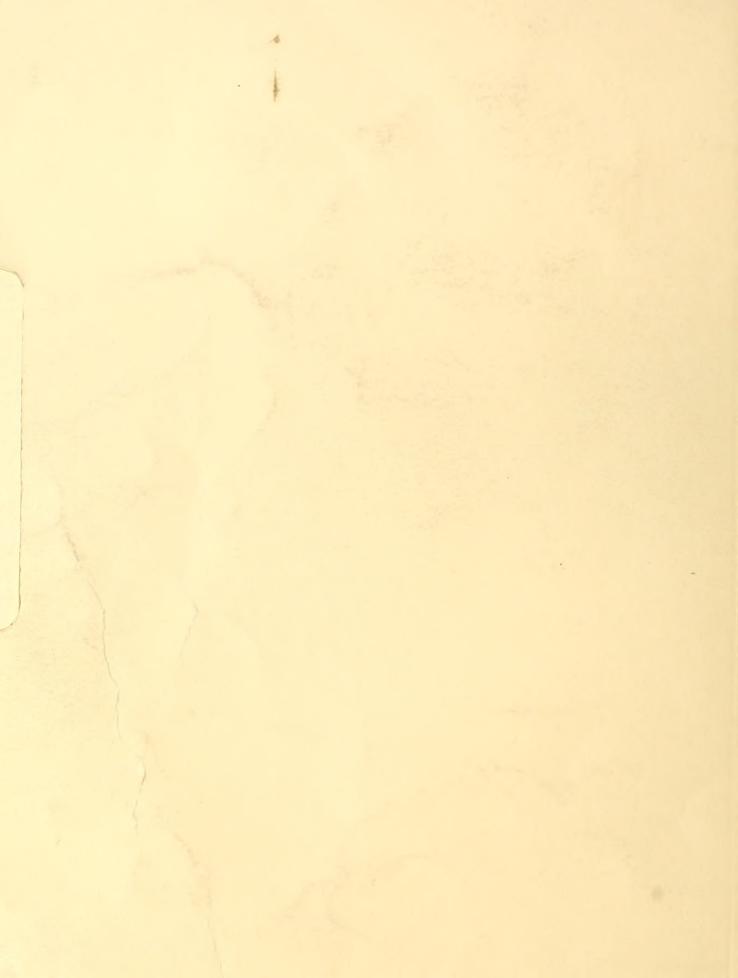
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Annual Catalogue

MACHINERY, FERTILIZERS, SEEDS ETC.

AField of Cabbac Grown From Our Seed

C.M.WOOLF & CO. INC. 1005 B.ST., NW. WASHINGTON, D.C.

OUR CATALOGUE FOR 1916

GENERAL INFORMATION

How to Send Money-Remittances should be made either in the form of an Express Money Order, P. O. Money Order, Bank Draft or Registered Letter. 1c and 2c stamps will be accepted for small amounts, provided they are carefully wrapped, so as to prevent sticking.

Be Sure to Give Full Name and Address with each order. Every season we get a number of orders without name of sender or Post Office, and the postmark on the envelope is often too obscure to be made out. There is no way of finding out who the senders are; consequently we are blamed, whereas the fault is their own entirely. We therefore, beg our correspondents to write their full name and address on each order.

We prefer written orders, but when orders are given by telephone, they are accepted as understood, and at the risk of the purchaser, in case of misunderstanding in transmitting telephone orders.

Seeds by Mail-Since our last catalogue was printed, all Seeds, Bulbs, and Plants have been admitted to the Parcel Post rate of postage, and are now mailable at the same rate of postage as other merchandise. For full information and Parcel Post rates, see table below. Remember, however, that we pay the postage on all packets, ounces and one-quarter rounds at the price quoted in this catalogue.

Seeds by Express-Express rates have also been materially reduced since issuing our last catalogue, and on the average, express rates are now lower than Parcel Post rates to points beyond the third Zone, and when practical, we would advise customers to order goods shipped by Express, as it is far more satisfactory, quicker and safer. Goods ordered C. O. D. by Express must have 25 per cent, of the amount accompany the order. We do not make shipments by Freight C. O. D, to points where there is no bank.

POISONS AND LIQUIDS CANNOT BE SENT BY PARCEL POST

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POUNDS	LOCAL	First Zone 1 to 50 Miles	Second Zone 50 to 150 Miles	Third Zone 150 to 300 Miles	Fourth Zone 300 to 600 Miles	Fifth Zone 600 to 1,000 Miles	Sixth Zone 1,000 to 1,400 MI.	Seventh Zone 1,400 to 1,800 MH.	Eighth Zone All over 1,800 MI.	1
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Seeds, Bulbs and Plants have been admitted to the Parcel Post rate of postage, and are now carried at the same rate as other merchandise, with the exception that packages weighing up to 8 ounces are carried at the rate of 1c for each 2 ounces, regardless of distance. Remember, however, that prices quoted in this catalogue on packets, ounces and one-quarter pounds are postpaid, but when larger quantities are ordered sent by mail, add the required postage as per rate table to the left. When pounds are ordered, remit postage for 2 pounds; when 2 pounds are ordered, remit postage for 3 pounds; and so on, as the wrapping of the packages will make it run over the actual weight ordered. When figuring the amount of postage, if in doubt as to the exact amount required, remit even more than you think necessary, and we will return the amount not needed, as we cannot send packages postage collect, nor charge on our books small amounts due for postage stamps. When ordering pints, remit for postage on 1 pound mailing weight, and for quarts remit for 2 pounds mailing weight.

If you are in doubt as to what Zone you are in from Washington, ask your postmaster. The weight limit in the first and second Zones is 50 Lounds: all other zones, 20 pounds.

ot be sent by Parcel Post; these should be ordered sent by express or

age you have given us during the past year. Our business is growute this to our efforts to furnish only high-grade seeds.

rates now in effect you can easily get our Superior your home at most reasonable prices.

er.

Superior Vegetable Seeds

ASPARAGUS

German, Spargel French, Asperge Span One ounce for 60 feet of drill.

Spanish, Esparragos

CULTURE.—A convenient bed is about 6 feet wide, with a path 2 feet wide on each side. This will require 6 rows 1 foot apart, and a bed of that width 50 feet long will be ample for an ordinary family, requiring about 1 pound of seed. It will require about three years from the time of sowing until the bed is in full bearing, but once established it is good for 20 years. It should be sown in drills 1 foot apart, and when the plants are 4 or 5 inches high they should be thinned out so



that the plants will be 9 inches apart from each other in all the rows. Great care must be taken for the first year to keep down all weeds as soon as they appear, else they will choke up and destroy the young seedling Asparagus. The deeper the soil and the more manure used the greater will be th crop.

GIANT ARGENTEUIL.—New. A most promising variety, nearly twice the size of any other. Pkt. 5c; oz. 10c; 1/4 lb. 25c; lb. 75c.

PALMETTO.—Large, thick, dark green shoots with a distinctly pointed tip. Pkt., 5c; oz., 10c; ¼ lb. 15c; 1 lb., 40c.

CONOVER'S COLOSSAL. — The best known, and one of the most desirable sorts. Pkt., 5c; oz., 10c; 14 lb., 15c; 1 lb., 50c.

Conover's Colossal.

COLUMBIAN MAMMOTH WHITE.—This splendid new white variety is a sprout from Conover's Colossal, and originated on Long Island. The shoots are pure white, and require no artificial blanching; brings a much higher price in market than any other sort. Pkt., 5c; oz., 10c; 1/4 lb., 20c; 1 lb., 50c.

Asparagus Roots

A saving of one to two years is effected by pla	anting roots.
Those offered below are strong, two-year-old row	ots, and the
proper size for setting.	Per 100
Columbian Mammoth White	\$1 00
Conover's Colossal	
Palmetto	1 00

BRUSSELS SPROUTS

(Species of Cabbage; Cultivation the Same) German, Rofen-Kohl French, Chou de Bruxelles Spanish, Berza de Brusels

One ounce will sow a bed of 40 square feet and produce about 3,000 plants.

CULTURE.—This is a delicious vegetable, superior to either borecole or spinach. The small, cabbage-like heads which grow upon the stem are much improved by a moderate frost. Sow in hot-beds in March or April, and in the open ground in May; cultivate same as broccoli.

Prices: Pkt., 5c; 1 oz., 20c.

BEANS Dwarf or Bush

German, Bohnen French, Haricot Spanish, Frijole nano One quart to 100 feet in drills; or 150 hills, 2 bushels to the acre in drills.

A succession of sowings can be made from the first week in May until September. These dates are for the latitude of New York; farther south the sowing must be done earlier; farther north, later. Plant in drills about 2 inches deep, and from 18 inches to 2 feet apart, according to the richness of the soil; the poorer the soil the closer they can be planted. The seeds should be dropped about 2 inches apart.

Wax-Pod or Butter Beans Bush Varieties

BLACK GERMAN WAX. (Black seed.)—Very early; round, yellow pods; a well-known standard sort. Failure.

CURRIE'S RUST-PROOF WAX.—Pods long, flat and straight; very productive and rust-proof; black seed. Failure.

DAVIS WHITE KIDNEY WAX.—Pods remarkably long, straight and handsome, waxy white color; enormously productive; seed white. Failure.

GOLDEN WAX.—Very popular; well-known standard sort. Pt., 30c; qt., 50c; gal., \$1.75; pk., \$3.00; bu., \$10.00.

HODSON WAX.—New; claimed to be rust-proof and very productive. Pods long, cream-yellow. Pt., 30c; qt., 50c; gal., \$1.75; pk., \$3.00; bu., \$10.00.

KIDNEY WAX (Wardwell's).—Extra early; purely wax pods, long, flat and remarkably free from rust. Pt., 30c; qt., 50c; gal., \$1.75; pk., \$3.00; bu., \$10.00.

PROLIFIC DWARF BLACK WAX.—An improved strain of Black Wax of more vigorous habit and far more productive. Pods waxy yellow, with slightly curled point. Failure.

Green Pod Bush Beans

BURPEE'S STRINGLESS GREEN POD.—New. Extra early, prolific; entirely stringless; crisp, tender; fine quality. Pt., 30c; qt., 50c; gal., \$1.75; pk., \$3.00.

Failure.

LONGFELLOW.—Early and prolific; pods long and very tender. Failure.

BLACK VALENTINE.—A distinct form of Valentine; of handsome appearance and excellent quality. Pt., 30c; qt., 45c; gal., \$1.50; pk., \$2.75; bu., \$9.00.

NAVY BEANS.—Used as dried winter beans. Pt., 15c; qt., 25c; pk., \$1.50; bu., \$5.00.

Beans-Pole or Running

One quart to 150 hills; 10 to 12 qts. to the acre in drills.

These are more tender and require rather more care in culture than the Bush Beans, and should be sown two weeks later. They succeed best in sandy loams, which should be liberally enriched with short manure in the hills, which are formed, according to the variety, from 3 to 4 feet apart. From 5 to 6 seeds are planted in each hill, about 2 inches deep. As the matured Bean is used mostly, the season is too short for succession crops in the North, though it is advantageous to plant succession crops in the Southern States, where the season of growth is often from March to November. Rough cedar or similar poles about 7 or 8 feet high should be used for Lima Beans to climb on. They should be set in the ground at least 18 inches, so as to prevent being blown over.



King of the Garden.

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CUT SHORT, or CORN HILL.—A speckled Bean, used for planting among corn. Pt., 25c; qt., 40c; gal., \$1.50; pk., \$2.75.

KENTUCKY WONDER.—Fine green pod sort; early and productive; entirely stringless. Pt., 25c; qt., 40c; gal., \$1.50; pk., \$2.75.

KING HORTICULTURAL.—Pods bright carmine color, and both beans and pods are much larger than the common kind. Pt., 30c; qt., 50c; gal., \$1.75; pk., \$3.00; bu., \$10.00.

LAZY WIFE.—Beans white; pods green and entirely stringless; produces an enormous quantity of pods. Pt., 30c; qt., 50c; gal., \$1.50; pk., 2.75



HORTICULTURAL DWARF .-- Late and productive; pods

HOPKINS' IMPROVED VALENTINE .- An improved strain

of Round Pod Red Valentine. Pt., 25c; qt., 40c; gal., \$1.40;

showy; great favorite in New England; fine shell variety.



Pole Lima Beans

LIMA, KING OF THE GARDEN.— Heavy cropper; bean and pod very large. Pt., 20c; qt., 30c; gal., \$1.10; pk., \$1.75; bu., \$7.00.

LIMA, SEIBERT'S EARLY.—The earliest and one of the best for home or market garden. The green-shelled beans are of immense size, but so tender that they shrink in drying to about the size of the large White Lima. Pt., 20c; qt., 35c; gal., \$1.10; pk., \$2.00; bu., \$7.50.

LEVIATHAN. — The earliest Pole Lima grown. The plant is strong and takes to the poles more readily than any other sort. It is fully a week earlier than any other Pole variety, therefore can be grown successfully where other sorts would be caught by frosts of early autumn. Moreover it is a prodigious cropper, producing its pods in large clusters from base to top of pole, frequently from 5 to 10 together. Pt., 25c; qt., 40c; pk., \$2.25; bu., \$8.00. BURPEE IMPROVED BUSH LIMA. —Pods and beans are extremely large. Plant grows more erect than Burpee's Bush Lima and is more productive. Pt., 25c; qt., 40c; pk., \$2.50; bu., \$9.00.

BUSH LIMA, HENDERSON'S.— Beans smaller than Burpee's or Dreer's, but very early and enormously productive. Pt., 15c; qt., 25c; gal., 90c; pk., \$1.75.

FORDHOOK BUSH LIMA.—An improved type of Dreer's Bush Lima, excepting that it is also very much earlier. Pt., 25c; qt., 40c; pk., \$2.50; bu., \$9.00.

BUSH LIMA, DREER'S.—Beans are similar to Dreer's Pole Lima, but ten days earlier and a true Bush Bean. Pt., 25c; qt., 40c; pk., \$2.25.

LIMA, LARGE WHITE.—Extra large size. Selected stock. Beans very large. Pt., 15c; qt., 30c; gal., 90c; pk., \$1.75; bu., \$6.50.

We cater to a critical gardeners trade, and are sure that seeds that are good enough to procure for us a rapidly growing demand from market gardeners are certainly good enough to give the highest satisfaction to the farmer and private planter.

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BEET

German, Kuntelrube

French, Betterave

Spanish, Bettaraga

One ounce to 50 feet of drill; 5 to 6 pounds to the acre in drills.

The soil which is best suited is that which is rather light and thoroughly enriched with manure. For an early supply, sow in Spring as soon as the ground becomes fit to work, in drills about 1 foot apart and 2 inches deep. For main crop, sow the first week in May, and for Winter use sow in June.

BASSANO, EARLY FLAT.—An early, tender variety; color light red. Pkt., 5c; oz., 10c; ¼ lb., 20c; 1 lb., 60c.

CROSBY'S EGYPTIAN.—The best for early market; is early as the original strain of Egyptian, is thicker and less inclined to push up a woody stock as it advances in growth. Pkt., 5c; oz., 10c; ½ lb., 20c; 1 lb., 65c.

EARLY BLOOD TURNIP.—One of the best known and most popular early sorts; smooth and dark red; excellent quality. Pkt., 5c; oz., 10c; 1/4 lb., 20c; lb., 65c. ECLIPSE BLOOD TURNIP.— Very early, round, smooth and dark red. Our strain of this variety is very select; it has a very small top, and is one of the best for market. Pkt., 5c; oz., 10c; ¹/₄ lb., 20c; lb., 60c.

DETROIT DARK RED.—Round; skin dark red; flesh light red, very sweet. Pkt., 5c; oz., 10c; ¹/₄ lb., 20c; lb., 65c.

DEWING'S EARLY BLOOD TURNIP.—An improved variety of deep blood red color, fine form and flavor; a favorite market sort. Pkt., 5c; oz., 10c; ¹/₄ lb., 20c; lb., 60c.

Crosby's Egyptian.

MANGEL-WURZEL

6 to 8 pounds of seed will sow an acre.

CULTURE.—The following varieties are extensively grown for feeding stock and are excellent food to increase the flow of milk. As they grow much larger than the varieties cultivated for table use, they require more room, and should be sown in drills about 2 feet apart. The seeds should be dropped about 2 inches apart in the drills, and when strong enough thinned out to 12 to 15 inches in the row. The long varieties are best suited to a deep soil, and the globe sorts succeed better than the long sorts on sandy soil.

GOLDEN TANKARD.—Best and most popular for dairy farming; a very large, yellow-fleshed sort, said to contain a large amount of sugar; grows largely above ground, is hardy and a heavy cropper. ¹/₄ lb., 15c; ¹/₂ lb., 20c; lb., 30c.

LONG RED.—This is an old-fashioned long red Mangel. 1/4 lb., 15c; 1/2 lb., 20c; 1 lb., 30c.

CARROT

German, Mohre French, Carotte Spanish, Zamahoria One ounce will sow 100 feet of drill; 3 pounds required for an acre. CULTURE.—Carrots require a very finely pulverized soil to grow them to perfection. A good, light and well-enriched sandy loam is the best for this crop. For field culture, sow in drills 3 to 3½ feet apart, so as to cultivate by horse. Market-gardeners sow in drills, about 18 inches apart, and cultivate by hand. For early crops cover ½ inch deep, and thin to six inches apart in the rows for late, cover ¾ inch deep, and thin to four inches.

EARLY SCARLET HORN.—A very popular sort; quick-growing; deep orange in color; blunt-rooted; 6 to 8 inches in length. Pkt., 5c; oz., 15c; 1/4 lb., 25c; 1/2 lb., 45c; 1 lb., 75c. IMPROVED LONG ORANGE.—The best known and most largely cultivated of any carrot; excellent for stock or table use; roots deep orange, 12 to 15 inches long. Pkt., 5c; oz., 15c; 1⁄4 lb., 25c; 1⁄2 lb., 45c; 1 lb., 75c.



Improved Long Orange.

DANVERS HALF-LONG.—One of the heaviest croppers; roots dark orange color, 8 to 10 inches in length, thick, and ending in a somewhat abrupt point; first class for all soils. Pkt., 5c; oz., 15c; 1/4 lb., 25c; 1/2 lb., 45c; 1 lb., 75c.

OXHEART or GUERANDE.—Roots short and very thick, and intermediate between Scarlet Horn and Chantenay; color, deep orange; fine-grained and sweet; easily dug; annually grows in favor. Pkt., 5c; oz., 15c; ¼ lb., 25c; ½ lb., 45c; 1 lb., 75c.

CABBAGE

German, Kohl One ounce will produce 3,000 plants. Spanish, Berza de repollo

French, Chou

CULTURE.—Soil for Cabbage should be rich and heavy loam, with good drainage. On such a soil, with an abundance of stable manure, excellent crops are sure to be grown. For early spring, sow in fall, not too early, or the plants are liable to bolt in the spring instead of heading. In a month the plants will be fit to transplant to coldframes, where they are wintered, taking care in planting to set the young plants down to the first leaves. Transplant in spring as soon as the ground can be worked, setting the plants 2 feet apart one way and from 12 to 18 inches the other, according to the variety. If it is desirable to economize space, lettuce or radish may be sown between the rows, as they will be out of the way before the Cabbage needs the room. For late or winter crops, the seed is sown in May and the plants set out in July. In this case they are set in rows 2x3 feet, so as to work them with a horse and cultivator. To prevent the turnip-fiea from attacking the young plants, sift the air-slacked lime or tobacco-dust over them as soon as they appear above ground.

ALL-SEASONS.—Heads very deep; can be planted for early or late crop, and is a splendid keeper; about as early as Early Summer, but forming much larger heads. Pkt., 5c; oz., 20c; ¼ lb., 50c; 1 lb., \$1.50.

EXCELSIOR LATE FLAT DUTCH. —A very valuable late variety; for main winter crop has no equal; sure header, fine keeper. Pkt., 5c; oz., 20c; ¼ lb., 50c; 1 lb., \$1.50.

CHARLESTON LARGE WAKE-FIELD.—Popular with market-gardeners in the South. This strain is about one week later than the Early Jersey Wakefield, but the heads are fully onehalf larger; will not burst when ripe like most early sorts, and can be left standing in the field some time without damage. Pkt., 5c; oz., 20c; ¼ lb., 50c; 1 lb., 1.50.

RED ROCK. (Henderson Mammoth).—The largest and surest heading red Cabbage. Heads as large and solid as Flat Dutch, and fine-grained. Pkt., 5c; oz., 25c; ¼ lb., 75c; 1 lb., \$2.50.

RICE'S SELECTED EARLY JERSEY WAKEFIELD.—This is the most widely known and popular early variety. Heads are cone-shaped and very solid. Pkt., 5c; oz., 20c; 1/4 lb., 50c; 1 lb., \$1.50.

HENDERSON'S EARLY SUMMER CABBAGE.—A splendid Second Early Cabbage, large, round, flat heads, 8 to 10 pounds each. As an ideal second early Cabbage it continues to hold its place. It forms large, flat, round, solid heads, weighing usually 8 to 10 lbs. each. The quality is excellent, tender and sweet. It comes in about ten days later than Early Jersey Wakefield, but is more than double in weight. Pkt., 5c; oz., 20c; ¹/₄ lb., 50c; 1 lb., \$1.50.

SWISS CHARD The City Man's Garden

SWISS CHARD (The City Man's Garden).—Also called "Cut and Come Again" Spinach. This vegetable gives maximum returns for little care and space; it yields a constant crop from July to Winter. The leaves are used for greens the same as Spinach or beet tops; they are equal in quality and easier to prepare than spinach, and far superior to beets. Sow early in Spring, in rows 16 inches apart, and thin out to 6 inches apart in the rows. It can be used all Summer when spinach is not available. Later the leaves grow very large, with broad, flat, pure white stems, and mid-ribs, which may be cooked like Asparagus or made into very good pickles. As it grows, thin out for use and keep clear of weeds. Good cultivation increases the tenderness of the leaves.

LUCULLUS SWISS CHARD.—A new Moss Curled sort. Very large leaves. The mid-ribs are very broad and form a good substitute for asparagus during the Summer months. Pkt., 10c; oz., 15c; 1/4 lb., 35c; 1 lb., \$1.00. ½ lb., 50c; 1 lb., \$1.50.
 EARLY DWARF YORK.—A standard early English variety; heads small

¹/₄ lb., 40c; 1 lb., \$1.25. EARLY FLAT DUTCH.—Earlier and heads smaller than Late Flat Dutch; a good second-early, sure header, weighing 10 to 12 lbs.; valuable market sort. Pkt., 5c; oz., 20c;

DANISH BALLHEAD .- One of the

very best winter sorts; heads round

and very solid. Pkt., 5c; oz., 20c;

and heart-shaped. Pkt., 5c; oz., 15c;

HENDERSON'S SUCCESSION.—One of the best of Cabbage; heads very large and somewhat flat; ten days later than Early Summer; much prized by gardeners. Pkt., 5c; oz., 20c; ¼ lb., 50c; 1 lb., \$1.50.

GREEN CURLED SAVOY, 80 DAYS.—This is undoubtedly the finest type of Winter Cabbage. After having been frosted it boils like marrow, and is not surpassed even by the Cauliflower in its best condition. The strain is not to be confounded with low-priced imported seeds. It is a shy producer of seed, and consequently never plentiful. Pkt., 5c; oz., 20c; ¼ lb., 50c; lb., \$1.50.

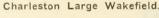
1/4 Ib., 50c; 1 Ib., \$1.50.

RICE'S SUREHEAD.—All head and always sure to head; this very popular variety is rightly named Surehead, because it never fails to form a good solid head, even on poor soil, but the richer the soil the larger and finer the head; it is the finest late Cabbage in this country, and best for market. Heads the list for winter use. Pkt., 5c; oz., 20c; ¼ Ib., 50c; 1 Ib., \$1.50.

LARGE LATE DRUMHEAD.—Heads large, flat, solid, and a good keeper; planted for main crop for winter keeping. Pkt., 5c; oz., 20c; ¹/₄ lb., 50c; 1 lb., \$1.50.

Swiss Chard.





PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

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CAULIFLOWER

German, Blumentohl

Spanish, Coliflor H

One ounce will sow a bed of 40 square feet, and produce about 3,000 plants.

CULTURE.—When grown to perfection this is a most delicious vegetable, and well repays generous treatment in cultivation. With a deep rich soil and an abundance of moisture, which in dry seasons must be applied artificially, Cauliflower can be grown well. The cultivation is similar to that of the cabbage. For early fall crops sow in May, and transplant in June, in rows of 4 feet apart, setting the plants 2 feet apart in the rows; water frequently if the ground is dry. Frequent

hoeing and a liberal supply of rich liquid manure, to keep up a continuous and rapid growth, will produce splendid heads of the most delicate flavor. It facilitates blanching if the leaves are gathered loosely together and tied over the top of the head to protect from the sun. Cut before the flowers begin to open. Sow as late as June 20 for late crops, in beds or in hills, covering $\frac{1}{2}$ inch deep.

DRY WEATHER CAULIFLOWER.

-During some seasons after a very late spring, hot weather comes on very quickly. In such a year this variety has proven itself of exceptional merit. Also in warm parts of the country, where there is not much cool weather, it is a most desirable sort. Very sure heading and second early. Heads larger than Snowball and snow white. Our seed is A1, and procured from the original grower in Denmark. Pkt., 25c; ½ oz., \$1.00; oz., \$2.00; ¼ lb., \$6.00.

HENDERSON'S EARLY SNOW-BALL.—This is undoubtedly the finest variety ever introduced; it is the earliest, and produces beautiful snow-white heads of the most delicious flavor. The seed we offer is pure and genuine, and sure to prove satisfactory. Pkt., 25c; $\frac{1}{2}$ oz., \$1.00; oz., \$2.00; $\frac{1}{4}$ lb., \$6.00.

EXTRA SELECTED EARLY ER-FURT.—The finest strain of the Erfurt Cauliflower; almost as early as the Snowball; grows about 15 inches high, producing very solid, pure white heads of the very finest quality; seldom fails to form a good-sized head. Pkt., 25c; $\frac{1}{2}$ oz., \$1.00; oz., \$2.00; $\frac{1}{4}$ Ib., \$6.00.

CELERY

German, Sellerie

llerie Spanish, Apio

French, Celeri

One ounce will produce 7,000 plants.

Henderson's Early Snowball.

CULTURE.—Sow seeds in hotbeds or coldframe. As soon as the plants are about 3 inches high, transplant to a nicely prepared bed in the border, setting them 4 or 5 inches apart. When about 8 inches high, and fine, stocky plants, set them in the trenches. Earth up a little during the summer, keeping the leaf stalks close together, so that the soil cannot get between them. Finish earthing up in autumn, and never hoe or earth up in moist weather, nor when the plants are moistened with dew.

To preserve Celery for winter, dig trenches 1 foot in width and as deep as the tops of the plants. Stand the Celery in these, erect as they grew, with what dirt adheres to the roots, packing closely, but not crowding. After the trench is filled it should be covered with straw or leaves as a protection from frost. Do not cover until the weather becomes quite cold, and then only a little at a time, as the cold becomes greater. Celery will bear a good deal of frost. The trench must have good drainage.

DWARF GOLDEN SELF-BLANCHING.—Our strain of this variety is unexcelled and absolutely reliable; this sort is, without doubt, the finest early Celery in cultivation. It is perfectly solid, of a fine, nutty flavor; attains a good size, and when blanched is of handsome golden yellow color. Pkt., 5c; oz., 75c; 1/4 lb., \$2.00.

GIANT GOLDEN HEART.—A selection from Dwarf Golden Heart, which it resembles, but grows larger and is a better keeper; a favorite with Chicago gardeners. Pkt., 5c; oz., 15c; ¼ Ib., 40c; 1 Ib., \$1.25.

GIANT PASCAL.—The largest variety grown; is also the best keeper; of fine, nutty flavor, and very easily blanched; deservedly popular for fall and winter use. Pkt., 5c; oz., 15c; ¼ Ib., 40c; 1 Ib., \$1.25.

IMPROVED WHITE PLUME.—A well-known and perhaps the most popular variety of Celery; very early, ornamental, and for quality, surpassed by none; has great merit as an early market sort. Pkt., 5c; oz., 15c; 1/4 lb., 40c; 1 lb., \$1.25.

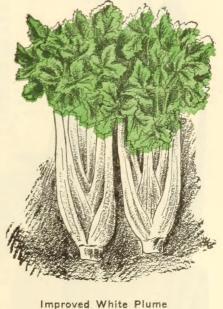
SCHUMACHER.—Very large, golden yellow heart, crisp and 50c per lb.

PINK PLUME.—New. Practically identical with Improved White Plume, but with the added merit of the stalks being richly suffused with pink; attractive in appearance and very fine in quality. Pkt., 5c; oz., 20c; ¹/₄ lb., 60c; 1 lb., \$2.00.

SOUP CELERY .- Seed for flavoring soups, pickles, etc., 50c. per lb.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.





French, Choufleur

CELERIAC (Turnip Rooted Celery)

German, Knollen Sellerie French, Celeri-rave Spanish, Apio raiz de Nabo

CULTURE.—A variety of Celery with turnip-shaped roots, which are white-fleshed, comparatively tender, and have the flavor of celery stalks. The seed may be sown in the open ground in April, and the young plants nursed in the same way as celery; but in planting out the ground is manured and dug, not trenched, and the plants are set in shallow drills 12 inches apart, watering freely. As the growth advances, draw the earth to the plants, by which the knotty roots will be blanched and made delicate and tender.

LARGE EARLY ERFURT.—We have found this to be a great improvement on some of the older sorts of Celeriac, for while of equally good flavor, it attains a larger size. Pkt., 5c; oz., 15c; 1/4 lb., 50c; 1 lb., \$1.50.

LARGE SMOOTH PRAGUE.—An improved form of Turnip-rooted Celery; round, smooth roots, with very few side root. This is the largest variety, and one of the very best. Pkt., 5c; oz., 15c; 1/4 lb., 40c; 1 lb., \$1.40.

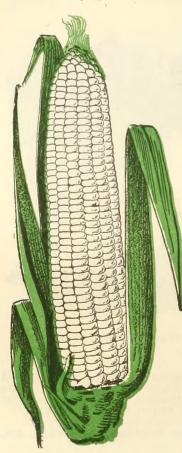
German, Wefchtorn

CORN, SUGAR

Spanish, Maiz

One quart will plant 200 hills; 1 peck will plant 1 acre in hills.

CULTURE.—Corn requires a good soil and a warm situation. Commence for first early by planting the early varieties about May 1, and if a continuous supply is wanted all



Adam's Early Corn.

us supply is wanted all summer, make plantings about two weeks apart from May 1 until the last of July, first planting early varieties, then later ones. Plant in rows 3 feet apart, and

make the hills about the same distance apart in the rows. Five kernels in the hills are plenty. Cover about 1 inch deep for early, and a little deeper for late. Thin to three plants in a hill.

Extra Early Sugar Corn

A D A M'S EXTRA-EARLY.—Not a sugar Corn, but largely grown for early use, especially in the South. Pt., 15c; qt., 20c; gal., 45c; pk., 75c; bu., \$2.50; ear, 3c; doz., 25c.

GOLDEN BANTAM. --Extremely early yellow variety of delicious flavor. Pt. 15c; qt. 25c; gal. 75c; pk. \$1.25.

TRUCKER'S FAVOR-ITE.—Not a sugar Corn. Very sweet and early. Pt., 15c; qt., 25c; gal., 60c; pk., \$1.00; bu., \$3.00.

French, Mais

Medium Early Sugar Corn

ADAM'S EARLY.—Not a sugar Corn, but grown extensively all over the country for market purposes. Pt., 15c; qt., 20c; gal., 45c; pk., 75c; bu., \$2.25; ear, 3c; doz., 25c.

BLACK MEXICAN.—One of the sweetest and best varieties grains black when ripe, but when in condition for the table cooks remarkably white. Pt., 15c; qt., 25c; gal., 75c; pk., \$1.25.

STABLER'S EARLY.—Large, white ears of finest quality; very desirable for both canners and gardeners. Pt., 10c; qt., 15c; gal., 40c; pk., 75c.

MAMMOTH EARLY.—An earlier and smaller variety of the Late Mammoth. Pt., 15c; qt., 20c; gal., 50c; pk., 90c; bu., \$3.00.

PREMO.—An early variety of unusual merit. The ears are large and the grain very sweet. It matures in 60 days, which makes it a most desirable sort. Pt., 10c; qt., 20c; gal., 65c; pk., \$1.00; bu., \$3.50.

Late Sugar Corn

COUNTRY GENTLEMAN.—Very distinct from any other sort; sometimes yields as many as five ears on a stalk; cob very small, with deep kernels of pearly whiteness. This is considered the finest of all Sweet Corn; the quality is delicious, and will delight the most fastidious epicure. Pt., 15c; qt., 25c; gal., 65c; pk., \$1.00; bu., \$3.50.

LATE MAMMOTH.—The largest and latest variety; ears of immense size, grains large and broad; quality of the best. Pt., 15c; qt., 25c; gal., 50c; pk., 90c; bu., \$3.50.

STOWELL'S EVERGREEN.—The standord for quality and the best known variety; a favorite alike with canners and market men; remains a long time in condition suitable for boiling. Pt., 10c; qt., 15c; gal., 50c; pk., 85c; bu., \$3.00; ear 5c; doz., 40c.

WHITE EVERGREEN SUGAR CORN.—Pt., 10c; qt., 20c; gal., 65c; pk., \$1.00; bu., \$3.50.



CUCUMBER

Spanish, Pepino

French, Concombre

One ounce will plant 50 hills; two pounds will plant an acre. CULTURE .- For earliest use, sow the seed in the hot-bed or green-house in February or March, in warm loam, where the temperature is about to degrees; cover half an inch deep, and, when the plants are of fair size, transplant into hills omade in the green-houses, four plants in a hill, so that when the weather permits the whole hill can be moved to the cost ground by means of tins made for that purpose. Plant for general use in the open ground, about June 1st, in hills feet a art each way, and thin to 3 plants in a hill. Fine old manure (about 6 cords per acre) is sufficient; or, better still, that on land from which a crop has been taken, and which was heavily manured for that crop. A sprinkling of dry plaster will keep off the striped bug.

IMPROVED LONG GREEN .- Fine for

JERSEY PICKLING .- Used extensively by pickle manufacturers in New Jersey and Pennsylvania. Pkt., 5c; oz., 10c;

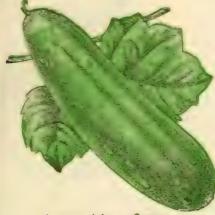
EARLY FORTUNE .- A very fine, early and productive sort. White Spine. Pkt., 5c; oz., 15c; 1/4 lb., 25c; 1 lb., 80c.

WHITE SPINE, ARLINGTON IM-PROVED.-One of the finest Cucumbers for forcing, and one of the most perfect in shape, size, color and quality; very brittle and crisp. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; 1 lb., 60c.

pickling when small; also good for table use when about half grown. Pkt., 5c;

oz., 10c; 1/4 lb., 20c; 1 lb., 60c.

1/4 lb., 20c; 1 lb., 60c.



German, Gurfe

Improved Long Green.

COLLARDS, or COLEWORT French, Chou Spanish, Cabu

German, Blattertohl One ounce will produce 3,000 plants.

A variety of Cabbage known in different sections as "Cole" and "Colewort." It is extensively used in the South for "greens," where it continues in luxuriant growth all winter.

