

Catalog No. 20

1924-25

HERTZLER & ZOOK
CO.

MANUFACTURERS
OF
WOOD SAWING
MACHINERY
AND
FARM
IMPLEMENTS

BELLEVILLE, PENNSYLVANIA
U. S. A.

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Confidence

THE foundation of all business relations is confidence. In order that you may enjoy the advantage of dealing direct with us, the manufacturers, and through so doing obtain prices lower than you would pay elsewhere, it becomes necessary for you to have confidence in us and in our intention to deal fairly with you—to sell you merchandise of high quality—to save you money—and in the event of any dissatisfaction arising from any cause, that we will adjust the matter to your entire satisfaction.

In order that you may deal with us with the fullest confidence we have deposited in the Belleville National Bank a legally executed bond for \$10,000.00 (Ten Thousand Dollars). We have thus placed ourselves under bond to you—our customer—to give you satisfaction in every transaction we have with you, or return your money in accordance with our guarantee. The bank stands between us—adds its guarantee to ours—backed by our bond through which your money is in effect held in trust until you are fully satisfied or we have lived up to the letter of our extremely liberal guarantee.

In addition to the H & Z line of tools and implements which we manufacture, we show in our catalog a few items that we do not make, but on which we have been able to make such attractive arrangements that we are able to sell them at prices much below regular retail prices. They have been selected with great care. Quality and service is fully guaranteed by us as well as by the manufacturer.

From our old customers we solicit a continuance of the patronage with which they have favored us through the past years.

Should you be one who has never dealt with us, we solicit a comparison of our prices with those of any other house in the country, and assure you that we shall leave nothing undone that will tend to render the transaction a pleasant and a profitable one to you.

OUR GUARANTEE

We guarantee that each and every article listed in this catalog is exactly as represented.

All orders are placed with us with the understanding that every purchaser has the privilege of returning any article which for any reason whatever is not satisfactory, provided we are notified as soon as the customer has had an opportunity to examine such article, and given it a fair trial.

We further guarantee that in such case we will give the necessary shipping instructions for the return of the article at our expense, and exchange it for exactly what is wanted, or refund the purchase price, including transportation charges.

HERTZLER & ZOOK CO.

The Most Popular and Most Extensive Line of Wood Sawing Machinery in the World

FOR years we have made wood sawing machinery for a large retail trade, shipping them to all parts of the country.

Through years of practice and observation, together with suggestions from users in all parts of the country our designers have developed the largest assortment of sizes and designs ever offered by any manufacturer. Each is designed for a particular purpose from our little No. 1—for the man who has only a very small engine and wants to saw just a little fire wood to our big No. 16 for the contractor, or the farmer who has wood and timber of all kinds to saw. Each style is the best design for the kind of work for which it is recommended.

There is a great difference in factories. Some can manufacture cheaper than others.

We believe a comparison will prove to you that quality for quality our prices are the lowest to be found anywhere.

Situated in the little town of Belleville, we enjoy many advantages over manufacturers in larger towns and cities, which advantages are of great importance to our customers, as they enable us to manufacture cheaper, and in turn to sell cheaper than would be possible were we otherwise located.

Here the cost of building sites are

comparatively low. Our buildings are economically constructed. This keeps down our investment and saves our customers from helping to pay interest on an unnecessarily large capital expense.

Our workmen are home boys from the farms most of them. Many of them have grown up with our business and are as interested in it as we are. They, like their fathers and grandfathers before them have always been accustomed to giving a full day's work for a day's pay. They have no foolish notions about labor communism agitation or strikes. We get honest labor at a reasonable cost, which helps us to make our prices right to our customers, and, incidentally, located in a timber country, we get native timber for use in our wood sawing and other machinery at a lower cost than most factories must pay. We own and operate our foundry and make our own castings. Our factory is equipped with up-to-date machinery for wood, iron and steel working. We load our machinery directly into railroad cars at our door. A little thought on these conditions as compared with conditions existing in other factories located in larger cities, will furnish the most convincing argument in the world to sustain our claim that we do manufacture more economically than any other factory of its kind in the United States.

The H. & Z. No. 1 Junior Saw Frame

The most popular little machine ever made. It is built on the same general style as our heavier machines, but is lighter in weight, and designed for smaller power and lighter work. For sawing poles, planks, cordwood, etc., for firewood and kindling. Saws up to twenty-two inches in diameter can be used. Will cut wood up to eight or ten inches in diameter. Can be operated with as little as one horse power. **Mandrel**—Cold rolled steel shafting. 41" long, 1 5/16" diameter, 13/4" arbor. The washers are large and accurately machined.

Pulley—Cast iron. 5" diameter, 5" crowned face.

Bearings—Solid, safety type, carefully fitted. Lined with high speed bearing metal.

Table—Ampie size, works at a convenient angle. Located so that the saw helps to pull the wood in.

K. P. Required—One or more—See page 18.

SHIPPING WEIGHT—100 pounds.
No. 1 Saw Frame without blade

With 16" cordwood blade, filed and set, ready for work	\$10.00
With 18" blade	12.00
With 20" blade	12.50
With 22" blade	13.00

\$10.00



**THE H. & Z. NO. 1 JUNIOR
WITH RIP TABLE**

Every owner of a saw frame should have a rip table to fit it. You never build a thing or do any repair work, that it does not become necessary to rip a few planks. You can save hours of time and much muscle by having a rip table and rip blade to put on your saw frame. Indispensable in a carpenter shop.

SHIPPING WEIGHT—25 pounds.
No. 1 Rip Table for No. 1 Junior saw frame without blade \$4.00
For prices of rip blades see page 18.



**THE H. & Z. NO. 1 JUNIOR
WITH BALANCE WHEEL**

This frame is just like the one shown above, except that it has a 35 pound balance wheel. We recommend a balance wheel, especially where there is not much power available, as it is quite a help to the engine, and makes the machine run much steadier.

SHIPPING WEIGHT—135 pounds.
No. 1 Saw Frame with balance wheel, less blade

With 16" cordwood blade, filed and set, ready for use	\$13.75
With 18" blade	15.75
With 20" blade	15.95
With 22" blade	16.35
With 24" blade	16.75



See Page 22 for Belting Prices

With the exception of Nos. 3, 16 and 1603, we can furnish either right or left hand machines. Unless otherwise specified we always ship right hand machines—with the blade to the right of the operator. We can, however, furnish left hand at an additional cost of 50c.

We ship nearly all our Saw Frames knocked down and crated in a neat, substantial crate in order to reduce freight charges, as well as to eliminate breakage. Any Frames that are knocked down are supplied with a check slip and a cut to show just how they should be set up.

The H. & Z. No. 2 Steel Table Saw Frame

\$14.00



Somewhat larger, but built along the same general lines as our No. 1. A standard frame, well built of heavy hardwood, strongly braced. Large sheet steel table. Saws up to 30" in diameter can be used. Will cut wood up to 13" in diameter.

Mandrel—Cold rolled steel shafting, 49" long, 1 7-16" diameter, 1 3-8" arbor.

The washers are large and accurately machined.

Pulley—Cast iron, 6" diameter, 6" crowned face.

Bearings—Solid, safety type, carefully fitted. Lined with high speed bearing metal.

H. P. Required—Three or more. See page 20.

Table—Ample size. Works at a convenient angle. Located so that the saw helps to pull the wood in.

SHIPPING WEIGHT—175 lbs.

No. 2 Saw Frame, less blade.....			\$14.00
With 20" blade.....	\$16.60	With 26" blade.....	\$18.30
With 22" blade.....	\$17.00	With 28" blade.....	\$18.90
With 24" blade.....	\$17.60	With 30" blade.....	\$19.60

See Page 22 for Belting Prices

The No. 2 Saw Frame With Balance Wheel



The frame is just like the one previously described, except that it has a 50 pound balance wheel.

SHIPPING WEIGHT—225 lbs.

No. 2 Saw Frame with 50 lb.

Balance Wheel, less blade... **\$17.00**

With 20" blade..... **\$19.60**

With 22" blade..... **\$20.00**

With 24" blade..... **\$20.60**

With 26" blade..... **\$21.30**

With 28" blade..... **\$21.90**

With 30" blade..... **\$22.60**

With 32" blade..... **\$23.50**

This Cut Shows Our No. 2 Saw Frame as it Appears With Rip Table and Rip Blade Attached

The rip table attachment is one of the greatest features of our machines. Most farmers first saw their cordwood, then they remove the cordwood blade, attach the rip table and a rip blade, which enables them to rip all kinds of lumber, such as making roofing lath, palings, pickets, crating lumber, etc., out of refuse that would otherwise be wasted and lost.

Again for hewing and pointing posts it has no equal, and can be used in this way twelve months in the year. A rip blade is required for ripping. No one should attempt to do ripping with a cordwood saw, or saw cordwood with a rip saw.

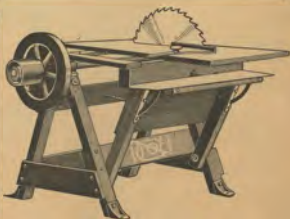
SHIPPING WEIGHT—40 lbs.

Price of Rip Table only, with

bolts for attaching, **\$5.00**

less rip blade.....

For Rip Blade Prices See Page 18.



See Page 22 for Belting Prices

The H. & Z. No. 4 Big Fellow Saw Frame



A big, heavy frame, made for sawing large quantities of heavy wood. Built of seasoned hardwood, thoroughly braced and bolted. Large sheet steel table. It is one of our most durable machines. Our ripping attachment can be used with it.

Mandrel—Cold rolled steel shafting, 49" long, 1 7/16" diameter, 1 1/4" arbor. The washers are large, and accurately machined.

Pulley—Cast iron, 6" diameter, 6" crowned face.

Bearings—Solid, safety type. Carefully fitted. Lined with high speed bearing metal.

Saw Guard—Cast iron—adjustable for any size saw blade up to and including 32".

H. P. Required—Four or more. See page 20.

Table—Ample size. Works at a convenient angle. Located so that the saw helps to pull the wood in.

SHIPPING WEIGHT—175 lbs.

No. 4 Saw Frame, less blade.....	\$15.75
With 20" blade.....	\$18.35
With 22" blade.....	\$18.75
With 24" blade.....	\$19.35

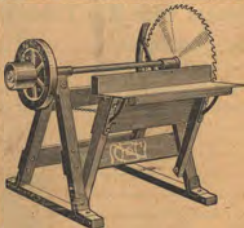
With 26" blade.....	\$20.05
With 28" blade.....	\$20.65
With 30" blade.....	\$21.35
With 32" blade.....	\$22.25

The H. & Z. No. 4 Saw Frame With Balance Wheel

We recommend a balance wheel with this machine, unless ten horse power or more is available.

SHIPPING WEIGHT—225 lbs.

No. 4 Saw Frame with 56 pound balance wheel, less blade.....	\$19.50
With 20" blade.....	\$22.10
With 22" blade.....	\$22.50
With 24" blade.....	\$23.10
With 26" blade.....	\$23.80
With 28" blade.....	\$24.40
With 30" blade.....	\$25.10
With 32" blade.....	\$26.00



A FEW SUGGESTIONS FOR SAWING POLES WITH MACHINES OF THIS TYPE

Poles may be sawed with the above machine without the balance wheel interfering by driving two stakes in the ground a little back of the alignment of the machine and to the left of the operator. Spike a pole on top of the stakes, making a trestle so as to be a little higher than the table, leaving the poles rest on the trestle at one end, the other end to rest on the saw table at the point of the saw, slightly angling the pole, thus enabling you to saw pole wood without interfering with the balance wheel. This will apply to any of the single shaft machines.

See Page 22 for Belting Prices

The H. & Z. No. 5 Underslung Saw Frame



One of our most popular styles. The heavy 70 pound balance wheel is mounted on a separate shaft below the mandrel, as preferred by some sawyers in order that long poles of any size may conveniently be handled on the table without angling. The idler pulley runs on a large steel pin cast into a strong bracket, and cannot get out of alignment.

The frame is made of well seasoned hardwood and is thoroughly braced and bolted throughout. The table is sheet steel, of ample size. Our ripping attachment can be used with this machine.

Mandrel—Cold rolled steel shafting 49" long, 1 7-16" diameter, 1 1/2" arbor. The washers are large, and accurately machined.

Pulley—Cast iron, 6" diameter, 6" crowned face.

Bearings—Solid, safety type, of liberal dimensions. Carefully fitted. Lined with high speed bearing metal.

Saw Guard—Cast iron, adjustable for any size saw blade up to and including 32".

H. P. Required—Five or more. See page 29.

Table—Ample size. Works at a convenient angle. Located so that the saw helps to pull the wood in.

SHIPPING WEIGHT—320 pounds.

No. 5 Saw Frame complete with 70 lb. balance wheel, less blade \$27.50
 With 24" blade 31.10
 With 26" blade 31.80

With 28" blade 32.60
 With 30" blade 33.30
 With 32" blade 34.20

The H. & Z. No. 10 Great Eastern Sliding Table Saw Frame

A very popular medium weight style. The table, which is covered with sheet steel, is so mounted that it slides back and forth by two steel bearings at either end. These bearings slide easily and without binding on heavy steel rods. The frame is made of heavy hardwood timbers, thoroughly bolted and braced. The table is low, which allows the saw blade to help pull the wood in, saving much effort on the part of the operator and rendering this one of the easiest wood saws to operate ever designed. If you have a preference for a sliding or rolling table saw over a tilting table, try one of these. You will be delighted with it. Ripping attachment can be used.

Mandrel—Cold rolled steel shafting 49" long, 1 7-16" diameter, 1 1/2" arbor. The washers are large and accurately machined.

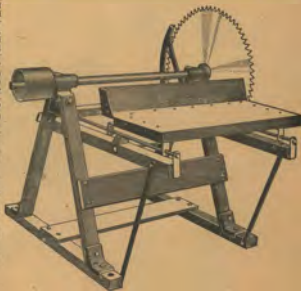
Pulley—Cast iron, 6" diameter, 6" crowned face.

Bearings—Solid, safety type, carefully fitted. Lined with high speed bearing metal.

Saw Guard—Cast iron, adjustable for any size blade up to and including 32".

H. P. Required—Three or more. See page 29.

SHIPPING WEIGHT—175 pounds.



No. 10 Saw Frame complete, less blade \$18.00
 With 20" Cordwood blade 20.60
 With 22" Cordwood blade 21.00

With 24" Cordwood blade 21.60
 With 26" Cordwood blade 22.30
 With 28" Cordwood blade 22.90
 With 30" Cordwood blade 23.60

See Page 22 for Belting Prices

The No. 11 Saw Frame With Balance Wheel



Our No. 11 machine is just like No. 10 described on the preceding page, except that it has 50 lb. balance wheel, which we always recommend unless ten horse power or more is available. Anyone who prefers a sliding table frame will be very well pleased with this one. Ripping attachment can be used.

SHIPPING WEIGHT—225 lbs.

No. 11 Saw Frame with 50 lb. balance wheel,

less blade.....	\$22.50
With 20" Cordwood blade	\$25.10
With 22" Cordwood blade	\$25.50
With 24" Cordwood blade	\$26.10
With 26" Cordwood blade	\$26.80
With 28" Cordwood blade	\$27.40
With 30" Cordwood blade	\$28.10

THE No. 12 PENN STATE SAW FRAME

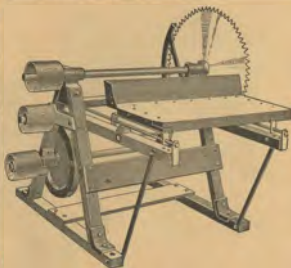
Built along the same general lines as our No. 5, but with a sliding table. This frame has the 70 lb. balance wheel mounted on a separate shaft below the mandrel, so that long poles or slabs can very conveniently be handled on the table without angling. A strongly built machine that will give many years of hard service. Our ripping attachment can be used.

Mandrel—Cold rolled steel shafting, 49" long, 1 7/16" diameter, 1 1/4" arbor. The washers are large and accurately machined.

Pulleys—Cast iron, 6" diameter, 5" crowned face.

Bearings—Solid, safety type, carefully fitted. Lined with high speed bearing metal.

Saw Guard—Cast iron—adjustable for any size saw blade up to and including 32".



H. P. Required—Five or more. See page 20.

SHIPPING WEIGHT—320 pounds.

No. 12 Saw Frame with 50 pound balance wheel, less blade.....	\$32.00
With 24" Cordwood blade.....	\$35.60
With 26" Cordwood blade.....	\$36.30
With 28" Cordwood blade.....	\$36.90
With 30" Cordwood blade.....	\$37.60

See Page 22 for Belting Prices

The H & Z No. 1604 Western Leader Saw Frame



These Western Leader type saw frames are without question the staunchest and most reliable machines we build. They are, like all our saws made of seasoned hardwood throughout, and in addition, all joints are morticed and tenoned. Where our customers have lots of work to do and want the best there is, we recommend our Western Leader Frames, which we can furnish in three styles, as illustrated. We are sure after they have seen the machine they will agree that the slightly higher price is justified. One of the special features is the bearing arrangement—the lower halves being cast solid, forming a yoke which extends the whole way across the frame, and makes it very rigid. It is not possible for these bearings to get out of alignment. They are equipped with liners and can be adjusted to take up wear. The table is large. It operates easily and at a convenient angle. Our ripping attachment can be used.

On account of the yoke bearings and extra strong design throughout, this is a very suitable machine for use with tractors.

When operated by a tractor we recommend our special 8" diameter 6" face tractor pulley which we can furnish instead of the standard pulley for \$1.00 additional.

Mandrel—Cold rolled steel shafting, 49 inches long, 1 7-16 inches diameter, 1 1/2 inches arbor. The washers are large, and accurately machined.

Pulley—Cast iron, 6 inches diameter, 6 inches crowned face.

Bearings—Yoke type. Adjustable. Lined with high speed bearing metal. Large oil wells.

Saw Guard—One piece cast iron—adjustable for saws up to and including 30 in. in diameter.

H. P. Required—Three or more. See page 20.

SHIPPING WEIGHT—180 pounds.

No. 1604 Saw Frame, without blade.....	\$17.50
With 20 in. Cordwood blade.....	\$20.10
With 22 in. Cordwood blade.....	\$20.50
With 24 in. Cordwood blade.....	\$21.10
With 26 in. Cordwood blade.....	\$21.80
With 28 in. Cordwood blade.....	\$22.40
With 30 in. Cordwood blade.....	\$23.10

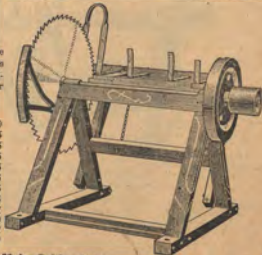
THE H & Z

NO. 1605 SAW FRAME

Our No. 1605 Machine is similar to the No. 1604 in every way except that it has a 50 pound balance wheel, which we always recommend unless ten horse power or more is available.

SHIPPING WEIGHT—250 pounds.

