

CATALOG No. 24

1928-29

HERTZLER & ZOOK
CO.

MANUFACTURERS
OF
WOOD SAWING
MACHINERY
AND
FARM
IMPLEMENTS



BELLEVILLE, PENNSYLVANIA
U. S. A.

INDEX

Page

Page

Anvils	44	Mandrel Sets	33
Auto Power Jacks	43	Mills, Cider	56-58
Bag Trucks	47	Mixers, Concrete	36-40
Barb Wire	71	Mixers, Farm	36-40
Bearings, Post	30	Mixers, Feed	36-40
Bearings, Flat	31	Order Blank	78-80
Bearings, Solid	31	Pillow Blocks	31
Belt Dressing	26	Portable Engines	74
Belting, Canvas	26	Portable Saw Rigs	63
Belting, Leather	27	Portable Saw Rig Trucks	79
Belting, Rubber	27	Power Plants	73
Belts, Endless	26	Pulleys, Iron	32
Belts, Thresher	26	Pulleys, Rockwood Fibre	33
Belts, Tractor	26	Pulleys, Steel Split	33
Blowers	34	Pulleys, Wood	32
Brace Wire	71	Rip Blades	24
Combination Woodworker	61	Rip Tables	22
Cordwood Blades	24-29	Saw Frames	3-13
Couplings, Shaft	30	Saw Frame, Special	77
Drill Presses	34	Saws, Log and Tree	62
Engines	60	Saw Mills	74
Feed Cutter	50	Saw Parts	23
Fence	64-72	Saw Rigs, Mounted	18-19
Fence Posts	72	Sawmill Saws	25
Fence Staples	71	Scrapers, Drag	42
Fence Stretcher	71	Set Collars	39
Fertilizer Distributors	79	Sets, Saw	28
Files	28	Shafting	30
Forges	34	Shellers, Corn	47-49
Ford Portable Wood Saw Outfit	19	Shingle Tables	22
Fordson Pulley Fender	15	Smithing Outfit	34
Fruit Crusher	56	Speeds, etc., for Saw Blades	28
Fruit Presses	59	Specialties	74
Furnace Parts	45	Stone Boat Heads	44
Gates	69-79	Stoves, Heating	76
General Information	Rear Cover	Threshers	74
Grinders, Feed	32-54	Traction Engines	74
Grinders, Tool	35	Tractors	75
Grinding Attachments	35	Tractor Saws	14-17
Grinding Wheels	35	Troughs, Hog	44
Grinding Wheel Dressers	35	Troughs, Poultry	44
Grindstones	55	Trucks, Engine	46
Hangers, Shaft	31	Trucks, Engine and Saw	46
Horse Power Required	28	Used Machinery	73
Inserted Teeth Saws	23	Utility Saw	20-21
Kettles	29	Vises	36
Lacers, Belt	27-29	Wheelbarrows, Concrete	41-42
Land Rollers	49	Wheelbarrows, Farm	51
		Wheelbarrows, Garden	51

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 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, Concrete Mixers, Etc. 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 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 large 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

FOR USE WITH 1 TO 6 H. P. ENGINES

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, 1.5-1.6" diameter, 1 1/4" 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—Ample size, works at a convenient angle. Located so that the saw helps to pull the wood in.

H. P. Required—One or more. See Page 25.

Shipping Weight—100 pounds.

No. 1 Saw Frame without blade.....	\$10.00
With 16" cordwood blade.....	\$11.95
blade, filed and set. With 20" blade.....	\$12.20
ready for work With 22" blade.....	\$12.55

\$10.00

Without Blade



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..... \$3.95

For price of Rip Blades see page 24.



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.....	\$13.50
With 16" cordwood blade, filed and set. ready for use.....	\$15.30
With 18" blade.....	\$15.45
With 20" blade.....	\$15.70
With 22" blade.....	\$16.05



SEE PAGE 26 FOR ATTRACTIVE BELTING PRICES

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

One of Our Best Values in a General Purpose Machine

\$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, 13/8" 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 28.

