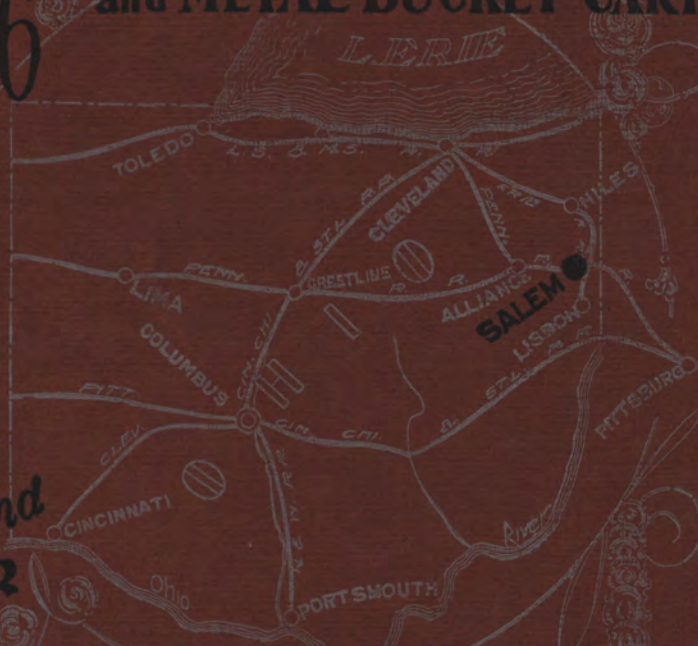


OHIO

**ENSILAGE CUTTERS,
EXHAUST OR BLOWER ELEVATORS,
and METAL BUCKET CARRIERS.**

1906



**52nd
YEAR**

**FEED CUTTERS, VEGETABLE
PULPERS and ROOT CUTTERS.**

MANUFACTURED BY

**THE SILVER MFG. CO.,
SALEM, OHIO, U.S.A.**



View of New Works where "Ohio" Feed and Ensilage Cutters are Manufactured.
Switch Connections with the Pennsylvania and Erie Railroads.

Feed-Cutter Catalogue and Price List
Thirtieth Edition

1906

THE SILVER
MANUFACTURING
COMPANY

Manufacturers of

“Silver’s” Clover Cutter
“Ohio” Hand and Power Feed Cutters
“Ohio” Standard Ensilage Cutters
“Ohio” Self-Feed Ensilage Cutters and Blowers
Metal Bucket Chain Elevators
Root Cutters and
Vegetable Pulpers

SALEM, OHIO
U. S. A.

INTRODUCTION

THIRTIETH EDITION CATALOGUE

 THE 1906 catalogue presented herewith is the thirtieth edition catalogue published by this house. It illustrates and correctly describes the complete line of "Ohio" Feed and Ensilage Cutters, Ensilage Elevators, etc., which we manufacture. It also endeavors to show proof of economy in feeding cut feed and ensilage in comparison with other foods. Statements in the catalogue pertaining to capacity, etc., are conservative and reliable, being based on practical tests and not on theory.

"OHIO" ENSILAGE CUTTER

Experience in the use of ensilage cutters up to this time has demonstrated that two- and three-horse tread-powers furnish sufficient power to drive "Ohio" No. 13 and No. 16 Self-Feed Ensilage Cutters with Straight-Delivery Chain Elevators and fill ordinary silos; that eight to fourteen-horse steam engines furnish ample power to drive new Nos. 12, 14, 17, 19 and 22 "Ohio" Self-Feed Blower Ensilage Cutters to full capacity and fill silos up to 52 feet high, and that it does not require the large amount of power to drive these machines as formerly announced.

SAVING IN POWER

Everyone who contemplates the purchase or use of an ensilage cutter will welcome the fact with satisfaction that the motive power he already has for other purposes will drive "Ohio" Ensilage Cutters and fill ordinary silos.

GUARANTEE

"Ohio" Cutters are warranted to be well made, of good materials, and durable with proper care. They will do what is claimed for them if the right amount of power is properly applied and if other conditions are right, as set forth in instructions and also in descriptions of each machine, and they are so guaranteed.

APPRECIATION AND THANKS

We appreciate, to the fullest extent, the trade that comes to us, and embrace this opportunity of expressing sincere thanks to our many patrons and friends. We solicit your continued patronage. Very respectfully,

THE SILVER MFG. CO.

SPECIAL INFORMATION

About "Ohio" Ensilage Cutters and Approved Methods of Elevating Silage.

"Ohio" Ensilage Cutters are acknowledged and accepted as the lightest running, the most substantial and largest capacity machines of this type manufactured. The question of conveying the cut ensilage into the silo as rapidly as it comes from the machine is a broad proposition, but has been successfully solved and two methods adopted.

First Method.

The first one, the Metal Bucket Chain Elevator, which has proven universally satisfactory under all conditions and can be driven with light power, ought to be considered carefully and adopted when there is doubt about sufficient power or about the angle of the conveyor, or any other point which must be right or else defeat the purpose of the second method.

Second Method.

The Blower Elevator is the other method, which is also successful if sufficient power is applied and if the conveyor pipe is set at the right angle, and if one or two other points are right, as indicated herein; but since the elevation is accomplished by the rapid current of air through the pipe, without further assistance, the following points must be closely watched for the reasons given:

Speed Must Be Maintained.

Sufficient power must be applied to not only get up the required speed, but to maintain this speed at all times; because, if the speed is allowed to fall below a certain point the cut material will fall back, there being either the full amount of elevation

or none at all. A blower differs from a carrier in this respect, a carrier elevating exactly in proportion to its speed; a blower must have the full speed to elevate at all, but with the speed to produce the blast, it is impossible to clog it.

Pipe Must Be Nearly Perpendicular.

The pipe must be placed as nearly perpendicular as possible, and the air will then lift the material. If, however, the pipe has very much slant, the material will settle down onto the lower side of the pipe and the air pass over it, causing clogging and stoppage, which are entirely unnecessary.

Vent in Silo is Necessary.

There must be sufficient vent in the silo to allow the tremendous volume of air to escape and thus prevent back pressure on the blast.

Regarding Power.

The foregoing remarks are intended to apply where the machine is to be crowded to its full capacity. If, however, the power is limited, the filling can still be satisfactorily done by feeding the machines a little more slowly—regular, steady feeding being an advantage at all times.

Experience has demonstrated that "Ohio" Ensilage Cutters and Blowers will fill silos with less power than formerly rated and we therefore invite special attention to the powers listed with the different machines in this catalogue.

Throughout the catalogue the estimates of power required are made on the basis of steam power, and we know they are ample, as further testified to in the numerous testimonials published therein.

SPECIAL INFORMATION

When Power is Not as Scheduled.

Therefore, parties having other power will be governed accordingly and will know about what to expect. It must be evident to all that to elevate into a very high silo (say 40 to 50 feet) must require more power than is necessary for silos of less height, the average being 30 to 35 feet, and the power as stated in the catalogue is entirely ample for these heights.

Exercise Care in Starting.

The motive power scheduled to run the different machines this year is ample. The only point the user needs to observe is to feed carefully at the beginning, until he knows the capacity of the machine and how to feed it. Don't start in with the endeavor to stall the machine, and test for capacity until you get well under way. Every purchaser will be more than satisfied if he proceeds in this manner.

Long Belt is Necessary.

In order to transmit full power from the engine, a good quality belt of the right width (not less than 6 inches for 12 horse-power) and of good length, similar to those used to thresh with, must be used. The

weight of the belt helps to transmit the power and the only way to get weight is in the length.

Success or Failure.

The foregoing principles apply not only to "Ohio" Blowers, but to all forms of pneumatic machinery, now so largely used for many purposes. Green silage corn is by far the heaviest crop on the farm, and to cut it and elevate into silo 30 or 40 feet high at the rate "Ohio" Self-Feed Ensilage Cutters handle it, requires power. Therefore, provide one or two horse-power in excess, in preference to one or two short. The former means economy as compared with an engine overloaded. The difference between excess and a shortage of power means success or failure of a blower elevator. If you haven't sufficient power to drive a blower elevator, it will be wise economy to purchase an "Ohio" machine with metal bucket carrier.

If Instructions are Observed, Guarantee is Fulfilled.

If the points enumerated above are observed, the "Ohio" Blowers will positively fill the guarantee made for them, and perform the work to the satisfaction of all.

"OHIO" STANDS FOR BEST.

“Silver’s” Clover Cutter For Poultry

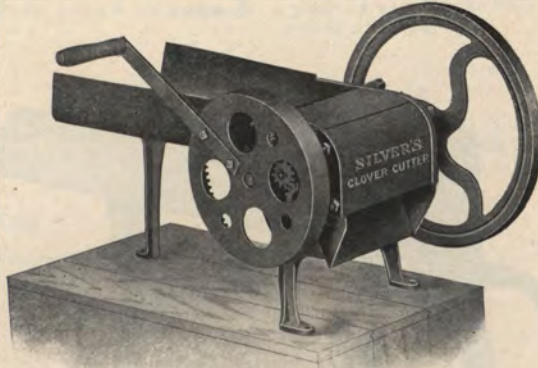


Fig. 775

Adaptability.

This machine will cut clover, alfalfa, straw, vegetable tops and similar material, green or dry, into $\frac{1}{8}$ inch lengths, which makes it especially adapted to cutting feed for poultry.

Description.

It is all iron and steel, consequently very durable. Length over all, 24 inches. Size of feed box, 18 inches long by 10 inches wide at rear end, by 8 inches at throat. Feed rollers are full width of cutting surface. Has 8-inch, 4-bladed, solid center, spiral knife, with adjustable cutter-bar, like a lawn mower. Capacity is a bushel of cut clover in 10 minutes or less. It is intended to be mounted on a bench or box to make it right height for operator.

See testimonials on page 92.

Size and Price

8-inch knife; weight K. D. 60 pounds.....\$7.00 *Sachar*

“Electric” Lever Cutter

11-INCH KNIFE

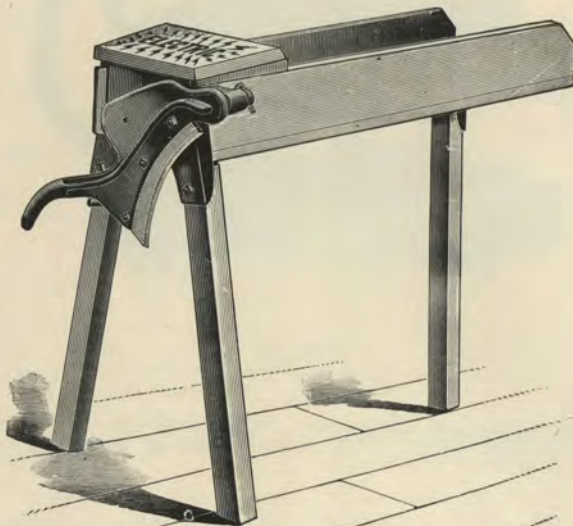


Fig. 798

Size and Price

11-inch knife; weight, K. D., 40 pounds.....\$4.00

Rytidosie

DESCRIPTION

Machine as Illustrated.

This machine is, as illustrated, a plain lever cutter and has an 11-inch oil-tempered sickle knife.

Construction.

This cutter is made of good material and is well painted in red.

What It Will Cut.

It will cut all kinds of hay and rough feed.

Adjustment to Knife Lever.

The lever can be readily adjusted to the cutter bar, so that the knife makes a clean cut at all times.

Shipped K. D.

It is always knocked down and packed for shipment, which insures the lowest possible freight rate applicable to feed cutters.

Weight.

40 pounds.

“Ohio” Lever Cutter

11-INCH KNIFE

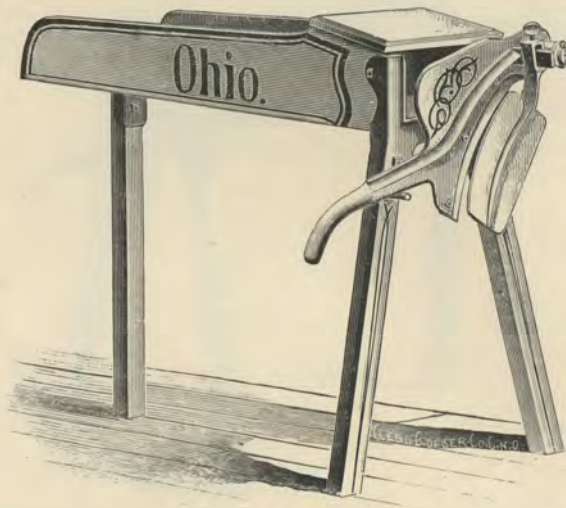


Fig. 778.

Size and Price

11-inch knife ; weight, K. D., 55 pounds\$5.00 *Rusturen*

DESCRIPTION

One Size and Well Known.

This machine is made only in one size, and it is so well known that little or no description is necessary. The knife is oil-tempered, sickle shape and 11 inches long.

Adjustment to Knife Lever.

The knife lever has a nice adjustment to the cutter bar, which gives the user assurance of a perfect shear cut at all times.

Gauge Plate.

A gauge plate is provided for this machine, which has ready adjustment, and thereby giving various lengths of cut up to 2 inches. It can be removed at will.

Material and Make-Up

The woodwork is selected stock and is

handsomely striped and finished in the natural; the iron work is painted red.

Symmetrical Design.

It is symmetrically designed, substantially constructed and is attractive in appearance.

Its Use.

It will cut hay, straw, corn stalks and every kind of rough feed.

How Shipped.

It is always taken apart or "knocked down," and the lever and legs packed in the feed box for shipment, which insures lowest freight rate.

Weight.

55 pounds.

“Pony” Hand Feed Cutter



Fig. 783, No. 11¼.

Size and Price

No. 11¼—One knife, 11¼ inches long.....	\$14.00	<i>Rustoeer</i>
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"Ohio" Hand Feed Cutter

Improved Construction.

During 1905 the feed mechanism of this machine was improved so as to give wider range of work and it will now cut any length desired from $\frac{3}{16}$ to 2 inches, thus making it adapted to cutting *clover for poultry* as well as all kinds of rough feed for stock. This is a very desirable feature and is not found in other machines of this type.

Strong, but Light Running.

This cutter is for hand use only, but is strongly constructed and light running.

Only One Knife, but Nicely Balanced.

It has only one knife, but the cylinder is properly balanced, hence the cutter runs steadily when turning fast, and does not sway back and forth.

Points of Advantage.

Being nicely balanced, and having a minimum number of mechanical parts, means that it turns easily and is not hard on the user. These points should be looked into carefully, when considering the purchase of a machine of this class.

Design and Finish.

It is neat and symmetrical in design, made of best material throughout, and nicely

finished, the wood work in the natural, and the iron work painted maroon and bronzed. There is a guard over the gears, which prevents danger to the operator.

Its Use and Capacity.

The "Ohio" Pony will cut hay, corn stalks and all kinds of rough feed. A man can readily cut a bushel of hay in 35 seconds.

Shipped K. D.

It is constructed so that it can be taken apart and packed for shipment, which assures the purchaser of the lowest possible freight rate. It is easily set up.

Lengths of Cut.

Cuts from $\frac{3}{16}$ to 2 inches.

Weight.

165 pounds.



Detail illustration showing improved feed mechanism and method of changing length of cut.

“Ohio” Hand Feed Cutter

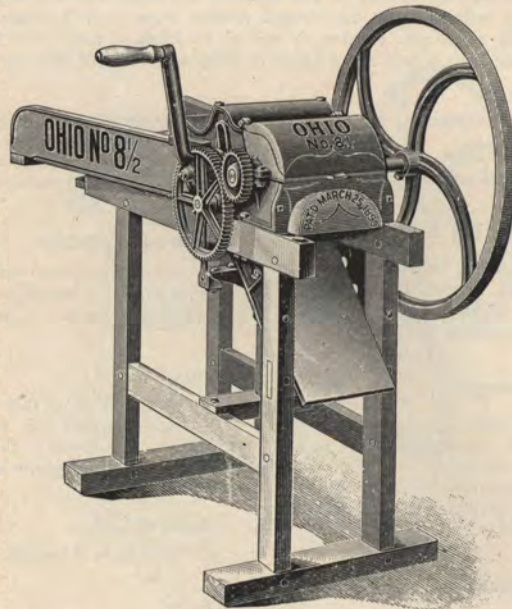


Fig. 779, Nos. 8½ and 10½

Sizes and Prices

No.	Length of Knives, Inches	Number of Knives	Lengths of Cut, Inches	Price	Cipher
8½	8½	1	½, ¾, 1½	\$18.00	<i>Rutabaga</i>
8½	8½	2	¼, ¾, ¾	20.00	<i>Rutabula</i>
10½	10½	1	½, ¾, 1½	23.00	<i>Rutabulis</i>
10½	10½	2	¼, ¾, ¾	25.00	<i>Rutabulum</i>

DESCRIPTION

Picture a True Representation.

The illustration on the opposite page is an exact representation of the "Ohio" Hand Feed Cutter as made in the two popular sizes, Nos. 8½ and 10½, the sizes indicating the length of knives in inches.

Symmetrical Design, Attractive Finish.

This machine is shapely in design and is finished rather better than cutters generally belonging to this class. The frame and box are finished natural, and the iron work painted red and striped. The name and size on sides of box are beautifully colored transfers, which add much to the appearance of the cutter.

The Knives and Cutter Bar.

The knives are made in the shop, of materials that have stood the test 20 years or longer. They are properly tempered, sharpened and fastened to the knife heads, then nicely adjusted to the cutter bar, which makes them cut feed perfectly. The cutter bar is chilled iron and this material makes a cutting edge that will wear longer than steel, as has been clearly demonstrated by 12 years' successful use.

Feeding Device Made Under Patents.

The cluster of gears on the left side of machine, combined with the two rollers and spring underneath, makes up the feeding device. The gears drive the upper roller,

and are arranged so they remain in mesh and do not bind as the roller raises and lowers. If fed properly, the feed travels through without pushing. This device is covered by patents.

Large Fly Wheel.

The fly wheel on both sizes is large, 25 inches in diameter, which attains momentum and helps to carry past dead points.

Frame and Box.

The frame is made of sound hardwood, every joint mortised and pinned together, which makes a rigid, substantial stand, and will last for all time. The box is 38 inches long, and is wide and roomy, holding a large armful of hay.

What They Will Cut.

These machines will cut hay, straw, corn stalks with or without ears, and every kind of feed known to this country.

How Much One Man Can Cut.

One man can easily cut a bushel of hay with No. 8½ in 40 seconds, and with No. 10½ in 30 seconds, and a boy 12 years old can use them successfully.

Weight.

No. 8½ weighs 165 lbs.; No. 10½, 180 lbs.

“Plantation” Standard Feed Cutter

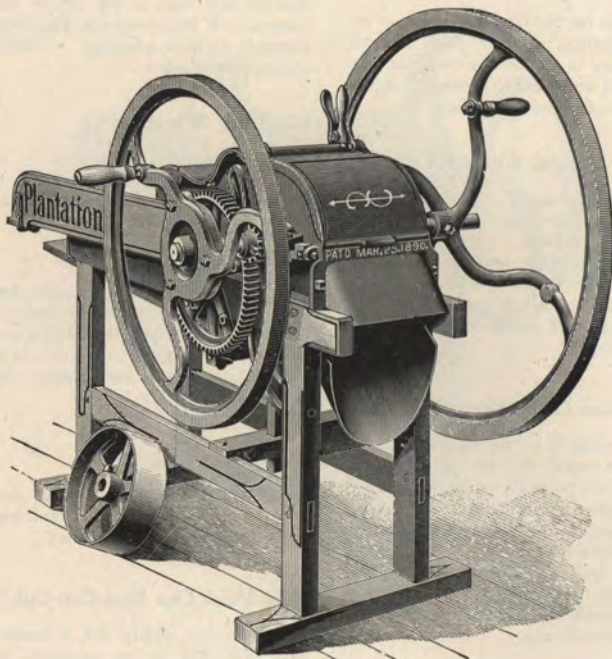


Fig. 777, Nos. 9 and 11

Sizes and Prices

No.	Number of Knives	Lengths of Cut, Inches	Weight	Price	Cipher
9	2	$\frac{1}{2}$, 1, $1\frac{1}{2}$, 2	500 lbs.	\$45.00	<i>Sableaux</i>
9	4	$\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1	500 lbs.	50.00	<i>Rutazeas</i>
11	2	$\frac{1}{2}$, 1, $1\frac{1}{2}$, 2	540 lbs.	50.00	<i>Sablieres</i>
11	4	$\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1	540 lbs.	55.00	<i>Rutazeous</i>

DESCRIPTION

The Plantation Cutter.

The illustration shows correctly a machine of large capacity, designed especially for use where large capacity is required but only man-power is available. It is used largely in livery barns and on plantations.

Man-Power Machine.

The power is applied directly to the main shaft and cutting cylinder, the handles being on the large fly wheels. This is a more powerful drive than is the case where gearing is used. One of the fly wheels is solid, and the other is the regular safety pattern to be used alone if horse or steam power is used.