No. 1605 Saw Frame complete with 50 lb. balance wheel, without blade.....	\$23.35
With 20 in. Cordwood blade.....	\$25.95
With 22 in. Cordwood blade.....	\$26.35
With 24 in. Cordwood blade.....	\$26.95
With 26 in. Cordwood blade.....	\$27.65
With 28 in. Cordwood blade.....	\$28.25
With 30 in. Cordwood blade.....	\$28.95
Extra for 70 lb. balance wheel instead of 50 lb.	\$1.00
Extra for 90 lb. balance wheel instead of 50 lb.	\$2.00



See Page 22 for Belting Prices

The H. & Z. No. 1619 Saw Frame

Our No. 1619 Saw Frame is similar in design to the Nos. 5 and 12 in that it has a 70 pound balance wheel mounted on a separate shaft below the mandrel, so that long timber can be conveniently handled on the table without angling. It is substantially constructed, and will stand up under continued hard usage.

Mandrel—Cold rolled steel shafting, 49" long, 1 7/16" diameter, 1 1/2" arbor. The washers are large, and accurately machined.

Pulleys—Cast iron, 6" diameter, 5" crowned face.

Balance Wheel—Solid web, safety type. Weighs 50 pounds—17" diameter.

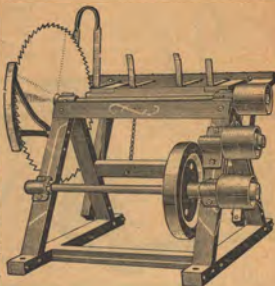
Bearings—Yoke type, adjustable. Lined with high speed bearing metal. Large oil wells.

Saw Guard—One piece cast iron—adjustable for saws up to and including 30" in diameter.

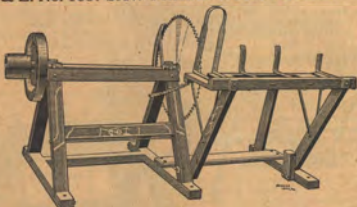
H. P. Required—Six or more. See page 26.

SHIPPING WEIGHT—320 pounds.

No. 1619 Saw Frame complete with 50 lb. balance wheel, without blade.....	\$31.50
With 24" Cordwood blade.....	\$35.10
With 26" Cordwood blade.....	\$35.80
Extra for 70 lb. balance wheel instead of 50 lb.....	\$1.00
Extra for 90 lb. balance wheel instead of 50 lb.....	\$2.00



THE H. & Z. No. 1607 SAW FRAME WITH POLE EXTENSION



This frame is just like our No. 1605 except that the table is made so that it can be set to one side, as shown in illustration, and which some of our customers prefer when sawing pole wood, or it can be used as shown in illustration of the No. 1605.

SHIPPING WEIGHT—280 pounds.

No. 1607 Saw Frame complete with 50 lb. balance wheel, without blade.....	\$24.70
With 20" Cordwood blade.....	\$27.30
With 22" Cordwood blade.....	\$27.70
With 24" Cordwood blade.....	\$28.30
Extra for 70 lb. balance wheel instead of 50 lb.....	\$1.00
Extra for 90 lb. balance wheel instead of 50 lb.....	\$2.00

The H. & Z. No. 1603 Wagon Saw Frame

This is a strongly built tilting table saw frame made to attach to a wagon or engine and saw truck by simply bolting it to the axle. Although our illustration shows a right hand machine, we always ship left hand unless otherwise ordered, so that the saw pulley is on the same side as the pulley on the engine.

Mandrel—Cold rolled steel shafting, 49" long, 1 7-16" diameter, 1 1/2" arbor. The washers are large and accurately machined.

Pulley—Cast iron, 6" diameter, 6" crowned face.

Balance Wheel—50 pound, 17" diameter.

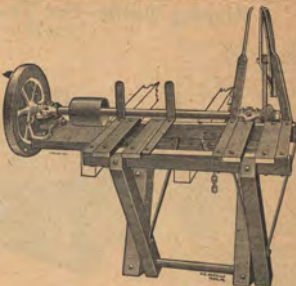
Bearings—Split type, fitted with liners. Adjustable. Lined with high speed bearing metal.

Saw Guard—Cast iron, adjustable for saws up to and including 30" in diameter.

H. P. Required—Three or more. See page 20.

SHIPPING WEIGHT—235 pounds.

No. 1603 Saw Frame with 50 lb. balance wheel complete, without blade.....	\$22.15
With 24" Cordwood blade.....	\$25.75
With 26" Cordwood blade.....	\$26.45
Extra for 70 lb. balance wheel instead of 50 lb.....	\$1.00
Extra for 90 lb. balance wheel instead of 50 lb.....	\$2.00



THE H. & Z. SWING FRAME LOG SAW



The saw is built for lumber, shingle and stave manufacturers, etc., for heavy work such as cutting off billets, shingle blocks, etc. Specially adapted for sawmill cross-cut work. Will swing saws up to 48" in diameter. This saw is inter-changeable and can be made to cut toward or away from the belt by reversing the saw and lever and moving the stationary shaft at the slot holes so as to cause the belt to be tight while making the cut and loose when not in use.

Mandrel—Cold rolled steel shafting 21" long, 1 7-16" diameter, 1 1/2" arbor.

Bearings—Adjustable, of ample size, and lined with high speed bearing metal.

Pulleys—Cast iron, 8" diameter, 6" crowned face.

H. P. Required—Six or more. See page 20.

SHIPPING WEIGHT—410 pounds.

No. 3 Saw complete, without blade.....	\$50.00
With 28" Cordwood blade.....	\$54.90
With 30" Cordwood blade.....	\$55.00
With 32" Cordwood blade.....	\$56.50
With 34" Cordwood blade.....	\$57.45
With 36" Cordwood blade.....	\$58.55

See Page 22 for Belting Prices

The No. 6 H & Z Heavy Duty Crosscut and Ripping Outfit—For Tractor Power

The biggest, strongest saw frame built. It has been developed to meet the demand by contractors, wood yards and farmers, etc., who have a heavy engine or tractor and want a saw frame for the heaviest kind of heavy duty work. It is made throughout of the best hardwood lumber, thoroughly bolted and braced. It will stand the weight and pull of a long, heavy tractor belt. Because it cuts the piece off squarely it is adapted for contractors and builders. In addition to being just the outfit the farmer wants for sawing his firewood.

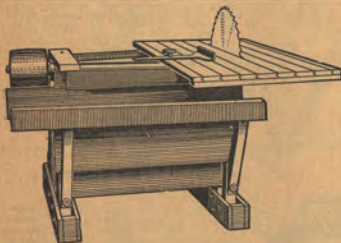
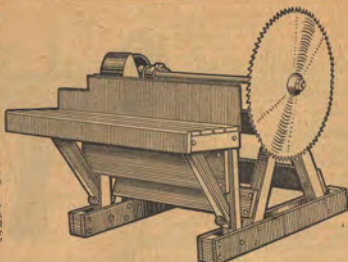
Mandrel—49" long by 1 7/16" in diameter with accurately machined washers and arbor for saw blades having 1 3/8" hole.

Pulley—We furnish a special 8" diameter by 6" wide crown face saw pulley so that the saw will run at the proper speed without slowing the tractor engine below its normal speed.

Bearings—The bearings are large and of the ball and socket type, which allows them to adjust to the mandrel perfectly under all conditions. They are held securely in place by a wrought iron safety clamp.

Blades—A 36" cordwood and 24" rip blade are furnished as standard equipment, as they are the sizes most commonly used. We can furnish other sizes, if wanted, on special order.

Shipping Weight—230 pounds.



No. 6 Heavy duty crosscut and ripping outfit complete with 36" cordwood blade, 24" rip blade and rip table\$48.00

If cordwood blade is not wanted deduct 5.00

If Rip blade is not wanted deduct 7.50

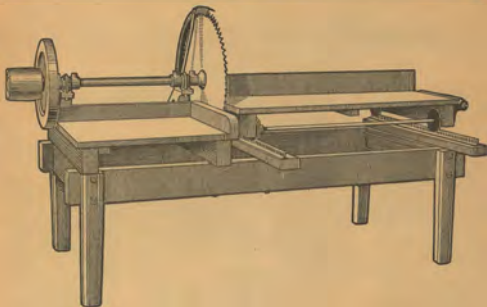
If Rip table is not wanted deduct 6.00

The ripping attachment can be put on or off in a minute. With it a wide variety of ripping, such as posts, crating lumber, etc., can be done.

See Page 22 for Belting Prices

The H & Z No. 16 Heavy Service Roller Table

Saw Bench



Designed for service when extra strength and rigidity are needed. Built like a work bench of heavy hard wood, securely bolted together. The table, also of selected hard wood, is mounted on rollers, the steel axles connecting which run the full length of the frame, so the table is compelled to hold the timber true to the saw. These rollers are grooved, and run easily on their tracks. A large roller at the outer end of the table permits the operator to draw large timbers up to the saw without exertion.

Full Length—7½ feet.

Width—3 feet, 16 inches.

Table—4 feet long.

Mandrel—Cold rolled steel, 30 inches long, 1 7-16 inches diameter, 1 3-8 inches arbor.

Balance Wheel—17 inches diameter, weight 70 pounds.

Saw Guard—Adjustable to take blades up to and including 30 inches.

H. P. Required, see page 20.

Shipping Weight—350 pounds.

No. 16 Heavy Service Roller Table Saw Bench complete with 70 pound balance wheel, without blade.....

\$36.00

With 20 inch Cordwood blade.....**\$38.60** With 25 inch Cordwood blade.....**\$40.30**

With 22 inch Cordwood blade.....**\$39.00** With 28 inch Cordwood blade.....**\$40.90**

With 24 inch Cordwood blade.....**\$39.60** With 30 inch Cordwood blade.....**\$41.60**

See Page 22 for Belting Prices

The H & Z "Hummer" Wood Sawing Attachment for the Fordson Tractor

The Fordson Tractor is one of the outstanding examples of modern labor saving devices. In order, however, that a tractor shall be a profitable investment for the average farm owner, it is necessary to make the fullest possible use of its adaptability.

The Hummer Wood Sawing Attachment is the latest and one of the most popular of the family of labor saving machinery, intended to increase the usefulness of the Fordson Tractor.

The Hummer Saw Attachment is extremely simple. It consists of a pair of steel channels which attach directly to the body of the tractor and are

wholly supported by it. Mounted on these channels or sills is a heavy saw mandrel and sliding saw table. It is attached to the tractor in less than ten minutes without making any changes or doing any machine work. You can then start the tractor, move to the wood lot or the woods, and begin to saw. No stakes to set, no braces to put up. The attachment is always in alignment and cannot work loose.

Constructed by the most experienced men in the wood saw business it is built in an extremely practical manner. The table is exactly the right height to permit wood to be handled with the least amount of effort on the part of the operator. The saw is so set in relation to the table that the table is below the saw center, causing the saw to cut into wood and assist in the feeding. The belt is short, in accordance with best shop practice, to avoid whip and to conserve power.

The table is so arranged that the saw will cut to its full width up to the collar, hence the 30-inch saw will cut practically any size piece without turning.

The compactness and portability of this outfit recommends it highly. It is not necessary to haul and pile wood for sawing. Run the tractor to the wood, saw it up and move to the next tree. Snow, frozen ground, nor mud interfere with its usefulness. One or two men with this outfit can saw more wood, with less exertion and in less time

than three or four men can do with an outfit which must be set up whenever it is moved.

SIX POINTS OF EXCELLENCE

- 1—Extremely simple—nothing to break or get out of order—strong and substantial—Guaranteed.
- 2—Quickly and easily attached and removed.
- 3—Sliding saw table—below center of saw—feeds easily.
- 4—Moved from place to place with the tractor—ready for work when you get there—no setting—no stakes—no braces.
- 5—Made by men who are thoroughly experienced in building wood sawing machinery.
- 6—Low saw table—Short lift—easy to work on.

This attachment will more than pay for itself on any farm, because of the ease with which it can be used. It permits the use of spare time doing work that is not unduly tiring for which reason many rails, posts and tree limbs will be converted into firewood that might be wasted if they had to be gathered up and hauled to the saw. In bad weather sawing can be done in a shed.

No changes are made on the tractor in order to attach this saw, nor is there any damaging strain brought to bear. Sawing can be done satisfactorily without a governor on the tractor, but a governor will regulate the power so that it will operate more uniformly when making large cuts.

This is the most compact and efficient sawing attachment for the Fordson now on the market. Designed and manufactured in a factory which has for many years specialized on wood sawing machinery it is but natural that it should contain practical features which our experience dictates and which could not be found in a sawing machine designed by a less experienced organization.

Due to specialization and large production, we are able to conform to the Fordson policy of selling to the Fordson owner at a very low price. You pay only a manufacturer's one profit when you buy from us. It is shipped to you direct from the door of the shop in which it is made.

The H & Z "Hummer" Wood Sawing Attachment for the Fordson Tractor

\$27.50

Less Blade and
Belt



SPECIFICATIONS

Mandrel—Cold rolled steel shafting, 34" long by 1 7-16" in diameter, with arbor machined for saws having 1 1/2" arbor hole. The mandrel washers are large and accurately machined.

Bearings—Double yoke type—extra large. The lower halves of the bearings are cast in a unit, being connected by a heavy double yoke, which prevents any possibility of their getting out of alignment. The bearings are fitted with liners and the caps are held by four bolts. Grease cups insure positive lubrication.

Pulley—Eight inches in diameter with six inch crown face. This pulley was designed especially for use on our Fordson Saw Attachment.

Belt—When specified we furnish a high grade rubber belt 12' long, which gives splendid satisfaction. A simple arrangement is provided for tightening belt when necessary.

Blade—When specified we can furnish cordwood blades in any size up to and including 30". They are filed and set, ready for immediate use, and are fully guaranteed. We recommend the 30" size, which will be found most satisfactory for average conditions.

PRICES

Many farmers already have saw blades and belts, and do not wish to buy others; therefore, we quote this machine less blade and belt, but can furnish them if wanted as listed below. The saw blade should have 1 1/2" hole—blades up to and including 30" can be used. The belt should be four or five inches wide, 12' long.

Hummer Saw complete, less saw

Blade and belt.....	\$27.50
26" Cordwood Blade.....	4.30
28" " ".....	4.90
30" " ".....	5.60
4" Rubber Belt, laced.....	4.35
5" " ".....	5.40

We recommend equipping the Hummer Saw with five inch rubber belt and 30" blade, which will be found to give the best satisfaction for average conditions.

NOTE—When a 26" or smaller saw blade is used, the pulley should be correspondingly smaller. If our customers have their own saw blades and will tell us what size, we will be glad to furnish the correct size pulley without extra cost.

The Fordson Pulley Fender and Clutch Hook

A Convenient and Necessary Attachment for Every Fordson Tractor

A simple, one-piece casting made of the best quality gray iron, that is attached to the pulley housing by three of the regular cap screws.

Its convenience and value can readily be seen. It protects the pulley from the dirt and stones, etc., that come around on the drive wheel, that otherwise injure the edge of the pulley and are dangerous to the operator.

Every exposed pulley should be guarded. This Pulley Fender prevents all possibility of the operator setting his foot down on the pulley while it is in motion, or getting it caught between the pulley and crank case.

The Pulley Fender is equipped with a clutch hook which is controlled by the instep of the operator's foot and a stirrup which is in just the right position to provide a very comfortable foot rest, without interfering with the clutch hook, that will be greatly appreciated during a long day's work in the field.

Shipping weight, 22 lbs.

Price of Pulley Fender with clutch hook, \$4.00.



RIP TABLE FOR H. & Z. FRAMES



All our saw frames with the exception of Nos. 2, 16 and 1603 are so constructed that one of these tables and a rip blade can be attached in a very few minutes by means of three bolts. Illustrations showing these attached ready for work will be found on pages 3 and 15. A very convenient and inexpensive way

to make crates, pickets, fence posts, lath, etc. Don't neglect to order a ripping attachment (rip table and rip blade) with your frame. You will find it useful and economical.

SHIPPING WEIGHT—25 lbs.

No. 1 Rip Table, for No. 1 frame only, with No. 2 Rip Table, for all frames excepting out blade \$4.00 Nos. 1, 3, 6, 16 and 1603, without blade, \$5.00

For rip blade prices see page 13.

SHINGLE SAWING TABLES

When this attachment is used on the Hertzler and Zook Wood Saws from five to ten thousand shingles can be sawed per day. The timber is first cut to length at shingle, then the table is attached, the blocks squared on three sides, then by use of the block holder the shingles are sawed.



Owing to the continual growing demand for the shingle tables, we will endeavor to give a few brief sketches to show how you can convert the trees you would otherwise realize only firewood prices for into a first class shingle, which is at all times ready money.

Figure (A) is squaring the blocks on three sides after it is cut in shingle length, using the ripping saw blade. Figure (B)



Fig. A

shows the use of the block holders while sawing shingles. To properly locate the steel guage, you place the block holder in position (before starting the saw), measuring the distance of the thickness of the shingle from the saw, then fasten steel guage with screws. After guage and block holders are adjusted, the minor adjustments can be made by adjusting pins.

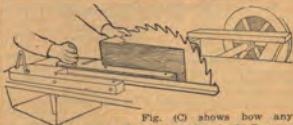


Fig B

Fig. (C) shows how any shingles may be edged off square. This makes a practical attachment. In case you wish to make box boards instead of shingles, it may be done by the adjustment pins, and the use of only one block holder.

Our ripping table for sawing shingles is made something similar to our No. 2 ripping table only it is longer and larger. It is adapted to do general ripping, as it can be used just as well for



Fig C

ripping as sawing shingles. Where our other table is only suitable for ripping lumber, as it is not long enough to saw shingles. It requires two block-holders to make a complete machine.

No. 1 Shingle Table with two block-holders, without blade, for No. 1 frame only, shipping weight 40 lbs. Price \$5.00

No. 3 Shingle Table with two block-holders, without blade, for all frames excepting Nos. 1, 3, 6, 16 and 1603, shipping weight 60 lbs. Price \$7.50

H & Z MANDREL SETS



Nos. 1 and 2

No. 1 MANDREL SETS

1 5-16 inch cold rolled steel mandrel, 41 inches long, with 35 lb. fly wheel; 5x5" pulley; flat babblitted boxes; 1 1/4" arbor.

Shipping weight, 65 lbs. Price, **\$6.90**

When balance wheel is not wanted deduct \$1.25.

No. 2—Mandrel Set, with flat babblitted boxes; 1 7-16 inch cold rolled steel mandrel, 49 inches long with 50 lb. fly wheel; 6x6 pulley, 1 1/2" arbor.

Shipping weight, 100 lbs.

Price

\$10.50

When balance wheel is not wanted deduct \$2.40.

No. B1 MANDREL SET

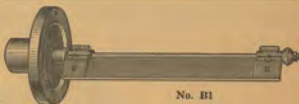
1 7-16 inch cold rolled steel Mandrel, 49 inches long with 50 lb. fly wheel; babblitted boxes connected by cast iron yoke full length of mandrel; 6x6" pulley; 1 1/2" arbor.

Shipping weight 120 lbs. Price, **\$12.50**

When balance wheel is not wanted deduct.....

Add for 70 lb. balance wheel instead of 50 lb.

Add for 90 lb. balance wheel instead of 50 lb.



