-195
Barrel Headers	115	Coaster Wagons	217	Feed Cookers	118	Hedge Shears	66
Baskets	113	Coleman Lamps	186	Feed Cutters	168	Hedge Trimmers	66
Bean Harvesters	164	Coleman Lanterns	186	Feed and Drinking Cups	102	Hellebore	86
Bean Threshers	167	Concrete Mixer	154	Feed Mills	170	Hen Feed	92
Beef Scrap	94	Concrete Block Machine	154	Feeds, Chicken	92	Hens' Nest	99-105
Bells	144	Consumers	128	Feed Racks	201	Hess & Clark Poultry and	
Belting Canvas	154	Contractors' Carts	212	Feed Trucks	197	Stock Preparations	93
Belting Link Chain	164	Contractors' Plows	135-136	Fence Posts	126	Hinges	200
Belting Rubber	154	Cookers	118	Fence Wire	124-127	Hoes	188
Belt Lacing	154	Coops	105	Fertilizer	225	Hog Feeders	217
Belt Punches	191	Coppercarb	88	Fertilizer Distributor	146	Hog Oil	217
Berry Presses	171	Corn Binders	153	Fertilizer Drill	145	Hog Oilers	217
Binder Canvases	164	Corn Crushers	170	Field Fence	125	Hog Remedies	115
Binder Repairs	164-165	Corner Mangers	201	Field Rollers	122	Hog Ringers	115
Binders	153	Corn Grader	145	Fifth Chains	203	Hog Rings	115
Binder Twine	195	Corn Hooks	189	Fire Extinguishers	89	Hog Scalders	118
Bird Houses	68	Corn Knives	189	Fish Oil Soap	88	Hog Troughs	201
Bits	185	Corn Mills	170	Fittings, Brass	179	Hog Waterers	217
B. K.	90	Corn Planter Runners	146	Fittings, Galvanized	179	Holst	195-204
Black Leaf 40	86	Corn Planters	145-146-147	Flat Irons	186	Home Canning Sealers	117
Blackmans Salt Bricks	95	Corn Shellers	169	Flower Bed Guard	124	Horse Brushes	203
Blacksmith Outfits	185	Corona Copper Carb	88	Flower Scissors	65	Horse and Cattle Remedy	91-93
				Flower Tubs	79	Horse Clippers	199