TRUE GEORGIA .- Used as "greens" mainly in the South and West. As the leaves are pulled off others grow in their places. Pkt., 5c; oz., 10c; 1/4 lb., 25c; 1 Ib., 60c.

CORN SALAD

LARGE GREEN CABBAGE .- A small, haidy salad; used also as a substitute for lettuce: can be sown in September and wintered over the same as Spinach. Pkt., 5c; oz., 10c; 1, Ib., 15c; 1 Ib., 35c.

ENDIVE

Spanish, Endivia

French. Chicoree German, Engivie CULTURE .- Endive is one of the best salads for fall and winter use. Sow for an early supply about the middle of April. As it is used mostly in the fall months, the main sowings are made in June and July. Plant 1 foot apart each way. When the plant has attained its full size, gather up the leaves and tie them by their tips in a conical form. This excludes the light and air from the inner leaves, which, in the course of from three to six weeks become bleached.

WHITE CURLED .- For early use; should be used when young. Pkt., 5c; oz., 10c; 1/4 lb., 30c; 1 lb., \$1.00.

GREEN CURLED .- Same price as White.

EGGPLANT

French, Aubergine German, Gierpanze One ounce for 1.000 plants.

Spanish, Berengena

CULTURE .- The Eggplant will thrive well in any good garden soil, but will repay good treatment. The seeds should be sown in hot-bed or green-house in March or April, and when about an inch high potted in 2-inch pots. Plant out about June 1st, 2½ feet apart. If no hot-bed is at hand they can be grown in any light room where the temperature will average 75 degrees.

BLACK BEAUTY .- The earliest large variety; color rich dark purple. Pkt., 10c; oz., 25c; 1/4 lb., \$1.00; 1 lb., \$3.50.

NEW YORK IMPROVED PURPLE SPINELESS .- Similar to New York Improved Purple, except that it is entirely free from spines. Pkt., 10c; oz., 25c; 1/4 lb., \$1.00; 1 lb., \$3.50. PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

WEST INDIAN GHERKIN .- The only genuine Gherkin. Small, oval and cov-ered with spines; color light green; used exclusively for pickling. Pkt., 5c; oz., 15c; 1/4 lb., 40c; 1 lb., \$1.25.



True Georgia.

WATER CRESS (True)

WATER CRESS .- Highly esteemed as a salad during the Spring and Fall. Also used as a garnish for meats during the winter. Seed may be started readily in pans or boxes of very moist earth, and the young plants transplanted to shal-low water. Pkt., 5c; oz., 30c; 1/4 lb., \$1.00; 1 lb., \$3.00.

Black Beauty.

HERBS

Sweet, Pot and Medicinal

GOURD

One oz. will plant 25 hills.

CULTURE .--- Gourds are tender annuals, and should not be planted until all danger of frost is over, and not less than 6 feet apart each way, in good rich loam. Three plants in a hill will be sufficient to leave at the last hoeing.

DIPPER.—This, like the Sugar Trough, has a thin but hard shell, and can readily be made to serve useful pur-poses. Oz., 15c; 1/4 lb., 50c; 1 lb., \$1.50.



Sage.

KALE, or BORECOLE

German, Blatter-Kohl French, Chou Vert Spanish, Breton

One ounce will produce 3,000 plants.

CULTURE .--- Sow from the middle of April to the beginning of May in prepared beds; transplant in June, and treat in the same manner as for Cabbage. Of all the Cabbage tribe, this is the most tender and delicate, and would be much more extensively grown than it is if its excellent qualities were generally known. The varieties are all extremely hardy, and are best when touched by frost.



Dwarf Green Curled Scotch.

DWARF GREEN CURLED SCOTCH, or NORFOLK .- Rarely exceeding 18 inches in height, but spreading out under good cultivation to 3 feet in diameter; leaves beautifully curled and bright green. Oz., 10c; 1/4 lb., 20c; 1 lb., 50c.

GERMAN CURLED .--- Price, 35c per 1b.

IMPROVED IMPERIAL CURLED KALE .-- A beautifully curled and crumpled sort, of strong, vigorous habit. The leaves are a beautiful dark-green color, and delicate in flavor. A striking feature in this Kale is that it will stand longer before going to seed than any other. In the latitude of Washington it will stand throughout the winter without protection. Pkt., 5c; 1/4 lb., 15c; 1 lb., 50c.

CULTURE .- The seeds should be sown in Spring, in shallow drills, 12 inches apart, and the young plants thinned out or transplanted to about 4 inches. They should be harvested on a dry day, just before the blossom develops, dried quickly and bottled, or closely packed in dry boxes, with the air entirely excluded. D1-+

	PRU.	02.
Anis. Used for flavoring	0.05	\$0.10
Balm. Very fragrant leaves	.05	.30
Caraway. The seeds of this herb are used for		
flavoring and render satisfaction when de-		
voted to this purpose	.05	.10
Catnip	.05	.30
Coriander. Seeds used for flavoring	.05	.10
Dill. Used for flavoring pickles	.05	.10
Horehound. Very useful in curing coughs	.05	.20
Lavender. Leaves very fragrant	.05	.15
Rosemary. Leaves very fragrant	.05	.40
Sage. A highly aromatic herb; most useful of all.	.05	.15
Savory, Winter	.05	.15
Sweet Basil. Leaves used for flavoring	.05	.15
Sweet Fennel. Seeds aromatic	.05	.10
Sweet Marjoram. Used as a seasoning	.05	.15
Summer Savory. Used as a culinary herb	.05	.10
Thyme. Used as a seasoning	.05	.25

LEEK

German, Lauch

French, Poireau

Spanish, Puerro

One ounce will plant 200 feet of drill.

CULTURE .- The Leek is very hardy and easily cultivated; it succeeds best in a light but well-enriched soil. Sow as early in the spring as practicable, in drills 1 inch deep and 1 foot apart. When 6 or 8 inches high transplant in rows 10 inches apart each way, as deep as possible, that the neck, being covered, may be blanched.

LARGE LONDON FLAG .- The oldest and best-known and most largely grown variety. Pkt., 5c; oz., 15c; 1/4 lb., 50c; 1 lb., \$1.25.

KOHL-RABI

German. Kohl-Rabi French, Chou-Rave Spanish, Col de nabo

One ounce will sow 200 feet of drill.

CULTURE .- This vegetable, the popularity of which is rapidly increasing, combines the virtues of the turnip and cabbage, but excels both in nutritive, hardy and productive qualities. The seed may be sown in June, in rows 18 inches apart, and the plants thinned out to 8 or 10 inches in the rows.

EARLY WHITE VIENNA .--- Best for general table use; flesh tender and white. Pkt., 5c; oz., 15c; 1/4 lb., 40c; 1 lb., \$1.25.

LARGE GREEN, or WHITE .- Good for table use and is also used for feeding stock. Same prices as White Vienna.

MUSHROOM SPAWN

Mushrooms may be grown in cellars, under green-house benches or in sheds, wherever a temperature of 50 degrees can be kept up throughout the winter. We issue a special circular giving full cultural directions, which will be sent on request. By express—15c per brick; 10 bricks for \$1.30. A brick is enough for 9 square feet. Mailing weight, 2 lbs, per brick.

LETTUCE

German, Lattich

French, Laituce

One ounce will sow 100 square feet, or 120 feet of drill.

CULTURE.—Requires a rich, moist soil, and to be crisp and tender needs to be grown in cool weather. For winter use, sow in hot-beds every two weeks, at the rate of one ounce of seed to four sashes (a sash is 3 feet long by 6 feet wide);



cover very lightly and transplant first to 3 ins. apart each way, afterward to 8 ins. For garden or field, sow in rows. and cover one-fourth of an inch deep, and thin out to 12 ins. apart in the rows. For New England, the White-seeded Tennisball. for cultivation under glass. and the Black-seeded Tennisball, for outdoor use. are the standard varieties.

Boston Market.

BIG BOSTON.—A most desirable variety, either for forcing in cold frames or open ground planting; always produces large, solid, salable heads. Pkt., 5c; oz., 15c; ¼ lb., 35c; 1 lb., \$1.00.

MAY KING.—Heads extra large and solid; green outside, but heart clear yellow; very desirable. Pkt., 5c; oz., 15c; ¼ lb., 35c; 1 lb., \$1.00.

Spanish, Lechuga

BOSTON MARKET.—One of the best for forcing under glass, as well as for outside use; forms fair-sized heads; edges of leaves slightly tinged with red. Pkt., 5c; oz., 15c; ½ 1b., 35c; 1 lb., \$1.00.

GRAND RAPIDS.—As a distinctly forcing and shipping Lettuce this variety undoubtedly stands at the head of the list; beautiful in appearance. Pkt., 5c; oz., 20c; ¼ lb., 30c; 1 lb., \$1.00.

IMMENSITY.—New. The largest head Lettuce in the world. Tender, sweet and crisp. Pkt., 5c; oz., 15c; 1/4 lb., 30c; 1 lb., 1.00.

PRIZE-HEAD EARLY.—Leaves green and red, very thin, crisp and tender; one of the best for private use. Pkt., 5c; oz., 15c; 1/4 lb., 30c; 1 lb., \$1.00.

SALAMANDER.—Fine, compact heads, which resist summer heat admirably; very popular in some sections. Pkt., 5c; oz., 15c; ½ Ib., 35c; 1 Ib., \$1.00.

SIMPSON BLACK-SEEDED.—Nearly double the size of the Early Curled Simpson; leaves are delicate golden yellow; superior variety for forcing or sowing out-of-doors. Pkt., 5c; oz., 15c; ¼ lb., 35c; 1 lb., \$1.00.

WHITE LOAF LETTUCE.—The best of all. Has large heads, suitable for frames or outdoor. Fine for market gardeners. Pkt., 5c; oz., 15c; 1/4 lb., 30c; 1 lb., \$1.00.

MELON, MUSK

German. Melone

French. Melon

Spanish, Melon, Muscatel

One ounce will plant about 80 hills.

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

SWEET AIR CANTALOUPE

We know from what we have seen of this melon for the past three seasons that we cannot speak too highly of this melon. It is the sweetest, finest flavored, juciest and best melon ever offered.

It is a little larger than the Rocky Ford, well netted, thick green flesh, small seed cavity. When the other standard sorts have been flat to the taste this has been perfect in sweetness.

It is prolific. The best to grow for profit; the best for table; the best for restaurant; what more can we say. Pkt. 5c; oz., 15c; $\frac{1}{4}$ lb., 25c; 1 lb., 75c.

ANNE ARUNDEL.—An improvement on Baltimore or Acme, of same shape and color, but twice as large. Pkt., 5c; oz., 10c; 1/4 lb., 25c; 1 lb., 75c.

BALTIMORE, or ACME.—This is the favorite melon in Baltimore markets, and is also known and highly esteemed by market men in New York and Philadelphia. It is early, oblong in shape; flesh green and very fine. Pkt., 5c; oz., 10c; 1/4 lb., 25c; 1 lb., 75c.

EMERALD GEM.—One of the very earliest varieties; fruit small, skin deep emerald green; flesh a handsome salmon. color and very thick; flavor most delicious; a splendid melon for hotels and restaurants. Pkt., 5c; oz., 10c; 1/4 lb., 25c; 1 lb., 75c.

Sweet Air Melon.

HACKENSACK EXTRA EARLY IMPROVED.—A selection from an improvement on the old Hackensack, and similar in shape and appearance; nearly as large, and fully ten days earlier. One of the finest for market gardeners; quality perfect. Pkt., 5c; oz., 10c; ¼ Ib., 25c; 1 Ib., 75c.

MELON MUSK—Continued

ROCKY FORD .- An improved and oblong form of the Netted Gem. A most excellent green-fleshed sort. Pkt., 5c; oz., 10c; 1/4 lb., 25c; 1 lb., 60c.

TIPTOP.-Varies from round to slightly oblong; skin, pale green, covered with a handsome netting; flesh, rich, deep salmon color and sweet and spicy in flavor. The flesh being thick- fine-grained and firm, makes this an excellent shipping melon. Pkt., 5c; oz., 10c; 1/4 lb., 20c; 1 lb., 50c.

German, Waffermelone

PAUL ROSE .- This new melon is superior to all others a a market variety, and has few equals for the home garden Fruit oval; flesh rich orange red. Pkt., 5c; oz., 10c; 1/4 lb., 20c 1 lb., 60c.

FINE NETTED NUTMEG .--- Small, very early and fine netted; fruit round; flesh green and very sweet. Pkt., 5c oz., 10c; 1/4 lb., 25c; 1 lb., 75c.

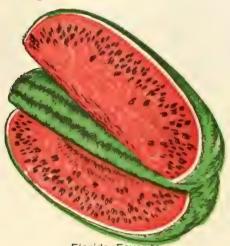
MELON, WATER French, Melon d'Eau

Spanish, Zandia

One ounce will plant 50 hills. CULTURE .- Watermelons are cultivated in hills which should be 6 to 8 feet apart each way, and composed of light moderately rich soil. The hills should be dug about 2 feet square, 18 inches deep, and half filled with well rotted manure which must be thoroughly incorporated with the soil. Plant in May, ten seeds to a hill, and when the plants are well up thin out to three. Cultivate until the vines cover the ground, and pinch the ends of the growing shoots to induce early fruiting.

TOM WATSON .- This melon has created quite a furore wherever grown, and we believe is

1/1 lb., 15c; 1 lb., 50c.



Florida Favorite

FLORIDA FAVORITE .--- Highly prized for its delicious flavor; large, oblong; rind dark green, with stripes of lighter green; ten days earlier than Kolb Gem. Pkt., 5c; oz., 10c; 1/4 lb., 15c; 1 lb., 50c.

KOLB GEM .- Originated in Alabama, and more largely grown in the South than any other melon; as a shipping variety has no superior; rind, dark green, mottled; shape, nearly round; quality, superb. Pkt., 5c; oz., 10c; 1/4 lb., 15c; 1 lb., 40c.

MONTE CRISTO, or KLECKLEY'S SWEETS .- Fruit oval and of medium size; skin dark green; flesh rich bright red. very sweet and tender. Pkt., 5c; oz., 15c; 1/4 lb., 25c; 1 lb., 75c.

unquestionably the best quality shipping melon in our list. It has a dark green rind, solid red luscious meat, ripening close up to the rind. The rind is very tough, making it an excellent melon for shipping long distances. Its flavor and fine qualities also commend it very strongly for the private grower. We believe it is destined to become one of the most popular melons on our list. Pkt., 5c; oz., 10c; 1/4 lb., 15c; 1 lb., 50c. EDEN.-Similar in appearance to Kolb Gem and of even better quality. Pkt., 5c; oz., 10c; Georgia Rattlesnake.

> SWEETHEART .- New. Globular in shape; skin very bright, mottled green; flesh bright red, firm, and heavy, bu crisp, melting and exceedingly sweet. Pkt., 5c; oz., 10c; 1/4 lb., 15c; 1 lb., 40c.

> TRIUMPH .-- New. Nearly round, large and an excellent shipper; skin dark green; flesh bright red. Pkt., 5c; oz., 10c 1/4 lb., 15c; 1 lb., 40c.

> GEORGIA RATTLESNAKE.-An excellent market variety Pkt., 5c

German, Zwiebel

large, oblong; rind dark, mottled and striped. oz., 10c; 1/4 lb., 15c; 1 lb., 50c.

ONION SEED

Spanish, Cebbolla

French, Oignon

One ounce will plant 100 feet of drill; 5 or 6 pounds in drills for an acre For sets from 50 to 60 pounds should be sown to the acre, according to the richness of the soil.

CULTURE .--- The Onion thrives best in a rather deep, rich, loamy soil, and unlike most vegetables, succeeds well when cultivated on the same ground fo successive years. The best culture requires that the ground be deeply trenched and manured the previous autumn, and laid up in ridges during the winter to pulverize. As early in the spring as the ground is in working order, com mence operations by leveling the ground with a rake and tread it firmly; sov thinly in drills about one-fourth of an inch deep, and 1 foot apart; cover with fine soil, and press down with the back of a spade or a light roller. When the young plants are strong enough, thin gradually so that they stand 3 or inches apart. Keep the surface of the ground open and free from weeds by frequently hoeing, taking care not to stir the soil too deeply or to collect i about the growing bulbs.

Silver Skin Onion.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

10

ONION SEED—Continued

YELLOW GLOBE DANVERS.—Undoubtedly the bestknown and most popular of all Onions; the earliest yellow variety; is entirely free from stiff necks. Globular in shape; has a small top. It is the most productive, producing as high as 1,000 bushels per acre, and will average on good soil with proper culture, 700 or 800 bushels. Pkt., 5c; oz., 20c; 24 lb., 50c; 1 lb., \$1.50.

PRIZETAKER.—This variety of recent introduction, annually grows in favor. It excels every Onion now existing in beauty, size and productiveness, and equals the best in quality, being mild in flavor as the imported Spanish Onions of our groceries. Pkt, 5c; oz, 15c; ¼ lb., 45c; 1 lb., \$1.50.

ONION SETS

Prices on application.

WHITE ONION SETS. — Grown from our choice strain of the Philadelphia White Silverskin seed.

YELLOW ONION SETS.—These will produce handsome well-ripened bulbs of large size quite early in the summer.

OKRA

German, Dcher French, Gombo Spanish, Quimbombo

One ounce will pant 100 hills.

This is an annual from the West Indies, cultivated for its green seedpods, which are used in soups or stewed and served like Asparagus. It is highly esteemed in the South for making gumbo soup. The pods when young and tender should be sliced in sections, strung on a thread and hung up in the shade to cure like dried apples; can be used for soup at any time.

CULTURE.—Sow the seed thinly in dry, warm soil. in shallow drills 2 feet apart. After the plants are up, thin them out to 9 inches apart; hoe frequently, and draw a little earth to the



Chinese Giant Pepper.

stems as they grow. Gather the pods when quite green and about $1\frac{1}{2}$ inches in length.

EARLY DWARF WHITE.—White pods. Pods extra long when fully matured, measuring a foot in length; thick and fleshy; early and prolific. Pkt., 5c; oz., 10c; ½ lb., 15c; 1 lb., 40c.

LONG GREEN.—Pods long, green and ribbed, and a heavy bearer. Long Green same price as Dwarf White.

PARSLEY

German, Peterfilie French, Persu Spanish, Perejil One ounce for 150 feet of drill.

CULTURE.—Parsley succeeds best in rich mellow soil. As the seed germinates very slowly it should be sown early in spring, previously soaking the seed for a few hours in tepid water. Sow thickly in rows a foot apart and half an inch deep. For winter use, protect in a frame or light cellar, or a few plants may be placed in pots or boxes and kept in the house.

CHAMPION MOSS CURLED.—An English strain with moss curled foliage and a very vigorous grower. A standard variety; desirable. Pkt., 5c; oz., 10c; ¼ lb., 20c; 1 lb., 60c.

PEPPER

German, Pfeffer French, Piment Spanish, Pimiento

One ounce will produce 2,000 plants.

CULTURE. — Grown largely for pickles. Sow in hotbeds early in April, and transplant to the open ground when the weather is favorable. They should be planted in warm, mellow soil, in rows, 18 inches apart. They may also be sown in the open ground when danger of frost is past.

CHINESE GIANT.—New. The largest and finest mild red variety. Pkt., 5c; oz., 35c; ¼ lb., \$1.00; lb., \$3.50.

LARGE RED WETHERSFIELD.—Onion growers who prefer the red varieties will find our pedigree strain far surpassing the ordinary Red Wethersfield in size, productiveness and keeping qualities. It is of the finest form, skin deep purplish red, flesh purplish white, much finer than many of the red sorts. Immense crops of this Onion are grown each season from our seed by some of the largest growers in the United States who realize the very highest prices for their crops. Pkt., 5c; oz., 15c; ¼ lb., 35c; 1 lb., \$1.00.

WHITE PORTUGAL, or SILVERSKIN.—A large, flat, white Onion of mild and pleasant flavor; hard and fine-grained, and a good keeper. Extensively sown for sets, and is also largely grown for pickling. Pkt., 5c; oz., 20c; ¼ lb., 50c; 1 lb., \$1.50.

> EMERALD DWARF EXTRA CURLED.—Leaves finely cut and curly and bright green; good for home or market gardening. Same price as Moss Curled.

> FINE DOUBLE CURLED.—A standard variety; plants bear an abundance of finely curled leaves; ornamental. Same price as Moss Curled.



Champion Moss Curled Parsley.

LARGE BELL, or BULL NOSE.—A favorite and well-known pickling sort; is early, large, mild, and thick-skinned. Pkt., 5c; oz., 20c; ¼ lb., 60c; 1 lb., \$2.00.

LÓNG RED NARROW CAYENNE.— Pods slender, about 3 inches long and bright red; very pungent and productive. Pkt., 5c; oz., 20c; 1/4 lb., 60c; 1 lb., \$2.00.

RUBY KING.—The best and most prolific mild red Pepper for market or family use; so sweet and mild they can be eaten raw like an apple; largest size. Pkt., 5c; oz., 20c; ¼ lb., 60c; 1 lb., \$2.00.

SWEET MOUNTAIN, or MAM-MOTH.—Large and mild-flavored; a well-known standard sort; color glossy red; rind thick and fleshy; popular with all growers for market. Pkt., 5c; oz., 20c; ¹/₄ Ib., 60c; 1 Ib., \$2.00.



PARSNIP

German, Pastinate French, Panais Spanish, Pastinaca

One ounce per 200 feet of drill; 5 to 6 pounds in drills for an acre.

CULTURE.—Sow as early in spring as the weather will admit, in drills 15 inches apart, covering half an inch deep. When well up, thin out to 5 or 6 inches apart in the rows. Unlike carrots they are improved by frost, and it is usual to take up in fall a certain

German, Erbfen

quantity for winter use, leaving the rest in the ground till spring, to be dug as required.

SUGAR, or HOLLOW CROWN.—A very reliable and favorite sort for general culture. Pkt., 5c; oz., 10c; ¼ lb., 15c; 1 lb., 40c.

GUERNSEY. — Roots not quite sc long as Hollow Crown, but thicker and more easily gathered; smooth and fine grained. Pkt., 5c; oz., 10c; ¼ lb., 20c; 1 lb., 50c.

PEAS

French, Pois

Spanish, Guizante

One quart for 75 feet of drill: 2 or 3 bushels in drills for an acre.

CULTURE.—Our trial of Peas is probably the most extensive on this side of the Atlantic, and it enables us to discard inferior sorts and to offer in the following list only the best varieties. Peas come earliest to maturity in light rich soil.

Hollow Crown Parsnip.

For early crop, a deep loam or soil strongly inclining to clay is best. For early crops, decomposed leaves or leaf-mold should be used; or, if the soil is very poor, strong manure may be used. For general crops a good dressing should be applied, and for the dwarf-growing kinds the soil can hardly be too rich. When grown as a market crop, Peas are never staked; for private use, they are generally sown in double rows, and the tall varieties staked up by brush. For an early crop, sow as soon as the ground can be worked, and make repeated sowings every two weeks for succession. After the first of June sowing should be discontinued until the middle of August, when a good crop may sometimes be secured by sowing an extra early sort for fall use.

LAXTONIAN.—A grand, early, dwarf Pea; enormous pods; the largest of peas. The pods of Laxtonian are very large, and are produced on a low-growing, sturdy vine, without support of any kind. The flavor is just as rich and good as any of the later varieties, which entitles it to a permanent place in every garden. The plant is only $1\frac{1}{2}$ feet high, branching in habit. Pt., 25c; qt., 40c; pk., \$2.50; bu., \$9.00.

Extra Early Dwarf Peas

BLISS AMERICAN WONDER.—One of the earliest wrinkled sorts, and one of the most popular. Height, $\frac{1}{2}$ ft. Pt., 15c; qt., 25c; gal., 90c; pk., \$1.75; bu., \$6.00.

SUTTON'S EXCELSIOR.—New. As early as American Wonder, with much larger pods and more prolific. Height, 1 ft. Pt., 15c; qt., 25c; gal., 85c; bu. \$6.00.

Extra Early Peas (Not Dwarf)

ALASKA.—The earliest blue Pea; a fine sort; popular with canners and market gardeners; ripens uniformly. Height, 2½ ft. Pt., 15c; qt., 25c; gal., 85c; pk., \$1.50; bu., \$5.00.

GENUINE ALLENS' AMEER.—New. Extra early blue Pea; large, dark green pods; on order of Gradus. Height, 3 ft. Pt., 15c; qt., 25c; gal., 85c; pk., \$1.50; bu., \$5.00.

FIRST AND BEST.—Very early and prolific; a standard variety. Popular with canners. Height, $2\frac{1}{2}$ ft. Pt., 15c; qt., 25c; gal., 75c; bu., \$5.00.

GENUINE ALLENS' GRADUS, or PROSPERITY.—Without doubt the finest extra early Pea yet introduced; it is in condition to pick about four days after Rice's Extra Early. The pods are very large, and well filled with large, wrinkled, deep green peas of the very finest quality. Height, 2 ft. Pt., 15c; qt., 25c; gal., 85c; pk., \$1.50; bu., \$5.50.

TELEPHONE.—Pods very large; filled with immense peas of first-class quality; one of the very finest yet introduced. Height, 4½ ft. Pt., 15c; qt., 25c; gal., 85c; pk., \$1.50; bu., \$5.00.



Telephone Pea.

DWARF TELEPHONE (Carters Daisy).—Excellent new va riety; large, well-filled pods; peas of fine flavor. Height, 1½ ft Pt., 20c; qt., 25c; gal., 90c; pk., \$1.75; bu., \$6.00.

GENUINE ALLEN'S IMPROVED TELEPHONE.—Pod very large and of very dark green color, making it excellent for market purposes. Immense peas of first-class quality; one o the finest yet introduced. Pt., 15c; qt., 25c; gal., 85c; pk., \$1.50; bu., \$5.00.

THOMAS LAXTON.—Similar to Gradus, but more hardy and productive. Height, 3 ft. Pkt., 5c; pt., 20c; qt., 30c; pk., \$1.75; bu., \$6.00.

MAMMOTH MELTING SUGAR.—Edible pods. A fine new variety, producing abundantly; large, broad pods, very brittle and entirely stringless. Height, 4 ft. Pt., 20c; qt., 40c. pk., \$2.50.

BLACK-EYED MARROWFAT.—(Hand-picked stock). Is very hardy and prolific. Height, 5 ft. Pt., 15c; qt., 25c. gal., 75c; pk., \$1.25; bu., \$4.50.

LARGE WHITE MARROWFAT. — (Hand-picked stock) Cultivated very extensively for the summer crop. Height 4 ft. Pt., 15c; qt., 20c; gal., 75c; pk., \$1.25; bu., \$4.50.

POTATOES—For Seed.

German, Kartoffeln

In drills 3 feet apart, 12



Early Rose Potato.

CULTURE .- The Potato, like all robust-growing vegetables, can be grown with varying success on soils of all kinds and n all cond..lons of fertility, but the soil best suited to it is a andy loam. In all heavy soils it is more subject to disease, and the flavor. also, is much inferior. In breaking up good pasture land, the decaying sod answers sufficiently well for he first year in lieu of manure. Manure is applied either in rows or hills, or broadcast over the ground and plowed inhe latter in most cases being preferable. If the soil is good, but little manure is required. In highly enriched soil the plants are more liable to disease than when grown in soil that is naturally good. The best fertilizers are those of a lry or absorbent nature, as plaster, lime, superphosphate of lime and bone dust. For wet soils these are particularly beneficial, as they not only promote growth but prevent disease. Plant as early in spring as the ground can be had in fair working order, in hills or ridges about 3 feet apart, covering in light, warm soils about 4 inches deep, but in cold, wet situations $2\frac{1}{2}$ or 3 inches will be sufficient.

Prices of all varieties of Potatoes on application.

Ertra Early Potatoes

EARLY OHIO .- Now widely known and deservedly one of the most popular sorts. It has the advantage of being fit for use and sale even before fully ripe. A few days earlier than the Early Rose, and similar in color and habit of growth. Quality, dry and mealy.

EARLY ROSE.—Our stock of this popular variety is in its original purity, the planting stock having been renewed annually for several years past from Houlton, Maine, where it is very popular and about the only variety planted for market.

EARLY SIX WEEKS .-- Undoubtedly the earliest Potato grown; similar to Early Ohio in every respect, but claimed by the originator to be earlier than this standard well-known sort. We recommend this for first-early planting.

IRISH COBBLER .- A variety which becomes popular wherever tried on account of its earliness, handsome appearance and excellent quality. Tubers are round and smooth, skin creamy white and often netted; flesh white. We do not hesitate to recommend this variety.

DOUBLE X EARLY.—One of the earliest and best Potatoes grown. No other Potato has more friends nor a better reputation than the Double X around Washington and vicinity. The tubers are oblong-oval, round at the seed end, with eyes that are almost even with the surface. An excellent keeper, very productive, of fine quality, and has proved to be a most valuable addition to our list of extra early varieties.

Medium-Early and Late Potatoes

GREEN MOUNTAIN .--- The best second early potato now on the market; fine yielder; fine flavor; fine appearance. Free from blight and rot. Keeps well, and is always ready for the table.

McCORMICK, or GERMAN PEACH BLOW .- Should be planted in July and early August. It is one of the heaviest yielders, and in good season makes a fine table sort.

SWEET POTATO ROOTS

BIG STEM SWEET POTATOES .- They are of fine size They make only a very few roots. The quality is first-class.

JERSEY SWEET POTATOES .- Too well known to require any description. These are from reliable growers.

PUMPKIN

German, Kurbis

One pound will plant from 200 to 300 hills.

CULTURE .- The common practice is to drop two or three seeds in every third or fourth hill in the cornfield, but if

cultivated on a large scale the seed may be sown in shills 5 feet apart each way, four plants to each hill, and otherwise treated in the same manner as recommended for melons or cucumbers.

SWEET, or SUGAR .---T This is a small, round and very prolific variety; skin and flesh deep orange-yelfine-grained, low; very sweet and fine for pies. The pie Pumpkin of New England. Pkt., 5c; oz., 10c; 1/4 lb., 15c; 1 lb., 50c.



Sweet, or Sugar Pumpkin. PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

French, Potiron Spanish, Calabaza

> CONNECTICUT FIELD.—This variety is most extensively used throughout New England and New York for field cul-ture; is generally planted with corn. Pkt., 5c; oz., 5c; 1/4 lb., 10c; 1 lb., 25c.

> CUSHAW, or CROOKNECK .--- Grows to a very large size, sometimes attaining a weight of 70 pounds, and resembling, in shape, the Winter Crookneck squash; of light cream-color, sometimes slightly striped with green. Pkt., 5c; oz., 10c; 1/4 lb., 25c; 1 lb., 75c.

> LARGE CHEESE, or KENTUCKY FIELD .- Flat and round like a cheese; color of skin deep orange, flesh somewhat lighter; one of the best for table use. Pkt., 5c; oz., 10c; 1/4 lb., 15c; 1 lb., 40c.

> KING OF THE MAMMOTH.-This is truly a giant among Pumpkins; specimens have been grown to weigh 250 pounds. In shape it is round, flat and slightly ribbed; color of skin and flesh bright golden yellow and of good quality, making excellent pies, but grown principally for stock; keeps well. Pkt., 5c; oz., 15c; ¼ lb., 35c; 1 lb., \$1.00.

RADISH

German, Rettig, Radies Spanish, Rabano French, Radis, Rave, Pelite Rave

One ounce will sow 100 feet of drill.

CULTURE.—The soil for Radishes should be very rich, light and mellow, well broken by digging, as their tender and mild qualities depend much upon their rapid growth. For very early use, sow in gentle hotbeds in February, and in the open air as soon as the ground can be worked, at intervals of ten or twelve days for a succession as long as they may be wanted. The winter varieties should be sown in August, lifted before severe frost, and stored in the cellar.



Vick's Scarlet Globe Radish.

LONG CINCINNATI MARKET.—An improved strain of the well-known Long Scarlet Short-Top. An excellent variety. Pkt., 5c; oz., 10c; 1/4 lb., 15c; 1 lb., 40c.

CRIMSON GIANT.—Extremely large, but never pithy; suitable for forcing or open culture; very tender and crisp. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 15c; 1 lb., 40c.

PHILADELPHIA WHITE BOX.—One of the best varieties for growing under glass, as well as for outdoor culture; it is a rapid grower, with a short top; a beautiful round white variety; grows to a good size, and is always crisp, fine grained and tender. Pkt., 5c; oz., 10c; ¼ lb., 15c; 1 lb., 40c.

OLIVE-SHAPED, FRENCH BREAKFAST.—Pink color, olive shape, white-tipped, and the favorite variety in the markets of Paris; popular everywhere. Pkt., 5c; oz., 10c; 1_4 lb., 15c; 1 lb., 50c.

VICK'S SCARLET GLOBE.—One of the very earliest Radishes in cultivation; equally good for forcing or open culture in spring and early summer; color a beautiful scarlet; crisp, juicy and tender. Pkt., 5c; oz., 10c; ¹/₄ lb., 20c; 1 lb., 50c.

LONG ICICLE.—The finest white variety; very early. Pkt., 5c; oz., 10c; 1/4 lb., 20c; 1 lb., 50c.

WHITE STRASBURG.—One of the best of the long summer sorts; roots are long, handsome and tapering, and both skin and flesh pure white; flesh firm, brittle, tender, retaining these qualities when roots have become old and large. Pkt., 5c; oz., 10c; 1/4 lb., 15c; 1 lb., 40c.

Fall or Winter Radish

HALF-LONG BLACK SPANISH.—Intermediate between Long and Round Black Spanish. Pkt., 5c; oz., 10c; 1/4 lb., 15c; 1 lb., 40c.

ROSE CHINA WINTER.—Bright rose-colored skin; flesh white and quality excellent; one of the best for fall and winter use; a favorite with marketmen. Pkt., 5c; oz., 10c; ¼ lb., 15c; 1 lb., 50c.

WHITE CHINESE, or NEW CELESTIAL.—It is ready for use when 2½ or 3 inches long, and continues until nearly Mammoth Sandwich Island.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

6 inches long, making it almost an all-season Radish. The flesh is firm, solid, and pure white, and is very attractive in appearance. Pkt., 5c; oz., 10c; ¼ lb., 15c; 1 lb., 50c.

SPINACH

German, Spinat French, Espinard Spanish, Espinaca One ounce for 100 feet of drill; 10 to 12 pounds in drills for an acre.

CULTURE.—This is a very important crop in our market gardens, and is one of the most easily managed of all vegetables, requiring but little culture, and may be had fit for use the entire season. The main crop is sown in September. It is



Bloomsdale Savoy.

sometimes covered up in exposed places with straw or sal hay during winter, which prevents it from being cut by frost; but in sheltered fields there is no necessity for covering. For summer use it may be sown at intervals of two or three weeks from April to August. Spinach is best developed and most tender and succulent when grown in rich soil.

BLOOMSDALE SAVOY-LEAVED.—Home Grown; a heav: cropper, of fine quality and very hardy; succulent leaves, curled and crinkled like a Savoy Cabbage; hardier and most productive sort. Oz., 5c; $\frac{1}{2}$ lb., 10c; 1 lb., 20c; 10 lbs., 15c lb

> LONG-STANDING THICK LEAVED.—Stands the longest be fore running to seed; dark green Grown especially for us in Holland Same prices as Savoy.

SALSIFY, or OYSTER PLANT

German, Bodsbart French, Salsifi One ounce will sow 50 feet of drill.