No. B1

REPAIR PARTS FOR SAW FRAMES

MANDRELS

No. 1.....	\$3.25
Nos. 2, 3, 4, 5, 6, 10, 11, 12, 16, 1604, 1605, 1607 and 1619.....	4.00
No. 1603.....	4.50
Lower mandrel for Nos. 5, 12 and 1619.....	3.00

BOXES

No. 1, each.....	\$1.25
Nos. 2, 4, 5, 10, 11 and 12, each.....	1.50
Nos. 6 and 16, including socket casting and U bolt, each.....	2.25
No. 1603, each.....	2.00
No. 1604, 1605, 1607 and 1619, yoke.....	4.50
Boxes for lower mandrel Nos. 5, 12 and 1619, each.....	1.00

PULLEYS

No. 1—5x5x1 5-16".....	\$2.25
Nos. 2, 4, 5, 10, 11, 12, 16, 1603, 1604, 1605, 1607 and 1619—6x6x1 7-16".....	2.75
No. 6—8x6x1 7-16".....	3.75
Idler for Nos. 5, 12 and 1619, 6x6x1 7-16" loose.....	2.50

BALANCE WHEELS

No. 1—35 lbs., 13" diameter.....	\$3.75
No. 2, 4, 5, 11, 12, 16, 1605, 1607, 1603, 1619—50 lbs., 17" diameter.....	5.00
Special 70 lbs., 71" diameter.....	6.75
Special 90 lbs., 17" diameter.....	8.50
Special 125 lbs., 17" diameter.....	11.50

MISCELLANEOUS

Mandrel Washers or Flanges, all sizes, each.....	\$.75
Hexagon Nut for mandrel, all sizes, each.....	.40
Saw Guards for Nos. 4, 5, 10, 11, 12, 1604, 1605, 1607 and 1619, each.....	.75
Saw Guards for Nos. 16 and 1603.....	1.50
Foot Castings for Nos. 1 and 2.....	.40
Idler Pulley Castings for Nos. 5, 12 and 1619.....	2.00
Gauge for No. 1 rip and Shingle table, including hand wheel and bolt, each.....	.50
Gauge for No. 2 rip and shingle table, including hand wheel and bolt, each.....	.75

Guaranteed Cordwood Blades

When you are considering the purchase of a cordwood saw you want a blade that will give you entire satisfaction in every way. It must be particularly suited for just its class of work. You want it guaranteed to satisfy in every particular—a saw that has the right kind of temper to the very points of the teeth. You want the teeth to hold their edge and not crumble. You want a hard, yet tough temper. You do not want the teeth to split nor do you want to be constantly delayed and annoyed by sharpening the teeth every hour or so. You want a saw that will cut green wood, dry wood, frozen wood, hardwood, soft wood, knotty limbs, in fact all kinds of wood, and stand right up and do the work day after day. The only thing on your part being to keep the teeth well sharpened, and the throats or gullets well rounded and free from sharp corners, so as to freely discharge the saw dust. The H. & Z. cordwood saws will do this. They are fully guaranteed and we will cheerfully replace any saw, that shows defective material or workmanship.



CAUTION—In filing or gumming a cordwood or rip saw great care should be taken that no sharp corners are filed or gummed in the gullet. If this is done it will cause any make of blade to crack, and doing so cancels our warranty. Use a round edge file. See page 20.

Dia. in.	16	18	20	22	24	26	28	30	32	34	36
1½" hole	2.00	2.20	2.60	3.00	3.60	4.30	4.90	5.60	6.50	7.45	8.55
1¼" hole	2.00	2.20	2.60	3.00							

SHIPPING WEIGHTS and gauges of Cordwood Blades are the same as those of Rip Blades shown below.

GUARANTEED RIP BLADES

For ripping of lumber for use as crating, for work on a farm, such as ripping material for posts, pickets and general ripping, the Hertzler and Zook Rip Saws are in great favor and demand, and give splendid satisfaction. The saws are hand set and hand filed, ready for use, so that there will be no delay occasioned by your first having to sharpen them before you commence work.

Be sure to always give the size of the arbor holes. For work in a planing mill, or where the customer intends to use the saw day in and day out as a commercial proposition, then a different saw than what we list herewith is recommended. The saws herewith listed are only for general use. We can furnish any size or kind and will gladly quote on whatever you need.

CAUTION: Read carefully "CAUTION" as set forth under "Cordwood Saw Blades."

PRICE LIST—RIP SAW BLADES



Diam.,		Arbor		Shipping	Price
Inches	Gauge	Hole In.	Weight		Each
10	16	1½	2½ lbs.		\$2.10
12	15	1½ and 1¾	4 lbs.		2.70
14	14	1½ and 1¾	6 lbs.		3.30
16	14	1½ and 1¾	8 lbs.		4.00
18	13	1½ and 1¾	8 lbs.		4.85
20	13	1½ and 1¾	11 lbs.		5.80
22	12	1½	14 lbs.		6.75
24	11	1½	18 lbs.		8.00
26	11	1½	20 lbs.		9.35
28	10	1½	25 lbs.		10.75
30	10	1½	31 lbs.		12.00
32	10	1½	36 lbs.		14.25
34	9	1½	42 lbs.		16.00
36	9	1½	47 lbs.		18.45

No. 1 Rip and Shingle Tables will accommodate up to and including 20" rip blades.

No. 2 Rip and Shingle Tables will accommodate up to and including 26" rip blades.

Best Quality No. 3 Inserted Tooth Sawmill Saws

At Money-Saving Prices

All H. & Z. Inserted Tooth Saws are made of the best quality of crucible steel. They have superior finish; the temper of the teeth is uniform, even to the very points and the tension is exact. Your order will receive individual attention and before being shipped will be carefully examined by our expert to see that the saw has been made to suit conditions under which it will be operated. All H. & Z. saws are guaranteed against flaws, cracks, splits or defects.

In our inserted tooth saws, the shanks have the groove and slot accurately milled therein on an automatic machine. The head of the shank is milled square on an automatic machine; the holes are drilled to template. The above not only assures uniformity, but the shank will fit the saw without straining any part of the V shoulder. The square head of the shank holds the bit central, and the shank has sufficient throat to insure free discharge of the saw-dust. The tooth has a square heel which gives a perfect bearing surface. The swage is long, consequently giving long life to the tooth. The shanks and teeth are both accurately gauged.

The teeth in the saw will be sharpened ready for use; no extra charge for board. With each Inserted Tooth Saw we furnish without additional charge one extra set teeth, two extra holders and one wrench. The additional teeth are also sharpened ready to be inserted into the saw for immediate use.



Diameter	Thickness Gauge at Rim	Standard No. of Teeth	Price
40	8	26	\$ 68.25
42	8	28	73.50
44	8	30	80.00
46	8	32	88.00
48	8	34	97.00
50	8	36	107.50
52	7-1/4	38	118.00
54	7	40	124.00
56	7	42	152.00

When ordering be sure to give us the following information, which will enable us to furnish just the right saw for your purpose:

- 1—Diameter.
- 2—Size of mandrel hole.
- 3—Size of pin holes.
- 4—Distance from center to center of pin hole.
- 5—Speed when in cut.
- 6—Greatest feed.
- 7—Right or left hand.
- 8—Arbor run warm or cold.
- 9—Kind of lumber to be sawed.

TABLE OF APPROXIMATE HORSE POWER REQUIRED FOR SAW BLADES

CORDWOOD BLADES

For the guidance of our customers we submit the following tables which shows the approximate horse power required to operate the different size cordwood blades under average conditions. This will, of course, vary with the kind of wood sawed, and how fast it is fed to the saw. Our underslung machines, Nos. 5, 12 and 1619 require about one horse power more for the same size blade than the single shaft machines.

16 inches Diameter	1 H. P.
18 inches Diameter	2 H. P.
20 inches Diameter	3 H. P.
22 inches Diameter	3 H. P.
24 inches Diameter	4 H. P.
26 inches Diameter	5 H. P.
28 inches Diameter	6 H. P.
30 inches Diameter	8 H. P.
32 inches Diameter	8 H. P.
34 inches Diameter	10 H. P.
36 inches Diameter	10 H. P.

RIP BLADES

A rip blade requires about 50 per cent. more power than a cord wood blade of the same size.

TABLE OF SPEEDS

Saw Dia. Inches	Speeds	Saw Dia. Inches	Speeds	Saw Dia. Inches	Speeds
18	2000	26	1384	34	1050
20	1800	28	1285	36	1000
22	1636	30	1200		
24	1500	32	1120		

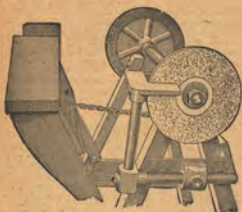
Above are the speeds at which saw blades, both cordwood and rip, will give the best results, and do the most work. They will, however, give good results at several hundred R. P. M. slower.

SPECIAL ROUND EDGE MILL FILES

These are the files we recommend for filing our saws. Always keep your saw set and sharp. A dull saw pulls hard, saws ragged and will heat and lose its temper.

Size	3"	10"	12"	14"
Price, each	\$.25	.30	.40	.60

GRINDING ATTACHMENT FOR H & Z SAW FRAMES



Showing Attachment on Saw Frame



Grinding Mower Knife

Here is the handiest money and labor saver ever put on a farm. Every H & Z saw frame can be bored to take the bolts used to attach this grinding guide. Take off the saw blade, put on the grinding wheel, insert the arm of the grinding guide in its socket, you can grind cultivator bottoms, discs, tools of all kinds, gum saw blades and grind mower sections. Adjustable to any angle for grinding into corners and for following any bevel. Will pay for itself many times over in one season, and save valuable time besides. Will take stones up to 12 inches in diameter with up to 1 1/4 inch face.

No. 315—Grinding attachment without grinding wheel, shipping weight 25 lbs.

Price

\$4.00

SUPERIOR GRINDING WHEELS



Made of special type abrasive, of just the proper texture for fast, smooth work. The same kind of stone we use in our factory for keeping workmen's tools in condition.

Note—When ordering grinding wheels be sure to state size of arbor hole wanted, or give number of H & Z saw frame it is to be used on. We can select your wheel better if you state the kind of grinding you expect to do.

No. 318—Grinding Wheels, 10-inch diameter:

Width of face, inches	1/4	1/2	3/4	1	1 1/4
Price, each	\$2.75	\$2.10	\$2.35	\$3.00	\$4.25

No. 320—Grinding Wheels 12-inch diameter:

Width of face, inches	1/4	1/2	3/4	1	1 1/4
Price, each	\$3.50	\$4.25	\$3.00	\$3.85	\$5.50

NOTE—The 10x1/4" and 12x1/4" sizes are special elastic saw gumming wheels, which accounts for the extra cost.

HUNTINGDON WHEEL DRESSER

For truing, shaping and removing glaze from grinding wheels.

No. 322—Wheel Dresser, weight 1 1/2 lbs. Price with two sets cutters

Extra cutters, per dozen

\$.75

1.00



RED STITCHED CANVAS BELTING



A high grade belt, recommended for all outdoor purposes, and for use in wet or damp places. It is not affected by moisture or atmospheric changes. Made of long fibre cotton duck, saturated with oil, stretched closely from end to end, and finished with a coating of special red oil paint. If a belt is wanted endless, add the price of 7 extra feet for lap and labor, special belts ordered endless, and shipped as ordered are not returnable, and cancellations of order cannot be accepted after work has begun. We recommend four-ply belt for use with our saws.

FOUR-PLY RED STITCHED CANVAS BELTING

Width	Per Foot	Width	Per Foot
1½ in.....	9c	6 in.....	32c
2 in.....	12c	7 in.....	36c
3 in.....	17c	8 in.....	40c
4 in.....	22c	9 in.....	44c
5 in.....	27c	10 in.....	48c
		12 in.....	52c

FIVE-PLY RED STITCHED CANVAS BELTING

Width	Per Foot	Width	Per Foot
3 in.....	21c	8 in.....	52c
4 in.....	28c	9 in.....	57c
5 in.....	34c	10 in.....	62c
6 in.....	38c	12 in.....	78c
7 in.....	46c		

ENDLESS THRESHER BELTS—RED STITCHED CANVAS

Our Stitched Canvas Thresher Belts are made from especially prepared heavy cotton duck, thoroughly stretched, and sewed from end to end under heavy tension, making a very strong yet pliable fabric. Not affected by water, heat, steam or atmospheric changes and fully guaranteed under fair usage.

FOUR-PLY

	50 Ft.	75 Ft.	100 Ft.	125 Ft.	150 Ft.
Width	Length	Length	Length	Length	Length
5"	\$14.50	\$21.50	\$28.00		
6"	17.00	25.00	33.00	41.00	
7"	19.50	29.00	37.50	46.00	\$55.00
8"	22.00	32.00	42.00	52.00	62.00



LACE LEATHER

Our lacing is of the highest quality. Rawhide Cut Lace Leather in bundles containing 100 feet. Suitable lengths for lacing belts. We do not sell less than a full bundle. ¼ inch, \$1.90; ½ inch, \$2.50; ¾ inch, \$3.75; 1 inch, \$4.50.



SUPERIOR BELT DRESSING

Bar Belt Dressing for preserving Belts and keeping them from slipping. For use on any kind of Belting, Ropes or Cables. Price, per one pound bar.....

25c

LEATHER BELTING

Cut from a good selection of side stock and is oak tanned by the long-time process. Is a high grade leather belt for use on farm machinery, thrasher, saws, planer, etc., where a good grade of belting is required.

Width	Price per Ft.
1" -----	12c
1½" -----	18c
2" -----	24c
2½" -----	30c
3" -----	36c

Width	Price per Ft.
3½" -----	42c
4" -----	48c
5" -----	60c
6" -----	72c

HIGH GRADE RUBBER BELTING

Rubber belting is fast becoming more popular, especially where the service is hard. A rubber belt, being very flexible, can be run comparatively loose with practically no slippage. This greatly increases the life of the bearings, and conserves power. It is particularly adapted to the most severe farm, as well as shop service. It has ample strength in reserve to overcome without undue stretch the heavy intermittent loads it is called upon to transmit. It is of such construction that it is very pliable and supple—without sacrificing strength—so that it makes better contact with pulleys, as the horsepower transmitted is largely dependent upon this feature. Stretching and shrinking in this belt is reduced to a minimum. Very durable.



PRICES

Width	1"	2"	3"	4"	5"	6"	7"	8"	10"	12"
Ply										
3...	\$.08	\$.16	\$.22							
4...		.18	.26	\$.33	\$.41	\$.49	\$.58			
5...			.41	.51	.61	.70	\$.77	\$.94	\$ 1.14	

ENDLESS RUBBER BELTS

Splendid for tractor use. The ideal belt for threshermen.

4 PLY

Width	50 Ft.	75 Ft.	100 Ft.	125 Ft.
5" -----	\$24.00	\$36.00		
6" -----	28.00	42.00	\$55.00	\$68.00
7" -----		47.00	62.00	78.00
8" -----		53.00	68.00	87.00



Turned and Ground Steel Shafting



Finished accurately to size and absolutely round. May be had in any length up to 24 feet.

Size	15-16"	1 3-16"	1 7-16"	1 11-16"	1 15-16"	2 3-16"	2 7-16"
Price, per foot.....	\$.15	.24	.36	.48	.56	.72	.92

Safety Set Collars



Solid and Split

Bored accurately to shaft size, flanges faced each side and turned on outer diameter, to insure true running when in position on shaft.

Size	15-16"	1 3-16"	1 7-16"	1 11-16"	1 15-16"	2 3-16"	2 7-16"
Price each, solid	\$.20	.23	.27	.32	.37	.43	.50
Price each, split	\$.24	.32	.40	.48	.56	.64	.72

"UNIVERSAL GIANT" Keyless Compression Couplings



This coupling holds shafts in accurate alignment and needs no keys; but grips the shafts by friction so tightly that the shaft would bend before the coupling would slip. Easy to install or remove.

Size	15-16"	1 3-16"	1 7-16"	1 11-16"	1 15-16"	2 3-16"	2 7-16"
Price, each	\$2.90	3.25	3.75	4.25	5.40	6.25	7.25

Standard Rigid Pillow Blocks, No. 252



A very substantial plain pillow block with long bearings lined with babbitt. Ends faced smooth and bases ground. For heavy service.

Size	1 3-16"	1 7-16"	1 11-16"	1 15-16"	2 3-16"	2 7-16"
Price, each	\$.90	1.10	1.40	1.95	2.55	2.95

Plain Flat Boxes, No. 286

A medium length bearing for light or medium service or when space on shaft is limited. Bearings are babbitted to size and have a pocket on top for holding oil.



Size	15-16"	1 3-16"	1 7-16"	1 11-16"	1 15-16"	2 3-16"	2 7-16"
Price, each	\$5.55	.70	.85	1.10	1.30	1.60	1.95

"Peerless" Adjustable Drop Hanger, No. 435

Adjustable in all directions. After frame is firmly bolted fast the bearing may be moved to either side or up or down as conditions require and this, too, without disturbing the position of the frame.

It is a good sturdy hanger, with ring oiling bearings lined with a good grade of babbit metal, and if oil is used freely the bearing will last indefinitely.



PRICES

Shaft Sizes Inches	Bearings Only	Complete Hangers—Range of Drops in Inches							
		7-9	10-12	13-15	16-18	19-21	23-25	28-30	34-36
1 3-16"	\$1.10	\$3.85	\$3.10	\$3.85	\$3.70	\$4.00	-----	-----	-----
1 7-16"	1.40	3.25	3.50	3.85	4.20	4.60	\$5.15	-----	-----
1 11-16"	1.70	3.55	3.80	4.20	4.50	4.95	5.45	-----	-----
1 15-16"	2.05	4.55	4.85	5.20	5.60	6.10	6.55	\$8.45	-----
2 3-16"	2.65	5.15	5.45	5.85	6.25	6.70	7.20	9.05	-----
2 7-16"	3.10	6.35	6.85	7.50	8.10	8.75	9.70	11.55	\$13.75

Cast Iron and Wood Split Pulleys



WOOD SPLIT PULLEYS

Light, strong convenient and safe. They are made so that they can be taken apart and attached to shaft without disturbing other pulleys or hangers. Made of straight grained hardwood, varnished. Prices quoted are for pulleys complete with bushings. We can furnish bushings to make pulley fit any size from $\frac{1}{2}$ to 2 inches, inclusive. Be sure to state size of shaft pulley is to fit.