Horse Collar	202	Mole Traps	68	Rat Traps	64	Strainer Pads	108
Horse Comfort	95	Moss, Sphagnum	67	Rax	64	Stuffing Attachments	117
Horse and Dog Clipper	67-193	Mouse Traps	64	Refrigerators	116	Stump Pullers	130
Horse Lawn Boots	121	Mowers, Field	151	Relief Valves	76	Substructures	175
Horse Lawn Mowers	120	Mowers, Lawn	119-121	Repair Links	203	Suburban Outfits	175
Horse Muzzles	201	Mower Repairs	164-165	Riveting Machines	191	Succulenta Tablets	94
Horse Over Shoes	203	Mulford's Culture	63	Road Carts	210	Sulfocide	88
Horse Radish Graters	117	Neck Yokes	142	Rolling Coulter	143	Sulky Plows	134
Horse Rakes	151	Nest Eggs	105	Rollers, Land	122	Sulphur	88
Horticultural Tools	65-68	Nicofume	86	Roof Coaters	219	Sulphur Tobacco Soap	86
Hose Clamps	77	Nicotine	86	Roof Hooks	216	Sweat Pads	202
Hose Couplings	77	O		Roofing	218-219	Swings	123
Hose Menders	77	Oat Forks	188	Roofing Caps	219	T	
Hose Nozzles	78	Oat Sprouter	105-106	Roofing Cement	219	Tampers	192
Hose Reels	77	Oil Cans	130	Roofing Nails	219	Tankage	94
Hose, Rubber	77	Oils	130	Root Cutter	96	Tanks	175-177
Hot Kaps	204	Oliver Tools	131-139	Rope	195	Tedders	152
Hotbed Mats	67	Open Rings	203	Roto Salt Cakes	201	Tethering Anchors	192
Hotbed Sash	67	Orchard Harrows	161	Roup-Over	93	Thermometers	68
Hudson Sprayers	74-75	Ox Balls	115	Row Markers	145	Testers, Glassware	114
Husking Pins	130	Oyster Shell	95	Rubber Gloves	76	Tie-Out Chains	203
Hydrometers	68	P		Rubber Hose	77	Tin Can Sprayers	69
I		Paint Brushes	222	S		Tire Chains	206
Ice Chests	116	Pails	112	Salt Cakes	201	Tire Pumps	206
Ice Cream Freezers	109	Painters Cripples	216	Salt, Dairy	111	Tobacco Dust	86
Ice Hooks	192	Painters' Stages	214	Sal-Vet	95	Tobacco Soap	86
Incubators	97	Paints	220-221	Sausage Stuffers	117	Tobacco Stems	86
Incubator Lamps	97	Paper Balers	174	Saw Bucks	174	Tongue Supports	164
Incubator Thermometers	97	Para-dichlorobenzine	88	Saw Mandrels	173	Tono-Shel	93
Insecticide	83-90	Parcel Post Boxes	106	Sawmills	172-173	Tool Grinders	166
J		Paris Green	86	Saws	172-174	Tools, Blacksmith	183
Jacks, Power	154	Pea and Bean Threshers	167	Saws, Pruning	66-174	Toy Wagons	217
Jacks, Pumping	182	Pea Harvesters	164	Scaffolding Jacks	216	Trace Chains	203
Jacks, Scaffolding	216	Peavies	173	Scalecide	84	Track Brooms	115
Jacks, Wagon	208	Pick Handles	190	Scales	144	Tractor Plows	135
K		Picks	190	Scissors	65	Transplanters	150
Kaylox	84	Pipe Fittings	179	Scoops	100-109	Trash Burner	128
Kayso	85	Pipeless Furnaces	119	Scrapers, Dirt	141	Tree Labels	68
Kettle Ranges	118	Plant Boxes	79	Scraper Feed	92	Tree Pruners	66
Kettles	118	Planet Jr. Tools	129	Scrapers, Dropping Board	100	Tree Wound Paint	88
Keystone Dehorner Clipper	115	Planter Runner Shoes	146	Screw Plates	185	Tree Tanglefoot	86
Kil Weed	83	Plant Setter	150	Screws	200	Trellis	124
Knife Grinders	166	Plant Sprinklers	67	Scrub Brushes	115	Trestles	215-216
Knives	65	Plant Stakes	68	Scuffle Hoes	187	Trio Mowers	119
Kow Kare	95	Plant Tabs	79	Scythes	189	Tripletrees	142
Kraut Cutters	117	Plant Tubs	79	Scythe Snaathe Handles	189	Troughs, Poultry	100-105
L		Plow Bolts	164	Seed Drills	189-166	Troughs, Stock	201
Labels, Pot	68	Plow Clevises	142	Seed Sowers	129	Trowels	65
Labels, Tree	68	Plow Handles	142-155	Semesan	131-148	Trucks	163
Lacquer Sprayer	75	Plow Repairs	133-142	Separator Oil	107	Tubular Rivets	191
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FERTILIZERS FOR THE FARM LAWN and GARDEN

The application of Fertilizers has been a topic much discussed among farmers generally. The quality and requirements of the soil are so varied, some land being deficient in Potash, Phosphoric Acid or some other ingredient, that it is frequently very difficult for the farmer to determine just what mixture he needs. We give below a line of fertilizers best adapted to the various soils and crops.

Ammoniated Alkaline Plant Food

Our old stand-by for summer crops; is used largely on Potatoes, Corn, Tobacco and other summer crops; stands the hot, dry weather particularly well.

Price Per Bag, \$2.50

5-pound Packages.....	\$.25
10-pound Packages.....	.40
50-pound Packages.....	1.50
100-pound Packages.....	2.50

Write for Special Prices in Ton Lots

Ammoniated Butchers' Bone Phosphate

Is made largely from slaughter-house stock; used principally for Wheat and Grass, as well as by growers of Corn and Tomatoes for canning purposes. A good article at a low price.

Price Per Bag, \$3.00

Write for Special Prices in Ton Lots

Animal Bone Phosphate

Made from Animal Bone, Potash and Ammoniates in proper proportion. A complete manure always gives good results. Specially adapted to the growth of Peas, Cabbage, Wheat and Grass. It contains the ingredients necessary to supply what may be lacking in the soil for almost any crop.

Price Per Bag, \$3.60

Write for Special Prices in Ton Lots

Dried Blood

Dried Blood is a quick-acting fertilizer. Running high in Nitrogen or Ammonia. Fine for greenhouse, potted plants and garden use.

Price Per 5-Lb. Package, \$.50
25-Lb. Package, 2.00

Hydrated Lime For Improving the Soil

Hydrated Lime is a soil sweetener and is free from injurious qualities. It is cheaper than any other lime product which can claim to be at all competitive, and is more easily handled.