CULTURE.—Sow the seed in light, deep soil, early in spring, i drills 12 inches apart and 1 inch deep, thinning out the young plant to 4 or 5 inches. The roots will b ready for use in October, when supply should be taken up an stored like carrots. Those remain ing will suffer no injury by bein; left in the ground till spring, bu should be dug up before commenc ing their growth.

MAMMOTH SANDWICH ISLAND.—We consider this th largest and most profitable Salsif in cultivation; roots are two t three times the size of the ordinar. Salsify, and of more agreeabl flavor. It is pure white in color and invaluable to market garden ers. Pkt., 5c; oz., 15c; 1/4 lb., 40c 1 lb., \$1.25.

SQUASH

German. Kurbik

French, Courge Spanish, Calabaza One ounce Early will plant 50 hills; 1 oz. Marrow, 25 hills.

CULTURE .- The plants are very tender and sensitive to cold. and planting must be delayed until settled, warm weather. The general principles of culture are the same as those given for cucumbers and melons, but the plants are less particular as to soil. The summer varieties should be planted 4 feet apart each way, and the winter sorts 8 feet. Three plants are sufficient for a hill. Care should be taken not to break the stems

from the Squashes intended for winter use. as the slightest injury will increase the liability to decay.

EARLY WHITE BUSH SCALLOPED .--A standard summer variety; good either for home or market garden. Pkt. 5c; oz. 10c; 1/4 lb., 15c; 1 lb., 50c.

BOSTON MORROW -Fine fall variety; oval, bright orange; flesh yellow and firm; best for pies, and also for canning. Pkt., 5c; oz. 10c; 1/4 1b., 15c; 1 lb., 50c.



Boston Marrow Squash.

GIANT SUMMER CROOKNECK .- Double the size of the ordinary Crookneck and very warty, but similar in other re-Their handsome appearance commands an extra price spects. in the market. Pkt., 5c; oz., 10c; 1/4 lb., 30c; 1 lb., \$1.00.

IMPROVED HUBBARD .- The well-known and standard late variety; our strain is excellent. Pkt., 5c; oz., 10c; 1/4 lb., 25c; . 1 lb., 75c.

TOMATO

German, Liebesapfel French, Tomate Spanish, Tomates One ounce will produce 1,500 plants.

CULTURE .- The Tomato is raised from seed. which should be sown in the hotbed about February 20th, and continuous sowing made until April 1st, according as the plants are wanted for use. When the plants are about 2 inches high, transplant to 4 inches apart; and, after three or four weeks, transplant from the hotbed into a coldframe, setting the plants 8 inches apart each way. (A coldframe is simply a low wooden frame covered with glass, used to protect such plants

Bonny Best Tomato.



as are not sufficiently hardy to with stand our winters). Keep the plants cool, so as to make them stocky. Set out in the open ground about June 1st, in well-enriched soil setting the plants 5 feet apart each

BONNY BEST EARLY TOMATO -It has been selected for earliness, solidity, smoothness and evenness of ripening up to stem. Fifteen days earlier than the Beauty Tomato, and as early as the Earliana. Vigorous grower; bright red color, enormously productive. Pkt., 5c; oz., 20c; 1/4 lb., 60c; 1 lb., \$2.00.

ACME, EARLY .- Well known and generally cultivated; early, smooth; ripens evenly; color purplish red. Pkt., 5c; oz., 15c; 1/ 1b., 50c; 1 1b., \$1.25.

BEAUTY (Livingston's).—Large, smooth, pinkish red; thick flesh, regular form. Pkt, 5c; oz., 15c; ¼ lb., 50c; 1 lb., \$1.25. SPARKS' EARLIANA.—New. Claimed to be the earliest; large, smooth, red; very prolific. Pkt., 5c; oz., 20c; ¼ lb., 60c; 1 lb., \$2.00.

JUNE PINK .- New. Very early; of medium size, round. smooth and very solid. Color, pink. Pkt., 5c; oz., 25c; 1/4 lb., 75c; 1 lb., \$2.50.

LIVINGSTON'S GLOBE .- New. Fruit large, always firm and smooth; color rose, tinged with purple. Pkt., 5c; oz., 25c; 14 lb., 75c; 1 lb., \$2.75.

MATCHLESS .-- Very large, smooth, solid, and fine-flavored; cardinal red. Pkt., 5c; oz., 20c; 1/4 lb., 50c; 1 lb., \$1.50.

NEW STONE .- A great favorite with canners; the heaviest and most solid-fruited of the large Tomatoes of good quality. Our stock is distinctly superior to most of that offered under this name, being more uniform, better colored and larger. Fruit round, apple-shaped, very large, deep red, and aston-ishingly heavy. Pkt., 5c; oz., 15c; ¼ lb., 40c; 1 lb., \$1.50. PEAR-SHAPED RED.—Used for preserves and to make

"tomato figs." Fruit bright red; distinctly pear-shaped, and with a peculiar flavor. Pkt., 5c; oz., 25c; ¼ lb., 75c; 1 lb., \$2.50. PEAR-SHAPED YELLOW.—Similar to Red Pear-Shaped,

except in color. Pkt., 5c; oz., 25c; 1/4 lb., 75c; 1 lb., \$2.50.

PONDEROSA .- Very large, solid and of good flavor; specimens have been grown to weigh 4 pounds; color, bright red; very few seeds. Pkt., 5c; oz., 25c; 1/4 lb., 75c; 1 lb., \$3.00.

TRUCKER'S FAVORITE .--- The finest large purple-fruited sort. Pkt., 5c; oz., 20c; ¹/₄ lb., 50c; 1 lb., \$1.50. CHALK'S JEWEL.—New. Very early, productive; smooth.

round, of superior quality. Pkt., 5c; oz., 25c; 1 lb., \$2.00. "JOHN BAER" TOMATO.—Earliest Tomato on earth.

believe we are offering to our trade the best, the earliest, and finest tomato ever offered to the public. Fruit large and solid; bright red in color, and shaped somewhat like the Globe Tomato and about its size. Pkt. 10c; oz. 35c; 1/4 lb. \$1.50; 1 lb., \$4.00.

TURNIP

German, Rube

French, Navet

Spanish, Nabo

One ounce will sow 150 feet of drill; 2 pounds will sow an acre.

CULTURE .- For early use, sow as soon as the ground can be worked in spring, in drills 15 inches apart, and thin to 8 inches apart as soon as the plants are large enough to handle. For succession, sow at intervals of a fortnight until the last week of July, from which time until the end of August sow-

ings may be made for main and late crops. The sowings should be made just before rain if possible, a rapid growth being important.

AMBER GLOBE. - Excellent for table use or feeding stock; flesh, yellow, firm and sweet. Pkt., 5c; 1/4 lb., 10c; 1 lb., 30c.

EXTRA EARLY PURPLE-TOP MILAN .--- The earliest Turnip in cultivation, and a splendid variety; bulb, white. flat, of medium size, with a bright purple top; one of the sweetest and finest-flavored of summer sorts. Pkt., 5c; 1/4 lb., 25c; 1 lb., 75c.



Purple Top Strap Leaf.

15

TUNRIPS—Continued

RED, or **PURPLE-TOP STRAP-LEAVED**.—The most widely cultivated and best known variety. Used largely for sowing broadcast among corn and potatoes. It is round and flat, white on the bottom and a reddish purple above ground, and a very quick grower. Though used for stock-feeding, it is esteemed as a fine table variety. Pkt., 5c; ¼ lb., 10c; lb., 30c.

RED or PURPLE-TOP WHITE GLOBE.—Quite similar to Purple-Top Strap-Leaf, excepting in shape, being almost a perfect globe, and grows to a large size; immense cropper. Pkt., 5c; ¹/₄ lb., 10c; 1 lb., 30c.

RICE'S IMPROVED GOLDEN BALL.—One of the sweetest and most desirable yellow-fleshed varieties; of medium size, a perfect globe shape, with firm, hard, yet rich and sweet flesh; it has no equal as a table variety, and keeps well. **Pkt.**, 5c; $1_{\rm k}$ lb., 15c; 1 lb., 40c.

YELLOW ABERDEEN (Purple Top).—A very handsome Turnip. Bulbs round and flat, deep reddish purple on top and pale yellow on the bottom; flesh pale yellow, very tender and fine flavored. Pkt., 5c; $\frac{1}{4}$ lb., 15c; 1 lb., 35c.

YELLOW AMBER GLOBE.—A splendid sort for general crop; grows large; a good keeper, with bright yellow flesh. Pkt., 5c; 1/4 lb., 10c; 1 lb., 30c.

COW-HORN.—Large cropper. This variety is pure white, excepting a dash of green at the crown, and in shape is long like the Carrot. Excellent for stock. Pkt., 5c; 1/4 lb., 10c; 1 lb., 30c.

Swedish, or Russian Turnip (Rutabaga)

One ounce will sow 150 ft. of drill; 2 lbs. will sow an acre.

CULTURE.—Should be sown from the 20th of June to the middle of July, in drills 2 feet apart, and thinned out at the first working to 10 inches between the plants. Flesh closegrained, hard; will endure considerable cold. The roots are best preserved in a pit or cellar during winter, and are excellent for the table early in spring. Pkt., 5c; 1/4 lb., 15c; 1 lb., 40c.

SWEET PEAS

The Beautiful and Popular Flower of the Day.

CULTURE.—As early as the ground can be worked in the spring make a trench 6 inches deep in rich soil, sow the seed in the bottom, covering not more than 2 inches deep; as the



Sweet Peas.

plants grow, fill in the earth around them and see that some suitable support is provided for them to run upon. Flowers must be picked before pods form, otherwise vines will not long continue to blossom.

ECKFORD CHOICE MIXED.—Pkt., 5c; oz., 10c; ½ lb., 25c; 1 lb., 75c.

NASTURTIUMS

CHOICE MIXED TALL.—Pkt., 5c; oz., 10c; 1/4 lb., 20c; 1 lb., 45c.

CHOICE MIXED DWARF .--- Same price as Tall.

CLOVER AND GRASS SEED

Sold at Market Prices.

In offering field seeds to the trade, we fully appreciate the importance of pure, clean seed, and have endeavored to secure only such seed that is of the highest standard. We offer you high-grade, recleaned seed at the lowest prices for seed of equal quality.



Red Clover.

MEDIUM CLOVER SEED.—A very valuable crop for pasture and hay, a great soil enricher when turned under.

ALFALFA.—A very profitable crop for every farmer. Can be cut three or four times a year. Yields a heavy crop.

SAPLING, or MAMMOTH CLOVER.-Grows much larger than the common clover and will generally last much longer.

WHITE DUTCH CLOVER.—It forms a very close herbage and remains green throughout the season, making it one of the best varieties for lawns. It is also an excellent food for bees.

CRIMSON CLOVER.—An annual clover which produces a very early and abundant hay crop. Is also a great land improver, as the roots are great nitrogen absorbers.

ORCHARD GRASS.—A most excellent grass for pasture and hay. It withstands dry weather better than almost any other grass. Can often be cut twice in a season.

ALSIKE.—A white clover which grows very tall. It is a very valuable crop, especially for dairy farms.

CLOVER AND GRASS SEED-Cont.

KENTUCKY BLUE GRASS SEED.—Adaptable to most any sort of soil. Furnishes an abundance of rich, sweet food for all kinds of stock. Will last for years when a good sod is once formed.

RED TOP. or HERD GRASS SEED.—Very hardy and well adapted to low, damp lands, but will grow anywhere. Is fine for pasturage.

TIMOTHY.—There is no grass more valuable for hay, especially in the North. Especially adapted to moist, loamy soils. Is too well known to require a description.

MILLET, GERMAN.-Produces abundantly and makes an excellent feed for stock.

SPECIAL LAWN GRASS MIXTURES.—Our experience with this mixture impels us to say that we have never seen a better one. Has given general satisfaction to our many customers. If you want a beautiful, permanent lawn, use our mixture and you will not be disappointed.

SEED WHEAT

No. 19 BEARDLESS.—We specially recommend this Wheat heavy yield; straw very stiff, standing up when almost all other kind break down.

LEAP'S PROLIFIC BEARDLESS.—This is a well known, standard variety, yielding heavily.

MIRACLE WHEAT, BEARDED.—Sow only about ½ bushel to 3 pecks to acre. Yields very heavily. Prices upon application.

SPECIALLY SELECTED SEED CORN For Field Culture

OF THE FINEST QUALITY.

BOONE COUNTY PRIZE WINNING STOCK.—We have secured from an expert corn grower of the State of Maryland a special selected stock of this corn, specially grown for seed purposes for securing the best development of ear and the largest yielding of corn. Bushel, \$2.00.

IMPROVED GOLDEN DENT.—This is now the standard variety in many of the corn-growing sections of the Middle West. Ears average nine to ten inches long, tapering slightly toward tip. are about six inches in circumference, contain 16 to 20 rows, and

are remarkably uniform. Kernels light yellow, deeply dented, and well placed on a cob of medium size. Usually matures in 110 to 115 days. Price, \$2.00 per bushel.

IMPROVED LEAMING.—A very popular and productive variety. On good land the stalks grow tall, producing two good ears to each stalk. The ears are long, with small red cob well filled with grains of medium size, of a rich golden color. It ripens in from 100 to 110 days, and makes a good crop even in dry seasons. Price, \$2.00 per bushel.

HICKORY KING CORN.—This has the largest grains with the smallest cob of any white corn. So large are the grains and so small the cob that on an ear broken in half a single grain will almost completely cover the cob section. Of strong growth, the stalks take a firm hold in the ground and stand upright. It yields splendid crops on light soil, and is un-



doubtedly the most productive white field corn for the South. Price, \$2.00 per bushel.

BURPEE'S GOLDEN BEAUTY.—It is the largest grained and handsomest yellow corn we have ever seen. The ears have brightest golden-yellow grains, of remarkable size and completely filled out to the extreme end of the cob. The cobs are unusually small. Price, \$2.00 per bushel.

COCK'S PROLIFIC.—White, flinty; unexcelled for meal or hominy. Exceedingly productive, bearing four and five ears to a stalk, making it one of the best ensilage corns on the market. Price, \$2.00 per bushel.

EUREKA ENSILAGE CORN.—We consider this one of the best for ensilage purposes. Our seed is specially grown and may be depended upon. Price, \$2.00 per bushel.

FODDER AND SOILING PLANTS

CHOICE WESTERN WHITE SEED OATS.

) Selected seed of choicest qualities, for winter and spring sowing.

Prices on application.

COW PEAS (THE GREAT SOIL IMPROVER)

Make Poor Land Rich, Good Land Productive, and Enrich the Soil.

Green crops plowed under are one of the best and cheapest ways of improving the soil. For this purpose the cow pea is most popular, especially for medium or light soil. They should be sown in May or June, at the rate of $1\frac{1}{2}$ bushels to the acre, and plowed under as soon as they have attained their full growth. There is no surer or cheaper means of improving poor soil than by sowing cow peas.

COW PEAS FOR HAY

If planted early, say by middle of May, in the central corn belt section, a crop can be cut and cured for hay the same as clover, then the stubble, in a short time, will put out a new growth to be turned under in the fall as a fertilizer.

The best varieties of Cow Peas for all purposes are the following:

Southern Black Eye Cow Pea. Southern Black, or Ram's Horn. Whip-Poor-Will, Clay and New Era.

CANADA FIELD PEAS AND OATS FOR FODDER These make a fodder, and hay which double the production of milk.

FODDER AND SOILING PLANTS—Continued

SOJA OR JAPANESE SOY BEAN

The demand for the Soja Beans has grown remarkably of late years. Their great value is as a forage crop, for fertilizing the soil and for pasturing or feeding the green fodder much in the same way as the cow pea.

SAND OR WINTER VETCH

For forage and fertilizing purposes; it succeeds and produces good crops on poor, sandy soils as well as on good lands, growing to a height of 4 to 5 feet. It is perfectly hardy throughout the United States, remaining green all winter.

EARLY AMBER SUGAR CANE

The high value of Northern grown sugar cane for fodder and ensilage is becoming rapidly known. When fed down young as a pasture it grows rapidly again. The seed and fodder is valuable as food for horses and cattle.

DWARF ESSEX RAPE

Makes Splendid Fall, Winter and Spring Pasturage—Fine for Cattle, Sheep and Hogs.

Rape for fall sowing should be put in in July, August or September. Makes a large yielding, nutritious, succulent green feed or pasturage all through the fall, winter and early spring. The fattening properties of Rape are said to be very much better than those of clover, and it makes a first-class crop, either for sowing alone, or for grazing during the fall and winter; can be sown with Crimson Clover. Rape can be successfully sown both in the fall and spring. Early fall seeding, however, gives the best results. Rape is best sown in drills at the rate of 3 to 5 pounds per acre; or it can be sown broadcast, when from 6 to 8 pounds per acre should be used.

WEBER'S IMPROVED EVERGREEN

The Best Broom Corn In Cultivation

MAMMOTH RUSSIAN SUNFLOWER

TEOSINTE (Reana Luxurians)

This gigantic Grammea will furnish a continuous daily supply of most nutritious green food for horses and all kinds of cattle all through the Summer. It also makes splendid dry fodder, yielding enormously, and being more nutritious and better relished by all stock than corn fodder. It stools out enormously after being cut.

Prices on application.

The cost of the very best seed is so small, compared with the value of the growing crops, that sensible planters realize that they cannot afford to risk seed of doubtful pedigree, and we know just as well that we cannot afford to risk our hardearned reputation by selling seed of doubtful character.

To successfully grow ALFALFA, CLOVERS, COW PEAS, SOY BEANS and other legumes, to increase your yield, and to improve your soil, use

THE MULFORD NITRO-GERM

Scientifically Prepared and Tested

SMALL COST-LARGE RETURNS-EASY TO USE-NO LABOR EXPENSES

THE MULFORD NITRO-GERM consists of pure, tested cultures of active, vigorous nitrogen-fixing bacteria, for inoculating seeds of legumes or soil.

Legumes offer the best known means of maintaining soil fertility and rejuvenating over-cropped and worn-out fields.

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

THE MULFORD NITRO-GERM is prepared and tested by experts, in the biological laboratories of H. K. Mulford Co., Phila-delphia, U. S. A., with the same degree of care as Mulford Antitoxins, Serums, Vaccines, etc., which are standard all over the world.

Be sure to always specify the particular legume for which The Mulford Nitro-Germ is desired, otherwise we will not know how to fill your order.

(Alfalfa) (Lucerne), (Crimson Clover), (Sweet Clover), White Clover), (Red Clover), Alsike Clover), Mammoth Clover, Burr Clover, Yellow Clover, Berseem Clover, (Cow Peas), (Soy Beans), (Canada Field Peas), (Peanuts), (Spring Vetch), (Winter Vetch), Horse Beans, Velvet Beans, Perennial Peas, (Sweet Peas), (Garden Peas), (Garden Beans), Lima Beans), Lupins, Sainfoin, Beggar Weed, and others.

Those printed in (Parenthesis) can be shipped immediately from stock. The others will be prepared to order and can be supplied in a few days. Prices, Garden Size (about 1/4 acre), 50c; One Acre Size, \$1.50; Five Acre Size, \$5.00. (Not returnable).



Uninoculated ALFALFA

Inoculated

Planted Sept. 1912-Photographed (same scale) April, 1913. Plant on left not inoculated. Plant on right inoculated with The Mulford Nitro-Germ. All other conditions identical. The Contrast speaks' for itself.

Horticultural Tools

Mole Traps



Garden Trowels

Socket handle; malleable blade.

Sixteen gauge steel; 6 inch blade; has a socket handle that will not come out in dry weather.

Thermometers

A nice, large advertising thermometer, 24x6 inches.

House thermometer.





Tree Pruners

4	feet	long		•		 		a		 		0		 				 						\$0.75
6	feet	long					 				 					•	•	 			. 1			.85
8	feet	long				 				 				 										1.00
10	feet	long					 				 			• •				 			. 1			1.10
12	feet	long				 				 														1.25
Ex	tra K	Inives	,		 		 				 	0			 				 		 21	00	3	each



Detroit Tree Pruners

~	2000	10B	•	••		• •	 	•	۰.	• •	 	۰.	•		 •	۰.	•	 	•	۰.	۰.	• •	, ,		۰.	۰Y		-	~
8	feet	long					• •	 															 				2.	4(0
		long		 		 								 									 				2.	6(0

12	feet	long	 	 	2.60

Jointed Pruner

The Reddick

Made of Steel, Heavily Tinned, Rust Proof

Little Giant, Self-Setting

Self-setting by pressing down on lever. A very convenient feature found on no other trap. Made from best spring steel thoroughly galvanized. Simple and durable in its construction.

Steel Dibbles



For transplanting plants. By far the best thing for the purpose ever introduced. Right angle, polished steel.

Hand Weeders

A very handy and useful little instrument; made of malleable iron; tinned.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

6 feet long

\$2.40



Forks

Manure, Extra Heavy, diamond tine, D handle. 4-tine\$1.25 5-tine 1.40 Manure Forks, 41/2 foot handles. Plain ferrule 50c straight handle.

3-tine strap ferrule, 75c 2-tine wheat fork, 65c Stone Forks. D handle any opening. Prices . ..\$1.75 to \$2.25

Hoes

Regular field and gar-
den; best steel; solid
socket.
7-inch
S-inch
Riveted Sheet Steel
Hoes.
Socket pad
Regular Planter's
Hoes.
7-inch
8-inch
Mortar Hoes.
10-inch blade. solid
shank
Mortar Mixing Hoes
2 holes in blade, 10-
inch
Garden Mattock. For
garden and other light
work.
13 x21/2 in. blade, 50c

Onion Hoes

Heavy steel; riveted shank; 2-prong or 1-prong. Price Potato, Stone and Manure Hooks, 500 4 tino stool notato

a camo oci	tor porato	MOOR .			1
5-tine, hea	avy				
5-tine ste	el potato o	r manur	e hook	\$1.00	
4-tine stee	el stone ho	ok			2

Spading Forks

Heavy angular tines. Polished steel\$0.75 Keen Kutter, extra fine 1.00

Shovels SQUARE or ROUND POINT



Ames, D handle. No. 2......\$1.00 Ames, long handle, No. 2 1.00

Harlan, D handle\$0.75

.....\$1.25 Ames, long handle

Spades

Ames, D handle	. 1.25
Harlan steel, long handle	
Harlan steel. D handle	
K. K. D. handle	
AL. AL. D. MUMMIC	

)	
	Scoops
	Solid Socket, High Carbon Steel.
	No. 2
	No. 8
	Wire Potato or Corn Scoop\$1.50
R	Malleable Potato or Corn Scoop 1.25

Post Hole Diggers

Keen Cutter, double handle	\$1.50
Samson, one handle	2.50
Eureka, split handle	1.00
Lock Lever	1.50
Keen Kutter, 8-in. Post Hole Auger	2.50
Steel Post Spade and Rammer	1.25

Axes

In Axes we carry the best lines only. We aim to sell only those we know to be first class in every respect and that have an established reputation.

Kelly Perfect	t		 	 75c
Kelly Flint E				
Red Warrior				
Keen Kutter	, "Warr	anted"	 	 1.00

Handled Axes

Keen	Kutter,	"War	rante	d"			 			 		 	\$1.25
	Perfect												
Kelly	Perfect	(boy	size)			•	 			 	•	 	75

"Norcross" Cultivator-Hoes and Weeders



are among the most Modern Tools for Garden and Flowers. Like a Human Hand, they will work closer to plants without injuring them than any other Implement known, leaving the soil level, loose and untrampled.

Cost but a trifle more than the common hoe. All prongs Extra high-grade Handles. Finely finished detachable. throughout.

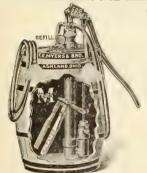
	5-prong	(weight	3	lbs.)	 	 	 	 . 7.5C
	3-prong	(weight	2 11	DS.).	 	 	 	 .50c
		(weight :						
7		eder car						



Spraying Outfits

Myers O. K. Cog Gear Spray Pump

For Hot, Cold or Any Kind of Mixture. Has mechanical Agitator, solid brass Ram Plunger, ground bevel Valve and Seat. Malleable iron handle.



PRICE LIST.

No. R308C, with adjustable malleable base, with two leads of 15 ft. 7-ply, 1/2 in. hose and two Fembro nozzles. Price, each.....\$20.00

These Pumps are constructed with Cog Gear Handle, which increases the leverage 25 per cent. over the plain handle. Air chamber is $2\frac{1}{2}$ inches. This in connection with the cog gear enables the operator to carry a pressure of 200 lbs. and to supply two leads of hose satisfactorily.

No. R318B, as above with one lead of 15 ft. of ½-in. 5-ply discharge hose, graduating Vermorel nozzle. Price, each\$15.00

The Myers Double Acting Cog Gear Complete Spray Pump Outfit

Mounted on Skids with 50 Gallon Barrel and Mechanical Agitator.



With Brass Valves and Ground Bevel Brass Seats,

Two-Inch Seamless Brass Removable Cylinder,

Hemp Packed Plunger.

SPECIAL FEATURES:

Cog Gear Movement, increased leverage adapted for spraying under heavy pressure, mounted complete, occupying smallest possible space. Capacity sufficient for 8 nozzles; well adapted for spraying potatoes.

PRICE LIST, FIG. 1518.

No. R316B, Pump complete as above with pressure gauge, one 15 ft. lead, ½ inch 7-ply discharge hose, one Fembro (Fig. 1290) nozzle, one 8-foot pipe extension with lever shut-off and mechanical agitator. Price...\$27.50

No. R316C, as above, with two leads of hose, nozzles and extensions. Price 30.00

PRICE LIST OF 2-INCH DUPLEX PUMP MOUNTED AS ABOVE.

- No. R444B, Pump complete as above, with one 15-foot lead, ½ inch 7-ply discharge hose, one Fembro (Fig. 1290) nozzle, one 8-foot pipe extension with lever shut-off and mechanical agitator. Price..... 32.50

Iron Age Barrel Sprayer, No. 197

20 Gallon Capacity Mounted on Steel Wheel Cart.

This is a very complete outfit of limited capacity, but fitted for easy transportation and with two distinct features, which you will not want to be without when you have used the rig once.

Pump easily removed. It is securely bolted to a twopiece cast plate, which rests in an opening cut for it in the top of the barrel, and is held there by two eccentric levers.



two eccentric levers. To remove pump, simply move the levers and lift the pump and agitator out in one piece.

There are 33 inches of half-inch hose and two lengths of pipe, 2 feet each, with stop cock, improved Vermorel nozzle and one sliding hand grip, an extra cap for washing wagons, windows, etc., and steel handles and barrel leg.

Price.....\$17.00

The Myers Handy Portable Sprayer

With Cog Gear Spray Pump and Mechanical Agitator. Made of Extra Heavy Galvanized Iron. Capacity 12½ Gals. Suitable for Spraying Trees, Whitewashing, Painting, Etc.

The Pump is our regular No. 318 B fitted with cog gear malleable iron handle and mechanical agitator. The pump is securely attached to the tank by means of a clamp connected direct to the channel iron that surrounds the top of the tank held in position by one thumb screw. The handle can be located at any point desired.



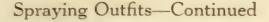
The pump is fitted complete with mechanical agitator, 15 ft. of hose and an

8 foot pipe extension in two 4 foot parts, which adapts it for spraying large trees and also for use in whitewashing on the inside of low buildings.

The tank is made of heavy galvanized iron thoroughly reinforced at top and bottom by steel bands.

The wheel and handles are made of wrought steel thoroughly braced. The wheel is 16 inches in diameter.

PRICE LIST (Represented by Fig. 1614).



Myers Bucket Spray Pumps are constructed entirely of brass. They are provided with a large air chamber, brass ball valves, and detachable hose. Have patent jet agitator to keep spraying solution thoroughly mixed and agitated, and are fitted with malleable foot rest. Especially adapted for small orchards shrubbery, whitewashing, etc.

The Standard Spray Pump

Spraying with the Standard Spray Pump means doing the work from the ground without ladders, platforms or extension rods: means a clear saving of more than half the time: means that one man does all the work, does it easily and effectively.

Ask for special Catalogue.

The "Easy" Compressed Air Sprayer



The only one of its kind on market. Strong, durable and attractive.

Has a large and strong pump. Automatic shut-off nozzle, legs under tanks. Can be used for whitewashing, disinfecting and cleaning chicken houses, and is very desirable for large gar

and is very desirable for large gardens, etc. It is built of galvanized steel or brass as desired. Holds one gallon.

Price......\$1.50

PATENTED.

A SELF-OPERATING OF AUTOMATIC SPRAYER

Length of cylinder, 21 inches; weight, loaded, 39 pounds; diameter of cylinder. 7 inches; capacity, about 4 gallons; weight, empty, 7 pounds; extension pipes extra.

Tin Can Sprayer

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

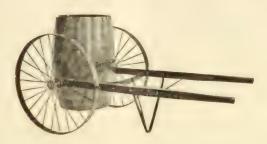
Non-Clog Automatic Nozzle

Weight, 4½ ounces. The Non-Clog Automatic Nozzle can be adjusted to throw every graduation of spray from a fine, wide-angle, bell-shape, 18 inches from the nozzle mouth, covering a surface of over three feet, to a concentrated and heavier spray, throwing a distance of twenty feet. Four discs go with each nozzle.

Price, Non-Clog Automatic Nozzle, brass....\$1.25

Banner Powder Gun, or Bellows

Applies any powder poison on any plant in any desired quantity, and does it any time of the day. Complete, with spreader for distributing the blast.



Myer's All-Steel Barrel Cart

Well made and durable in all its points. 36-inch wheels, 3-inch tires.

Any barrel Spray Pump can be used with it.

Price-With	Barre	el		• •													 		\$11.00
Cart	only				•	• •	•			0	• •	• •	8	+	•	• •	 0	0	8.00

Brass hose nipple, one end cut male pipe thread, other end male hose thread.

Price---

F

1/2-inch or 3/4-inch hose, 3/4-inch iron pipe25c
1/2-inch or 3/4-inch hose, 1-inch iron pipe25c
1/2-inch or ¾-inch hose, 11/4-inch iron pipe40c
1-inch hose, 1-inch iron pipe40c
1-inch hose. 114-inch iron pipe
1 ¹ / ₄ -inch hose, 1 ¹ / ₄ -inch iron pipe

Rubber Hose

BEST QUALITY. LOWEST PRICES.



Insecticides

Lion Brand Lime-Sulphur Solution

KNOWN AS CALIFORNIA WASH

For San Jose Scale and All Other Scale on Trees, Shrubs, Etc.



Lion Brand stands for full, concentrated strength, absolute purity, and undisputed superiority over all other lime-sulphur solutions.

Lion Brand is the most perfect, uniform, safe and effective preparation and combination of lime and sulphur that can be made for destroying scale. It is so concentrated that one 50-gallon barrel will make 600 gallons for strongest use, or 1,200 galons for summer spraying, by adding water only.

No damage will be done to the tree when dormant if this mixture does go on full strength. It is a clear, cherry-colored solution, free from sediment. Ask for special Catalogue.

Target Brand Scale Destroyer

For San Jose Scale and All Other Scale on Trees, Shrubs, Etc.

Quart ca	ans .	 					 			 			 				\$0.35
1-Gallon	cans		 				• ,			 			 				1.00
5-Gallon	cans				•		 			 			 				3.50

Flowers of Sulphur

IN BARRELS OF 155 LBS.

Price, 25 lbs. or less; per lb.5c Special prices on larger quantities.

Flour of Sulphur

Most excelent for spraying purposes. (See formula below.)

Price, 25 lbs, or less; per lb.5c

Special price on larger quantities.

Lime-Sulphur Formula

Lime, 20 lbs.; Sulphur, 15 lbs.; Water to make 50 gals.

Boil one to two hours with a small quantity of water, then dilute to 50 gallons with boiling water. Do not let mixture become cold; spray while yet warm. For winter or early spring use.



Paris Green

4	lb.	package
2	lb.	package
1	lb.	package
2	lb.	package
5	lb.	package
		Prices on application.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Bordeaux Mixture

For Rots, Blights, Mildew and Other Fungous Diseases.

1	gt.	can	• •	٠	•	•	•	•	•	•		•	•	•			•	•		•			. \$0. 3	35
1/2	ga	l. cai	n	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•			6	60
1	gal	can			•				•				•		0	•		0	•	•		•	. 1.0	00

Ask for Special Catalogue.

Bordeaux Mixture (Powder)

For Blight on Potato, Tomato, Celery Plants, Trees, Etc. Also for Fungous Diseases.

5 lb.	package, per	r lb.	
Larger	sizes quoted	on	application.

Bug Death



Acre an Hour Sifter

For applying Bug Death and other Powdered Insecticides to potato vine. cabbage, tomato, tobacco, etc., as fast as a man can walk. Will cover a plant 3 feet in diameter. Easy job for the boys.

Dicky Duster

The most practical and best selling implement for applying Bug Death and all powders to plants.



Hammond's Slug Shot

Non-poisonous powder. It requires no further mixing or preparation; easily applied and not injurious or dangerous to animal or person applying it. Destroys potato bugs, slugs, worms. caterpillars, etc.

5 lb. package.... 30c



Bug Death is a fine powder and in composition is peculiar to itself, inasmuch as it does not depend upon arsenic for its killing power. We give Bug Death our fullest endorsement. Bug Death is safe and sure to use on potatoes, tomatoes, currants, gooseberries, cucumbers, melons and garden truck generally. Full directions on each package.

Bug Death prevents blight, in-creases yield, improves quality. It can be used dry or in a spray.



Insecticides-Continued

Niagara Soluble Sulphur Compound

DIRECTIONS FOR MINING: Fill the spray tank one-half or more full of water and pour the powdered material slowly into the tank making sure that the agitator is in motion during this time. Soluble Sulphur Compound dissolves readily in cold water. When using Arsenate of Lead (dry or paste) add to the tank after the Soluble Sulphur Compound.

DIRECTIONS FOR USE: Dormant Sprays-For early spring or late fall spraying for the control of such troubles as San Jose Scale, Oyster Shell Bark Louse. Peach Lecanium Scale, Peach Leaf Curl, Aphis and Pear Psylla Eggs, etc., use 121,2 pounds of Soluble Sulphur Compound to 50 gallons of water. This strength should never be used after the buds open. Summer Sprays-For summer spraying when the trees are in foliage, for fungus diseases such as Apple Scab, Bitter Rot. Mildews, etc., one pound to 50 galons of water. Arsenate of Lead may be used with this strength of material.

AMOUNT OF MATERIAL NECESSARY TO USE. Experience has shown that for thorough work and best results the following approximate amounts of diluted material should be applied:

Apple and Peach Trees-1 to 5 years old, 1 gal.; 5 to 10 years, 112 gals.; 10 to 15 years, 2 gals.

Price	JerT	10				 							20c	
Price	per	5 lbs.	 	 		 		 		 	•		75c	

Arsenate of Lead



To control codling moth and all leaf-eating insects. Especially rec-ommended for rose bushes and tender plants. Particularly good for potatoes.

1	lb.													\$0.25
2	lb.			•										.40
5	lb.													1.00

For use add cold water slowly and stir until a thin paste is obtained before adding to the volume of water. Use one ounce to a gallon of water and apply with a spray pump.

Dry Arsenate of Lead

By far the best and cheapest Arsenate of lead to use. Mix thoroughly with a small quantity of water to a cream consistency, then add the required amount of water according to recommendation.



Whale Oil Soap

Whale Oil Soap is a most effective, reliable and cheap remedy for destroying San Jose Scale, Oyster Shell Scale, Plant Lice, and all sucking insects on trees, shrubs, plants, vines. rose bushes, etc.