Diam.	Face 3	4	5	6	7-8	9-10	11-12	13-14	15-16
3"-4"	\$2.29	\$2.39	\$2.54	\$2.70	\$3.03	\$3.36	\$3.69		
5"	2.34	2.44	2.62	2.78	3.16	3.53	3.89		
6"	2.38	2.46	2.66	2.87	3.28	3.69	4.10		
7"	2.42	2.50	2.75	2.95	3.40	3.85	4.30	\$4.75	
8"	2.46	2.54	2.79	3.03	3.52	4.01	4.51	5.00	
9"	2.54	2.66	2.95	3.19	3.73	4.26	4.79	5.33	
10"	2.66	2.78	3.07	3.36	3.93	4.51	5.08	5.65	\$6.23
11"	2.87	3.03	3.38	3.69	4.34	5.00	5.65	6.31	6.97
12"	3.07	3.28	3.65	4.01	4.75	5.49	6.23	6.97	7.70
13"		3.52	3.93	4.34	5.16	5.98	6.80	7.62	8.44
14"		3.77	4.22	4.67	5.57	6.47	7.38	8.28	9.18
15"		4.01	4.51	5.00	5.98	6.97	7.95	8.93	9.92
16"		4.26	4.79	5.33	6.39	7.46	8.52	9.59	10.65
17"		4.51	5.08	5.65	6.80	7.96	9.10	10.25	11.39
18"		4.75	5.37	5.98	7.21	8.44	9.67	10.90	12.14
19"		5.00	5.65	6.31	7.63	8.93	10.25	11.56	12.87
20"		5.24	5.94	6.64	8.03	9.43	10.82	12.21	13.61
22"		5.74	6.51	7.29	8.85	10.41	11.97	13.53	15.08
24"		6.31	7.21	8.11	9.92	11.72	13.53	15.33	17.13
26"		6.88	7.91	8.93	10.98	13.03	14.96	17.13	19.18
28"		7.46	8.61	9.75	12.07	14.35	16.64	18.94	21.23
30"		8.03	9.30	10.57	13.12	15.60	18.20	20.74	23.28
32"		8.61	10.00	11.39	14.18	16.97	19.76	22.55	25.33
34"		9.26	10.78	12.30	15.33	18.36	21.40	24.43	27.47
36"		9.92	11.56	13.20	16.48	19.76	23.04	26.32	29.60

IRON PULLEYS

Made of close grained grey iron, bored, turned and balanced. Furnished with set screw. If key way is wanted add 50c to price given. Unless otherwise specified we always ship crown face. These pulleys are extra well finished.

Diam.	Face 3	4	5	6	8	10
4"			\$2.25	\$2.75		
5"			2.60	2.75		
6"	\$1.95	\$2.25	2.60	2.90	\$3.65	
7"	2.15	2.60	2.90	3.15	3.95	
8"	2.40	2.70	3.05	3.40	4.30	
9"	2.60	2.95	3.30	3.70	4.60	
10"	2.80	3.15	3.55	3.95	4.90	
12"	3.25	3.65	4.10	4.60	5.70	
14"	3.65	4.20	4.60	5.20	6.50	
16"	4.20	4.70	5.25	5.85	7.40	
18"	4.70	5.25	5.95	6.65	8.40	
20"	5.20	6.00	6.80	7.65	9.35	\$11.45
22"	5.75	6.70	7.60	8.55	10.40	12.50
24"	6.35	7.40	8.40	9.45	11.65	13.70
26"	7.00	8.10	9.25	10.35	12.65	15.05
28"	7.70	9.00	10.25	11.50	14.00	16.75
30"	8.50	9.95	11.20	12.60	15.40	18.35
32"	9.25	10.70	12.20	13.70	16.75	19.95
34"	10.25	11.75	13.25	14.85	18.25	22.75
36"	11.15	13.00	14.45	16.20	19.90	23.60



If pulleys are needed that we do not list, we want our customers to be free to write us, and shall be glad to quote on any size or kind.

American Steel Split Pulleys

The American Steel Split Pulley is designed to give maximum strength with minimum weight. It consists of a rim of one ply steel made exceedingly stiff by interior flanges to which the arms are securely attached. Flat "A" braced arms (edge on) give perfect rigidity and least air resistance. Grooved air escape insures unusually good belt contact. They are made in the split pattern and can be attached to a shaft without taking it down. No keys or set screws are necessary. These pulleys are very durable and give splendid satisfaction.

FACE

PRICE LIST

DIAM.	3"	4"	5"	6"	8"	10"
4"	\$2.15	\$2.20	\$2.35	\$2.65		
5"	2.20	2.35	2.45	2.75	\$3.50	\$4.35
6"	2.80	2.95	3.20	3.45	3.90	4.40
7"	2.85	3.05	3.30	3.55	4.10	4.40
8"	2.95	3.20	3.45	3.70	4.20	4.75
9"	3.05	3.30	3.55	3.80	4.35	4.90
10"	3.20	3.45	3.70	3.95	4.45	5.00
12"	3.55	3.95	4.10	4.55	4.90	5.50
14"	3.80	4.40	4.80	5.25	6.00	6.35
16"	4.20	4.90	5.20	5.85	7.00	8.05
18"	4.70	5.40	5.95	6.50	7.90	9.05
20"	5.10	6.35	6.90	7.65	9.10	10.20
22"	5.50	7.25	8.05	8.75	10.20	12.00
24"	6.35	7.55	8.50	9.20	11.20	13.25
26"		8.10	8.90	10.15	12.25	14.55
28"		9.20	9.95	10.95	13.15	15.45
30"		10.20	10.95	12.00	14.65	16.90
32"		11.20	12.00	13.15	16.45	19.10
34"		12.25	13.40	14.65	18.50	21.65
36"		13.50	15.15	16.55	20.40	24.35



ROCKWOOD PAPER PULLEYS



Section Removed To Show Construction

The Rockwood drive pulley consists of a solid block of tough wear-resisting fibre (seldom less than two inches thick), built around and into a heavy cast iron hub. The end-grain is exposed as a surface to grip the belt surely and firmly—a surface made up of layer upon layer of fibre hydraulically compressed and cemented—a surface that renews itself automatically as it wears and wears and WEARS.

The Rockwood drive pulley has no "cover" to strip. It is ALL pulley and is thoroughly waterproofed.

Particularly adapted for drive pulley service on threshers. Will reduce belt slip to a minimum on any drive.

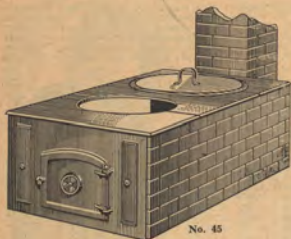
PRICE LIST

(Other Sizes on Application)

FACE WIDTH OF PULLEY IN INCHES

Diameter of Pulley in Inches	5	6	7	8	9	10	11	12
5	\$3.40	\$3.70	\$4.00	\$4.30				
5½	3.65	3.95	4.25	4.55				
6	3.90	4.20	4.55	4.85	\$5.20			
6½	4.15	4.50	4.85	5.20	5.55			
7	4.45	4.80	5.20	5.55	5.95	\$6.30		
7½	4.75	5.15	5.55	5.95	6.35	6.75		
8	5.05	5.50	5.90	6.35	6.75	7.20	\$7.60	
8½	5.35	5.80	6.25	6.70	7.15	7.60	8.05	
9	5.70	6.20	6.65	7.15	7.60	8.10	8.55	\$9.05
9½	6.05	6.55	7.05	7.55	8.05	8.55	9.05	9.55
10	6.40	6.90	7.45	7.95	8.50	9.00	9.55	10.05
10½	6.75	7.30	7.85	8.40	8.95	9.50	10.05	10.60
11	7.15	7.70	8.30	8.85	9.45	10.00	10.60	11.15
11½	7.55	8.15	8.75	9.35	9.95	10.55	11.15	11.75
12	7.95	8.55	9.20	9.80	10.45	11.05	11.70	12.30
12½	8.35	9.00	9.65	10.30	10.95	11.60	12.25	12.90
13	8.80	9.45	10.15	10.80	11.60	12.20	12.85	13.55
13½	9.25	9.95	10.65	11.35	12.05	12.80	13.50	14.20
14	9.70	10.45	11.20	11.95	12.65	13.40	14.15	14.90
14½	10.20	11.00	11.75	12.55	13.30	14.05	14.85	15.65
15	10.70	11.55	12.35	13.15	14.00	14.80	15.60	16.45
15½	10.25	12.15	13.00	13.85	14.70	15.55	16.45	17.30
16	11.35	12.80	13.70	14.60	15.50	16.40	17.30	18.25

Castings for Brick and Concrete Furnaces



No. 45

No. 45—Same as above, but with collar for use with stove pipe flue instead of brick flue; shipping weight 220 lbs. Price.....\$15.50

No. 42—Two kettle size as shown in upper illustration except for brick or stone flue instead of stove pipe; shipping weight 260 lbs. Price.....\$18.25

No. 49—Two kettle size, kettles side by side, as shown in lower illustration, with door for each kettle; shipping weight 310 lbs. Price.....\$22.00

A furnace will make the work of cooking stock food, butchering, making apple butter, etc., easy for all.

These furnace plate outfits consist of top plates, cast iron door frames, with door and anchor bolts, lid and bushing. We do not furnish kettles.

No. 40—One kettle size complete with all castings—22- or 24-inch opening as ordered — shipping weight 215 lbs.

Price.....\$15.25



No. 49

Covers for kettle openings for any of the above top castings. Price, each.....\$1.50

Reducing rings to reduce kettle openings one side. Price, each.....\$1.50

Door and door frames only, complete. Price, each.....\$7.00

Coal Grates for Furnaces

Coal Grates—When it is desired to use coal for fuel, grate must be placed in position while furnace is being built.

No. 53—Straight bar grate 3 inches wide, 25 inches long (3 bars to section). Weight 8 lbs. Price, per section.....\$1.00

No. 51—Straight bar grate, 3 inches wide, 33 inches long (3 bars to section). Weight 10½ lbs. Price, per section.....\$1.25

Trucks For Gasoline Engines

HAND TRUCK FOR SMALL ENGINES

A low priced handy truck for small gasoline engine. Also handy for any light hauling.

Twelve inch iron wheels, with $1\frac{1}{4}$ inch rims, platform 36 inches long, 16 inches wide. Wheels turn under platform so it can be extended with boards across if desired. Strong steel tubular axles and turn table. Just the thing for the pumping engine.

No. 170—Light engine truck

Price

\$5.00



Wood Sill Hand Truck for Medium Engines

It is frequently desirable to move an engine as large as 5 H. P. around the farm to different jobs, without the necessity of putting it on a wagon. This truck is just the thing. Engines up to 1400 lbs. in weight can be moved around and operated on this truck. Wood sills cushion the jar. Front wheels 12, rear 14 inches in diameter; 28-inch tread; tubular axles, steel tongue, sills $5\frac{1}{2}$ feet long; height to top of sills 16 inches. Shipping weight 175 lbs.



No. 172—Wood sill Hand

Truck Price

\$14.50

PORTABLE SAW RIG TRUCKS

Having many requests for a complete portable outfit from customers who had a 3 to 7 Horse Power Engine and wished to mount it on a saw truck, we offer our saw truck complete without engine. This is the same truck in use for our famous portable saw rigs.

The steel axles are reinforced with hardwood, upon which rest the heavy hardwood engine sills.



24 inches front and 30 inches rear wheels, all steel with 3-inch grooved tires. Tilting table saw frame has 70 lb. balance wheel and will take saw blade up to 30". Shipped knocked down to save freight charges. For complete description of saw frame see page 11.

No. 1200—Portable saw rig truck only with pole, but without saw frame or saw blade **\$45.00**

No. 1603—Saw frame with 70 lb. balance wheel, without blade, extra **\$22.15**

Neck yoke, double and single trees, extra **\$5.00**

Belt Tightener, complete, extra **\$7.50**

See page 18 for saw blade prices.

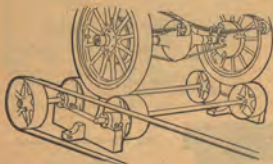
The "H & Z" Auto-Power Jack

For Utilizing Power From Your Automobile or Truck—

For Wood Sawing, Feed Grinding, Etc.

NO POSSIBLE INJURY TO THE AUTOMOBILE—LESS WEAR ON TIRES THAN THE

ROAD. HANDY, EFFICIENT, ECONOMICAL



Front View

length of time on the road. No strain on the car, as is the case where power is taken from one wheel only. Put a saw frame and and H & Z Jack in your car, drive to the wood lot, and begin sawing in ten minutes.

We can furnish the Jack either for automobiles with pneumatic tires, as shown in the two upper views on this page, or for light delivery trucks with solid tires as shown in lower illustration.



Rear View

ILLUSTRATING JACK FOR SOLID TIRE WHEELS

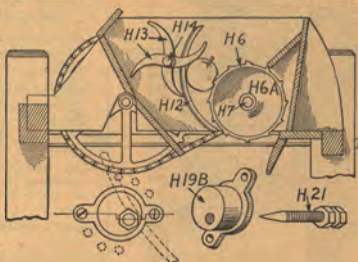


When ordering be sure to state kind of car you will use and what machines you will operate. We can then furnish pulleys of proper size for your use.

Auto Jack Complete with habbited bearings, weight 200 lbs. Price **\$22.50**

H & Z FORCE FEED CIDER MILLS

INTERIOR VIEW, SHOWING THE WORKING PARTS AND PATENT FEATURES



H 6 is the grating or grinding cylinder. H12 is the concave. H19 and H21 are the eccentric adjusting nut and screw which adjust the concave to the cylinder as shown at left.

H13 are the force feed arms that force the apples down.

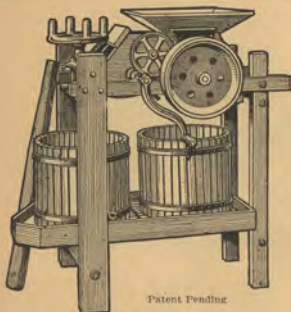
This mechanism insures a positive feed at all times, regardless of size, kind or condition of apples. Therefore, the cylinder and concave may be adjusted to do finer work than would be possible without this force feed equipment, and as a result more juice will be obtained. Our machines must be used to fully appreciate this great improvement. Illustration, description and prices on next page.

H & Z FORCE FEED CIDER MILLS

BUILT IN TWO SIZES

The H. & Z. Cider Mills are strongly built of selected hard wood, and are securely mortised, braced and bolted.

Built for Service and Long Life



Patent Pending.

SEVEN POINTS OF EXCELLENCE

- 1.—Positive Force Feed Grinder; cannot choke.
- 2.—Oversize yoke.
- 3.—Large balance wheel, makes turning easy. Wide crown face for belt.
- 4.—Strong and durable, long service.
- 5.—Very efficient—gets a high percentage of cider from any kind or condition of apples.
- 6.—Built in modern, up-to-date factory.
- 7.—Fully guaranteed.

YOKE—The yoke is cast iron and made oversize, so that it will withstand great pressure. The screw is steel, carefully machined and runs freely. Hand wheel and follower are cast iron.

GRINDER—Our grinder is so designed that it will grind apples very fine and rapidly, crushing the little globules that contain the juice. It is equipped with a force feed device, and will handle all sizes, kinds and conditions of apples without clogging or being forced. See page 21.

BALANCE WHEEL—Both mills are equipped with a large balance wheel that gives the grinder momentum and makes turning easier. It has a special wide crowned face, so that a belt can run on it, and either size mill driven by a small engine if desired. All bearings are of liberal dimensions and are carefully machined and fitted.

CRIBS—We furnish plain cribs as shown in illustration as standard equipment on both mills. Hinged cribs can be supplied at a slight additional cost. Slats of cribs are riveted at both ends.

RACK AND CLOTH EQUIPMENT can be supplied instead of cribs at additional cost.

TROUGHS—Troughs are made tight, deep and wide. They are jointed together by a special wide tongue and groove to take care of the swellings and drying conditions that exist in any cider mill.

Specifications	Medium	Senior
Height of Legs.....	40"	43"
Screw.....	1½x20½"	2x23½"
Outside measurement of cribs.....	12x14"	14x17"
Diameter of Belt Wheel.....	13½"	15½"
Width of Belt Wheel.....	3¼"	3½"
Shipping weight.....	256 lbs.	337 lbs.
PRICE	\$27.55	\$40.95

SINGLE TUB CIDER MILL



\$17.35

A splendid mill for those who do not have a very large quantity of fruit to grind. This mill will handle large or small apples and does very nice work. It is equipped with a large balance wheel which makes it easy to turn. Can be cleaned very easily, enabling it to be kept sweet and clean with little effort.

It is made of the same high grade materials as our larger machines. The frame is hardwood and is securely bolted. The yoke is cast iron—extra heavy, and has machine cut threads. The screw is made of cold rolled steel with machine cut threads. It is 1 1/4" in diameter and 24" long. The tub is 12 inches high and 14 inches wide, inside measurement. Capacity, five to seven bushels per hour.

Shipping weight, 130 lbs.

Price ----- **\$17.35**

H. & Z. FRUIT PRESSES

STRONG AND DURABLE—BUILT FOR SERVICE

The H. & Z. Fruit Presses are built to do the work just a little better than the average.

The frame is sturdily built of native hard wood.

The cross head is extra heavy cast iron securely bolted to legs.

The legs, sills, and under cross piece are firmly held together by mortises and bolts.

The under cross piece is re-enforced by a steel rod underneath which extends through each of the legs and is also given additional support at each end by a cast iron plate.

Legs are securely braced to sills by special cast iron brackets.

The screws are steel with accurate machine cut threads. Hand wheel and follower are cast iron.

Troughs are made tight, deep and wide and jointed together by a special wide tongue and groove to prevent splitting and to take care of the swelling and drying condition which exists in any press.

Tubs have hard wood slats firmly machine riveted to the hoops. Hinged tubs furnished at small additional cost. Hinges are malleable, securely riveted through hoops and slats. Rear hinges are fastened with long steel rod.

Owing to strong construction H. & Z. Presses will withstand great pressure enabling the user to get all the juice from the fruit.

	Height of Legs	Size of Screw	Size of Tub Inside	Weight	Price
No. 1	35 1/2"	1 1/4 x 12 3/4"	10x10"	70 lbs.	\$10.95
No. 2	29 1/2"	1 1/2 x 20 1/4"	12x12"	98 lbs.	13.55
No. 3	46"	2 x 22 3/4"	16x14"	166 lbs.	18.75



THE H & Z CONCRETE MIXERS

For Mixing Slush, Semi-wet or Dry Concrete

"The Mixer with the Curved, Self Cleaning Paddles"

No. 1 on Skids—2½ Foot Capacity

\$24.00



This mixer is used very extensively in rural districts and is a favorite with farmers and small contractors. It will mix 2½ feet of loose material, or a large wheelbarrow full of mixed concrete per batch, and a batch per minute.

DRUM—The lower half of the drum is made of semi-steel, the upper half of heavy sheet steel reinforced with a steel band at mouth of the drum. The mixing blades are curved and raised off the sides of the drum, making them self cleaning. The yoke is made of semi-steel, with extra long bearings to withstand wear.

POWER—As the drum has ball bearings, it requires very little power, and can be operated by hand, or a one horse power engine.

FRAME—The frame is made of 1½x1½" angle steel, well braced and bolted.

Size of mixing drum—22x24" with 17" opening.

Size of drive pulley—16x3"

Weight—250 pounds.

No. 1 Mixer on skids, price\$24.00

No. 2 on Skids

3½ Foot Capacity

Our No. 2 Mixer is the same as No. 1 except as to capacity, and it is, of course, built heavier throughout. Particularly adapted for contractors' use. Can be operated with a 1½ H. P. engine.

Size of drum—24x26" with 19" opening.

Frame—Steel angles 1½x1½".

Pulley—16x3".

Weight—285 pounds.

No. 2 Mixer on skids, price\$29.50



Concrete Mixers

No. 2 ON TRUCK WITHOUT ENGINE

This type can be furnished on truck, as shown, in the accompanying illustration, without engine, for either belt or chain drive.

If you already have an engine and want to mount it with this mixer, we will, free of charge, bore a pinion to suit the crankshaft of your engine if advised as to the exact size.

