



Springfield, Ohio.

P. P. MAST & CO.

The Buckeye Men

**BUYERS** of all kinds of the highest grade of materials  
used in the construction of agricultural implements.

**ORIGINATORS** of valuable special designs in goods  
used exclusively by farmers.

**PAYERS** of good wages which insures good workmanship.

**MAKERS** of the finest line of Grain Drills and Cultivators  
in the world, constructed on the above principles.

**SELLERS** at the lowest possible prices and on the best  
terms consistent with above conditions.

The best of material made in special designs, by superior workmen, and  
sold at reasonable prices. Is there anything more to be desired?

*"Whoever tooteth not his own bassoon, the same shall not be tooted," and the owner thereof shall  
carry his goods over to another season.*

## Introductory



Call your attention to our front cover design, and to the fact that if it is suggestive of a plentiful harvest (which condition is essential to general prosperity), proper credit should be allowed to the implements, which, to a very great degree, make such conditions possible. Good machinery is the first requisite to successful farming. Back of every success will be found one man and one idea. In the man will be found *hope, belief, enthusiasm* and *persistency*. In the idea will be found *honesty*, otherwise the venture must prove a failure.

Fifty-eight years ago we made our first machines. They were made and sold on honor. They are made and sold on honor today. In those fifty-eight years vast changes and improvements have been made. Honest value and better machinery has been the goal sought, and neither money nor time have been spared to obtain this result. It has been an underlying principle with us to produce the best, and it is a source of great satisfaction to believe that we have fully accomplished our purpose in our present line of machinery.

The burden of the business has recently been transferred to fresh energy, which has been trained to meet the requirements of ever advancing development and increasing demand for more efficient and time-saving machinery.

No one but an expert in the business can appreciate the ingenuity, energy, worry and expense necessary to produce a new machine in proper condition for the market, and the persistent watchfulness to keep them so throughout the entire course of manufacture.

From the drawing of the design to the many severe field tests is a continuous expense. This is why a manufacturer of "high-grade goods" cannot pose as a philanthropist when compared with manufacturers of machines simply made to "pass muster" on their appearance, and where the dealer is required to do the experimental work.

The brain work to design, the series of scientific factory and practical field tests, the accuracy of skilled workmen paid to improve and not simply to produce, and the superior quality of material, do not show up in the finished goods. Much too often paint is used, like the lion's skin, to cover a counterfeit.

It has been said that if the force of advertising were eliminated, two-thirds of the business concerns would go out of business, and the one-third would be obliged to work nights. This does not imply that the two-thirds are dishonest, but simply that the goods of the other third are better—*made on honor*. We are proud to belong to this class, and as good advertising is the balance wheel of trade, we invite your attention to this catalogue describing our "made on honor" goods.

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# Buckeye Grain Drills

Seeders, Sowers, Cultivators  
Disc Harrows and Cider Mills

—————CATALOG "D"—————

*Manufactured by P. P. MAST & COMPANY*

Established 1856

—————SPRINGFIELD, OHIO—————

Incorporated 1871

—————  
*JOBBER AND TRANSFER AGENTS LOCATED AT ALL THE CONVENIENT TRADE CENTERS*

MR. DEALER:—

Just one minute, please. It does not satisfy us to sell you a contract order for goods, and then wait for pay day to come around. We want more orders to follow by mail, and *we get them* by helping our customers to dispose of the goods. Notice our system of up to date advertising in all leading farm papers, and that every "ad." refers the farmer to "*The Buckeye Man*" for information. *That's you if you handle our goods.* We also request all customers to send us as large a list of farmers' names as possible. We get directly after these farmers, and keep after them by a special system of our own, and constantly refer them to "*The Buckeye Man*" (is that you?) for a demonstration of the goods and for prices. We have largely increased the business of our customers, in very many cases, by our special system of personal advertising and pushing, *and we can do it for you.* It helps your entire business. Gets directly to the vital spot, where the greatest good will result and *you get the benefit of the results.* We do not retail any goods except in cases where we have no customers to whom we can refer, and we are not connected directly or indirectly with any trust or syndicate. *We want your business, and can do you as much or more good than you can do us. Let's make it mutual.* Good work, good advertising, and our *never let up* system of pushing *will surely get the business for you.* Will you give us the opportunity?

Respectfully,

P. P. MAST & CO.

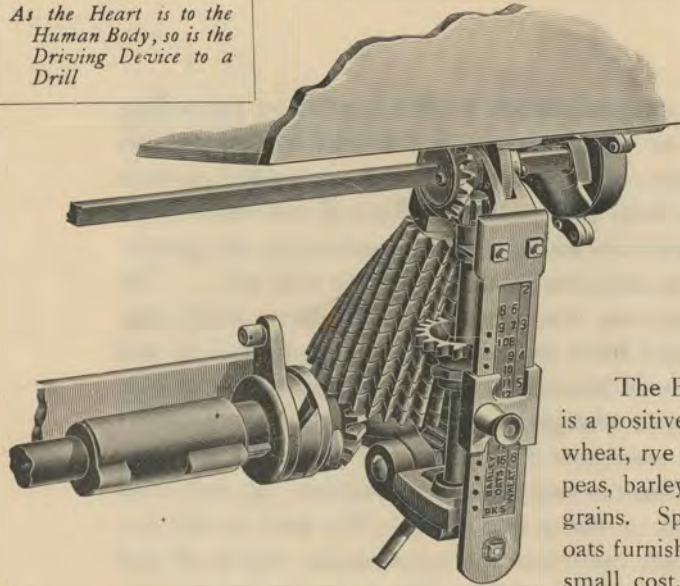
MR. FARMER:—

One minute from you, also. Have you read the communication to Mr. Dealer on preceding page? It is just as good reading for you. If you are an "up to date" farmer you will enjoy our "up to date" advertising, of which this catalogue is a part. You surely wish to keep posted on such goods as are used in your business, and we expect to *keep* you posted. We will not annoy you, but will take pleasure in corresponding with you to explain fully all particulars concerning our goods. The more information you ask for, the better it suits us and the more goods we will sell. "*The Buckeye Man*" referred to in our advertisements is the man who handles our Buckeye Drills and Cultivators. If there is such a man near you, we would have to refer you to him for prices and terms, as he contracts to *buy and pay for* a certain number of machines whether he sells them or not. If you sell your hogs at one delivery and on the foot, you charge less than you would if you did your own killing and retailed pork by the pound, as you save the labor and avoid all chances. That's why we must protect the dealer. He takes the chances and buys in quantities. *If there is no "Buckeye Man" near you we will sell direct to you.* Ask us about our work. We want to tell you about it. Read our "ads." on the front and back cover; they contain information which should interest you. We "paddle our own canoe," but acknowledge our dependence on the farmers to furnish the "paddle" to make the canoe go. Will you do it?

Respectfully,

P. P. MAST & Co.

*As the Heart is to the Human Body, so is the Driving Device to a Drill*

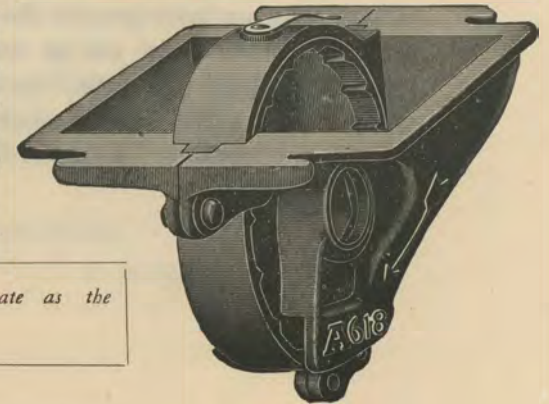


alfalfa, clover, millet and other similar seed can be drilled into the ground through the main hopper in any desired quantity, from 6 pounds to 25 pounds per acre. Very much better results are secured by drilling such seed than by broadcasting. These cups can be placed in position and removed without any trouble, and are furnished at a very small additional cost.

The Cone Gear with Grain Register shown in this cut is the best and simplest device ever invented for the purpose. The most correct in its work. The most easily operated. The least liable to breakage. The least expensive for repairs, and the easiest to repair when necessary.

To change quantity, simply raise or lower the small gear wheel on upright shaft to the number on the register which indicates the quantity desired.

The Buckeye Double-run Force Feed will not skip, choke or bunch, and is a positive force feed. The right-hand side of feed cup sows wheat, buckwheat, rye and other small grains. The left-hand side sows oats, corn, beans, peas, barley, beet seed and other large grains. Special agitator for bearded oats furnished, when required, at very small cost. Special alfalfa cups furnished when required, by which



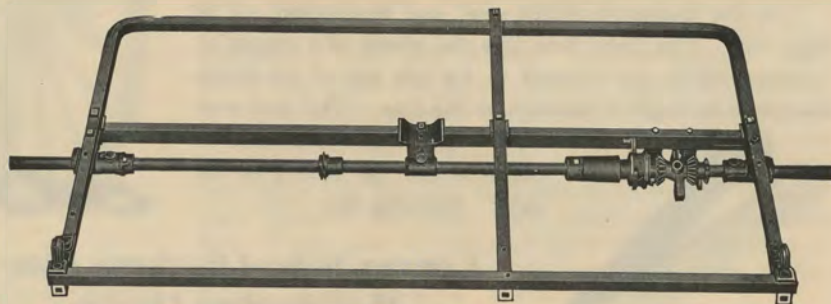
*"As Accurate as the Sun"*

## Buckeye Force Feed Grass Seed Attachment



The above cut shows the manner of attaching the Grain Hopper to the square tube steel frame, also of attaching the Grass Seed Hopper to the Grain Hopper. Also shows the Grass Seed Feed Cups, which are positive force feed, made on the same principle as the Grain Feed Cups.

*A Drill on a Good Frame is Like  
a "House Built on a Rock."*



Buckeye Square Tube Steel Frame, combining the greatest possible strength with the neatest appearance.

As strong as angle steel of double the size.

Made of heavy high carbon square steel tubing, bent at the front corners, so no reinforcing or bolting is necessary, and the only two braces used are of the same material.

The strongest form of steel, constructed in the strongest possible shape, on scientific principles.

Highest quality of steel axle running the entire width of the Drill, and with long bearings for wheels.

No heavy gearing in center of axle to cause sagging.

Frames may be made cheaper, but it is not possible to make them better.

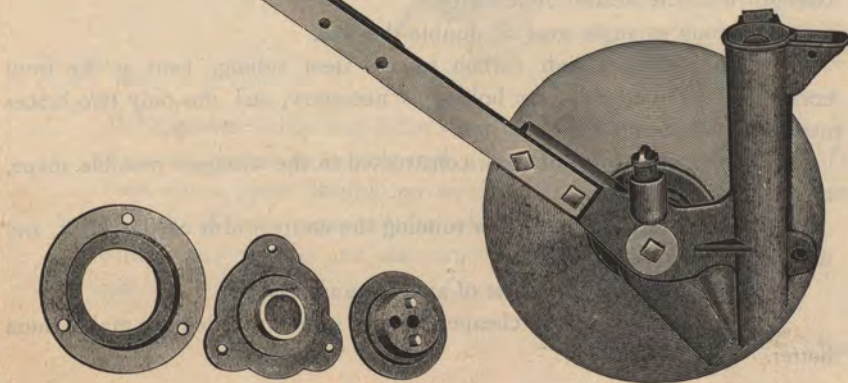
## Concave Side of Buckeye Disc-Hoe Seeding Device

These two cuts illustrate in detail the construction of the Buckeye Disc-Hoe Seeding Device and Drag Bars.

The disc bearing is chilled steel, and guaranteed not to wear out. The discs turn like the wheels of a wagon on bearings which are fastened to the hoe part of the device instead of having the bearings on the disc. Did you ever see a wagon with the spindles on the hubs and the boxing on the axle? Probably not.



## Convex Side of Buckeye Disc-Hoe Seeding Device



Notice the disc and *hard oil cup* in the lower cut. One oiling lasts the entire season, and the bearing is absolutely dust-proof.

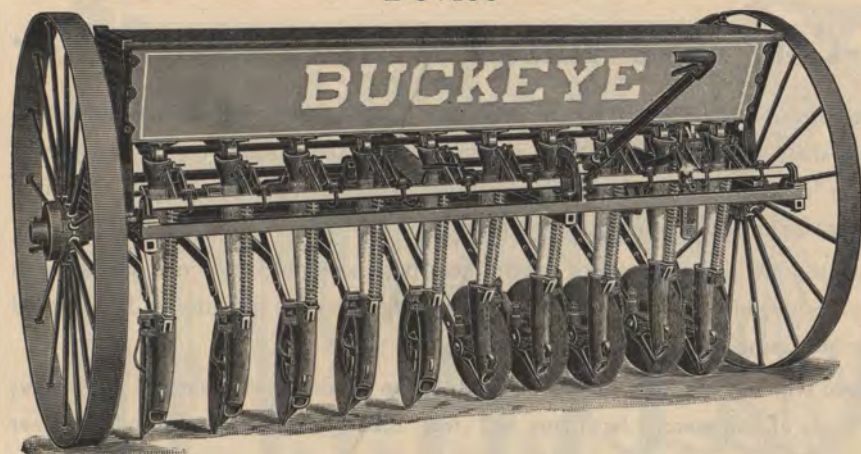
The Disc-Hoe to which the disc is fastened is our special patented invention, and is superior to any other device for the purpose. It helps open the furrow and places the seed in the bottom of the furrow to be covered by the chain coverers.

The Buckeye Steel Single Drag Bar, braced as shown in the cut, cannot possibly be bent, twisted or forced from its position by side pressure. Neither will it catch and accumulate clods, corn stalks and other trash as will a double drag bar.

The scraper is adjustable, and will do its work perfectly. The discs are 14 inches in diameter.