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.....	\$12.50	
With 20" blade.....	\$14.70	With 26" blade..... \$16.15
with 22" blade.....	\$15.05	With 28" blade..... \$16.40
With 24" blade.....	\$15.40	With 30" blade..... \$17.20

RIGHT HAND MACHINES REGULARLY FURNISHED

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.

SHIPPED KNOCKED DOWN UNLESS OTHERWISE REQUESTED

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, instruction sheet and illustrations to show just how they should be set up. We will ship our saw frames set up ready to use if requested, without extra charge.

SEE PAGE 26 FOR ATTRACTIVE BELTING PRICES

The No. 2 Saw Frame With Balance Wheel

The frame is just like the one previously described, except that it has a 60 pound balance wheel.

We consider a balance wheel a necessity on a saw frame unless ten horse power or more is available. Even then a balance wheel will make the machine steadier and smoother running, and saves the belt. The balance wheels on our machines can be taken off or put back on in a few minutes.



No. 2 Saw Frame with 60 lb. balance wheel, less blade.....	\$15.00
With 20" blade....	\$17.20
With 22" blade....	\$17.55
With 24" blade....	\$17.90
With 26" blade....	\$18.65
With 28" blade....	\$18.90
With 30" blade....	\$19.70
With 32" blade....	\$20.35

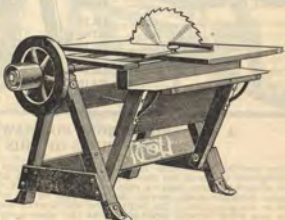
This Cut Shows Our No. 2 Saw Frame as it Appears With Rip Table and Rip Blade Attached

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. 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 for Rip Table only, with bolts for attaching, **\$5.00** less rip blade.....

**FOR RIP BLADE PRICES
SEE PAGE 24**



SEE PAGE 26 FOR ATTRACTIVE BELTING PRICES

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

A Splendid Machine for Custom Work



No. 4 Saw Frame, less blade.....	\$15.75
With 20" blade.....	\$17.95
With 22" blade.....	\$18.30
With 24" blade.....	\$18.65

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

We consider a balance wheel a necessity on a saw frame unless ten horse power or more is available. Even then a balance wheel will make the machine steadier and smoother running, and saves the belt. The balance wheels on our machines can be taken off or put back on in a few minutes.

Shipping Weight—225 lbs.

No. 4 Saw Frame with 60 pound balance wheel, less blade.....	\$19.50
With 20" blade.....	\$21.70
With 22" blade.....	\$22.05
With 24" blade.....	\$22.30
With 26" blade.....	\$23.05
With 28" blade.....	\$23.30
With 30" blade.....	\$24.10
With 32" blade.....	\$24.75

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 1/2" 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.

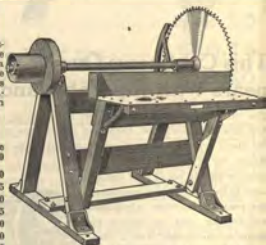
Saw Guard—Cast iron—adjustable for any size saw blade up to and including 32".

H. P. Required—Four or more. See page 28.

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

Shipping Weight—175 lbs.

With 26" blade.....	\$19.40
With 28" blade.....	\$19.65
With 30" blade.....	\$20.42
With 32" blade.....	\$21.16



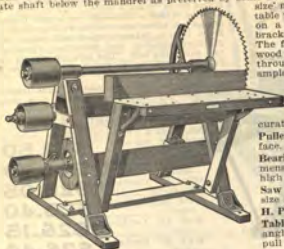
A FEW SUGGESTIONS FOR SAWING POLES WITH MACHINES OF THIS TYPE

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 26 FOR ATTRACTIVE 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 3/4" arbor. The washers are large, and accurately machined.

Pulleys—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 28.

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.....

With 24" blade.....

With 26" blade.....

With 28" blade.....