WEIGHT—565 pounds.

No. 2 Mixer on truck, without engine,
price

\$53.50



No. 2 ON TRUCK WITH ENGINE AND HOUSING



A complete outfit, can be taken anywhere, and is ready for work the minute it arrives.

Truck—The truck is made entirely of steel, with 16x3" steel wheels, 34" tread.

Housing—The housing is built unusually strong, and is made of 18 gauge metal, insuring ample protection to the engine.

Engine—We furnish as standard equipment a 2 H.P. H. & Z. engine, which is fully illustrated and described on page 43.

Weight—Complete with engine and housing, 1040 pounds.

No. 2 Mixer on truck with housing and 2 H.P. H. & Z. engine, battery ignition
Extra for Wico Magneto on engine.....

\$115.00

\$7.00

No. 2 on Pneumatic Tire Trailer with Engine and Housing

A complete outfit, designed particularly for quick and easy moving from place to place. It is just like the outfit shown above with the exception of the truck, and includes our regular No. 2, 3½ foot capacity mixer, with 2 H.P. H. & Z. engine. Has 30x3½ inch tires and tubes of a good, standard make. It is so balanced that any person can move it about as easily as a loaded wheelbarrow without hooking it to a wagon or auto.

No. 2 Mixer on pneumatic tire trailer with housing and 2 H.P. H. & Z. engine,
battery equipped

\$142.00

Extra for magneto ignition on engine, \$7.00



Guarantee—We guarantee these mixers to be exactly as represented, to be constructed of the best materials and in the best mechanical manner.

Any defective part or parts found to exist within one year will be replaced free of charge. We also guarantee these machines to work properly and to do all we claim for them under average care and conditions. If, after a fair trial, they are found unsatisfactory they may be returned, and the money will be refunded.

Peerless Feed Grinder

The progressive farmer will tell you his feed grinder is one of the best paying investments he ever made. Grinding feed means saving feed, and saving feed means saving money.

Plates*—An automobile is no better than its engine. In the same way, if a feed mill is to grind rapidly and satisfactorily the plates are one of the most vital points in its doing so. Our Peerless Mills are equipped with machine cut plates—when these plates come from the mold in the foundry they are smooth—with no corrugations. They are put on a machine and ground perfectly true on both sides. After that they are put on another machine and the grooves accurately cut in. This insures a true grinding surface with each corrugation cutting the same amount of feed.

With these plates to do the work, we can and do unconditionally guarantee the Peerless Mills to grind wet or green corn—on the ear or shelled, alfalfa, cut hay, timothy or clover, and all kinds of small grains. When machine cut plates become dull they can be re-sharpened at about half the cost of a new set. Plates can be changed in less than fifteen minutes. The plates are interchangeable—there are no rights or lefts, and it is impossible to get them on wrong.

Automatic Plate Alignment—The rear plate is on a four point suspension so that a perfect alignment between the stationary and revolving plate is automatically maintained at all times. This insures uniform grinding and long life of plates.

Crusher Roll—An extra long, specially designed crusher roll is used in all Peerless Mills. This, in connection with the concaves that are fitted in the bottom of the hopper, reduces ear corn to small particles before it reaches the plates, greatly lessening the work for them to do. The gates or feed slides that regulate the flow of feed from the hopper to the plates are stamped from solid metal with dies and fit accurately. They are controlled by a lever that is adjustable over a wide range of positions so as to suit the power available.

Quick Release Lever—All Peerless Mills are

EIGHT REASONS WHY YOU WILL PROFIT IN BUYING A PEERLESS FEED GRINDER

- 1—Machine Cut plates—will do more—can be re-sharpened.
- 2—Automatic Plate alignment—insures longer life of plates.
- 3—Extra long, specially designed crusher roll.
- 4—Efficient end thrust.
- 5—Light running—silent in operation—no gears.
- 6—Wet grain grinding—fine grinding.
- 7—Unequaled capacity.
- 8—Simple and durable.

equipped with a quick release lever conveniently located, so that the plates may be instantly separated if some foreign matter should get between them. A wooden pin break is also provided. Fine or coarse adjustment of the plates is secured by turning the adjusting hand wheel to right or left. A locking device is provided that will hold it in whatever position it is put.

Shaft—The shafts of all these mills are over-size to insure against their ever being bent or broken.

Ball Bearing End Thrust—The end thrust is taken care of by a number of ball bearings which run between tempered tool steel discs. So long as a reasonable amount of lubrication is provided through the grease cup for that purpose, there will never be any trouble with it heating.

One Piece Frame—The frame is a heavy, one piece casting; therefore it is not possible for the bearings to get out of alignment. The legs are iron, strong and durable, and thoroughly braced. A comparison of the dimensions of our mills will show that they are the simplest and strongest mills that are built. Not one gear is used on our Peerless Mills.

Hopper—The hopper is large and strong, made of the best wood obtainable for this purpose. It is re-inforced inside with steel plates to prevent wear.

Simplicity—A mechanic is not required to adjust or operate a Peerless Mill. All that is necessary is to see that it is lubricated, and get the feed to it. Plates can be changed when necessary in less than fifteen minutes, the only tools needed being an ordinary wrench and screw driver. All our mills are equipped with a heavy fly wheel and an extra set of plates. They are shipped set up, ready for work.

Peerless Feed Grinders



No. 1-X Peerless Mill

This is a small grinder, built along the same lines as the larger mills and particularly adapted for use on small farms. It will grind ear-corn and all kinds of small grains. Will crack corn, or grind it into meal. Just the mill for poultry farms, etc. Can be operated with as little as one horse power. It has all the features of the larger mills described on the preceding page, such as the long crusher roll, feed regulator, automatic plate alignment, quick release lever, plate adjusting hand wheel and ball

bearing end thrust. A splendid value for the money. Furnished complete with fly wheel and extra set of machine cut plates.

Mill No.	Plates	Reg. Pulley Dia. Face	H. P.	R. P. M.	Capacity Ear Corn Per Hour	Shipping Weight	Price
1-X	5"	8"x4"	1 to 3	300 to 500	3 to 10 bu.	115 lbs	\$27.00

5" Machine cut plates for No. 1-X Mill, per pair.....\$1.90

We do not build a bagger for this size mill.

No. 16X and No. 14X

Peerless Mills

These mills are the same except as to size of plates, and the 14X is slightly larger than the 16X. By reading the information given on the preceding page you can readily see why we guarantee our mills to do more and better work with the same power than any other plate mill that is made. The farmer who buys a Peerless Mill is making an investment that will pay him excellent return. Furnished complete with fly wheel and an extra set of machine cut plates.



Mill No.	Plates	Reg. Pulley Dia. Face	H. P.	R. P. M.	Capacity Ear Corn Per Hour	Shipping Weight	Price
16-X	6 1/4"	8"x5"	3 to 6	400 to	8 to 20 bu.	175 lb.	\$34.00
14-X	8"	10"x6"	5 to 10	600	15 to 35 bu.	195 lbs.	37.00

6 1/4" Machine cut plates for No. 16X Mill per pair.....2.90

8" Machine cut plates for No. 14X Mill per pair.....2.75

Bagger for either 16X or 14X Mill complete with belt ready to attach.....18.00

Free Engineering Service—We want our customers to get the best possible results with any machinery they buy of us. When you order a mill tell us what kind of an engine you will use, its horse power, speed and the size of drive pulley. With this information our engineering department can determine just what size pulley is needed on the mill to give it the correct speed, and if a different one is required than the regular size we will make the change free of charge.

Note—We do not attempt to compete in price with low grade, poorly constructed mills. The Peerless is built just as good as it is possible to build a mill, and the price is as low as quantity production can make it. After you try a Peerless Mill you will have no other.

Peerless Feed Grinders

THE NO. 10X PEERLESS TRACTOR MILL

FOR TRACTOR POWER



A big, husky mill built especially for use with tractors. It has a 1 5-16" shaft and the bearings are extra long. They will stand the weight and pull of the long heavy tractor belts commonly used. The frame is a heavy one piece casting and it is therefore impossible for the bearings to get out of alignment. They are equipped with liners and fully adjustable. The advantages of its machine cut plates, long crusher roll, renewable concaves, feed regulator, automatic plate alignment, quick release lever, plate adjusting hand wheel and large ball bearing and thrust are explained on page 36. One of its special features is the division board in the hopper which prevents ear corn from bridging. This device is simple and has no moving parts to break or

wear out. Not a gear is used on any of our Peerless mills.

This mill is designed particularly for use with the Fordson Tractor and comes equipped with a 14" pulley which will give it the correct speed with the Fordson. If other power is used read "Free Engineering Service" on page 37. The No. 10X Peerless represents the best value, dollar for dollar, that can be had in any tractor mill. Furnished complete with heavy fly wheel and an extra set of machine cut plates. Shipped set up, ready for work.

		Reg. Pulley				Capacity ear	Shipping	
Mill No.	Plates	Dia. Face	H. P.	R. P. M.	corn per hour	weight	Price	
10X	9"	14"x6"	8 to 20	600 to 700	40 to 60 Bu.	400 Lbs.	\$57.00	

9" Machine cut plates for No. 10X Mill, per pair.....\$3.00

Bagger for No. 10X Mill.....\$18.00

BAGGERS

A bagger is quite a convenience with a fast working mill like the Peerless, especially when operated by one man. Peerless baggers are strong, durable and efficient. They will not clog. They are made for two bags at a time and the feed can be turned into either one while the other is being taken off. Should the operator neglect to turn the feed from a bag when it is full the design is such that the feed will overflow, instead of choking the bagger. All baggers are furnished complete with the necessary braces, belt and pulley for on mill. Less than one horse power is required to operate them.

Bagger for any size mill, except No. 1-X, price\$18.00

The Mountville Single and Double Hole Corn Shellers

"Rover Single Hole Sheller."

\$12.50

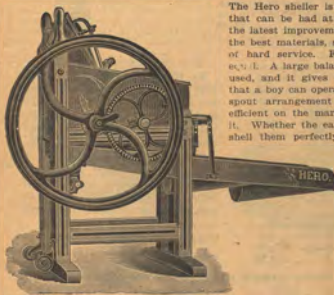
This is a strongly made right hand, single hole sheller, which separates corn from cobs. The spring is adjustable for large or small ears and it does very nice, clean work. Will not choke. A large, heavy balance wheel is provided, which makes it run very easily. Capacity 25 bushels per hour.

Price ----- \$12.50

Pulley wheel, extra ----- \$1.50



"Hero" Double Hole Sheller



The Hero sheller is the best double hole sheller that can be had at any price. It embodies all the latest improvements and is strongly built of the best materials, so as to last for many years of hard service. For easy running it has no equal. A large balance wheel with heavy rim is used, and it gives the sheller such momentum that a boy can operate it with ease. The patent spout arrangement is the simplest and most efficient on the market—choking is unknown to it. Whether the ears are large or small, it will shell them perfectly clean without breaking a grain. Shafts are all turned. Scraper and picker wheels are keyed to a shoulder, which prevents their working. This you will not find in any other sheller. The Hero shellers are made with roller bearings at a small extra cost, as indicated below, when so ordered. The steel rollers, nine in number, are fitted into a malleable iron casting. Each roll works independ-

antly of the others, so that they cannot rub together.

Capacity—Hand, 25 bushels per hour.

Power, 60 bushels per hour.

Price with plain bearings, including balance wheel and pulley ----- \$26.50

Roller bearings, extra ----- 2.00

Post Drills--Screw Plates--Blacksmith Blower

LANCASTER GEARED BLACKSMITH BLOWER



No. 40—Champion Lancaster Geared Blower is a well-built direct-driven Blacksmith Blower, which has been built to meet the demand for a cheap Blacksmith Blower.

This Blower is supplied with the Champion Adjustable Nozzle Tuyere Iron. It is smooth-running; crank turns either way to make the blast, and goes out with our recommendation.

No. 40—Champion Lancaster Geared Direct driven

Blacksmith Blower, with Fan 12 inches in diameter, Tuyere Iron and Piping complete; weight 110 lbs. Price -----

\$16.00

No. 90 BALL-BEARING SELF-FEED DRILL



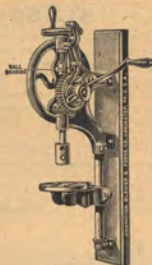
No. 90 has one speed and is back-geared. All bearings are ground out of the solid metal. Slotted lathe-turned table like all higher priced drills. Drills to center of 14½ inch circle. Spindle 1½ inches in diameter, with up-and-down run of 3 inches. Bored for ½ in. straight shank bits. If specially ordered 41-64 inch. Drills holes up to 1 inch. No. 90 Champion self-

feed post drill with ball bearings; weight 100 lbs. Price -----

\$11.75

No. 103 BALL-BEARING SELF-FEED POST DRILL

\$7.50



No. 103 is lowest priced Self-Feed Post Drill built. It has back gears and slotted lathe turned table, drills to the center of a 12-inch circle, has one speed. Spindle is ¾ inch in diameter, drills holes up to ¾ inch, and has an up-and-down run of 3 inches. Spindle bored like Never Slip Chuck for ¼-inch straight shank drills; when specially ordered 41-64 inch. Greatest distance from table to spindle 8¾ inches. Shipping weight, 60 lbs.

PRICE ----- \$7.50

THE CHAMPION "EASY" SCREW PLATE WITH TAP WRENCH

"Easy" Sets are now furnished with two stocks. Every set is furnished with the Celebrated Electric Adjustable Tap Wrench. All our taps are machine-relieved.

No. 5b—Plate Complete in Box. Two stocks, 15½ and 23 inches. Cutting ¼ 20, 5-16 18, ¾ 16, 7-16 14, ½ 12, ¼ 11, ¼ 10; weight 20 pounds. Price -----

\$12.75

Unless otherwise ordered, we will send all screw plates 1-32 oversize V thread. Can supply screw plates with exact sizes V, U. S. Standard or Franklin Institute A. L. A. M. and Whitworth form or thread, at regular price, when ordered.



COMPLETE SMITHING OUTFIT FOR FARM AND SHOP

\$14.25



Make good use of rainy days and bad weather. Patch things up — keep them in good repair without expense. This outfit will pay for itself many times over. Consists of

six standard tools—a Forge, Vise, Anvil, Pipe Vise and Drill Press.

Forge pan is 12 by 14 inches with cast iron hearth, will take a plow. Blower head gears are machine cut, share. Vise takes pipe up to 2 inches, geared 22 to 1—runs silent and easy. Anvil face ground true. Drill attached has three speeds—takes 1/2 inch round shank drill. Height over all 41 inches.

No. K 31—Complete Smithing Outfit; shipping weight 125 lbs.

Price **\$14.25**

CHAMPION EUREKA GEARED FORGE

With Pressed Steel Hearth

Gear Ratio 48 to 1, Hearth 18 Inches Diameter. Fan Case 10 Inches.

\$7.95



Champion Eureka Geared Forges are designed for light and medium work on farms, plantations and in garages where a comparatively light weight Forge is desirable.

The fan is driven by cut helical gears running smooth and noiseless in a dust-proof oil-tight gear case.

The hearth is stamped from a single steel sheet of extremely heavy thickness, making a light weight low-priced rigid forge for general agricultural use.

The legs are bolted to the hearth with a heavy steel leg socket, and are strongly braced.

No. 145-S with Shield. Weight 55 lbs., **\$7.95**

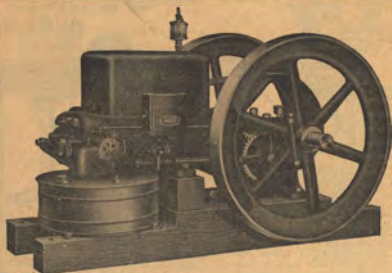


No. 45—Champion Lancaster Geared Direct-Drive Agricultural Forge. Hearth 22 inches in diameter, fan 10 inches, with shield, weight 115 lbs. **\$16.75**



No. 43—Champion Lancaster Geared Direct-Drive Agricultural Forge. Hearth 23x35 inches, height 30 inches, fan 12 inches, with half hood, weight 170 lbs. **\$24.20**

"H & Z" ALL PURPOSE ENGINE



THROTTLING GOVERNOR-EASY TO START

USES KEROSENE, GASOLINE, DISTILLATE, GAS

The above illustration shows the H. & Z. Throttling Governor, All Fuel Engine which we furnish in sizes 2, 3, 5, 7, 10, 15 and 25 H.P. The engine is of the valve-in-head type, water cooled, operates on kerosene, gasoline, distillate and gas. It is simple in construction, easy to operate, rugged and dependable in any climate and under any condition. It is equipped with the celebrated WICO High Tension Magneto which is operated by an extremely simple device. Fully equipped with Spark Retarder, Speed Regulator, Throttling Governor, All Fuel Carburetor, Large Fuel Tank and Skids, Plain Pulley, Starting Crank and Operating Instructions. It is complete in every detail and ready to run. The three large sizes of this engine have a special iron base for setting on heavy timbers or concrete foundation.

OPERATES ON KEROSENE, GASOLINE, DISTILLATE AND GAS

Rated Horse Power	Engine Develops H.P.	Normal Speed R.P.M.	Cylinder Bore	Length of Stroke	Diameter of Crank Shaft	Diam. of Fly-Wheels	Plain Diam.	Pulley Face
2	2½	600	3¾ in.	5 in.	1¼ in.	16 in.	5 in.	3¼ in.
3	3½	530	4¾ in.	6 in.	1½ in.	19 in.	6 in.	4¼ in.
5	6	450	5 in.	6½ in.	1 15-16 in.	24 in.	8 in.	5¼ in.
7	8	400	6 in.	7½ in.	2 1-16 in.	28 in.	10 in.	6¼ in.
10	11	390	6½ in.	9 in.	2 5-16 in.	34 in.	12 in.	6 in.
15	17	315	8½ in.	11 in.	2 15-16 in.	42 in.	16 in.	8 in.
25	27	300	10 in.	14 in.	3 9-16 in.	53 in.	20 in.	10 in.

Floor Space Required	Extreme Height	Hopper Water Cap. Gals.	Fuel Tank Capacity	Shipping Weight Crated	PRICE	
					Battery Ignition	Magneto Ignition
24x36	18 in.	1¾	1¼ Gals.	250 lbs.	\$46.50	\$ 53.50
26x40	21 in.	2¾	2 Gals.	385 lbs.		82.50
30x45	26 in.	5	3¾ Gals.	535 lbs.		114.00
35x54	29 in.	7¾	6 Gals.	775 lbs.		160.00
39x60	36 in.	14	7 Gals.	1335 lbs.		270.00
48x72	45 in.	28	16 Gals.	2290 lbs.		390.00
59x90	54 in.	50	18 Gals.	3400 lbs.		660.00

DISTINCTIVE FEATURES

THE ALL FUEL CARBURETOR



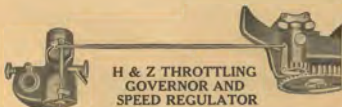
Our engines are equipped with a motor style carburetor that thoroughly and satisfactorily mixes the fuel before it is transmitted through the manifold into the engine. The illustration shows this all fuel carburetor that permits the use of any low grade fuel. A small quantity of gasoline can be put into the starting chamber and after the engine is warm it is possible to quickly switch over to other cheaper fuels such as kerosene and distillate. There is no waste of fuel and the utmost power is developed from each explosion, as the carburetor supplies a scientific mixture to the cylinder.