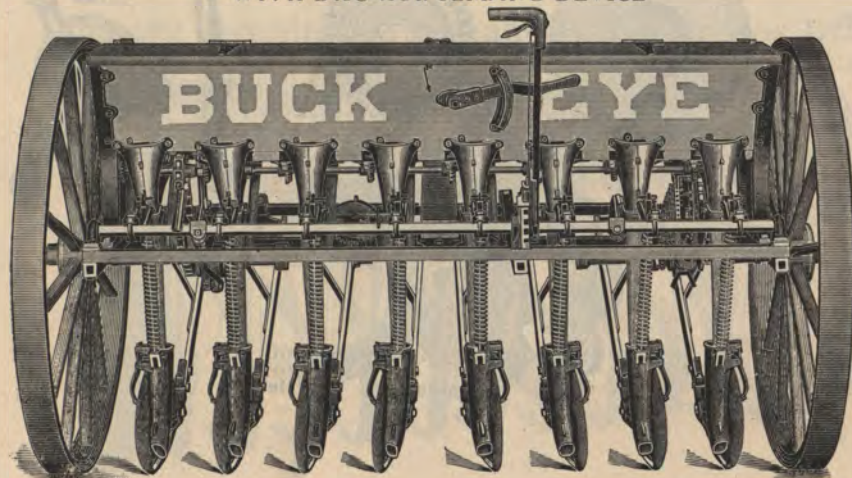
## Buckeye Plain Disc Drill with Disc-Hoe Seeding Device

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## Buckeye Combined Grain and Fertilizer Disc Drill

WITH DISC-HOE SEEDING DEVICE



### Construction

For description of driving device (cone gear) grain register, double run force feed, square tube steel frame and grass seeder, refer to pages 4 and 5. Discs and drag-bars described on page 6. Wheels forty-four inches high, either wood or steel, 3-inch tires regular, or 4-inch special, at a small additional cost. Three pawl spring ratchet hubs which drive from both wheels. No lost motion. Cold rolled high grade steel axles, frame of square steel tubing, no riveted joints or reinforced corners. Rear pressure and rear lift. Rear pressure does not add neck weight, as discs enter the ground on same line as wheels. High carbon steel single drag bars not weakened by twisting. No extra space between the center discs. Double run force grain feed. Cone gear for change of quantity; no loose gears to be mislaid or lost. Detachable force feed grass seeder. Rubber or wire tubes.

Independent lever for throwing in and out of gear without raising the discs, for spotting shocks when drilling in corn ground.

### Sizes of Plain Disc Drills

All 8 disc drills are spaced 8 inches apart.

All 9 disc drills are spaced 7 or 8 inches apart.

All 10 disc to 24 disc drills are spaced 6, 7 or 8 inches apart.

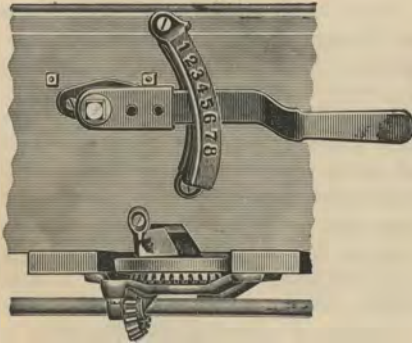
### Sizes of Combined Grain and Fertilizer Disc Drills

All 8 disc drills are spaced 8 inches apart.

All 9 to 14 disc drills are spaced 7 or 8 inches apart.

Above construction applies to both Plain Grain Drills and Combined Grain and Fertilizer Drills except as to the famous Buckeye Non-corrosive Glass Fertilizer Feed, which see described fully on page 8.

# The FAMOUS BUCKEYE Non-Corrosive Glass Fertilizer Distributer



Consists of a non-corrosive glass feed-plate, turned by a bevel gear wheel which is driven by a bevel gear on the feed shaft, the whole being held in place against the bottom of the hopper by the spider. This spider is constructed of two pieces, and by removing three screws it can be separated and the different parts easily taken out for cleaning.

The first view (at top of page) illustrates the different parts assembled, the opening through which the fertilizer is discharged, and also the lever which regulates the quantity. The desired quantity is obtained by increasing or decreasing the opening.

A positive force feed which does not rust or corrode from acids in commercial fertilizers; guaranteed to sow all kinds of commercial fertilizers and fine manures; does not grind fertilizer

into paste; change of quantity without stopping the machine; chain drive is positive and has least friction; independent lever for throwing fertilizer feed out of gear; fertilizer feed always in view; caps to cover fertilizer conductors, if desired.

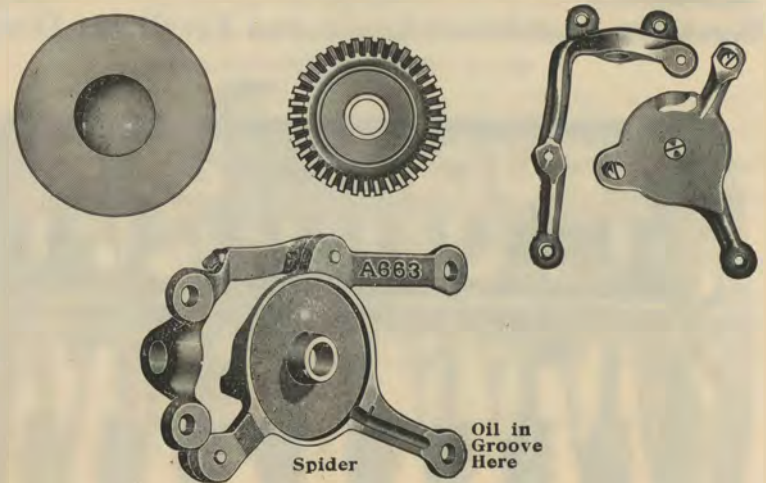
An accurate gauge is provided for regulating the quantity of fertilizer to be sown.

Attention is directed to groove in spider for oiling gear wheel as shown in view at bottom of page.

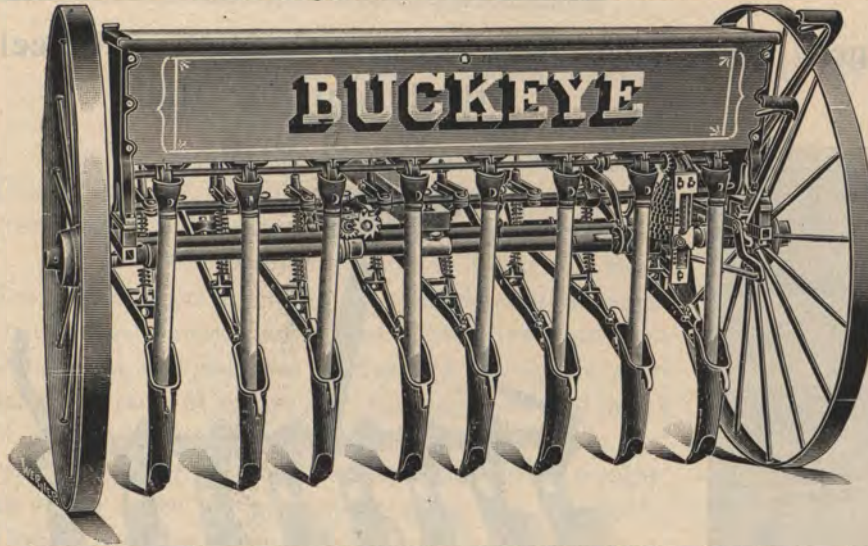
Cheapest because it saves time and expense.

Other feeds corrode and break.

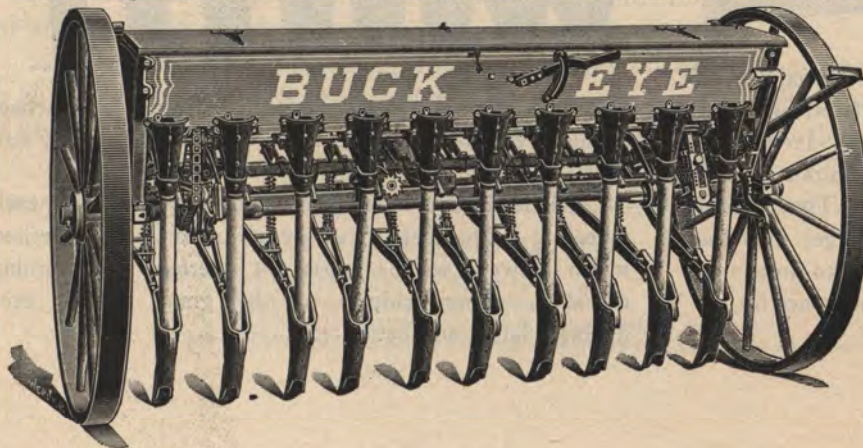
The Buckeye is the only reliable fertilizer drill.



## Buckeye Plain Pin Hoe Drill



## Buckeye Combined Grain and Fertilizer Hoe Drill



## Construction

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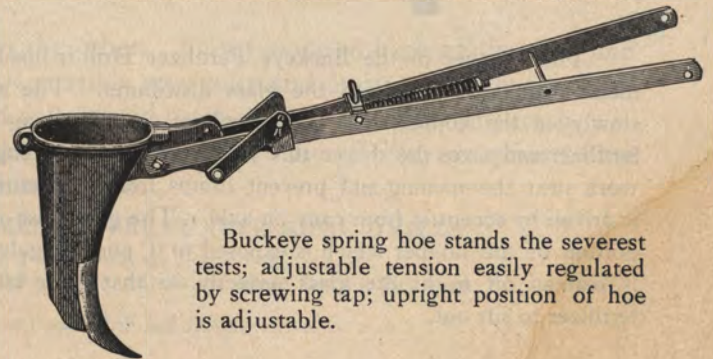
For description of driving device (cone gear), grain register, double-run force feed, square tube steel frame and grass seeder, refer to pages 4 and 5. Wheels 48 inches high, either wood or steel, 3-inch tires regular, or 4-inch special, at small additional cost. Three pawl spring ratchet hubs which drive from both wheels. No lost motion. Cold rolled high grade steel axles. Frame of square steel tubing. No riveted joints or malleable iron corners. Front spring pressure. Lifting lever at end. Zigzag lever conveniently placed in rear. Accurate land surveyor. Medium weight hoes which run at uniform depth. High carbon steel drag bars. Double run force feed for grain. Cone gear for change of quantity. No loose gears to be mislaid or lost. Detachable force feed grass seeder. Rubber or wire tubes. Independent lever for throwing in and out of gear without raising hoes, for spotting shocks when drilling in corn ground. Above construction applies to both plain Grain Drills and Combined Grain and Fertilizer Drills, except as to the Famous Buckeye Non-Corrosive Fertilizer Feed which see described fully on page 8.

### Sizes of Plain Hoe Drills

- All 8 Hoe Drills are spaced 8 inches apart.
- All 9 Hoe Drills are spaced 7 or 8 inches apart.
- All 10 to 24 Hoe Drills are spaced 6, 7 or 8 inches apart.

### Sizes of Combined Grain and Fertilizer Hoe Drills

- All 8 Hoe Drills are spaced 8 inches apart.
- All 9 to 14 Hoe Drills are spaced 7 or 8 inches apart.
- No Fertilizer Drills made with more than 14 hoes.
- Spring Hoes instead of pin hoes furnished at small extra cost.



Buckeye spring hoe stands the severest tests; adjustable tension easily regulated by screwing tap; upright position of hoe is adjustable.

### View of Inside of Fertilizer Hopper



The Hopper of the Buckeye Fertilizer Drill is lined with galvanized metal which fits closely to the glass distributor. The agitator, swinging slowly in the hopper, keeps the fertilizer from banking up. It stirs the fertilizer and saves the driver this annoyance. The prongs on the agitator work near the opening and prevent lumps from interfering. The agitator is driven by eccentric from cam on axle. The glass disc is larger than the portion of the hopper which is exposed to it, and the galvanized projection is reamed off to fit the glass perfectly, so that there is no space for the fertilizer to sift out.

### The New Buckeye Gang-Press Wheel Attachment for High Wheel Drills



The most easily and perfectly adjusted press wheel device ever offered to the trade. Furnished for any size drill.

Made entirely of steel; no wood parts to rot out; each wheel is independent; can be adjusted to any desired width between wheels; does not interfere when turning the drill. Thoroughly covers the grain, thereby producing a larger and better crop.

## Buckeye Plain Shoe Drill with Chain Coverers

### Construction

For description of driving device (cone gear) Grain Register, double run force-feed, square tube steel frame and grass seeder, refer to pages 4 and 5.

Wheels 44 inches high, either wood or steel, 3-inch tire, regular, or 4-inch special, at small extra cost; three pawl spring ratchet hubs, drive from both wheels, no lost motion; cold rolled high grade steel axles. Frame of square steel tubing, no riveted joints or malleable iron corner pieces. Rear pressure and rear lift. Rear pressure does not add to neck weight, as shoes enter the ground on same line as wheels.

Double run force grain feed, cone gear for change of quantity; no loose gears to be mislaid or lost. Detachable force feed grass seeder, rubber or wire tubes. Independent lever for throwing in and out of gear without raising the shoes, for spotting shocks when drilling in corn ground.

Shoes and discs interchangeable, and readily changed from one to the other. Shoes made of high grade steel, and so constructed as to enter the ground and open the furrow with the least possible resistance and draft. Double drag bars of heavy high grade flat steel, not weakened by twisting, and so shaped as to avoid catching and accumulating trash.

Above construction applies to both Plain Grain Drills and Combined Grain and Fertilizer Drills, except as to the famous Non-corrosive Glass Fertilizer Feed, which see fully described on page 8.

#### SIZES OF PLAIN SHOE DRILLS

All 8 Shoe Drills are spaced 8 inches apart.

All 9 Shoe Drills are spaced 7 or 8 inches apart.

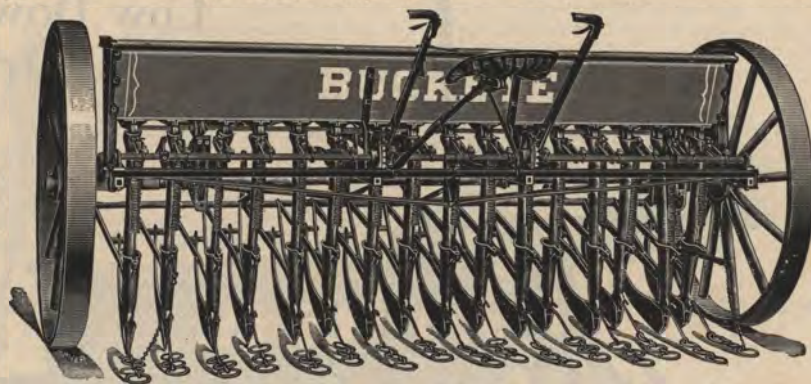
All 10 to 24 Shoe Drills spaced 6, 7 or 8 inches apart.

Sizes 8 to 12 Shoes have Single Lift and Single Drive. Sizes 14 to 24 Shoes have Double Lift and Double Drive.