With 30" blade.....

With 32" blade.....

THE H. & Z. No. 10 GREAT EASTERN SLIDING TABLE SAW FRAME

FOR OUR CUSTOMERS WHO PREFER THE SLIDING TABLE

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 3/4" 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 blade up to and including 32".

H. P. Required—Three or more. See page 28.

SHIPPING WEIGHT—175 pounds.

No. 10 Saw Frame complete, less blade.....

With 20" Cordwood blade.....

With 22" Cordwood blade.....

With 24" Cordwood blade.....

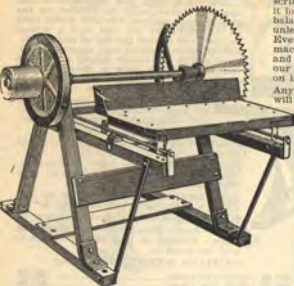
With 26" Cordwood blade.....

With 28" Cordwood blade.....

With 30" Cordwood blade.....

SEE PAGE 26 FOR ATTRACTIVE 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 60 lb. balance wheel. We consider a balance wheel a necessity on a saw frame unless ten horse power or more is available. Even then a balance wheel will make the machine steadier and smoother running, and saves the belt. The balance wheels on our machines can be taken off or put back on in a few minutes.

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 60 lb. balance wheel,

less blade	\$22.50
With 20" Cordwood blade	\$24.70
With 22" Cordwood blade	\$25.05
With 24" Cordwood blade	\$25.40
With 26" Cordwood blade	\$26.15
With 28" Cordwood blade	\$26.40
With 30" Cordwood blade	\$27.20

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 1/2" arbor. The washers are large and accurately machined.

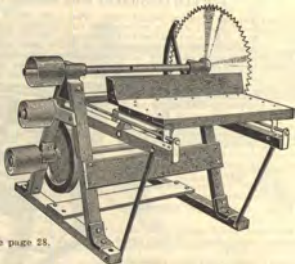
Pulleys—Cast iron, 6" diameter, 6" crowned face.

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—Five or more. See page 28.

SHIPPING WEIGHT—320 lbs.



No. 12 Saw Frame with 70 pound balance wheel, less blade	\$32.00
With 24" Cordwood blade	\$34.90
With 26" Cordwood blade	\$35.65
With 28" Cordwood blade	\$35.90
With 30" Cordwood blade	\$36.70

SEE PAGE 26 FOR ATTRACTIVE BELTING PRICES

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 sills. 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 3/4" arbor. The washers are large and accurately machined.

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

Balance Wheel—70 pound, 12" 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 28.

SHIPPING WEIGHT—255 pounds.

No. 1603 Saw Frame with 70 lb. balance wheel complete, without blade.....	\$21.95
With 24" Cordwood blade.....	\$24.85
With 26" Cordwood blade.....	\$25.60
With 28" Cordwood blade.....	\$25.85
With 30" Cordwood blade.....	\$26.65



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 3/4" 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 28.

SHIPPING WEIGHT—410 pounds.



No. 3 Saw complete, without blade.....	\$50.00
With 28" Cordwood blade.....	\$53.90
With 30" Cordwood blade.....	\$54.70
With 32" Cordwood blade.....	\$55.35
With 34" Cordwood blade.....	\$56.50
With 36" Cordwood blade.....	\$57.45

SEE PAGE 26 FOR ATTRACTIVE BELTING PRICES

The H & Z No. 1604 Western Leader Saw Frame

A REAL QUALITY MACHINE



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. 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 inch 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 28.

SHIPPING WEIGHT—180 pounds.

No. 1604 Saw Frame, without blade.....\$17.50

With 20 in. Cordwood blade.....\$19.70 With 26 in. Cordwood blade.....\$21.25

With 22 in. Cordwood blade.....\$20.05 With 28 in. Cordwood blade.....\$21.50

With 24 in. Cordwood blade.....\$20.50 With 30 in. Cordwood blade.....\$22.30

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 70 pound balance wheel. We consider a balance wheel a necessity on a saw frame unless ten horse power or more is available. Even then a balance wheel will make the machine steadier and smoother running, and saves the belt. The balance wheels on our machines can be taken off or put back on in a few minutes.