How to Get Best Results.

There is a strong handle on each wheel, which adapts the machine for one or two men. One man at each wheel, and one to

feed, by changing about periodically, can cut all day and will do a large amount of work.

Design and How Constructed.

The design and general make-up of the "Plantation" Cutter are the same as the regular "Ohio" Cutters, and embrace the same desirable and patented features. The main shaft is $1\frac{3}{8}$ inches in diameter. Made in two sizes, Nos. 9 and 11. A pulley 12 inches by 4-inch face, is sent with each machine, but 6, 8, 10 or 15-inch will be sent if desired.

Capacity.

Three men turning, as above indicated, will cut with No. 9, 70 bushels, and with No. 11, 85 bushels, of feed into short lengths, per hour. At 350 to 600 revolutions per minute, one or two horse-power will do very much more.

“Ohio” Standard Feed Cutter

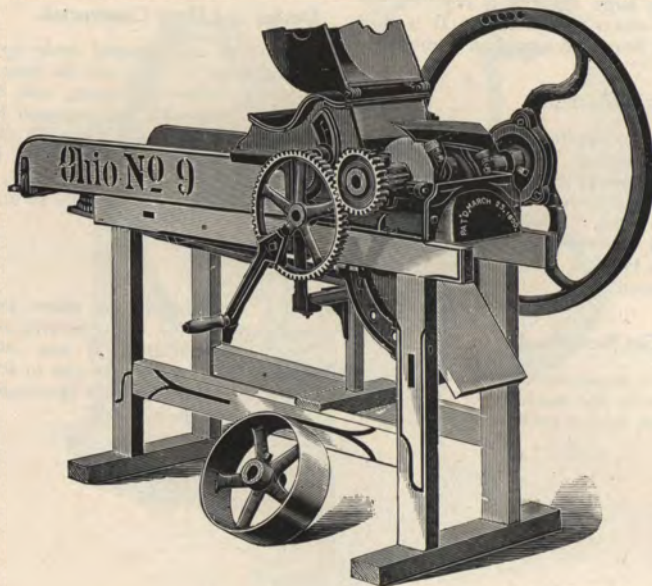


Fig. 784, No. 9

Sizes and Prices

No. 9	With safety fly wheel and pulley, two knives	\$35.00	<i>Rustaceum</i>
No. 9	With safety fly wheel and pulley, four knives	40.00	<i>Rustaciorum</i>
	When furnished with extended knife shaft to place fly wheel or pulley on either side, extra, list	2.00	<i>Rutato</i>
	Shredder blades, each	2.25	<i>Sabulaire</i>

DESCRIPTION

Illustration Shows Detail.

No. 9 is the smallest size "Ohio" Standard Feed Cutter, and the general features of the construction may readily be seen from the illustration, which is correct in detail. Although more especially a hand machine, it is supplied with pulley, and makes a satisfactory light-power machine, but it is too small to cut ensilage advantageously, and on this account carriers for this size are never furnished.

Construction.

The construction is identical in principle with that in other "Ohio" machines, but, of course, is lighter than the larger machines.

Special Features.

The safety fly wheel, adjustable home-made knives, hard cutter bar, patented gears and regular "Ohio" finish, are on the No. 9, making it a durable, light-running, practical machine.

Shredding Fodder.

Heretofore, shredding has been synonymous with high speed, great power and comparatively small capacity. Our new shredder blade successfully reduces the fodder to the proper condition with but slight additional power, the speed necessary to make it work perfectly and at same capacity as "Ohio" Cutters being 600 to 700 revolutions. Interchangeable, on sizes from No. 9 up, with knives. Nothing extra but the shredder blades. Does not pulverize the leaves like saw-blade or tooth shredders, but splits and tears the stalks perfectly.

Capacity, Power and Weight.

The capacity of the No. 9, operated by hand, is 50 to 60 bushels of hay, straw, corn stalks and rough feed of every kind; and 1500 to 2000 pounds per hour when driven by power, one horse actual power being sufficient. Four lengths of cut, two or four knives. Weight, 400 lbs.

Speed.

400 to 600 revolutions per minute.

“Ohio” Standard Feed and Ensilage Cutter

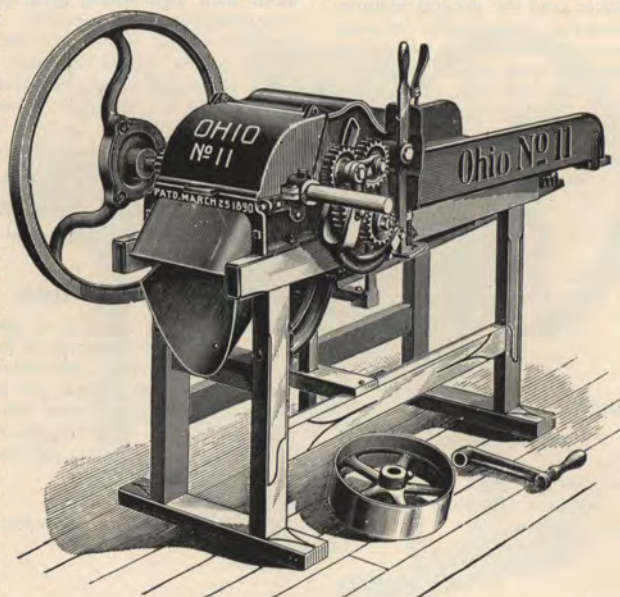


Fig. 784, No. 11

Sizes and Prices

No. 11	With two knives, 11 inches long, four lengths cut.....	\$40.00	<i>Rusteles</i>
No. 11	With four knives, 11 inches long, four lengths cut.....	45.00	<i>Rustelides</i>
	Extra gears to cut 4 inches long	3.00	<i>Sabelmof</i>
	Shredder blades, interchangeable with knives, each	2.65	<i>Sacapene</i>

DESCRIPTION

About Construction.

The illustration shows the No. 11 "Ohio" Standard Feed and Ensilage Cutter. The design is similar to the No. 9, with the exception that the knives are longer, and the knife shaft extends through on both sides for the fly wheel and pulley, to better adapt the machine to power. The crank furnished fits directly onto the cylinder shaft, so that the hand drive is direct.

Patented Feeding Device.

The throw-out or feed lever is clearly illustrated, and its operation may be readily understood. As the upper feed roller raises to allow the feed to pass through, the cog wheels remain in proper mesh without binding, making an easy-running, durable device.

Advantages of Feed Lever.

The feed lever assists in making changes in the length of cut, and also serves to stop the feed entirely in case of accident or otherwise.

Other Good Points.

The fly wheel as now made is nearly a solid web wheel, instead of having three spokes, as shown, and is therefore much better.

The wood work is nicely striped and finished in the natural; the iron work is maroon; the whole machine is varnished.

Shredding Fodder.

Heretofore, shredding has been synonymous with high speed, great power and comparatively small capacity. Our new shredder blade successfully reduces the fodder to the proper condition with but slight additional power, the speed necessary to make it work perfectly and at same capacity as "Ohio Cutters" being 600 to 700 revolutions. Interchangeable with knives on sizes from No. 9 up. Nothing extra but the shredder blades. Does not pulverize the leaves like saw-blade or tooth shredders, but splits and tears the stalks perfectly.

Capacity, Speed, Power, Weight.

The capacity, cutting dry feed, is 2500 to 3000 lbs. per hour; of ensilage, three to four tons per hour. Length of knives, 11 inches; four lengths of cut. Diameter of knife shaft, $1\frac{3}{8}$ inches. Pulley, 12 inches by 4-inch face; 6, 8, 10 and 15-inch sent if desired. Speed, 400 to 600 revolutions per minute; one to two-horse power. Weight, 440 lbs.

“Ohio” Standard Feed and Ensilage Cutter

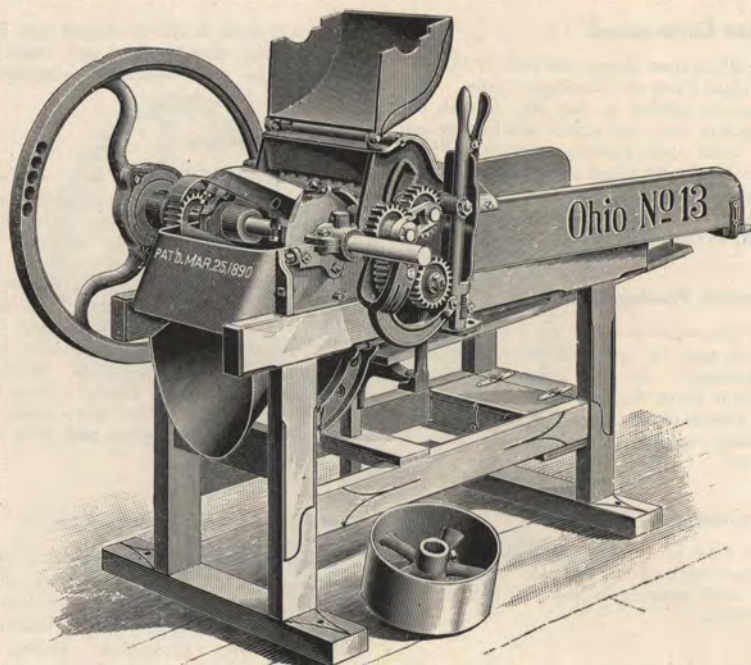


Fig. 784, Nos. 13, 16 and 18

Sizes and Prices

No. 13	With two knives, 13 inches long, four lengths cut.....	\$60.00
No. 13	With four knives, 13 inches long, four lengths cut.....	65.00
No. 16	With four knives, 16 inches long, four lengths cut.....	90.00
No. 18	With four knives, 18 inches long, four lengths cut.....	120.00
	Extra gears to cut 4 inches long with two knives.....	4.00
	Swivel carrier, 12 feet long or under.....	45.00
	Straight-delivery carrier, 12 feet long or under.....	33.50
	Carrier, extra, over 12 feet long, per foot.....	1.70
	Wood cover, with hooks and eyes to fasten, per foot.....	.25
	Shredder blades for No. 13, \$3.00; No. 16, \$3.75;	
	No. 18, \$4.50 each.	

Rutellum
Rutenio
Ruthard
Ruthenhieb
Sabenca
Sabendas
Rutheno
Ruthenzaun
Sablabat

DESCRIPTION

"Ohio" Standard Cutters.

The "Ohio" Standard Feed and Ensilage Cutters are made in three sizes, the only points of difference being in size of the machine and length of knives, which are 13, 16 and 18 inches long, the numbers corresponding to the length of knives in all "Ohio" Machines. The general makeup of these machines is such as to impress the purchaser with their strength, durability, beauty and satisfactory operation.

Feeding Device Clearly Shown in Picture.

The train of feed gear pinions vibrate as the feed roller raises and lowers, yet their movable bearings maintain the respective distances to each other and keep the gears properly in mesh without friction, which gives a uniform motion to the roller. The backwardly-inclined motion of the upper roller, as it raises, assists in taking hold of the feed, and this, combined with other good points outlined, makes this machine a strong feeder. This feeding device is made under U. S. patents.

Advantages of Feed Lever.

The feed lever is adjustable, and its first use is to disconnect the chain of gears to change the length of cut. The length of cut is readily changed by either reversing the gear pinion on lower roller shaft or substituting a different pinion. Another use of lever is to start and stop the feed. If the power runs down, or machine clogs for whatever reason, or an accident occurs, feed can be stopped instantly by grasping this lever.

About the Knives.

We manufacture them of a high carbon steel, and they are carefully tempered and very durable. On account of the full-width throat they cut their entire length, which is one reason why they have such large capacity in proportion to the size. The knives are securely bolted to solid knife heads and are reinforced by set screws with lock nuts, which give ready adjustment of knives to cutter bar, so that perfect cutting may be done at all times.

Shredding Fodder.

Heretofore shredding has been synonymous with high speed, great power and comparatively small capacity. Our new shredder

blade successfully reduces the fodder to the proper condition with but slight additional power, the speed necessary to make it work perfectly and at same capacity as "Ohio" Cutters being 600 to 700 revolutions. Interchangeable, on sizes from No. 9 up, with knives. Nothing extra but the shredder blades. Does not pulverize the leaves like saw-blade or tooth shredders, but splits and tears the stalks perfectly.

Adaptability of These Machines.

These three machines are strong feeders, have large capacities, and, supplied with carriers, as described further on, are largely used for cutting ensilage as well as cutting all kinds of dry feed and shredding fodder. For filling silos, however, the traveling feed table, as shown further over, is strongly favored.

Dimensions and Speed.

Length of knives, 13, 16 and 18 inches. Steel knife shaft, $1\frac{3}{8}$ inches diameter. Cuts with two knives, $\frac{1}{2}$, 1, $1\frac{1}{2}$ and 2 inches. Cuts with four knives, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and 1 inch. Size of pulley 12 inches diameter, 6 inches face; pulleys, 6, 8, 10 and 14 inches diameter when wanted. Speed, 450 to 600 revolutions per minute.

Power.

No. 13, 2 to 4-horse power; No. 16, 4 to 6-horse power, and No. 18, 5 to 8-horse power, depending upon the length of carrier used. Either size can be successfully driven by 2-horse tread-power and fill silos of ordinary height up to say 30 feet, but under such circumstances the cutter must, of course, be fed with due respect to the power at hand.

Capacities.

No. 13, 4 to 6 tons of silage, 2500 to 3500 lbs. dry feed per hour; No. 16, 6 to 10 tons of silage, 3000 to 4000 lbs. dry feed per hour; No. 18, 8 to 12 tons of silage, 4000 to 6000 lbs. dry feed per hour.

Weights.

No. 13, 590 lbs.; No. 16, 620 lbs.; No. 18, 700 lbs. For weights of carriers see following pages.

“Ohio” Special Ensilage and Feed Cutter with Safety Fly Wheel and Stop Feed Lever

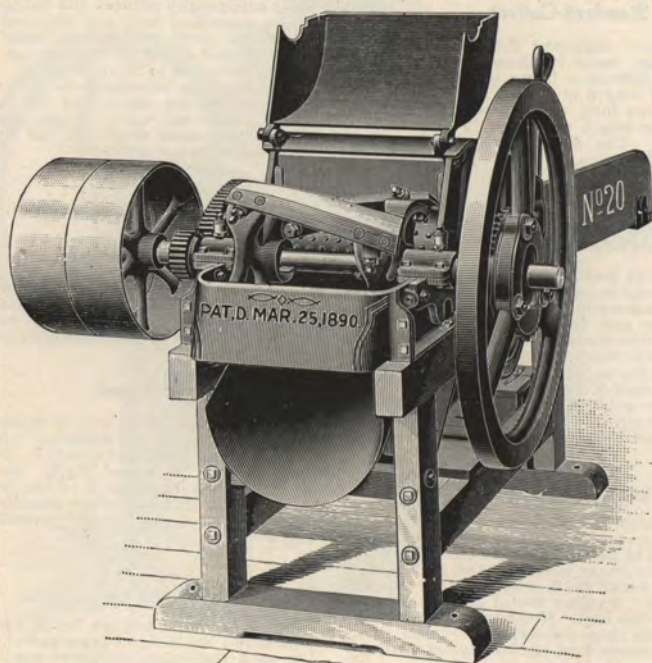


Fig. 787, Nos. 20 and 24

Sizes and Prices

No. 20 Cutter, with four knives, 20 inches long	\$200.00
No. 24 Cutter, with four knives, 24 inches long	250.00
Extra gears to cut four inches long, either size,	6.50
12-foot straight carrier for No. 20	40.00
12-foot straight carrier for No. 24	45.00
12-foot swivel carrier for No. 20	55.00
12-foot swivel carrier for No. 24	60.00
Additional length, either style carrier, No. 20, per foot..	2.25
Additional length, either style carrier, No. 24, per foot..	2.25
Wood cover, with hooks and eyes to fasten, No. 20, per foot	.35
Wood cover, with hooks and eyes to fasten, No. 24, per foot	.35
Shredder blades for No. 20, \$6.00 ; No. 24, \$6.75 each	

Ruthenzrug
Ruthessly
Sabinianus
Sabbiosa
Sabburam
Sabbathian
Sabbatical
Sabburam
Sabachoso
Sabedoria
Sabeism

DESCRIPTION

"Ohio" Special Sizes.

The general design and make up of sizes Nos. 20 and 24 are similar to the "Ohio" Standard Cutters, but they are heavier and stronger throughout, have larger diameter knife cylinders, the feed rolls open wider, and in every way they are larger and have larger capacities.

How Made and for what Kind of Elevators.

These two special sizes are made with short feed table like the illustration and also of the self-feed style (see pages following). Both styles of carriers, the straightaway and swivel, are applicable to these machines. See illustration on the following page of the swivel carrier attached to No. 20 Cutter.

Commendable Points in the Construction.

The knife shaft is heavy; the diameter of the knife cylinder is large, which gives good clearance; the knives are securely fastened, with four bolts in each, to knife heads of a specially strong design—the kind that don't break. The gear wheels and pinions, which are only six in number, are made to the latest theory and practice of the teeth of gears. All of the bearings of the movable parts are close up to the machine.

Brief Résumé of the General Make Up.

The feed rolls open 50 per cent. wider than those in the Standard Cutters and the throat is as wide as the knives are long. The fly wheels are of the safety pattern, and there is a tight and loose pulley with each machine. The bearings for the knife shaft are wide and heavy, and are provided with brass oil cups. The iron work is very heavy, and is properly and securely put together. The upper feed roller is covered with projections and is pressed down on the feed by strong yet pliable springs. It raises in a backwardly-inclined curved slot, which assists to take hold of the feed and makes the machine a strong, easy feeder. The cutter bar is made of hard iron for the reason that it is better and holds its edge longer than if made of steel. The knives are made in the factory and have proven better than those made by outsiders. The frame or stand is very heavy, and is properly mortised and bolted together.

Corn Leaves No Longer Wedge between Cutter Bar and Lower Roller.

There is a clever device for the double purpose of a shear plate and to prevent leaves of wet or frosted corn from wedging and binding around the lower roller. An elastic plate of steel is securely fastened to the back side of the cutter bar, and is so arranged that it automatically adjusts itself and keeps the lower roller perfectly clean, thus removing a serious trouble experienced by all manufacturers of feed cutters. This device is "patent applied for" and to be had only with "Ohio" machines, thus keeping them in the lead, as has always been the case.

Shredding Fodder.

Heretofore, shredding has been synonymous with high speed, great power and comparatively small capacity.

Our new shredder blade successfully reduces the fodder to the proper condition with but slight additional power, the speed necessary to make it work perfectly and at same capacity as "Ohio" Cutters being 600 to 700 revolutions. Interchangeable with knives on sizes from No. 9 up. Nothing extra but the shredder blades. Does not pulverize the leaves like saw-blade or tooth shredders, but splits and tears the stalks perfectly.

Dimensions, Speed, Power and Capacities

Length of knives: No. 20, 20 inches; No. 24, 24 inches. Lengths of cut, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 inch with four knives. Size of pulleys, tight and loose, 18-inch diameter, 6-inch face; pulleys, 12 and 15-inch diameter furnished when ordered. Speed, 500 to 700 revolutions per minute. Power, 6 to 10-horse steam power. Capacity: No. 20, 12 to 15 tons; No. 24, 15 to 20 tons ensilage per hour.

Weight.

No. 20 Cutter, 1300 pounds; No. 24, 1500 pounds. Straight carrier for No. 20, 12 feet long, 355 pounds; No. 24, 375 pounds. Swivel carrier, 12 feet long, No. 20, 480 pounds; No. 24, 500 pounds. Extra length, per foot, either style, 14 pounds.

The New "Ohio" Shredder

Showing a Sample of Shredded Corn Stalks



Sizes and Prices of Complete Machines

	Two Blades. Four Blades.	
Fig. 784, No. 9 with Shredder Blades only.....	\$ 36.50	\$ 43.00
Fig. 784, No. 11 with Shredder Blades only.....	41.75	48.50
Fig. 784, No. 13 with Shredder Blades only.....	62.00	69.00
Fig. 784, No. 16 with Shredder Blades only.....	87.50	95.00
Fig. 784, No. 18 with Shredder Blades only.....	117.00	126.00
Fig. 787, No. 20 with Shredder Blades only.....	196.00	208.00
Fig. 787, No. 24 with Shredder Blades only.....	245.50	259.00

Shredder knives are interchangeable with knives on all sizes of cutters from No. 9 up.

NOTE—Purchasers of "Ohio" Self-Feed Machines usually want knives as well as shredder blades, hence we only give prices of the latter underneath price lists of such machines.

DESCRIPTION

The Illustration.

It shows the "Ohio" Standard Feed Cutter with new (patent applied for) shredder knives. It also shows some of the shredded corn fodder, and, being a half-tone plate, shows its actual condition.