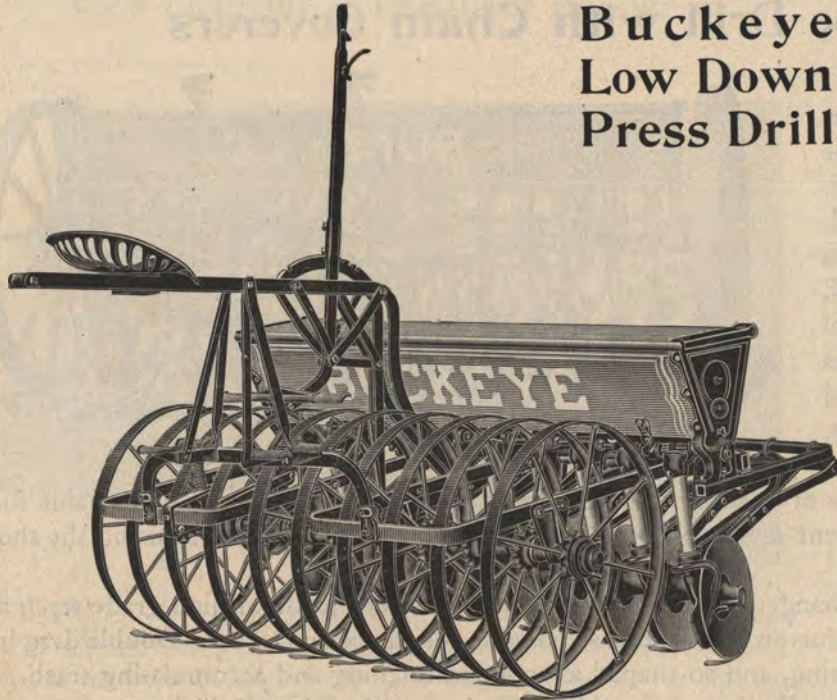
#### SIZES OF FERTILIZER SHOE DRILLS

All 8 Shoe Drills are spaced 8 inches apart.

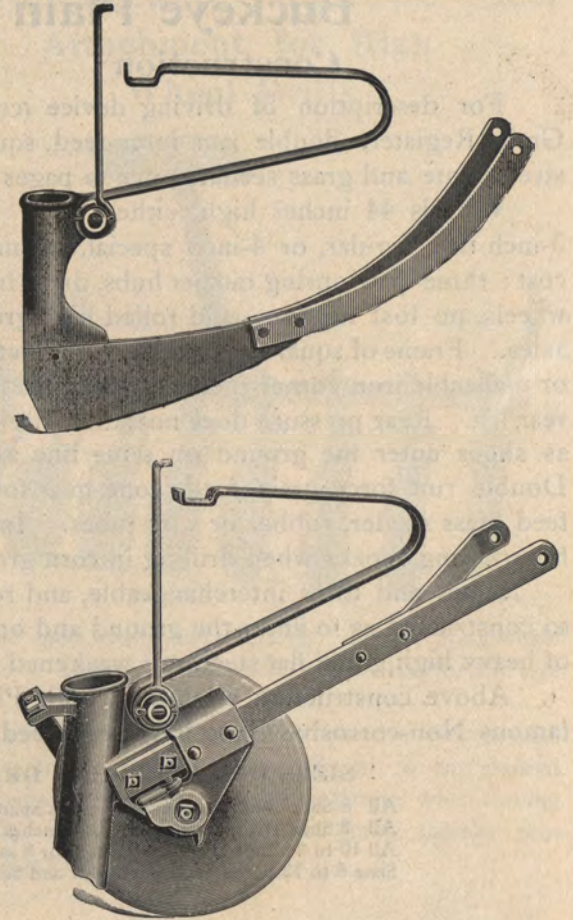
All 9 to 12 Shoe Drills are spaced 7 or 8 inches apart.



## Buckeye Low Down Press Drill



Interchangeable Shoe and Disc Hoe, with  
Pressure Springs as used on Press Drill

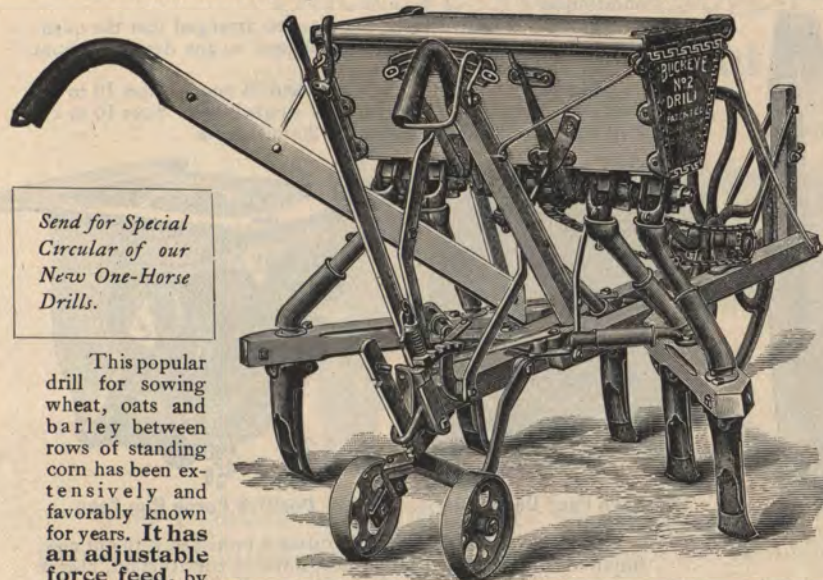


**The Lightest Weight, the Lightest Lift, the Lightest Draft,** made to meet the requirements of farmers in western localities where the soil is light, equipped with either Discs or Shoe Runners as desired. Square tube steel frame, Improved Buckeye Fluted Force Feed, which will accurately sow all kinds of grain. Chain drive, Surveyor located on end of hopper. Drill is thrown in and out of gear when the front part of machine is lowered or raised. This movement is made by the use of one simple lever which acts in connection with the seat, the weight of the operator being sufficient to raise the machine when lever is released. Has Drop Hitch which prevents neck weight and makes it light draft. Discs and Shoes interchangeable and readily changed from one to the other.

### **SIZES OF BUCKEYE LOW DOWN SHOE OR DISC DRILLS**

All 8 Shoe or Disc Drills are spaced 8 inches. All 10 to 16 Shoe or Disc Drills are spaced 6, 7 or 8 inches.

## The Buckeye Five-Hoe Grain Drill



Send for Special  
Circular of our  
New One-Horse  
Drills.

This popular drill for sowing wheat, oats and barley between rows of standing corn has been extensively and favorably known for years. It has an adjustable force feed, by which the quantity can be varied without change of gear wheels. It is a positive force feed, and nothing can be more regular and accurate in its work.

**Chain Drive.** It is driven by a chain, which is known to be a simple, effective and thoroughly satisfactory method.

**Spring Wings.** Has spring wings so as to allow them to yield to obstructions, and can be varied to suit the widths between corn rows.

**The Hoes** are hinged at the back and held in place by a wooden pin. In case an obstruction is encountered, the pin breaks and allows the hoes to fall back without breaking. They have steel points.

**The Feed** can be shut off at any time by a lever in the rear, throwing the drill out of gear. The depth can be regulated by the gauge wheel at the rear of the frame, which also forms a truck. The best quality of material is used in its construction. It is well painted, and for workmanship and finish it is unsurpassed.

## New Buckeye Five-Disc Drill

The Buckeye Five-Disc Grain Drill contains very desirable features, which will be appreciated by the farmer.

Four outside discs are supported by independent drag-bars, having spring pressure, and will accommodate themselves to any unevenness of the ground or where the center of row is either high or low.

Ratchet and lever for adjusting discs for wide and narrow rows.

Self-adjusting discs for passing obstructions.

Discs set with center discs ahead, others widening to the rear, making the discs set "A" shape, allowing them to readily clear themselves of trash.

Disc spindle and hub are chilled, making them hard and giving them wearing qualities, and are dirt-proof.

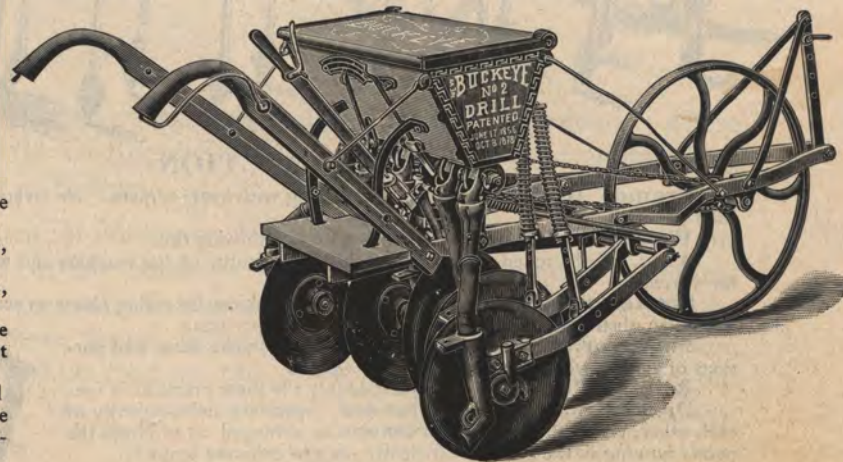
The disc-hoe is made with mud-guard next to the disc, preventing collection of trash or mud.

Furnished with fluted feed with steel rosette, and chain drive.

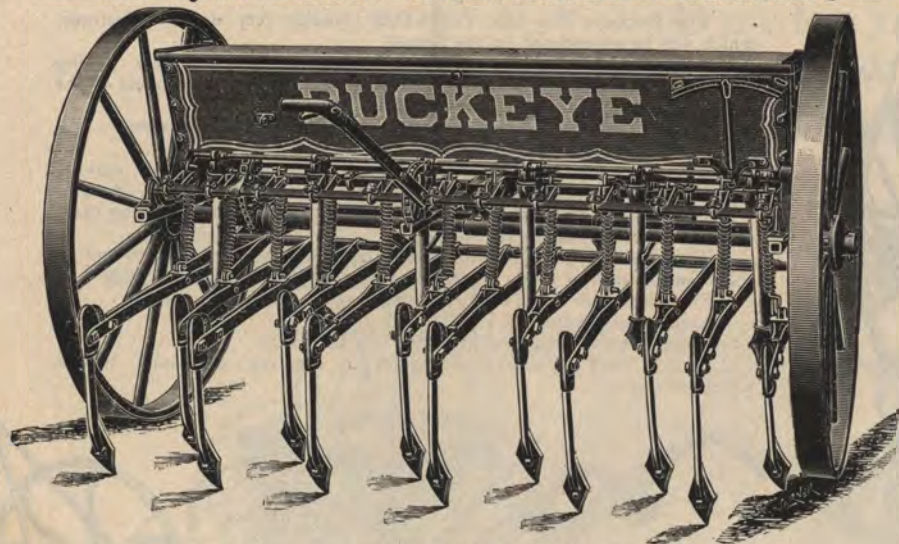
Metal seed conductors.

Hand-guards on handles for protecting the hands.

Weight shelf between the handles for carrying additional weight where necessary.



## Buckeye Broadcast Seeder with Cultivators



### CONSTRUCTION

**Frame.** High grade square steel tubing with bent corners. No riveted joints, but one solid piece.

**Wheels.** Wood or steel, 48 inches high with wide tire.

**Axle.** Cold rolled steel running the entire width of the machine and with long spindles for wheels.

**Scatterers.** Hinged at top and held in position by spring clamp so scatterers will bend to pass an obstruction and immediately fly back in position.

**Surveyor.** Placed on end of hopper and shows acres and portions of acres sown.

**Points.** Reversible and unquestionably the most practical in use.

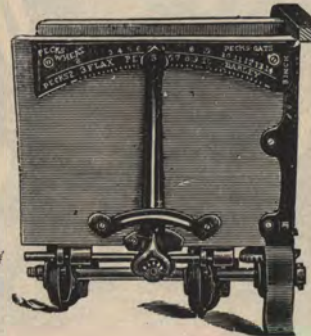
**Drag Bars.** High grade flat steel, operating independently of each other, and with spring pressure so arranged as to insure the points running in the ground sufficiently deep to cultivate properly.

**Standards** to which points are attached are hinged to lower end of drag bars and held by friction, so break pins are not necessary.

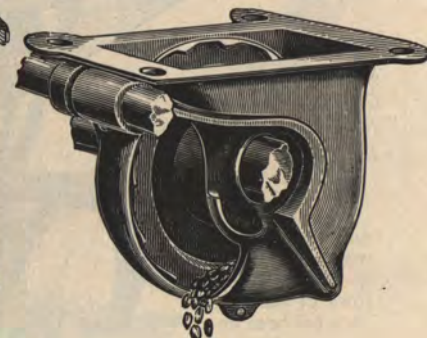
**Lifting Arrangement.** One lever only, strong, light and simple.

**Feed.** Positive force rim feed so arranged that the quantity to be sown can instantly be changed to any desired amount without change of gearing (see cuts).

**Sizes.** 12, 14, 16, 18, 20, 22 and 24 hoes. Sizes 10 to 14 hoes have single lifting lever and single drive. Sizes 16 to 24 hoes have double lifting levers and double drives.



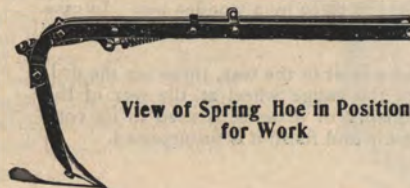
Buckeye Feed Regulator



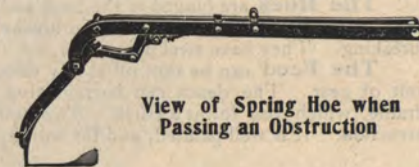
Positive Force Rim Feed

**Our New Spring Hoe Seeder** is furnished with our new, improved drag bar and spring hoe, novel in construction, neat in appearance, and specially adapted for use in stony and stumpy land, and is so arranged that the position of hoe point can be easily adjusted. The spring trip is operated by a spiral spring.