WICO HIGH TENSION MAGNETO

We use the well-known WICO High Tension Magneto as standard ignition equipment because it is so simple in construction that it cannot get out of order. It has only one moving part and requires oiling in only one place. There are no rotating or oscillating parts to get out of order, no delicate wires or bearings to wear out. It furnishes a hot, fat spark under all conditions, is absolutely weather and water proof and will start at 40 below zero. The illustration also shows the spark retarder lever which assists easy starting as the spark can be set late.



Simple
Operating Device



H & Z THROTTLING
GOVERNOR AND
SPEED REGULATOR

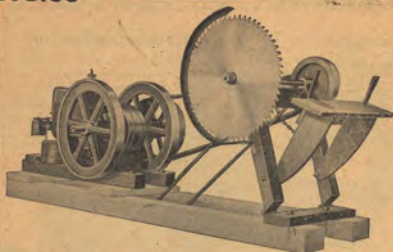
The illustration shows the Throttling Governor and also our Speed Regulator. The speed regulator permits a quick adjustment to suit the work you have to do, and the fly-ball steam engine type of throttling governor assures you an easy, smooth running and powerful engine. You will like the throttling governor type much better than the old "hit and miss" type.

FUEL SAVING HOT SPOT

Every cylinder head on an H. & Z. Engine has a hot spot, an area, superheated, over which the fuel mixture must pass before entering the cylinder. This quickly prepares the fuel by perfect vaporization for instant ignition and thus furnishes a maximum of power without fuel waste. The illustration shows the process. This heated area is created by spark and exhaust. It is a simple and economical plan and one of the features which makes the H. & Z. Engine one of the most popular on the market.



\$79.00



"HOME" BUZZ SAW OUTFIT

This outfit consists of an H. & Z. Throttling Governor Engine fully equipped with WICO High Tension Magneto, Spark Retarder, Speed Regulator and All-Fuel Carburetor, Starting Crank and Operating Instructions. Saw frame is strong and substantial. Brace rods are steel and act as belt tighteners, as adjusting nuts permit frame being moved backward or forward. Tilting table is heavily built and held in place with chain. Steel saw guard is furnished. Mandrel is complete with heavy balance wheel and pulley. Equipped with saw blade and necessary belting. Lag screws are included to attach outfit to your timbers. Size of engine pulley on all sizes, 14-in. diameter by 3¼-in. face. Mandrel pulley size 5-in. diameter by 4-in. face.

2 H. P. Home Outfit , with 18-inch blade. Shipping weight crated, 380 lbs.	
Price with Battery Ignition.....	79.00
Price with Magneto Ignition.....	85.00
3 H. P. Home Outfit , with 20-inch blade. Shipping weight crated, 575 lbs.	
Price with Magneto Ignition.....	120.00
5 H. P. Home Outfit , with 26-inch blade. Shipping weight crated, 775 lbs.	
Price with Magneto Ignition.....	157.50

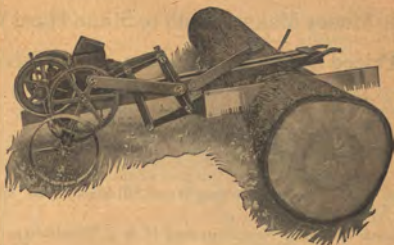
H & Z Friction Clutch Pulleys

This high quality friction clutch pulley has an enclosed case protecting all the working parts. Made extra strong, well finished. Parts easily adjusted. You will find this friction clutch pulley a convenience on any kind of power equipment, as it makes the operation much easier, because you can start your engine without load and then when you are ready, push the hand wheel on the clutch in gradually, thus starting the machinery slowly and smoothly. Simple in construction and only one place to adjust. Made especially for H. & Z. Engines, but can be used on any engine having proper crank shaft extension on pulley side: No. 0 and No. 1 require an extension of 4 inches. No. 2 and No. 3 require extension of 6 inches, but can be used on shafts that extend more than 4 and 6 inches. Key seat on these pulleys are as follows: No. 0, ¾ in.; No. 1, ½ in.; No. 2, ¾ in.; No. 3, ¾ in.

	8x6	10x6	12x6			
No. 0—For 2 and 3 H-P.	\$14 35	\$15 50	\$16 60			
	10x6	12x6	14x6	16x6	18x6	
No. 1—For 5 and 7 H-P.	\$16 60	\$18 00	\$19 25	\$20 50	\$22 40	
	12x8	14x8	16x8	18x8	20x8	22x8
No. 2—For 10 H-P.	\$19 75	\$20 75	\$22 25	\$23 50	\$25 75	\$29 75
	18x10	20x10	22x10	24x10	26x10	30x10
No. 3—For 15 and 25 H-P.	\$27 60	\$29 75	\$31 75	\$34 00	\$35 25	\$37 25



ARM SWING LOG SAW



This power saw outfit eliminates the hard, backbreaking hand sawing of olden days. It is designed to saw rapidly under all conditions, up or down hill, in a driving rain or blizzard, hot or cold weather. It is so constructed as to give the natural arm swing movement so necessary to fast sawing. It is direct gear driven with clutch which gives the operator full control of the blade at all times without stopping the engine. It is anchored to the log by means of sharp spurs on the skids and heavy log hook operated by convenient chain and ratchet. The engine is the famous H. & Z. log saw engine, especially made for this outfit. There is an extended crank shaft to which you can attach a pulley should you have occasion to run a saw frame or any other attachment. There are no belts to slip off or anything to get out of order. The gears are all made of semi-steel, tough and durable. Each outfit is furnished complete with a high grade guaranteed saw blade 5 feet in length. Shipping weight 535 lbs.

\$118.00

Price

Clutch Pulley to fit engine for doing belt work, extra.....\$5.00

Force Feed Log and Tree Saw

This Log and Tree Saw is the same outfit as described and shown above, but has a tree felling attachment. You merely raise up the log saw pitman onto a brace as shown in the illustration, and attach the felling attachment. Note the spring which gives it a force feed. You do not have to attach a rope to the saw and lift it around a tree as is necessary on some outfits. We recommend that you purchase the Log and Tree Saw Outfit, as it will saw down the tree as well as saw it up after it is down. Shipping weight, **\$138.00**
550 lbs. Price



Clutch Pulley to fit engine for doing belt work, extra.....\$5.00

The "H & Z" Portable Saw Rig

A Big Money Maker—Built to Stand Hard Work

Priced Low -- Sold Direct -- Guaranteed

Here is the ideal outfit for the man who wants the best there is in wood sawing equipment—an outfit with which you can make money twelve months in the year. There is no lack of work in any neighborhood for a sawing contractor whose outfit will eat up the wood like an H & Z Rig will. Wood is cheaper than coal this year. Get one of these dollar-an-hour profit makers now and make good money all winter.

The H & Z Shock Absorbing Wood Sill Steel Wheel Truck

Equipped With The New Improved H & Z Throttle Governing Engine

The H & Z Saw Rig consists of a new improved H & Z Throttle Governed engine, mounted on a horse-drawn truck, with a special swing table saw frame, complete with saw blade belt and belt tightener.

The engine is fully described on page 54 and 55. The truck is our own make. The sills upon which the engine rests are heavy hardwood timber. Many years of experience with both steel and wood sills has proven to us the questioned superiority of wood for the purpose. It not only absorbs the jar better on the road but also when operating, it stands more rigidly against the pulsations of the engine and the jar of the saw. Axles are steel reinforced by heavy wood hauns. The wheels are specially designed steel with staggered spokes, drawn hot into the steel axle and riveted. They cannot loosen. The tires are wide, grooved steel. The front wheels are 24 inches in diameter, the rear wheels 30 inches. Tires 3 inches wide. The outfit as shown on the opposite page is self-contained. Hitch to it, drive to the job, start the engine and begin sawing. You have no extras to buy.

When desired the saw frame can be removed from the truck and you have a portable power plant for any kind of work. Should you want to use the engine unmounted, simply remove the bolts and set it down.

The economy of operation is surprising. The 5 H. P. outfit will saw at the rate of from 4 to 8 cords per hour, depending on the kind of wood. Using Kerosene for fuel the cost of sawing is about 2c per cord. Working 16 hours a day sawing 40 to 80 cords, the fuel cost is only a dollar or less.

The saw frame is swinging table style.

The saws are our regular H & Z blades, fully guaranteed, filed and set ready for use. Having manufactured portable saw rig trucks for years, for various concerns the experience gained is a valuable one, and our customers are assured that when they buy an H & Z Portable Rig, they are getting an outfit which represents the best efforts of the most experienced men in the country combined with an engine of unquestioned superiority.

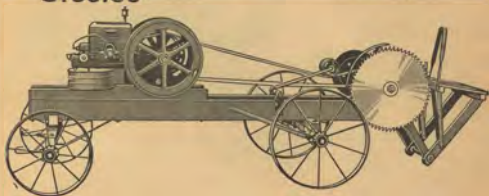
"H & Z" Portable Saw Rig

Sizes, 3, 5, 7, 10 H. P.

THE BEST VALUE EVER OFFERED BY
ANY MANUFACTURER

Prices Cannot be Duplicated Elsewhere
to Within 30%

\$160.00



**Our 3 and 5 H. P. One-Horse Rigs are the Fastest Selling Rigs
on the Market—Hundreds in Use**

REMEMBER—When you compare H. & Z. Saw Rigs with others there is a good reason for H. & Z. trucks being made as we make them. Experience is the best teacher in the world—and we have had many years' experience building Portable Trucks and Saw Frames, not only for ourselves, but for various other manufacturers. We have tried out every style of construction—steel and wood—and while it may cost a little more to build a good solid wood truck, we know from years of experience, as well as do our Users, that they are the best. They stand up better; will not shake apart and when properly made of timbers of the proper kind of wood, of correct weight, they absorb engine vibrations better than any steel truck ever built.

We particularly call your attention to the fact that on H. & Z. Portable Saw Rigs you get a Factory mounted job, which cannot be duplicated in any other plant in this country. We do not know of a single manufacturer, except ourselves, who can furnish you with an outfit such as we build within 30% of the price. NOTE particularly that we use a regular belt tightener which does not necessitate the shifting of the engine, either forward or back, when you wish to tighten up your belt.

H. & Z. PORTABLE SAW RIGS still maintain their lead for being able to saw more wood per horse power, per hour, in accordance with their rating, than any competitive rigs of similar design. Owners of these rigs have made records which have not been equalled by the highest priced outfits on the market.

SPECIFICATIONS AND PRICES—Regularly Equipped With Wico Magneto

H. P.	Saw Blade	Shipping Weight	Price
3	22"	1100	\$160.00
5	24"	1300	197.50
7	28"	1500	242.50
10	36"	2100	390.00

Neck Yoke, Double and Single Trees, extra\$5.00
Shafts, extra\$4.00

The LAUSON- BEAVER MOTOR

\$750.00

**A FOUR CYLINDER, HEAVY
DUTY VALVE-IN-HEAD
GASOLINE OR KERO-
SENE MOTOR**



The Lauson 30 H. P. four cylinder engine gives the user a power unit, weight of which permits transporting it, if so desired on construction work, in an easy manner.

It has a powerful motor suitable for running hoists, saw mills, sand pumps, generators and any other type of work requiring steady constant power.

The motor is equipped with a heavy crankshaft, heavy four bolt connecting rod bearings which are easily accessible. It has combination splash and force feed lubricating system equipped with Taco throttling governor, mounted on ball bearings in a dust proof housing, automatically oiled from the engine crankcase. The high tension magneto insures quick and easy starting. It requires no more effort to crank than the ordinary automobile.



Radiator is of the cellular type and water is circulated by a rotary pump using an efficient cooling system.

The belt pulley is mounted on out board Hyatt roller bearing. A convenient clutch lever is provided for throwing clutch in and out. This engine develops a surplus over its rated H. P. and is put out at a price that makes it a remarkable buy considering the high quality of the unit. It is furnished regularly with a pulley with a 10" diameter and an 8" face, which runs at 950 R. P. M.

Shipped from New Holstein, Wisc.

30 H. P. Lauson-Beaver Heavy Duty Engine.....**\$750.00**

FARM LUMBERING

A Profitable Sideline to the Farmer

For one reason alone, "farm lumbering" should appeal to you as it has to thousands of other progressive farmers.

You have considerable money invested in farm equipment.

You have a tractor or a gas engine. You have horses or a motor truck.

The money tied up in this equipment is idle money when the equipment is idle. If you didn't have the equipment, the money it represents would be earning interest for you every day.

The thing to do is to keep your machines, your men and your money working for you every day. And that's just what you can do when you start in to do "farm lumbering."

Here is a money making sideline that any farmer without previous experience can enter with full confidence of success. You never need to neglect your regular crops, for the minute things slacken up, there's the wood lot waiting for you, always ready to yield a harvest of profits.

There is real money in your wood lot and the timber tracts in your locality. You might as well turn these trees into cash. Someone will do it some day. Why not do it yourself, now?

TWO KINDS OF WOOD LOTS—MONEY IN BOTH

There are two kinds of wood lots—one on the hill, one on the level, and money for you in both.

Let's consider first the possibilities of profits in the timber tract on the steep hillside.

The only crop it will grow is trees, and trees are a crop to be harvested. Properly managed and not abused, the hillside wood lot seldom needs replanting. It reproduces itself and provides a steady supply of lumber and fuel; and a sure, steady income for the farmer who works it.

Such a wood lot, after the full grown trees are cut and the brush and dead wood piled and burned, yields not only immediate profits—it becomes a better wood lot. The younger trees and seedlings have a better chance. It retains fully its favorable influence on moisture and temperature conditions that mean so much to the success of the farm.

TWO-FOLD PROFITS

The wood lot on the level has double possibilities for profit. As it stands, its trees are occupying valuable acreage—acreage that has been enriched with the forest mould of ages—the finest land you could wish for. The lumber from this land will bring you immediate profits; while the wonderfully fertile soil will be worth hundreds of dollars a year in crops. Why allow such land to stand idle? Clear it of every tree, large and small. Blast out the largest stumps. The dynamite will not only split the stumps into pieces, easily cut into firewood, but will improve the ground by breaking up the sub-soil.

TURNING TREES INTO MONEY

You have probably drawn on your wood lot many times for firewood, posts and poles, but you have never really been shown the full possibilities that your "neck of woods" and your neighbor's hold for you. Every stick of timber can be put to good use and bring its share of profit.

The smaller trees (those less than eight inches in diameter) can be cut into 2x4's; 2x6's, fence posts, crate stock, box boards, laths and even shingles.



Logs about eighteen inches in diameter are especially profitable. There is always a ready sale for cross ties for railroads and interurban trolley lines. Many farmers pay all their operating expenses from the cuttings off small trees. This leaves them clear profit on the heavier timbers.

Trees of over eight inches in diameter are the backbone of profits in the farm lumber business. Lumber from the soft woods—hemlock, cypress, chestnut, spruce and pine, have a ready local market. The hard woods—oak, maple, hickory, etc.—are in constant demand in nearby lumber centers. Such woods are needed for furniture, house-trim, handles, wagon stock and similar purposes. Nothing need go to waste. The short ends and slabs from all cuts make good fuel. Even the saw dust is worth real money, as you know, if you have had someone else do your lumber work for you.

SAVE MONEY—EARN MONEY

A good many farmers find it profitable to purchase a portable saw mill to turn out lumber for building operations on their own farms. By cutting their own lumber they not only get a better grade, but they actually save money on the cost of erecting new buildings and repairing old ones. In many cases they have surplus stock to sell to their neighbors at good prices.

You can always figure on disposing of your lumber within a few miles of your farm. Your local dealer will usually take all or part of your output, for when he buys from you he saves freight. He can pay you good prices and still sell at an extra profit to himself.

CUSTOM SAWING

There are a lot of farmers right near you whose lumber you could cut. You could show your neighbors how to save money and get still further profits for yourself.

Some farmers do custom sawing whenever their own farms do not need their attention. Others put in their full time at it. They equip themselves with a complete portable outfit and travel from farm to farm doing large and small lumber jobs for everybody needing their services.

ALL YOU NEED IS ONE OF OUR AMERICAN SAW MILLS

And think how easy it is for you to get into this highly profitable business. You, undoubtedly, have on your farm right now all the equipment required, with the exception of one machine—a light, portable, American Saw Mill.

This one machine will put to work your idle tractor or farm engine—either one will furnish all the power you need. An 8 horse power gas engine will cut an average of 2,000 feet a day. With a 15 or 20 horse power engine the same mill turns out 6,000 to 8,000 feet a day. The profit to you, above all expenses, should run from \$5.00 to \$10.00 a 1,000 feet. And don't forget that your help is kept busy and your horses or motor truck earn their keep in hauling logs and finished lumber.

Cutting 35,000 to 50,000 feet in a season will pay you for your mill and good interest on your investment. Besides saving a long haul to a distant mill you have for your own use or benefit about 20 cords of firewood and 8,000 or 10,000 feet of serviceable edging lumber. This usually goes to the other fellow's slab pile when you have sawing done away from home. In making 100 railroad ties you can also make 1,000 feet of good inch boards and about 2½ cords of firewood.

Hemlock timber or Rock Oak will turn off from one-half to three-quarter cords of bark to 1,000 feet of lumber and in most sections this bark is readily marketed.

Do not delay—act now. You will find complete specifications and prices on the next page.

GENERAL DESCRIPTION OF OUR SAW MILLS

Husks and Carriages are made of best selected Southern yellow pine or hard wood, accurately mortised and tenoned, thoroughly braced and bolted together.

Mandrels are made of the best grade of steel, turned and ground perfectly true. The lug pins are fitted in an improved manner so that they can be easily removed right at the mill should they become shagged off. The Nut is so made that the threads cannot be stripped or bruised and the saw can be easily removed without moving the guide. All mandrels are made to take saws with 2-inch holes and two ¼-inch pin holes on 3-inch circle.

Mandrel Boxes are the well-known chain-oiling type. The chain passes around the mandrel and down into an oil pocket, bringing up a continuous flow of oil which is returned again through suitable channels to the pocket, insuring clean and cool-running bearings.

Saw Guides are of improved design with large throat, can be used either right or left hand; adjustable while the saw is in motion, and can be easily thrown out of the way for removing or changing saws.

Our "Heacock" Variable Belt Feed has attained a well-deserved popularity and is preferred by most sawyers. It responds instantly to pressure on the feed lever, and may be varied from fast to slow or vice versa while the saw is in the cut. It also possesses the advantage of a very rapid gig-back. There are no frictions. Two belts, one for the feed and one for the gig-back, are driven in opposite directions, at different speeds, direct from the saw mandrel.

Wire Cable Carriage Drive. All mills are regularly equipped with Wire Cable Carriage Drive of suitable size and type.

Head-Blocks and Dogs. Our head-block bases are Steel and of such construction as to insure the greatest strength. They will not choke up with dirt, sawdust or chips, nor fill with ice in winter. The knees are carefully fitted so that they will slide freely, yet without lost motion. They open for actual use full width as per specifications. They are heavy and strong, have graduations full length and are provided with convenient pointer and self-aligning adjustable Set Shaft Bearings.