Shipping Weight—270 pounds.

No. 1605 Saw Frame complete with 70

lb. balance wheel, without blade.....\$21.00

With 20 in. Cordwood blade.....\$23.20

With 22 in. Cordwood blade.....\$23.45

With 24 in. Cordwood blade.....\$23.80

With 26 in. Cordwood blade.....\$24.55

With 28 in. Cordwood blade.....\$24.80

With 30 in. Cordwood blade.....\$25.60



SEE PAGE 26 FOR ATTRACTIVE 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, 6" crowned face.

Balance Wheel—Solid web, safety type. Weighs 70 pounds—12" 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 23.

SHIPPING WEIGHT—320 pounds.

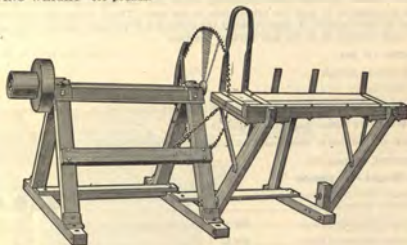


No. 1619 Saw Frame complete with 70 lb. balance wheel, without blade.....	\$27.75
With 24" Cordwood blade.....	\$30.65
With 28" Cordwood blade.....	\$31.65
With 30" Cordwood blade.....	\$32.45

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.

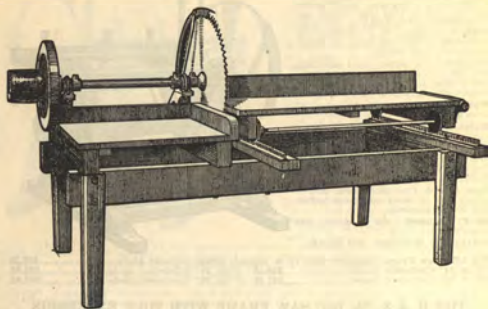
SHIPPING WEIGHT—300 pounds.



No. 1607 Saw Frame complete with 70 lb. balance wheel, without blade.....	\$23.75
With 20" Cordwood blade.....	\$25.95
With 22" Cordwood blade.....	\$26.30
With 24" Cordwood blade.....	\$26.55
With 26" Cordwood blade.....	\$27.30
With 28" Cordwood blade.....	\$27.55
With 30" Cordwood blade.....	\$28.35

SEE PAGE 26 FOR ATTRACTIVE 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, 10 inches.

Table—4 feet long.

Mandrel—Cold rolled steel, 30 inches long, 1 7-16 inches diameter, 1¾ inches arbor.

Balance Wheel—12 inches diameter, weight 70 pounds.

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

H. P. Required, see page 28.

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.....\$38.20 With 26 inch Cordwood blade.....\$39.65

With 22 inch Cordwood blade.....\$38.55 With 28 inch Cordwood blade.....\$39.90

With 24 inch Cordwood blade.....\$38.90 With 30 inch Cordwood blade.....\$40.70

SEE PAGE 26 FOR ATTRACTIVE 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.

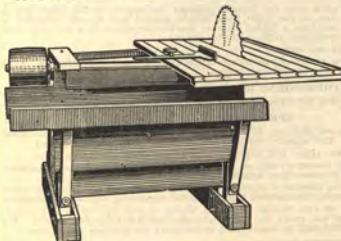
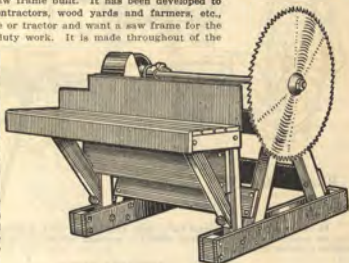
Mandrel—49" long by 1 7/16" in diameter with accurately machined washers and arbor for saw blades having 1 3/4" hole.