**Spring Hoe Seeders** furnished when ordered, but are charged for extra

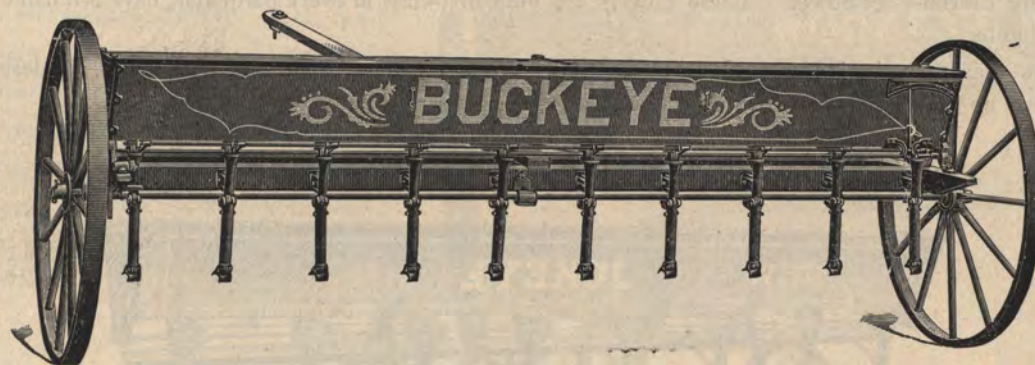


View of Spring Hoe in Position for Work



View of Spring Hoe when Passing an Obstruction

## Buckeye No. 1 Eleven-Foot Broadcast Sower Without Cultivators



**The Demand of the Farmers** who raise small grain on a large scale, especially in sections of the country where grain is sown broadcast, calls for a machine which will facilitate the seeding. For this purpose we are still manufacturing our celebrated Buckeye Eleven-Foot Broadcast Sower without cultivators.

**This Machine is Substantially Made,** and is mounted on four-foot wheels of our own make, which make the draft light and carry the frame and working parts high and clear of any obstacles, which is quite an advantage in seeding corn ground. It is also provided with our Improved Hinged Spout and Scatterer, which discharges the seed as near the ground as possible to insure its being properly scattered, and these Spouts, being arranged with a hinge and brake pin, are not liable to be broken in striking an obstruction. The grain feed on this Sower is the same as we use on our Broadcast Seeder, and is described elsewhere in this catalogue. This machine will sow full eleven feet wide. Operator can ride or walk, as desired. Furnished with wood wheels only.

## New Buckeye Eleven-Foot Broadcast Sowers

We are now making a new line of Eleven-Foot Sowers for the trade, which requires a lighter and less expensive Sower than our Regular Standard Buckeye Eleven-Foot Sower. These Sowers are built first-class in every particular, have a reliable fluted force feed, and the machines are made lighter.

The line consists of narrow and wide track Force Feed Sowers, with or without grass seed attachment, as desired; also Eleven-Foot Agitator Sower, which has no grass seed attachment.

### New Buckeye No. 2 Sower



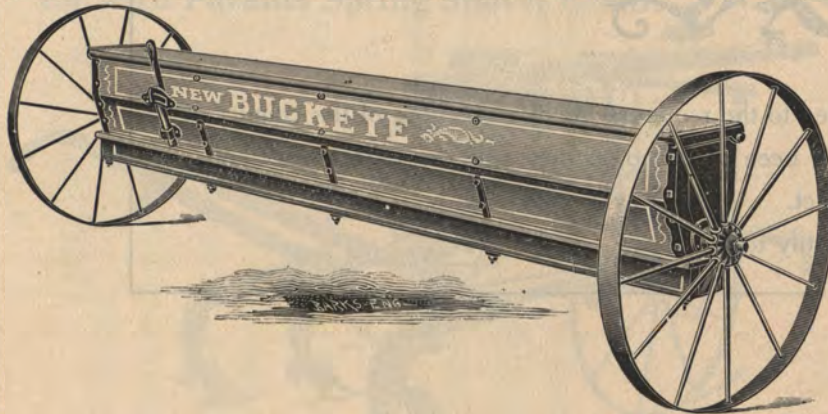
**The above cut illustrates our New Buckeye Narrow Track, Square Steel Tube Frame, Force Feed Broadcast Sower.** It is provided with a Spring Seat as shown in cut; is furnished with marker, and has a bar which runs full length in front of the feed scatterer to protect them from being broken. It is furnished with strong, but light steel wheels of our own make; durably finished, neat in appearance, and accurate in operation.

### New Buckeye No. 3 Sower

The above cut shows our New Buckeye Wide Track, Force Feed, Broadcast Sower. This machine is made the same as the narrow track described on page 14, except that it has the wheels at the end; the scatterers are shorter, and are arranged to lift up, should any obstruction strike them, and their weight returns them to the proper position. Operator can ride or walk, as desired, but this machine does not have seat. Furnished with steel wheels.



### New Buckeye No. 4 Sower



This cut shows our New Buckeye Agitator Feed, Broadcast Sower, furnished with steel wheels of our own make. Has the most correct feed of any machine of its class. Large seed box, sows all kinds of grain, and has a low discharge that is not affected by the wind. Operator can ride or walk, as desired, but the machine does not have seat. Nicely finished and first-class in every respect.

# Buckeye Riding and Walking Cultivators

RENOWNED FOR DURABILITY  
AND EASY HANDLING



- ¶ Made in all sizes and styles, and adapted to the requirements of all sections of the country.
- ¶ A better line of Cultivators has never been produced, as they will do perfect work and last longer than any other line on the market.
- ¶ Thousands of satisfied customers can testify to the above.

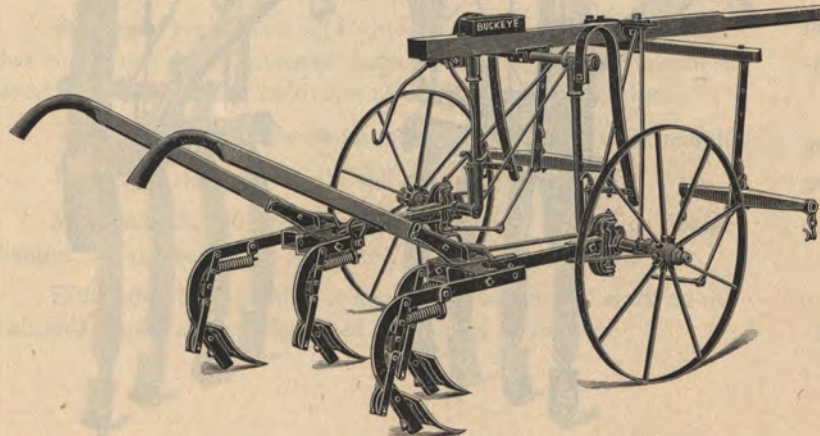
## Buckeye Sunbeam Adjustable Arch Walking Cultivators

### Adjustable Arch Walking Cultivator with Rigid Beams

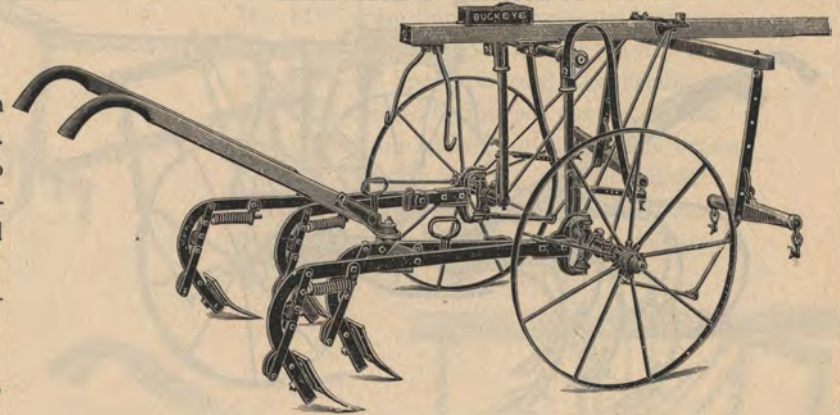
These adjustable Arch Cultivators are the best machines on the market for cultivating crops planted in rows of varying widths. The maximum width from center to center of wheels being 46 inches and the minimum width 34 inches. Full 12 inches adjustment. The change is easily and quickly made. Equipped only with single tongue and 30-inch steel wheels.

Any style of beams made by us can be used on the adjustable arch frames, and are described by number below.

### Buckeye Adjustable Arch Walking Cultiva- tor with Parallel Spring Shovel Beams



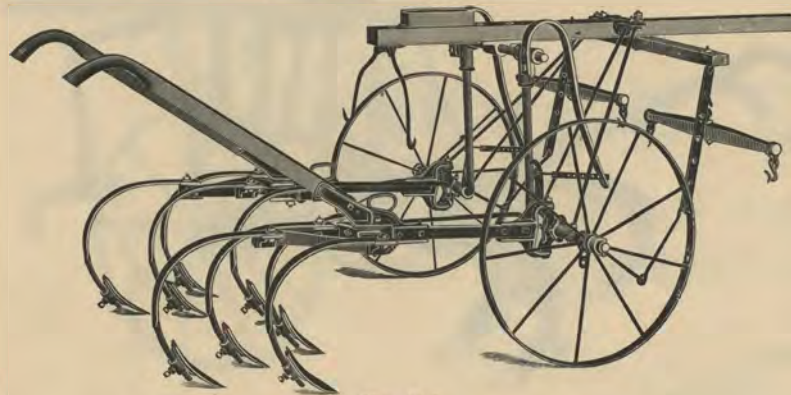
No. 113



No. 109

- No. 108—Four Pin Shovels, rigid beams.
- No. 109—Four Spring Shovels, rigid beams.
- No. 110—Six Pin Shovels, rigid beams.
- No. 111—Six Spring Shovels, rigid beams.
- No. 112—Four Pin Shovels, parallel beams.
- No. 113—Four Spring Shovels, parallel beams
- No. 114—Six Pin Shovels, parallel beams.
- No. 115—Six Spring Shovels, parallel beams.
- No. 116—Eight Spring Teeth, parallel beams.
- No. 117—Eagle Claw, rigid beams.

## **Buckeye Sunbeam Adjustable Arch Spring Tooth Walking Cultivator**



No. 116

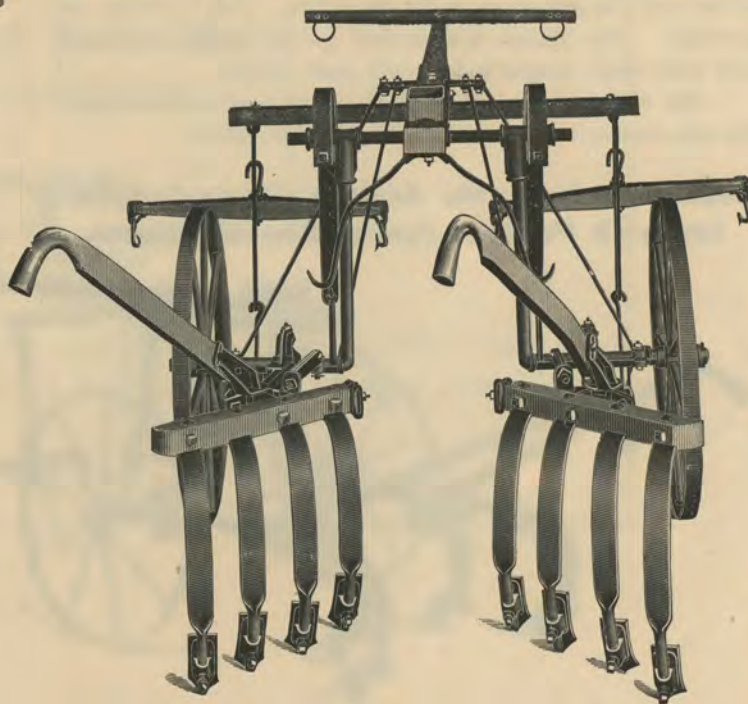
With eight spring teeth, single tongue. The description on preceding page applies to the two cuts on this page as to adjustability, wheels, tongue, etc.

After testing many different styles of lifting springs for walking cultivators, we have settled on the flat spring here shown as being absolutely the best.

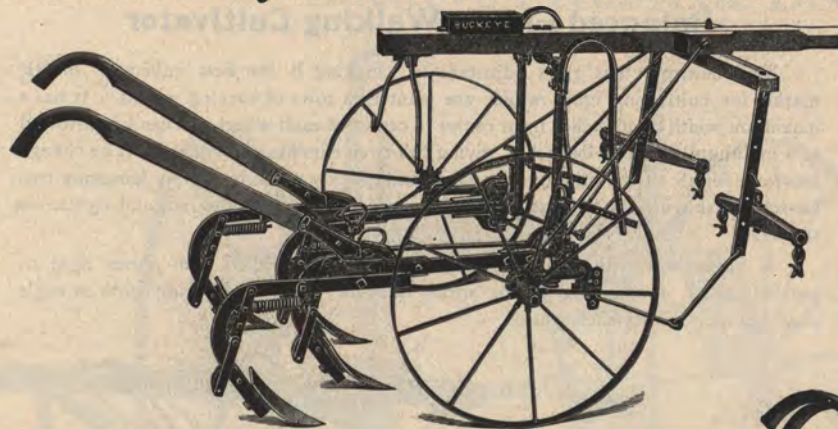
## **Buckeye Sunbeam Adjustable Arch Walking Cultivator, with Side Harrow Attachment**

This Side Harrow Attachment is almost indispensable in cultivating ridged cotton and other crops grown in a similar manner.

Every spring tooth is tested before leaving our factory.



## Buckeye Sunbeam Balanced Frame Walking Cultivators



No. 123

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

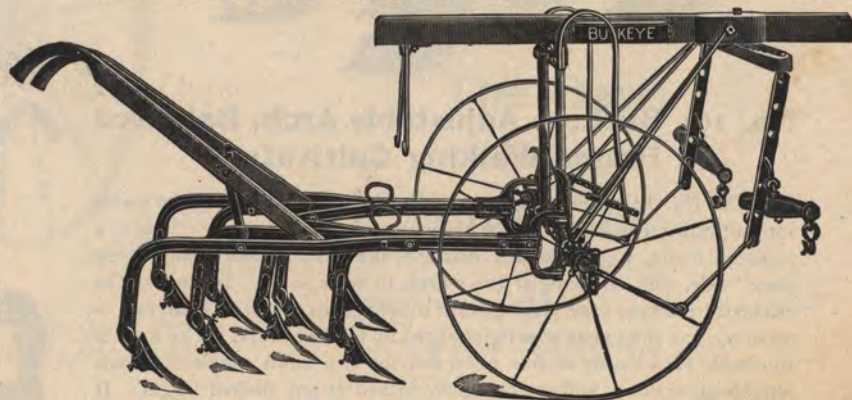
The steel axle is of one continuous piece, giving it great strength.

Perfectly balanced. Light and neat in appearance.

Steel wheels, 30 inches high, and either single or double tongue. Flat steel lifting springs.