"Ideal" Set Works with quick receder. The set works are strong, rapid, accurate and positive, and the receder, operated by the same lever, is of immense value as a time saver. Only a straight pull is required for either setting or receding; no tiresome, twisting motion for releasing pawls.

Power Foot Receder. We can equip any of our portable mills with this foot receder, which is combined with the "Ideal" set works in such a way that the Sawyer can "set" or "recede" the head-blocks by power or by hand as he prefers. It is a very handy arrangement and adds greatly to the capacity of a mill.

Set Shafts are full length of carriage, with the key seat extending full length, the head-block pinions being provided with fixed keys, thus permitting head-block to be easily moved to any point on carriage for short or long timbers. Adjustable flange couplings connect the set shaft, and Self-Aligning, Adjustable Bearings are provided for taking up lost motion, insuring accurate lumber.

Truck Wheels on all mills are heavy and of large diameter, with hubs of ample length, and are turned to accurately fit the Guide Track. Axles run in Self-Oiling Babbitted Boxes of improved form and have ample provision for taking up lost motion. This insures a light draught, easy running carriage.

To Sum Up, our mills are built by the latest improved machinery, of the best obtainable materials, by the most skilful workmen and under the direction of men who have had years of practical experience in building and operating saw mill machinery. Our sole aim is to produce the best that can be made and always meet the requirements of our customers.

\$357.00
Without Saw



American Belt Feed Saw Mill

Our No. 1 American Saw Mill can be operated with any kind of power up to 30 H. P. It is especially designed for use with gasoline or kerosene engines and farm tractors. It has been successfully operated with gasoline engines as small as 10 H. P., or 8 H. P. steam. Any good two plow farm tractor will furnish sufficient power for general farm or custom sawing. Capacity from 2,000 to 8,000 feet per day, depending upon the power, character of timber and number of men employed. Two men can saw and handle easily 3,000 feet of lumber per day, and under favorable conditions, with plenty of power and help, the mill is capable of turning out 5,000 or 8,000 feet per day.

American Belt Feed Saw Mills

SPECIFICATIONS

Largest saw that can be used.....	52"
Centre hole in saw.....	2"
Pin holes.....	$\frac{5}{8}$ "—on 3" circle
Mandrel Pulley.....	26"x16"
Mandrel, dia. and length.....	2 3-16"x55"
Width of feed belts.....	4"
Size of husk frame.....	7"x3'
Size of husk timbers.....	3 $\frac{1}{2}$ "x9 $\frac{1}{2}$ "
Length of carriage.....	16'
Width of carriage.....	28"
Size of carriage timbers.....	3 $\frac{1}{2}$ "x5 $\frac{1}{2}$ "
Number of trucks.....	4
Size of truck wheels.....	6"
Diameter of truck axles.....	1 $\frac{1}{4}$ "
Length of set shaft.....	16'
Diameter of set shaft.....	1 7-16"
No. of head blocks and dogs.....	2
Head blocks open for saw.....	34"
Length of track and ways.....	40'
Shipping weight, complete.....	3150

Mandrel Pulley—Any size up to 24" in diameter furnished without extra charge if ordered with mill.

Longer Carriage—Additional head blocks and longer mandrel can be furnished at extra cost.
Belt Tightener—Is not needed when long thresher belts are used and may be left off and the price deducted.

Balance Wheel—We recommend a balance wheel when gasoline engines or tractors of 25 H. P. or less are used.

PRICES

No. 1 American Saw Mill complete with two head-blocks, belt feed, cable drive, Ideal set works with quick receder, belt tightener, foundation bolts, cant hook, oil can, wrenches and a set of four inch feed belts, without saw.....**\$357.00**

Important—When you order a saw mill be sure to tell us the name, size and diameter and speed of the drive pulley of your engine. We can then see that the correct mandrel pulley is furnished which will insure best results.

Friction Feed can be furnished without extra cost and is recommended when less than 10 H. P. is used.

If belt tightener is not wanted deduct.....	\$10.00
Extra head blocks with dog, each.....	21.50
Carriage, each additional foot.....	5.50
Mandrel made longer than standard, per foot.....	2.25
Out-board bearing for mandrel.....	5.00
Saw dust conveyor fixtures.....	34.50
Saw dust blower with hopper and pipe.....	72.00
350 lb. Balance Wheel.....	31.50
350 " " ".....	37.00
400 " " ".....	40.00
450 " " ".....	45.00
500 " " ".....	50.00
400 lb. 24" dia. Balance Wheel and Pulley instead of regular pulley.....	17.50

Inserted tooth saw prices given on page 19.

QUALITY

When you are offered something "just as good," go over the specifications, point by point. Are you getting a mill with mandrel boxes having **Chain Oilers** with large reservoirs for oil that require filling only occasionally; **Concealed Thread** at end of mandrel; a perfect **Variable Feed** and quick return; a **Screw Adjusting Saw Guide**; **Steel Head Blocks** with adjustable set shaft bearings to take up wear of pinions; **"Ideal Set Works"** (the best of all sawyer's set works) with quick receder that opens head blocks quickly without reversing pawls or twisting of lever—just a straight forward pull for setting or receding; **Cable Drive** that will give 26 feet travel to a 16 foot carriage; **Machine Grooved Truck Wheels** and **Rolled Steel Track**; track cleaners that **Work Both Ways** with no leather or fiber brushes to wear out; **Way Timbers**, framed up in sections convenient for moving; adjustable **Belt Tightener**?

American Bench Jointer



In designing this **Bench Jointer**, it has been our aim to place on the market a machine which will meet the need of those whose requirements do not warrant the installation of a large floor machine.

A jointer of this size is better adapted for small work than a large jointer, and it can be placed on the bench or near it as may be most convenient. Up to 8" width in it will do everything which can be done on the larger machine, and it has all the adjustments of a regular floor jointer.

For the use of contractors, builders and others who must necessarily figure close on their jobs, this machine is of particular value, as it will eliminate much slow, hard manual labor, doing in one operation the same work which requires a number of operations with the Jack-plane, Fore-plane and Square, and doing this work much faster and better. The difference between the cost of machine work and hand work frequently means the securing or losing of a profitable job.

Regulation Equipment: Each machine is furnished with Tilting Fence for bevel work, Automatic Guard and Knives. We will, at the option of the purchaser, furnish either Round Safety Head or regular Square Head with knives on two sides, the other two sides being slotted for carrying special knives or bits. In ordering, please specify which style head is desired.

SPECIFICATIONS

Length of Knives.....	8"
Length of each Table.....	23½"
Closest Tables will come together.....	1¼"
Height to top of Table.....	10½"
Height of Adjustable Fence.....	3¾"
Length of Adjustable Fence.....	20"
Pulley	2½"x2½"x1" Bore
Speed.....	3,600 R. P. M.
Floor Space required.....	4' long by 16" wide
Shipping Weight	300 lbs.

8" American Bench Jointer.....\$102.50

American "Jewel" Planer

This Planer is designed to meet the needs of small shops and those requiring a light but good, strong, durable single-surfacer for general work at a low price. It is built throughout of the best grade iron and steel, and the workmanship is first class. Its simplicity, compactness and large capacity in proportion to its size, has made it very popular and secured for it a very large sale.



The Cutter Head is made from high-grade steel, and is accurately milled and balanced with lips projecting under the cutting edge of the knife to insure smooth work. Its position is not changed when adjusting for different thicknesses of lumber, so that the driving belt remains tight, though belted from any direction. All adjustments are quickly and easily made without loosening any bolts or screws, or disturbing the belts.

It has two Steel Feed Rolls, one in front and one in rear of the cutter head, the feeding-in roll being fluted to insure a strong, positive feed. Two speeds of feed are provided for by means of cone pulleys. The feed can be stopped or started instantly by means of a convenient tightener.

The Bed is very stiff, with heavy ribs underneath, and is accurately planed and fitted with two steel idle rolls. The rear section is adjustable.

The Planer is built in two sizes to plane up to 16" and 20" wide, and from 1/4" to 6" thick. It is furnished with one pair of planer knives, and with or without countershaft, as ordered. Belting is extra. Feed belts require 13 1/2' of 1 1/2". Countershaft has 8"x4" tight and loose pulleys. Speed, 900 R. P. M. Cutter Head Pulley, 4" dia., 3 1/2" face. Speed, 3600 R. P. M.

Shipping Weight Price

16" Jewel Planer, less countershaft.....	570	\$166.50
20" Jewel Planer, less countershaft.....	595	187.50
Countershaft	150	20.50

"Handy" Saw Table

\$52.50



WITH COUNTERSHAFT



MOTOR DRIVEN

DESCRIPTION

A light weight yet strong machine, having tubular steel legs cast into corner fittings, forming an inseparable rigid frame to which the steel top is attached. This frame also supports the swinging arm or yoke which carries the saw mandrel.

When fitted for belt drive the countershaft turns in habbitted bearings. When motor driven the motor is mounted on a wood base attached to the swinging arm and belt centers do not change in adjusting the saw.

The illustration shows the motor running clockwise. When a non-reversible anti-clockwise motor is used the position of the motor may be reversed.

The saw may be raised or lowered and is held in any position by means of a positive clamp, a convenient handle being provided for raising and lowering the arm.

A slot is planed in the table for cut-off gauge which is supplied with each machine. This gauge can be set at any angle, right or left, for mitre work.

An excellent ripping gauge is provided which opens 9½ inches from the saw and is held in any position by a quick-acting clamp. It is adjustable for alignment with saw and can be removed quickly for long cut-off work.

Safety guard and splitter are provided, the saw being guarded both above and below the table.

The construction of the machine is such that it may be changed from belt to motor drive simply by removing the pulleys and mounting the motor, no extra parts except the wood motor base being required. A motor driven machine can be changed to belt driven by the addition of the countershaft and pulleys.

This machine can be moved easily by two men and is especially desirable for use on repair or new jobs to be carried from floor to floor or from room to room.

To operate to best advantage a one-half horse power motor is recommended, but one-quarter horse power may be used for light work.

Rip and cut-off gauges, saw splitter with guards, one 8 inch saw and internal belt are furnished with each machine.

SPECIFICATIONS

Table, 26"x24": height from floor, 36".

Mandrel, ¾" diameter; Mandrel pulley, 2" diameter; speed about 2,250 R. P. M.

Saw, 8" diameter with ¾" hole; saw teeth suitable for either ripping or cutting off. Saw projects through table 2¼" and may be lowered to any position required. Mandrel will carry dado heads up to ¾" thick. Tight and loose pulleys are 6" diameter, 1½" face and should run about 750 R. P. M. Speed of motor recommended 1,700 to 1,800 R. P. M. with 2½" or 3" diameter pulley.

Net weight with countershaft, 170 lbs.

Shipping weight, with countershaft, 220 lbs.

Handy Saw Table for belt drive.....

\$ 52.50

Handy Saw Table with ½ H. P. Electric Motor.....

\$105.00

American Tilting-Table Band Saws

\$97.00



DESCRIPTION

These machines are built from new patterns of the most approved design. The frame is cored out and cast in one piece, with very broad base, insuring stiffness, good floor space, and absence of vibration.

The Table is iron, accurately planed, and may be tilted to any angle up to 45 degrees. It is held securely in position by a positive clamping device.

The Guide Bar is planed true and counterbalanced.

The Belt Shifter will receive a belt from any direction above or below the floor, and is right at the operator's left hand.

Wheels are accurately turned and balanced, rims covered with rubber, and so made throughout as to guarantee them remaining round, and running true. Fitted with positive and convenient training device. Each machine is furnished with guides as described above, brazing clamp and tongs and one $\frac{3}{8}$ " blade.

SPECIFICATIONS

Size of Wheels	20"
Size of Table	22"x18"
Distance from Saw to Frame.....	20"
Guide Raises above Table.....	9"
Length of Blade.....	10' 5"
Size of Tight and Loose Pulleys.....	7"x3"
Speed of Pulleys, R. P. M.....	400-450
Shipping Weight	450
20" American Band Saw, complete with blade.....	\$97.00

"Belleville" Square Mesh Farm, Field and Poultry Fence

IT is with considerable pride we offer this new line to our customers. Wire fence is an important item to every farmer and we are very pleased to be able to offer this fence, positively the highest grade of wire fence made, at prices which represent a very considerable saving.

HOW BELLEVILLE FENCE IS MADE

The wire used is what is known as basic open hearth wire, free from impurities—tough, strong and springy foundation.

As a basis for comparison the No. 9 size wire of the kind used in Belleville Fence stands a breaking strain of 2,400 lbs. Soft iron wire of the same size which is too frequently used in cheaply constructed fence stands a strain of only about 1,200 lbs.

METHOD OF CONSTRUCTION

A report by the U. S. Dept. of Agriculture shows that in many fences the upright or stay wires are rusted long before the others, due to the fact that many manufacturers make these stay wires out of lighter wire, carrying a lighter zinc coating. The report recommends that fence be purchased in which the wires are the same size as the line wires.

The cross, or stay wires in Belleville Fence, are the same size as the line wires, and are made of one solid piece from top of fence to bottom, not of short pieces wrapped or so-called hinged. Strain, therefore on Belleville Fence is equally distributed, not on top or bottom wire alone as is the case with wrapped or hinged fence. Hard, springy wire such as is used in Belleville Fence cannot be used for wrapped cross bars. Go out and examine some wire fences in your neighborhood. If they are hinged or wrapped cross bar fences, you will find the cross bar wires smaller than the line wires, and of softer wire. You will also find them rusted and broken. Avoid this condition by erecting Belleville Fence.

THE KNOT

The one-piece stay wire is attached to line wires with an open wrap knot which, while it renders slipping absolutely impossible, allows no moisture to be retained. The weight and galvanizing of the knot wire is the same as the rest of the fence. It

allows just sufficient play to permit Belleville Fence to be erected on uneven or hilly land without kinking or bending of the stay wires.

EXPANSION AND CONTRACTION

You have seen wire fences sag in hot weather and pull off posts in cold weather. This never happens to Belleville Fence. The wire used is so stiff and springy that all contraction and expansion is provided for by "coiling" the line wires which means that the wire is rendered springy by means of long easy bends, or waves. A Belleville Fence will take up a shock or strain, will contract or expand and return to its original position like a spring.

GALVANIZING

The life of a wire fence depends upon the quality of the galvanizing. There is one good way to make sure your fence is properly galvanized. That

is by testing it accordingly to the recommendations in U. S. Dept. of Agriculture Bulletin 321. The test is to heat a saturated solution of Blue Vitrol to 60 degrees and dip the wire in. Let it remain one minute. Then wipe dry. Repeat this until the wire when wiped dry shows a deposit of copper of a light reddish color.

Galvanized wire used in Belleville Fence will stand three one-minute immersions before showing copper. You will find copper on most fence wire after the first immersion.

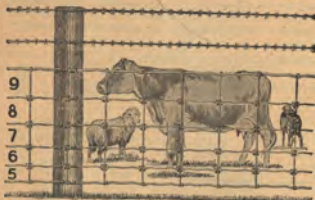
The reason is that our wire is galvanized by what is known as the "double galvanizing" process, by drawing the wire through a 28 foot long vessel of molten zinc at a speed of but 15 feet per minute. This puts on a coat of pure zinc representing about 4% by weight, or about 80 pounds of zinc to the ton of wire.

Save money and disappointment by putting up Belleville Fence, once and for all time. It will stand up under any test you can give it.

GUARANTEE

We guarantee Belleville Wire Fencing to be made from the best quality galvanized fencing wire; to stretch perfectly; and to give complete satisfaction in every respect. We guarantee that every rod shall be strictly up to specifications as to weight, height, and grade, otherwise the fencing may be returned at our expense and we will return every cent paid for it and the freight charges.

"Belleville" Square Mesh, Farm, Field and Poultry Fence



Belleville, 6 Bar 35 Inch Sheep and Cattle Fence

This type is very popular. The spacing is too wide for pigs, therefore should not be used for that purpose. Many farmers set this type fence from 12 to 18 inches from the ground and use no top wires, making a very economical, serviceable fence which will turn cattle and sheep.

No. K633-13—Medium weight; 6 bars; 35 in. high. Top and bottom wires No. 11; intermediate wires No. 13; stay wires No. 13; stay wires spaced 12 inches apart (16 to the rod). All double Galvanized open-hearth fence wire. Comes only in 20, 30 and 40 rod rolls.

Price—20 Rod Roll \$4.00; 30 Rod Roll \$5.00; 40 Rod Roll \$8.60.

No. K-635—Heavy; 6 bars, 36 in. high. Top wires No. 9; bottom wires No. 10; intermediate wires No. 12; stay wires No. 12; stay wires spaced 12 in. apart (16 to the rod). All double galvanized open-hearth fence wire.

Price—20 Rod Roll \$4.80; 30 Rod Roll \$7.25; 40 Rod Roll \$9.65.

Belleville, 8 Bar 45 Inch Cattle Fence

This is a style used extensively in New York and Pennsylvania for pasture and general wired fence. It is frequently set about a foot from the ground, which places the top wire 5 ft. 7 inches from the ground without the use of a top wire. A highly satisfactory general fence.

No. K 845-13—Medium weight top wire No. 11; bottom wire No. 11; intermediate wires No. 13; cross bars No. 13; cross bars 12 inches apart (16 to the rod). All double galvanized open-hearth fence wire comes only in 20, 30 and 40 rod rolls.



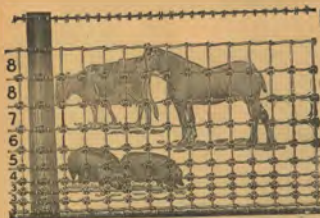
Price—20 Rods \$5.25; 30 Rods \$7.75; 40 Rods \$10.50.

No. K 845—Heavy Weight.

Top Wire No. 9, bottom wire No. 10, intermediate wires No. 12, crossbars No. 12; crossbars 12 inches apart (16 to the rod). All double galvanized open-hearth fence wire.

Price—20 Rods \$6.45; 30 Rods \$9.75; 40 Rods \$12.90.

"Belleville" Square Mesh Farm, Field and Poultry Fence



"Belleville" 10 Bar 4 ft. General Purpose Stock Fence

This 48-inch fence is a general favorite for almost all farm fencing purposes. Placing it close to the ground and running a barb wire 12 inches above it builds a 5-foot fence with 3 bottom wires 3 inches apart and the next three 4, 5 and 6 inches apart, which will keep in anything from pigs to cattle.

No. 1047-13—Medium Weight—
Has top and bottom wires No. 10; intermediate wires No. 13; crossbars spaced 12 inches apart (16 to the rod)—all double galvanized open-hearth fence wire.

Price—20 Rods, \$8.30; 30 Rods, \$9.50; 40 Rods, \$12.75.

No. 1047—Heavy Weight—
Has top wire No. 9, bottom wire No. 10; intermediate wire No. 12; cross bars No. 12. Cross bars 12 inches apart (16 to the rod), all double galvanized open-hearth fence wire.

Price—20 Rods, \$7.50; 30 Rods, \$11.25; 40 Rods, \$14.95.

"Belleville" 11 Bar 55 Inch Field Fence

A favorite where horses and cattle are to be enclosed, and barb wires are objectionable. A superior style for general farm fencing. Bottom wires are close spaced to turn pigs.