1 lb. box	\$0.15
5 lb. box	
10 lb. box	1.00
50 lb. box	4.50
100 lb. box	8.50

Sheep Dip

Non-poisonous and soluble in cold water. An effectual remedy for maggots, lice and ticks, and destroys scab and worms in lambs.

1/2 gal, can	 	 	 .\$0.60
1 gal. can	 	 	 . 1.00

Pyrox (Reg. U. S. Pat. Office)

ONE BEST SPRAY FOR POTATOES, TOMATOES, EGGPLANT, CUCUMBERS, ETC.

If you spray your crops with Bowker's Pyrox you will add to your profits. Pyrox not only kills the destructive leaf-eating bugs and worms and protects the vines from blights, rust and fungous, but it has a healthful, stimulating action on the leaves, which are the lungs of the plant. Even if no insects or fungus are to be feared, it pays to spray your crops with Pyrox, for its stimulating effect alone.



Pyrox sticks to the foliage through heavy rain, which gives you a great ad-

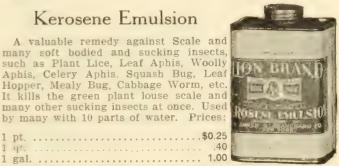
vantage. Most sprays wash off with every shower. The Bowker Company has been manufacturing Pyrox for fifteen years. Its use is no longer experimental.

PRICES:

1	lb.	(not n	nailable)	 \$0.30	50	lb., 1	1	keg\$	7.50
5	1b.,	1 ston	e crock.	 . 1.25	100	1b., 1	1	keg	13.50
10	1b.,	1 ston	e crock.	 . 1.75	300	lb., 1	1	keg	38.00
25	lb.,	1 cont	ainer	 . 4.00	500	1b., 1	1	barrel	60.00

Kerosene Emulsion

A valuable remedy against Scale and many soft bodied and sucking insects, such as Plant Lice, Leaf Aphis, Woolly Aphis, Celery Aphis. Squash Bug, Leaf Hopper, Mealy Bug, Cabbage Worm, etc. It kills the green plant louse scale and many other sucking insects at once. Used by many with 10 parts of water. Prices:



Bordeaur Mixture and Paris Green (POWDER)

This compound has proved very successful during 14 years past. Cheaper than Paris Green. It kills the bugs and defends against flea beetles and blight.

1 lb. package, per lb. Larger sizes quoted on application.



It is a coarse powder for sprinkling near the plants to be protected. Chickens and birds are not poisoned if they eat the dead cut worms. There is no guess work about it doing the business. It has an enticing odor that the worms prefer to vegetation. The dead cut worms "tell the story.

Prices: 1 lb., 25c; 5 lbs., \$1.00; 25 lbs., \$4.00; 100 lbs., \$12.00.

Insecticides—Continued



FISH OIL SOAP

Possesses the valuable features of Whale Oil or Fish Oil Soap with the additional insecticide values of tobacco, and may be used for all insect killing purposes for

which Whale Oil or Fish Oil Soap may be used, with doubly satisfactory results. It is a most effective, reliable and cheap remedy for destroying San Jose Scale, Oyster Snell Scale, Aphis, most plant lice, etc., on trees, shrubs, plants, etc. Those who use this soap once seldom return to the use of Whale Oil or Fish Oil Soap put up in loose junks in the oldfashioned round boxes, which contain no tobacco.

Prices: 1 lb., 15c; 5 lbs., 60c; 10 lbs., \$1.00; 25 lbs., \$2.40; 50 lbs., \$4.50.

Chicken Foods

"Rarva" Meat Meal

Very necessary in poultry yards where best results are desired. Contains 85 per cent protein.

100 lb. bags			
Less quantity,	per lb.	 	05

"Royal" Meat Meal

A	good product,	containing	65	per	cent	protein.	
	100 lb. bags .						\$3.00
	Less quantity,	per lb					

Crushed Bone

Made from fresh, clean bone, with no chemicals applied during process of manufacture. Should be fed daily. Excellent for producing eggs and keeping fowls strong and healthy.

 100 lb. bags
 \$2.75

 Less quantity, per lb.
 .03½

Alfalfa Meal

A green food the year round. Very high in protein, and furnishes a growing food which has, also, a medicinal value. Increases egg yield.

 100 lb. bags
 \$2.00

 Less quantity, per lb.
 .03

Queen Mash Feed

A combination of ground grain, alfalfa meal, meat meal and everything necessary for producing a large egg yield. Mix with hot water and it is ready to serve.

Less quantity,	per lb	

Developing Food

A Dry-Grain, Granulated Mixture for Promoting the Growth of Chicks After They Reach the Age of Six Weeks. Prepared Especially to Follow the Use of Chick Food.

When the chicks are six to eight weeks old they are able to eat, and exhibit a preference for larger particles of grain than are found in our Chick Food. Developing Food fulfills this requirement and is properly balanced to supply the materials needed for rapid growth of bone, muscle and feathers. Ordinarily it should be fed between the ages of four and twelve weeks. By our method of feeding we start Developing Food the sixth week and continue until the chicks are ready for special-fattening as broilers or roasters, or are placed on range at twelve to fourteen weeks of age.

Sterlingworth Poultry Charcoal

The Best Selected and Cleanest Charcoal Sold for Poultry. Sterlingworth Poultry Charcoal acts as an absorbent and destroyer of gases produced in the digestive tract when the

system is out of order and also of impurities in the blood. It aids digestion, promotes health, and is generally corrective of many poultry ills. No poultryman can afford to be without it.

Sterlingworth Charcoal is carefully selected with the purpose in view for which it is to be used, and milled into just the right sizes for poultry, pigeons, ducks, geese, etc.

XX (Fine Granulated) for Chicks and Chick Food Mixtures.

XXX (Medium Granulated) for Half-Grown Fowls, Pigeons, etc.

XXXX (Coarse Granulated) for Grown Fowls, Geese, Turkeys, etc.

Prices: 50 lb. paper-lined burlap sacks, \$1.00 each; 2 lb. cartons, 10c each.



Oyster Shells

A very important adjunct to the poultry yard and should be supplied liberally at all seasons of the year. Will help increase the egg yield.

Regular-100	lb. bag	 		 	 				 			.65c
Fine-100 lb.	bag	 	• •	 	 	• •	• •	•	 • •	•	• •	.65c

Mica Crystal Grit

Chickens should be liberally supplied with this grit, as few farms furnish sufficient gravel for poultry to properly digest food. Three sizes—Nos. 1, 2 and 3.

100 lb. bags75c

Ravena Chick Food

In compounding Ravena Chick Food, the protein or fleshand-muscle-forming element is maintained high, the heatproducing and the fat-forming elements are reduced to their proper proportion, and the ash or mineral elements are in sufficient amount to supply the needs of the rapidly growing bird. Our Chick Food contains no weed seeds.

Ravena Scratch Food

In compounding the Ravena Scratching Food, it is our aim to produce a properly balanced ration that will aid the mash food in producing healthy birds and a large supply of properlysized, well-fertilized eggs.

Prices upon application.

Blatchford's Laying Mash

A Balanced Ration of Ground Grains, Blood Meal and Alfalfa, Ready-Mixed for Hopper and Wet Mash Feeding. Gives Maximum Egg-Yield.

Our Laying Mash is a mixture of sound, sweet, nutritious grains in ground form, to which is added liberal portions of blood meal and mealed alfalfa, thus supplying in proper proportions both animal and vegetable protein. It is not in any sense a condiment or an egg stimulant. On the contrary, it is strictly a food—a palatable, highly-nutritious, balanced eggration, ready-mixed for the daily mash and for hopper feeding.

This Laying Mash is of superior merit, and means more eggs and better chickens. The same care that goes to make Blatchford's Calf Meal the best is exercised in making this the best Mash.

Ask for prices.

Poultry Remedies

Conkey's Medicines and Remedies never disappoint. Use them and your poultry will keep healthy and give you big returns.

Roup Cure

Roup Cure kills the disease germs and gives tone to the birds. It is given in the drinking water without trouble.

25c and 50c sizes.

Cholera Cure

KeepYour & Profits

Save those sneezing, swollen-headed fowls by placing in the drinking water

Conkey's ROUP CURE

It kills the germ. Prices 50c and \$1 CONKEY'S BOOK ON POULTRY free if you

call or send 4c postage,

Use it and save your chickens. Given in the drinking water. Good also for indigestion, dysentery and kindred diseases. 25c and 50c sizes.

Head Lice Ointment

Gape Cure

Kill the worm which sucks the life from the throats of little chicks. Conkey's will cure them. 25c, 50c and \$1.00 sizes,

Sterlingworth Diarrhoea Remedy

This Remedy Is Guaranteed to Give Satisfaction. If It Fails We Will Refund the Purchase Price.



RRHOE

Particularly White Diarrhoea has driven more poultrymen out of the business than any other disease. Millions of chickens die yearly from this trouble which could be saved if Sterlingworth Diahhhoea Remedy was used. Poultrymen should not wait until their chickens become diseased, but should use it as a preventive. Remember that cholera is an entirely different disease from diarrhoea and must be treated differently. It is not a cure-all, but a reliable remedy only for diarrhoae,

dysentery and other kindred bowel troubles in chickens. It is a powder for use in the drinking water. Per box ...



Spread a newspaper on the floor or ground. Hold the fowl over it while dusting. Five minutes after you have completed the application brush out the fowl's feathers, and if there are not as many dead lice on the paper as there were live ones on the fowl, state the facts to us at once, and we will return you the pur-

chase price. If it is not better (not AS GOOD-but BETTER) than any lice powder you have ever used, we will cheerfully return the money. There is one best Lice Powder. We claim to have it. Try one package and get your money back if it is not better than what you have used. Lice cut your egg production and affect the fowl's general health. Keep down the lice. or the lice will keep you down. Never set a hen without putting Woolf's Lice Powder in her nest.

Prices: 5 oz. box, 10c; 15 oz., 25c; 48 oz., 50c; 100 oz., \$1.00.

W. & C. Lice Paint

A sure remedy. Don't let your fowls suffer. Clean out your coops with Lice Paint.

Prices: Quart, 35c; 1/2 gallon, 60c; gallon, \$1.00.

Zenoleum Lice Powder is a very superior article. It is fully guaranteed and is in use in 43 Agricultural Colleges.

Black Diamond Lice Powder is highly recommended for

chicken house disinfecting.

"Oculum"

Scientific Remedy and Preventive for Cholera, Roup, White Diarrhoea and Sore Head; Also Cure for Gapes

Inoculation for fowls is a new discovery. Oculum is a sure cure for Cholera, Roup, White Diarrhoea, and Sore Head in fowls. It is also a preventative of these diseases. Inoculate your fowls with Oculum and they will be healthy. The deadly germ of Cholera and White Diarrhoea is in the egg. The ch.ck when hatched is a candidate for early death.

Zenoleum

Lice-Killer, Disinfectant, Animal-Dip

One Gallon of Zenoleum makes 100 Gallons on Positive Disinfectant and Germicide.

Won't poison-Won't hurt you. Won't explode or burn. Kills vermin, cures skin trouble.

Invaluable as a remedy for diseases of Poultry and all Live Stock.

Kills lice and Cures Mange.

Disinfects Incubators. Look for the Red and Green Label.

Price list Zenoleum Disinfectant and Dip:

Eight Ounces makes 6 gal. of fluid	
One Quart makes 25 gal. of fluid	
Half Gallon makes 50 gal. of fluid	
One Gallon makes 100 gal. of fluid	1.50
Two Gallon makes 200 gal. of fluid	3.00
. Jree Gallon makes 300 gal. of fluid	4.50
Five Gallon makes 500 gal. of fluid	6.25

THE ZENOLEUM GUARANTEE

If Zenoleum is not all we say it is-or even what you think it ought to be, you can have your money back. No argument -No letters-Just money.



Poultry Regulator and Remedies. Sold Always With a Positive Money Back Guarantee

PRATTS POULTRY REGULATOR

This is the original Poultry Regulator of America, in use by the most successful poultry raisers everywhere.

It is a guaranteed egg producer, and when regularly used, hens lay throughout the year.

It is a perfect digestive and tonic and will prevent chicken cholera, gapes, roup, rheum-atism, expel worms, prevent leg weakness, egg eating. It also greatly improves turkeys, geese, aucks, pigeons and guineas—insuring quick, healthy growth.



100-1b bags, \$9.00; 25-1b. pails at \$2.50; 50c pkgs., weight 4 lbs.; \$1.00 pkgs., weight 9 lbs.

Poultry Remedies—Continued

PRATTS LICE KILLER (Powdered Form)



It quickly and thoroughly kills all lice on little chicks, big chicks, setting hens, and incubator chicks. It rids horses, cattle, hogs, dogs and cats of lice, and destroys ticks on sheep. It destroys insects and bugs on vines, plants and flowers. A valuable deoderizer and disinfectant, for all poultry houses, barns, stables, and dwellings. Drives out moths from closets, furniture, carpets and clothing. .25c and 50c.

PRATTS BABY CHICK FOOD

This is one of the greatest Money Savers and greatest Chick Savers ever placed on the market. Every man, woman or child who raises little chicks, turkeys, ducks and geese should try at least one package of Pratts Baby Chick food. It is a scientific food ration to be fed for the first three weeks. If you want real success with your hatches, if you want to save all the baby chicks, if you want them to grow fast—get



Pratts Baby Chick Food on our recommendation for your first trial, after that you will never be without it. Put up in 1-lb., 3-lb., 6+2-lb. packages, also 14-lb., 25-lb., 50-lb. and 100-lb bags.

PRATTS POULTRY DISINFECTANT AND LICE KILLER



If poultry keepers would regularly spray the chicken houses, roosts, dropping boards and utensils with Pratts Poultry Disinfectant, most all of their troubles would vanish. This great Disinfectant is a real wonderworker in the poultry yard. Put up in 1-qt., 35c, and 1-gallon cans, \$1.00.

PRATTS ROUP REMEDY (Tablets or Powder)

is a scientific preparation GUARANTEED to prevent and cure roup, colds, canker, catarrh and diphtheria.

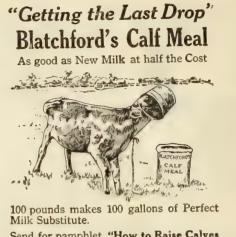
In severe cases individual treatment with the tablets is the only sure method. For mild cases and as a preventive crush the tablets or use the powdered form, and mix in the drinking water. Sold in 25c., 50c., and \$1.00 boxes.



PRATTS WHITE DIARRHOEA REMEDY



This remedy will positively save many dollars worth of little chicks to poultry raisers. It has taken us nearly three years to find a remedy for White Diarrnoea and we are so sure that we have it in this article that we authorize our dealers throughout the world to refund the purchase price in case it fails. Extra large box, 50c; small size, 25c.



Send for pamphlet, "How to Raise Calves Cheaply and Successfully Without Milk."

At your Dealers or BLATCHFORD'S CALF MEAL FACTORY WAUKEGAN

25	lb.	sack		 					 	 	 	 										\$1.0	0
50	lb.,	sack															 		•			2.00	0
100	lb.	sack	0					.0						•	 . :	: ,	 	 				3.75	5

Poultry Appliances

WE ARE AUTHORIZED AGENTS FOR

Genuine Standard Cyphers' Incubators Br (Look for Trade Mark-Demand the Label)

Practical poultry raisers who mean business and desire the greatest possible success should look for and demand the qualities that have made Cyphers Incubators world famous. Fire-proofed, insurable, self-ventilating, self-regulating, non-

moisture, efficient, durable and positively guaranteed. For 1915 we offer our customers the Cyphers Company's

complete line of Incubators and brooders—the best on the market. For years the Cyphers Incubator has been consistently improved, always maintaining its leadership, until today it represents all that is most efficient, convenient and reliable in incubator construction.



To own a Cyphers is to have an incubator that stands first, not only because it has affixed to it the fire insurance label granted by the National Board of Fire Underwriters and bears a world-wide reputation, but because of the well-established fact that it is the best hatcher of large, vigorous, livable chicks. It is positively guaranteed to outhatch any other make of incubator under widely-varying conditions, season after season, and to last ten years without repairs.

Poultry Appliances-Continued



Demand This Label-Your Safety

Form of Brass Label to be found (in serial numbers) on Every Standard Cyphers Incubator. All sizes.

Every Standard Cyphers Incubator is guaranteed by the matufacturers to do fist-class work in the hands of every inchaser, who will give it a fair trial, and we hereby place ir guarantee back of theirs. In buying a Cyphers you take to chances. Persons who earnestly desire to succeed in the is ultry business should have the right tools with which to work.

sizes and prices of Cyphers Fire-Proofed Incubators free on board cars at Washington, D. C.

VO.	0	holds	70	hen	eggs\$15.00	
NO.	1	holds	144	hen	eggs 23.00	
NO.	2	holds	244	hen	egzs 34.00	
NO.	3	holds	390	hen	eggs 40.00	

Notice.—The above prices are factory prices. In buying of us you save on freight and also save valuable time. Goods are carried in stock by us the year around. Remember that thus is money.

Standard Cyphers Combination Brooders and Colony Roosting Coops

Cyphers Unequalled Apartment Brooders and combination roosting coops have the same important advantages over all other makes that are possessed by Cyphers Company's 1915 incubators, in that they are fire-proofed and insurable, having the first fire-insurance inspection label ever granted on a brooder.

Cyphers 1915 Brooders, every size and style, are self-regulating, self-ventilating and vermin proof. The outdoor styles are usable also as colony coops for the growing chicks. They are easily and quickly converted into colony roosting coops by simply taking out the hover, which is made removable for that purpose.

Fire-proofed, Insurable, Self-Regulating



Style B Outdoor Brooder

(Three apartments. Safest and most popular "Foster Mother" ever designed.)

This double use of the Cyphers Brooder means a considerable saving of money. It makes a safe and comfortable enclosure for the young chicks at night and saves the buying of a coop for them. These outdoor brooders, on account of their fire-proof construction, can be used indoors, although we supply a special brooder. Style D. for indoor purposes. All Cyphers 1915 Brooders, both outdoor and indoor, contain either two or three apartments. The popular style B (shown in illustration herewith) contains three apartments: First, roomy space under the hover; second, hover chamber; third, well-lighted exercising apartment.

Cyphers Coal-Burning Colony Hover The latest development in the brooding of chicks. Will

The latest development in the brooding of chicks. Will breed from 300 to 1,000 chicks in one flock, thereby reducing to the lowest point the

time, labor and cost of raising fowls. It is remarkable for its simplicity of design and ruggedness of construction. The fire pot is a on e-piece heavyweight casting of ample capacity. The ash pit and heater base are also cast In one piece—therefore is fire-tight. Automatic regulator is provided if desired—which we recommend for the sake of economy of fuel, also for use in average weather.

There is nothing about the entire device to give way or break easily, or to get out of order. It is as e asy to operate as a



kitchen range, and can be relied upon to do the work for which it is intended.

Outfit No. 5 .- With large Heater and 42-inch dome,

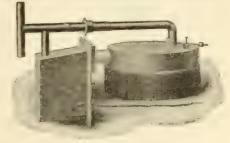
without automatic Regulator, shipping weight 160 lbs., capacity 300 to 600 chicks......\$21 00

Outfit No. 7.—With large Heater and 60-inch dome, without automatic Regulator, shipping weight 180

matic Regulator\$32 00

Cyphers Adaptable Hovers

In addition to this unequalled line of brooders, we offer separately the Cyphers Company's world's challenge Adaptable Hover. This machinery-made, all-metal, guaranteed fire-proof heating and brooding device is suitable to be used anywhere that heat is required for brooding chicks or ducklings. It can be used in a roosting coop, colony house, shell, hen house, barn or other building with or without any additional enclosure for the chicks. or in a large goods case or organ or piano box.



All-Metal Adaptable Hover

and is pronounced by thousands of users to be the best device thus far invented for heating home-made brooders. Recommended especially for use in long brooding houses, one hover for each pen. Adaptable, hover is complete in itself, bears insurance label as a separate device, and is safe to use anywhere. Weight, boxed for shipment, only 40 pounds. Complete Catalogue for 1915 contains fully illustrated de-

Complete Catalogue for 1915 contains fully illustrated description of this self-regulating, fire-proofed hover, also of the entire line of Cyphers apartment brooders.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Poultry Appliances-Continued

Sizes and prices of Cyphers Adaptable Hover and Combination Brooders:

Notice.—The above prices are factory prices. In buying of us you save on freight, and also save valuable time. Goods are carried in stock by us the year around. Brooders shipped knocked down at low freight rates.

International Sanitary Hovers



The International Sanitary Hover is composed of six parts, namely, the hover itself; the lamp, the lamp holder; the draft pipe; the thermometer; and the detachable curtain.

The top part or dome of the hover is made of two thicknesses of galvanized iron, the inch of space between them being packed with mineral wool, one of the best-known noncombustible conservers of heat. This generous filling of high-grade insulating material prevents excessive radiation of heat upward.

The under part of the hover is made of black iron. In shape it is an inverted dome, sloping downward from the outer edges to the center, where is attached the galvanized-iron bowl in which the lamp sits.

Now, our experience and the testimonials of hundreds that have used the International Sanitary Hover prove that 100 chicks can be accommodated under it with absolutely no crowding nor discomfort.

Cyphers Portable Hover

Self-Regulating: For Indoor Use

The Cyphers Company Portable Hover is self-regulating, as far as a brooding device can be made so. We use on this Hover the same high-grade, dependable, toggle-joint, zinc and steel thermosat that we do on our entire line of Standard Brooders.

This latest-improved Portable Hover is positively and infallibly automatic in ventilation which renders absolutely impossible the trapping of "dead air" or poisonous gases in the space underneath the curtain where the chicks hover day and night and must be provided with a continuous supply of life supporting, health-giving oxygen in the form of fresh air.

This Hover was designed expressly for indoor use—in brooder houses and other poultry buildings, in dwellings, or in well-built and well lighted apartments of any kind, but i also will do excellent work in colony houses, in large-size brood coops and in home-made or factory-built brooder cases It is highly recommended by us for convenient and economica



use in poultry houses or in well-lighted rooms or apartments that have auxiliary heat during coldest winter weather. In moderate winter weather, during the spring months and in warm latitudes, no auxiliary heat is needed. Used without a brooder case or other smallsized enclosure, this Hover will operate perfectly in any temperature above the freezing point and will do satisfactory work in a considerably lower temperature if the inmates are warmly bedded and protected from drafts, especially at night.

As its name indicates, the Cyphers Portable Hover can be picked up at any time—hover, lamp-box, lamp, regulating device, all complete—and moved to a new spot or to any place the operator may desire and the device will continue in operation right along. The lamp need not be removed at this time nor the wick so much as turned down. Is very convenient for cleaning and for moving the chicks from one location to another.

This Hover has a rated capacity of seventy-five newly hatched chicks, or of fifty chicks that are ten days to six weeks old. It will hover comfortably one hundred newly hatched chicks.

Cyphers Automatic Moisture Device

For Use on Standard Cyphers Incubators in Arid Districts, High Altitudes. Dry Apartments, etc.

Cyphers patent-diaphragm incubators are known the world over as non-moisture machines. Under normal and ordinary conditions they require no supplied moisture whatever. Tens of thousands of purchasers have used them season after season, during the last sixteen years.





The MacKay Colony Brooder was introduced to the poultry world last season. So quickly was its superiority recognized by leading poultrymen throughout the country that we can

Poultry Appliances-Continued

point to a general use, under all sorts of conditions, extend-ing through an entire brooding season. The experiences of users prove that for solid, lasting qualities, for economy, and for reliable operation the MacKay Colony Brooder stands in a class by itself.

We would call particular attention to our new small model, the MacKay Junior, which has been designed for the farmer, the specialty breeder and for poultrymen who do not believe in placing a large number of chicks under a stove. It is a MacKaly Colony Brooder in every respect, except that it is fitted with a circular, ball-bearing grate instead of our duplex grate.

All MacKay Colony Brooders are provided with ropes and pulleys for raising and lowering the deflector; also with legs to allow for the necessary air space between stove and foor.

Solid cast-iron heater, insuring long, lasting service, and large enough to hold coal for the entire night.

Inverted conical hopper, bolted to top-plate, through which coal is passed directly to the fire-box, being fed from on top without disturbing the deflector or chicks.

Special duplex grate, without bolt or screw to rust or wear cf; it can be removed and replaced in a few seconds without or aerwise disturbing the stove.

Operating rods and levers which have a direct action and are centre swung, thus preventing lost motion. Any desired temperature can be secured and maintained by adjusting Co · · · · · · · · · · ·

Guards that protect the operating attachments and prevent any interference with their proper action.

Grill cast in lower draft opening to insure absolute safety.

MacKay Colony Brooders

Prices:

Cyphers Dry-Food Hopper

Cyphers Self-Feeding Dry-Food Hopper is a practical labor and food saving device for feeding dry grain food, either whole or ground. These Hoppers are well made of heavy galvanized iron.

The Cyphers Dry-Food Hopper has two compartments, a large one for grain mixtures, holding about six quarts, and a small one for beef scrap, holding about three quarts.

Cyphers Dry-Food Hopper, each, 75c; per dozen, \$8.00

The N. W. Fountain



This fountain is especially adapted to feedinlg and watering little chicks. Is perfectly sanitary, easily cleaned and filled. Price of metal part for quart Jars, 10c; for half-gal. Jars, 15c.

Boston Dry-Food Hoppers

The Food-Saving, Rat-Proof Hopper That Made Dry-Feeding of Poultry a Success.

Boston Dry-Food Hoppers are made in four sizes-two sizes for adult fowls and two for chicks.

The Boston Hopper-all sizes-hangs against the wall or can be placed on the floor or ground. The swinging grid or metal guard prevents the fowls from wasting the food. The Hopper can readily be "locked" at night (or in the day-time) by simply hooking the grid to the front section at the lower end-thus making the device rat-proof.

Small: For Meat Scrap, Grit, Etc.: 17 in. high, 8 in. deep, 7 in. wide. Holds 1 peck: Each 80

Long Chicken Size: 29 in. long, 8 in. high, 41/2 in. deep.

Holds 1 peck: Each 1.25 Short Chicken Size: 15 in. long, 8 in. high, 4½ in. deep. Holds ½ peck: Each.....

.90

Sexton Drinking Fountain



Sanitary, Easily cleaned, assuring clean water at all times. Price:

1	gal.	 	 	 50c
	zal.	 	 	 75c

Cyphers Wall Fountain

Taese fountains are something new and extra serviceable in the way of poultry fountains. The back is flattened so that it can be hung on the wall of a building, or against an upright post or board at any height. A galvanized iron hood projects over the water trough and protects the water from becoming soiled. These fountains are equally serviceable for young chickens, or adult fowls, and are especially useful for pigeons. They are made of the best galvanized iron.



One-gallon size, each, 50c; per six, \$2.70; two-gallon size, each, 75c; per six, \$4.20.

Cyphers Grit and Shell Box

Cyphers Sanitary Self-Feeding Grit and Shell Boxes work a material saving in grit, oyster shell, ground bone, charcoal or poultry foods. They are thoroughly practical, self-feeding boxes, well made out of heavy galvanized iron.

Cyphers Grit and Shell Box, each, 50c; per dozen, \$4.75

Poultry Appliances—Continued Galvanized Drinking Trough for Poultry

These troughs are fitted with covers with openengs that allow the fowls to drink, but prevents them from getting into the water, thus insuring clean drinking water.

Price, 22 inches long\$1.25

Cyphers Insulated Brooder Stove

For Use in Home-Made Brooders

Also is a Cyphers Company invention. This long-bowl, improved safety stove combines a heater proper, a burner equipped with metallic chimney, an insulating plate that serves also as a stove slide, and an upright plate of galvanized iron that forms the door to the brooder through which the stove is operated. The flame can be adjusted and the oil bowl filled without removing the stove from the brooder. The heat of the flame is deflected away from the oil reservoir, and the oil remains cool at all times.

Price, each..... \$1.75



Cyphers Galvanized Iron Drinking Fountains

The water supply is often the medium that conveys contagious disease from one fowl to another. In the drinking vessel it comes in contact with and is infected by the discharges from the nostrils of roupy fowls and those having canker, chicken pox and other head and throat diseases. It is essential, therefore, that the drinking fountain should be easy to clean. Cyphers Fountains are made of heavy galvanized iron, all seams being carefully turned and soldered. They are so formed that in freezing weather the pressure of ice inside will not split the seams.



	Each.	Six.
Small size, 1 qt. (for chicks)	.\$0.18	\$0.90
Med. size, 2 qts. (for growing chicks or ducklings) .25	1.25
Large size, 31/2 qts. (for fowls)	35	2.00
Special duck size, 2 gals	50	2.50
Special prices on larger quantities		

Cyphers High-Grade Tested Thermometers

Hundreds of hatches in incubators fail because of inferior thermometers, and large numbers of chickens, are killed in brooders for the same reason. The thermometers here listed are manufactured especially for us, and are thoroughly tested before they are shipped. Two-thirds of the thermometers on the market are made from improperly seasoned glass tubes. Our thermometer tubes are carried in stock two years before being mounted on the scale.





Norwich Automatic Feeder

Norwich Automatic Feeder.—Saves grain, increases egg yield. Rat and damp proof. No. 1, 8-qt. Hopper, 12 lbs., \$2.50.



Cast Iron Drinking Fountain

Cyphers X-Ray Egg Tester

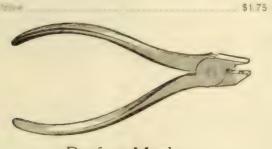
Pilling's Caponizing Set

Poultry Appliances-Continued Cyphers Safety Brooder Stove

Used in Heating Home-Made Brooders

Cyphers Safety Brooder Stove was invented by this com-This stove consists of a brass oil fount and a safety Dany. water pan of the same metal, that holds nearly a quart of water and extends out over the entire surface of the oil bowl. thus placing a sheet of cold water an inch to an inch and a half in thickness between the oil in the fount, or bowl, and the flame.

The wick tube extends upward through the water pan and through the castiron base into the flue chamber, which is composed of the best quality of Russian sheet iron, the top consisting of a solid casting of common iron.



Perfect Marker

Price

Pilling's Price.... 25c

Cyphers Lice-Proof Perch Support

Ovinapithol Nest Eggs

Lice destroyer and nest egg combined. Simply put it in the nest.

Each..... 5c; 50c doz.

China Nest Eggs

Dozen

Lime Nest Eggs

Dozen

Gape Extractor



Champion Leg Bands One doz., 15c; 25 for 25c; 100 for 75c

Celluloid Leg Bands

Quantity	Four Poultry	Pigeon and Day
	Sizes	Old Chicks
12 Bands	\$.20	\$.15
25 "	.35	.30
50 "	.60	.50
100 "	1.00	.75
500 "	4.50	3.00
1000 "	8.00	5.50

Mann's Clover Cutter for Poultry

It is strongly built. The workmanship is first class in every particular, and it will last for years without repairs. Made either with or without the stand.

Mann's Green Bone and Vegetable Cutter

The feed is both automatic and self-governing. Cuts all gristle and meat. Nothing escapes uncut.

No. 5-C.—The machine is exactly the same as the No. 5-B, with a crank handle instead of a balance wheel. Capacity not quite equal to 5-B. Weight, 35 lbs. Price \$6.00

No. 5-B .- This machine is exactly the same as the No. 5-BM, except

that it has not the iron stand. The capacity is the same. Weight, 60 pounds.

Price \$8.00

1902 Model.

No. 5-BM .--- Intended for flocks of 15 to 25 hens. Mounted on iron stand. Cylinder 6 inches in diameter; 4 inches deep. Price \$10.40

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 inches in diameter; 5¼ inches deep. Capacity, ½ to 1 lb. per minute.

Price \$12.00

No. 712.-Semi-power machine.

Price \$16.00

The Banner Root Cutter

Simple in construction. Easy to operate. Has a self-feeder. Separates dirt from cut feed. Cuts with a clean cut. Does not crush, grind or tear the feed.

The No. 20- For Hand Use

Has a capacity of 30 to 50 bushels per hour. Weight, 120 pounds.

The 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.

The No. 16-Small Power Cutter

With Fly Wheel and Band Wheel.

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.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

25c

..... 20c



 Price
 \$3.00

 Larger size, with fly wheel
 4.00

Enterprise Bone Shell and Corn Mill

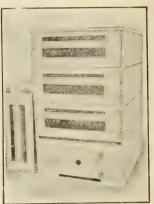
Price, No. 750....**\$8.50** None better.

Red Chief Corn Sheller

A most excellent sheller for use in connection with poultry yard.

Price \$1.50





GOSHEN CHURN A good barrel churn, easy t

 No. 0, 3 gal. size
 \$4.5

 No. 1, 5 gal. size
 5.0

 No. 2, 7 gal. size
 5.5

 No. 3, 10 gal. size
 6.5

Glass Thermometers

10 inch....50

operate, easy to clean.

8 inch...25c

Prices Double Quick Sprouters

No.	1,	1/4 bu., 2 trays, 25-3	7 hens	\$ 5.	.5
No.	2,	1/2 bu., 4 trays, 50-7	5 hens	6.	.7
No.	3.	1 bu., 5 trays, 100-15	0 hens	9.	. 0
No.	4,	2 bu., 6 trays, 200-30	0 hens	11.	.2
No.	5,	4 bu., 12 trays, 400-60	0 hens	17.	.2
No.	6,	8 bu., 16 trays, 800-1	200 hens	25	. 5

Prices Colfax Metal Sectional Sprouters.



The Efficiency of the Poultry Silo,—the Grain Sprouter, is as thoroughly established as that of the Dairy Silo. Hens must have green feed in order to do their best in egg production. While cabbage, beets, cured clover and alfalfa are good, yet there is nothing for prolific egg production that equals the Living, Vitalizing, Oat Sprouts, or sprouts of any of the grains such as rye, barley, wheat, etc.

Sprouted Oats and Many Eggs

And in order to get an abundance of Succulent, Crisp, Quickly Grown Sprouts, buy a

DOUBLE QUICK OR COLFAX SPROUTER,

the Perpetual Poultry Silo, that grows green feed while you wait. Makes 2 to 4 bu. feed from 1 bu. dry grain. Cuts Down the Feed Bill and Runs Up the Egg Yield.

DOUBLE QUICK SPROUTER. The Original Grain Sprouter. Outside case of Cypress, the wood that never rots. Lined with asbestos and other insulation to retain heat. Inside grain chamber of galvanized metal. Lamp heat passes up between grain chamber and outside walls. No loss of heat. Very economical to operate. Made in six sizes from $\frac{1}{4}$ bu. to 8 bu., for a few hens to 1,000.

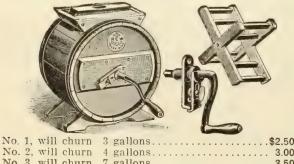
COLFAX METAL SECTIONAL SPROUTER.—Made of Metal and built in Sections. Buy what you now need and add sections as your flock and need increases. Double walls, outside wall of metal lined with asbestos. Inside grain chamber of metal. Lamp heat passes up between the walls. Sections fit on bases and each other with the stovepipe fit thus preventing leakage at joints of smoke and heat, and also getting out of alignment of the sections. Made in two sizes of bases, the small base and its sections for the small flock while the large base and sections are for the poultry farm or ranch.

All Sprouters complete with Lamp, thermometer, directions, etc.

DAIRY SUPPLIES

RICHMOND CYLINDER CHURN

Made of White Cedar, free from knots. A most excellent churn for farm use. Guaranteed to give satisfaction.