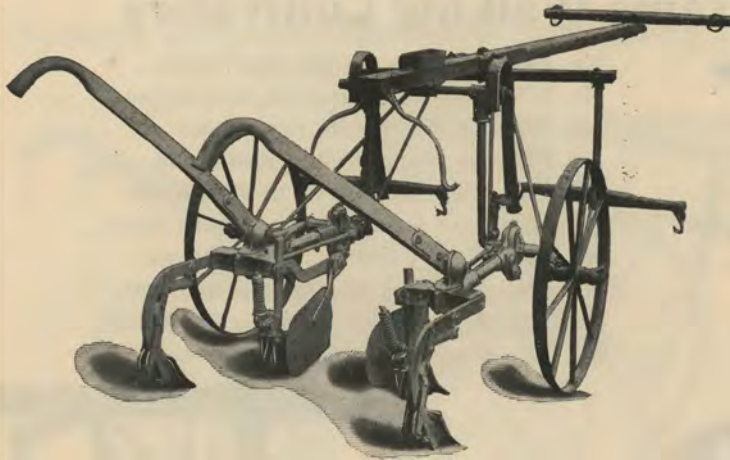
Either the rigid, parallel or eagle claw beams will work on the balanced frame, and are described by number as follows:

- No. 118—Four Pin Shovels, rigid beams.
- No. 119—Four Spring Shovels, rigid beams.
- No. 120—Six Pin Shovels, rigid beams.
- No. 121—Six Spring Shovels, rigid beams.
- No. 122—Four Pin Shovels, parallel beams.
- No. 123—Four Spring Shovels, parallel beams.
- No. 124—Six Pin Shovels, parallel beams.
- No. 125—Six Spring Shovels, parallel beams.
- No. 126—Eight Spring Teeth, parallel beams.
- No. 127—Eagle Claw, rigid beams.



No. 127 Eagle Claw Walking Cultivator. (Frame same as No. 123)

Rigid Eagle Claw Beams, adjustable shovel sleeve with round shovel post. Adapted to level cultivation.



### No. 185 Buckeye Sunbeam Adjustable Arch Balanced Frame Walking Cultivator

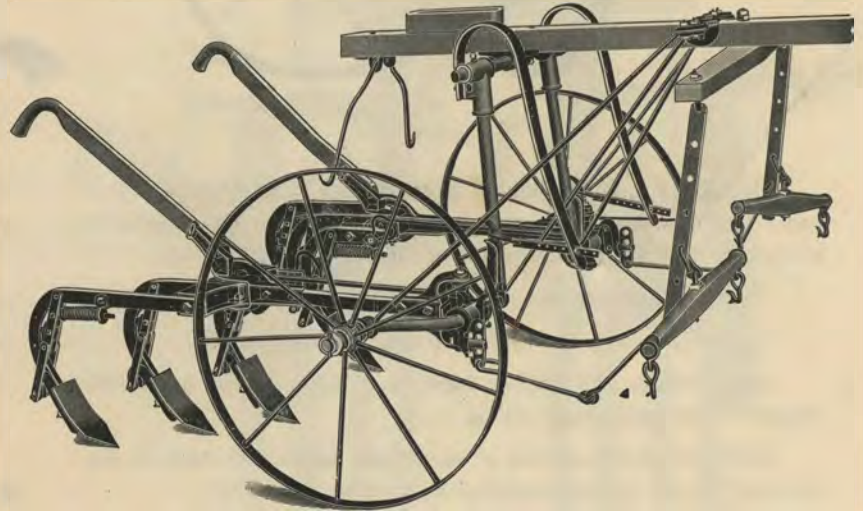
This cultivator has great adjustability, making it the best cultivator on the market for cultivating crops which are planted in rows of varying widths. It has a maximum width of 46 inches from center to center of each wheel and can be narrowed to a minimum width of 34 inches, giving full twelve inches adjustment. The change from one width to the other is very easily and quickly made by simply loosening two set-screws, shoving the two castings on the axle in or out, as desired, and tightening screws.

Is made *only* with single tongue, but can be furnished with either rigid or parallel beams, four or six pin or spring shovels. Also with spring tooth or eagle claw beams. Thirty-inch wheels.

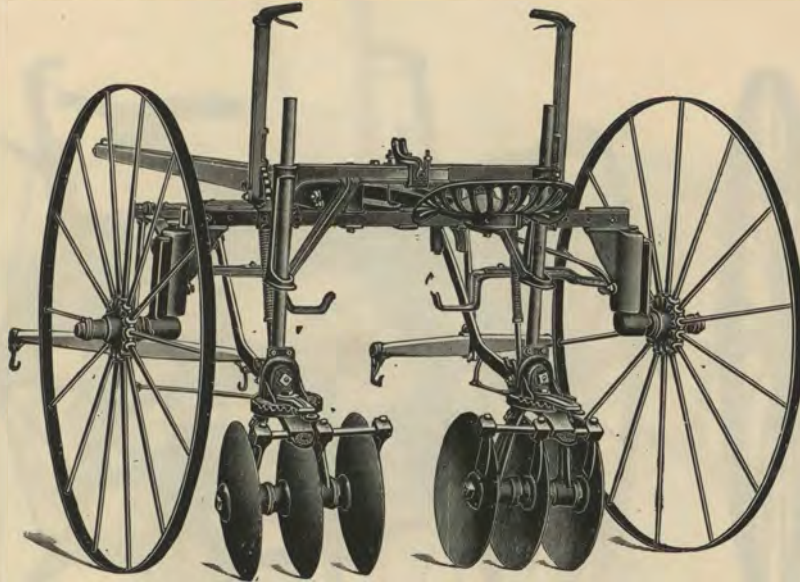
### No. 191 Buckeye Adjustable Arch, Balanced Frame Walking Cultivator

The No. 191 Cultivator is especially intended for the Southern trade, for cultivating cotton, as it is made with tilting pipe beams. This is a balanced frame, adjustable arch machine, and has our justly famous "one piece" axle, with no joints at the wheels to work loose. It also has the celebrated Buckeye cone bearing beam coupling, by which all wear can be taken up, and the beams kept rigidly lined up to their work. The arch is adjustable for wide or narrow rows, and the two inside standards are adjustable up or down, and can be tightly locked at any desired height. It has steel wheels, thirty inches high, with two-inch tire and dust-proof hubs.

We honestly believe this machine has more desirable features than any other Cultivator made for the Southern trade, and it is backed up by our guarantee.



## Buckeye Pivot Axle Disc Riding Cultivator



No. 50 Buckeye Disc Riding Cultivator

Each set of three discs turns on a pivot point and can be adjusted to throw dirt to or away from the row at any angle, without the use of a wrench, and tilted to any angle for ridged corn or cotton.

 Extra center disc attachment, consisting of two discs, can be furnished for making perfect fallow cultivator. These discs are attached to the inside of the regular section of discs, making four discs on a side instead of three.

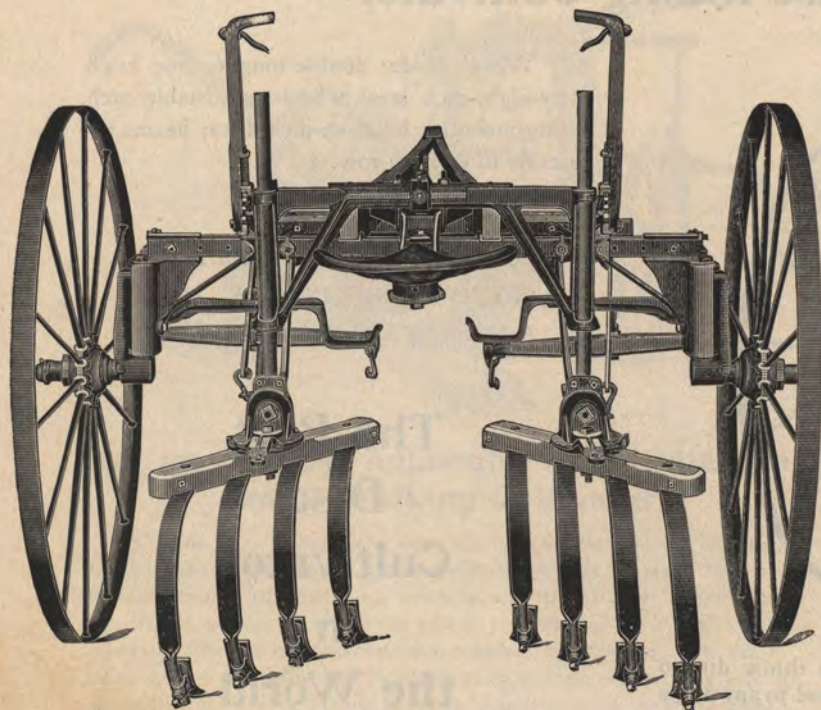
Extra leveler attachment can be furnished for leveling the ground after the discs.  
The best cultivator on the market for cultivating cotton.

Wheel guide; double tongue; drop hitch  
forty-eight-inch steel wheels; adjustable arch,  
spring pressure; fourteen-inch discs; beams ad-  
justable to or from row.

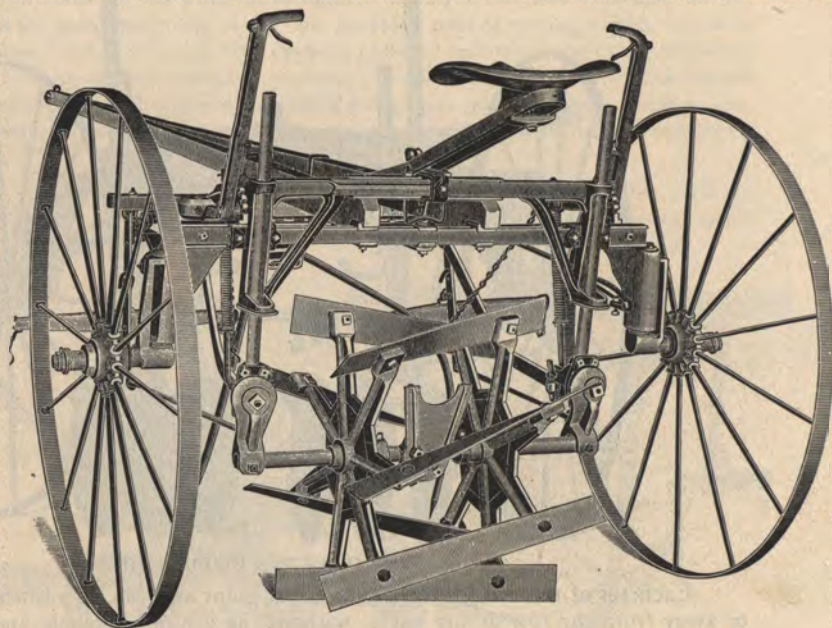
CONSTRUCTED ESPECIALLY FOR  
CULTIVATING IN PEA VINES  
AND FOUL GROUND

The Best  
Disc  
Cultivator  
in  
the World

See next page for attachments to this  
machine.

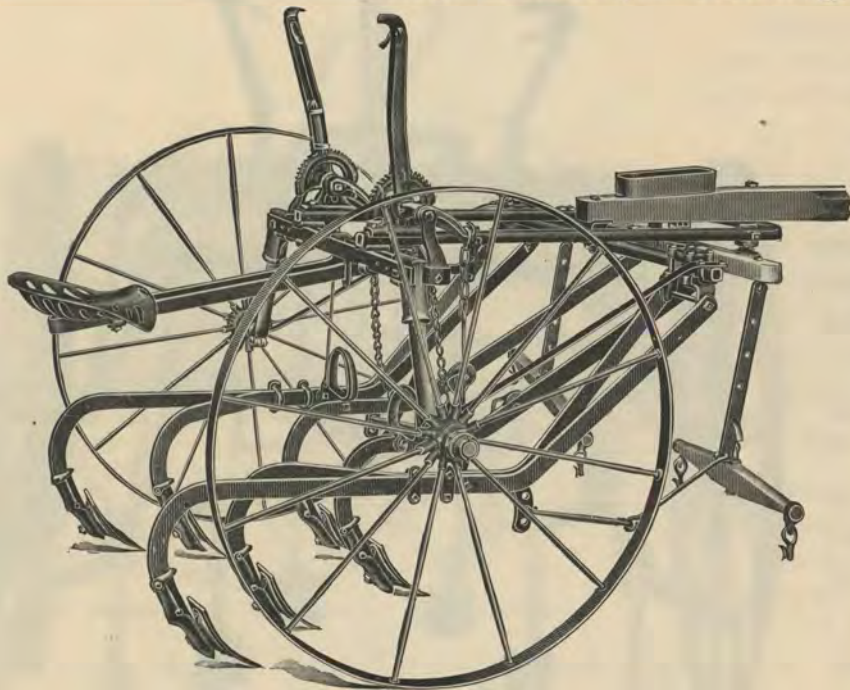


**No. 50 Disc Cultivator, Equipped with Side Harrow Attachment**  
For the Southern trade. By removing one bolt, side harrow can be substituted for discs.



**No. 50 Disc Cultivator, Equipped with Stalk Cutter Attachment**  
Stalk cutter attachment furnished with either straight or curved blades.

## Easy Buckeye Riding Cultivator



**No. 168 Improved Easy Buckeye Riding Cultivator**

Drop hitch has direct connection with the beams, and depth of shovels can be thus regulated.

The two outside beams are not movable sidewise, but the two inside beams are independent, and can be guided by the operator with ease. The position of both the outside and inside beams can be changed by shifting front coupling on cross rail. Simplest, strongest and easiest to operate. NEVER COME BACK.

Superior to any Shovel Cultivator ever made for level work, the results being almost identical with hand hoeing. So says every farmer who has tried them.

Single tongue; forty-two-inch steel wheels; square tube steel frame; running ratchet for lifting lever; height of arch, thirty-four inches; steel seat adjustable for length and height; arch adjustable for wide and narrow rows; minimum width, 37 inches; maximum, 47 inches.

Equipped with 4, 6 or 8 pin or spring trip shovels, and described by number as follows:

No. 166—Four Pin Shovels.

No. 167—Four Spring Shovels.

No. 168—Six Pin Shovels.

No. 169—Six Spring Shovels.

No. 170—Eight Pin Shovels.

No. 171—Eight Spring Shovels.