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 30" 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—290 pounds.



No. 6 heavy duty crosscut and ripping outfit complete with 30" cordwood blade, 24" rip blade and rip table.....\$10.00

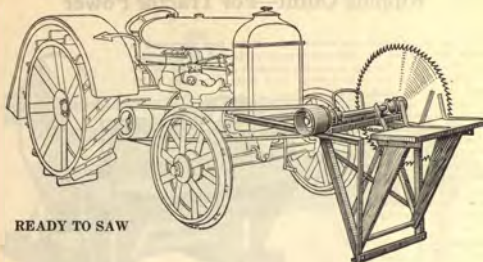
If cordwood blade is not wanted deduct4.00

If rip blade is not wanted deduct..... 5.00

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.

The H. & Z. No. 50 Sawing Attachment for the Fordson Tractor



READY TO SAW

In response to the demand for a Saw Attachment with a tilting table, we designed our No. 50 machine, which certainly makes a splendid outfit for those of our customers who prefer a tilting table saw.

STRONGLY BUILT

This machine also is made entirely of metal with the exception of the table, which is hardwood. The entire outfit is well made of strong materials, and will stand much hard usage.

SELF ALIGNING BEARINGS

The bearings used on this machine are of the latest selfaligning ball and socket type. They are lined with high speed bearing metal and can be adjusted to take up wear.

EASY TO ATTACH

This machine can be attached to a Fordson tractor ready for work in less than five minutes, and it is not necessary to do any machine work nor move any bolts on the tractor. It cannot injure the tractor in any way.

Rests on the ground in operation. Folds up to move.

With this outfit the tractor does not have to support the weight of the wood, nor of the machine when it is in use, as the outfit rests on the ground and is only anchored to the tractor. To move, the machine is folded up over the tractor where it is securely held. It can be elevated for transportation quite easily by one man.

Can be cranked when Up or Down.

There is plenty of room to crank the tractor directly with the regular tractor crank when the saw is in the working or moving position.

CONVENIENT BELT TIGHTENER

A simple device is provided for tightening the belt when necessary.

SPECIFICATIONS

Mandrel—Cold rolled steel shafting 36" long, 1 7-16" diameter with arbor machined for saws having 1 3/4" hole. The mandrel washers are large and accurately machined.

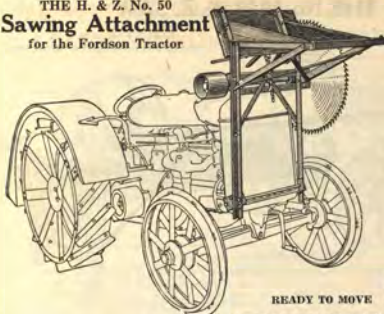
Bearings—Ball and socket type. Self aligning. Can be adjusted to take up wear.

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

Belt—When specified we furnish a high grade rubber belt 15' 2" 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.

THE H. & Z. No. 50 Sawing Attachment for the Fordson Tractor



READY TO MOVE

We equip the No. 50 Saw with four in. rubber belt and 30 inch blade, which will be found to give the best satisfaction for average conditions.

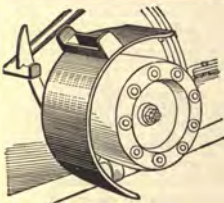
NOTE—When a 26 inch or smaller saw blade is used, the pulley should be correspondingly smaller. If our customers have their own saw blades and will tell us what size, we will be glad to furnish the correct size pulley without extra cost.

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 $1\frac{1}{2}$ " hole—blades up to and including 30" can be used. The belt should be four or five inches wide, 15' 2" long.

The belt should be 10 1/2 or five inches wide, 19 1/2 long.		\$27.50	
No. 50 Saw Complete, less saw blade and belt.....			
26" Cordwood Blade.....	\$3.65	22" Cordwood Blade.....	\$5.35
23" Cordwood Blade.....	\$3.90	4" Rubber Belt, laced.....	\$5.00
30" Cordwood Blade.....	\$4.70	5" Rubber Belt, laced.....	\$6.25

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.