Dairy Supplies-Continued



Wes	ell the	famou	IS
"LOUE	NUO	LINE"	OF
DA	IRY S	UPPLI	ES.
Spec	ial C	atalogu	e an
prices	on app	plicatio	n.

Milk Pails, 50c and 60c.

Brick Butter Prints

Seeley Pattern, furnished with sheaf of wheat or other attractive designs.

- Round Style Butter Prints

So-Bos-So

So-Bos-So (Kilfly) is a liquid mixture designed to protect cows and horses from torture of files.

The preparation is positively harmless. It is used with splendid results as a disinfectant and germicide. If your animals are troubled with lice, use So-Bos-So (Kilfy). Spray your poultry with So-Bos-So (Kilfy). It kills lice or any vermin that may infect the fowls. Put up in l-gal. cans.



Price. 1 er gal.\$1.00

THE ELECTRIC SPRAYER

shown in above cut may be used for spraying other disinfectants and insecticides as well as So-Bos-So.

Price 50c

Medicated Salt Bricks

Dr. Blackman's Medicated Salt Bricks is the "commonsense" way of administering a stock medicine which will give good results. It is a guaranteed worm medicine and stock tonic, and is fine for the kidneys and blood and for coughs and colds. Stock dose themselves and at the same time get sufficient salt which is very important if you wish to get best results from your stock. Try it. Sold on a guarantee.

Price per brick, 25c; per doz., \$2.50.

10

The Shaw 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



te te te the the the 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
olid leather, and can be adjusted
to suit the calf's head.
No. 1
No. 2
No. 3
NU. 0

Rice's Calf Weaners

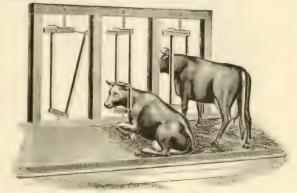
Also prevents cows from sucking themselves. No. 1 (for calves)......25c

190.	\mathbf{z}	(IOT	heit	er	S).						.40c
No.	3	(for	COW	s)								.60c

Steel Stanchions

Shaw Calf Weaners

The Quick Cattle Comfort, Drop Lock, Steel Swing Stanchions Perfect fastening; do not pinch fingers; open and close easily by one nand only; absolute freedom; cattle cannot get loose.



Guaranteed against breakage. We will replace free any broken ones.

The Standard Size has 6%-inch neck space; the Bull Stanchion has 8-inch neck space.

Price. each \$1.75

PORTER STEEL STANCHION.

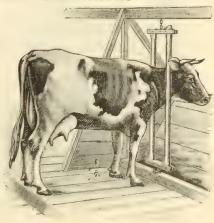
The old reliable. Simple construction. Strong and durable. Price, each\$1.40

Wooden Stanchions

Robertson's Chain Hanging Stanchions and Successful Dairying Go Hand in Hand.

Simplicity in construction, and being made of the best material and in the most substantial manner, they are perfectly safe and durable.

The animal cannot get caught by the head or horns, as when fastened with chains or ropes, and can be fastened or released in one-half the time.



Price, adjustable\$1.35 Ask for price in quantity.

Household Goods

Majestic Washing Machines

It is a fact unquestionable that white cedar is the only wood known that successfully resists the action of water, as witness white cedar shingles and posts oftentimes last for a hundred years. Ninety per cent of the washtubs used are made of cedar because they are preferred. That being the case, why should not cedar washing machines also?



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. The tubs are made of selected Virginia White Cedar, and are nicely corrugated on sides and bottom. The hoops are made of 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.

Price \$7.50



Wringers

CHALLENGE

CLOTHES WRINGERS

There is no better wringer on the market. You make no mistake in buying it. Warranted for three years.

Price \$2.50

Rival, no better made, sells for \$3.50.

Parers and Seeders

White Mountain Apple Parer, Corer and Slicer ${\bf A}$ very good one.

Enterprise Meat and Food Choppers

Cuts all kinds of meat and vegetables into clean-cut, uniform sizes. We handle the following sizes:



	No. 10	, cap.	3 lbs.	per	min.	(with	clam	p).	 	!	\$2.50
	No. 12	, cap.	3 lbs.	per	min.	(with	legs)		 		2.25
	No. 22	, cap.	4 lbs.	per	min.	(with	legs)		 		4.00
	No. 32	, cap.	5 lbs.	per	min.	(with	legs)	 		5.00
	Family	size	, with	4 k	nives				 		1.00
51	tuffing	Attac	hmeni	50	c to f	Oc ear	'n				

Enterprise Sausage Stuffers

Too well known to need comment.

- 12	qt.	512C	. 0	 	.0	•			٠			٠	0	 ۰	*	ψ0.00
6	qt.	size										+				6.50
8	qt.	size		•			•	•			•	•	+			7.00

Perry's Sausage Stuffer

A very excellent article for farm use. Price\$1.00



Sliding Kraut Cutter

With 2, 3 or 4 Knives

These Kraut Cutters are constructed on the same principle. but are a decided improvement on the old style machine. Each knife is independent of the other, and can be quickly adjusted to cut fine or coarse at will.

Ajax, 2 knife,	6¼x17	in.	 	 	 						25c	
Ajax, 2 knife,	6¼x18	in.	 	 	 					• •	35c	
Ajax, 2 knife,	7x21 in		 	 	 			• •			60c	

Rotary Knife Peach Parer

A very useful article.

Price \$1.25

Cherry Seeder

Price 50c

Enterprise Cherry Seeder

Farm Bells

These bells are covered with a rich gold bronze and the hangings with a good weather-resisting varnish.

No. 1, diameter	15	in.	\$2.00)
No. 2, diameter	17	in.	2.50)
			3.75	
No. 4, diameter	21	in.	5.00	1

Lawn Machinery

The Water Ballast Lawn and Garden Roller

> Only a moment's time required to obtain any weight from 75 lbs. to 500 lbs. Simply fill with water.

Diameter of drum. 24 inches; length, 24 inches; weight, 125 pounds.

Price \$12.00

Size 18x24 inches; weight 75 lbs.; capacity, 75 to 300 lbs. Price, \$10.00 Gold-Metal Hand Lawn Rollers

Cast Iron

These rollers are especially desirable; they will not dent; wet grass and dirt do not cling to them, owing to their highly polished surface and rivetless ends. Have counterbalance which holds up the handle and makes it easy to push. Handle is adjustable.

AGENT FOR oldwell "NO MOWER CAN DO MORE"

Coldwell's "Demountable" Cutter Unit Horse Lawn Mower

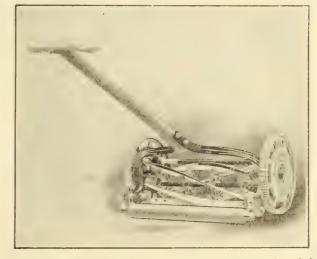
The Demountable Cutter Unit Horse Mower is constructed upon an entirely new principle and is a wide departure from anything of the kind ever made. The cutter section, which is the vital part of a lawn mower, is made into a unit and is independent and removable from the main frame of the mower. This unit consists of a simple frame containing the revolving cutter, the bottom or stationary knife and parts necessary for adjusting the same to each other. It is attached to the main frame of the mower by four locking screws and can be attached or removed in less than a minute. It being separate and independent of the main or larger frame, it relieves the knives from the twisting and strain that usually occurs in



the frame of the ordinary horse mower when used on rough ground. This unit, being the cutter section of the mower, is the only part necessary to be handled when in need of sharpening or adjusting. Diameter of Drive Rollers, 15 inches. Gears, External, front drive. Diameter of Revolving Cutter, 7 inches. Number of Blades, 4 and 6. Bearings, Adjustable Split Bronze. Width of Cut, 30 to 40 inches.

30 inch.	4	knives			 									•	\$ 65.00
35 inch,															
40 inch,	4	knives			 									•	100.00

"Rajah"

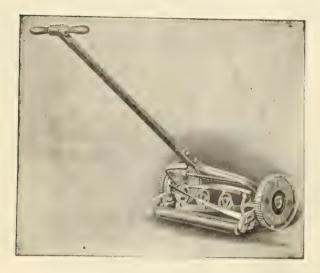


A high grade ball-bearing mower, easily adjusted and fully guaranteed in every respect.

Lawn Machinery-Continued

Cadet Lawn Mower

"Interstate"



The "Cadet" is without doubt the best cheap lawn mower on the market. We specially recommend this to those wanting a good mower at a reasonably low price.

"Cadet," 12	inch, 3	blades, 8	inch	wheels\$2.50	
"Cadet," 14	inch, 3	blades. 8	inch	wheels 3.00	
"Cadet," 16	inch, 3	blades, 8	inch	wheels 3.25	
"Cadet," 18	inch, 3	blades, 8	inch	wheels 3.50	

Colonial Mower



Its open side frames and drive wheels reduce the weight, making it a light and easy mower to handle. Ball-bearing cutter shift.

"Interstate," 14 inch, 4 blades, 10¹/₄ inch wheels......\$6.50 "Interstate," 16 inch, 4 blades, 10¹/₄ inch wheels...... 7.00

The "Colonial" is one of our most popular sellers. Ballbearing, and made of best material.

Colonial, 12 inch, 4 blades, $10\frac{1}{4}$ inch wheel.....\$4.50 Colonial, 14 inch, 4 blades, $10\frac{1}{4}$ inch wheel..... 5.00 Colonial, 16 inch, 4 blades, $10\frac{1}{4}$ wheel..... 6.00

The Fountain "Shower."

A neatly finished all brass hose nozzle or "rose" for use either in the hand for sprinkling flowers or lawn, or as a lawn sprinkler by laying it upon something to elevate it slightly. The perforations are not smoothly cut, but are pricked in from the top, so that the water is distributed in the form of a fine mist even at low pressures. Price



The "Baby" Fountain Sprinkler All Brass Fountain Spray For lawn. Easy to handle.

If you desire a beautiful lawn use our lawn seed, our bone meal, a Water Ballast Roller and a Coldwell Lawn Mower. This makes a combination that will please you. You will want some of our rubber hose to water it during the dry, hot months.

Garden Tools

No. 31 Planet Jr. Combined Seeder and No. 4 Planet Jr. Combined Hill and Drill Wheel Hoe

Price, \$7.00.

This new tool designed especially for private gardeners is thoroughly well-made and offered at a price to make it pay the smallest gardener. It holds one quart of seeds but will sow even a small packet of garden LESSER. seed at the proper thickness and depth. Is quickly changed to a single

wheel hoe and has first class quality attachments that will

> make the care of the garden a real pleasuse. The seeder attachment will save

you seeds and time, and the wheel hoe part will save time and much hard work, and you will get much better results. It can be used satisfactorily by man, woman or the growing boy



No. 32 Planet Jr. Seeder.

Price\$5.00

This is the No. 31 described above but without the wheel hoe attachment.

No. 33 Planet Jr. Single Wheel Hoe.

Price\$3.00

This is the No. 31 but without the seeder attachment which can be ordered separately later if wanted.

No. 28 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator, Rake and Plow

Price, \$14.50.

Packed weight, 71 lbs. Holds 3 quarts.

Equipment: One pair 6-inch hoes, One pair 41/2-inch hoes, Three cultivator teeth, One landside plow (all oil tempered), One pair 5-tooth rakes, One leaf guard, One marking attachment, Steel handles.

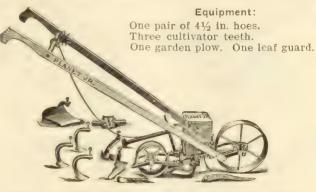
This is our latest and best Combined Hill and Drill Seeder and Single Wheel Hoe. It shows in its construction the results of the last four years' close study of this class of tools and is the culmination of forty years' experience.

We Recommend It, therefore, as our very best seeder. It is light running; is supplied with a narrow opening plow which plants the seed in a narrow, straight line, leaving a minimum amount of hand weeding; for the weeds are usually enough to one side or the other of the straight, narrow row of plants as to be cut out easily with a wheel hoe.

As a Seeder it drops all garden seeds in hills, 4, 6, 8, 12 or 24 inches apart, or sows them in drills with accuracy, opening the furrow, covering, rolling down and marking the next row all at one passage. The seeds drop in sight of the operator, the rear of the spout being open and white.

Seeder Wheel Hoe Cultivator and Plow

Steel Driving Wheel. Weight, packed, 47 lbs. Holds 21/2 qts.



Price, Complete, \$10.50. As a Seeder, only \$8.50.

The tool combines, in a single convenient implement, a capital hill-dropping seeder, a continuous row seeder, an admirable single wheel hoe, an excellent furrower, a capital wheel cultivator, and a rapid and efficient wheel garden plow. In a word, with a great variety of tools, excellent in design and quality, it is without an equal for easy adjustment, lightness, strength, and beauty. It is a practical, every day, time, labor, and money saver. It sows in continuous rows with great uniformity, and drops with accuracy in hills, 4, 6, 8, 12 or 24 inches apart. THE FEED IS AUTOMATICALLY STOPPED by raising the handles, and started by lowering them.

No. 16 Planet Jr. Single Wheel Hoe Cultivator Rake and Plow





Single Wheel Hoes.

Price, as in cut..... \$5.35 Packed weight, 29 lbs.

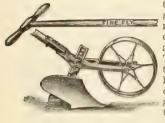
Never have hand seeders and wheel hoes been appreciated as they are to-day, and never has the necessity for such tools been so urgent and their value better determined.

Every garden should have Planet Jr. Tools for labor saving and to enable one to grow larger and better crops.

Garden Tools—Continued Fire-Fly Garden Plow

Packed weight, 13 lbs.

This tool is exceedingly useful to owners of small gardens. It will throw a furrow four to six inches wide and one to



to six inches while and one to three inches deep, and deeper by going twice. Furrows for manure or seeds can be opened and covered. In cultivating, plow away, weed and plow back again. This tool will enable a busy man to do in his spare minutes nearly all the work of a family garden. Chicken raisers find it of great advantage in plowing up their scratching yards.

Price...... \$2.25

No. 25 Planet Jr. Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow



Holds 2½ quarts. Weight, complete, 64 lbs. It combines in a most practical way the Planet Jr., No. 4 Drill and No. 12 Double-Wheel Hoe.

Equipment: One pair of 6 inch hoes. Two pairs of cultivator teeth. Two plows. Two leaf guards.

Price...... \$13.00

This combination is intended for gardeners who have a large enough acreage in crops for a double-wheel hoe to be used to good advantage, and yet prefer not to buy seeders and wheel hoes separately.

As a seeder it is practically the same as the Planet Jr. No. 4; will sow in drills any thickness or drop in hills 4, 6, 8, 12 or 24 inches apart, and has the same feed, hill-dropping mechanism and automatic device for stopping the feed, and has also the new seed index. It is thoroughly substantial and is accurate in planting all kinds of garden seeds in either hills or drills. Feeding may be stopped instantly by raising the handles and also by pushing down the index bar.

The attachment for making up rows for the seed drill as shown in the cut is a great labor-saver when fertilizers are to be used. First make the furrow with the two plow points together, lining out the next row with the marker.

The change from drill to wheel hoe and back again is quickly made, and the entire combination is one we can heartily recommend and guarantee satisfactory. No. 17 Planet Jr. Single Wheel Hoe

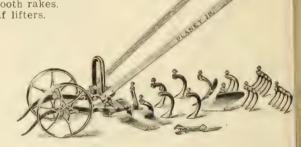


No. 11 Planet Jr. Double Wheel Hoe

Price, with Attachment as in cut...... \$8.50

Packed weight, 37 lbs.

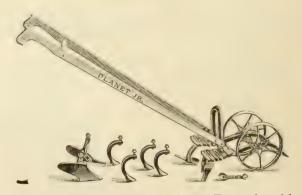
One pair 4½ inch hoes, oil tempered. Two pairs hollow steel cultivator teeth. One pair 6-inch hoes, oil tempered. One pair plows. Two 3-tooth rakes. Two 5-tooth rakes. Two leaf lifters.



No. 12 Planet Jr. Double Wheel Hoe

Price, with Attachments..... \$6.50

Packed weight, 31 lbs.



Equipment: One pair of 6 inch hoes. Two pairs of hollow steel cultivator teeth. One pair of plows. One pair of leaf lifters.

Garden Tools-Continued Iron Age No. 1 Double and Single Wheel Hoe

From double to single wheel form. The double wheel hoe is for working astride the plants when they are young-the



single wheel for working between the rows, after the plants have grown too high to be worked properly the other way. A long axle is furnished for the one wheel and it takes but a minute to change. This is the only combination double and single wheel hoe on the market.

Fig. 83.

No. 1, Fig. 75, complete with all tools.....\$7.00 (Packed weight 40 lbs.) No. ' with Shie Hoes only + 25 No. 13, with Side Hoes and Teeth 5 50

Iron Age No. 12 Wheel Plow and Cultivator

It has four working tools as shown in the engraving—it will plow in all but hard ground, open furrows and cover them; hill growing crops, hoe, rake, and cultivate.



For the laborer and mechanic who cannot afford much money for a garden tool, who has plest work, but who, nevertheless, wants a garden with the least work possible. It means a big reduction in living expense and better health for his family and himself. The No.

12 is low priced, but complete in itself for the work to be done. This tool, also, can be used to advantage in stirring the soil in poultry yards.\$3.50

Price....

Iron Age No. 6 Combined Hill and Drill Seeder, Double and Single Wheel Hoe

Gives you twice the value and is the best tool to buy if you have enough work for a seeder.

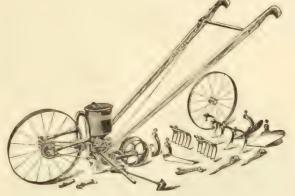


What It Will Do. It will open its own furrow, sow in continuous rows or drop in hills, cover the seed with loose soil, pack it with roller and mark the next row. Then when the time comes the drill attachment is taken off and the different cultivating tools can be used as needed.

No. 6, Fig. 114 (Packed weight, 57 lbs.)\$12.00 No. 7, Hill and Drill Seeder only..... 9.00 No. 14. with Hoes and Teeth only..... 10.50

No. 4 Combined Drill Seeder and Double and Single Wheel Hoe

A drill seeder, like No. 6 except that it does not have hill dropping device and has a different opening plow. Sows in continuous rows only. For the man who makes a specialty of



Fog. 83.

one or more crops that are always sown in continuous rows and, naturally, has no use for the hill dropping parts.

. 10. 4	4, F1g. 83,	with tools\$	11.00
		(Packed weight, 55 lbs.)	
No.		Seeder only	8.00
No 4	10 with Si	de Hoes and Teeth only	9.50

Iron Age No. 20 Single Wheel Hoe

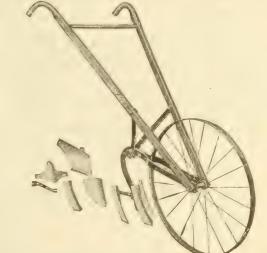
This is a practical garden tool-so it follows that it must be light or people would not use it, yet strong and durable to make its use pay. Next,

It will do all of the necessary between-the-row hoeing. cultivating, furrowing, ridging, weeding, leveling, etc., in any home or market garden.



Single Wheel Hoe

This is one of the best light all-round tools in existence; has extra high wheel, making it light running.



Price, including Seven Tools.....\$3.50

Farming Implements

GENUINE OLIVER CHILLED PLOWS

necessary to finish up the last four or five

furrows with a walking

plow? If you ever saw

a farmer with a No 11

James Oliver Sulky

Plow do this, you can put it down that he

took it so easy in plowing the major part of the field that he was ashamed of himself, and finished up with a walking plow to ease his conscience, for there is no other reason why he should depend upon some other plow to fin-

The No. 11 James Oliver Sulky Plow

Made Right and Left Hand

Have you ever noticed that the farmer who takes pride in his field and who plows it with an ordinary three-wheeled sulky plow, finds it



ish what the No. 11 started, and the No. 11 neevr hesitates to start in any field. It is the only threewheeled plow made—remember that—on which the trucks can be narrowed by the operator so that in plowing the last furrow, both wheels will run in the dead furrow. finishing up the field just as neatly and cleanly as the first.

Price, complete \$37.50

Oliver Steel Beam Plows

All the strong features of the Oliver Wood Beam are incorporated in the Steel Beam Plow. Light draft is one of its



t draft is one of its strong points. Scouring in all kinds of soil is another equally valuable requisite. We cannot too highly recommend the Oliver Steel Beam Plow. It makes friends wherever it is sold.

Rolling Coulter \$3.00

The S-29 Chilled Subsoil Plow

This plow can be used as a subsoiler or as a middle-breaker, by attaching double mould-board, which is made in one piece out of chilled metal, thus giving the buyer two plows at the cost of one, and that at a very low price.

All Jointers, \$2.00 extra. All Wheels, \$1.00 extra. We carry repairs for the Oliver Chilled Plows in stock.

Genuine Farmers' Friend Plow

 No. 5
 \$2.90

 No. 7-R
 4.50

 CAN ALSO FURNISH SYRACUSE PLOWS. WE CARRY

A FULL LINE OF SPRACUSE PLOW REPAIRS.

The Oliver Plow was introduced into this section more than thirty-five years ago, and is still the standard. The fact can be testified to by all of the farmers who have used them.

The word Oliver is a synonym for excellence.



PLOWS-PRICES

STEEL BEAM-RIGHT AND LEFT HAND

No. A-1 and A-2 Right Hand Only	\$6.00
No. B, Right Hand Only\$	8.00
No. 10	9.00
No. 13	11.25
No. 19	
No. 20 (Right and Left Hand)	
No. 40 (Right and Left Hand)	
No. 40 XX (Right and Left Hand)	12.00

The above are also furnished in Wood Beam. All Wood Beam Plows \$1.00 less.

NOTE.—A Clevis. Wrench and an extra share are included in prices for Plows fitted with Cast Shares, but wheels and jointers are not.

Kentucky Plows

Pony	Kentucky,	wood	beam	(Includes	extra	share)	 .\$3.00
	Kentucky						
Pony	Kentucky	Lands	ide				 15

We have a full line of repairs for Kentucky Plows and Farmers' Friend Plows on hand.

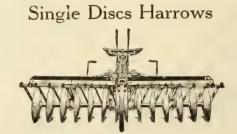
Plow Handles

Planed and Finished

1½ i	n. x	2 in., 5	feet long	0c
			5 feet long4	
$1\frac{1}{2}$ in	n. x	21/2 in.,	5 feet long	0c

MALLEABLE CLEVISES, SHACKLETS, TWISTED AND STRAIGHT MALLEABLE PLOW RINGS AND OPEN LINKS.

Full line of Bolts for all Plows. Prices on application.



Price, with fore truck, 8-16-in. Disc	27.00
Price, with fore truck, 10-16-in. Disc	
Price, with fore truck, 12-16-in. Disc	
A full line of extra teeth and parts in stock.	

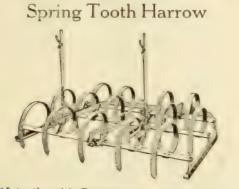
Farming Implements—Continued Double Disc Harrow With Flexible Frame

The Double Disc Harrow is just what its name indicates—two harrows combined in one, for the purpose of saving time and labor in tilling the soil. Its capacity is twice that of any other form of Disc Harrow, for it works the ground twice at one operation. One man and three horses operate the Twenty Disc, doing as much work as could be done with two ordinary harrows employing two

men and six or eight horses. Moreover, the work is more thoroughly done. for the second harrowing follows immediately after the first. before the freshly cut ground has had time to dry out or become hard.



Price, with tonzue truck...... \$45.00



Deering,	19	tooth,	with	Runners\$1	5.00
Deering,	17	tooth,	price	with Runners 1	6.00
Deering,	21	tooth,	with	Runners	20.00
Deering,	23	tooth,	price	with Runners	1.00

Spike Tooth "U" Bar Zig-Zag Harrows

Closed End

This is a practically all steel implement. The Steel "U" Bars, Teeth and Clips are exactly the same. The outside frame is made of channel steel and the tooth bars are riveted to it by means of steel rivets. This construction gives protection to the tooth bars and prevents injury by their coming



in contact with stumps, fences or other obstructions. It also affords protection to trees when the Harrow is used for orchard work.

All teeth are 5-8-inch steel.

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ne Section of 60 Tooth Harrow.....\$6.00

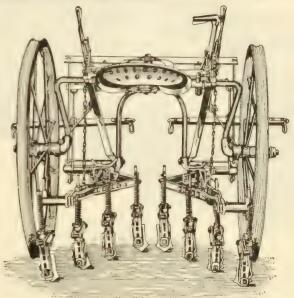
Success, Jr., Potato Digger

The Success Jr. Digger is made of Steel throughout excepting the beam and handles. Without question it is the most successful plow digger ever placed on the market.

Price\$9.00

Oliver Riding Cultivator

When the first descriptive circular of the Oliver Cultivator was written, upon entering the race where so many were competing, it was done with a feeling of confidence that the cultivator would prove to be a universal favorite.



At this time (after several years on the market) we can boast of the distinction of having won the race with the competition completely outclassed.

Absolute and distinct advantages over other implements are what count, and the following are to be found in the Oliver Cultivator:

The work is done perfectly, because of the parallel gangs. always held a uniform distance apart, always maintaining full depth and never shirking when going through hard ground.

This good work is done with the greatest ease by the operator because of the power lift for the gangs, provided by draft of team, and the pivotal seat bar guide which shifts the gangs, besides pivoting the pole to guide the machine. The Oliver is absolutely the easiest to guide of any cultivator ever invented.

It is easy on the team, because of perfect draft lines—therefore no neck weight or neck draft. Light to draw, because of short frame and otherwise novel construction. Automatic Balance Frame. The movement of one lever

Automatic Balance Frame. The movement of one lever assisted by the team raises and lowers both gangs, and at the same time balances the frame.

For narrow rows, the wheels can be set 38 inches between the tires and still give ample room for guiding where planting has been done badly out of check.

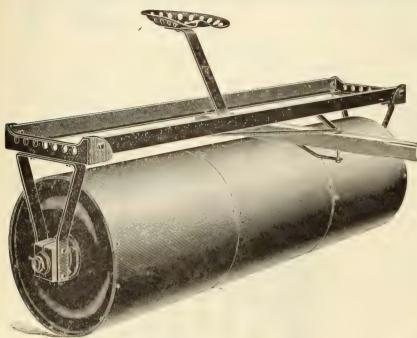
As a hard ground cultivator it has no equal. There are no springs or high hitch to draw the shovels out of the ground, which are, therefore, always hungry for their work.

It is a profitable cultivator for the farmer, as it does not wear out easily, never breaks, saves time and manual labor, and does faster and better work than is possible with any other.

Price, with 8 spring shovels.....\$33.00

Farming Implements-Continued Imperial Steel Land Roller

The Imperial Roller is built for hard service. It is strong, solid and substantial. The Drums are made of high carbon sheet steel, No. 12 gauge, and the ends are closed with tight fitting solid sheet steel heads, put together with Dirt and stones are excluded from the interior of the Drums, which turn independently on the axle. bolts (not rivets).



Cast sleeves or collars are placed in the hub at the ends of each Drum, and the wear, if any comes on them and not on the exle.

The exle is made of 1%-inch steel shafting, and turns in hard maple boxes carried in steel hangers We were the first to use hard wood boxes in Lan(Rollers, and years of service have proved their superiority. They are better than metal bearing: for the conditions in which they are used, wear longer and are easily replaced by the farmer himself.

The frame or top of the Roller is made of steel full 1/4-inch material, and is better, stronger and more durable than a wood frame.

The Imperial Roller is simple of construction. strong in every part and every pound of material is the best obtainable. With ordinary care it will last a lifetime. Comparison with other Rollers in the following particulars is invited:

Weight and quality of steel used in drums; weight of steel used in frame; diameter of axle; construction of drums with closed heads bolted together; material and construction of hangers; bearing, as to durability, ease of renewal, and fitness for the service required.

No. 7-8 feet, 3 sections, 24-inch diameter, weight 635 pounds.

Price \$27.50



Imperial Alfalfa Harrow

This Harrow is especially adapted to the cultivation of Alfalfa. Has 21 spring teeth and is mounted on wheels.

Price \$22.50

Reversible Harrow Tooth Points

Fastening device to the old tooth very simple, making any length desired. Points reversible. Has pulverizing qualities for any soil.

Price 15c

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

while the machine is in motion, by a convenient spacing lever. Single tongue; square tube steel frame; forty-

two inch steel wheels; spring pressure; steel seat adjustable for length and height; drop-hitch directly connected with beams; height of arch, 34 inches; adjustable arch.

The Buckeye Pivot Axle Riding Čultivators

Pressure of the foot on the foot-lever turns the wheels and moves the beams at the same time, thus shifting the entire cultivator instantly in the

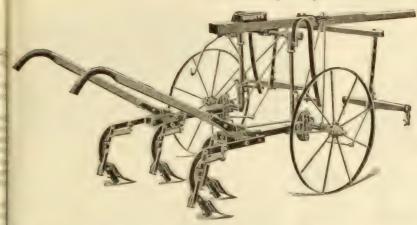
Space between beams can be instantly changed

desired direction.

Especially adapted to crooked rows and hillside cultivation.

Price, with 6 Spring Shovels..... \$28.50

Farming Implements—Continued



Iron Age Cultivators—No. 600 Horse Hoe

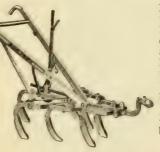
An up-to-date tool for the Twentieth Century farmer who wants quick, thorough work and a machine that can be adapted to the necessary operation to produce a first-class crop. He also wants a tool that he can hitch to, confident that when he unhitches he will have done a good day's work.



and that the tool will still be in good shape for the next day. The No. 6 meets these requirements—it can be adjusted for a wide variety of uses, and to meet the many conditions common to each vicinity—it has the necessary strength, yet light and compact.

Price \$6.00

Our No. 1005 Cultivator



Is a plain five-tooth cultivator. It is sold largely in sections of the country where laborers are careless or do not know how to handle the tools—where a strong, rigid, cheap tool is needed.

Price, plain......\$3.50 Price, with lever expander......4.50

Spike Harrow Teeth

1/2 inch, 5% inch, 3/4 inch, 7/8 inch sizes.

Price, per pound5c

Buckeye Walking Cultivator

The Buckeye Balanced Frame Walking Cultivator with parallel beams has many new and improved features, making it far superior in every way to any other cultivator of this style on the market.

The steel axle is of one continuous piece, giving it great strength.

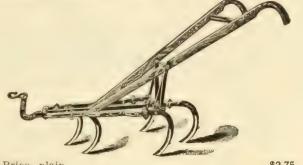
Perfectly balanced. Light and neat in appearance.

Steel wheels, 30 inches high, double tongue. Flat steel lifting springs.

Price, with 4 Spring Shovels...... \$18.00 Price, with 6 Spring Shovels...... 20.00

McCormick Cultivators

McCormick Cultivators are made for all purposes where a one-horse cultivator is required. They are equipped with different attachments which enable the operator to do good cultivating in all kinds of crops.



This cut represents our No. 37 Cultivator, for use in light, sandy soils. Is built on the same lines as our regular No. 1 Cultivator. Is fitted with wheel clamp expander. Opens to

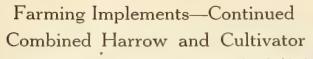


20 inches and closes to 9 inches. This is our leader, and is sold at the

Special price \$2.50

Iron Age Cultivator Steels

11	inches	wide	 						 		 					 						70	2
1/2	inches	wide	 						 					 								70	5
2	inches	wide	 						 		 					 		0		a		80	2
1/2	inches	wide	 		 		 									 						80	5
3	inches	wide	 						 		 								•	0		80	C
31/2	inches	wide	 										•	 			•				. 1	00	2
Ļ	inches	wide	 						 		 										1	20	3



Farmers in all parts of the country have found this tool to be "right" in every way, and it has always been very popular. It is extensively used in cultivating sugar beets.



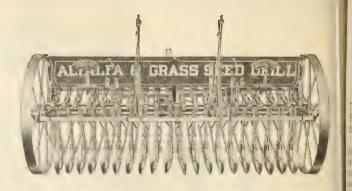
Shovel Plows-Genuine Malta

The Buckeye Alfalfa and Grass Seed Drill

The Buckeye can be taken into a "patchy" Alfalfa field. The bare spots can be economically seeded, using just enough



seed to properly do the work. It can also be used as a "renewer" and cultivator, working the growing plants and putting just a few seeds in the ground, thus avoiding the necessity of plowing up the field and losing seed, time and money.



The Buckeye Alfalfa and Grass Seed Drill has 20 single discs, spaced four inches apart, giving a seeding width of 8 inches or 6 feet and 8 inches. These discs are provided with a closed seed boot, protected by a suitable open shield which precludes the possibility of the seed being interfered with by wind or trash, and conducts it to the bottom of the wel made firm-bottomed seed bed, where germination takes place in the shortest possible time.

Bickford & Huffman, or Farmers' Favorite Grain Drill

Too well known to need much comment. Ask for specia: catalogue.

Both the grain and fertilizer are positive force feeds, and will sow with absolute regularity any kind of grain or fertflizer in good condition. The grass seeder is also a force feed, and can be used either in front or rear of the hoes; also quantity can be changed to any amount necessary. It is fastened on the frame and very low down, thus preventing



the wind from blowing the seed away before reaching the ground The fertilizer feed can be stopped or started at any time while the drill is in motion, which makes it convenient in case the operator does not wish to sow fertilizer while going over good ground.

B. & H. Spring Hoe Grain and Fertilizer Drills

8x8 Spirng Hoe, Grass Seeder attached....\$70. 9x8 Spring Hoe, Grass Seeder attached... 75. 10x8 Spring Hoe, Grass Seeder attached... 80.

Fenders for Shovel Plows

Price, each35c

Triple Shovel Plows, or Go-Devil

Regular, Steel Beam			\$3.25
Full and complete	line of polished	steels for	single, double.
and triple shovel plo			
· · · · · · · · · · · · · · · · · · ·	IN S.		
Price, per pound			

Farming Implements-Continued

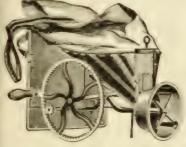
Steel Frame Bemis Transplanter

Is the only practical machine for transplanting Tobacco, Cabbages, Sweet Potatoes, Tomatoes, Strawberries, Nursery Stock, etc., better than by hand. They start sooner, and mature more evenly.

Great saving in time and labor, great increase in yield per acre. Set your plants when ready—don't wait for rain. Each plant watered at the roots, covered with dry earth—no baking. Every feature necessary for every purpose, every adjustment desired. Perfect working qualities. Easily handled. Very light draft.

Price.....\$65.00

Broadcast Seed Sowers



This Sower is well made, frame being of malleable iron, hopper of steel, has brass discharger. Will sow Clover. Timothy, Millet, Oats. Wheat. Buckwheat. Barley, and Rye, with great accuracy. A full set of directions with each machine.

CAHOON

Price \$3.00

Cyclone

Farmers' Favorite Broadcaster for Sowing Fertilizer, Lime, Ashes, Land Plaster and Chemicals

BEMIS

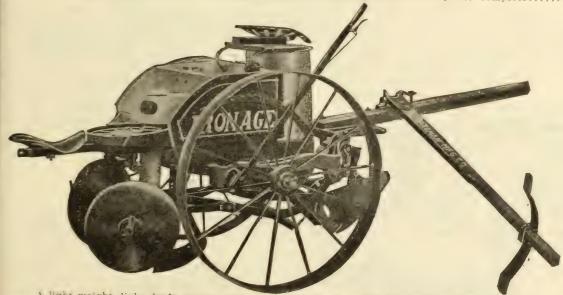
RANSPLANTE

This Broadcast Fertilizer Sower is fully equipped for and adapted to sowing large quantities of fertilizer per acre. The hopper is of great capacity, mounted on large wheels, making easy draft; at the same time the arrangement of the hopper



relative to the ground is such as to deposit the fertilizer just where it is wanted without danger of the wind blowing from one side to the other.