The new shredder blades are also adaptable to the Self-Feed Cutters with Blower Elevators either by means of the elevator, which will convey the shredded corn to any point, or by removing the elevator, letting the corn come out at the side.

The Shredder Blade.

The new shredder blade, which is clearly shown in the picture, is the regular "Ohio" knife with solid integral bits projecting out of the steel, and so arranged that each succeeding tooth does not travel in the path of the one just preceding it. Thus the material is cut and torn by the great number of small bits, and left in a nicely shredded condition without having the leaves pulverized and wasted, as is the case with the saw-blade or toothed shredders run at the very high speed necessary with those types.

Points of Advantage.

The chief points of advantage are that these shredder blades are interchangeable with the knives on the regular knife heads used in "Ohio" Cutters, and give the purchaser two machines in one with practically no extra cost. The full capacity of the machines is retained. We positively believe this to be the best and most practical device yet offered for the purpose and its value is fully demonstrated by experiments in different sections of the country. It is "patent applied for" and to be had only for "Ohio"

Cutters. Speed for the shredder blades must not be less than 600 to 700 revolutions.

Shredding Fodder.

Heretofore "shredding" has been synonymous with high speed, great power and comparatively small capacity, together with considerable first cost.

The Problem Solved.

Our new shredder blade successfully reduces the fodder to the proper condition with the same power, speed and capacity as the regular "Ohio" Cutter. Interchangeable on all sizes with the knives. Nothing extra but the shredder blades. Least cost, best results. Does not pulverize the leaves like saw-blade or tooth shredders, but splits and tears the stalks perfectly.

About the Elevator.

From the fact that shredding corn fodder with this new device is done with the machine running at normal speed, the regular ensilage chain or blower elevator can be used without the need of extra sprockets to slow the speed, and also the special shredder plate is not needed.

Speed and Power.

The greatest saving in this new shredder is that perfect work can be done running at normal speed (600 to 700 revolutions), which means that the same power that runs the cutter will run the shredder. The shredded corn shown in the picture was made with two blades on the cylinder, and it is reduced to a nice condition, hence four blades will shred it much finer.

“Ohio” Standard Feed and Ensilage Cutter

Showing New Metal Bucket Carrier, Set for
Right-Angle Delivery

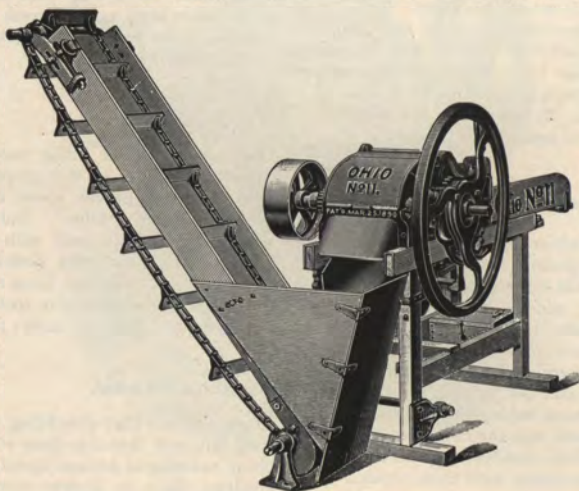


Fig. 784, No. 11

Sizes and Prices

No. 11 With two knives, 11 inches long, four lengths cut.....	\$40.00	<i>Rusteles</i>
No. 11 With four knives, 11 inches long, four lengths cut.....	45.00	<i>Rustelides</i>
Extra gears to cut 4 inches long, with two knives	3.00	<i>Sabelmuts</i>
Reversible carrier, angle or straight delivery, 12 feet long or less	33.75	<i>Rutha</i>
Straight-delivery carrier, without reversible attachments...	30.25	<i>Rutellis</i>
Additional length over 12 feet, extra per foot.....	1.70	<i>Rutellorum</i>
Shredder blades, which interchange with knives, each	2.65	<i>Sacapene</i>

DESCRIPTION

Smallest Size Ensilage Cutter.

The illustration on the opposite page is a good representation of the smallest size ensilage cutter and it shows also the new metal bucket carrier set for right-angle delivery. This is the style carrier manufactured for this machine, and it can be set at right or left angle, or straightaway.

Construction of the Carrier.

The sides of the trough are tied together by wood strips and they are reinforced by iron rods. The hangers at top have adjustment which is to set the tension in the chain. The chain is malleable links of standard make, and the attachment link is our special design and admits of the bucket being full width of the trough. The buckets are heavy sheet metal and are two inches high. The metal hood at bottom and a tail piece under the chain catch the cut ensilage and prevent it spilling out. It will carry the ensilage away as fast as it comes from the machine.

Uses of Elevators.

The first and principal use of elevators of this kind is to convey cut ensilage into the silo. Other uses are to deliver dry cut feed, of whatever kind, into bays, bins, lofts and other places away from the machine, which saves the expense of a man.

Has Capacity to Fill 50-Ton Silos.

The cutter is substantial, has large capacity, and is adapted to cut all kinds of dry feed as well as ensilage. It has capacity to fill 50-ton silos, and even larger ones, but as this work necessitates a force of men and teams, and taking also into account the liability of frost, owners of silos usually give preference to a larger machine, so that the cutting may be done quickly and not lag.

Ensilage Maintains More Cows, Produces More Milk.

Ensilage saves every part of the corn crop and makes more feed than by any other means. Ensilage is equal to June grass in winter, and consequently maintains the cows more economically, and produces more milk than by any other feed, which results in increasing the herd 20 to 50 per cent.

Shredding Fodder.

Heretofore, shredding has been synonymous with high speed, great power and comparatively small capacity. Our new shredder blade successfully reduces the fodder to the proper condition with but slight additional power, the speed necessary to make it work perfectly and at same capacity as "Ohio" Cutters being 600 to 700 revolutions. Interchangeable with knives on sizes from No. 9 up. Nothing extra but the shredder blades. Does not pulverize the leaves like saw-blade or tooth shredders, but splits and tears the stalks perfectly.

Capacity, Speed, Power, Size of Pulley.

Dry feed, 2500 to 3000 pounds; ensilage, three to four tons per hour. Speed, 450 to 600 revolutions per minute. Power, two-horse. Pulleys, size sent, 12 x 4-inch face; diameters 6, 8, 10 and 15 inches can be furnished.

Weight.

No. 11 Cutter, 440 pounds. Reversible carrier, 12 feet long, 200 pounds. Extension, per foot, 8 pounds.

“Ohio” Standard Feed and Ensilage Cutter Showing New Straightaway Metal Bucket Carrier

Connected Up Ready for Use

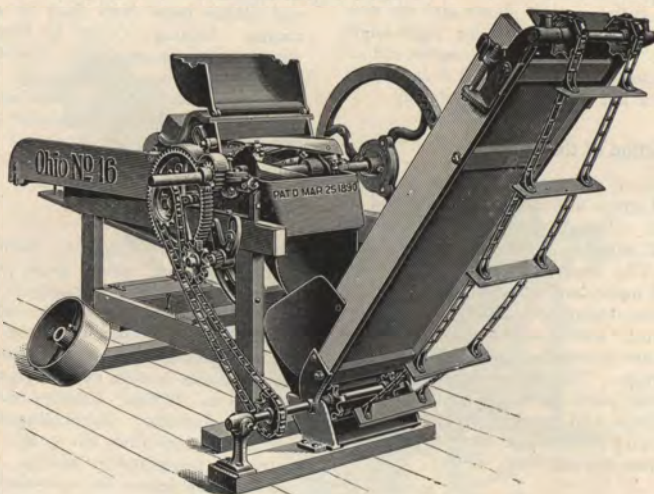


Fig. 784, Nos. 13, 16 and 18.

Sizes and Prices

No. 13 Cutter, two knives, 13 in. long, cuts $\frac{1}{2}$, 1, $1\frac{1}{2}$, 2 in.	\$60.00
No. 13 Cutter, four knives, 13 in. long, cuts $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 in.	65.00
No. 16 Cutter, four knives, 16 in. long, cuts $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 in.	90.00
No. 18 Cutter, four knives, 18 in. long, cuts $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 in.	120.00
Straight Carrier, 12 feet long, for No. 13, 16 or 18 Cutter	33.50
Straight Carrier, 12 feet long, for No. 19 or 20 Cutter	40.00
Straight Carrier, 12 feet long, for No. 24 Cutter	45.00
Extra length per foot, for No. 13, 16 or 18 Cutter	1.70
Extra length per foot, for No. 19 or 20 Cutter	2.25
Extra length per foot, for No. 24 Cutter	2.25
Wood cover, with hooks and eyes, for No. 13, 16 or 18, per foot ...	.25
Wood cover, with hooks and eyes, for No. 19 or 20, per foot	.35
Wood cover, with hooks and eyes, for No. 24, per foot	.35

Rutellum
Rutenio
Ruthard
Ruthenhieb
Sabbatizza
Sabtah
Sablaverit
Sabelkling
Sabucales
Sablases
Sabbaton
Sablerie
Sableront

DESCRIPTION OF CARRIER

New Straight Metal Bucket Carrier.

The cut shows, first, the new straightaway metal bucket carrier and how to attach it to the machine; second, the front to the cutter and how it gives more room for the cut feed to get away from the cylinder, and how it will conduct the ensilage into the carrier.

The Illustration.

The illustration is made from a photograph of the "Ohio" Standard Cutter No. 16 and a new straightaway bucket carrier. This is the present style straight carrier, and it is made for sizes Nos. 13, 16 and 18. It is applicable to cutters with extended tables and traveling feed aprons, as well as those like the illustration, and is recommended wherever a straight carrier can be used. It is easier to set up and move than the reversible carrier.

Metal Buckets Increase Capacity.

Metal buckets upwards of two inches high are now used, instead of low wood slats, and the sides of the carrier are more than one inch higher. This gives the carrier ample capacity to take away the cut feed as fast as it comes from the cutter, and it lessens the necessity for a cover, except when there is a high wind or very steep elevation.

About Lengths of Carriers.

At this time the average lengths of carriers are 34 to 42 feet; they have been supplied

as long as 50, 60 and 70 feet, and work perfectly, driven in the regular way from the bottom.

Shredding Fodder.

Heretofore, shredding has been synonymous with high speed, great power and comparatively small capacity. Our new shredder blade successfully reduces the fodder to the proper condition with but slight additional power, the speed necessary to make it work perfectly and at same capacity as "Ohio" Cutters being 600 to 700 revolutions. Interchangeable with knives on sizes from No. 9 up. Nothing extra but the shredder blades. Does not pulverize the leaves like saw-blade or tooth shredders, but splits and tears the stalks perfectly.

Weight of Carriers.

The weight of a 12-ft. straightaway carrier for Nos. 13, 16 or 18 Cutters complete is 240 pounds; extra length per foot, 10 pounds.

Power, Capacities and Weights.

Power: No. 13 and No. 16, 2-horse tread-power to 4-horse steam; No. 18, 3-horse tread-power to 6-horse steam. Capacities: No. 13, 4 to 6 tons of silage; No. 16, 6 to 10 tons of silage; No. 18, 8 to 12 tons of silage per hour. Weight: No. 13 Cutter, 590 pounds; No. 16 Cutter, 620 pounds; No. 18 Cutter, 700 pounds.

“Ohio” Self-Feed Ensilage Cutter Showing New Metal Bucket Swivel Carrier

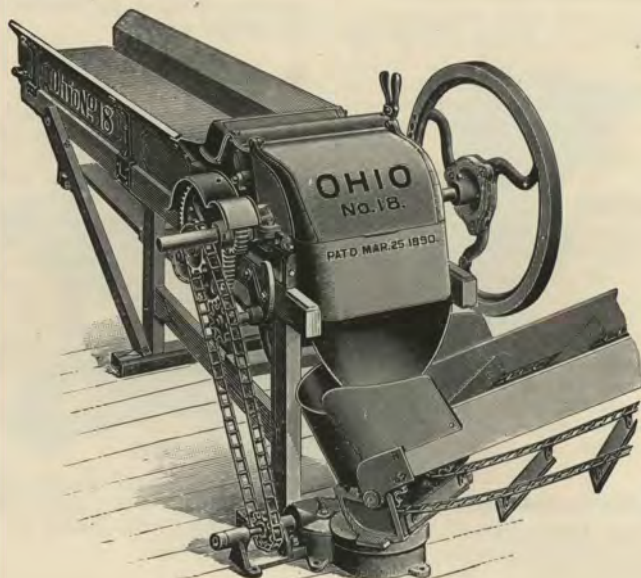


Fig. 785, Nos. 13, 16 and 18.

Sizes and Prices

No. 13 With four 13-inch knives, cuts $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and 1 inch.....	\$ 95.00	<i>Rutiles</i>
No. 16 With four 16-inch knives, cuts $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and 1 inch.....	120.00	<i>Rutinarias</i>
No. 18 With four 18-inch knives, cuts $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and 1 inch.....	155.00	<i>Rutinario</i>
Extra gears to cut four inches long, for Nos. 13, 16 or 18	4.00	<i>Sabellorum</i>
Swivel carrier 12 feet long, for No. 13 Cutter	45.00	<i>Sabbionino</i>
Swivel carrier 12 feet long, for No. 16 Cutter	45.00	<i>Sabbatdag</i>
Swivel carrier 12 feet long, for No. 18 Cutter	45.00	<i>Sabbionoso</i>
Extra length, per foot, for Nos. 13, 16 or 18 Cutters	1.70	<i>Sablatis</i>
Wood cover, with hooks and eyes to fasten, for Nos. 13, 16 or 18 Cutters, per foot.....	.25	<i>Sabbatismo</i>
Shredder blades for No. 13, \$3.00; No. 16, \$3.75; No. 18, \$4.50 each.		

DESCRIPTION

The Illustration.

It correctly represents the new "Ohio" Self-Feed Ensilage Cutter, the present pattern swivel carrier, how the two are connected ready for use and how the latter is driven from the cutter. The mechanism of the self-feed machine is similar to that described in the "Ohio" Standard Cutters, but is heavier and stronger in parts on account of the hard work these machines are required to do cutting green silage corn.

About Traveling Apron, and Space Between It and Feed Rolls.

The traveling apron of the machine travels on single sprockets (one at each end in the center) and on metal tracks at the sides. Guide wheels are at the rear end to carry the slats safely on to the track. The apron extends to within three inches of the lower feed roller, this space being needed for clearance and safety in case of stones, etc., getting onto the table. The feed table is 8 feet in length and will readily receive the corn. The sides are flaring, as shown.

Single-Chain Apron and How it is Driven.

The single-chain apron is, at once, the lightest, simplest, lightest-running device yet made, and has superseded the double-chain apron formerly used on "Ohio" machines and to which there were numerous objections. The apron is driven from the lower roller by sprocket and chain, and a separate clutch lever is provided to start and stop it, thus making it separate from the feed rolls. A spring holds the clutch in gear, and a cam lever of easy access, yet out of the way of the user, serves to throw it out.

Self-Feed Increases Capacity $33\frac{1}{3}\%$, Saves 75 % of Labor Feeding.

The self-feed means that it is only necessary to bring the feed to the box. It goes through itself, which point alone saves one of the hardest jobs connected with filling the silo. The self-feed met with instantaneous favor, and no man who has tried the traveling feed would think of doing without it. It also increases the capacity of the machine about one-third, on account of its being so much easier to keep the feed rolls full. The corn may be fed in armfuls or in bundles from the corn harvester.

Construction of Swivel Carrier.

An enclosed swivel base, which contains the gears that convert the power to the carrier and has rigid bearings for all movable parts. This construction keeps out dirt and dust, which minimizes friction and lengthens the life of the parts. Oil tubes are inserted in the base, by means of which the parts are lubricated. The picture shows how the carrier is mounted on the base and how driven from the machine, all of which necessary points make up this excellent and efficient ensilage carrier.

Advantages of Swivel Carrier.

The base being compact and in one piece, it is easier to set up and move about than the reversible carrier. If two silos are built side by side, the swivel carrier will fill both without moving cutter and power. This carrier as now made is for use with three sizes of machines, Nos. 13, 16 and 18, either self-feed or plain table.

Shredding Fodder.

Heretofore, shredding has been synonymous with high speed, great power and comparatively small capacity. Our new shredder blade successfully reduces the fodder to the proper condition with but slight additional power, the speed necessary to make it work perfectly and at same capacity as "Ohio" Cutters being 600 to 700 revolutions. Interchangeable with knives on sizes from No. 9 up. Nothing extra but the shredder blades. Does not pulverize the leaves like saw-blade or tooth shredders, but splits and tears the stalks perfectly.

Power, Capacity, Pulley and Speed.

No. 13 and No. 16 require 4 to 6-horse steam power. Capacity: No. 13, 8 to 12 tons, and No. 16, 12 to 15 tons of silage per hour. No. 18 requires 6 to 8-horse steam power; capacity, 14 to 20 tons ensilage per hour. Pulley: 12 x 6-inch face, and sizes 6, 8, 10 and 15 inches diameter when wanted. Speed: 450 to 600 revolutions per minute.

Weights.

No. 13, 775 pounds; No. 16, 835 pounds; No. 18, 875 pounds. Swivel carrier 12 feet long for either size, 315 pounds. For dimensions and specifications not found here refer to descriptions of Fig. 784, same sizes.

“Ohio” Monarch Self-Feed Ensilage Cutter Showing New Metal Bucket Swivel Carrier

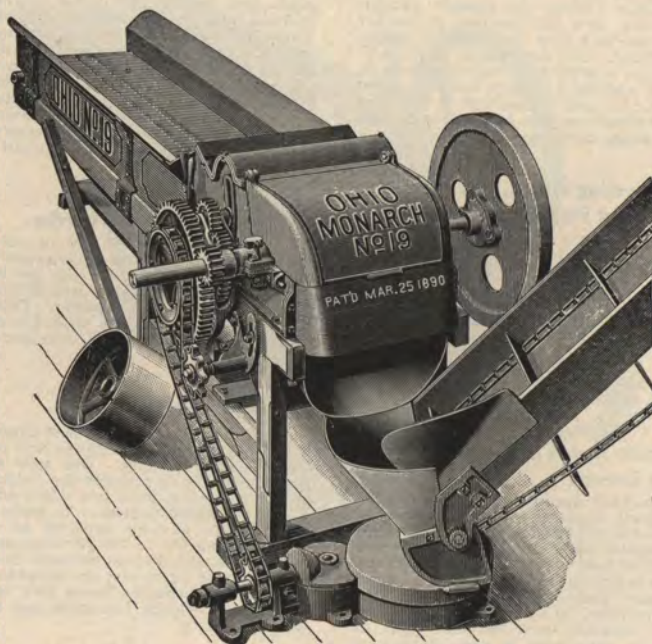


Fig. 794, No. 19

Sizes and Prices.

No. 19 Cutter, with four 19-inch knives, cuts $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ inch	\$200.00	<i>Sabrons</i>
Extra gears which cut 4 inches long with two knives	5 50	<i>Sabrosas</i>
12-foot straight carrier	40.00	<i>Sabtah</i>
12-foot swivel carrier	55.00	<i>Sabtechah</i>
Additional length, per foot	2.25	<i>Sabucales</i>
Wood cover, with hooks and eyes to fasten, per foot	.35	<i>Sabucorum</i>
Shredder blades, which interchange with knives, each	4.85	

DESCRIPTION

The Illustration.

It correctly represents the new "Ohio" Monarch Self-Feed Ensilage Cutter and new metal bucket swivel carrier, and shows the two connected up ready for use, and how the carrier is driven from the cutter.

Chain Elevator for Monarch Cutter.

The chain elevator has given such universal satisfaction that a good many people hesitate to try new or different methods of putting the corn in the silo, hence it was decided best to make a chain elevator for this large capacity ensilage cutter, which was originally designed as a blower machine, as will appear further over in this catalogue.

Construction of Cutter.

This is the same machine as illustrated and described in detail on another page, under the name of the "Ohio" Monarch No. 19 Ensilage Cutter with Blower Elevator. This machine, equipped with straight or swivel carrier, is a powerfully-constructed, light-running machine, and has unusually large capacity. The heavy frame and iron work with large bearings close up to the machine, the new and efficient knife cylinder, extended front, which provides clearance for the cut corn to get away, and the self-feed, combine to make this a most excellent ensilage cutter.

Self-Feed Increases Capacity $33\frac{1}{3}\%$, Saves 75% of Labor Feeding.

The self-feed means that it is only necessary to bring the feed to the box. It goes through itself, which point alone saves one of the hardest jobs connected with filling the silo. The self-feed met with instantaneous favor, and no man who has tried the traveling feed would think of doing without it. It also increases the capacity of the machine about one-third, on account of its being so much easier to keep the feed rolls full. The corn may be fed in armfuls or in bundles from the corn harvester.

Shredding Fodder.