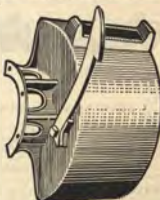
Its convenience and value can readily be seen. It protects the pulley from the dirt and stones, etc., that come around on the drive wheel, that otherwise injure the edge of the pulley and are dangerous to the operator.

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.

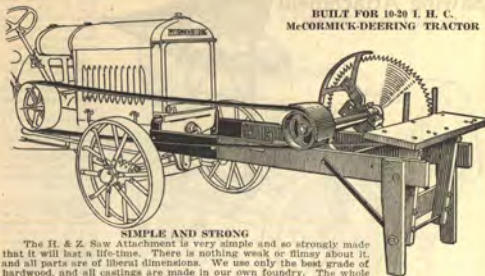
SHIPPING WEIGHT, 22 lbs.

Price\$4.00



THE No. 60 H. & Z. SAW

BUILT FOR 10-20 I. H. C.
McCORMICK-DEERING TRACTOR



SIMPLE AND STRONG

The H. & Z. Saw Attachment is very simple and so strongly made that it will last a life-time. There is nothing weak or flimsy about it, and all parts are of liberal dimensions. We use only the best grade of hardwood, and all castings are made in our own foundry. The whole machine is thoroughly braced and bolted, which makes it a rigid, enduring unit that will give many years of the hardest kind of service.

EASILY AND QUICKLY MOVED FROM JOB TO JOB

One of the outstanding features of the machine is its portability—it is an attachment, moves with the tractor and is ready for work the minute it arrives at the job. It is not necessary to fasten down a frame, align belts, etc. Therefore, hilly, stony or frozen ground does not interfere with its usefulness. It is a real portable wood sawing outfit in every way. To move it is simply tilted up and hooked in the upper radiator tank where it is securely held by the weight of the saw.

INSTALLATION—When first installed two attachment irons are bolted to the engine bed or body of the tractor—one on each side—by the bolt that holds the lower radiator tank to the engine bed. To connect or disconnect this saw it is only necessary to put in or take out two $\frac{1}{2}$ "x $1\frac{1}{2}$ " bolts. It is not necessary to drill any holes or in any way change the tractor to attach this saw. The frame of the saw is connected to the hitch by the bolts, which act as coupling pins and pivots on which the saw swings when tilted up.

AUTOMATIC TABLE—Our automatic table is one of the particular features. It is equipped with a return spring, which automatically brings the table back after the cut has been made. In this way we are able to so locate our table that the wood, as it is being fed to the saw, goes down, and therefore, the weight of the wood helps to feed the saw. This makes a great difference, especially when sawing heavy wood. The machine must be used to fully appreciate this improvement over the old style tables.

YOKE BEARING



Yoke Bearing

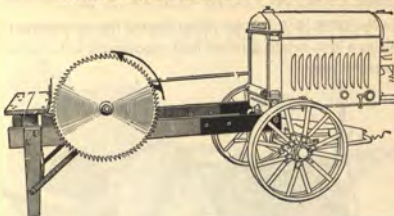
The bearings are equipped with liners for taking up wear as it occurs, and the bearing caps are fastened by four bolts. In addition, the lower halves of the bearings are cast solid, being joined by a heavy yoke, which eliminates all possibility of their getting out of alignment. In the bearings, especially, is reflected our idea to make everything on the machine safe and durable. A pulley guard is provided, which prevents any chance of the wood getting against the belt.

RESTS ON THE GROUND WHEN SAWING—NO VIBRATION OR STRAIN ON TRACTOR

Another particular advantage of this saw is the fact that it cannot injure the tractor. In moving the saw from place to place our hitch is so designed that the weight of the machine is carried by the engine bed, or body of the tractor. When the saw is being operated it rests on the ground, on two stout legs, and is only anchored to the tractor. The tractor does not have to support the weight of the wood that is being sawed, nor of the machine.