Potato Planters Iron Age (Improved Robbins) Potato Planter Price, with Fertilizer Attachment (includes whiffletrees and neck yoke) complete.......\$78.00



Its perfect work is marked by four things especially-while it handles all the seed automatically from hopper to seed spout, it does not injure a single piece -although a boy is necessary to make cor-rections, the net profit to you is far greater than if you planted with any other machine-no matter what distance apart you want to put the seed, you can do it and be sure there is a piece in every space and one only-although you sow fertilizer at the same time, none of it touches the seed.

A light weight, light draft, strong, compact potato planter with a record of many years perfect planting such as none other can point to. In localities where they are used at all they are used almost exclusively—as soon as a grower leeves what the Iron Age has done for his neighbor, he wants one and gets it—if he speaks in time.



The Evans Potato Planter

The improvements on our Evans Potato Planter are of vital importance to potato growers. The Evans in its old form was acknowledged to be the most perfect potato planter in use. We were not content with "good enough." Our determina-tion is to improve wherever improvement is possible. That has always been the policy of the Superior Drill Co., and always will be.

Among the improvements are the furnishing of two sets of Picker Arms instead of one; the double drive, which insures perfect working of planter on hill-side or level ground; dust-proof oilers for lubricating axle and covering disc bearings; the adjustable disc marker; also the improved design of furrow opener, which greatly aids in the lightness of draft and the making of a correct furrow.

The Evans Potato Planter is the most perfect planter on the market, because it is made better and will do more and better work with less labor, thereby producing larger and more profitable crops at a decreased expense to the owner.

In ease of operation the Evans is far in the lead. One person can operate it anywhere under any and all conditions of seeding, whether it be on hillside or level ground.

Price, complete, with Fertilizer Attachment, \$65.00

Iron age Wide Elevator Potato Digger

sections of the country the land is heavy, vines are sometimes over 4 feet high, and grass is very troublesome. These conditions need a machine with great traction power and wider, long elevators. Such a machine is Iron Age.

Construction: Built almost entirely of malleable castings and steel-strong, compact, carefully fitted and keeps tightly bolted-the heavy work does not rack it to pieces. Has steel angles for side bars.

Price....

it spreads wider than the wide body spreaders. As stated

above, the front wheels will turn under, making it a very

short turn machine. If you are in the market for a Manure Spreader it will pay you to buy no other kind, because the

the market.

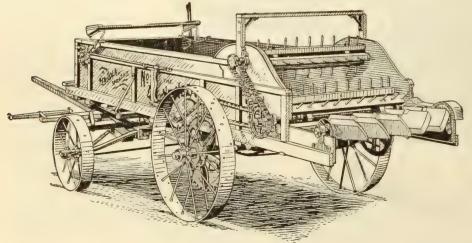
horse hitch.

Ask for Special Catalogue.

New Idea will save you time and money.

New Idea Manure Spreader wagon, which is a big point in its favor, and at the same time

The New Idea does better work than any other make. It is the only spreader constructed with double beater, and it pulverizes the manure thoroughly and distributes the same evenly in a wide stream. The greatest argument in favor of the New Idea is to see it work. Drop us a card, and if there is one in your neighborhood we will tell you who has it so that you can look at it. It will track with the ordinary farm



PRICES SUBJECT TO CHANGE WITHOUT NOTICE

In comparing the capacities of the New Idea Manure Spreaders with those of other makes, bear in mind that on ac-count of your being able to round up the load on the New Idea Manure Spreaders, these machines will handle more manure, size by size, than any other Spreaders on

DIMENSIONS Front wheels 28 inches, with the hind wheels 40 inches. Equipped with twohorse hitch. Extras: Brake and three-

Prices of New Idea Machine Spreaders 75 bushel capacity, with three-horse hitch and Neck Yoke..\$125.00 Steel distributors, extra 5.00 Brake, additional 5.00

For heaviest conditions of vines, grass, and soil. In some

Farming Implements-Continued Superior Corn Planters

Every farmer who raises corn desires each succeeding year more corn from the same acreage. There are many contingencies which may, and do, effect results. All are agreed that much depends upon the seed, accuracy of planter, and soil conditions. The latter, of course, is entirely in the hands of the farmer, so also might we say of the seed, but the machine behind the team is the one proposition of which is demanded Jury Trial. The Superior Corn Planter has been thoroughly tried superior corn righter has been thoroughly theu in all corn-raising sections, proving the worthi-ness of the name it bears. The quality went in before the name went on. The Superior Corn Planter possesses new features—good sensible helps for the user. Adjustable in width, in 2-inch steps, from 28 inches to 48 inches.

Price of complete Planter, with 80 rods of check-row wire and Fertilizer Attachment with runners... . \$50.00 Price with so rods of check-row wite, without Fertilizer

Extra Check-Row Wire in 19, 29, 49, and 89 rod lengths,

Price per pair for Superior Steel Runners......\$4.00

Corn Planter Links for splicing check-row wire, per doz 20c

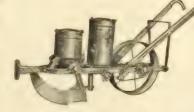
Corn King Manure Spreader

No machine is of more practical value to the farmer than an I H. C. manure spreader, because it enables him to realize the full value of his barnyard manure, and thereby maintain the productivity of his soil. The usual methods of handling manure are wasteful and require a great deal of hard labor. A spreader saves the hardest part of the labor and most of the waste. It brings a tangible return in increased crops and improved condition of the soil, and is therefore a decidedly practical machine. If this country is to maintain its supremacy in agriculture, farmers must conserve the fertility of their soil. The liberal use of barnyard manure handled by means of a manure spreader is the one practical and economical method of accomplishing this result. in the

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	1	in	2	cana	25	1.90	40	hu	ch	alc	

NO. 2,	capacity	40 bushels.	 								\$115.00	
NO. 3,	capacity	55 bushels.									120.00	
No. 4.	capacity	75 bushels.					• •	<u> </u>	 -	• •	125.00	
sk for	Special C	atalogue.	 • •	* * *	• •	• •	• •	•	 •		125.00	





Superior One-Horse Model Corn Drill, with or without Fertilizer Attachment, suitable for field or sugar corn, peas, beans, etc. With Runners or Discs. With Fertilizer Attachment....\$12.50 Without Fertilizer Attachment.....11.00

Hand Planters For Planting and Re-Planting Corn, Beans, Etc.

McCormick Binder PRICES

6 ft. Cut, with bundle carrier and transport...\$120.00 7 ft. Cut, with bundle carrier and transport... 125.00 8 ft. Cut, with bundle carrier, tongue truck,

and transport..... 140.00

The McCormick Binder is the outgrowth of the first reaper which was invented in 1831, and has always been the standard of construction. The reason for this is that the machine has progressed with the times-it has been improved each year so that it is now a model of perfection. The McCormick Binder naturally has an excellent reputation because it has done splendid work for so many years in all countries of the world. Thousands of these machines are in use and each farmer who owns one appreciates the features which make it efficient.

When grain is down and tangled, the McCormick Binder will cut it successfully because the reel and the platform can be adjusted readily to meet he conditions. All bearings are accessible for viling. The machine is easy to operate and light in draft, because it is equipped with ball and roller bearings, which minimize friction. The McCor-mick Binder is noted for its durability, which is a result of strong construction and the use of proper material.

Farming Implements-Continued

McCormick Corn Binder

The McCormick Corn Binder will cut corn of all lengths. It will also work well in corn that is down, tangled, and lodged. This is possible because the machine is provided with convenient adjustments which enable the operator to raise and lower the gatherer arms, so that the fingers of the conveyor chains which extend to the points of the gatherer arms can grasp and elevate corn that is lying almost flat upon the ground.



Price, with Bundle Carrier

The band shifting attachment also has a wide range of adjustment, and the bundle can be tied around the center even though corn be extremely long or short.

......\$115.00

McCormick Hay Tedder

Tedded hav cures in a very short time, and for this reason the McCormick Hay Tedder is an invaluable machine for the hay grower. When it is used the farmer can handle the hay crop very quickly for the reason that hay can be tedded soon after it is cut

The wheels, frame, and forks are made of steel, which insures a

substantial construction. The machine is driven by gears. The gear wheel which is mounted on the center of the axle drives the crank shaft to which the fork-arms are attached. All the forks are therefore given the full driving force of both wheels and the motion of the forks is uniform and positive-the heaviest hay will not retard the forks.

6 Forks\$40.00 8 Forks 42.00

McCormick Hand Dump Rake

The McCormick Hand-Dump Rake is efficient in all conditions of hay and fields. The weight of the driver is utilized on this rake to help raise the teeth for dumping. Overcleaners are used on this rake, which act in the same thorough manner as the under-cleaners on the self-dump rake. advantages of using over-cleaners instead of under-cleaners on this rake is that the load is taken off the operator. Those who prefer the hand-dump rake will find that the McCormick is built correctly.

8 ft., 20 Teeth.....\$19.00



The best material is used in the construction of the McCormick Self-Dump Hay Rake, which is simple in both design and construction. The wheels have staggered spokes and a heavy 2inch channel tire.

The teeth on the Mc-Cormick rakes are made of selected spring steel, thus having great

strength and resiliency. The points of the teeth are so shaped that they will get all the hay without digging into the ground or picking up stones. Both the self-dump and hand-dum rakes can be operated with either one or two horses by simpl adjusting the shafts. The wheels are fitted with removabl hubs, which can be easily replaced at a small cost, thus prac tically renewing the wheel.

In a word, this rake is designed to have the maximur strength and rigidity with the lightest weight possible; an agriculturists will find that the McCormick Self-Dump Rak meets every requirement for gathering the hay into windrows

					Prices:
8	ft.,	20	Teeth,	Self	Dump\$22.00
					Dump 23.00
					Dump 24.00

McCormick Vertical Lift Mower



The McCormick Ver tical Lift Mower ha been designed for cut ting on rough and stumpy ground, where : plain lift mower could not be used to good ad vantage. This mower i a practical machine fo all kinds of grass cut The cutter ba: ting.

can be raised to a vertical position and lowered without stop ping the team. When the bar is raised, the machine is thrown in and out of gear automatically. This feature permits the driver to cut close to a tree, stump, or rock, and save all the hay without loss or time, or inconvenience.

The McCormick Vertical Lift Mower will cut grass suc horses, and it will do good work under conditions where at ordinary machine could not be used.

As an all-purpose machine, the McCormick Vertical Lif Mower is unsurpassed-it will do excellent work in unever fields where there are stumps and stones, as well as in the level fields.

	PRICES	
41/2 ft. and 5 f	ft. Cut	\$43.50
New Big Four	r, 6 ft. Cut	46.00
New Big Four	r, 7 ft. Cut	49.00

McCormick Little Vertical Mower

The McCormick Little Vertical Mower has been designed to meet the demand for a mower of small capacity that can be pulled by one horse. It is adapted for mowing lawns, parks orchards, and cemeteries, because it can be operated in places where a large two-horse machine could not go.

31/2 ft. and 4 ft. Cut.....\$38.50

I H C HAY PRESSES

I H C Two-horse Pull Power Hay Press



Made in Three Sizes 14x18 in. bale chamber 16x18 in. bale chamber 17x22 in. bale chamber

Light draft, capacity and durability are the three mair points to be considered in buying a pull power hay press-The I H C two-horse pull power press is made almost entirely of steel and is, therefore, remarkably strong without being excessively heavy or unwieldy.

The Pull Power Principle The Combined Leverage The Toggle Joint Plunger

And the Self-Feeder

are the principal features which in combination give a greater pressure in the bale chamber, and a larger capacity for the amount of power used than any other hay press.

Farming Implements—Continued

International Motor Hay Press

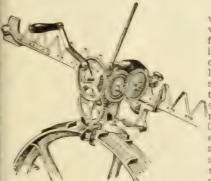
Made in Three Sizes

14x18 in. bale chamber, 3, 4, or 6-horse power I H C oil engine. 16x18 in. bale chamber, 4 or 6-horse power I H C oil engine. 17x22 in. bale chamber, 6-horse power I H C oil engine.

The International Motor Hay Press is constructed of the best materials, assembled and designed in such a way that convenience, efficiency and durability are combined. It is a self-contained outfit, having the bale chamber and engine connected and mounted together on substantial trucks. The power from the engine is transmitted through a heavy drive chain and power jack. This arrangement of the bale chamber and engine makes it a simple matter to move the press from place to place and to set it up for work. One team is all that is required to transport the whole outfit.

Ask for Special Catalogue and Prices.

McCormick Knife and Tool Grinder

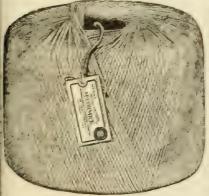


This device is convenient for use in the work shop or in the field. as it can be readily attached to a bench or mower wheel. Unless the knife be kept sharp, it is impossible to secure the best results with a mowing machine, and the Mc-Cormick knife grinder enables the farmer to always keep the knife sharp-and the work of sharpening requires considerably less time than

is possible with the ordinary grindstone. A cylindrical stone, for grinding tools is furnished on special order. A stone for gumming saws can also be furnished on special order. When desired a foot power attachment will be supplied at a small additional cost.

Price, with wheel for grinding mower sections.....\$4.00

McCormick Binder Twine



It is well understood that good binder twine is essential to successful binding. The harvest season lasts only a few days and delays nearly always result in more or less loss. Binder twine that kinks and breaks is not worth hauling home, because it is not only a source of annoyance while harvesting the grain, but it also delays the work of shocking. When bound with inferior twine the bundles break open when they are pitched

to the wagon and stack, and with such bundles it is almost impossible to build a stack that will shed water. Uniform size and strength are the characteristic features of the McCormick binder twine. It will not kink and clog the knotter, or pull thin and break. The different brands of McCormick twine are Sisal. Standard, Manila, and Pure Manila.

Lowest market prices on application.

This Shock Carried is fully Guaranteed to do all we claim for it.

Clagett's Shock Carrier

This machine is not new but has been in use a number of years, and has thoroughly done the work for which it was intended under the most trying weather conditions.

When the yield is heavy the machine will lift and transport a fifteen bushel shock of cured corn and on unloading will leave it standing as well or better than when in the field. It is nothing unusual to haul in from 25 to 35 standard bbls. of corn a day or as many as 20 large shocks of fodder. It is just as easy to load in a wind storm as in calm weather, and without any waste whatever.

Shocks of cured fodder up to 12 feet in diameter are lifted and transported with practically no effort on the part of the operator. Two shocks of smaller diameter may be loaded also.

Price without neck yoke and double tree......\$35.00

International Side Delivery Hay Rake

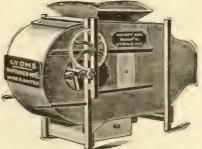


This is an all-metal rake, except the tongue. The frame is made of high-quality steel, and is very substantial. The crank shaft carries four forks, and rotates in

three bearings. The propelling power is transmitted from near the right front wheel to the center of the crank shaft by means of an efficient chain drive. Each fork is equipped with six tines, which, under ordinary conditions, are practically unbreakable. This rake will handle any growth of hay in any condition. It will not rope wet hay, but rather gives it a motion which facilitates drying. It will handle dry hay without knocking off the heads and leaves, which constitute a valuable part of the crop. It leaves a light, fluffy windrow, which is easily taken up by the loader or put into cocks for curing.

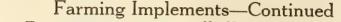
Price\$60.00

Improved Grain Fans



Aulds complete, with necessary sieves for all forms of seed..**\$22.00**

Lyons', handmade, complete, with necessary sieves for all forms of seed...... \$25.00



No.	35,	per	foot					 																												4	12	
No.	42,	per	foot															•	•	•	•	• •	•	•		•			1	•	•••	•	•	•	• •			
No.	45.	per	foot		Č.	 ľ	Ť				•	•	•	•			•	•		•	•	•			٠	• '	1	•••	•	•	• •	*	*	•	• •		10	٤.
No.	55.	per	foot	Ť		•	• •		•	•	•	•	•	•••	•	*	•	*	*	•	•			*	•	•	1		•	•	• •	*	٠	٠	• •		10	1

Repairs for standard makes of Harvesting Machines kep in stock or promptly gotten on short notice.

Machine Repairs

 No. 25, per foot
 .12c

 No. 32, per foot
 .12c

Myers' Haying Tools

This cut represents the Celebrated Myers Clover Leaf Unloader for double-steel track Is heavy and substantially made of malleable iron throughout. Is fitted with wide mouth to receive fork pulley when approaching from any direction. Has swinging fork pulley which relieves the carrier from strair when drawing hay over beams or into well filled mow. None better.

Price of Unloader..... \$4.50

The patent double steel track for this car rier is made by placing two T steel rails to gether, held to place by the three-bolt clamps, thus making a track of the same strength throughout. No riveting. A wrench is the only tool needed to erect same.

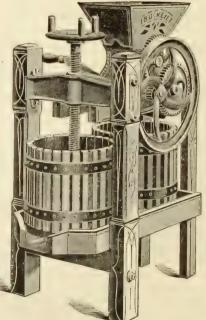
Price per foot, including the

sphee froms
Hanging Hooks, per doz\$1.20
Rafter Brackets, per doz
Knot Passing Pulley, each
Floor Hooks, 5% inch, each
Double Harpoon Fork, 25 in. tine, each 1.25.
Double Harpoon Fork, 31 in. tine, each. 1.50
Myers' Lock Lever Fork, 30 in. tine, each 3.00
Nellis' Single Harpoon Fork 2.50

Ask for Special Catalogue.

We carry a full line of best long-fiber Pure Manila Rope for use in Haying Outfits at lowest market prices.

Buckeye Cider Mills Senior



handle. This is the smallest Double Cage Mill we handle. A first-class mill for family use.

Barn Door Hangers Myers' "O. K. Stayon" flexible, covered, made with hard

ible, covered, made with hard steel roller bearings.

Price, per pair.....90c

MYERS' BARN DOOR TRACK

This track is extra heavy, made of special high carbon stiff steel, 3-16 x 1¹/₄ inch. Made in 4, 6, 8 and 10 foot

lengths. Price. per foot, including

bottom of door, each...20c

Material Required for a Steel Track Outfit for Different Lengths of Barns.

For a 40 ft. Barn—One Carrier, 40 feet of steel track, 21 hanging hooks, 21 rafter brackets, 5 knot passing pul-

leys, 1 R. H. Fork, 6 floor hooks, 110 feet 13-16 inch manila rope, 40 feet % inch reverse rope.

For a 50 ft. 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 $\frac{3}{2}$ inch reverse rope.

For a 60 ft. 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 rope, 60 feet $\frac{3}{2}$ inch reverse rope.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Price



"MEDIUM" DOUBLE CAGE HAND CIDER MILL

Similar to the Senior described above, but has one handle. Price \$16.00

"JUNIOR" DOUBLE CAGE HAND CIDER MILL

Built on same principle as Senior and Medium. Has one cage Mill we handle

.....\$12.50

Farming Implements-Continued



Fruit Press

This Fruit Press is operated easier and has less parts to take care of or get out of order than any other press on the market. It is cheaper than any other press, yet just as desirable, and will do the work equally as well as any other.

PRICES

4	quarts								•			•	0	0		\$3.50
	quarts															
8	quarts	4	0	•		•	•	0		•	0	0	0	•	0	4.50

Special Cider and Wine Mill

Berry Presses

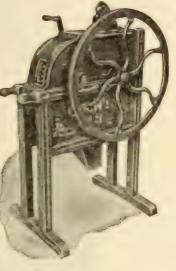
Corn Shellers

Our No. 3 One-Hopper Sheller, with cob separator and sieve, is one of the best hand shellers ever offered. Specially adapted to large corn.

Price.....\$8.00 Price, with Roller Bearings.....\$8.50

Our No. 7 Two-Hopper Sheller, with adjustable shaker, which separates the cob from the corn and chaff from the corn. made for hand and power, furnished with combined fly-wheel and 20inch pulley.

Price.....\$15.00



Red Chief Hand Corn Sheller

A very convenient sheller for poultry yards. Can be fastened to box or barrel.

Price......\$1.50 International Feed Grinder

The International Feed Grinder is simple in construction and operation. It can be operated with a large or small amount of power—the capacity being determined by the amount of power used. The plates **can** be adjusted to grind fine or coarse.

The International Feed Grinder is built in two styles. One style is designed especially for grinding corn on the cob; however, it will also grind wheat, barley, oats, Kaffir corn, etc.



This style of mill is built in two sizes—a small size with 8-inch grinding plates, and a large size with 10-inch grinding plates. The other style is designed for grinding small grain only, and is especially desired by those wishing a high-speed mill that will grind small grain very rapidly. This style mill is built in one size only with 8-inch grinding plates.

Ask for Special Catalogue.

International Ensilage Cutters

These Cutters are strongly built, made of first-class material throughout, and are designed with a view of getting the best results with least power and strain on the working parts.

Ask for Special Catalogue and Prices.

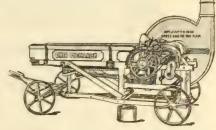
The Special Catalogue will give you detailed information as to why you should buy an I H C Cutter.

"Ohio" Monarch Self-Feed Silo Filler

Ranks at the head of the list of Ensilage Cutters.

Get a Monarch and the Silo question is easy.

Ask for a Special Catalogue giving different sizes, etc.



Feed Cutters—"Ohio" Hand Cutters

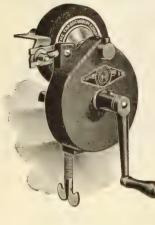
Are strongly constructed and light running, having minimum number of mechanical parts which are made of the best material.

Farming Implements—Continued "Ohio" Standard Feed and Ensilage Cutter No. 11

Equipped With Blower Elevator

The No. 11 Cutter has long been our most popular size for general farm use. It is adapted to cutting all kinds of dry feed as well as ensilage, is strongly and durably built, has The large capacity, and requires but slight power to run. pipe is 7 inches in diameter and is made of galvanized steel with standing seam on the outside running lengthwise, being very rigid. It is made in 4, 6 and 10 foot lengths, with 7-inch slip joints and a clamping band at each joint. The pipe con-nection at the fan case is a swivel joint which gives the pipe the proper angle for convenience and best results, and allows it to turn in any direction. Included with each machine is a

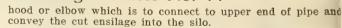
Carborundum Niagara Grinders



Carborundum Stones are made of Carborundum, the most marvelous abrasive the world has ever known. It is as hard and sharp as the diamond. The stones being manufactured, the uniformity of the grit, and cutting qualities, as well as absolute uniformity in hardness are insured.

The rapidity with which the work is accomplished, the satisfaction of having it promptly done, and the pleasure of having a stone sharp and clean, never glazed or filled, always ready for service, outweigh many times the slightly-increased expenditure for these stones.

P1		
No.	1	 \$2.50
No.	2	 3.50
No.	3	 5.00
No.	4	 8.00



Set Pipe Nearly Perpendicular for Ensilage. Dry Feed Can Be Blown in Any Direction. No. 11, with two 11-inch knives, cuts ½ 1 and 2 in.....\$75.00

No. 11, with two shredder blades, no knives...... 77.50 Above prices are for machines complete with Blower and

Hood, but no pipe.	
-inch galvanized pipe in 4, 6 and 10 ft. lengths, per ft\$.50
Cutting knives, each 2	.00
Shredder blades, interchangeable with knives, each 3	.00
Ask for Special Catalogue and Prices of larger sizes.	

Family Grindstones

20 Ma o	A very	useful	stone	for	the	house.	Mounted	on	malleable
rame.	ame.								

7	inch	diameter										 				,			.\$	1.2	.5	
8	inch	diameter					•				• .	 		•				 		1.5	0	

Emery Stones

This stone runs at very high speed and is suitable for use in shops or farm purposes for grinding edge tools.

Price \$2.00

Wood and Pole Saws

The American "Clipper" Wood Saws are especially constructed for sawing poles or slabs, as well as cord wood. Have seasoned hardwood frames, carefully framed and butted strongly together. These saws have 1 7-16 inch polished steel mandrels, 52 inches long, with large collars and long babbited boxes, 6 inch drive pulleys and extra heavy balance wheels. Will carry saws up to 30 inches in diameter. Price, No. 4 complete for poles or slabs, with 24-inch

saw						\$24.00
Price. N	Jo.	3	complete	with 24-inch	saw	



This is a splendid stone for farm purposes. Frame made of hardwood; operated by one pedal.

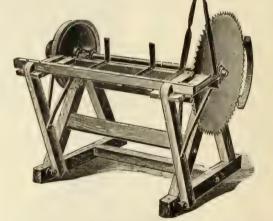
. 3.75

THE AUTO GRINDSTONE

has a steel frame and is ball-bearing, and is operated with two pedals, making it very light running. Stone about 18 inches diameter.

Price\$5.00 We carry a full line of loose stones of all sizes. Price, 2 cents per pound.

Also a line of Grindstone Mountings.



American Splitter or Power Axe

Our Power Wood Splitter is designed to withstand the strains to which such a machine is subjected. It will soon pay for itself in the wood yard or on the farm for getting wood ready for market. Will split 6 to 8 cords per day. Adjustable to splitting wood 8 inches to 18 inches long, requiring only one horse-power to run the same.

Price \$82.00

Cross Cut Saws

-----MARATANA CONTRACTOR CONTRACTOR CONTRACTOR

Narrow American, made by Henry Disston. Comes in 4, 4½, 5, 5½ and 6 foot lengths. Disston's Wide Cross-Cut Saws. Price on application.



PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Suction Hose 10.00

Pumps—Continued

Closed Top Pitcher Spout Pump

With Polished Cylinders

No. 2, diameter of cylinder 3 in....\$1.50 No. 3, diameter of cylinder 3½ in... 1.75 Drive Well Points, 11/4 inch galvanized, 24 inches long..... 1.50

Tubing and Miscellaneous Pump Parts

4x4 inches, 12 feet long and under, per foot.....\$.14 6x6 inches, 3 feet long, porcelain lined...... 3.00 6x6 inches, coupling and bands for 4x4 inch tubing...... .35



Single Acting Windmill Pumps

This Myers Pump represents our most popular medium capacity pump for ordinary farm or house use, to be used in connection with windmill or gasoline engine or other suitabl power. It combines all the features required in a reliabl 3-way cock pump in a neat design. It is made almost entirel of wrought iron, steel, and malleable. It is the easiest pum on the market to set, being light to handle and simple in construction.

Head Complete, with 3x14 inch brass-lined cylinder....\$16.0

The Myers Bulldozer Power Pump

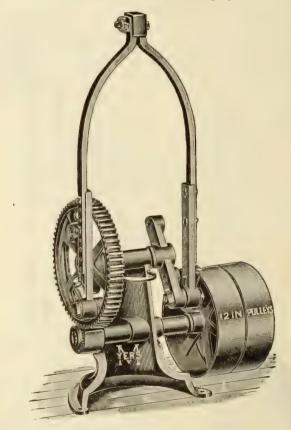
With or Without Air Compressor

This pump is specially adapted for pumping against high pressure for use in connection with a pneumatic system of high gravity tank or for forcing long distances.

The cylinder is formed by the main body of the pump which is carefully bored and lined with heavy seamless drawn brass tubing. The gears are double, thereby reducing side strains and are machined, insuring smooth-running. These pumps are made in three sizes:

2½x5 inch cylinder, 650 gallons capacity per hour.....\$40.00 3x5 inch cylinder, 900 gallons capacity per hour...... 45.00 5x5 inch cylinder, 2.000 gallons capacity per hour...... 55.00 Add for Air Compressor, \$12.50.

The Universal Pump-Jack



The Myers' Universal Pump Jack is designed to be used in connection with any ordinary windmill head pump without disarranging the pump or pipes in any manner. It is bolted to the floor and clamped to the pump base, making a most substantial job. We recommend this as being the strongest and most complete device of its kind.

Price\$8.00 PRICES SUBJECT TO CHANGE WITHOUT NOTICE

\$7.75

8.00

8.25

9.00

9.25

10.50

10.75

12.50

12.75

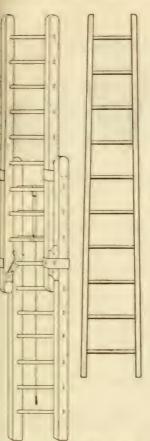
13.75

15.50

17 50

20.00

22.25



Ladders

Extension.—These ladders are light, strong, and stiff, being well built of the best material. Price per foot......20c Can furnish in 24, 28, 32, and

36 feet, extension. Single of same material as ex-

tension.

Prices of Single

8	feet										0			.\$	\$1.25
10	feet			•			•								1.50
12	feet									•					1.75
14	feet		•			•							•		2.00
16	feet			+				•				0	•		2.25
20	feet					•					•		•	•	2.75

Paris Step Ladders

This is unquestionably the best step ladder made. The price is very little, if any, higher than the common kind.



Rivetless Stock Trough

The only steel trough constructed without the use of rivets. Will not crack or burst on account of freezing. This trough is made of No. 12 gauge steel, curved in semi-circular form, with ends of cast iron fitted in each end of steel and held in place by steel bands instead of rivets. These bands are shrunk around the end edges of steel, binding it firmly to the flange on the end, thereby making a perfectly watertight joint.



Cook Your Lime and Sulphur With a

Boiler and Feed Cooker

Heavy cold rolled steel furnace; extra large feed door; wrought iron handles, firmly riveted on Kettles, heavy cast iron. Door, frame and fire 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 this, retaining heat and economizing in the fuel.

Also used for lime, sulphur, and salt.



33	gallon	capacity	\$1	1.00
40	gallon	capacity	1	2 .50
53	gallon	capacity		5.00

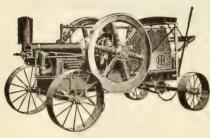
GASOLINE ENGINES

IHC, Victor and Famous Gas and Gas- Famous Portable Sawing Outfits oline Engines

Operated With Gasoline, Natural, Manufactured, or Producer Gas, Kerosene or Alcohol.

Vertical and Horizontal Types Stationary and Portable Water-Cooled and Air-Cooled 1 to 20 Horsepower Sawing, Spraying, Hoisting, and Pumping Outfits The Gasoline Engine as a Farm Power

The Gasoline Engine is the most efficient and economical farm power. With a little intelligent attention, it will always do its duty and save money for the man who has work for it to do. It is absolutely safe, independent of the weather



conditions, occupies a small space, and makes possible a centrally located farm power Owing to the house. superiority over other forms of power, a large number of farmers throughout the country have already purchased gasoline engines, but the larger number of possible purchasers is still to be supplied.

International Harvester Company Portable Gasoline Engines

4, 6, 8, 10, 12, 15 and 20 Horsepower

These portable engines have been designed to supply the demand for a reliable engine that could be easily transported

from place to place. For running huskers and shredders, threshers, shellers, for pumping and other farm purposes, these engnies are unexcelled. They are also ideal contractors' outfits for well drilling and stone crushing, pumping water out of sewers and lowlands, for operating temporary electric lighting plants, etc.

2 and 3 Horsepower

Victor one-cylinder vertical gasoline engines are made in 2 and 3 horsepower sizes. They are regularly equipped for using gasoline, but with slight alteration alcohol, natural or artificial gas may be These little engines used. are giving excellent satisfac-

tion where a small power will answer. Every detail in their construction receives just as much careful attention as is given to the construction of the larger engines. Victor 2 Horsepower Vertical Gasoline Engine

2 Horsepower, mounted on skids.....\$100.00

3 Horsepower, mounted on skids..... 140.00

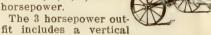
Famous One Horsepower Hopper **Cooled Engine**

This engine is mounted on substantial wood base and is made with all the good features of the larger engine, and is especially recommended for running pumps, churns, cream separators, cider mills, washing machines, and other small work

Price, complete, Engine ready to run......\$45.00 Price, complete, Ragine and Pump Jack..... 55.00

Mounted on Steel Trucks

Famous steel truck sawing outfits are made in two styles - tilting table and sliding table -and in the following sizes: 3, 4, 6, 8, and 10, horsepower.



engine, while the 6, 8 and 10 horsepower outfits include a horizontal engine.

Tilting Table Sawing Outfits

This outfit includes the engine and accessories with a tilting table saw frame mounted on a substantial steel truck. The truck is the same for all three of outfits-3, 4 and 6 horsepower.

The saw is rightly mounted and well braced, so that it is practically as steady as if anchored to the ground. The safety of the operator is provided for by a steel guard over the saw.

Tilting table outfits are specially adapted for sawing cord wood. They may be easily transported to any desired location, and when the sawing is done may be quickly moved to: another location.

Ask for Special Catalogue and prices.

HARNESS AND ACCESSORIES

Hand-Power Horse Clipping and Sheep Shearing Machines

Progressive, Up-to-Date Farmers and Horse Owners Every-Where Recognize the Advantages of Clipping Horses.

Stewart No. 1 Enclosed Type Clipping Machine

STEWART NO. 1 ENCLOSED TYPE CLIPPING MACHINE

The Only Ball-Bearing Clipping Machine

It is without exception, the most perfect clipping machine ever made. It runs practically without friction or wear.

A slow turning of the handle is transformed by the ingenious mechanism of the gears to a tremendous speed in the knife.

It turns so easily that it is mere play to run it.

The entire machine is sturdy, compact and perfect in every detail of material and workmanship.

The price puts it within reach of every farmer and horse owner.

The gearing is all enclosed in a dust and dirt proof case, and runs in oil constantly.



Price, complete, for horses.....\$7.50

Harness. Etc.-Continued

Sheep Shearing Attachment

chine. The attachment consists of the solid jointed shearing shaft, shearing handle. four combs and four cutters.

Price of the Attachment is....\$7.75

For the combined machine....15.25

Knife Grinder Attachment

Price \$3.50 Simple to attach. Grind your own knives. We also grind knives for the above machine....50c per pair



Single Harness

We can furnish a Sheep Shearing Attachment for this ma- This harness is made of first-class stock, well stitched throughout, with wood hames well ironed; bridle, 3/4 inch; traces, 11/2 inch; 5-inch saddle; suitable for one-horse farm wagon.

Price complete \$19.00

Single Express Harness

Extra heavy brass trimmings; bridle, 3/4 inch; traces, 11/2 inch, extra heavy; 4-inch saddle; made of best quality material, well constructed throughout.

Price complete \$30.00

Single Express Harness

This is an unusually strong and well-made harness for heavy work. Extra heavy trimmings, 1% inch traces, and all other parts made extra strong to withstand heavy work.

Price complete \$35.00

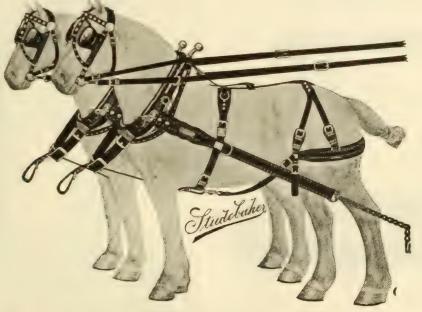
WOOLF'S SPECIAL

Studebaker Extra Heavy Double Team Harness

Made of the best quality oak-tanned leather, country finish. Bridals ¾ inches, with regular side checks. Flexible harness leather pads. Folded girths and collar martingale. Hames, best quality wood, heavily iron-bound, with breast chains. Traces. 2 inches, three rows of stitching, galvanized chains and hooks and swivels. Breeching, 3 inches double and

stitched with wave layer, split hip straps, padded rump pads, side backers. Mountings of X C metal.