Heretofore, shredding has been synonymous with high speed, great power and comparatively small capacity. Our new shredder

blade successfully reduces the fodder to the proper condition with but slight additional power, the speed necessary to make it work perfectly and at same capacity as "Ohio" Cutters being 600 to 700 revolutions. Interchangeable with knives on sizes from No. 9 up. Nothing extra but the shredder blades. Does not pulverize the leaves like saw-blade or tooth shredders, but splits and tears the stalks perfectly.

Feed Rolls and Traveling Apron.

The principle reason of increased capacity of this machine is that the feed rolls open about one-third wider than in the standard sizes. The feed rolls and traveling apron are under absolute control of the operator, each being started and stopped by a separate lever, but both within easy reach of the feeder.

Construction of the Swivel Carrier.

The swivel carrier is similar to that described for the "Ohio" Standard Machines, Nos. 13, 16 and 18, but is much stronger and heavier in proportion to the work required of it. The base is compact and self-contained, all parts being protected from dust and dirt, which minimizes friction and lengthens the life of the running parts. Oil tubes are inserted in the base to lubricate the parts. Two silos standing side by side can be filled with this carrier without moving cutter and power. It is made for Nos. 19 and 20 Ensilage Cutters.

Capacity.

17 to 25 tons of ensilage per hour.

Size of Pulley, Power, Speed and Weight.

The pulley is 12 inches diameter by 8-inch face. Necessary power, 8 to 10-horse steam power. Speed, 600 revolutions per minute. Weight of cutter, 1100 pounds; straight carrier 12 feet long, 355 pounds; swivel carrier same length, 450 pounds. Extra length per foot, 14 pounds.

“Ohio” Special Self-Feed Ensilage Cutter and New Metal Bucket Swivel Carrier

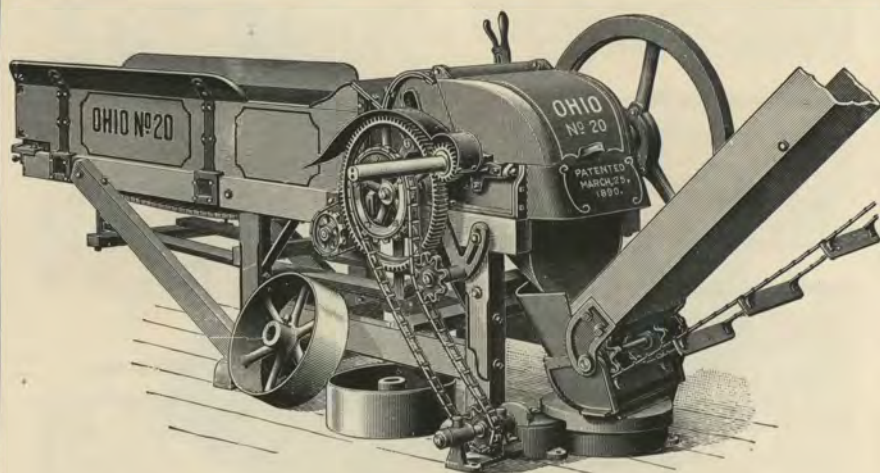


Fig. 799.

Sizes and Prices.

No. 20 Cutter, with four knives, 20 inches long	\$250.00	<i>Sablonner</i>
No. 24 Cutter, with four knives, 24 inches long	300.00	<i>Sablonneux</i>
Extra gears to cut 4 inches long, with two knives either size .	6.50	<i>Saboaria</i>
12-foot straight carrier for No. 20	40.00	<i>Saboga</i>
12-foot straight carrier for No. 24	45.00	<i>Sabogales</i>
12-foot swivel carrier for No. 20	55.00	<i>Saboiano</i>
12-foot swivel carrier for No. 24	60.00	<i>Saboleta</i>
Additional length either style carrier, No. 20, per foot.....	2 25	<i>Sabonkegel</i>
Additional length either style carrier, No. 24, per foot.....	2.25	<i>Sabord</i>
Wood cover, with hooks and eyes to fasten, No. 20, per foot	.35	<i>Saborder</i>
Wood cover, with hooks and eyes to fasten, No. 24, per foot	.35	<i>Saboreador</i>
Shredder blades for No. 20, \$6.00; No. 24, \$6.75 each		

DESCRIPTION

Illustration a True Representation.

Fig. 799 represents Nos. 20 and 24 of the series of "Ohio" Cutters and Carriers. The general make-up and design are the same as other "Ohio" machines, due care having been taken to have all parts heavy and properly proportioned, so as to maintain the symmetry in design. Every part is the very best, and we do not hesitate to state that these machines have the largest capacities and are the most satisfactory silage cutters built. If regularly and evenly fed, the only limit to the capacity is the amount that can readily be gotten to them.

Shredding Fodder.

Heretofore, shredding has been synonymous with high speed, great power and comparatively small capacity. Our new shredder blade successfully reduces the fodder to the proper condition with but slight additional power, the speed necessary to make it work perfectly and at same capacity as "Ohio" Cutters being 600 to 700 revolutions. Interchangeable with knives on sizes from No. 9 up. Nothing extra but the shredder blades. Does not pulverize the leaves like saw-blade or tooth shredders, but splits and tears the stalks perfectly.

Nos. 20 and 24 Made Only for Chain Elevator.

These two sizes are made only for straight-away or swivel metal bucket carrier, and are never supplied with blower elevator. The carriers have ample capacity to take the material as rapidly as it comes from the cutters.

Power, Speed, Capacity and Pulley.

Power to run up to capacity: No. 20, 10 to 12-horse steam power; No. 24, 10 to 12-horse steam power. Speed, 500 to 700 revolutions per minute. Capacity: No. 20, 19 to 27 tons; No. 24, 24 to 30 tons of ensilage per hour. Pulleys sent with cutters are tight and loose, 18 x 6 inches, and diameters 12 and 15 inches can be sent when wanted.

Weight.

No. 20 Self-Feed Cutter, 1600 pounds; No. 24, 1700 pounds. Straight carrier for No. 20, 12 feet long, 355 pounds; No. 24, 375 pounds. Swivel carrier, 12 feet long, No. 20, 480 pounds; No. 24, 500 pounds. Extra length, per foot, either style, 14 pounds.

New "Ohio" Special Self-Feed Cutter

Adapted to Cutting

Waste Paper, Rags, Leather Scraps, Alfalfa, Clover, Hay, Straw, etc.

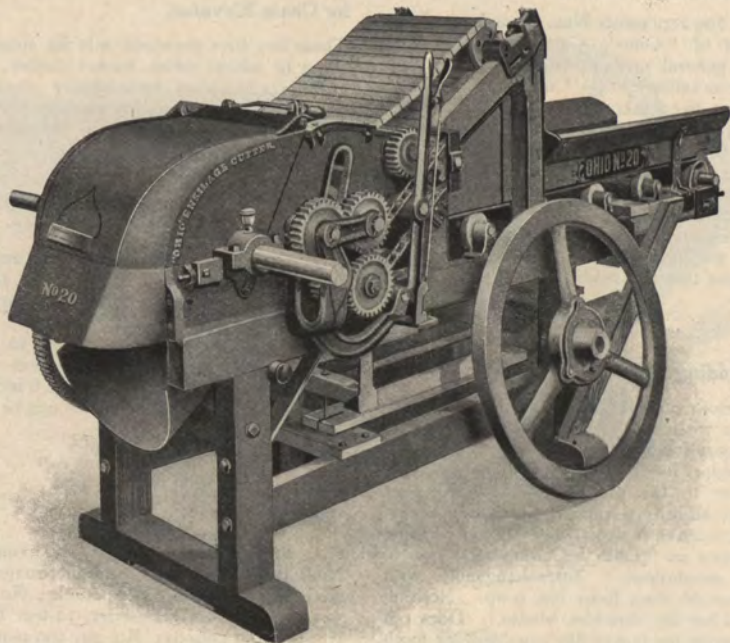


Fig. 792

Description.

The illustration shows a No. 20 Cutter which has been changed with respect to the feed mechanism. It has a web apron which runs over the lower roller close up to the cutter bar, and also bevel rollers along either side of the apron, which keep it up to place and prevent the material that is being cut from running out at the sides. A short feed apron is also added, which runs above the material, and helps to guide and feed the stuff into the machine.

Adapted to Cutting All Kinds of Dry Feed.

On account of the feed apron passing over the lower roller, and thus removing a joint where dry feed falls through and catches to a certain

extent, this machine is especially adapted to cutting all kinds of dry feed.

Perfect Self-Feed.

The machine feeds perfectly and carries all kinds of materials through it without aid from the user.

Has Been Thoroughly Tested.

The machine has been thoroughly tested at the factory on waste paper and alfalfa, and cuts both of them perfectly. Several machines have been sold, and they were accepted without a word of complaint.

Weight: No. 20, 1525 pounds; No. 24, 1625 pounds. Pulleys, 12 x 6, tight and loose. Power, 10 to 12-horse steam power. Speed, 600 revolutions per minute.

New "Ohio" Special Self-Feed Cutter

Rear View, Showing Feed Mechanism

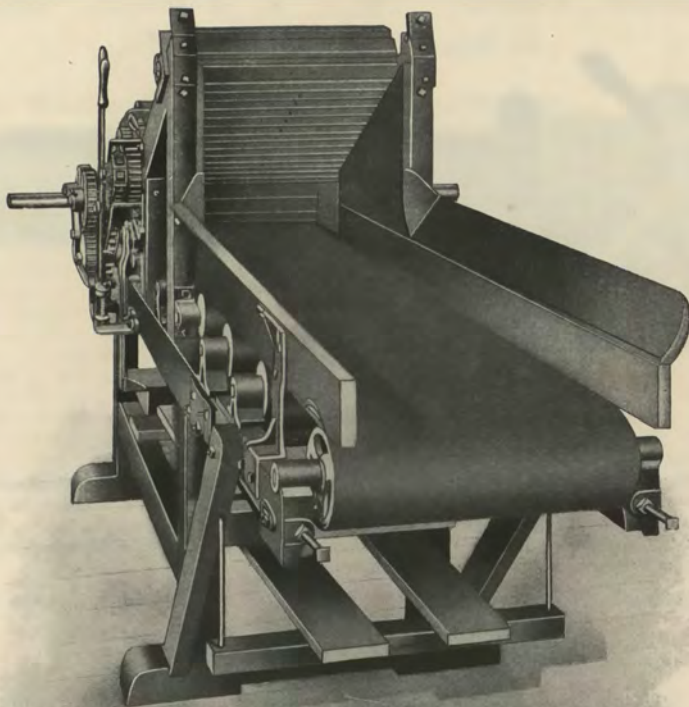


Fig. 792

Sizes and Prices

- No. 20 Cutter, with four 20-inch knives, cuts $\frac{1}{8}$ inch and longer \$375.00 *Sacello*
 No. 24 Cutter, with four 24-inch knives, cuts $\frac{1}{8}$ inch and longer 425.00 *Sacerda*
 For prices of chain elevators see Fig. 799.

“Ohio” Monarch Self-Feed Ensilage Cutter With Blower Elevator

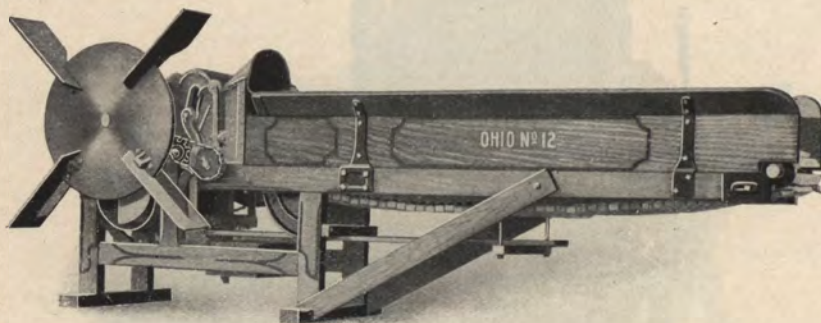


Fig. 802, No. 12.

This illustration of the new No. 12 shows the Blower side of all Monarch machines with fan case removed to give detailed illustration of fan wheel, paddles and manner of attaching same to fan wheel. Note the solidity of wheel and blades or paddles, which are of best steel. Note also the enlarged roomy mouth for receiving feed, which is an improvement this year on all Monarch machines.

Capacity, Power and Speed

No. 12—Capacity, 8 to 10 tons per hour; 6 to 8 horse steam power; speed, 650 to 700 revolutions per minute. Pulley, 12 x 8 inches, leather covered.

Size and Price

No. 12 Monarch Cutter, four 12-inch knives, cuts $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ inch, complete with Blower, covered pulley and Distributer for top of pipe, weight 1425 lbs.			\$160.00	<i>Saburon</i>
10-inch galvanized pipe in 4, 6, 8, and 10 foot lengths, per foot, (weight 4 lbs. to foot)			.90	<i>Sabugal</i>
Extra gears to cut 4 inches long with two knives			5.50	<i>Saboulade</i>
Shredder Blades, each.....			3.00	

DESCRIPTION

General Description of "Ohio" Monarch Machines, Nos. 12, 14, 17, 19 and 22.

"Ohio" Monarchs—What are they?

As compared with the well and favorably known "Ohio" Standard machines, the "Ohio" Monarch machines are stronger and heavier in every part and their capacity is much greater.

They are fitted with the Blower Elevator which elevates the cut silage into the silo as fast as the machines can cut it. Don't buy a Blower expecting to get the "Ohio" capacity with the same power—it isn't made. Do not be "jostled" by erroneous statements and claims regarding power. "Ohio" Blowers have demonstrated their ability to elevate more ensilage per horse power than any other Blower. The reason is plain. The direct-blast leaves no loophole for lost power, but gives it always a positive motion.

See detail cut on page 43.

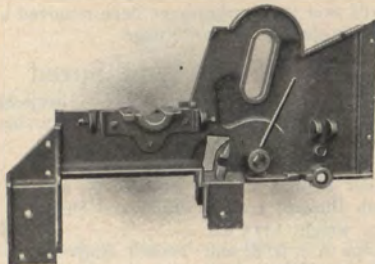
Two more new sizes.

In 1904 we presented for the first time a new line of Silage Cutters and Blowers, the "Ohio" Monarch Nos. 14, 17 and 19. The machines were built on lines similar to the No. 19 as made the year before, but with improved front hood, the Nos. 14 and 17 being entirely new to meet the demand for medium-sized, but strong and powerful machines.

Since then, however, the demand for a still smaller machine with medium power requirements has increased to such an extent that we have launched a new size No. 12 as shown on opposite page.

Many requests were also made for sizes Nos. 20 and 24 with blower attachments instead of swivel Carriers. To meet this increasing demand we are putting out the new No. 22 (as shown on page 48) These two new sizes together with the Nos. 14, 17

The detail cuts on the following pages give a clear idea of the merits of the different parts of the machines.



The above cut shows side plate on blower side of machine. Note the strong, durable construction, also length and size of bearing for main shaft.

“Ohio” Monarch Self-Feed Ensilage Cutter

With
Blower
Elevator

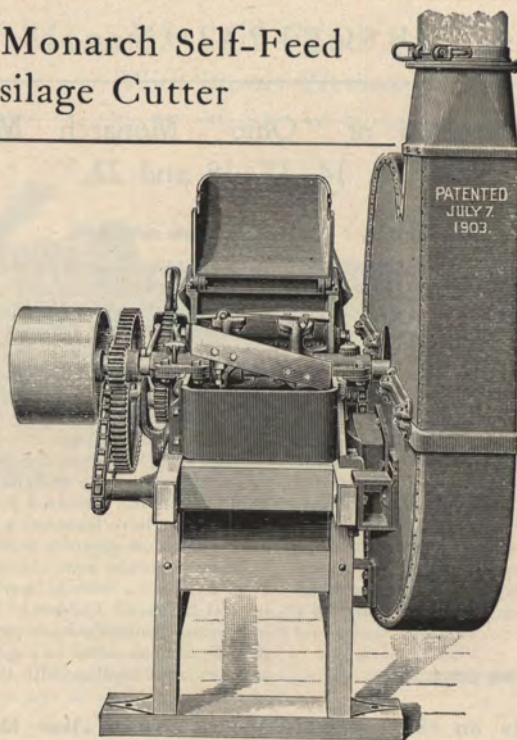


Fig. 802, No. 14

This is a front view of No. 14 showing the hood lifted, and the easy access to the cutting mechanism. The guards over the gearing have been removed to show the latter up plainly. See detail cut of main shaft on opposite page.

Capacity, Power and Speed

No. 14—Capacity, 12 to 15 tons per hour; power, 8 to 10 horse steam power; speed, 650 to 700 revolutions per minute. Pulley, 12 x 8 inches, leather covered.

Size and Price

No. 14 Monarch Cutter, four 14-inch knives, cuts $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$ inch, complete with Blower, covered pulley and Distributer for top of pipe, weight 1475 lbs.			\$185.00	<i>Sabuesas</i>
10-inch galvanized pipe in 4, 6, 8, and 10-foot lengths, per foot (weight 4 lbs. to foot)			.90	<i>Sabugal</i>
Extra gears to cut 4 inches long with two knives.			5.50	<i>Saboulade</i>
Shredder blades			3.50	each

DESCRIPTION

and 19 put us in a position to meet every requirement in the Ensilage Cutter line, besides giving the user every advantage of a large assortment.

General Construction.

In the illustration on page forty the fan case made of heavy steel has been removed to show clearly the strong and rigid construction of the fan wheel and method of attaching the fan blades. In the very center of fan wheel in illustration is seen the end of the main shaft which runs clear through the machine. On this shaft is the cutter cylinder as shown clearly in detail on this page. At farther end of same shaft is the pulley that drives the whole machine. This feature is a very important one, doing away with all lost power, liability of breakage, etc., and giving the great blower capacity for which "Ohio" Monarch machines are noted. The knife shaft is steel, $1\frac{3}{4}$ inches in diameter. The knife heads are very much heavier, the cylinder larger in diameter and there are four strong bolts in each knife in addition to the adjusting set screws at the back. The raise of the feed rolls is greater, thus giving more throat

capacity and better feeding qualities. The conveyor beneath the knives carries the cut silage into the fan case. A wire screen covers the outer end of the conveyor case.

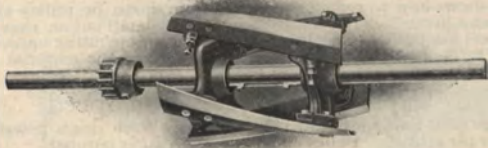
The traveling feed table is the full width of the machine and 8 feet long, taking a bundle of corn readily. The gearing is very strong and is positively guaranteed against breakage when cutting corn. Stop-feed, throw-out levers are provided for both the feed roll gears and the traveling table. The new patented cutter bar and stripping plate are used in all sizes. The pulleys are 8-inch face and leather covered.

The pipe is 10 inches in diameter, in convenient lengths, and the new patented adjustable distributor for the silo is furnished free with each outfit.

See illustration and full description of the distributor on page 50.

The Pipe and Pipe Connections.

The pipe is made of galvanized steel with standing seam on the outside, running lengthwise, being very rigid. It is made in 4, 6, 8 and 10-foot lengths with 10-inch



Above cut shows the main shaft, the method of attaching knives to cylinder; the adjusting mechanism for setting the knives backward or forward, and the way in which cutting cylinder is keyed to main shaft. On one end of this shaft fits the driving pulley, on the other end the blower fan wheel.

“Ohio” Monarch Self-Feed Ensilage Cutter With Blower Elevator

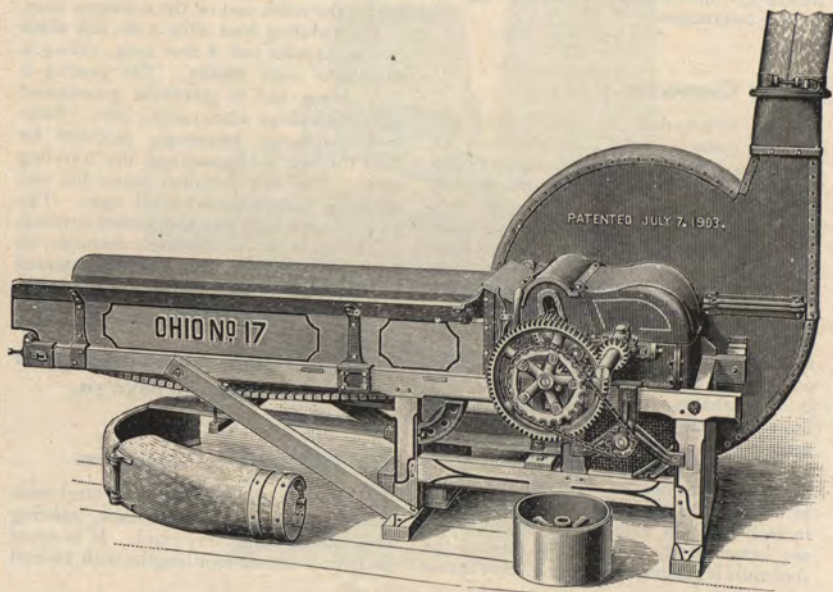


Fig. 802, No. 17

This cut of No. 17 shows how power is transmitted from main or pulley shaft to large gear wheel which operates lower feed roller. By referring to detail cut on page forty-seven where this large gear-wheel has been removed, the mechanism for operating upper feed roller is easily understood. The method of driving auger that conveys cut material to blower is also shown above.