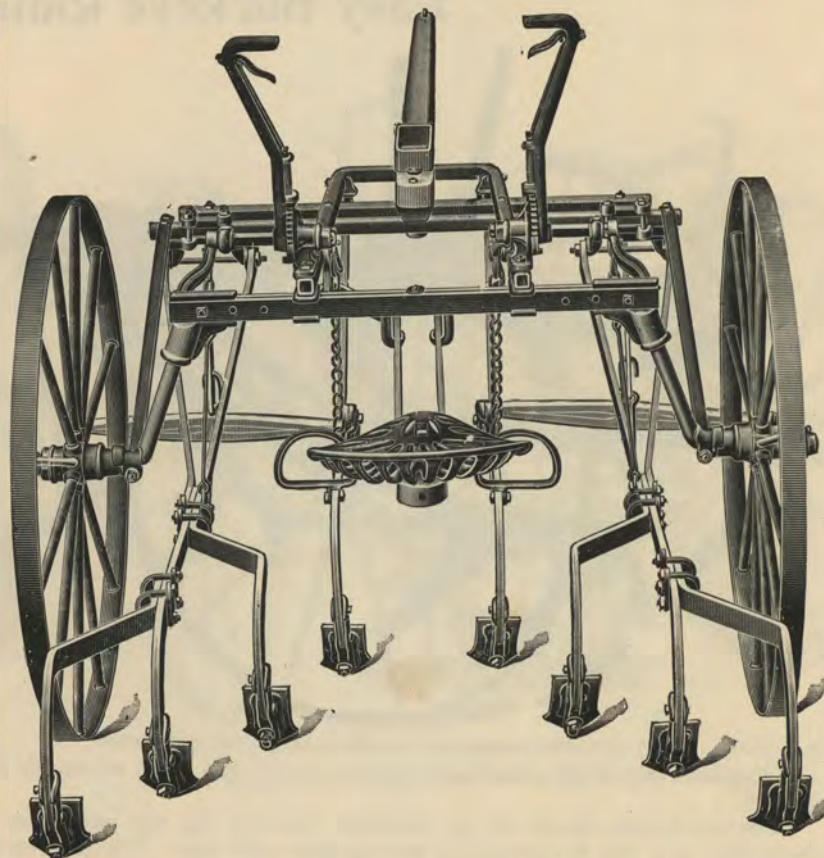
## Easy Buckeye Riding Cultivator

The accompanying cut is a rear view of the Easy type of Buckeye Riding Cultivators, and is intended to show the frame and the unobstructed view of the row from the operator's seat.

The second standard from the inside and the outside standards can be detached.

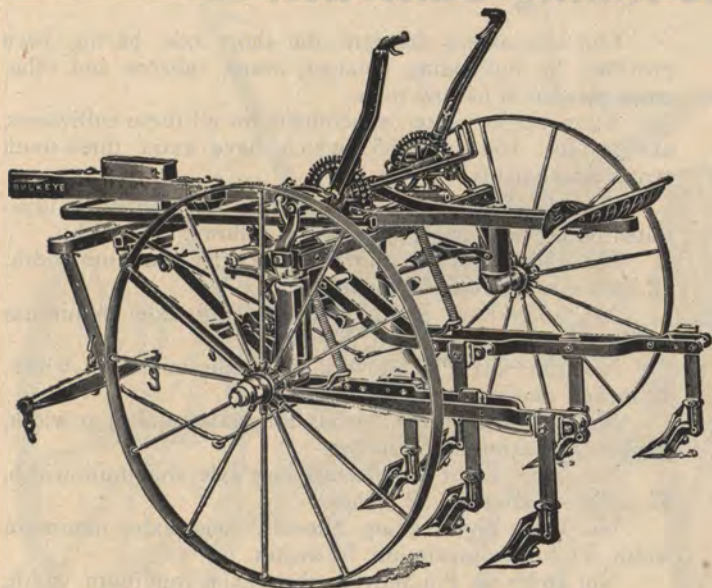
The view also shows method of narrowing or widening the arch. Minimum width, 37 inches; maximum, 47 inches. See cut and description on opposite page.

This Cultivator has created many satisfied customers.



No. 170 Improved Easy Buckeye Riding Cultivator

## The Buckeye Pivot Axle Riding Cultivator



No. 156 Improved Buckeye Pivot Axle Riding Cultivator

lightest draft and easiest operated of any pivot axle on the market.

Equipped with long or short axles, and four, six or eight pin or spring trip shovels, or spring teeth beams with ten spring teeth, and described by number as shown on following page.

To meet the demands of Michigan trade, we also furnish beams of special design for Nos. 158, 159, 162 and 163 Cultivators. These special beams carry four shovels in the same space as three shovels are carried on the regular beam.

**ILLUSTRATED IN SPECIAL CIRCULAR**

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

Space between beams can be instantly changed while the machine is in motion, by a convenient spacing lever.

Single tongue; square tube steel frame; forty-two-inch wood or steel wheels; spring pressure; steel seat adjustable for length and height; drop-hitch directly connected with beams; height of arch thirty-four inches; adjustable arch.

Especially adapted to crooked rows and hillside cultivation. This machine is undoubtedly

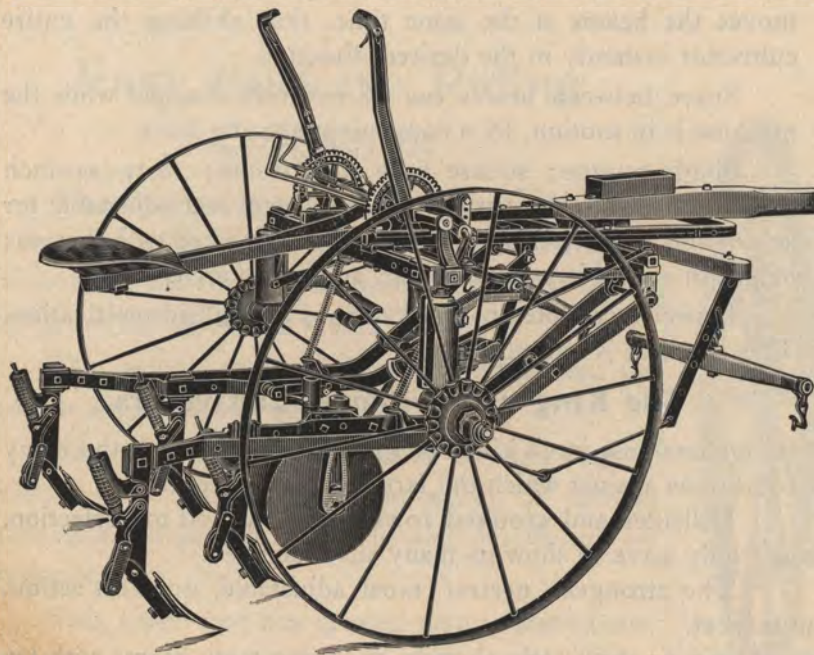
### The King of all Shovel Cultivators

for general use in all kinds of ground and under all the many conditions against which the farmers have to contend.

Hillside and crooked rows can be worked to perfection, and only serve to show its many advantages.

The strongest, neatest, most adjustable, quickest action,

## The BUCKEYE Pivot Axle Riding Cultivator



No. 157 Pivot Axle Cultivator, with Disc Attachment

This attachment takes the place of the front shovels, and is used for first cultivation of corn and the hilling of corn and other crops.

. Adjustable for throwing dirt to or from the row.

Our long axle is standard, the short axle having been provided for cultivating potatoes, beans, tobacco and other crops planted in narrow rows.

Extra single center attachment for all these cultivators, except Nos. 164 and 165, which have extra three-tooth center attachments.

The Buckeye Pivot Axle Riding Cultivators, as illustrated on previous page, are listed as follows:

No. 154—Four Pin Shovels; long axle; minimum width, 42 inches; maximum, 52 inches.

No. 155—Four Spring Shovels; long axle; minimum width, 42 inches; maximum, 52 inches.

No. 156—Six Pin Shovels; long axle; minimum width, 42 inches; maximum, 52 inches.

No. 157—Six Spring Shovels; long axle; minimum width, 42 inches; maximum, 52 inches.

No. 158—Eight Pin Shovels; long axle; minimum width, 42 inches; maximum, 52 inches.

No. 159—Eight Spring Shovels; long axle; minimum width, 42 inches; maximum, 52 inches.

No. 160—Six Pin Shovels; short axle; minimum width, 37 inches; maximum, 47 inches.

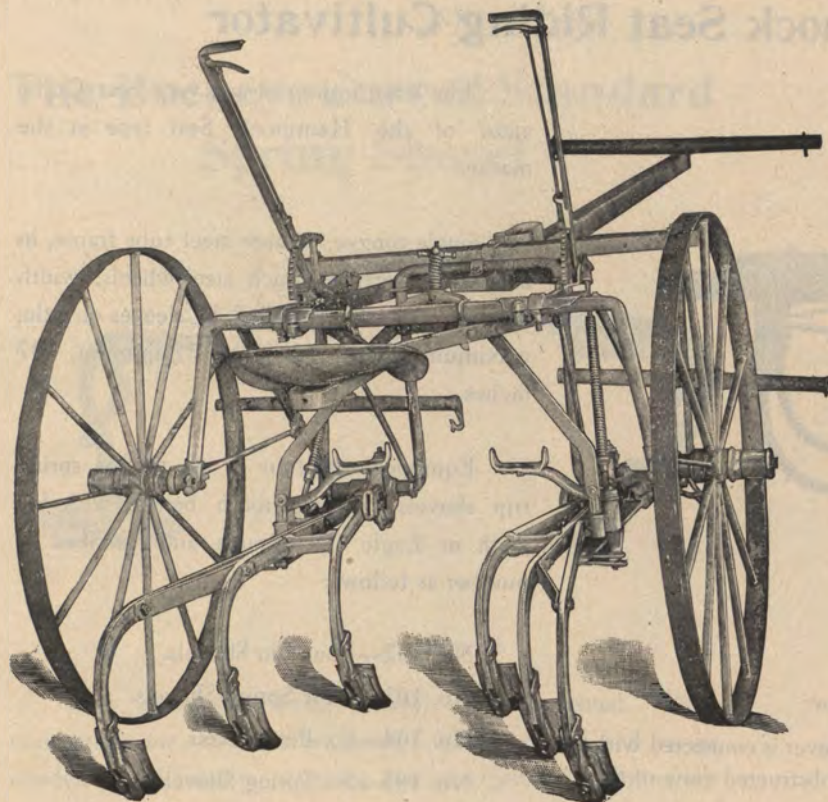
No. 161—Six Spring Shovels; short axle; minimum width, 37 inches; maximum, 47 inches.

No. 162—Eight Pin Shovels; short axle; minimum width, 37 inches; maximum, 47 inches.

No. 163—Eight Spring Shovels; short axle; minimum width, 37 inches; maximum, 47 inches.

No. 164—Ten Spring Teeth; long axle; minimum width, 42 inches; maximum, 52 inches.

No. 165—Ten Spring Teeth; short axle; minimum width, 37 inches; maximum, 47 inches.



No. 174 Buckeye Pivot Beam Riding Cultivator

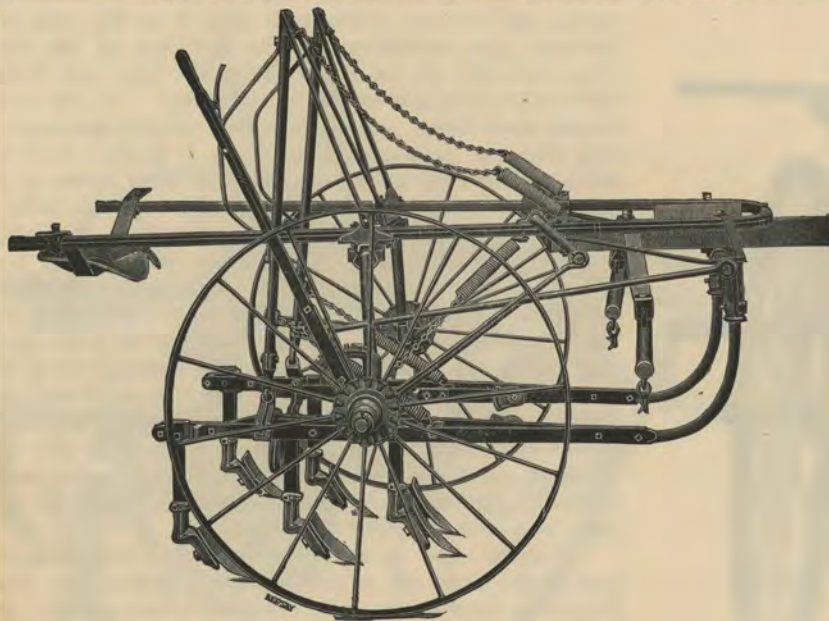
The Buckeye Pivot Beam Riding Cultivator is the result of a long continued series of careful tests and experiments, and we now confidently offer it to the trade as the best and most satisfactory tool of this class on the market. It is practically all steel and malleable iron, and therefore absolutely strong and reliable in every way. It has a single tongue, steel frame, and 42-inch steel wheels, equipped with long distance, dust-proof hubs, with a *positive hard oiling device*—something not to be had on any other make of cultivator. The beam shift is a new invention of our own, and is worthy of careful investigation, as it reduces the labor of operating to a minimum. The spacing arch is also a new invention, and is made with a spring which permits the independent operation of each beam, and keeps them always lined up to their work. This arch can also be made rigid, so both beams can be worked as one. By a special lifting device we lift both beams uniformly, regulate the depth for cultivating to an absolute certainty, and the shovels are *always* on a perfect level when moved from right to left, or *vice versa*. It has an adjustable steel seat, and is also adjustable for wide or narrow cultivation, having a minimum width of 42 inches, and a maximum width of 52 inches.

Can be used as a walker if desired, and there are no parts to be taken off or put on when making the change. However, handles are not furnished unless ordered, and a small extra charge is made for them.

In short, we claim the Buckeye Pivot Beam has *more* good points than any other cultivator of this style, and we will guarantee it in every respect.

- No. 172—Four Pin Shovels.
- No. 173—Four Spring Shovels.
- No. 174—Six Pin Shovels.
- No. 175 Six Spring Shovels.
- No. 176—Ten Spring Teeth.
- No. 177—Eagle Claw.

## Handy Buckeye Hammock Seat Riding Cultivator



No. 104 Buckeye Hammock Seat Riding Cultivator

Balanced frame for light or heavy operator. Balance frame lever is connected with rock shaft, which supports both ends of axle. Operator has unobstructed view of the row. Pivoted beam coupling and hinge at bottom of pendulum cause a level movement of the shovels when shifted to or from the row. No tipping of beams. Long beams and swinging pendulum make beams easy to guide.