Price complete, with best handmade Scotch collars, hair-faced and thong sewed, lines extra long, 1½ inches wide, with choice of regular Washington team bridles or good bridles with patent-leather cup blinds, and breast chains, \$50.00.



Our "Coon Special" harness is specially designed for those wanting a harness slightly lighter in weight than the Studebaker Extra Heavy Harness. The quality and general makeup of this harness is the same as that of the above harness and is equally as good value.

Price complete, with handmade Scotch collars, hair-faced and thong sewed, lines extra heavy, 11% inch wide, with choice of regular Washington team bridles or good bridles with patent-leather cup blind, and breast chains, \$40.00.

We carry in stock all grades of double work harness suitable for city or country use.

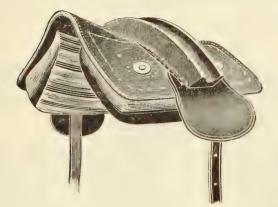
Complete Plow Harness

Our plow harness is of splendid grade and will give excellent service for the price asked. Price complete, for one horse.....\$6.00

Harness, Etc.-Continued

Cart Harness

No. 20. Scotch Saddle

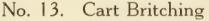


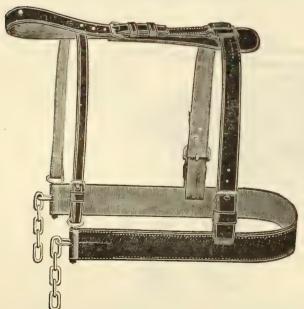
No. 20 Scotch Cart Saddle.

Duck lined, hair faced, double and stitched top, 1% inch leather girth, large tree. Price \$8.00

No. 22. Imitation Scotch Saddle Same style as No. 20. Large tree, 1% inch leather girth.

\$6.50 Price ...





Three and a half inch double body, 5 ft. 2¼ inch Hip Straps, with safe back of buckle, padded rump, leather lined. Price\$8.00 ...;

Bridles

Lerch, Special Team Bridles, best, ea..... 2.75

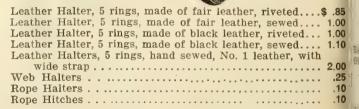
Buggy Harness

Single Buggy Harness.—Bridle, 5% inch; traces, 1½ inches; saddle, 3 inches; breast collar and breeching, folded, with straight lay; flat lines; X C mounting, with nicked hook and terrets; imitation hand stitched.

Price, with breast collar.....\$13.00 Hand-Made Single Buggy Harness.—Bridle, ½ inch; traces 1½ inches; saddle, 3 inches, hand laced, leather lined; breast collar, 2½ inches, V-shape, with 1½ inch single leather trace attached; breeching, 1½ inch single leather; flat lines; full nickel or imitation rubber mounting; hand stitched. Price, with collar and hames, \$21.00; with breast collar, \$20.00

Double Buggy Harness from \$20.00 to \$30.00.

We are in position to furnish everything good in the harness line at the lowest prices.

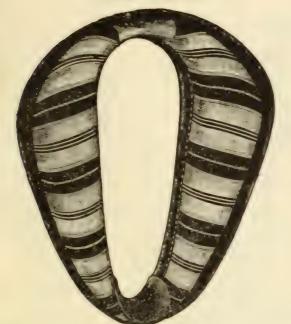


Top Collar Pads

Felt	15c.
Zinc	50c.
Leather	40c.
Sheet felt for Riding Saddles and Cart Saddle Pads.	Size.
20 x 36. Price \$1.00 per sheet.	
Breast Collar Pads for Buggy Harness; felt, Price, each	1 50c.

Harness. Etc.-Continued

Horse Collars

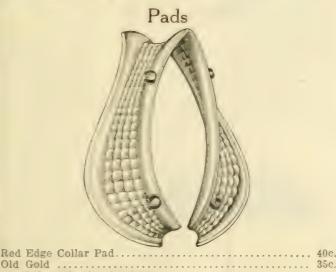


Draft.- Split leather rim and back; blacked tick face; patent fastcuers, \$1.50.

No. 155 .-- Scotch .-- Kip rim and back; extra lined tick face, ali hand sewed, with thong; patent fasteners, \$3.00 Draft.—Hand made, hair faced, thong sewed, extra heavy;

all leather; draft collar, \$4.00

Concord.-Kangaroo leather; wool faced; thong sewed; patent fasteners, \$5.00



Ask for price by the dozen.

Express Saddle Pads

Gray	felt.	4	inches	25c.
Gray	felt,	5	inches	30c.
			inches	
Gray	felt.		inches	35c.
			inches	

Buggy Harness Saddle Pads

From 20 to 50 cents each.

Hames

No. 21 Concord Hames, very heavily ironed, with hook or clip; brass ball top. Price per pair, \$1.25.



No. 61.—Virginia Cart Hames. Rock elm or ash wood, ½ inch stiff-bottom loops, ¾x¼ inch steel backs. Three mortise top loops. Heavy wrought steel hooks. Varnished. Polished irons. inches. Price. 85c; 22 to 24, \$1.25 per pair. Size, 19 to 22

Root Hames

Loudon	Patent,	per.	pair	 	 	 	75c
Loudon	Tie						500

Back Bands

Folded Duck, Elbel's patent hook, 46 and 48 inches long, 5 inches wide. Price, 50c.

Krake's Padded Back Band, 46 inches long, 4 inches wide. Price. 50c.

Single web back band, 25c.

Back band webbing, 4 inches wide, per foot, 4c.

A full line of Whips and a general line of Harness accessories always in stock.

Storm Horse Covers

All covers have large hame leathers; line rings riveted on hame leathers; snap and rings at trace; strap and buckles at breast; line pocket at saddle, and can be used for double or single team. Four sizes: 5 feet and 5 feet 4 inches.

Black	oiled	sheeti	ing, t	to ne	ck.			 	 	 	 \$2.00
Black	oiled	sheet	ing,	to h	ead			 	 	 	 2.25
Brown	duck	t, wate	erpro	ofed,	to	necl	r	 	 	 	 2.75
Brown	ducl	r, wat	erpro	oofed	, to	hea	1d	 	 	 	 3.00
Duk-b	ak, h	igh gra	ade					 	 	 	 3.50

Horse Blankets



Shaped blankets, ranging in price from \$1.25 to \$5.00. Square blankets, ranging in price from \$1.00 to \$6.00.

Rubber Blanket Aprons

This is a combination rain apron and Blanket Robe. The outside is Melodian Rubber Cloth and the inside is a heavy blanket lining and strictly waterproof.

Oiled Storm Fronts for Buggies, \$1.50. 48x56 inches .

.\$2.50 Drill Storm Fronts for Wagons, 48x56. Price, \$1.50.

Harness, Etc.—Continued

Storm Coats

Terrapin Brand; full height for motormen, etc.; made in sizes Nos. 2, 1, 0, 00. Price, \$2.75.

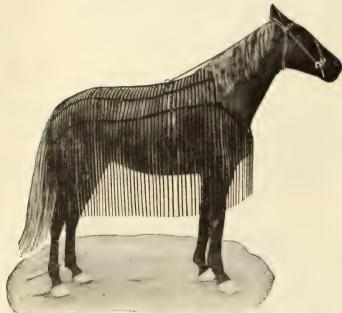
Slicker Coats; yellow oiled duck. Price, \$1.50.

Slicker Pants; yellow oiled duck. Price, \$1.50 or \$2.50 per suit.

Oiled Drill Storm-Proof Hats, 50c each.

Plush Robes

Fly Nets





Nose Bags

Star Wood Bottom.—A good reliable bag for the money. Price...25c

No. 7 Bag; made of 10-ounce duck, metal eyelets; very durable. Price, 60c.

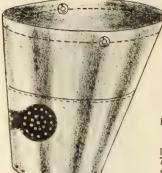
"Patent Overdraw."—Well made of heavy duck (no wasting of feed). Price 90c.

The Williams Patent Side Wire Bag. Price, \$1.00.

"Woolf & Co.'s No. 8 Special." This bag is especially well made of 12-ounce duck; has reinforced sides; leather ventilators, and sole leather bottom. Price, 75c.

Special prices in dozen lots.

Nose Bags—Continued



Horse weights from 10 to 40 pounds, 3c per pound.

Rex Harness Riveter; indispensable on the farm. Price, 75c. Tubular rivets for same, per box, 10c

Curry Combs

No. 1400—All steel, closed back, 8-bar Comb; a most excellent value. Price, 20c.

Reform Curry Comb; solid steel back. Price, 20c. Spring steel back, spring bar flexible. Price, 25c. No. 100-6 steel bar, opens back. Price, 10c.

Dandy, or Fibre Brushes

NO. 56	Fibre	25c:
Handy	horse, leather handle	25c:
Dandy	steel brush, made of fine steel wire	75c:

Bristle Horse Brushes

No.	23, leather	back.		 	 						 		 			. \$.25	ŝ
No.	100, leather	r back		 	 						 		 				.60)
No.	55, leather	back.		 	 				Ĩ	 Ī		Ĩ		Ĩ	Ľ		.75	5
No.	600, leather	back.	 	 	 					Ċ		Ť		Ĩ	Ť		1.00)
No.	65, leather	back.		 		Ĭ.						ľ		ľ	*	•	1.25	1
No.	750, leather	back.					_		Ť.	Ĵ		Ĩ.		Ĩ	Ĩ		1.50	Ś

Whitewash Brush

No.	2 Famous .		 	\$
No.	40, Famous		 	
No.	44, Famous		 	
No.	2, Popular.		 	75
No.	3, Popular .		 	1.00
NO.	3, Leader	Mada of	 ed steel wire.	1.75 ·
	eavy Steel W			Price, 5c.

Wagon Umbrellas



This cut represents our Big 6 Pattern Wagon Umbrella in Dark Blue. Spreads 6 feet; has eight 40 inch heavy steel tempered ribs. Pole 1½ inch; selected hardwood, equipped with patent malleable fixtures for wagons.



LANTERNS

Wish to call your attention to the new Dietz "D-Lite" Lantern. It is a step forward in Cold Blast Lantern construction. It has distinct features of its own and we feel sure that after examining it you will say it is appropriately named.

Price\$1.00

Dietz	Victor	Tubular	Lan-
Terrn.	No "		\$.50
Dietz	Victor	Tubular	Lan-
tern.	No. 1		60
Dietz	Blizzar	d Dash	Lan-
tern.	No. 1		



Dietz Regulation Driving Lamp, conforms with District of Columbia repuirement......\$1.25

Horse Shoes and Blacksmith Tools

Standard, no better made. Prices on application.	
New Anchor Nails, 5 pound box\$.65
Russell's Nails, 5 pound box	.65
Pincers, 12 inch regular steel	
Pincers, 14 itch 'Heller Bros."	
Pincers, 16 inch "Heller Bros."	
Hammers, "Heller Bros." steel 12-ounce	
Hammers. "Heller Bros." steel. 17-ounce	
Rasps, "Heller Bros." 14 inch	
Rasps. "Heller Bros." 16 inch	
Knives, I. X. L., imported	.50
Knives, "Heller Bros."	.50

FENCING

"Pittsburg Perfect."

PLAIN TOP LAWN FENCE.

Are made of the best material for fencing purposes. (Basic Open-Hearth Wire.)

Have stays that will not slip, nor can they be moved out of place.

Have no slack wire to spoil the appearance as well as the efficiency.

We carry in stock 2 ft. high, 5 wires; 3 ft. high, 7 wires, and 4 ft. high, 9 wires.

Made with stay wires as large as the line wires. Ask for special catalogue and prices.



Barbed Wire-Fully Galvanized

Cattle wire, two-point barb, 6 inches apart. Price, per 100 pounds, \$3.50.

Hog wire, four-point barbs, 3 inches apart. Price, per 100 pounds, \$3.50. Special price in quantities.

Star Barbed Wire, two-point, made of extra grade steel, 18 feet to the pound, 80 rod spools. Price, \$2.75 per spool. Plain Wire, Very best quality, fully galvanized:

Than the, very best quanty, runy Barranized.

Nos. 7, 8, 9, and 10......\$3.50 per 100 lbs. Nos. 11, 12, 13, and 14......\$3.75 per 100 lbs.

Two-Strand Twisted or Cable Wire. A standard fence wire, fully galvanized. Spools contain from 70 to 100 pounds. Price, \$3.50 per 100 pounds.

Staples and Nails

For barbed wire, 1 inch and 1¼ inch. For poultry netting, ¾ inch. Best quality steel wire nails. All sizes. Barbed roofing Nails, inch long.

All the above at lowest market prices. It will pay you to ask us.

Poultry Netting—Galvanized After Weaving

No. 20 Wire.

Copyright by Wright & Colt.n W. C. Co., 1899.



1 foot, 2 inch mesh, 150 lineal feet, per roll\$.90	
2 feet, 2 inch mesh, 150 lineal feet, per roll 1.80	
3 feet, 2 inch mesh, 150 lineal feet, per roll 2.70	
4 feet, 2 inch mesh, 150 lineal feet, per roll 3.60	
5 feet, 2 inch mesh, 150 lineal feet, per roll 4.50	
6 feet, 2 inch mesh, 150 lineal feet, per roll 5.40	
1 foot, 1 inch mesh, 150 lineal feet, per roll 2.10	
$1\frac{1}{2}$ feet, 1 inch mesh, 150 lineal feet, per roll 2.80	
2 feet, 1 inch mesh, 150 lineal feet, per roll 4.20	
3 feet, 1 inch mesh, 150 lineal feet, per roll 6.00	
4 4feet, 1 inch mesh, 150 lineal feet, per roll 8.00	

Bale Ties

Single	Loop	1, 14	gauge.	9 f	eet							\$1.	.50
Cross	Head	, 15 ;	gauge,	9 fe	et							2	.00
Can	furni	sh ot	he r siz	es.									
Bail	ing V	Vire	-Speci	ally	test	ed	and	ann	eale	d	for	bali	ng
nurnos	ies	Price	\$3.00	per	100	DOU	inds.						

Fencing-Continued

Cambria Fence

For Farm and Garden.

THE FLEXO JOINT.



The Flexo Joint embodies flexibility and simplicity in construction and insures a perfect and secure union of the horizontal, or stay wires, and the main or line wires, producing a fence that will readily conform to any ground surface.

TENSION CURVE.

The tension curve used in each strand wire of Cambria Fence is not merely a crimp or blend with sharp angles to injure the wire, but a triple curve true at every point of its arc. While apparently insignificant in itself the great num-

ber of these curves scientifically placed are of great benefit, and allows the fence to retain its normal position under all conditions, providing for expansion or contraction due to climatic change or any sudden or severe shock.

TATT	11			9-9-	n
	CA	MB	RI	A	n
	F		CE	c_d_	
					- <u> </u>
- Manual					- 4
					-

The steel used in this fence is carefully selected and naturally springy, while the tension curve gives an additional elasticity necessary for a good fence.

GALVANIZING.

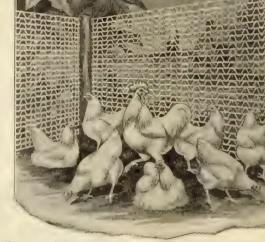
The durability or lasting qualities of a fence are greatly increased by covering the wires with a coating of spelter (zinc). No matter how heavy the wires, or well constructed the fence, if it is not galvanized properly it means short life.

Cambria Fence is made not only of the strongest and most durable wire, but is galvanized by the hot process with a smooth and even coating of high-grade spelter (zinc) applied by men skilled in this particular branch of the wire business.

We claim our galvanizing is the heaviest, smoothest and most elastic, and will afford long protection from the elements. Special catalogue on application.

Fence Pliers

Button's Pliers, 10 inches..... .75 Fence Pliers, 12 inches.....\$1.00



Built on miniature scale of farm fence interwoven with parallel wires and hinge joints so it stretches to posts straight even and nice without buckling, bagging or sagging.

It's so stiff and satisfactory, it does not require top rail and base board or so many posts as old style netting.

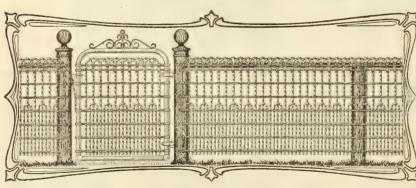
Guaranteed 5 to 6 times as strong and at least 100 per cent better in every way. All parallel wires are of even length and all mesh of uniform size. They can't be otherwise the way it's made.

Made in heights from 12 to 72 inches. Galvanized before or after weaving. Put up in 150 foot rolls.

It's not merely a substitute for old style netting. It's something much better. It's the strongest, cheapest, most sightly and best fence for the purpose yet invented.

1	ft, 2 i	n.	mesh\$	31.00	6	ft.,	2	in.	mesh	\$6.00
$1\frac{1}{2}$	ft., 2 i	n.	mesh	1.50	1	ft.,	1	in.	mesh	2.25
			mesh							
3	ft., 2 i	n.	mesh	3.00	2	ft.,	1	in.	mesh	4.50
4	ft., 2 i	n.	mesh	4.00	3	ft.,	1	in.	mesh	6.30
5	ft., 2 i	n,	mesh	5.00	4	ft.,	1	in.	mesh	8.40

WAUKEGAN-CYCLONE SANITARY FENCING



Flower Bed Border

Fits any shape or size of flower bed, no posts necessary. Picket ends are left straight for inserting in the ground. Cut to any length required and the ends hooked together. Can be taken up and used from year to year. Made in two heights.

PRICE PER LINEAL FOOT

16 inches, 5c; 22 inches, 6c.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE



is our most popular, attractive and closest mesh sanitary fence-lets in fresh air and sunlight, protects flowers, gardens, lawns, and shrubs without obstructing the view. Picket's No. 9, heavily galvanized wire, spaced 1% inches at bottom, 2% inches at top.

Best heights are 36, 42 and 48 inch. Other heights up to 84 inches made to order.

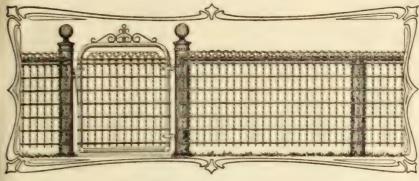
PRICE PER LINEAL FOOT, STYLE "F."

36 inches, 10c; 42 inches, 11c; 48 inches, 12c. 3 foot gate to match, \$2.50.



U. S. Poultry Fence

Fencing—Continued



Cyclone Tubular-Steel Farm Gates

All Style "A" gates 3 feet wide and wider are provided with an adjustable truss-rod which effectually prevents any possible sagging of the gate.

On all single drive gates we use our latest improved malleable-sleeve square-bottom corners, which relieve the strain on tubing at corners and add great strength. A very important feature on large gates.

	Height		0											Pri	ce					
-4	2,	48,	οг	54	inches	10	feet	 	 	 								.\$6.	00	
4	2,	48,	OF	54	inches	12	feet	 	 	 								. 7	00	

Mesh Wire

Mesh Wire.—Best quality; galvanized after weaving; used largely in building corn cribs to make them rat proof, and also for sieves. Width 24 to 48 inches.

2x2 and 3x4 inch mesh, per square foot5c.

4x4 inch mesh, per square foot. 6c. Special price in large quanities.

Wire Cloth for Screens



Keep out the flies, etc., and avoid sickness. Can furnish in any of the standard widths, Price on application.

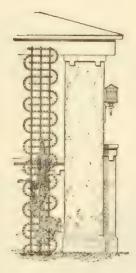
Style "L-Extra"

is exactly like style "F" above, except lower pickets are not used, giving spacing of 27_8 inches between pickets. Suitable for front or back yards anywhere.

Best heights are 36, 42 and 48 inch. Other heights up to 48 inches made to order.

PRICE PER LINEAL FOOT, STYLE "L-EXTRA" 36 inches, 8c; 42 inches, 9c; 48 inches, 10c.

3 foot gate to match, \$3.00.

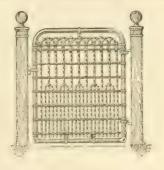


Single Trellis

Just the thing for climbing plants and flowers. Cut to any length to fit any porch, making most handsome inexpensive vine trellis.

Furnished in two widths.

Price per lineal foot, 18 inches 5c; 24 inches, 6c;



Universal Walk Gate

Heavy, non-breakable, high-carbon. steel tubing frame, with close mesh, chicken-tight fabric. Hinges and latch furnished for wood posts.

Regular heights, 36, 42 and 48 inches. Price for 3 foot opening, \$2.50.

MISCELLANEOUS

Tackle Blocks

	Wood	or	Steel	at	Same	Price.	
3 inch single .							 .\$.35
3 inch double							
4 inch single							 40
4 inch double							 75
5 inch single							 50
5 inch double							 85
6 inch single							 60
6 inch double							
7 inch single .							
7 inch double		·					
8 inch single .							
8 inch double							
10 inch single							
10 inch double							
12 inch single							
12 inch double							 . 2.75

New Style Sugar Kettles These kettles are also known as wash kettles, and are adapted for many purposes, but in particular for general use on the farm, and are made from the very best iron. They have smooth surfaces and each one is painted.

Shidoth Surraces and each one to prove the	
No. 3, actual capacity 15 gallons	\$2.50
No. 4, actual capacity 18½ gallons	
No. 5, actual capacity 211/2 gallons	
No. 6, actual capacity 251/2 gallons	
No. 7, actual capacity 291/2 gallons	
No. 8, actual capacity 37 gallons	7.00
The above prices include bails	

Manila, Sisal and Cotton Rope



Always on hand the best Manila, Sisal and Cotton Rope, in coils or by the piece, at prices consistent with quality. Prices on application.

Approximate length of Manila and Sisal Rope, per pound; 3/4 diameter, 6 feet to pound; 13-16 diameter, 6 feet to pound; 3/8 diam-

eter, 4 feet 3 inches to pound. We recommend 13-16 inch rope for hay forks.

Binder Twine. Prices on application.

Fodder Yarn

Have always on hand large quantities of the above. Prices on application.

Vegetable Twine and Cord

2-ply jute, vegetable cord. 3-ply jute, vegetable cord. Flax twine.

Flax cord.

Tarred marlin. Wrapping twine, 3-ply.

Axle Grease and Oils

Diamond, per box
Royal, per 25-pound bucket
Mica, per box
Mica, per 15-pound bucket 1.00
Mica, per 25-pound bucket 1.25
Frazer's, per box
Frazer's, per 3-pound bucket
Castor Oil, per box
Royal, by barrel or half barrel, prices upon application.
Baum's Castorine, per pint
Baum's Castorine, per quart
Polarine Oil, 1-gallon can
Polarine Oil, 5-gallon ^{\$} can
, .

Harness and Machine Oils	
Pure Neatsfoot, per gallon\$1.00	-
Commercial Neatsfoot, per gallon	
IXL Harness oil, per pint	
IXL Harness Oil, per quart	
IXL Harness Oil, per 1/2 gallon	â
I X L Harness Oil, per gallon	VA
Miller's Harness Dressing, per pint25	X L
Miller's Harness Dressing, per quart50	
(Gallon prices on Miller's does not include	NE
	TETE
Harness Soap, Miller's per pound25	<u> </u>
Harness Soap, Miller's per 5 pounds 65 Nav	YOR
Harness Soap, Miller's, per 10 lbs 1.25	S.A
Castile Soap, pure imported, 3-pound box	
Hoof Packing, per box	
Harvester Oil, ½ gallon	
Harvester Oil, 1 gallon	
Harvester Oil, in bulk, per gallon	
Separator Oil, per gallon	
Gasoline Engine Oil, per gallon	
A good line of oil cans in stock.	

Barrel Header

Improved patent steel screw

Brush and Briar Hooks

.45 .25 .30 .50 .40 .90

.75

\$1.50



No. 380-Axe Handle Bush Hook..... .\$1.00 No. 393-Socket Briar, with knife on back..... 1.25

Brooms

Stable, 16 inch, 6 row, Bass	\$.50
Stable, 16 inch, 6 row, Rattan	.50
Stable, 16 inch, 6 row, Bamboo	.50
Stable, 16 inch, 6 row, Bamboo, with scraper	.65
Stable, 16 inch, 8 row, Bamboo	.75
Stable, 14 inch, steel	.75
Warehouse, extra heavy	.50
Warehouse, extra heavy, Rattan center	.60

Corn Baskets

1 bushel, Bamboo, plain\$.5	0
$1\frac{1}{2}$ bushel, Bamboo, plain 6	5
2 bushels, Bamboo, plain	5
2½ bushels, Bamboo, plain	0
3 bushels, Bamboo, plain 1.0	0
1 bushel, Bamboo, iron bound 6	5
$1\frac{1}{2}$ bushel, Bamboo, iron bound	5 `
2 bushels, Bamboo, iron bound	5
Market Baskets, 5c and 10c.	
% bushel stave baskets.	
1 bushel stave baskets.	a
Prices on application.	
Potter Hand-made Baskets, split Bamboo.	
1 bushel size 1.0	0
1½ bushel size 1.2	
2 bushel size 1.5	

Miscellaneous—Continued

Galvanized Steel Baskets

Picks, Mattocks and Grub Hoes

Bush Puller

A great labor saver. Do your grubbing with this tool. One man can do the work of five.

GREAT LABOR SAVES

. . . \$5.00

Breast Chains

26 inch-5-16 inch. iron, double twist, tapered, stiff, pair	\$1.00
27 inch-Double slack, twist, pair	.75
26 inch-12-2, single slack, pair	.50
No. 46-Cart tug chains, 18-10-1, per pair	.30
No. 67-Fifth Chain-Round hook, ring and swivel, black	
made with stretchers also if desired, 10x%, with reg.	
hook	2.50

Hay Knife For Cutting Stacks or Ricks.

For Cutting Stacks or Ricks.

Corn Barrel

White Oak, han	indmade, stamped	.\$5.00
White Oak, has	andmade, unstamped	. 4.00
Crowbars, ma	ade of best tool steel, price per pound, 6	cents.
Carried in re	egular, pinch, and ball tops.	

Single and Doubletrees

Wood	, for ploy	ws, per s	set			 9	52.00
Steel,	for ploy	vs, per	set			 	2.50
Steel,	extra he	eavy, for	r plows.	per se	et	 	3.00
Steel,	extra he	eavy, fo	r wagor	ns, per	set	 	6.00
Neck	Yokes .					 	1.00

Clips for Single and Double Trees.

Gasoline Torches

A very suitable light for picnics, camp meeting, shops, or where a strong light is needed, especially out doors. Price, \$1.25.

Screens

Coal. Well made of swede iron, 32 inches x 60 inches. 1/2 inch, 5/8 inch, 3/4 inch, 5/8 inch and 1 inch openings. Price \$8.00.

Sand Sieves

Sand Sieves. 28 in. x 54 in. 3-16 inch. 1/4 inch. 5-16 inch, and 3/6 inch. Price, \$5.00.

Shock Binders

Yokes

10 prevent	norses from	jumping.	
Made of hard	wood		0
Made of steel			

Regular Iron Trace Chains

7-10-2,	Per	pair					•	 					 					 			.65
(-12 - 2.)	per	pair		 				 		 			 		 			 			.75
(-14-2,	per	pair				•		 					 		 			 			.90
1-16-2.	le.L	pair											 								1.00

Well Chains

Best Heavy galvanized steel, 10 cents per pound.

Cut Raw Hide Belt Lacing

6	in	ch	ner	100	feet																-	·				-70	
7			Por	100	Teet	 •		•	• •	 •	 ۰	• •		0 0	0	٠	 	0			٠			•	,φI	.75)
2	in	cn,	per	100	feet.		• •			 	 		• •							 					. 2	.25	5
6	in	ch,	per	100	feet					 			_								ľ	1			3	00	ĥ
	in	ab İ	-	100	Rock											۰.	 	•	•••		•	• •	 •	0			1
÷	ILLO	رالله	het.	TAA '	leet		ο.			 	 									 					. 3	.75	5

Handles—Good Quality

Shovel, long	.25
Shovel, "D"	.25
	.25
	.20
Sould C foot	.25
Fork, 6 feet	.20
Rake and hoe	.15
Axe, handmade	.30
	.20
	.15
	.10
Diale No. 9	.20
	.15
Axe, No. 3, machine	.10
Hatchet and hammer handles, 5 and 10 cents each.	

Gem Ice Cream Freezers

This is the only double freezer of reputation made today. Freezes cream quickly. Size in quarts and prices each; 2 quarts. \$2,00; 3 quarts, \$2.25; 4 quarts, \$2.75; 6 quarts, \$3.25; 8 quarts, \$4.00; 10 quarts, \$5.00.

Ice Tongs—Made of Wrought Steel

No.	0			 			 		 		 										.\$	7	5
No.																							

Ice Picks

Steel,	wooden	handle,	$7\frac{1}{2}$ inches	long		.10
Steel,	wooden	handle,	with metal	cap, 83/4	inches long	.15

Butcher Knives

Forschner's XXXX Brand, made of special Damascus S	iteel
Every one warranted.	
5 inches	.25
$5\frac{1}{2}$ inches	.30
6 inches	.40
7 inches	.50
8 inches .	.60
9 inches	.65
10 inches	.75
Forschner's 6 inch Boning Knife	.30
Forschner's 6 inch Skinning Knife	.35
Forschner's 7 inch Stitching Knife	.35
Forschner's Sharpening Steels, 8 inches	1.00
Forschner's Sharpening Steels, 10 inches	1.25
Lee's Sharpening Steels, 8 inches	.65
Lee's Sharpening Steels, 10 inches	.75
Joseph Rogers & Sons' best imported Sheffield knives:	
6 inches	
7 inches	
Paring Anives, it and is cents.	

Miscellaneous—Continued

Butcher or House Scales

Forschner's No. 1001. Has 8 inch porcelain dial, glass covered, round white enamel pan, nickel-planted boxes. German silver ring. Weighs 30 pounds by ounces. Price, \$6.00.

Forschner's No. 2001. Circular spring balance, with glass sash and white front, round white enamel pan, nickle plated. Weighs 30 pounds by ounces. Price, \$4.50.

Chattillion's No. 134E. Round metal dial, steel pan, heavily tinned, 24 pounds by ounces. Price, \$2.50.

No. 682. Circular Spring, metal face, metal pan. Price, \$2.00.

Steelyard, or Scale Beams

200	pounds			 					 						 		 	•		. 5	\$1.50)
250	pounds				 		÷	 		 					 		 				1.75	5
300	pounds			 													 				2.00)
350	pounds				 			 		 					 		 				2.40)
400	pounds			 		 			 				• .		 		 				2.40)
400	pounds.			 					 		• .									•	2.75	5
500	pounds		 		 			 											 		3.00)

Platform Scales



We are agents for the Howe and Fairbanks Scales. Ask for prices on any size.

Hammers

Stone Sledges.—5 to 30 lbs. Price, 10 cents per pound.
Napping Hammers21/2 and 3 pounds, 15 cents per pound.
Machinist Ball Pin Hammers:
12 ounces \$.75
20 ounces
24 ounces
Riveting Hammers:
4 ounces
7 ounces
9 ounces
Adz Eye Nail Hammers.
1 pound Cast Steel
1 pound Blued Steel
1 pound Nickled Steel
1 pour monte steer

Hatchets

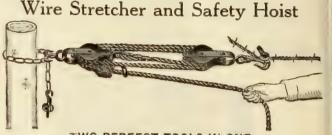
50
60
75
75
75
75
60
75

In addition to the above, we carry in stock a large line of Bolts, Nuts, Screws, Hinges, Knob Locks, Pad Locks, Cold Chisels, Punches, Cotter Keys, Squares, Monkey Wrenches, and numerous other small hardware.

Steel Traps

No. 0	15
No 1	. 10
No. 1	.20
No. 2	25
No. 2 double environ	
No. 2, double spring	.35
Special prices on dozen lots.	

Jumbo Combination



TWO PERFECT TOOLS IN ONE.

A Handy and Practical Labor Saving Combination. As a wire stretcher it can't be beat-made of steel and malleable iron-ground fitted eccentrics that hold any wireextra heavy chain long enough to fit the largest fence post.

For hoisting it comes in handy every day—changing wagon boxes—lifting stones—butchering, and wherever there is lifting to do.

Locks automatically; heavier the load the better the grip. Patented, adjustable lock shoe makes it safe and sure. Last a life time-pays for itself on the first job. Capacity, 1,000 pounds. Roped with one half inch pure Ma-

nila rope. Price\$1.50



No. 2 Hoist, capacity 1,000, double.....\$1.50 No. 3 Hoist, capacity 1,500, triple..... 2.25 No. 5 Hoist, capacity 2,500, double.... 2.50 No. 6 Hoist, capacity 4,000, triple..... 4.00



No. 1. Contactor's-Two or Four Horse

Weight with wheel, 200 pounds. Price, \$15.00

Hard iron wearing parts. Extra heavy beam, share and strip Will turn a furrow 5 to 9 inches deep. An excellent plow for general grading purposes.

Syracuse Pavement Plow

No. 98.—Four or Six Horse.

Weight, 280 pounds. Price, \$25.00

Adjustable and double reversible crucible steel. Strongly built throughout. Specially adapted for tearing up cobblestones of Macadam pavement.

Syracuse Heavy Contractor's Plow

No. 99.-Four or Eight Horse.

Weight, with shoe, 310 pounds, Price, \$35.00

Steel truss beam. Steel moldboard and landside. Separate shin piece. Heavy overlaid wrought steel share. Slight turning capacity. Suitable for severe grading purposes in shale or hard pan.



The Perfect Barrow

For conveying concrete, mortar, sand, gravel, cement, dirt, asphalt. etc.



Two Sizes No. 75-A, 4 cubic feet, 72 pounds......\$4.50 The best end dump barrows made.

Tubular Frame Solid Pressed Steel Tray Barrow

The top edge of all Syracuse Barrow trays is reinforced, preventing breaks or dents in dumping. All our barrows are securely braced, strong and durable. They have steel spoke wheels and legs provided with renewable iron shoes.

Wood Frame Solid Pressed Steel Tray Barrow With Steel Legs





Standard Thimble Skein Wagon.

Every piece of material that goes into a Studebaker wagon has the Studebaker reputation behind it. The house of Studebaker jealously guards the quality of the vehicle that bears its name.

Made In Steel Axle

Only the very finest materials is used, and at every turn inspectors are on the lookout.

Every process of construction is under expert supervisionnothing anywhere is left to chance.