Capacity, Power and Speed

No. 17—Capacity, 15 to 20 tons per hour; power, 10 to 12-horse steam power; speed, 650 to 700 revolutions per minute. Pulley 12 x 8 inches, leather covered.

Size and Price

No. 17 Monarch Cutter, four 17-inch knives, cuts $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ inch, complete with blower, covered pulley and new distributor for top of pipe, weight 1525 lbs.			\$220.00	<i>Sabueso</i>
10 inch galvanized pipe in 4, 6, 8 and 10 foot lengths, per foot (weight 4 lbs. to foot)			.90	<i>Sabugal</i>
Extra gears to cut 4 inches long with two knives			5.50	<i>Saboulade</i>
Shredder blades for No. 17			4.25	each

DESCRIPTION

slip joints and a clamping band at each joint. The pipe connection 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. The new patented "Ohio" Silage Distributer which is to connect to upper end of pipe and convey the cut ensilage into the silo and distribute it therein is included with each machine.

Set Pipe Nearly Perpendicular for Ensilage ; Dry Feed can be Blown in any Direction.

If lateral delivery is desired, suitable elbows can be furnished at slight cost. For green silage it is necessary to carry the pipe nearly perpendicular to height of opening and the distributer at top will direct the silage into silo. Dry cut or shredded fodder may be blown in almost any direction by proper use of suitable elbows.

The "Ohio" Silage Distributer is a distinctive feature to be had only with "Ohio" Blowers—see illustration and description on page 50.

Will Do Successful Work with Less Power Than Indicated.

If the rated power is not at hand, the machines may be fed accordingly and satisfactory work done. Under ordinary conditions either size will cut and elevate green corn at the rate of one ton or more of ensilage for each horse power applied, per hour. Some may not have the rated power, or might not want to provide a sufficient force of men and teams to deliver corn to keep the cutter supplied.

We Guarantee Satisfaction.

We especially recommend this line of blowers to purchasers, knowing that they will give satisfaction, as they are strong, powerful machines that will stand up under long and hard service.

Shredding Fodder.

The new patent-applied-for shredder blade should be run at 600 to 700 revolutions per minute while shredding, and is a



This shows the auger that conveys cut material to the blower. It is placed immediately beneath the knives and is operated by sprocket chain from main gear, as shown in illustration on page 44.

“Ohio” Monarch Self-Feed Ensilage Cutter

with
Blower
Elevator.

This cut illustrates the guards over gearing, a new feature this year. A very fine view of the machine in its entirety. The hood over cutting cylinder is closed down ready for action.

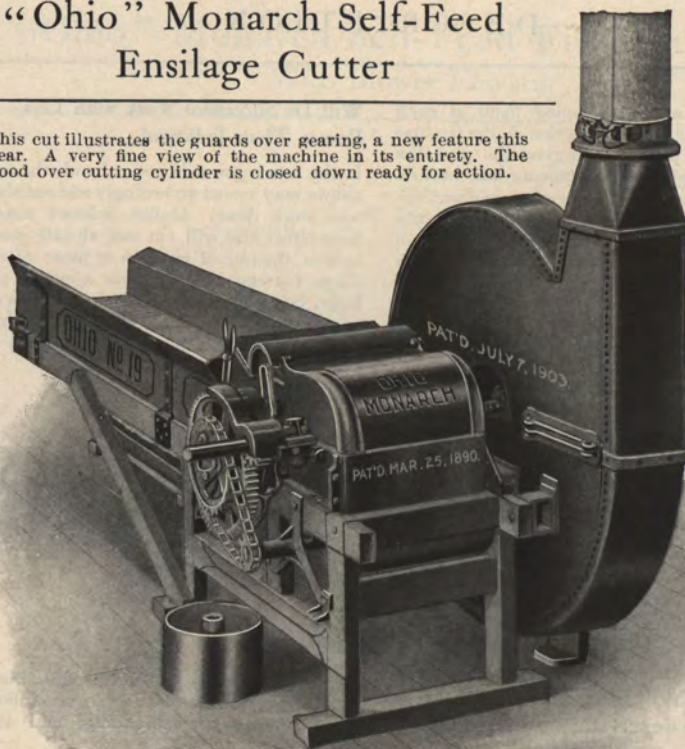


Fig. 802, Nos. 19 and 22

Capacity, Power and Speed

- No. 19—Capacity, 20 to 25 tons ensilage per hour; power, 12 horse steam power; speed, 650 to 700 revolutions per minute; pulley, 12 x 8 inches, leather covered.
No. 22—Capacity, 25 to 30 tons ensilage per hour; power, 14 to 16 horse steam power. Speed and pulley same as No. 19.

Size and Price

- No. 19 Monarch Cutter, four 19-inch knives, cuts $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$ inch, complete with blower, covered pulley and new distributor for top of pipe, weight, 1575 lbs. \$250.00 *Saboterie*
No. 22 Monarch Cutter, four 22-inch knives, cuts $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$ inch, complete with blower, covered pulley and new distributor for top of pipe, weight 1625 lbs. 300.00 *Saburrado*
10-inch galvanized pipe in 4, 6, 8, and 10-foot lengths, for No. 19 or No. 22 Cutter, per foot (weight 4 lbs. to foot)90 *Sabugal*
Extra gears, to cut 4 inches long with two knives, Nos. 19 and 22 5.50 *Saboulade*
Shredder blades for No. 19, \$4 85; No. 22, 5.65 *each*

DESCRIPTION

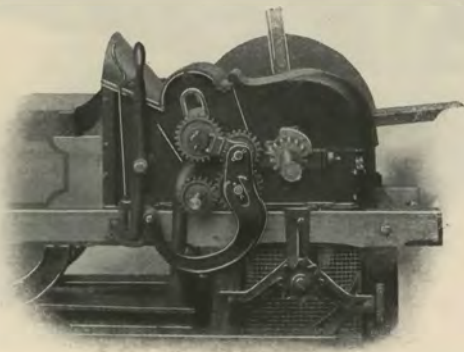
notable advance in construction, enabling the operator to shred dry fodder or corn stover with the blower. There is a great saving in power, also, as compared with the tooth- or saw-blade type of shredder, besides saving the leaves in much better condition.

See patented silage distributor on page 50.

Construction of Fan Case.

The fan case is made of heavy steel, and acts as a covering for the fan wheel, which is mounted on the main shaft of cutter, thus making the drive direct and the motion positive. All parts are put together with a view of absolute safety. An auger conveys the cut material into the fan case.

Read the excellent testimonials throughout this catalogue regarding capacity and power.



The above cut shows very clearly the throw-out lever. The large gear wheel as shown on page 44 has been removed. The left hand top gear wheel as shown above is attached to upper feed roller. Thus it will be easily seen how the gears follow in unison as feed-roller raises or lowers according to quantity being fed. This feature is patented, therefore exclusive with us. The lower sprocket wheel is attached to auger shaft.

The cut also shows the new enlarged mouth of feeder.

New Steel Truck

For Mounting "Ohio" Ensilage Cutters.

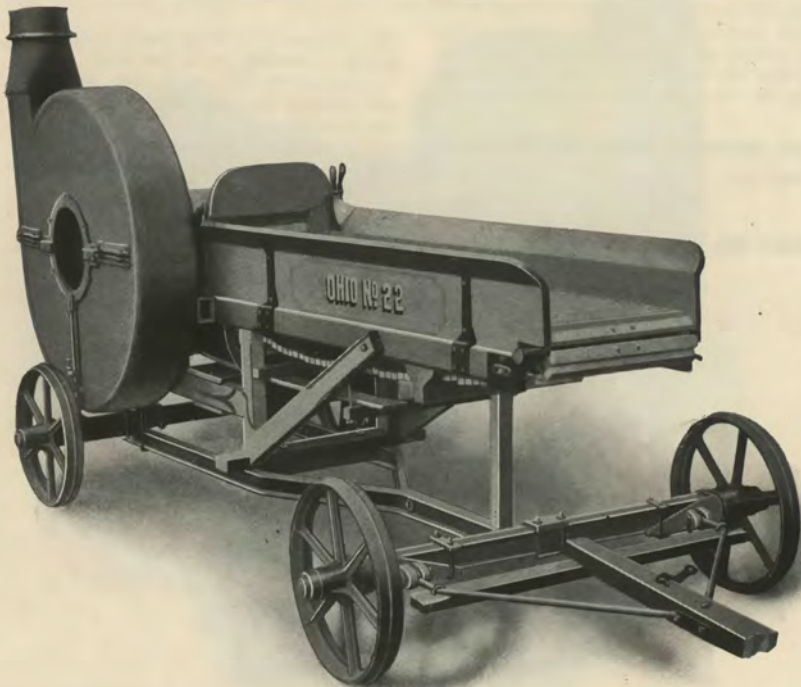


Fig. 815

The above cut illustrates our new No. 22 "Ohio" Ensilage Cutter and Blower, mounted on our new steel Truck, which is fully described on opposite page.

The No. 22 Cutter and Blower is similar to all other "Ohio" Monarch machines, with the exception of its size and capacity; these are listed on page 46.

Price of Truck.

Without neck yoke or doubletrees, weight 600 lbs. \$50.00 *Sacabalas*

DESCRIPTION

Description of New Steel Truck.

Description of New Steel Truck.

From the illustration it will be seen that the new trucks are designed and made especially for the purpose intended, so that they practically become a part of the machine, and are not something merely to set the machine upon.

Its extreme Simplicity.

The extreme simplicity of the new truck at once attracts attention. All the cumbersome woodwork of the old truck has given place to a neat, simple, attractive frame of steel. The increased strength and durability is at once apparent. There are no side rails to come in contact with the front wheels on sharp turns, which is a great convenience.

Materials.

The steel is of the very best obtainable and is painted black. Every part is a strong part, of ample weight and made to perform its particular work perfectly. The wheels and spindles are cast iron. The spindles have the regular taper and set, insuring as light draft as possible.

Rib Strengthens Wheels.

The wheels have a strong rib in the middle of the tire, which strengthens the wheel and prevents slipping on muddy roads. Both ends of the hubs are provided with wide mud bands, to protect the spindles from dirt.

The Frame.

The frame is of steel throughout. The axles are made of standard 3 inch I beam

steel and the reach is 3 inch steel channel. Distance between front and rear axles is 8 feet, 4 inches. The wheel tread is 5 feet, 2 inches. The cast iron wheels, 24 inches in diameter are built to wear. The frame is securely put together.

The Tongue.

The tongue is held in place by means of pins and cotters and can therefore be quickly and easily detached.

Height of Machine.

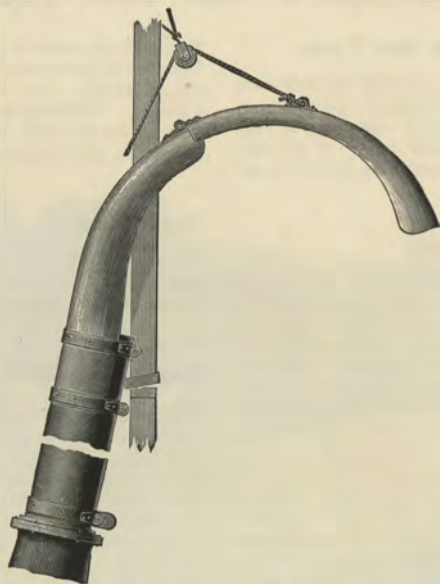
When mounted complete the machine is but 12 inches from ground and the top of feed table 45 inches from ground. By sinking the wheels or removing them, the axles may be let down on to the ground, in which case the machine would be but 3 inches from ground, the thickness of the steel reach. The highest point of feed table would then be only 36 inches from ground, thus no staging or platform would be required to get corn to the machine.

Adaptability.

This outfit is suitable for all sizes of "Ohio" silage cutters with traveling feed tables, both blower and carrier styles, and is recommended as a thoroughly practical, economical and satisfactory mounting for all parties who wish to move their machines frequently or regularly. All parts are interchangeable, and in case of accident may be readily replaced.

Weight—600 lbs.

"Ohio" Silage Distributer



The "Ohio" Silage Distributer.

The new distributer is a curved, jointed elbow, 5 feet long, open on the under side so as to prevent back pressure. Firm attachment to the pipe is secured by two clamping bands around the upper end of the pipe. There is a hinged joint at the middle of the curve, which allows the outer end to be raised and lowered by means of a rope reaching to the ground, thus directing the cut material toward any point across the silo.

Distribution of Cut Ensilage in Silo.

By means of the swivel at the bottom of the pipe, the hood can be turned to the right or left, and in this manner the cut ensilage may be evenly distributed over the entire silo during the process of filling.

No Help Required Inside the Silo.

The great force with which the "Ohio" Blower delivers the corn packs the ensilage well, and in case of scarcity of help the silage can be safely stored without any men in the silo at all, by a little attention from the operator of the machine on the ground. A $\frac{3}{4}$ -inch swivel rope pulley for adjusting the outer end of the distributer is included.

This distributer is patented and a distinctive feature to be had only with "Ohio" Blowers, thus being another step toward maintaining the unquestioned lead and superiority of these eminently satisfactory machines.

Important.

The cut ensilage should be directed to the outer edge of the silo at all times, thus keeping it high and packing it there, letting the center take care of itself. The weight of the silage packs it in the center.

No. 18 "Ohio" Cutter and Blower
Filling World's Fair Silo at St. Louis



THE "OHIO" SELF-FEED BLOWER ENSILAGE CUTTER

was the Only Ensilage Cutter Exhibited at the
LOUISIANA PURCHASE EXPOSITION

held at

ST. LOUIS, MO., 1904

that Received the Distinction of Being Awarded a

GOLD MEDAL

Picture of Barn and Silo on Maple Creek Farm
Near Kinsman, Trumbull Co., Ohio



The Property of Mr. F. L. Allen. Read His Very Instructive and Interesting
Letter, on Following Pages, Regarding Silage.

15 Years' Experience with the Silo

By F. L. Allen

MAPLE CREEK FARM

The Silver Manufacturing Co., Salem, Ohio.

Kinsman, Ohio, March 23, 1905.

Gentlemen—Complying with your request, I submit the following as embracing my experience of 15 years with the silo, and in feeding silage for milk and beef:

Economy of the Silo.

The silo cannot be looked upon as the only essential element of success in farm practice, yet there are many distinct advantages to be gained from its use. In the first place, it enables one to use the entire corn crop. The analysis of the corn plant shows that nearly one-half its food value is in the stalk and leaves after the ear has been removed. It also shows that there is the most digestible matter in the crop just at its maturity, before it dries and hardens. By the usual methods of handling the crop, a large part—frequently all—of the fodder is wasted, and a distinct loss is incurred by allowing the crop to dry out. The use of a silo enables the feeder to avoid these losses, for he can take the entire crop from the field just at the time when it contains the most digestible food value, place it under cover at the barn, convenient for feeding, succulent, digestible, palatable, in such condition that it will all be consumed.

We value the silo as a source of an abundant supply of cheap, succulent food for the winter months or seasons of drouth. Silage, if properly put up, will keep for an indefinite time. We have fed it four years old as "good as new." It is worth while to have it on hand ready to supply the need at any time.

Silage Differs in Composition.

Many farmers seem to forget that the silo merely preserves what is put into it. One can never get anything out of a silo that he doesn't first put in. If soft, immature corn is put into the silo, the silage will be sour, washy stuff, with little "body" to it, and its feeding will be a disappointment. On the other hand, if good, mature, well-cared corn is siloed, the result will be a strong, nutritious food, highly satisfactory.

Chemical analysis of the corn plant shows that it nearly doubles in feeding value between the time it reaches its full growth (tasseled) and maturity. The feeding value of silage will correspond with the maturity of the corn siloed.

Silage Not a Perfect Food.

Probably most will agree that good blue grass pasture is the cheapest and most satisfactory,

all-around food for growth or milk. Now, if we will compare the analyses of blue grass pasture and good silage, we will find them almost identical except in the matter of protein, in which element silage is deficient:

	Water	Protein	Carbohydrates	Fat
Pasture grass	80	2.6	10.6	.5
Silage	79	1.2	11.8	.6

By comparing the analyses we will see that to make silage an economical food, and to get the most out of it, it is necessary to feed in connection with it some food rich in protein. It has been our experience that by using the succulent silage as a basis for our ration and adding sufficient protein to duplicate the analysis of pasture grass, we can have very nearly summer food and secure very nearly summer results in the winter. We have a theory that inasmuch as silage is a summer food—that is, has the succulence of summer food—summer conditions of warmth should be provided to go with the food. Nature in wisdom provides the succulent grasses for the warmth of summer and dried grasses for the cold of winter. Possibly many disappointments may be traced to a failure to provide suitable conditions for the feeding of silage.

Cost of Silage.

Silage is one of the cheapest foods the stockman can use. The cost of growing an acre of corn to maturity will be about as follows: Use of land, \$5; plowing, \$2; fitting, \$1; planting, 50 cents; seed, 25 cents; cultivating, \$1.25. Total cost of an acre of corn at maturity, \$10. It will be seen at once that these are very liberal allowances, giving the farmer a good income from his investment, and good wages for all time spent in producing the crop. On good land, with good care, and in a fairly favorable season, a crop of 16 to 20 tons per acre is not at all unattainable, making the silage cost on the ground, 50 to 60 cents per ton. With modern machinery and good management, it can be put into the silo for 35 to 40 cents per ton. Indeed, with our large machinery and strong force of men, we have put it in the silo for less than 30 cents. Interest on the cost of a silo, and deterioration of the silo, will add 10 cents more, making the total cost of a ton of silage \$0.95 to \$1.10.

Fifty pounds of silage per day is a good ration for a grown animal. Forty days'

15 Years' Experience with the Silo—Continued

feed for a dollar! And an acre of good corn will feed three or four animals 200 days, or through the winter. Surely there is no cheaper food.

Filling the Silo.

We have found that we fill the silo much cheaper by using machinery of large size, and employing a sufficient force of men to keep it running to its full capacity. Our machine, which is a company affair, is a 24-inch "OHIO," and will handle about all the corn that can be got to it. Our force consists of five or six teams and wagons, according to the distance of hauling, six men in the field to load the wagons, two men at the cutter to help driver unload, and one man in the silo. The corn is cut with harvester and tied in bundles as large as a man can lift. We divide our help in the field into two companies or gangs, three men loading half the wagons and three the other half. Thus they are not in each other's way, and three men can hand the bundles up to the loader as fast as he can place them. We load the wagons beginning at rear end, building up a tier of bundles against the rear standard, then another, till the load is completed, and placing them so that butts will be toward the machine in unloading. Loaded in this way, the bundles do not overlap and bind each other, and three men at the machine, each taking a bundle in turn, and placing it in the cutter, can feed the largest machine to its full capacity, and unload a wagon in a surprisingly short time. In a trial we have unloaded a 3500-pound load, cut it in $\frac{3}{4}$ -inch lengths, and elevated it into a 46-foot silo in a fraction over three minutes. With good corn we can put in 20 tons per hour, at a cost of less than 30 cents per ton. The more modern blower has many advantages over the old carrier and very

rapid work may be done by some of the new machines.

Silage for Milk.

It is generally admitted that the silo is a good thing in the dairy. In the dairy section of Ohio it has found a place on most dairy farms and is considered indispensable, especially for winter milk. It is our practice to feed silage the year round, excepting perhaps a couple of months in the early summer, when the pasture is at its best, and we have come to value it nearly, if not quite, as highly to supplement summer pastures as for the winter ration.

Silage for Beef.

While most persons are now ready to admit that silage is a desirable food in the dairy, many yet question its value in the production of beef. Theoretically the ration that will produce a large flow of milk ought to promote the growth of the young beef animal. Our experience proves the truth of the theory as far as silage is concerned. Just as the milk cow in winter approximates summer results in milk, when silage is used as a basis of the ration, so the young steer approximates summer results in growth on the same ration. We have had steers make an average gain of three pounds per day for a short time on a silage ration balanced with protein grain, such as the gluten feeds.

One thing has not been mentioned, and that is the health and thrift of the animals, whether milk cows or steers. Our animals always shed in March, are always in condition and ready to make rapid gains on the first grass of spring. We have fed silage to horses, brood sows and poultry with very satisfactory results.

Yours truly,

F. L. ALLEN.

No. 19 "Ohio" at Hartman Stock Farm,
Columbus, O., owned by Dr. Hartman of Peruna Fame.



Hartman Stock Farm.

The Silver Mfg. Co., Salem, Ohio.

Columbus, Ohio, Nov. 27, 1905.