The latest improved and very best Cultivator of the Hammock Seat type in the market.

Single tongue; square steel tube frame, in one piece; forty-two-inch steel wheels; width between wheels controlled by sleeves on axle; maximum width, 52 inches; minimum, 47 inches.

Equipped with four or six pin or spring trip shovels. Spring tooth beams with ten teeth or Eagle Claw beams, and described by number as follows:

No. 102—Four Pin Shovels.

No. 103—Four Spring Shovels.

No. 104—Six Pin Shovels.

No. 105—Six Spring Shovels.

No. 106—Ten Spring Teeth.

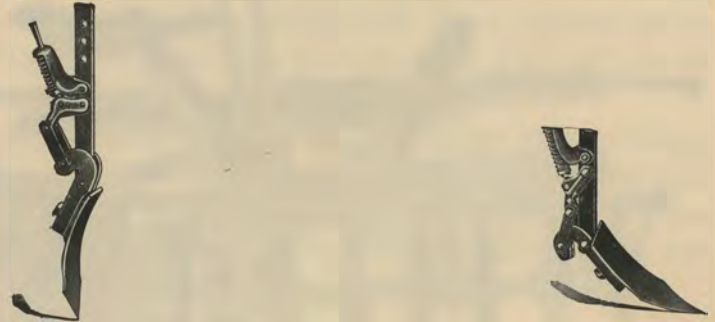
No. 107—Eagle Claw Beam.

## The Buckeye Curved Standard Spring Shovel



First successful spring shovel ever invented. Used continually for twenty-five years. Never altered and never condemned. Tension of spring can be adjusted by turning tap on spring post. Two holes in shovel sleeve for changing slant of shovel. The Curved Standard Spring Shovel is used on our Walking and "Easy" Riding Cultivators.

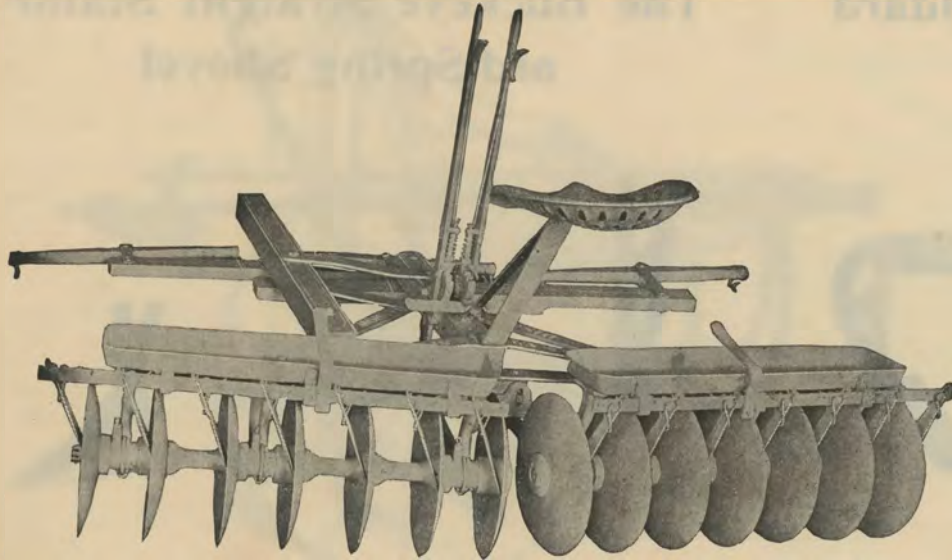
## The Buckeye Straight Standard Spring Shovel



This Spring Shovel embodies the same principles as the renowned Curved Standard Spring Shovel.

Tension of spring can be regulated in the same manner. Two holes in shovel sleeve for changing slant of shovel. The Straight Standard Spring Shovel is used on our Pivot Axle and Hammock Seat Cultivators.

## Buckeye Disc Harrow



Made in one quality only, with two levers, pressed-steel weight boxes and chilled, dust-proof bearings.

This is a great disc; always pulverizes; never fails in hard soil. It leaves no undisc'd center space. It is flexible, if so desired, but has an adjustment for holding it rigid in center.

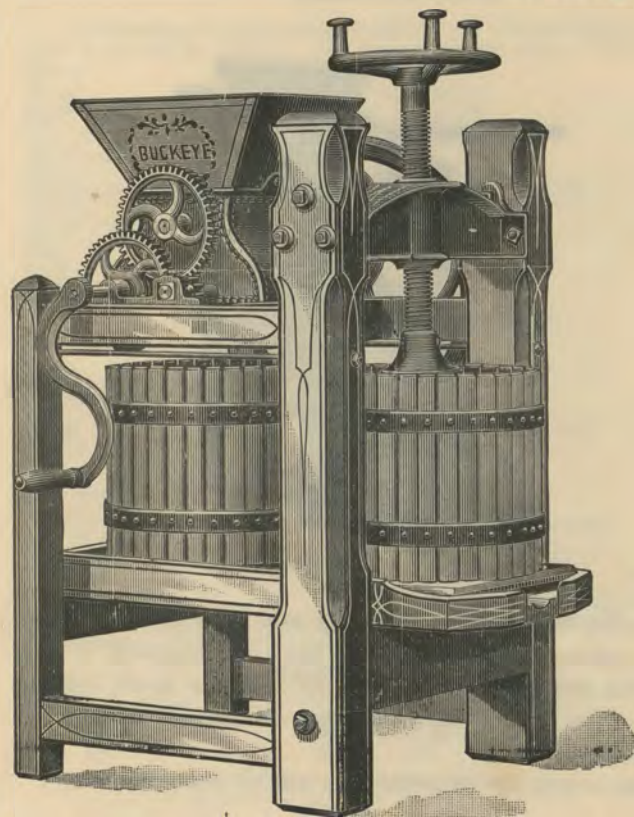
The scrapers clean the discs from center to circumference.

The hitch is low, there is no neck weight, and the draft is light for the work done.

Sizes and equipment as follows :

|    |       |        |       |      |        |     |     |         |        |
|----|-------|--------|-------|------|--------|-----|-----|---------|--------|
| 12 | Discs | 16-in. | diam. | with | weight | box | and | 3-horse | hitch. |
| 12 | "     | 20-in. | "     | "    | "      | "   | "   | 3-horse | "      |
| 14 | "     | 16-in. | "     | "    | "      | "   | "   | 3-horse | "      |
| 14 | "     | 20-in. | "     | "    | "      | "   | "   | 3-horse | "      |
| 16 | "     | 16-in. | "     | "    | "      | "   | "   | 4-horse | "      |
| 16 | "     | 20-in. | "     | "    | "      | "   | "   | 4-horse | "      |

## Buckeye Senior Cider Mill



THE SENIOR, including mill and press, is embraced in a single frame two and one-half by three feet; has a two-inch wrought iron screw, with strong cast iron beam fastened to the main posts of the frame with three bolts at each end. This mill has three grinding rollers which run at different speeds, thereby both scraping and crushing the apple, leaving it in the best possible form for the press.

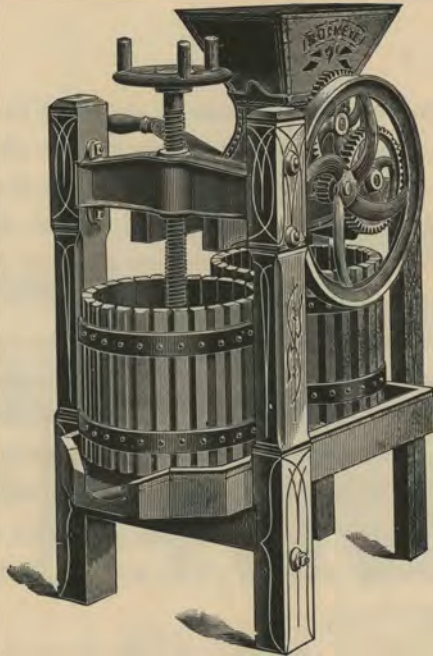
The fly-wheel is attached to the shaft having the greatest speed, and allows the mill to operate with less power, and is a great improvement over mills where the grinding rollers run at the same speed. On the Buckeye Mill the upper roller crushes the apple into a coarse pomace, thereby preparing and passing it through the lower cylinders, which crush it into a fine pomace.

This mill has two cribs or tubs, so that you can grind into one while another man, or boy, is pressing the other. Two men can grind and press from four to six barrels of cider per day.

We guarantee these mills to extract more cider from a given quantity of apples, with less labor, than any other hand mill.

Cribs or tubs are 14 inches high and 15 inches diameter.

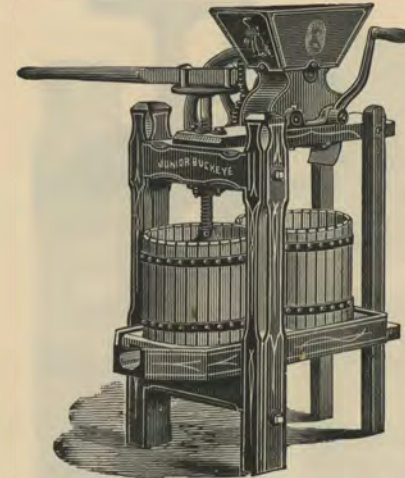
## Buckeye Medium Cider Mill



The Medium Mill in capacity is about half way between the Senior and Junior, being made on the same principle as the Senior Mill, having inch and one-half screw. It is well adapted for family use, and a mill which commands a large share of the trade, being of convenient size.

Cribs or tubs are 12 inches high and 12 inches diameter.

## Buckeye Junior Cider Mill



The Junior is made on about the same principle, and is built for those persons who want to make but a small quantity of cider at one time, and for pressing berries, etc. It has hardly half the capacity of the Senior Mill, being much smaller and having inch and one-quarter screw.

Cribs or tubs are 10 inches high and 12 inches diameter.

## HANDY REFERENCE

### Seed to the Acre

The opinions of farmers differ materially; and then the climate and soil have much to do with the quantity. The quantity of seed sown to the acre is about as follows:

|                  |                  |                          |               |
|------------------|------------------|--------------------------|---------------|
| Wheat.....       | 1 1/4 to 2 bush. | Timothy.....             | 12 to 24 qts. |
| Barley.....      | 1 1/2 to 2 1/2 " | Mustard.....             | 8 to 20 "     |
| Oats.....        | 2 to 4 "         | Red top.....             | 12 to 16 "    |
| Rye.....         | 1 to 2 "         | Flat turnip.....         | 2 to 3 lbs.   |
| Buckwheat.....   | 3/4 to 1 1/2 "   | Red clover.....          | 10 to 16 "    |
| Millet.....      | 1 to 1 1/2 "     | White clover.....        | 8 to 4 "      |
| Indian corn..... | 1 to 2 "         | Kentucky blue grass..... | 10 to 15 "    |
| Hemp.....        | 1 to 1 1/2 "     | Orchard grass.....       | 20 to 30 "    |
| Broom corn.....  | 1 to 1 1/2 "     | Onions.....              | 4 to 5 "      |
| Beans.....       | 1 1/2 to 2 "     | Carrots.....             | 2 to 2 1/2 "  |
| Peas.....        | 1 1/2 to 2 "     | Parsnips.....            | 4 to 5 "      |
| Peanuts.....     | 1 to 2 "         | Beets.....               | 4 to 6 "      |
| Flax.....        | 1 1/2 to 2 "     |                          |               |

### Weight of Various Products

| PER BUSH.                           |          | PER BUSH.                            |         |
|-------------------------------------|----------|--------------------------------------|---------|
| Wheat.....                          | 60 lbs.  | Timothy seed.....                    | 45 lbs. |
| Corn (shelled).....                 | 56 "     | Hemp seed.....                       | 48 "    |
| " (on the cob).....                 | 70 "     | Blue grass seed.....                 | 14 "    |
| Rye.....                            | 56 "     | Red top seed.....                    | 14 "    |
| Barley.....                         | 48 "     | Hungarian grass seed.....            | 50 "    |
| Buckwheat (in Pennsylvania).....    | 50 "     | Broom corn seed.....                 | 52 "    |
| " (in Kentucky).....                | 52 "     | Sorghum seed.....                    | 40 "    |
| " (in Massachusetts).....           | 48 "     | Corn meal.....                       | 50 "    |
| Oats (in Ill. and Mass.).....       | 32 "     | Bran.....                            | 20 "    |
| " (in Ohio).....                    | 32 "     | Beans.....                           | 60 "    |
| " (in Kentucky).....                | 32 1/2 " | Onions (in Penn. and Ky.).....       | 57 "    |
| " (in Maine and Penn.).....         | 30 "     | " (in Mass.).....                    | 52 "    |
| Clover seed.....                    | 60 "     | Salt (in Turks Island).....          | 76 "    |
| Flax seed.....                      | 56 "     | " Syracuse.....                      | 56 "    |
| Salt, Liverpool.....                | 50 "     | Dried apples (in Illinois).....      | 24 "    |
| Potatoes.....                       | 60 "     | Dried peaches (in Pennsylvania)..... | 33 "    |
| Peas.....                           | 64 "     | " (in Illinois).....                 | 32 "    |
| Dried apples (in Pennsylvania)..... | 22 "     |                                      |         |

### Miscellaneous Weights

|                          |          |                            |                |
|--------------------------|----------|----------------------------|----------------|
| Barrel flour weighs..... | 196 lbs. | Barrel fish weighs.....    | 200 lbs.       |
| " salt.....              | 280 "    | Keg powder.....            | 25 "           |
| " beef.....              | 200 "    | Stone of lead or iron..... | 14 "           |
| " pork.....              | 200 "    | Pig.....                   | =21 1/2 stones |

Anthracite coal, broken, cubic foot averages 54 pounds.

A ton, loose, occupies 40 to 43 cubic ft.

Bituminous coal, broken, cubic ft. averages 49 lbs.