The Easiest Running and Longest Wearing Wagon Made PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Wagons-Continued

Standard Thimble Skein Farm Wagon With Coach Tongue

STANDARD THIMBLE SKEIN FARM WAGON WITH COACH TONGUE

Sizes of	F	leight o	of Whe	els	Size of	I)i m ensic	ons of B	ox	Appro	ximate	Wagon	Gear
Skeins	Fr	ont	н	ind	Size of Tire	Lowe	г Тор	Len	igth	Weight	Capacity	Complete with Brake	Only with Brake
Inches	Ft.	In.	Ft.	In.	Inches	In.	In.	Ft.	In.	Pounds	Pounds	List Price	List Price
234x8	3	8	4	4	2 x7-16	12	8	10	0	850	3000	\$81.00	\$64.00
$2\frac{3}{4}x8$	3	8	4	4	$2\frac{1}{2}$ x7-16	12	8	10	0	850	3000	83.00	66.50
2¾ x8	3	8	4	4	3 x3-8	12	8	10	0	850	3000	84.50	67.50
3 x9	3	8	4	6	2 x1-2	13	8	10	6	1000	4000	85.50	67.00
3 x9	3	8	$\overline{4}$	6	$2\frac{1}{2}x1-2$	13	8	10	6	1000	4000	89.00	70.50
3 x9	3	8	4	6	3 x1-2	13	8	10	6	1000	4000	91.00	72.50
3¼ x10	3	8	4	6	2 x5-8	14	10	10	6	1100	5000	88.50	69.00
31/4×10	3	8 -	4	6	3 x1-2	14	10	10	6	1100	5000	93.50	74.50
$3\frac{1}{2}$ x11	3	8	4	6	3 x9-16	16	12	10	6	1250	6000	101.00	80.00

SPECIAL DISCOUNT FOR CASH

Steel Axle Farm Wagon

	H	ght.	of W	/hl.	Size	Dim	ension	of B	ox			Price
Axle	F	ront	or Hi	ind	of Tire	Bot.	Top	Lgi	h.	Wght.	Cap.	Com.
in.	ft.	in.	ft.	ia.	în.	in.	īn.	ft.	în	the	The.	
154x9	3	S	4	6	2x5-8	13	5	10	G	1000	2500	\$\$5.00
$1\frac{3}{4}$ x10	3	8	4	6	2x5-8	14	10	10	G	1150	-1000	\$7.00
2 x11	3	8	4	6	2x3-4	14	10	10	6	1300	5000	100.00

Special Maryland Pattern Linch Pin Steel Skein Gear With Truss Rods

3¼ inch Steel Skein Gear, 3 feet 8 inches between standards, 4x% tire, \$108.75. Add for rear gear brake, \$13.50; side brake, \$6.00. Special discount for cash.

Studebaker Junior

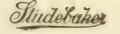
The Studebaker Junior is a substantially made miniature wagon, not a mere toy. It is one of the finest and strongest wagons of its kind in the market, and is built after the style of the regular Studebaker—oak frame, farm wagon gearing with bent hounds and adjustable reach, all parts strongly ironed and braced, welded tires, staggered spokes, hub boxes and caps, oak shafts (or pole if desired), handsomely painted. Body is 17x36, wheels 12x18 inches. The Studebaker Junior is suitable for use by the child alone or with a good sized dog, sheep or goat in the shafts.



PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Wagons-Continued

Cut-Under Teaming Gear **Coach Tongue**



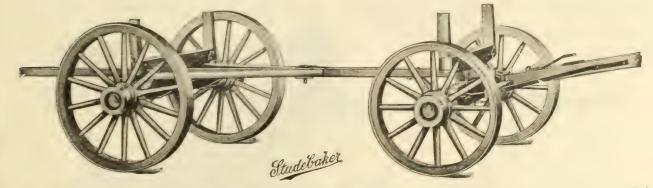
134x10 in. Solid Steel....3 2 x11 in. Solid Steel....3 1100 5000 \$85.00 2×5/8 1275 6000 97.00

EL

Special Discount for Cash

(With Wood Wheels.) Farmer's Handy Truck-Wide Track. Cast Skeins Only

Price, with double and single trees.....\$35.00 net



This truck is adapted to farm or orchard work, but can be utilized for transfer work by adding a suitable platform.

Reach is long enough for a 16 foot rack or bed. Bolsters have wrought iron sockets and removable wood standards.

Height of Wheels. Size of

Cast Skein. 31-4x10 in.

Approximate

Hind. Size of Tire. Weight. Capacity. Front. 30 in. 36 in. 4x3/8 in. 680 lbs. 4000 lbs.

Wagons—Continued Studebaker Patent Improved Ideal Dump Wagon

The most complete and up-to-date dump wagon on the market.

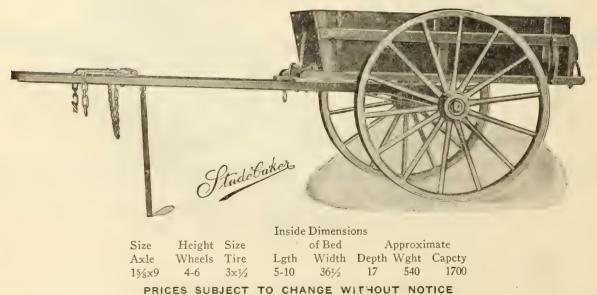
Bed made of hardwood. Furnished with chain tongue. Complete with wings, whiffletrees and wrench. It has the oscillating fifth wheel, which will allow the front wheel on either side to drop into a depression in the roadway without disturbing the level of the body. Patent draft equalizing whiffletrees. Solid steel axles. Wood hub wheels. rims riveted each side of spoke. The dumping attachments are self-adjustable and easily operated. The trap-doors—reinforce with a combination of steel plate and angle steel and swinging on four solid hinges—overlapping in center, with cleats on ends securing tight bed, will not leak sand, garbage, ashes, etc., along the street. Body ironed throughout for hard usage and rough work.

Extras: Brake. Steel lining. Steel and asbestos lining.

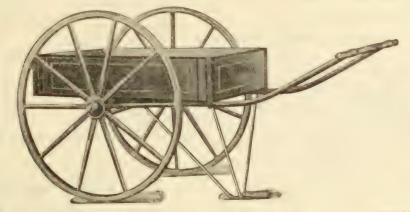


Size	of Steel	Axles	Height	of Whe	els Size o	f Tire	Appro	x. Capacity	Height fro	om Ground to
No.	Front	Hind	Front	Hind	Front	Hind	Weight	Stroke Meas.	Top of Bed	Top of Wings
8297	2 in.	2¼ in.	38 in.	50 in.	31/2x5/8 in.	31/2 x5/8 in.	2520 lbs.	1½ cu. yds.	4 ft. 31/2 in.	4 ft. 10 in.
8298	$2\frac{1}{2}$ in.	$2\frac{3}{8}$ in.	38 in.	50 in.	31/2x5/8 in.	$3\frac{1}{2}x\frac{3}{4}$ in.	2680 lbs.	2 cu. yds.	4 ft. 3½ in.	5 ft. $2\frac{1}{2}$ in.
					Ask	for special	catalogue and r	prices.		

Studebaker Steel Axle Farm Cart



Studebaker Hand Carts



Our Mascot Cart

A good cart with springs and three wheels. A well made cart at the right price, \$8.50.

Outside Dimensions Size Height of of Box of Axle Wheel Length Width Depth Price Small Size 2 1 1/16 in. 36 in. 40 in. 24 in. 8 in. \$8.50 Large " 3 1 1/16 in. 36 in. 50 in. 28 in. 9 in. 9.50 These carts are also made with third wheel and springs.

Wagons and Parts

Studebaker Improved Sensible Bolster Springs



The above cut illustrates our Improved Sensible Double Bolster Springs, the most complete wagon springs on the market. One great point of superiority which they possess over all other bolster springs is that the half elliptic spring on each side of the bolster permits the box to set low down on the bolster and still leaves sufficient room for the proper working of the springs. Another advantage of our bolster spring lies in the ease with which it can be removed, if desired, and fitted to another wagon.

We carry in stock a full line of parts for Studebaker and other wagons and carts.

Carry	1000	pounds,	per	set	 				 	 	 			 	\$5.00
Carry	1.500	pounds	, per	set	 				 	 	 			 	5.50
Carry	2000	pounds,	per	set	 				 	 			۰.	 	6.50
Carry	2500	pounds,	per :	set	 				 	 				 	7.50
Carry	3000	pounds,	per	set	 				 	 	 			 	8.50
Carry	4000	pounds,	per :	set	 				 	 				 	9.00
Carry	5000	pounds,	per	set	 • •	• •	• •	• • •	 	 		• •		 ۰.	9.50

Woolf & Co.'s Farm and Contractor's Cart

With 5 and 6 inch tires; also extra heavy Contractors' Carts made specially to order when wanted. These carts are very strong heavily ironed, nicely painted striped and varnished.

Size	of Axle.	Size of Tire.	Diameter of Wheels.	Price.
11/2	inches	3 inches	4 ft. 10 in.	\$37.50
11/2	inches	4 inches	4 ft. 10 in.	41.50
2	inches	3 inches	4 ft. 10 in.	46.00
2	inches	4 inches	4 ft. 10 in.	50.00

FERTILIZER

Baugh's Raw Bone Meal Warranted Pure

Guaranteed Mininmum Analysis.

Total Phos. Acid, 21.50 per cent. Nitrogen, 3.70 per cent. Equiv. to Ammonia, 4.50.

This famous article, the corner-stone of our business, is precisely what its name indicates—nothing more. nothing less: just raw animal bones, finely ground. It is the best-known source of organic phosphoric acid.

Nothing excels Raw Bone Meal as a top dressing for meadows, pastures and lawns. The phosphoric acid of raw animal bones is not all immediately available, and for this reason bone meal is one of the safest and most economical manures that can be employed in fall or early spring. The effect of raw bone meal is plainly apparent upon grass land for years.

We guarantee each bag of Baugh's Raw Bone Meal—warranted pure, to be free from adulteration, under forfeiture of bill. It is finely ground, over one-half of it passing through a 50-mesh screen, which makes it worth to the consumer \$3 to \$5 per ton more than coarse ground bone.

Prices on application.

Woolf & Co.'s High Grade Truck Mixture

Guaranteed Minimum Analysis.

Available Phosphoric Acid, 8.00 per cent. Nitrogen, 2.47 per cent. Equivalent to Ammonia, 3.00 per cent. Potash, soluble in water, 3.00 per cent.

A complete, well-balanced fertilizer. One of our most valuable and efficient brands for gardening and trucking. Used for many years by large truckers in the South with the most satisfactory results, and we confidently recommend it for prompt action on early crops, for which it is especially made. It is preferred by many farmers and gardeners to the highpriced guano.

Woolf & Co.'s Special 10 per cent Potato Manure

Made under our special formula; pure animal base. We especially recommend this for Potatoes and other crops requiring a fertilizer with a high percentage of potash.

Guaranteed Analysis.

Avail. Phosphoric Acid	00
Nitrogen	
Equivalent to Ammonia 2.	00
Potash (Available)10.	00
Cannot furnish this year.	

Prices on all fertilizers on application.

Truckers' Favorite

A complete well-balanced fertilizer. Most valuable for gardening and trucking.

Ammonia, 2 per cent. Phos. Acid, 8 per cent. Potash, actual, 2 per cent. Nitrogen, 1.65. Prices on application.

Wheat and Grass

This is one of the best spring fertilizers for grass or top dressing.

Analysis, 2 per cent Ammonia; 8 per cent Phosphoric Acid 1 per cent. Potash. Prices on application.

Kainit (German Potash Salts.)

Actual Potash, 12 per cent.

Pure 10 per cent Peruvian Guano

Especially recommended for tobacco beds and as a top dressing for vegetables, etc. Prices on application.

Acid Phosphate

Guaranteed analysis, Phos. Acid 14 per cent, and 16 per cent. Prices on Application.

C. M. Woolf & Co.'s Special Brand Pure Raw Bone

Finely ground, which makes it act more quickly, thereby making it a very fine article for spring use.

Analysis: Ammonia 2.50 per cent. Phos. Acid, 20 per cent. Bone Phosphate, 50 per cent. Prices on application.

Woolf & Co.'s Corn and Oats Fertilizer

We recommend this specially prepared fertilizer for corn and oats. Its use will greatly increase the yield.

Guaranteed	Analysis.	
Ammonia		8.00
Prices on application.		

Genuine Nova Scotia Land Plaster or Gypsum

Plaster should be kept on every farm and used freely on manure piles and compost heaps. It is estimated that half of the value of stable manure, as ordinarily kept, escapes by leaching and fermentation, but land plaster unites with and holds ammonia, and thus retains value that would otherwise be lost. It is advisable to use $1\frac{1}{2}$ to 2 lbs. of Nova Scotia Land Plaster per day on the manure of each horse or cow, making the application at the time of cleaning the stable. Use $1\frac{1}{4}$ lbs. of plaster per day for each pig or sheep, and $\frac{1}{4}$ ounce per day for each fowl.

Chemicals Etc.

Nitrate of Soda, Ammonia 18.50 per cent. Muriate of Potash, sol in water, 48 per cent. Sulphate Potash, Potash sol, in water, 48 per cent. Ground Alum Salt, 160 pounds to bag. Fine Salt, 200 pounds to bag. Rock Salt.

European conditions make it impossible to furnish Potash or Potash Salts separately. It is also doubtful as to what per cent. of Potash can be furnished in mixed fertilizers and all analyses are subject to change without notice.

ROOFING, FLOORING, Etc.



Ru-ber-Oid is the original prepared, finished-surface Roofing, and was for several years the only roofing of this character. Different from and superior to all other prepared roofing that Ru-ber-Oid compound or Gum, an exclusive combination of high-grade water-proof, acid and fire-resisting ingredients is used in its manufacture and in no other roofing.

That the first roofs of Ru-ber-Oid applied in 1892 are still giving satisfactory service is indisputable evidence of unequaled durability.

Ru-ber-Old contains no rubber. It contains no tar. It contains no paper. It contains no asbestos. It is not an asphalt roofing.

Ru-ber-Oid is tasteless. It is odorless. It can be used on roofs from which drinking water is conserved.

..Ru-ber-Oid is fire-resisting. Hot coals thrown on a roof of Ru-ber-Oid do not set fire to the fabric nor to the boarding underneath.

Ru-ber-Oid is a non-conducter of heat. It keeps the heat in in winter, and the heat out in summer.

Ru-ber-Oid will outlast tin, iron or shingles. It has outlasted its upwards of 300 imitations variously known as "rubber" roofing, "asphalt" roofing," "asbestos" roofings, roofing "old," etc., etc.

Ru-ber-Oid Accent on the "Ru," and always spelled with one B.

Ru-ber-Oid does not require painting when laid. No skilled labor is required to apply it. You need only observe the simple directions enclosed with each roll. We furnish without additional charge sufficient nails, caps and cement for laying under ordinary conditions. Any handy man can do the work.

Ask for special catalogue.

Put in rolls 36 inches wide, containing 108 square feet and 216 square feet.

Ka-lor-Oid (Colored Ru-ber-Oid Roofing) is manufactured in red, brown, and green, and is the only ready roofing to be had in permanent colors. These colors are impregnated into the fabric by a process of manufacture protected by U. S. and foreign patents. Ask for our free booklet on Ka-lor-Oid

Standard **Ru-ber-Oid** is furnished in four thicknesses. ¹/₂ ply for poultry houses, sheds, etc., 2 ply for Dwellings, Warehouses, Stores, etc. 1 ply for Barns, Outbuildings, etc. 3 ply for Factories, Foundries, etc.

1/3	ply,	per	108	sq.	feet,	weight 2	26	lbs		 	 	 	 	61 .	50
1	ply.	per 1	108 s	a. fe	eet. w	eight 35	lbs	3	 	 	 			2	00
						weight									
3	ply,	per	108	sq.	feet,	weight	55	lbs.	 	 	 	 0		3	25

These prices include caps, nails, and cement.

Ka-lor-Oid (Red Ru-ber-Oid) is furnished in medium weight at \$3 sq.; heavy weight at \$4 sq. A permanent roofing with a permanent color.

Roofing, Flooring, Etc.-Continued

RU-BER-INE

(Registered in U. S. Patent Office.)

This is a carefully prepared paint for use on Ru-ber-Oid Roofing. It contains no tar or acid. Put up in ½ gallon, 1 gallon, 5 gallon, 10 gallon cans and ½ barrels and barrels, in Black, Red, Brown, and Green colors. One gallon of Ruber-Ine will cover 200 square feet of Ru-ber-Oid Roofing.

Price, black color, gal, \$1.00. Prices on other colors on application. Special prices on larger quantities.

Zylex Roofing

A high grade ready-to-lay roofing, suitable for all classes of buildings.

Put up in one square rolls containing 108 square feet, including necessary fixtures. Complete directions for application, packed inside each roll.

1-ply	Staco,	containing	108	sq.	ft.,	per	roll	 	 	\$1.25
2-ply	Staco,	containing	108	sq.	ft.,	per	roll	 	 	1.50
3-ply	Staco,	containing	108	są.	ft. , j	per	roll	 	 	1.75

Tarred Roofing Paper

3-ply,	containing	108	square	feet\$1.00
2-ply,	containing	108	spuare	feet
1-ply,	containing	300	square	feet 1.00

Lining or Sheathing Papers

Each Roll Contains 500 Square Feet.

20-pound									 							 					.5	0
30-pound									 		 										.7	5
40-pound		•	 •		•		 	•			 	• •		• •						\$1	.0	0

Pearl Sheathing, or Insulating Paper

Water, Acid and Gas Proof.

Price per roll, containing 500 square feet \$1.	25
NUBIAN VARNISH, for tarred or other surfaces, such	as
oilers, smoke-stacks, iron bridges, etc.	
gallon bucket\$.	40
gallon bucket	
gallon bucket 1.	
0 gallon bucket 2.	50

FROST-PROOF CABBAGE PLANTS

E

These frost proof cabbage plants will stand a temperature of 8 to 10 degrees above zero without injury, the land freezing, or the plants being covered with ice, sleet or snow after they are planted will not injure them.

The top of the plant does not grow until regular spring weather opens up, but the roots grow from the time they are planted, and just as soon as spring weather appears, the plants grow very fast, maturing headed cabbage ten days to three weeks sooner than you can mature them from hot bed and cold frame plants. To get advantage of these plants they must be planted a month or six weeks earlier than you would plant home-grown plants. We can fill orders from December 1st to April 15th.

The plants will be somewhat wilted and have a hard, stunted appearance, which will be disappointing to persons who have never used these plants before. Regardless of appearance they will produce the crop results. We guarantee good order delivery.

Varieties: Early Jersey Wakefield, Charleston Large Wakefield, Succession and Early Flat Dutch.

Prices: By parcels post, postage paid 35 cts. per 100 any where. On larger quantities in Virginia, West Virginia, Maryland and District of Columbia 500 plants for \$1.25, 1,000 or more at \$2.20 per 1,000. For parcels post shipment, plants are packed 100, 200, 300, 400, 500 and 1,000.

By express, purchaser paying express charges, 500 for \$1.00. Lots of 1,000 to 4,000, \$1.50 per 1,000. 5,000 to 8,000, \$1.25 per 1,000. 10,000 or over, \$1.00 per 1,000. Packed for express shipment in lots of 500, 1,000 and 2,000.

Terms: Cash with order.

CALENDAR OF MONTHLY OPERATIONS - WHAT TO PLANT AND WHEN TO PLANT FOR EACH MONTH IN THE YEAR.

Applies to sections same climate as Middle Virginia. For other sections allowance must be made, according as they are earlier or later. For instance, Charleston (S. C.) district, plans should be considered for two weeks earlier in Spring and two weeks later in the Fall.

January.

Prepare hot-beds and sow early cabbage, lettuce, radish, beet, caulirepare not-ocds and sow early caboage, lettuce, radish, beet, cauli-flower and onion. Top dress asparagus beds with manure, also give an application of salt or kainit. Cut poles and stakes for pole beans and peas. Sow pansy and other flower seeds in hot-beds for later transplant-ing. Send in your order for seeds early, so as to have them on hand at the proper time for sowing. FOR

THE FARM.—Top dress grass and clover fields or fall sown f weather is open, use every opportunity to prepare land for Spring crops.

February.

Sow in hot-beds or cold frames early cabbage, cauliflower, beet, onion, is and in bot beds sow ere plant, tomato and pepper. The last of Sow in hot-beds or cold frames early cabbage, cauliflower, beet, onion, radish; and in hot-beds sow egg plant, tomato and pepper. The last of the month sow in open ground early peas, spring kale, rhubarb and horse radish roots, beets, spinach, carrot, celery, radish and parsley. Set out asparagus roots, onion sets, and hardy lettuce plants. Early plantings of potatoes can be made. Hardy flower seeds can be forwarded either by sowing in hot-beds or in pots and boxes in the house for later trans-planting. Sow Evergreen Lawn Grass. FOR THE FARM.--Prepare plant beds and put in potato seed. Sow Canada field peas and oats, and towards end of month, grass and clover seeds can safely be put in. Sow dwarf essex rape for sheep grazing.

March.

This is the active month for sowing all kinds of hardy seeds, and the sooner most of them are sown the better. Sow garden peas for suc-cession, cauliflower, early cabbage seed, onion, celery, spinach, leek, parsley, lettuce, radish, beet, asparagus, carrot, parsnip, salsify, corn salad, collards, kale, rhubarb and early turnip, etc. Under glass, sow tomato, pepper, and egg plant seed. Plant Irish potatoes, asparagus, and rhubarb, horse radish roots, onion sets, etc. Set out cauliflower, cabbage, onions, and lettuce plants, from hot-beds, after they have been hardened by leaving the glass open at night. Sow herbs in a warm border. Pre-pare melon, cucumber and squash hills for later planting. Sow the hardy kinds of flower seeds, as they will flower earlier. Sow lawn grass. FOR THE FARM.—Sow winter and spring oats, Canada field peas with oats, clover, grass of all sorts, tobacco. Apply fertilizer as a top dressing to fall sown grain and grass and clover seeds. Plant artichokes for hogs. Sow dwarf essex rape. This is the active month for sowing all kinds of hardy seeds, and

April.

Plant early potatoes, sow cabbage, lettuce and tomato in open ground for succession. Sow beets, celery, carrot, salsify, parsnip, onion, radish, spring kale, early turnip, kohl-rabi, corn salad, collards, nasturtiums and rhubarb, asparagus, globe artichoke, parsley, mangel wurzels and herbs. Put out cabbage plants, onion sets and asparagus roots; bed sweet potatoes; plant early corn, garden peas, snap beans, and late in the month cucumber, squash, watermelon and cantaloupe can be planted. Vine seeds are tender, so should the weather be cold or wet, defer plant-ing till May. Lawn grass can also be sown any time this month, but the earlier the better. Sow hardy flower seeds, after the middle of the month the half hardy kinds can be sown, and dahlias, gladiolus and canna bulbs set out. Plant early potatoes, sow cabbage, lettuce and tomato in open ground

FOR THE FARM .- Sow spring oats, clover and grass seeds, but get in early. Later in the month sow mangel wurzels for stock, plant them in early. Later in the mon corn, cotton, chufas, peanuts, etc.

May.

Most of the tender seeds can be sown this month. Asparagus seed can yet be sown, likewise carrot, salsify, parsley, beet, pole and snap beans, sugar corn, and tomato, radish, brussel sprouts, broccoli, corn salad, collards and nasturtiums. Plant black-eye peas, lima beans, squash, cucumber, watermelon, cantaloupe, okra and pumpkin. Late cabbage and caulifower can be sown to make plants for setting out for fall. Set out tomato, pepper and strawberry plants. FOR THE FARM.—Plant sugar beets and mangel wurzel for winter feeding. All the sorghums, millets and fodder plants can be sown; like-wise cow peas, soja and navy beans. Chufas should be planted now, likewise corn, peanuts and cotton. Set out tobacco plants.

June.

Set out cabbage, tomato, egg-plant, pepper and sweet potato plants. Sow tomato for late crop, late cabbage and cauliflower for winter use. Plant collards, okra, watermelon, cantaloupe, cucumber, squash and pump-kin for late use, and radish, pole, navy and snap beans and sweet corn for succession. Plant late potatoes. FOR THE FARM.—Sow the millets, cow peas, sorghum, soja beans, navy beans, and plant late corn.

July.

Plant snap beans for succession and sugar corn for late roasting ears. Set out late cabbage and celery plants for winter use. This is the best month to sow rutabagas, but they can also be sown in August. Sow collards, kohl-rabi, lettuce, early turnips. Plant cucumbers for pickling and table, and late potatoes for winter use. FOR THE FARM.—Sow German and Hungarian millet for hay or fodder corn in drills for ensilage or fodder. Cow Peas for hay or as a soil improver. Buckwheat can be sown for bees, as an improver of the soil, and for grain. Plant navy beans. Sow crimson clover at last work-ing of corn or cotton. Sow dwarf essex rape for sheep and cattle grazing.

August.

Continue planting snap beans for the table and pickles. If any cab-bage plants remain unplanted, put out at once; likewise celery plants. Sow Harrison's cabbage and Big Boston lettuces for fall heading, likewise endive. Peas sown this month yield a good fall crop. Sow winter radish, endive, collards, parsley, spinach, kale, turnip, rutabaga and Spanish and Italian varieties of onions. FOR THE FARM.—Crimson clover is one of the best crops grown, and should be sown on every vacant place. If it is not required for feed, it will improve the soil equal to manure when turned under. Rye and barley should be sown for fall and winter grazing and afterwards will make a crop of grain. Sow vetches and rape, and towards the end of the month grasses and clover seed and alfalfa can be safely put in.

September.

Sow lettuce, early cabbage, cauliflower and onion for transplanting in November. Sow cabbage late in the month. Put out onion sets. Sow winter radishes, spinach, turnips, mustard, corn salad, leek, parsley, kale and extra early peas. Dutch bulbs, hyacinths, tulips, etc., can be planted towards the end of this month. Sow Harrison's Evergreen Lawn Grass. FOR THE FARM.—Sow Crimson Clover as early in the month as convenient, though any time during the month will do; it makes fine winter grazing and land will be greatly improved by growing this crop. Winter oats will do well sown this month, as they will get well rooted before winter. Sow all kinds of grass and clover seeds and winter and hairy vetches. Continue to sow barley and rye, as they are useful for winter grazing as well as for grain. Sow Dwarf Essex Rape for the pigs and cattle.

October.

Put out onion sets. Sow cabbage (early sorts), turnips for salad, kale, mustard, spinach, collard and lettuce. Towards end of the month set out cabbage and lettuce plants to stand out during the winter. Sow lawn grass seed. Fall seeding does better than spring seeding. Plant hyacinths, tulips, etc. Sow pansy seed in cold frames for spring plants. Plan

FOR THE FARM.—All kinds of grass and clover seeds can be sown this month, but the earlier clover seed is put in the better. Sow wheat, oats, rye, barley, vetches and rape.

November.

Sow lettuce and early varieties of cabbage in cold frames. Set

Sow lettuce and early varieties of cabbage in cold frames. Set out cabbage, lettuce and strawberry plants. Plant out asparagus, rhubarb and horse radish roots. Lawn grass can yet be sown, but the earlier it is put in the better. Flowering bulbs can be put in this month. FOR THE FARM.-Wheat, rye, barley, vetches, timothy and herd's grass can yet be sown, but the earlier they are put in the better. Sow Canada field peas. Rye makes a fine soiling and cover crop. Sow it liberally on all vacant lands.

December.

Cabbage and lettuce can be sown towards the end of the month in hot-beds or cold frames, and beets, radish and lettuce can be forced for winter use. The winter growing of lettuce in hot-beds usually proves very profitable and satisfactory. Plant Marrowfat Peas for market or garden use. Canada field peas can also be sown, but when seeded during the winter should be put in deeper than usual.

INDEX

Aprons, Buggy	Glazing Points	Poultry Appliances
Asparagus 1	Gourd	Poultry Net
Asparagus Roots	Grafting Wax	Poultry Supplies and Remedies26-28
Axes Bruch 66	Grain Fans51 Grain Sprouters34	Presses Hay 50.51
Ayle Grease	Grinders, Knife	Pruners, Tree 19.20
Bale Ties	Grindstones	Pumpkin
Barbed Wire	Grass Hooks	Pumps
Barn Door Tracks &c	Grass Seeds	Pump Jacks
	Halters	
	Hames	
Beans	Hammers	Rake Side Delivery 51
Bells Farm	Handles, Plow	Rope Seed 18
Binders, Corn	Harness	Robes
Binders, Shock	Harrows	Roller, Land
Binders, Wheat	Harrow, Alfalfa44	Rollers, Lawn
Blankets, Horse	Harrow Points, Reversible44	Roofing
	Harrow Teeth	
Bridles	Hatchets	Sausage Stuffers 26
Broaders 29-31	Hay Forks	Sawing Outfits, Gasoline 58
Brooms	Hay Loaders	Saws
Brushes	Hay Racks	Saws, Pruning
Brussels Sprouts 1	Herbs	Saws, Wood and Pole
	Hoists	
Butter Prints	Hoes	Scales
Calondar of	Horse Clippers	Scrappers Drag
Calf Meal	Ice Cream Freezers	Screens 67
	Ice Picks	
Cantaloupe	Ice Tongs	Scythes
Carrot	Incubators	Scythe Stones
Cart, Barrel	Insecticides	Seed Grains
Carts	Kale	Seeders Alfalfa46
	Knife, Hay	
	Kettles, Sugar	
	Kohl-Rabi	
	Kraut Cutters	
Churns	Lacing Belt	Shellers, Corn53
Cider Mills	Ladders	Shock Carrier
	Lanterns	
Collards	Lettuce	Squash
Collars, Horse	Mangers	Sorghum, or Sugar Cane
Corn Field 17	Manure Spreader	Soy Dealls
Corn. Sugar	Meat Chopper	Spinach
Corn Salad 7	Melon, Musk	Sprayers
Covers, Horse	Melon, Water10	Spraying Nozzles
Cow Peas	Mowers, Horse	Stanchion
Cream Harvester	Mowers, Lawn	Springs, Holster
Cress, Water	Mushroom, Spawn	Steel Traps
	Nails	
Cultivators, Riding	Nasturthums	Tackle Blocks
	Nose Bags	
Cultivator, Steel45	Oats	reosinte
Curry Combs	Oils	Thermometers
	Okra	
	Onion Seed10-11	
Double and Single Tree 67	Onion Sets11 Pods60-61	Torches, Gasonne
	Pous	
	Paints	
Egg Plant 7	Parers, Apple and Peach	Troughs, Watering
Egg Testers	Parsley	Trowels
Endive	Parsnip	Truck, Warehouse
	Peas	
	Peas, Cow	
Fencing 63.65	Peas, Sweet	Umbrellas, Wagons
	Picks	
	Plows, Contractors	
Foods, Chicken	Planters, Corn	Washing Machine
Fodder and Forage Seed17-18	Planters, Potato	Watering Pots
Forks	Plows, Shovel	Weeders, Hand
	Plows, Sulky	
	Plows, Turning	Wire Mesh Cloth
	Potato Digger43-44	Wood Splitter
Fodder Yarn	Potatoes 13	Wringers, Clothes
	1 0000000 1 1 1 11111111111111111111111	Tringers, crothes i i i i i i i i i i i i i i i i i i i

REFERENCE TABLES

Quantity and Seed Requisite to Produce a Given Number of Plants and Sow an Acre

	Quantit		Quan	
1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Per Acr		Per A	
Artichoke, 1 oz. to 500 plants	6 0	and a second and a second as a second s		bus.
Asparagus, 1 oz. to 800 plants				bus.
Barley	21/2 bu		- 4	OZ.
Beans, dwarf, 11/2 pts. to 100 feet of drill	1 bu		. 4	lbs.
Beans, pole, 11/2 pts. to 100 hills	1½ bu			lbs.
Beet, garden, 1 oz. to 100 feet of drill	7 lb:			lbs.
Beet, Mangel, 1 oz. to 100 feet of drill		Martynia, 1/2 oz. to 100 feet of drill		lbs.
Broccoli, 1 oz. to 3,000 plants	4 0			lbs.
Broom Corn				lbs.
Brussels Sprouts, 1 oz. to 3,000 plants	4 0			lbs.
Buckwheat	1/2 bu:			bus.
Cabbage, 1 oz. to 3,000 plants	4 01		8	lbs.
Carrot, ¼ oz. to 100 feet of drill	21/2 lbs		to 5	lbs.
Cauliflower, 1 oz. to 3,000 plants	4 01			lbs.
Celery, 1 oz. to 15,000 plants	4 01			bus.
Clover, Alsike and White Dutch	6 1bs			lbs.
Clover, Lucerne, Large Red; Crimson Trefoil	8 1b			lbs.
Clover, Medium	12 lbs			bus.
Collards, 1 oz. to 3,000 plants	4 02			bus.
Corn, sweet, ¼ pint to 100 hills	5 qts			OZ.
Cress, ½ oz. to 100 feet of drill	10 lbs			bus.
Cucumber, 1 oz. to 100 hills	3 1bs			lbs.
Eggplant, 1 oz. to 2,000 plants	4 02		to12	lbs.
Endive, ¼ oz. to 100 feet of drill	41/2 lbs			bus,
Flax, Broadcast	1/2 bus			lbs.
Garlic, bulbs, 1 lb. to 10. feet of drill		Spinach, 1/2 oz. to 100 feet of drill		lbs.
Gourd, 2 oz. to 100 hills		Summer Savory, 1 packet to 100 feet of drill		lbs.
Grass, Blue, Kentucky	2 bus			lbs.
Grass, Blue, English	2 bu			lbs.
Grass, Hungarian and Millet	1/2 bus			OZ.
Grass, Mixed Lawn	to 5 bus	s. Tobacco, 1 oz. to 5,000 plants		0Z.
Grass, Orchard, Perennial Rye, Red Top, Fowl	bus		. 11/2	lbs.
Meadow and Wood Meadow	2 bu		to 30	lbs.
G ass, Bed Top, Fancy Clean	10 lbs	s. Wheat	11/4	bus.

Number of Plants and Trees to the Acre at Given Distance

Distance apa	irt No. plan	ts Distan	ce apart N	o. plants	Distanc	e apart No.	plants	Distanc	e apart No.	plants
12x 1 inch	ies 522,7	20 24x24	inches	. 10,890	36x36	inches	4,840	00x60	inches	1,743
12x 3 "		40 30x 1	**	209,088	42x12	ó.,	12,446	8x 1	foot	5,445
12x12 "		60 30x 6	**	34,848	42x24	**	6,223	8x 3	65. 	1,815
16x 1 "	392,0	40 30x12	**	17,424	42x36	**	4,148	8x 8	6 6 ·····	, 680
18x 1		80 30x16	**		48x12	8 8 	10,890	10x 1	66	4,356
18x 3	116,1	60 30x20	**	10,454	48x18	5 ș	7,790	10x 6	8 6 	, 726
18x12 "		40 30x24	**	. S,712	48x24	**	5,445	10×10	6.6 	, 435
18x18	19,3	60 30x30	**	6,970	48x30	66 ······	4,356	12x 1	65 g.	3,630
20x 1 **	313,6	35 36x 3	**	58,080	48x36	6.5 	3,630	12x 5	6.6 	, 736
20x20 "	15,6	81 36x12		. 14,520	48x48	5.6	2,723	12x12	66	, 302
24x 1 **		60 36x18	**	9,680	60x36	6.6	2,901	16x 1	66	2,722
24x18 "	15,5	20 36x24	**	. 7,260	60x48	6 a	2,178	16x16	66	, 170

Weight of Various Articles per Bushel

	Pou
Apples	
Apples, dried	
Barley	
Beans	
Blue Grass	
Buckwheat	
Broom Corn	
Bran	
Clover Seed	
Corn, Shelled	
Corn, on ear	
Corn Meal	
Cranberries	
Flax Seed	
Hemp Seed	
Hungarian Grass Seed	
Irish Potatoes	

1	ounus
Malt	38
Oats	32
Onions	54
Peaches dried	
Peas	0.0
Rye	56
Timothy Seed	
Wheat	0.0

Pounds

WEIGHT PER CUBIC FOOT :

Hay well settled	41/2
Corn on cob, in bin	
Corn shelled, in bin	45
Wheat, in bin	
Oats, in bin	251/2
Potatoes, in bin	381/2

STUDEBAKER LINES

Farm Wagons Dump Wagons Dump Carts Hand Carts Street Sprinklers, Etc.



STUDEBAKER HARNESS

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