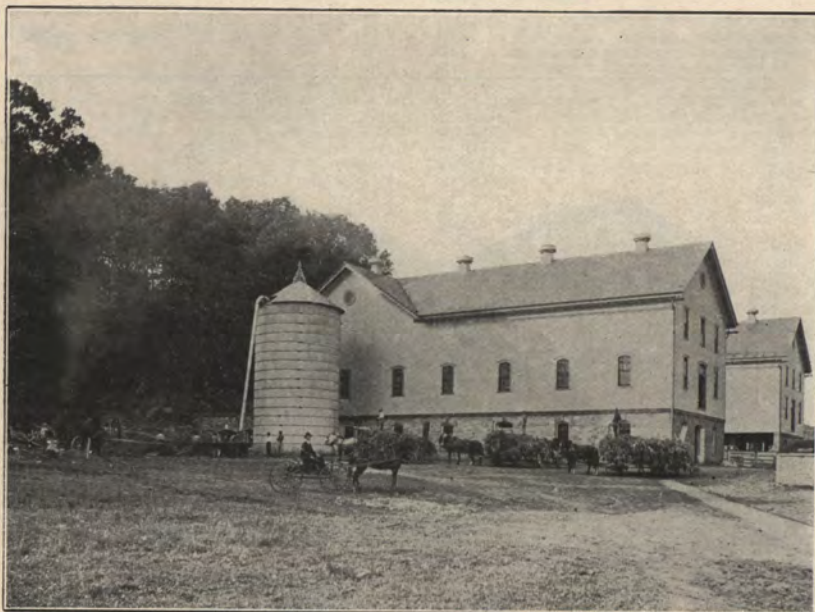
GENTLEMEN—The No. 19 Silage Cutter bought of you during the summer has given entire satisfaction. We cut six hundred and fifty tons of silage without an accident. Are now using same for shredding fodder, for which it is a success.

I can highly recommend the machine to anyone.

Respectfully,

HARTMAN STOCK FARM,
Per F. S. MILLER, Supt.

State Hospital for the Insane, Warren, Penna.
No. 19 "Ohio" Evidently Entirely Satisfactory.



State Hospital for the Insane.

Warren, Penna., Sept. 21st, 1905.

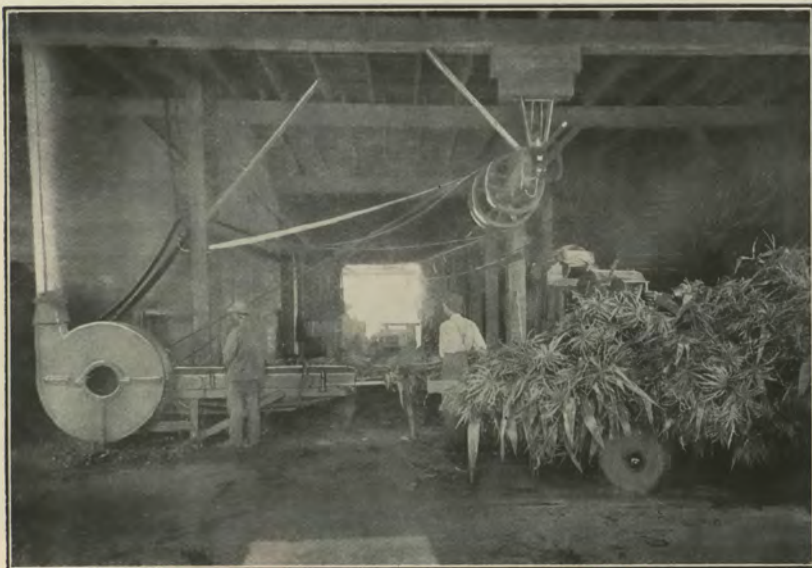
Silver Mfg. Co., Salem, Ohio.

GENTLEMEN—I send you by same mail several proofs of cutting ensilage with the "Ohio." After examination let me know which you want a photo of and return all to me, and will then have picture made, and forward to you.

Write out about what you want me to say in regard to the "Ohio" and I will endorse its good work.

Very truly,
J. W. GREENLAND, Steward.

No. 16 "Ohio" at Ohio Experiment Station,
Wooster, Ohio.



Ohio Agricultural Experiment Station.

Wooster, Ohio, Oct. 9th, 1905.

The Silver Mfg. Co., Salem, Ohio.

GENTLEMEN—We have used your No. 16 "Ohio" self-feed Blower Ensilage Cutter for three seasons now with great satisfaction. You make no claims which continued use of your Cutter does not justify.

Yours very truly,
C. G. WILLIAMS, Agriculturist.

Used No. 14 "Ohio" Monarch with Blower
to Fill His 200-Ton Silo and Five Others, Without a Break



BARROW'S FARM.

Dairy Department.

John Deere Plow Co., St. Louis, Mo.

Roodhouse, Ill., Dec. 13, 1904.

DEAR SIRs—I used for the first time this season one of the No. 14 "Ohio" Ensilage Cutters. It more than did what it was recommended to do. I filled my 200-ton silo and five others in my neighborhood—altogether over 1000-ton capacity. Ten-horse power steam was all the power needed, and the machine would do the work for ten teams one-half mile from machine, with plenty of time to oil up.

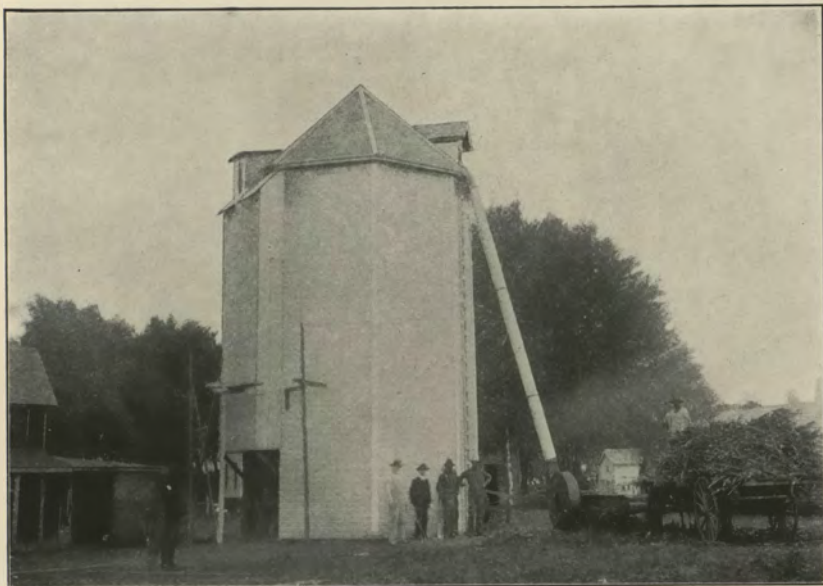
I did not have a breakage of any kind and the blower is a dandy. I am now using the machine for cutting dry stover and it does the work fine.

I take pleasure in recommending the machine.

Yours truly,

A. H. BARROW.

A No. 16 "Ohio" Self-Feed Cutter with Blower
Filled Silo at Spring Valley Farm, Lamar, Mo.



Spring Valley Farm.

Patterson Machinery Co., Kansas City, Mo.

Lamar, Mo., Nov. 22, 1904.

GENTLEMEN—We have just finished filling our silo of 135 tons capacity with the "Ohio" No. 16 Self-Feed Blower Ensilage Cutter.

The engineer estimated that he had a four days' job, but we filled the silo in two, working about nine hours a day. We did not make a short test of its capacity, but will say that it took one bundle after another as fast as we could feed it, and ran steady and true all day.

I can't say enough for the traveling feed table—it just saves a man and works more perfectly than a man could possibly have fed it.

Sincerely yours,

H. H. HYLAND.

The New Hampshire College, Durham, N. H.

Two Seasons Cutting without a Single Expense for Repairs.



Silver Mfg. Co., Salem, O.

Durham, N. H., Oct. 20, 1905.

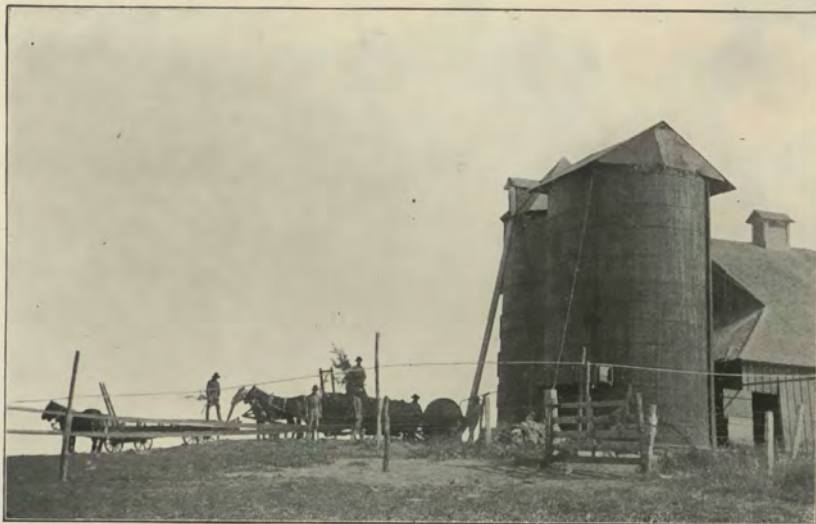
GENTLEMEN—Enclosed you will find photographs of the No. 13 "Ohio" Ensilage Cutter with Blower elevator in operation here at the College farm. We purchased this Cutter a year ago this fall and in cutting the two season's crops of about 120 tons each, have not had a single break or piece of repairs.

We run this Cutter with a six horse power steam engine set on the floor near it, the steam coming from our central boiler house about 100 yards away. Although this amount of power is not sufficient to run the machine at its full capacity, we can easily cut three tons per hour. Our dry fodder is cut and blown up over and across the silo into a bay beyond. We have found it necessary to take the knives off for grinding only about once for every 100-tons of corn cut. The traveling apron and the distributor at the end of the pipe are two splendid labor saving devices.

I can most unqualifiedly recommend the "Ohio" Cutter.

Yours very truly, F. W. TAYLOR, Prof. of Agriculture.

An "Ohio" Self-Feed Cutter with Blower Filled the Two Silos



Clover Hill Dairy Farm.

Patterson Machinery Co., Kansas City, Mo.

Hale, Mo., Nov. 3, 1904.

GENTLEMEN—You will find enclosed my check to balance our account. The picture of silo and silage cutter will be sent to you by express.

The "Ohio" Self-Feed Cutter with Blower Elevator did fine work for us this year; the self-feed did not bother us at all. I am well satisfied with the machine—a man makes no mistake when he buys the "Ohio."

Yours truly,

WM. PLUMMER.

This Cutter is a No. 18 "Ohio" Self-Feed with Blower Elevator



Silo Filling on T. C. Wilsie's Farm.

The Silver Manufacturing Co., Salem, Ohio.

Brandon, Wis., Oct. 22, 1904.

GENTLEMEN—The silo is 21 feet in diameter and 33 feet deep, holding about 225 tons. The cutter is a No. 18 "Ohio" with Blower, purchased in 1903. The engine used this year is a 16 H. P., but we used a 10-H. P. engine last year, and it handled the cutter O. K. By keeping the knives sharp the amount of power necessary is materially reduced. We have run through many a load in four minutes by the watch, but have never been able to keep the cutter running at full capacity for one hour, as it is impossible to handle the corn fast enough to do this. It does not seem to be a question as to how much a machine will take, but how much you can get to it.

The blower is simply immense—I would have no other kind of elevator. The new distributor is just right, too. I am just simply carried away with this 1903 18-inch machine, and think it about as near a general-purpose silage cutter as there is on the market.

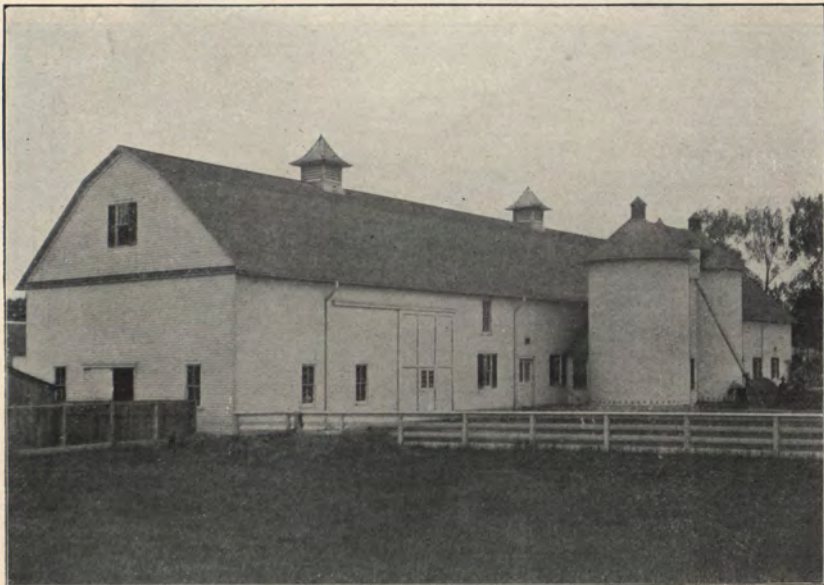
Other "Ohio" Cutters you have sold in this vicinity are all giving good satisfaction.

Very truly yours,

TITUS C. WILSIE.

Home of the Old Orchard Jersey Herd

Painesville, Ohio



Old Orchard Jersey Herd.

W. H. SILVERTHORN, Proprietor.

The Silver Mfg. Co., Salem, O.

Painesville, O., Nov. 1, 1904.

GENTLEMEN—We are sending you by mail, under separate cover, photograph of our barn, silos and the "Ohio" Ensilage Cutter purchased of you, taken while filling.

Respecting the capacity of the No. 18 "Ohio" Self-Feed Blower Ensilage Cutter, will state that the only trouble we had was to get the corn to it fast enough. One load weighing 3000 pounds was cut in five minutes without extra feeding.

Respecting the barn, it is 202 feet long, 40 feet wide, 12-foot ceiling; floor of feeding passage, 15 feet wide. Our herd of Jerseys numbers 105 to date, all registered excepting one calf three weeks old.

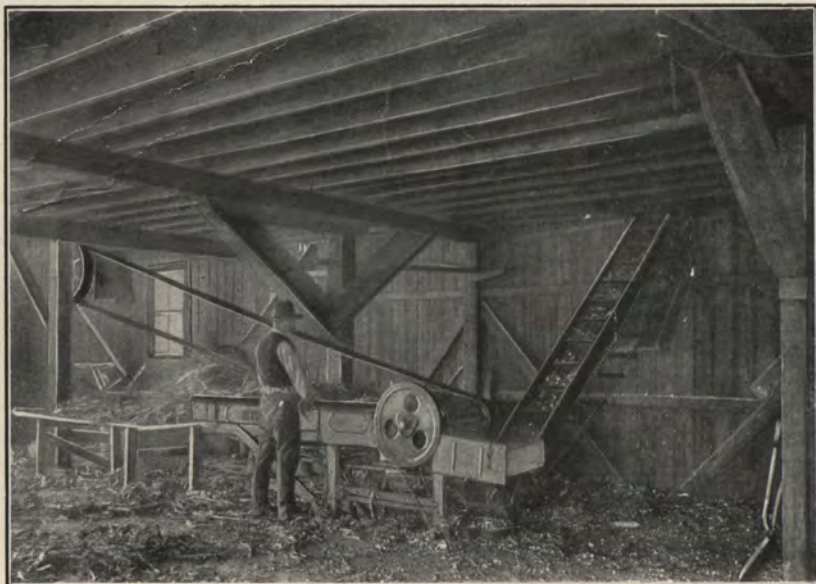
The ensilage cutter works to our entire satisfaction.

Yours truly,

A. H. CURTIS, Farm Manager.

College of Agriculture, West Raleigh, N. C.

Third Season and no Expense for Repairs.



Department of Agriculture

West Raleigh, N. C., Sept. 9, 1905.

The Silver Mfg. Co. Salem, Ohio.

GENTLEMEN—I am sending you under another cover a photograph showing the "Ohio" Ensilage Cutter at work on the college farms. It is the best photograph we could get under the circumstances.

I want to express to you the thorough satisfaction that this machine is giving. This is the third season and we have not been to a single expense for repairs. This machine is thoroughly satisfactory in every way. We are making a great campaign for silos and ensilage in our part of the country. I believe before long the middle south will be one of the greatest ensilage sections in the country.

Yours very truly,

C. W. BURKETT Prof. of Agriculture.

Have Used Blower Elevator Two Consecutive Seasons with Entire Satisfaction



Indiana Experiment Station.

The Silver Mfg. Co., Salem, Ohio.

Lafayette, Ind., March 31, 1904.

GENTLEMEN—Replying to your letter of recent date, inquiring about our success with the “Ohio” Ensilage Cutter and Blower Elevator purchased recently, will say that it has given perfect satisfaction in every respect. I have used it for two consecutive years and am satisfied with the result.

Very respectfully yours,

J. H. SKINNER, B. S., Animal Husbandryman.

No. 16 "Ohio" Cutter and Blower Elevator at the New Jersey Agricultural Experiment Station



New Jersey Agricultural Experiment Station.

CLARENCE B. LANE, Dairy Husbandman.

The S. P. Lummus Supply Co.,

1917 Market St., Philadelphia, Pa.

New Brunswick, N. J., Nov. 14, 1903.

GENTLEMEN—The No. 16 "Ohio" Self-Feed Ensilage Cutter with Blower Elevator, purchased of you for use at this institution, was driven by a 10 horse-power steam engine the past season, and this motive power ran the cutter to its full capacity. Last year we endeavored to drive the machine with a 15 horse-power gasoline engine, but without success, this motor failing to run the cutter to its full capacity. We are pleased to state that the 10 horse-power steam engine supplied plenty of power and was far superior to the gasoline engine used last year.

Yours very truly,

CLARENCE B. LANE, Dairy Husbandman.

"Ohio" Cutter Operated by Convicts At West Virginia Penitentiary.



West Virginia Penitentiary.

Moundsville, W. Va., September 15, 1905.

The Silver Mfg. Co., Salem, Ohio.

GENTLEMEN—I am sending you herewith a photo of the silage cutter working, as requested. I might say in explanation that this silo is built inside the barn and is of brick construction, cemented inside and out. It is 34 feet high and 10 feet in diameter. The brick were made by convicts and all the work of construction was done by convicts. All the work of cutting the silage is done by convicts under the supervision of an officer.

Yours truly,
C. E. HADDOX, Warden.

A Stone Silo in Wisconsin

Owner Uses No. 19 "Ohio" Monarch Self-Feed Cutter and Blower



The Silver Mfg. Co., Salem, O.

Fond du Lac, Wis., Nov. 14, 1904.

GENTLEMEN—The accompanying cut is a fair representation of my silo and buildings adjoining. I am using one of your No. 19 Self-Feed Cutters with Blower, which I consider to be one of the best feed cutters on the market. I cut annually about 200 tons of silage. If everything works right it takes about three days. I would not be without silage as a food for cattle. I can highly recommend the "Ohio" Feed Cutter to anyone wanting a first-class machine. Shall be pleased to answer any inquiries regarding same from my farmer friends.

Yours truly,
S. C. STANCHFIELD.

No. 19 at North Dakota Agricultural College Agricultural College, N. D.



The Only Trouble is to Get the Corn to it Fast Enough.

The Silver Mfg. Co., Salem, Ohio.

Agricultural College, N. D., Oct. 6, 1903.

GENTLEMEN—I have used one of your "Ohio" Ensilage Cutters for several seasons and am well pleased with the grade of work it does. The No. 19 "Ohio" Monarch Self-Feed Ensilage Cutter with Blower Elevator, purchased this season for use at the Agricultural College, has done its work satisfactorily.

I was doubtful at first about the blower attachment elevating the green fodder 30 feet high into the silo. I find, however, that the only trouble was to stop the ensilage when it reached the top, for when we first started it shot across and broke the dormer window on the opposite side, 24 feet away.

The ensilage cutter we used here before had an ordinary chain elevator. Our silo at that time was only 20 feet high and we had a great deal of trouble with the elevator. We were constantly having to stop to repair or adjust it, but with your machine the only trouble is to get the green corn to it fast enough.

You will notice by the picture that we have built a house over the cutter. We like it in position from year to year, and by another season it is our intention to build a shed over the traction engine and let it remain there so we can shred or cut fodder to put into the mow ready for feeding at any season of the year without necessity of moving either cutter or engine.

Yours respectfully,

J. H. SHEPPERD, Dean and Vice Director.

No. 16 "Ohio" Ensilage Cutter
at the University of Nebraska



The University of Nebraska
Agricultural Experiment Station

The Silver Mfg. Co., Salem, O.