No. 1155—Standard weight;
has top wire No. 9; bottom wire No. 10; intermediate wires No. 12; cross bar wires No. 12. Cross bars spaced 12 inches apart (16 to the rod), all double galvanized open-hearth fence.



Price—20 Rods, \$8.25 30 Rods, \$12.25 40 Rods, \$16.50

No. 1155 H—Heavy Weight—

Has top wire No. 9; bottom wire No. 10; intermediate wire No. 11; cross bar wires No. 11; cross bars spaced 12 inches apart (16 to the rod); all double galvanized open-hearth fence wire.

Price—20 rods, \$9.60; 30 rods, \$14.50; 40 rods, \$19.25.

BELLEVILLE SQUARE MESH POULTRY FENCE



More serviceable, better looking and more economical than poultry netting. Put up and stretched, same as field fence. No boards, rails or extra posts. Guaranteed to last five times as long as a netting fence—and to look better and give better service—a real fence. No. 1848—48 inches high, 18 bar fence.

Top wire No. 11; bottom wire No. 12; intermediate wires No. 14½; stay wires No. 14½, lower wires 1¼ inches apart, top wires 4 inches apart; stay wires

8 inches apart (25 to the rod). Price, 10 Rod Roll \$4.25; 20 Rods \$8.50; 30 Rods \$12.75;
40 Rods \$17.00.

No. 2060—60 Inch, 20-Bar Fence.

Same specifications as No. 1848, but is 60 inches high and has 20 bars.

Price, 10 Rod Roll \$4.70; 20 Rods \$9.40; 30 Rods \$14.10; 40 Rods \$18.80.

BELLEVILLE SQUARE MESH WALK GATES



Frame 1½ in. steel tubing with rounded top corners, electrically welded. Close mesh No. 12 wire. A handsome and durable gate. Fitted with all fixtures for wood posts.

No. K 3½-48—Gate 3½ ft. wide; 48 inches high.

No. K 4 -48—Gate 4 ft. wide; 43 inches high.

No. K 4 58—Gate 4 ft. wide; 58 inches high.

Price	\$1.95
Price	2.10
Price	2.30

"Belleville" Square Mesh Farm, Field and Poultry Fence

"BELLEVILLE" SQUARE MESH DRIVE GATES **\$6.25**



Nothing in the way of a gate ever before offered can compare with this handsome, economical, well made gate, which we offer at a price as low or lower than is asked for gates with gas pipe or angle iron frames or for painted gates.

The frame is made of $1\frac{1}{4}$ inch high carbon steel tubing, electrically welded making the frame in effect one piece. The wire is all heavy No. $\frac{3}{4}$ wire; cross bars are 6 inches apart with 3 inch space between bottom line wires. For added rigidity a brace wire runs diagonally across the frame. Frame and wire all heavily triple galvanized and absolutely rust-proof.

Note: In ordering gates give actual space between posts; we allow for latch and hinges.

No. K 10-48—Gate 10 feet wide, 48 inches high, complete with fittings for wood posts. Price **\$6.25**

No. K 12-48—Gate 12 feet wide, 48 inches high, complete with fittings for wood posts. Price **\$7.00**

No. K 14-48—Gate 14 feet wide, 48 inches high, complete with fittings for wood posts. Price **\$7.75**

If gate is to be hung on steel posts add \$1.00 each to above prices for steel post fittings.

Instructions for Stretching Fence

Fasten the end of the roll to the end post, making sure that the upright wire is exactly perpendicular. Bring ends of lateral wires around the post, and staple them securely; wrap each wire, after going around the post back on itself. Unroll fence toward the place where your stretching tools are to be attached, which should be a braced post. Fasten clamp bar securely to fence, immediately in front of and parallel to a crossbar or upright wire and tighten clamp bar bolts solid. Make sure the cross wires or uprights are exactly parallel with the clamp bar.

Fasten short chain around post at top and bottom, and being careful to see that they are not twisted, slip the links through the ears of the jacks: fasten the long, or jack chains, in the same manner to the ears of the clamp bar; holding the handle of the jack straight up, pass the loose end of the jack chains from beneath over the ratchet wheels. Work levers alternately till fence is fairly tight, then examine the fence to see that it is coming along true and even and that it is not caught anywhere; shake the fence vigorously so as to distribute the strain. Pull each lateral wire taut between the post and the clamp bar and staple firmly to the post, leaving enough loose end to go around post and fasten back on itself.

In stapling wires onto the intermediate line posts do not drive staples solid. The fence wire should be able to slide back and forth under the staples on the line posts. On end posts drive staples solidly and firmly.

Fence Stretchers, Barb Wire, Staples, Etc.

HIGH GRADE FENCE

STRETCHER

Steel Clamp Bar Double Jack Stretcher

The best stretcher made for properly erecting wire fence. Has double jack, steel clamp bar, and two sets chains. With each stretcher is included a single wire hand stretcher, a wrench, and a wire twister.

Price \$9.65

Fence Staples

Made of No. 9 wire polished, made in following sizes (state length wanted):

1 inch	108 to pound
1 1/4 inch	87 to pound
1 1/2 inch	72 to pound
1 3/4 inch	65 to pound

Price per keg (100 lbs.) any length... \$3.75
Price per 50 lb. package, any length... 3.00
Price per 25 lb. package, any length... 1.50
Price per 10 lb. package, any length... .65

Information for Fence Builders

A 29-rod roll of Belleville Fence measures 320 feet.

80 rods will fence 1/4 mile
320 rods will fence 1 mile

For stock, posts should be set from 16 1/2 to 20 feet apart. When ground is rolling or uneven set closer than is necessary for level ground.

Set poultry fence posts 12 to 20 ft. apart.

To estimate amount of staples required figure 10 lbs. for each 100 rods of stock fence and 15 lbs. for each 100 rods poultry fence.

BARB WIRE

For the accommodation of our fence customers who desire to use barb wire at top or bottom of wire fence we quote prices on the best quality standard barb wire, made of two No. 12 wires twisted and heavily galvanized. We do not sell painted or reclaimed Government barb wire. All barb wire put up on 80-rod spools and sold only by the spool.

Standard four-point barb wire with barbs 6 inches apart. Price per 80-rod spool \$3.75
Standard four-point barb wire with barbs 4 inches apart. Price per 80-rod roll \$4.10

Brace Wire

No. 9 smooth galvanized wire for bracing posts. You must brace your end posts in order to insure a neat non-sagging fence. This wire runs about 17 feet to the pound.

Price per 10 lb. coil..... \$.60

Note: All barb wire, brace wire, and staple prices are subject to market change.

Setting Posts

End or corner posts should be larger size than live posts, set at least 4 ft. in the ground, braced and anchored underground with four pieces of heavy plank nailed across the post and the ground firmly tamped.

Set a brace post six feet away and run a 12 ft. 4x4 from a point a few inches from the top of the end or corner post to just above ground on the brace post, then run a doubled and twisted brace wire from the top of the brace post to just above ground on the end post.

Firm rigid end and corner posts are the most important step in putting up a fence.

The "Champion" Cream Separator

LATEST MODEL—A SEPARATOR OF THE MOST EFFICIENT TYPE

AT AN ASTONISHINGLY LOW PRICE

A cream separator is an absolute necessity on any farm where two or more cows are milked, even if its use is limited to skimming only the cream for the family table. The Champion is made in six sizes, therefore there is a size to fit every requirement up to the twenty-five cow dairy herd.

The Champion is proof that it is unnecessary to pay a high price to get a good cream separator. It has been on the market for a number of years. There are thousands in daily use, giving perfect satisfaction. In the design and manufacture of the Champion are embodied everything that years of experience, experiment and development have proven correct, efficient, and contributing to long life.

The separator has not yet been made, no matter at what price it is sold, that can exceed the skimming record of the Champion.

In this popular and high grade machine, we offer all that any separator can offer, namely skimming efficiency, excellence of material and workmanship, correctness of design and ease of operation, yet it is sold at a price very much lower than is asked for any cream separator that can be seriously considered a competing machine.

SPECIAL FEATURES

Granting all that is claimed for competing cream separators—the Champion stands alone in several very important features which cannot be duplicated in any other cream separator.

THE PATENTED SKIMMING DEVICE

The Champion is a disc type separator like all other high grade separators, but with a very important improvement which places it in a class by itself. Our patented distributing sleeve, by means of which the milk upon entering the bowl is equally distributed to each disc at once. Instead of merely running down through the bowl and allowing some discs to catch more and some less, each disc, through use of this equalizing sleeve does its full share of the skimming, which not only insures greater efficiency, but permits the use of a smaller number of discs, thus rendering the turning a much lighter task than would otherwise be possible.

THE BOWL

is drawn from one single piece of steel, polished and trimmed. It is of the self-balancing type, by which is meant that the bowl shaft end enters into a recess in the bottom of the bowl so that its upper end is above the center of the bowl. This not only prevents the bowl from becoming unbalanced, but adds to ease of turning.

GUARANTEE

We guarantee every Champion Cream Separator to skim efficiently as closely as any separator made under like conditions—to deliver cream of any required density and to skim its full rated capacity.

We guarantee them to be well made, from materials of the highest grade suitable for the purpose, and agree to replace any part breaking or showing undue wear due to defective material or workmanship at any time regardless of date of purchase.

GEARS

The master or largest gear which is on the opposite end of the main shaft from the crank, and enclosed in a cast casing, has helical teeth accurately machined, which mesh with the teeth on the lower shaft which revolves the skimming bowl.

OILING

Oiling is accomplished by the "splash" system. Oil is poured into one place but once a week.

TINWARE

All tinware is heavy dairy tin, heavily returned, and accurately fitted. The tank is one piece, seamless, round bottomed, heavy dairy tin, fitted with sanitary loose key faucet.

APPEARANCE WORKMANSHIP AND

The fact that we guarantee against defect any part of this separator is conclusive proof that we know the material and workmanship is as good as it can be made. All gears, shafts and bearings are specially designed for the purpose.

A speed timer on the crank makes turning at proper speed easy.

The frame is heavy grey iron, painted with filler coat then enameled in dark olive green, with gold striping. The Champion presents a remarkably handsome appearance and is a separator you can be proud of, both for its appearance, its performance and the extreme economy of its first cost.

The Champion Cream Separator

EFFICIENT—DURABLE—ECONOMICAL

**SOLD ON 30 DAYS
TRIAL**

Six Sizes

No. 23—Bench or Shelf size, without stand, made to attach to a bench, table or shelf. Capacity 200 lbs. or about 95 quarts per hour. Shipping weight, 70 lbs.

Price ----- **\$24.00**

Stand for No. 23 Separator. Shipping weight, 50 lbs.

Price ----- **\$6.00**



Prices from
\$27.50
to
\$65.00

No. 30—Regular Dairy Type as illustrated, capacity 300 lbs. (40 gallons) per hour. Shipping weight, 70 lbs.

Price ----- **\$43.50**

No. 50—Regular Dairy Type, for up to 8 cows. Capacity 500 lbs. (60 gallons) per hour. Shipping weight, 175 lbs.

Price ----- **\$48.00**

No. 70—Regular Dairy Type, for the average farm where up to 14 cows are milked. Capacity 700 lbs. (80 gallons) per hour. Shipping weight, 220 lbs.

Price ----- **\$57.75**

No. 90—Largest Dairy Size, suitable for herds up to 25 cows. Capacity 900 lbs. (95 gallons) per hour. Shipping weight, 230 lbs.

Price ----- **\$62.50**

POWER PULLEY—Special friction clutch design. Will start separator smoothly. For all sizes except No. 23. Price ----- **\$7.25**

Every Champion Cream Separator is sold subject to 30 days trial. If not found thoroughly efficient, light running, easy to care for and wash; if found unsatisfactory in any manner, return it to us, and we will return every cent you paid us together with freight charges. See guarantee, page 1.

BARGAINS IN USED MACHINERY

We do not guarantee used machinery further than to be as represented. It is not returnable. We will gladly give any additional information requested.

FEED GRINDERS

- One 8" Peerless Feed Grinder complete with fly wheel, extra plates and new crusher roll. This mill has been thoroughly overhauled and is in first class running condition. It is suitable for from 3 to 12 H-P and will grind from 15 to 40 bushels of ear corn or small grains per hour. **\$15.00**
- One 10" Letz Tractor Feed Grinder complete with fly wheel, new plates, good crusher roll, etc. Just overhauled and is in first class shape. It is suitable for from 3 to 30 H-P and will grind from 20 to 60 bushels of ear corn or small grains per hour. **\$25.00**
- Price -----
- One 6 1/4" No. 16-X Latest Model Peerless Feed Grinder complete with fly wheel, sharp plates, good crusher roll. This mill has been used very little and is in first class shape. See description on page 37 of catalog. **\$25.00**
- One 16" Sprout Waldron French Burr Mill complete with corn breaker. **\$110.00**
- In good condition. -----

ENGINES

- One 1 1/2 H-P Galloway Air Cooled Engine in running condition. **\$25.00**
- Price -----
- One 6 H-P Fairbanks-Morse Throttle Governor Gasoline or Kerosene Engine with Bosch Magneto. On skids. In good running order. **\$95.00**
- One 4 1/2 H-P New-Way Engine on skids. Good condition. **\$137.50**
- Price -----
- One 6 H-P E. B. Engine on truck. Running order. **\$85.00**
- Price -----
- One 6 H-P Domestic Engine on truck. In running condition. **\$85.00**
- Price -----
- One 9 H-P Hercules Engine on skids. Good condition. **\$137.50**
- Price -----
- One 10 H-P Stickney Engine on truck. In running condition. **\$195.00**
- Price -----
- One 10 H-P Fairbanks-Morse Gasoline or Kerosene Throttling Governor Engine complete with Bosch magneto, friction clutch and steel truck. Used only about one year and in splendid shape. **\$350.00**
- One 8-16 Mogul tractor **\$195.00**
- Price -----
- One 8-16 Happy Farmer Tractor, two cylinder, one speed forward and one reverse. Easy to start and furnishes especially good power on the belt. Complete with fenders, governor and Madison Kipp lubricator. In good running condition. **\$190.00**
- Price -----
- One 15 H-P Frick Steam Engine—portable on wheels. In good shape except that it needs a few staybolts. **\$450.00**
- One 15 H-P Peerless "S" Traction Engine with Kipp roller and new cleats. In fine shape except that right hand water tank leaks where patched. **\$700.00**
- Price -----
- One 35 H-P 11x16" Frick Engine on skids. Engine No. 5608. In first class running condition. **\$450.00**

THRESHERS

- One No. 4 Geiser Thresher complete with self feeder, wind stacker, timothy attachment and all necessary belts ready to run. This thresher has only been used three seasons and is in first class shape. Just the right size for the average farm tractor. **\$500.00**
- Price -----
- One 22x38" Frick Junior Thresher complete with self feeder, wind stacker and all necessary belts, ready to run. This machine has only been run three seasons and is in splendid condition. The correct size for the average farm tractor. **\$675.00**
- One 27x46" Frick Thresher complete with self feeder and wind stacker. Good running order, but needs a few parts. Complete with all necessary belts. **\$275.00**
- Price -----
- One 27x46" Frick Thresher complete with self feeder and wind stacker. This thresher is in splendid shape, has just been completely overhauled and is ready for work. Complete with all necessary belts. **\$575.00**

MISCELLANEOUS

- One 3 H-P Wagner Electric Motor. Single phase, 110 volt, 1750 R. P. M. In running condition. **\$82.50**
- One Peerless Water Tank—12 barrel. First class shape. **75.00**
- One Birdsell Clover Huller. In good condition. **\$25.00**
- One Chase Shingle Mill complete with 40" Hoe saw and several smaller saws. In good condition. **175.00**

General Information

TERMS: Cash with order, or C. O. D. We recommend the cash with order plan because it is the cheapest for you and we can handle the order with less delay, and then you have the protection of our \$10,000 Legal Guarantee Bond. Nearly all our customers use this plan.

CASH WITH ORDER—30 Days' Trial. On this plan, cash in the form of a bank draft, express money order, post-office money order, or check, must accompany your order. We recommend it as the best and cheapest plan for anyone. The order will be handled without delay, and as we are put to no extra expense, you get the lowest rock bottom price on the article you order, and our guarantee of satisfaction is behind it. You have the privilege of trying it for 30 days. If at the end of that time you are not well pleased with it, and do not find it satisfactory in every way, we agree to take it back, refund your money and pay all freight charges.

C. O. D.—We will ship C. O. D. if one-fifth the amount is sent with the order.

TRANSPORTATION CHARGES—Prices quoted in this catalog are for the goods on board cars at our factory or in the case of goods we ship from other factories, on board cars at that shipping point. Do not allow yourself to be deceived regarding freight charges. No matter from whom you buy, you pay freight. It is always included in the price you pay. Freight charges are the same to every one. No dealer or manufacturer can get goods by freight any cheaper than you can. The rates are fixed by government regulation just the same as postage rates.

We will gladly quote you a price on any article or articles in this catalog; freight prepaid to your station upon request.

ORDERS—When possible use one of our printed order blanks found in our catalog. Always give the Catalog number of each article and state the size wanted if the article is furnished in more than one size. State clearly to what point shipment is to be made and whether goods are to go forward by freight, express or parcel post. In case there is no freight agent at your shipping point, it will be necessary to prepay the freight and you shall include in your remittance an amount sufficient to cover the freight charges. Any amount you send in excess of the actual freight charge will be returned to you. Write your order plainly, be sure to sign your name giving correct post office address, street and number, or rural route, express office and freight sta-

tion. Use a separate sheet of paper if you wish to refer to any matter not concerning your order. Your order is handled in one department and your inquiry or correspondence in another.

SAFE DELIVERY GUARANTEED—We guarantee safe delivery at your station of every article shipped by us under the following conditions:

Should you find any machine damaged when it arrives, do not accept the shipment until the freight agent has fully noted the damage on your freight receipt. Then pay the freight and mail the receipt with notation to us at once, and we will replace any broken part without charge. Should the entire shipment be so damaged as to be useless, refuse it and notify us. We will duplicate the shipment at once.

RETURNING GOODS—Before returning any goods we would ask that you take the matter up with us, in order that we may send you the necessary shipping tags, shipping instructions, etc. Do not in any case ship goods to us until after you have received instructions from us to do so. Some of our articles are shipped from other warehouses, and we do not want them returned to Belleville. We will give full instructions for returning any article which fails to please you. Our only reason for asking you to write is that we may give you such shipping instructions as are necessary to avoid delay and save useless expense.

PROMPT SERVICE AND QUICK SHIPMENTS—While we handle a large volume of business, we are so organized that we take care of it without delay. Every branch of the work is under the personal control and supervision of one of the officers of our company and we guarantee that any inquiry communication of any kind will get immediate attention, and that your orders will be filled promptly and accurately. We appreciate the fact that it means great inconvenience and in many cases an actual loss to you if your order is held up; if the wrong goods are shipped to the wrong point, or if mistakes of any kind are made, and for that reason, each inquiry and order receives the most careful attention. We know that you will get prompt attention and quick shipments. We know that we will send goods which are right; goods having the best and latest improvements; goods which are time savers; because they are not the kind you will have to return, but the kind you will want to keep, the kind that will please you and save you time and money.

The Famous

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Line