CRANKING—This attachment is designed so that the tractor can be cranked without inconvenience when the saw is in the working position, or when it is folded up to move.

THE No. 60 H. & Z. SAW



SIX POINTS OF EXCELLENCE

- 1—Moved from place to place with the tractor—ready for work when you get there—no settling—no stakes—no braces.
- 2—Automatic table.
- 3—Four bolt bearings—connected by yoke.
- 4—Completely guarded pulley.
- 5—Cannot injure the tractor.
- 6—Extremely simple—nothing to break or get out of order—strong and substantial—Guaranteed.

SPECIFICATIONS

Mandrel—Cold rolled steel shafting, 36" long by 1 7-16" in diameter, arbor machined for saws with 1 1/2" arbor hole. The mandrel washers are large and accurately machined.

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

Belt—We furnish when specified a 5" belt 19' 6" long, of the best grade. When necessary it can be tightened or any belt alignment made very easily by drawing up two nuts.

Pulley—Eight inches in diameter with six inch crown face. This is the correct size to give a thirty inch blade the proper speed with the tractor running at its normal speed. A pulley guard is provided which prevents any possibility of wood getting against the belt.

Blade—When specified we can furnish cordwood blades in any size up to and including 36". 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.

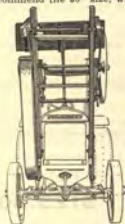
PRICES

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 36" can be used. The belt should be four or five inches wide, 19' 6" long.

No. 60 Saw complete, less saw blade and belt.....	\$37.50
16" Cordwood Blade.....	3.65
28" Cordwood Blade.....	3.90
30" Cordwood Blade.....	4.70
4" Rubber Belt, laced.....	6.75
5" Rubber Belt, laced.....	8.50

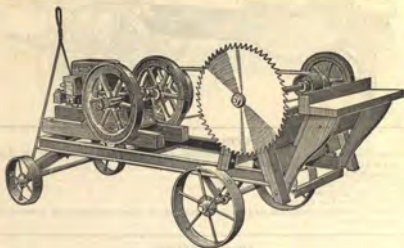
We recommend equipping the No. 60 Saw with five inch rubber belt and 30" blade, which will be found to give the best satisfaction for average conditions.

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 H. & Z. No. 125 BELT DRIVEN SAW RIG

The No. 125 H. & Z. Portable Wood Sawing Rig was designed for any one desiring a light weight, strongly built wood sawing and general purpose portable power plant.



TRUCK

Strongly built steel truck with solid steel axles and electric welded steel wheels. Rear wheels 16" diameter by 3" face. Front wheels 12" in diameter by 3" face.

SAW FRAME

SAW TABLE—Is hung at a convenient angle and is easy to operate.

BALANCE WHEEL—We equip this outfit with a 50 lb. balance wheel which makes it very smooth running.

MANDREL—41" long, 1 5-16" diameter with arbor for saw having 1 1/4" hole. The washers are accurately machined, 5" pulley.

SAW BLADE—We regularly equip this machine with a 22" guaranteed cordwood blade, filed and set ready for use.

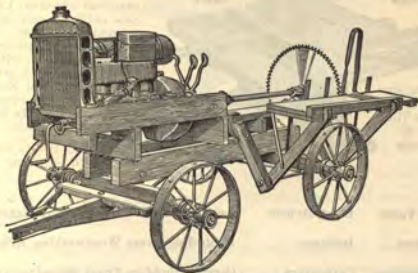
ENGINE—This outfit is equipped with a 2 1/2 HP. H. & Z. Engine, which is illustrated and fully described on page 60. It is mounted in such a manner as to permit being used for various power jobs around the farm.

SHIPPING WEIGHT—650 lbs.

PRICE complete with 22" saw blade and belt.....