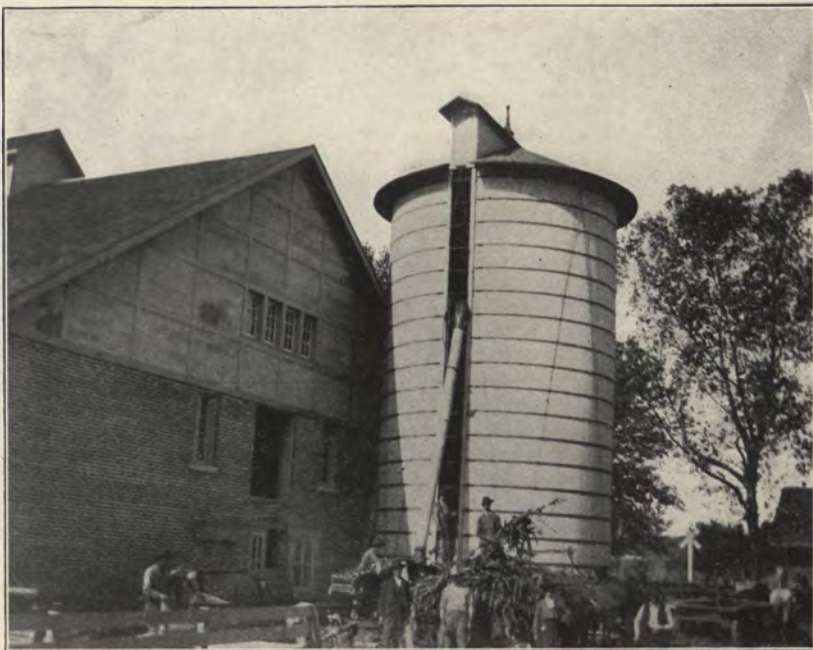
Lincoln, Neb., Oct. 30, 1903.

GENTLEMEN—Referring to the No. 16 "Ohio" Self-Feed Ensilage Cutter with Blower Elevator, purchased of you recently, will say that the cutter gave us good satisfaction. We did not make any test of its capacity. We were three days filling a silo of 117 tons capacity.

Very truly yours,

E. A. BURNETT, Director,
Animal Husbandman.

Two "Ohio" Blower Machines At Extensive Farm of Wm. J. Johnston, Horine, Mo.



St. Louis, Mo., Oct. 15, 1906.

John Deere Plow Co., St. Louis, Mo.

GENTLEMEN—I wish to tell you that I am very well pleased with the "Ohio" Monarch self-feed Ensilage Cutter No. 19, with Blower attached. We cut and put away 35 acres of corn, 13 acres of cow peas, filling my silo in six days, (silo 8 feet in the ground, 36 feet high above ground, 20 feet diameter) and you may enter my order for and ship me another Cutter No. 14 with Blower attached, for cutting dry feed; this machine to be a fixture in my barn loft, cutting feed on rainy days. My power is electric and large machine will be moved from barn to barn as needed.

Yours truly,

WM. J. JOHNSTON, Horine, Mo.

Silage Distributer

Distributes and Packs Silage in Silo, and thus Saves Cost of Manual Labor



Brook Dale Farm.

DILLWYN STRATTON.

Registered Jersey Cattle.

Economic Production a Specialty.

The Silver Mfg. Co., Salem, Ohio.

Winona, Columbiana Co., O., March 29, 1904.

GENTLEMEN—The above cut is a good view of our "Ohio" Ensilage Cutter and Engine at Brook Dale Farm. We cut over 800 tons of ensilage into our silos without a single break. Picking up the bundles of fodder from stony ground, many small stones must have gone into the cutter, but how those knives dodged or waded through all this is truly wonderful.

The necessary power was quite reduced from any method heretofore devised for pneumatic elevation, so the important items of coal and water were not near the burden we were used to. The little 10 horse-power engine coupled with the No. 19 "Ohio" Cutter really made more than a match for the endurance of the men. An occasional load would pass over the traveling feed, through the knives and into the silo in two and one-half minutes.

The distributing device on the end of pipe deflects the current to different parts of the silo under the control of the feeder at the cutter, so that the surplus inertia that used to cut holes in the roof was bridled and made to do duty placing the packed silage instead of high-priced manual labor. In some cases no trampers or levelers were in the pit until filled so as to step back and forth from the top.

Truly yours,

DILLWYN STRATTON,

Ex. President Ohio State Dairymen's Association.

Ensilage Elevated with Blower Elevator Worth 50 Cents per Ton More Than by Former Methods



Moyer Dale Farm.

H. A. MOYER, Breeder of High-Class Holstein-Fresian Cattle.

Silver Mfg. Co., Salem, Ohio.

Syracuse, N. Y., Nov. 11, 1903.

GENTLEMEN—I am pleased to say that the No. 16 "Ohio" Self-Feed Ensilage Cutter and Blower Elevator which I purchased of you has been a very satisfactory machine, and one of the best that I have ever bought for my farm.

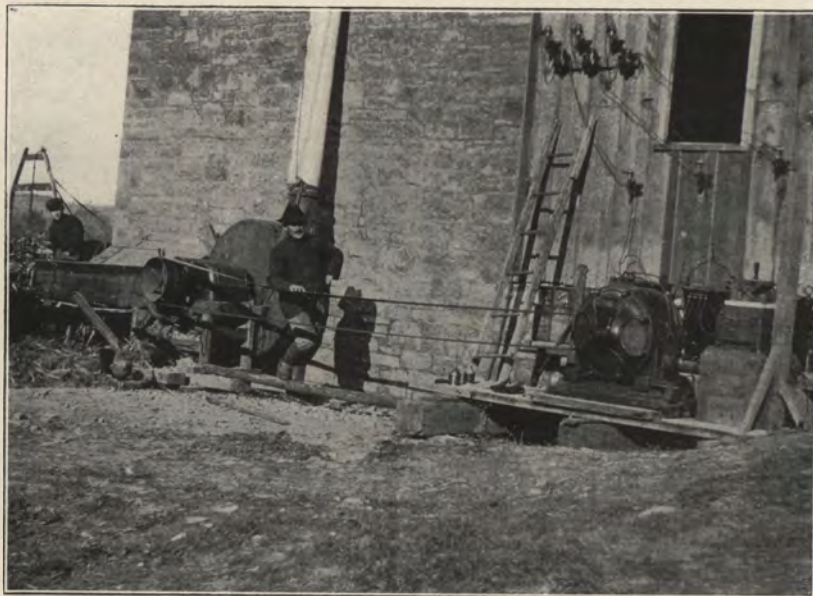
I have now used it for two years to fill my silos and I will say that it is impossible to get corn to it as fast as the machine will cut it.

The blower elevator pleases me much better than the chain-carrier elevator, as I consider ensilage made that way worth at least 50 cts. per ton more, on account of the blower whipping the stalks in pieces, and shelling the corn from the cobs, thus making a much finer quality of ensilage.

I would not take the old-style machine as a present. It therefore pleases me to recommend your ensilage cutter with blower elevator as one of the best machines possible to buy.

Very truly yours, H. A. MOYER,
Manufacturer of fine carriages and road wagons.

No. 17 "Ohio"
Driven by 10 Horse Power Electric Motor.



Little Falls, N. Y., March 19, 1906.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—Please find inclosed a picture of one of your No. 17 "Ohio" Monarch self feed Ensilage Cutters and Blower purchased of your men last fall.

I drove the Cutter with a 10 horse power electric motor and could easily cut from 10 to 12 tons per hour. The Blower delivered the ensilage over a 30 foot silo with great force. I am well pleased and will recommend it to any one requiring a machine.

Yours truly,

CLARENCE TIMMERMAN.

Large Dairy Barns of a Prominent Jersey Breeder in Michigan



A Prominent Jersey Breeder Cuts Ensilage at the Rate of 20 Tons per Hour Without Removing Knives and Considers the "Ohio" the Best Ensilage Cutter, it being the Fifth Machine he has Tried in the Past 10 Years.

H. F. PROBERT,

Breeder of Jersey Cattle (The Signal Herd).

Jackson, Mich., Jan. 17, 1904.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—The No. 19 "Ohio" Monarch Self-Feed Ensilage Cutter with Blower Elevator, recently purchased of you, has proven satisfactory and fulfills your guarantee.

I drive the machine with a 16 H.-P. model gasoline engine instead of by the large steam plant which is located in the barns, as formerly. I find the gasoline power much better, cheaper and always ready for duty at a moment's notice. With this plant I cut, last fall, over 900 tons of ensilage without removing the knives, using only the oil stone for touching them up. I could cut at the rate of a two-ton load in six minutes, which is equivalent to 20 tons per hour.

I consider this "Ohio" Ensilage Cutter by far the best machine manufactured and it is the fifth cutter I have owned in the past 10 years. The new shredder blades are O. K.; I shred all of my corn stover and also use them for cutting straw for bedding, and also for cutting hay. I find this better than cutting, as there are no sharp stiff butts cut square off, as is the case of the plain knife; besides, we have no changes to make, and I have thought that I might try them for ensilage unless they might be hard to keep in good cutting order.

I also have one of your 12-inch feed mills and am using it in place of my large mill. I grind from 15 to 20 bushels corn-cob meal per hour.

Yours respectfully,

H. F. PROBERT.

No. 16 "Ohio" at "Echo Farm"
Gave Satisfaction in Every Way.



Echo Farm.

South Kortright, N. Y., Sept. 30, 1905.

Silver Mfg. Co., Salem, Ohio.

GENTS—Referring to the No. 16 "Ohio" Self Feed Ensilage Cutter with 40 foot slat carrier recently purchased of your agent, H. M. Cowan, Hobart, N. Y., will say that it gave the best of satisfaction in every way. We cut and elevated into a 30 foot silo 12 to 15 tons of corn per hour; could have cut more if we had been able to handle the corn. We used an 8 horse power Lambert portable Gasoline Engine.

Yours respectfully,
D. C. SHARPE

No. 16 "Ohio" Ensilage Cutter and Blower at Georgia Experiment Station



Georgia Experiment Station

Experiment, Ga., Aug. 13, 1903.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—The No. 16 "Ohio" Self-Feed Ensilage Cutter with Blower Elevator, recently purchased for this institution, arrived yesterday morning via Southern Ry., and we set it up after dinner and began work at once on our silage crop. Everything seems to work perfectly thus far and we expect to be much pleased with the outfit. Our 8 H. P. engine runs it 600 revolutions per minute very steady and elevates all the corn our wagons supply. We have not enough wagon force, however, to keep the machine running to full capacity.

I have approved your account for the cutter and check will reach you in a short time after passing through our usual auditing channels.

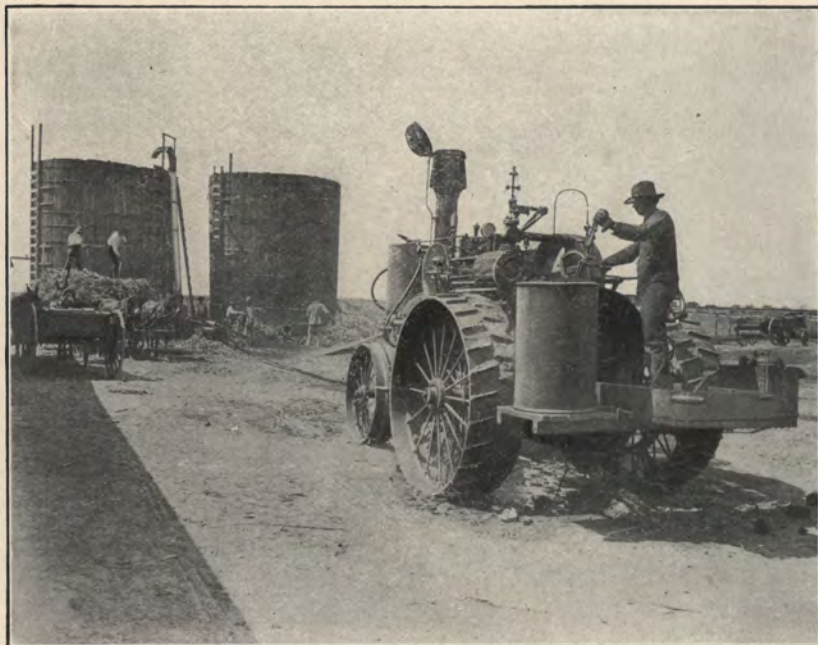
Very truly yours,

C. L. WILLOUGHBY, Dairyman.

Sept. 18, 1903—We are thus far very well satisfied with the machine and will test it soon for shredding purposes.

C. L. W.

No. 14 "Ohio" in Texas
Cutting Corn, Sorghum, Kaffir Corn, Milo Maize and Pea Vines.



State Orphan Home, State of Texas.

Corsicana, Oct. 16th, 1905.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—The machine works beautifully and is all you promised for it. The only objection that I have heard was made by those who helped feed it; and the complaint they made was that it worked them too hard to keep it going. Another was there besides myself feeding at the time. This is the only one in this part of our state. It does beautiful work, cutting corn, sorghum, Kaffir corn, Milo maize, and pea vines into $\frac{1}{2}$ -inch lengths, and putting the stuff through blower into a silo 24 feet high at the rate of 8 tons per hour. I would not want to do without it at all. The engine you see is a 16 H. P. traction, hired from a neighbor to do this work. We expect shortly to have an electric light plant installed, and then we will operate it with a ten horse motor.

One of the boys in the very beginning of our work let a four-tined pitch fork slip from the handle and go through the machine, and it did not stop work, and the only damage was some gaps in the teeth and a hole about 8 feet up in the blower pipe, but we never could find anything of the pitch-fork.

Yours truly,

JINK EVANS, Industrial Manager.

Experimental Barn, Agricultural Station, Ames, Iowa



Professor of Farm Mechanics Uses "Modern Silage Methods" as Text Book in
Classes, and Thinks It Contains More Information on Silage
Than Can Be Obtained Elsewhere

The Silver Mfg. Co., Salem, Ohio.

Ames, Iowa, Feb. 27, 1904.

GENTLEMEN—I have just received the copies of your "Modern Silage Methods" which you kindly sent me. I make use of this valuable book of yours as a text book in my classes. I feel sure that this book on silage contains more genuine information on the subject than can be obtained elsewhere.

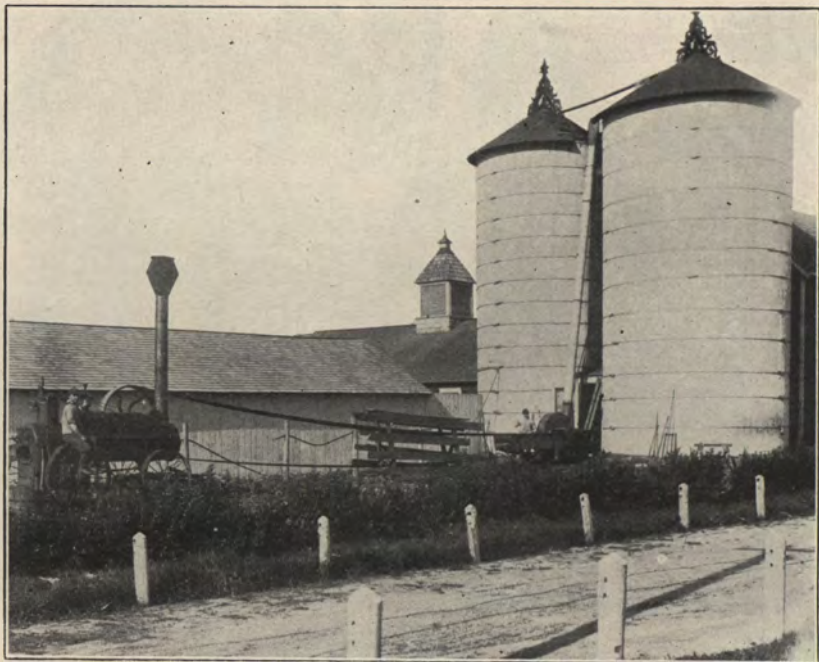
We have in use at this institution one of your "Ohio" Self-Feed Ensilage Cutters with Blower Elevator, which is giving entire satisfaction.

Yours truly,

C. J. Ginther.

B. Sc.

The Baron de Hirsch School
Prefers the "Ohio" to Any Other After Using Several Makes.



Animal Industry and Dairy Department
of the Baron de Hirsch Agricultural and Industrial School.

Woodbine, N. J., April 2, 1906.

The S. P. Lummus Supply Co., Philadelphia, Pa.

DEAR SIRS—I am sending under separate cover a picture taken last fall while we were filling our silos. As we bought our No. 17 "Ohio" Cutter and Blower from you, I thought this picture might prove interesting to you.

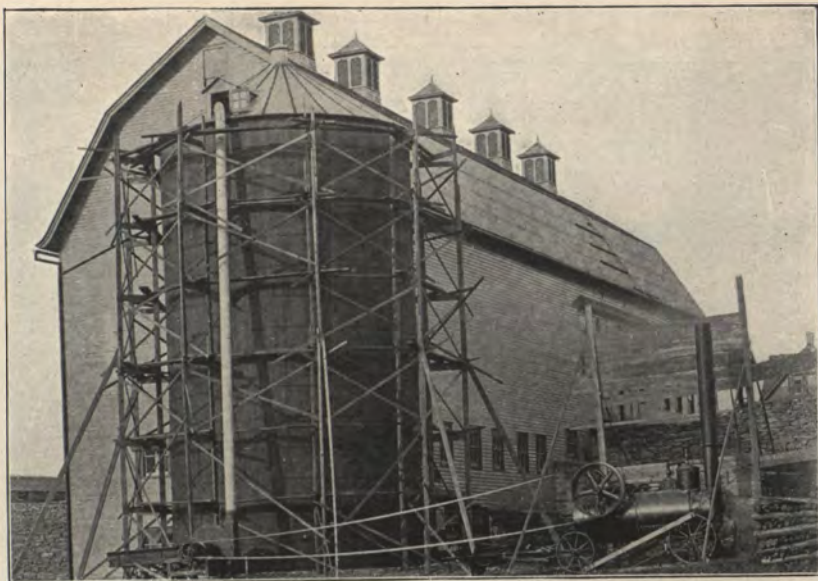
Regarding the Cutter, I can say it is the best machine I have ever used. I have used several other machines but prefer the "Ohio." We also use the shredder attachment and find that it does excellent work.

Thanking you for your kind treatment in the past,

I am very truly yours,

ARTHUR R. MERRILL, Supt.

Blower Elevates Ensilage Into 40-Foot Silo Perfectly



Sloane Brothers,
White Lake Model Stock and Poultry Farm

White Lake, Sullivan County, N. Y., Feb. 8, 1904.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—The No. 19 “Ohio” Cutter and Blower with self-feed table, which we purchased from your agents, Messrs. Buck Bros., of Middletown, N. Y., we found to be entirely satisfactory. We used it to fill our 300-ton silo, which is 40 ft. high, and when the engine was run at a speed to give the blower from 800 to 900 revolutions per minute the 10-inch blower pipe did not clog up. With an estimated power of about 15 horse, we were able to cut about 15 tons per hour, which is all two good men can handle at the table. Your agents gave us a written guarantee that we could cut 20 tons per hour, but we could not get it there fast enough and no two men could handle it. We are more than pleased with the way your entire outfit worked, as we had been led to almost believe that a blower could not put the silage through such a long pipe and in such quantity in a satisfactory manner, being told that the pipe would surely clog, but it did not. We can highly recommend the “Ohio” as it did more and better work than we expected it would.

Yours very truly,

SLOANE BROS.

No. 19 "Ohio" at Indian School,
Tomah, Wisconsin.



Department of the Interior,
United States Indian Service.

Tomah, Wis., March 1, 1906.

The Silver Mfg. Co., Salem, Ohio.

SIRS—We have an "Ohio" No. 19 Ensilage Cutter and we like it very much. It has done satisfactory work for us. This machine will cut 50 tons of green corn per hour if you give it plenty of power. We use a twelve horse power engine. It is almost impossible to get corn to the machine as fast as it will cut it.

Very respectfully,

L. M. COMPTON, Supt.

No. 19 "Ohio" Gives Good Satisfaction
at Kansas State Agricultural College.



Silo Filling at Kansas State Agricultural College.

Manhattan, Kan., May 2, 1906.

Silver Mfg. Co., Salem, Ohio.

GENTLEMEN—We have the "Ohio" Ensilage Cutter for cutting corn and alfalfa ensilage. The cutter has given good satisfaction.

Yours very truly,
O. ERF.

TESTIMONIALS

"Ohio" Cutter Wants More Corn Than Feeders Can Supply.

R. F. D. No. 2, Erie, Tenn., Oct. 7, 1905.
The Silver Mfg. Co., Salem, Ohio.

GENTLEMEN—I received and put up the machine bought of you sometime ago. Will say the machine is all you claim for it. I am well pleased with it. I have run it about three days and the only trouble is in keeping it supplied with corn.

I enclose you check in payment; please send receipt by return mail. Respectfully,
B. H. BARNARD.

No. 19 Monarch Cutter and Blower Driven by 10 H.P. Engine and Beats Competitors.

Louisburg, Kans., Jan. 1, 1906.
Patterson Machinery Co., Kansas City, Mo.