### Number of Shrubs or Plants for an Acre

| Distance apart     | No. of Plants. | Distance apart  | No. of Plants | Distance apart    | No. of Plants |
|--------------------|----------------|-----------------|---------------|-------------------|---------------|
| 3 x 3 inches       | 696,960        | 4 x 4 feet      | 2,722         | 18 x 18 feet      | 257           |
| 4 x 4 "            | 392,040        | 4 1/2 x 4 1/2 " | 2,151         | 14 x 14 "         | 222           |
| 6 x 6 "            | 174,240        | 5 x 1 "         | 3,712         | 15 x 15 "         | 193           |
| 9 x 9 "            | 77,440         | 5 x 2 "         | 4,356         | 16 x 16 "         | 170           |
| 1 x 1 foot         | 43,560         | 5 x 3 "         | 2,904         | 16 1/2 x 16 1/2 " | 160           |
| 1 1/2 x 1 1/2 feet | 19,360         | 5 x 4 "         | 2,178         | 17 x 17 "         | 150           |
| x 1 "              | 21,780         | 5 x 5 "         | 1,742         | 18 x 18 "         | 134           |
| x " "              | 10,890         | 5 1/2 x 5 1/2 " | 1,417         | 19 x 19 "         | 120           |
| 1/2 x 1/2 " "      | 6,960          | 6 x 6 "         | 1,210         | 20 x 20 "         | 108           |
| x " foot           | 14,620         | 6 1/2 x 6 1/2 " | 1,081         | 25 x 25 "         | 69            |
| x " feet           | 7,260          | 7 x 7 "         | 881           | 30 x 30 "         | 48            |
| 3 x 3 "            | 4,840          | 8 x 8 "         | 680           | 33 x 33 "         | 40            |
| 3 1/2 x 3 1/2 "    | 3,555          | 9 x 9 "         | 537           | 40 x 40 "         | 27            |
| x 1 "              | 10,890         | 10 x 10 "       | 435           | 50 x 50 "         | 17            |
| x 2 "              | 5,445          | 11 x 11 "       | 360           | 60 x 60 "         | 12            |
| x 3 "              | 3,630          | x 12 "          | 302           | 66 x 66 "         | 10            |

### Suitable Distances for Planting

|                            |                              |
|----------------------------|------------------------------|
| Apples—Standard.....       | 25 to 35 feet apart each way |
| " Dwarf (bushes).....      | 10 " " " "                   |
| Pears—Standard.....        | 16 to 20 " " " "             |
| " Dwarf.....               | 10 " " " "                   |
| Cherries—Standard.....     | 18 to 20 " " " "             |
| " Dukes and Morrellos..... | 16 to 18 " " " "             |
| Plums—Standard.....        | 16 to 20 " " " "             |
| Peaches.....               | 16 to 18 " " " "             |
| Apricots.....              | 16 to 18 " " " "             |
| Nectarines.....            | 16 to 18 " " " "             |
| Quinces.....               | 10 to 12 " " " "             |
| Currants.....              | 3 to 4 " " " "               |
| Gooseberries.....          | 3 to 4 " " " "               |
| Raspberries.....           | 3 to 5 " " " "               |
| Blackberries.....          | 6 to 7 " " " "               |
| Grapes.....                | 8 to 12 " " " "              |

To estimate the number of plants required for an acre, at any given distance, multiply the distance between the rows by the distance between the plants, which will give the number of square feet allotted to each plant, and divide the number of square feet in an acre (43,560) by this number. The quotient will be the number of plants required.

# Number of Plants Produced From 1 oz. of Seed

| PLANTS           |       | PLANTS       |       |
|------------------|-------|--------------|-------|
| Asparagus, about | 500   | Kale, about  | 2,000 |
| Brocoli, " "     | 2,000 | Leek, " "    | 1,000 |
| Cabbage, " "     | 3,000 | Lettuce, " " | 3,000 |
| Cauliflower, " " | 4,000 | Pepper, " "  | 2,000 |
| Celery, " "      | 4,000 | Sage, " "    | 1,000 |
| Egg Plant, " "   | 1,000 | Tomato, " "  | 3,000 |
| Endive, " "      | 3,000 | Thyme, " "   | 5,000 |

## Six Per Cent. Interest Table

|        | TIME | \$1 | \$2 | \$3 | \$4 | \$5 | \$6 | \$10 | \$20 | \$50 | \$100 | \$1000 |
|--------|------|-----|-----|-----|-----|-----|-----|------|------|------|-------|--------|
| DAYS   | 1    | 0   | 0   | 0   | 0   | 0   | 0   | 0    | 0    | 1    | 2     | 17     |
|        | 2    | 0   | 0   | 0   | 0   | 0   | 0   | 0    | 1    | 2    | 3     | 34     |
|        | 3    | 0   | 0   | 0   | 0   | 0   | 0   | 1    | 1    | 3    | 5     | 50     |
|        | 4    | 0   | 0   | 0   | 0   | 0   | 0   | 1    | 1    | 3    | 7     | 67     |
|        | 5    | 0   | 0   | 0   | 0   | 0   | 1   | 1    | 2    | 4    | 8     | 83     |
|        | 6    | 0   | 0   | 0   | 0   | 1   | 1   | 1    | 2    | 5    | 10    | 1 00   |
|        | 7    | 0   | 0   | 0   | 0   | 1   | 1   | 1    | 2    | 6    | 12    | 1 17   |
|        | 8    | 0   | 0   | 0   | 1   | 1   | 1   | 1    | 3    | 7    | 13    | 1 33   |
|        | 9    | 0   | 0   | 0   | 1   | 1   | 1   | 2    | 3    | 8    | 15    | 1 50   |
|        | 10   | 0   | 0   | 1   | 1   | 1   | 1   | 2    | 3    | 8    | 17    | 1 67   |
|        | 15   | 0   | 1   | 1   | 1   | 1   | 2   | 3    | 5    | 13   | 25    | 2 50   |
|        | 20   | 0   | 1   | 1   | 1   | 2   | 2   | 3    | 7    | 17   | 33    | 3 33   |
|        | 25   | 0   | 1   | 1   | 2   | 2   | 2   | 4    | 8    | 21   | 42    | 4 17   |
|        | 30   | 1   | 1   | 2   | 2   | 3   | 3   | 5    | 10   | 25   | 50    | 5 00   |
| MONTHS | 33   | 1   | 1   | 2   | 2   | 3   | 3   | 6    | 11   | 28   | 55    | 5 50   |
|        | 63   | 1   | 2   | 3   | 4   | 5   | 6   | 11   | 21   | 53   | 1 05  | 10 50  |
|        | 93   | 2   | 3   | 5   | 6   | 8   | 9   | 16   | 31   | 78   | 1 55  | 15 50  |
|        | 1    | 1   | 1   | 2   | 2   | 3   | 3   | 5    | 10   | 25   | 50    | 5 00   |
|        | 2    | 1   | 2   | 3   | 4   | 5   | 6   | 10   | 20   | 50   | 1 00  | 10 00  |
|        | 3    | 2   | 3   | 5   | 6   | 8   | 9   | 15   | 30   | 75   | 1 50  | 15 00  |
|        | 4    | 2   | 4   | 6   | 8   | 10  | 12  | 20   | 40   | 1 00 | 2 00  | 20 00  |
|        | 5    | 3   | 5   | 8   | 10  | 13  | 15  | 25   | 50   | 1 25 | 2 50  | 25 00  |
|        | 6    | 3   | 6   | 9   | 12  | 15  | 18  | 30   | 60   | 1 50 | 3 00  | 30 00  |
|        | 7    | 4   | 7   | 11  | 14  | 18  | 21  | 35   | 70   | 1 75 | 3 50  | 35 00  |
|        | 8    | 4   | 8   | 12  | 16  | 20  | 24  | 40   | 80   | 2 00 | 4 00  | 40 00  |
|        | 9    | 5   | 9   | 14  | 18  | 23  | 27  | 45   | 90   | 2 25 | 4 50  | 45 00  |
|        | 10   | 5   | 10  | 15  | 20  | 25  | 30  | 50   | 1 00 | 2 50 | 5 00  | 50 00  |
|        | 11   | 6   | 11  | 17  | 22  | 28  | 33  | 55   | 1 10 | 2 75 | 5 50  | 55 00  |
|        | 12   | 6   | 12  | 18  | 24  | 30  | 36  | 60   | 1 20 | 3 00 | 6 00  | 60 00  |

## Interest Table

The following will be found convenient in the absence of extended interest tables: To find the interest on any given sum, for any number of days, at any rate of interest.

|                                      |                                       |
|--------------------------------------|---------------------------------------|
| At 5 per cent. multiply principal by | At 10 per cent. multiply principal by |
| number of days, divide by .72        | number of days, divide by .36         |
| At 6 per c., as above, " " " " 60    | At 12 per c., as above, " " " " 30    |
| " 7 " " " " " " 52                   | " 15 " " " " " " 24                   |
| " 8 " " " " " " 45                   | " 20 " " " " " " 18                   |
| " 9 " " " " " " 40                   |                                       |

**Mason Work, Brick**— $1\frac{1}{8}$  barrels lime and  $\frac{5}{8}$  yard sand will lay 1,000 brick. One man with  $1\frac{1}{4}$  tenders will lay 1,800 to 2,000 brick per day.

**Shingles Required in a Roof**—To square foot it takes 9 if exposed 4 inches; 8 if exposed  $4\frac{1}{2}$  inches, and  $7\frac{1}{2}$  if exposed 5 inches to the weather. Find the number of shingles required to cover a roof 38 feet long, and the rafters on each side 14 feet. Shingles exposed  $4\frac{1}{2}$  inches.  $28 \times 38 = 1064$  (sq. ft.)  $\times 8 = 8,512$  shingles.

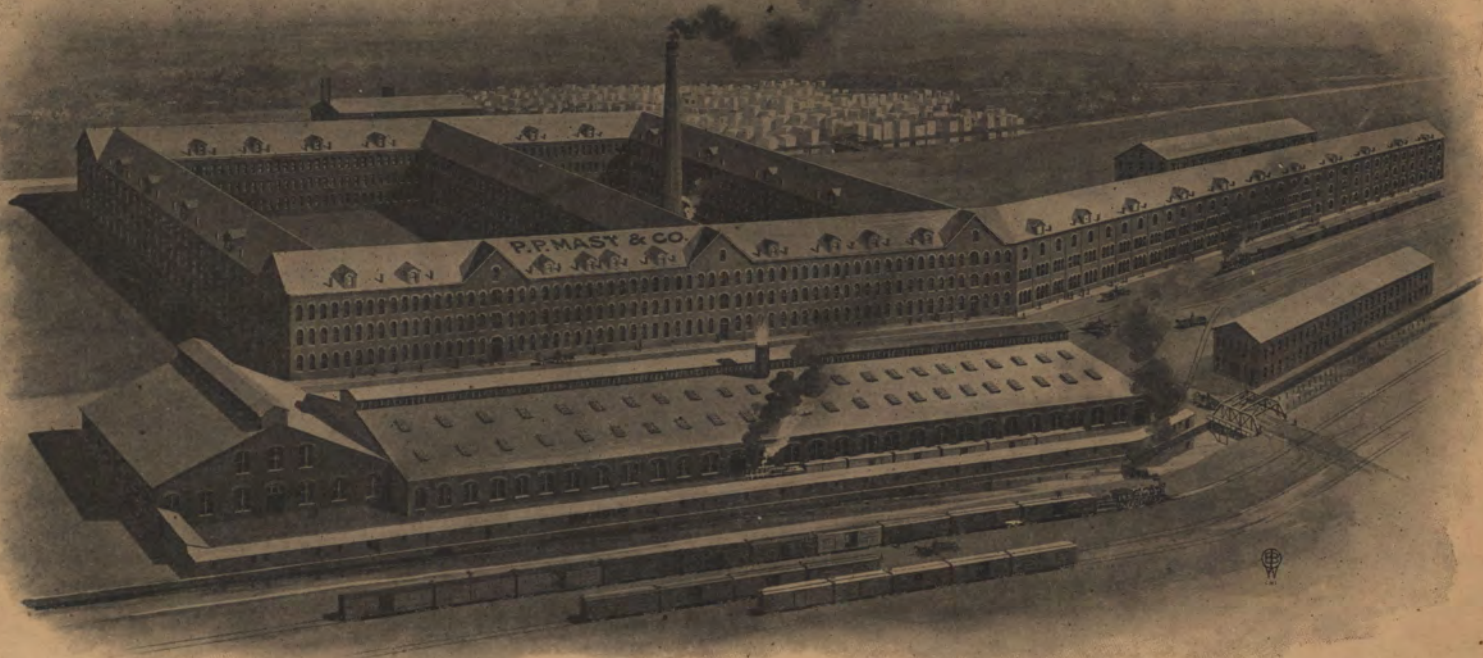
**ANSWER**—To find the length of rafters, giving the roof *one-third* pitch: Take *three-fifths* of the width of the building. If the building is 30 feet wide, they must be 18 feet long, exclusive of projection.

**Uses to Which Salt May be Put**—Salt puts out a fire in the chimney. Salt in the oven under baking tins will prevent their scorching on the bottom. Salt and vinegar will remove stains from discolored teacups. Salt and soda are excellent for bee stings and spider bites. Salt thrown on soot which has fallen on the carpet will prevent stain. Salt put on ink when freshly spilled on a carpet will help in removing the spot. Salt in whitewash makes it stick. Salt thrown on a coal fire which is low will revive it. Salt used in sweeping carpets keeps out moths.

Salt used in washing the hair will prevent the hair from falling out. A teaspoonful of salt in a lamp will make kerosene oil give a brighter light. Added to a bucket of water it forms a remarkably effective fire extinguisher. A handful of rock salt added to the bath is the next best thing to an ocean dip. Damp salt will remove the discoloration of tea and the like in dishes that have been carelessly washed. New calicoes soaked in a strong solution of salt for an hour before washing will retain their colors better. As a dentifrice salt and water will not only cleanse but whiten the teeth, and will harden the gums. When broiling steak a pinch or two of salt thrown on the fire will quench the flames arising from the dripping fat. A weak solution is good for sore throat, to be used as a gargle, and this is still better if a few grains of red pepper are added. Ink stains may be removed by the use of moistened salt. When it becomes discolored remove it and use a fresh supply until no color remains.

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BROKER

PRINTING, LITHOGRAPHING, ENGRAVING, DESIGNING  
SPRINGFIELD, OHIO



Factory of  
P. P. MAST & CO.  
Springfield, Ohio  
U. S. A.

**We make Grain Drills and Cultivators**  
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**W**E buy nothing but the best of material, make our own designs, pay liberal wages, and have been in the business 58 years. Why shouldn't we make better goods than people with less experience or more complicated lines. We are the oldest and largest company in America making Grain Drills and Cultivators, and are not connected with any trust or syndicate. We claim no special favors on this score, but believe that "*every tub should stand on its own bottom*" for the best general results, and that by attending strictly to our own business, making the best goods at reasonable prices and treating people fairly, that we will continue to be favored with a fair share of their patronage.

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The Buckeye Men