There has been an enormous increase in its use in recent years, keeping pace with the growing of clover and alfalfa.

Hydrated Lime, while an indirect plant food, is as essential to the maximum production of some crops as is direct plant food.

In addition to producing chemical changes, Hydrated Lime also has mechanical effects, making clay soils more friable and more open to both air and water, and so less susceptible to extreme dry and wet weather. In sandy soil the action is practically reverse; Lime in such soil has a cementing tendency and helps the soil to retain moisture.

We recommend the free use of Hydrated Lime on lawns.

Per Bag of 50 Pounds, 75c.

Write for prices in larger lots. Special inducements offered for car lots.

Special Potato Fertilizer

Made especially for potatoes, running high in Potash and containing Ammonia and Available Phosphoric Acid in proper proportion for good results on this crop.

Price Per Bag, \$2.90

Write for Special Prices in Ton Lots

Tomato Grower Fertilizer

167-Lb. Bags, \$3.75

Write for Special Prices in Ton Lots

Special Truck Mixture

167-Lb. Bags, \$4.50

Write for Special Prices in Ton Lots

Land Plaster

In Bags, 200 Lbs. Each,
Per Bag, \$2.50

Fine-Ground Fish

Ground Tankage

High-Grade Acid

Phosphate

Kainit, Muriate of Potash

Nitrate Soda

Sulphate of Ammonia

Agricultural Lime

Write for Prices

PULVERIZED SHEEP MANURE

Has No Rival

Remember that Pulverized Sheep Manure is aged for several years and will not burn your plants, no matter in what quantities you use it—but as it is highly concentrated, a little goes a long way.

Used for top dressing, mulching, etc.

Valuable in a run-down city garden, as it adds humus and vegetable matter which are essential for all vegetation.

It may also be used at the rate of 20 to 50 pounds to every 1000 square feet in a dry form, or 500 to 1000 pounds per acre.

Makes the richest and safest liquid manure, using 1 pound to 5 gallons of water once a week.

For Greenhouse Plants mix one part to about 10 parts of soil.

5 lbs., 30c; 10 lbs., 50c; 25 lbs., \$1.00; 50 lbs., \$1.75; 100 lbs., \$2.75.

Special price in one-half ton, tons and carload.

Soft Ground Bone

Made from softer material than the regular "Ground Bone," and contains some little meat and blood. The great objection to the use of Pure Bone (the price) no longer prevents its use by anyone wanting to restore worn-out land. Try it and be convinced.

PRICES:

5-pound Packages.....	\$.30
10-pound Packages.....	.50
50-pound Packages.....	1.75
100-pound Packages.....	3.00

Price Per Bag, \$5.25

Write for Special Prices in Ton Lots

Raw Bone Meal (Pure Bone)

Splendid article for building up worn-out soil, lawns, etc.

Lb., 6c; 10 lbs., 50c; 25 lbs., \$1.25; 100 lbs., \$3.25; 167 lbs., \$5.50.

NITRATE OF SODA

5-pound Packages.....	\$.50
10-pound Packages.....	.85

GRITCO XL PLANT FOOD

GRITCO XL Plant Food, a complete food for flowers and lawns, a great stimulator and builder-up of the soil.

We have spared no expense in preparing a complete, well-balanced Plant Food for use on Flowers and Lawns, and we highly recommend the use of GRITCO XL Plant Food.

It is a highly concentrated preparation and must be used according to directions.

It is our desire to have GRITCO XL Plant Food in the hands of every Flower and Lawn Lover, and in order to do so we offer a one-pound package of GRITCO XL Plant Food absolutely free with an order for Flower Seed amounting to \$2.00.

It contains active Ammonia, Available Phosphoric Acid and Soluble Potash; in fact, all the elements required to promote the growth and stimulate the plant, and it will give very satisfactory results. It is made of especially selected materials, no expense having been spared to make it the best fertilizer possible for the purpose on the market.

1-pound Cans.....	\$.25
1-pound Can by Mail.....	.35
5-pound Cans.....	.75
5-pound Can by Mail.....	.85
10-pound Cans.....	1.25
25-pound Bag.....	2.25
50-pound Bag.....	3.50

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THE BEST PLOW
IN
THE WORLD

GENUINE OLIVER
CHILLED PLOW

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WAGONS ALL
KINDS

PUMPS
FOR ALL
PURPOSES

CIDER MILLS

MOWERS

WATER BARRELS
AND TRUCKS

LAWN MOWERS
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IS RECOMMENDED AND IN USE BY THE LEADING SEEDSMEN AND FLORISTS.