GENTLEMEN—In reply to yours of recent date will say that I was through filling silos before receiving your request so am not able to furnish you photo, but will likely get to cut some dry fodder before spring and will have one taken for you.

As to the No. 19 "Ohio" Cutter, it is all I expected of it. On account of severe wind storm we did not get to fill but two silos; the first one was 16 feet by 26 feet deep. We were delayed some in setting and getting ready so that it took one and one-half days. The second was 16 feet by 30 feet deep which we filled in one day which was three-fourths of a day better time than had ever been made in filling it before with the largest Cutter in the country. We filled it with 10 horse power engine, but I doubt not that a larger engine would be better, but I can pull it to cut about all the corn that any common crew of men will get to the machine.

Would advise anyone buying to not get a small machine, as they can do light work with the No. 17 or 19 machine with about the same power and then if they wish to do it up in a hurry they can do it.

Respectfully yours,
J. W. Whitaker.

Shreds 5 Tons Dry Fodder in 50 Minutes. Makes More Grain and Fodder Customers for next year.

Charm, Ohio, Jan. 27, 1904.
The Silver Mfg. Co., Salem, O.
GENTLEMEN—The No. 19 "Ohio" Monarch Cutter and blower with shredder blades, mounted, which we bought from you last November, was really more than we expected. It has done fully what it was represented by you, and we and our farmer customers are

very well satisfied with the machine. It makes the corn fodder in a very good condition to feed. The machine makes us more grain and fodder customers next year because it has so great a capacity that the farmers all like it. Some say it beats everything that was ever in this part of the country to prepare fodder. Some other threshermen say they would not have a machine with so big a capacity because they would not get enough time in to make much money. We thought we would rather rush it through and be done before the bad winter weather sets in, and on that account we get more customers of grain and fodder, so we think it was our gain to buy a large machine.

We shredded about 5 tons of dry fodder in 50 minutes with a 13 horse power traction engine. We can highly recommend this machine for you to anybody.

Yours very truly,
ERB BROTHERS,
Threshermen.

Says "Ohio" Cutting Box is the Best Made and Wants to Prove It.

Boston, Ohio, Nov. 6, 1905.
The Silver Mfg. Co., Salem, Ohio.

Having used your "Ohio" Ensilage Cutter No. 16, for two consecutive seasons, I feel it my duty to write you regarding the satisfactory results which I derived from it. It has been under my personal supervision and in no way have I found occasion to criticize its work, which it does in a proper manner—in fact, in my estimation, beyond improvement, and therefore heartily say to any prospective buyer that it is the best improved cutting box made.

I have this year cut as much as sixty tons a day, and if anybody doubts my word just send them to me and I will prove it to them, —do not care who they may be.

Very truly yours,
R. J. VAUGHN.

Runs Cutter Full Capacity With 12 Horse Power Gasoline Engine.

R. F. D. No. 4, Louisville, O., Sept. 25, 1905.
The Silver Mfg. Co., Salem, O.

GENTLEMEN—Please find inclosed a check in payment for your No. 14 Cutter.

I have tried it thoroughly and find it just as recommended and better than I expected. I have blown the silage up 35 feet full capacity with my 12 horse power gasoline engine. I hope this will be satisfactory.

Thanking you for your kind business treatment, I remain, Yours truly,

F. C. YODER.

TESTIMONIALS

Fills a 60 Ton Silo in Four Hours with a 12 Horse Power Engine.

Milton, Pa. Sept. 18, 1905.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—Enclosed please find my check in payment of your bill, which I also enclose to be receipted and returned to me; also the freight receipt of my old machine which was shipped to you several days ago.

The machine has been thoroughly tested and has gone way beyond all expectations. We repeatedly put 20 tons an hour through it. At one of my farms I filled a 60 ton silo easily in four hours, using a 12 horse power engine.

I feel certain that this machine will drive all competitors out of this section, and I should like very much to have the agency.

Yours truly,

G. W. SLOCUM.

No. 11 Plantation Cutter Knife the Best Ever Seen.

Wadesboro, N. C., Dec. 1, 1905.

Mr. J. F. Edwards, Oxford, N. C.

DEAR SIR—I have received the Cutting Knife you ordered for me from The Silver Manufacturing Co., of Salem, Ohio, have tried the machine and find it to be in all respects as represented. I would not be without the machine for any reasonable amount. All who see the machine say at once that it is the best cutting knife they have ever seen. I am satisfied that two horse power is sufficient to give it all the power necessary. I run it with five H. P. engine and it doesn't take half its power to drive it.

I would certainly recommend the "Ohio" Cutter to all who want a first class cutting knife.

Thanking you for your kindness, I am
Very truly yours,

J. P. RATLIFF.

No. 19 Monarch Evidently Pleases Him.

Ward, Del. Co., Pa. Sept. 15, 1905.

The S. P. Lummis Supply Co., Philadelphia, Pa.

GENTLEMEN—"Holy Smoke," but that No. 19 "Ohio" Cutter and Blower is a machine from Cutterland.

Yours truly,

R. W. HILL.

Elevates Silage 40 Feet Without Trouble.

St. Charles School for Boys,

St. Charles, Ill., Sept. 20, 1905.

The Silver Mfg. Co., Salem, Ohio.

Your letter of Aug. 24th is here. We are not putting in ensilage in our silo this year,

as we did not feed very much of our last year's cutting yet. Consequently, we will not be using the cutter until next fall, otherwise we should be glad to make you a photograph of the machine in operation.

Your "Ohio" No. 17 gave very good satisfaction. The blower gave us very little trouble, although we had to elevate the ensilage 40 feet. The machine does all you say it does.

Hoping this will be satisfactory, I remain

Yours truly,

FRED WARD, Asst. Supt.

Tried to Stall the "Ohio," but Couldn't.

Liverpool, Pa., Oct. 29, 1905.

The S. P. Lummis Supply Co., Philadelphia, Pa.

GENTLEMEN—I am pleased to report to you that your No. 13 "Ohio" Cutter and Blower which your Mr. Campbell sold me last season did excellent work. We filled our forty-five ton silo in about ten hours and could have done it in less time if we could have gotten the corn there. Our men tried to stall the machine but could not do it. I am

Yours truly,

I. B. SECRIST.

An Interesting Letter from Secretary and Treasurer of the American Jersey Cattle Club, of Lancaster County, Penna.

Furness, Penna., Aug. 15, 1904.

The Silver Mfg. Co., Salem, Ohio.

GENTLEMEN—I have always used the "Ohio" Cutter, and found it to "fill the bill." I first had the chain elevator and plain feeding table, but I have kept up with the improving evolution of the manufacturers in their work, and now use their traveling table and blower with automatic distributor. I have found it a machine of great strength and capacity. With sufficient power and the maintenance of proper speed, the improved "Ohio" machine has a capacity usually equal to one's ability to get corn to it.

A good cutter is a wonderful regulator at the silo. It must be built and geared and run for the work that comes to it. It must not stammer and halt with a protest of being over-worked. A lazy cutter breeds laziness and inaction in the unloaders. Let the machine be running, humming and hungry, and it is a "rush" call to the men that they do not resent.

I unhesitatingly advise readers to buy a strong tried machine, one of power and capacity, one that will in no wise fail them in the stress of the season.

Yours respectfully,

W. F. MCPARRON.

TESTIMONIALS

Three 550-Ton Silos and One 1500-Ton Silo Readily Filled with Two No. 19

"Monarch" Cutters and Blowers.

HUMPHREY JONES, Attorney at Law.

Washington, C. H., Ohio, Feb. 2, 1903.
The Silver Mfg. Co., Salem, O.

DEAR SIRs—During the year 1901 we used one of your No. 19 Ensilage Cutters with Blower Attachment, and found the same to be eminently satisfactory.

The machine is capable of doing all that you claimed for it, and upon actual tests we were able at times to put into a silo 42 feet high, corn ensilage at the rate of 30 tons per hour, using a 16 horse-power engine.

It was entirely practical to cut at the rate of 12 to 20 tons per hour during a whole day's time. During that year we had three 550-ton silos to fill and were under the necessity of getting a cutter which would do the work rapidly in order to get them filled in time. During the past year we filled, in addition to the silos above mentioned, a large silo of 1500-ton capacity, which is 52 feet in height.

We filled all of these silos with two of your No. 19 Cutters. Yours truly,

HUMPHREY JONES.

Filled Silo in Eight Hours.

Seneca Falls, N. Y., Feb. 2, 1903.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—The No. 19 "Monarch" Self-Feed Cutter and Blower Elevator, purchased of your man at our State fair at Syracuse last fall, fulfills the guarantee. The cutter worked very fine and also the blower. We bought it on trial and started it on my own farm, filling a 14 x 28-foot silo in about eight hours. I think this is good work.

Yours truly,

GEO. B. BEACH.

No. 19 "Monarch" Cutter and Blower Driven by 12 Horse-Power Engine.

Pipe Not Clogged During Entire Season.

Cato, Cayuya Co., N. Y., Feb. 9, 1903.

The Silver Mfg. Co., Salem, O.

DEAR SIRs—The No. 19 "Ohio" Monarch Ensilage Cutter and Blower, which I pur-

chased from your agent last fall, does very fine work—could not do better. I cut 14 acres of heavy corn in 9 hours, elevating the cut silage through 37 feet of pipe. The power I have to run the outfit is a 12 horse-power engine. I filled my own silo, as well as several others in my neighborhood, and am pleased to state that the pipe was never clogged during the entire season.

Yours truly,

D. R. WAGGONER.

Fills Three Silos Without a Stop and Thinks the "Ohio" is the Best Machine Made.

Milton, Pa., Sept. 7, 1903.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—The No. 16 "Ohio" Self-Feed Ensilage Cutter with Blower Elevator, purchased of you, does its work well. We have been running the machine one straight week, filling my three silos and it is giving excellent satisfaction. During the entire week there was not a single stop and I don't think there is as good a machine of any other make on the market.

I appreciate your courteous treatment and if I can be of any assistance to you don't hesitate to call upon me. Yours truly,

G. W. SLOCUM.

Blower Filled 19 Silos in One Season. Only Required 15 Minutes to Get Ready to Cut.

Streetsboro, Ohio, Jan. 30, 1903.

Silver Mfg. Co., Salem, O.

DEAR SIRs—Replying to your inquiry of the 29th inst., would say that our No. 16 Traveling Feed Cutter with Blower Elevator was a perfect success in every way. We filled 19 pits this last fall, using a 10 horse-power Cooper engine. I believe the use of the traveling feed table increases the capacity of the machine fully one-third, and the condition of the silage as it fell in the pit was a revelation to all who saw it. I fully believe that one-quarter more corn can be put in a pit with a blower than with a chain elevator. Our machine was mounted on a truck and we could put up our pipe in 15 minutes any time after the wagon was set. Always keep the pipe as straight as possible and you will have no trouble with a blower elevator.

Yours very truly,

A. H. BREWSTER.

TESTIMONIALS

Five Teams Unable to Keep Machine Supplied with Corn, with Only a Short Distance to Haul and Plenty of Help.

Weston, N. J., Nov. 8, 1903.

The S. P. Lummus Supply Co., Philadelphia, Pa.

GENTLEMEN—The No. 16 "Ohio" Self-Feed Ensilage Cutter and Blower Elevator you furnished us with this season works very satisfactorily. We have used it for 12 days in succession without a mishap or without sharpening the knives. It took that time to fill both of the silos.

We had five teams hauling corn continually and they could not keep the machine going. They only had a short way to haul it, and carried large loads and had plenty of help to load the corn on the wagons.

We are well satisfied with the engine also. Both have fulfilled the guarantee. It is a great pleasure to work with such machinery as you furnished us with.

We are well pleased and will recommend it to anyone requiring a machine.

Yours truly, A. H. SONN & SON.

Engineer Says "Ohio" No. 19 is Best Working of Four Styles of Cutters He Has Run.

STOVER HARDWARE COMPANY.

Wagons, Farm Implements.

Trumansburg, N. Y., Oct. 6, 1903.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—We enclose check for the No. 19 Cutter with Blower and wish to state that the machine is very satisfactory. Our customer is more than pleased. He saw it work this morning for the first time and said he guessed he would have to pay for it. This is what he said: "My, I'm glad I didn't get the other machine. Why I would not have one for \$50.00 since I saw the 'Ohio' work." The man operating it has run four different machines and he said this certainly was the finest working he ever saw and his engine handled it much easier than expected. So the "Ohio" No. 19 is all you claim for it and we trust we can sell more of them.

Very truly,

STOVER HDWE. CO.

Shreds Corn Stalks as Fast as They Could Feed Them Into Machine.

Ashville, Pickaway Co., Ohio, Jan. 2, 1904.
The Silver Mfg. Co., Salem, O.

GENTLEMEN—The new No. 19 "Ohio" Monarch Self-Feed Ensilage Cutter with blower elevator and shredder blades, mounted on your trucks, which I purchased last October, has given perfect satisfaction and does all you claim for it. I drive it with a 12 horse-power traction engine, which keeps up the speed easily and makes the machine shred the corn stalks as fast as we could feed them into it.

What you claim for the shredder knives is not too much. I think they reduce the fodder to the best possible condition for food, and my patrons and friends were much pleased with the corn shredded for them.

Thanking you for your courteous treatment and wishing you a prosperous New Year, I remain,

With best respects,

EMANUEL BERGER.

Dr. P. W. Rixey of Nat'l Medical fame more than pleased with "Ohio" Cutter.

Washington, D. C., Sept. 16, 1905.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—I wish to say that I have given the "Ohio" Cutter a thorough trial, and am more than pleased with its performance. The perfections to which you have brought this Cutter reflects great credit upon the Company.

Very truly Yours,

P. W. RIXEY.

No. 14 "Ohio" Monarch Proves Capacity Under Test.

East Palestine, Ohio, Oct. 14, 1904.

The Silver Mfg. Co., Salem, Ohio.

GENTLEMEN—Enclosed you will find check in payment of ensilage cutter purchased of you. This machine, No. 14 "Ohio" Monarch with Blower Elevator, gave entire satisfaction in every respect. To test it I fed a heavy load of corn, possibly 3500 pounds to 4000 pounds, through it in seven minutes. We used a 12-horse engine, and had no difficulty to elevate the ensilage 34 feet.

Yours very respectfully,

WM. JOHNSON.

“Rapid” Root and Vegetable Cutter

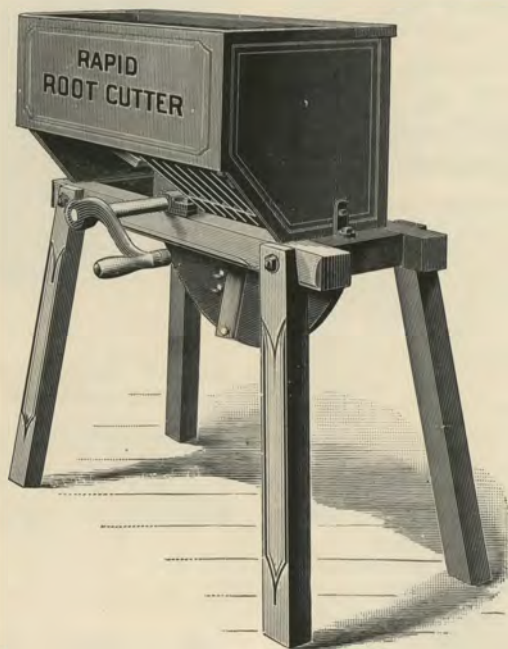


Fig. 830

Size and Price.

No. 2 Root Cutter for hand only.....	\$16.00	<i>Sabugo</i>
No. 2 Root Cutter for hand and power	18.00	<i>Sabugueiro</i>

DESCRIPTION

Rapid Root and Vegetable Cutter.

Feeding of Roots.

In Europe where corn is not grown to any extent, mangels and other roots are the succulent food for milk cows and other stock. The feeding of roots to stock is being practiced more and more in this country. Like various other foods, roots are more valuable and convenient to feed when cut or sliced, and the "Rapid" Cutter and Slicer, shown here, is an excellent machine for this purpose, with large capacity. It is simple and not liable to get out of order.

Description of Cutter.

The three cutting knives on the fly wheel follow closely after small projecting slicing or slitting knives, which cut at right angles to the edge of the cutting knives, thus reducing the material to a very nice condition for feeding. The hopper bottom

is of slanting cast grating, which allows dirt, gravel or foreign matter to fall through and thus be kept separate from the cut feed.

Safety.

The opposite side of the hopper is solid, and entirely covers up the fly wheel and knives, so that children or others around the machine cannot come in contact with these parts.

For Hand or Power.

The shaft is best cold-rolled steel, with strong crank on one end and fitted for 4-inch face, 10-inch diameter pulley on the other. The frame is hardwood and strong, being bolted through at the legs with tie rods running clear through. Capacity about 50 bushels per hour. Weight, 190 lbs.

“Rapid” Root Cutter and Pulper

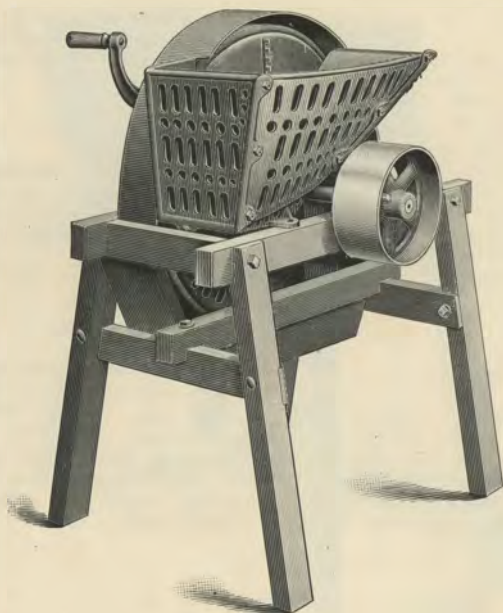


Fig. 832

Size and Price.

No. 2 Root Cutter and Pulper, 6 knives, for hand	\$18.00	<i>Saburrales</i>
No. 2 Root Cutter and Pulper, 6 knives, for hand or power	20.00	<i>Saburramos</i>

DESCRIPTION

Rapid Root Cutter and Pulper.

Knives are Double-Edged and Reversible.

The picture is a good representation of our new Root Pulper and Slicer. The knives are double edged and reversible, one being straight for slicing, the other edge being grooved, thus dividing it into separate bits for pulping.

Knives are Adjustable.

The knives cut the roots into slices of uniform thickness and the bits pulp them so that poultry and young animals eat them freely without danger of choking. The

knives are adjustable to the cutting plate, which is to gauge the thickness of the slices and to counteract wear in the knives.

Capacity.

Capacity per hour, slicing or pulping, hand, 30 bushels; power, 125 bushels.

Pulley.

Size of pulley for power 10 x 4 inches.
Weight 215 pounds, with pulley.

TESTIMONIALS

Clover Cutter Works Beyond All Expectation.

Enfield, Mass., Feb. 12, 1906.

The Silver Mfg. Co., Salem, O.

DEAR SIR—I received your Clover Cutter in good condition and built a table for it, set it up, and it works beyond all expectation.

Yours truly,
L. A. DOWNING.

The Long Needed Machine Arrived.

Brownville, N. Y., Dec. 10, 1905.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—The little Clover Cutter at last arrived, and it is the long needed machine on a Poultry Farm. It is perfect in every way, our boy 10 years old calls it play.

Yours truly,
WM. EIGABROADT.

Worth Its Weight in Gold.

Greenfield, Ohio, Nov. 17, 1905.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—The little Cutter arrived O. K. and I set it up and after adjusting it properly and putting it to the test I must say that I would not do without it for five times the amount it cost me. For a small flock of four or five hundred birds it is worth its weight in gold.

Allow me to thank you for the machine and wishing you success with same, I am,
Yours truly,

WM. CLOUSER.

Clover Cutter Pleases Him.

Manitowoc, Wis., Feb. 14, 1906.

The Silver Mfg. Co., Salem, O.

DEAR SIR—Have received the Clover Cutter and am pleased with it.

Respectfully,
DAN SCHEINOHA.

Thinks Price of Clover Cutter Very Reasonable.

Decatur, Ill., Apr. 9, 1906.

The Silver Mfg. Co., Salem, O.

DEAR SIR—The Clover Cutter has arrived in good order, and I am well pleased with it. It is just what I want and I am pleased to get it at so reasonable a price.

Very truly,
GUY A. RIGHTER.

Clover Cutter O. K.

Cleveland, Ohio, Nov. 20, 1905.

The Silver Mfg. Co., Salem, O.

DEAR SIR—Received the Clover Cutter in good condition. It is more than I expected and would not be without one.

Many thanks for giving my order immediate attention. I remain,

Yours very respectfully,
ALBERT E. MELCHER.

An Easy Running Cutter.

Nashville, Mich., Jan. 18, 1906.

The Silver Mfg. Co., Salem, O.

GENTLEMEN—I received the Clover Cutter Jan. 15. It does very good work and runs easy.

Yours truly,
T. J. NAVUE.