\$125.00

THE H. & Z. FORD MOTOR SPECIAL PORTABLE WOOD SAW OUTFIT



This outfit is especially designed to enable our customers to put to profitable work their old Ford automobile motors.

By the use of a Pulley on the Saw Mandrel, this outfit can be used for various power jobs.

LIGHT—EASY TO MOVE

The weight of this entire outfit is only 1180 pounds, making it easy to take from place to place.

POWER

The power used on this outfit is the dependable Ford pleasure car engine, which has served its time as motive power, but still has years of service used as a power unit. We regularly furnish this outfit with all cross beams, braces and couplings ready to mount your engine. All that is necessary is for you to remove your engine from chassis and assemble on frame per illustration.

TRUCK

The truck is very sturdily built for hard, rough usage. The wheels are steel, 26" in diameter with a 3" face. The main beams are $2\frac{1}{2} \times 6\frac{1}{2} \times 6$ ft. long. Well ironed and braced.

SAW TABLE—Large and easy to operate—works at convenient angle.

MANDREL—49" long, 1' 7-16" diameter with arbor for saws having 1 $\frac{1}{2}$ " hole. The washers are large and accurately machined.

BEARINGS—Large and strong. Equipped with liners so they can be adjusted to take up wear.

SAW BLADE—We regularly equip this machine with a 30" guaranteed cordwood blade, filed and set ready for use.

SHIPPING WEIGHT—Less Engine, 700 lbs.

SHIPPING WEIGHT—Complete with Engine, 1180 lbs.

PRICE—with 30" cordwood blade, less engine, radiator and governor

\$89.25

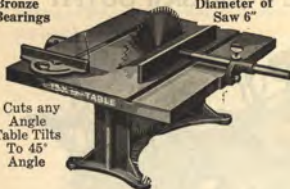
WRITE FOR PARTICULARS AND PRICE ON FORD GOVERNORS

THE H. & Z. UTILITY SAW

Bronze Bearings

Diameter of Saw 6"

**Cuts any Angle
Table Tilts
To 45°
Angle**



The most economical and practical universal Utility Saw outfit for any special or general purpose. Constructed of the best grades of iron and steel, with all parts planed and ground true and accurate. Sturdy, rigid and smooth running. Will cut accurately to capacity of saw blade.

The H. & Z. Utility Saw is used with economy and satisfaction by

Ship Yards	Electrotypers	Lumber Yards	Packing Box Manuf'ers
Printers	Builders	Photo-Engravers	Woodworking Mills
Contractors	Carpenters	Carriage Builders	Trunk Manufacturers
Newspapers	Box Makers	Picture Framers	Furniture Manuf'ers
Brush Makers	Barrel Factories	Boy Scouts	Vocational Schools
Farmers	Inventors and the mechanically inclined who like to make things at home.		

Construction—Only the best grades of cast iron and steel used.

Base—Covers bench area 7"x12" and is drilled with four holes for fastening to bench.

Table—Size 10x13", planed level and true, with grooves on both sides of saw slot for guide. Table can be tilted to 45 degrees, and is swiveled for elevating to any height for grooving.

Spindle—Steel shaft machined for saws with $\frac{3}{4}$ " hole. The outboard end of spindle is bored to take a drill chuck or arbor for emery wheel and projects beyond pulley far enough to attach a sanding disc.

Bearings—Best quality bronze. Will last indefinitely.

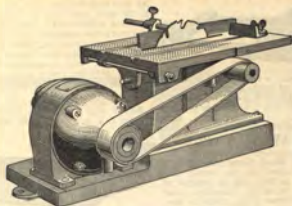
Pulley—Cast iron, $1\frac{1}{2}$ " diameter, $2\frac{1}{2}$ " face. When we furnish the motor, the pulleys are reversible, allowing a slower saw speed for cutting metals such as copper, zinc, aluminum and lead. Paper, slate, asbestos, bakelite and fibre can be cut as readily as wood.

Saws—The largest saw which can be used is 8" diameter. With an 8" saw and the table in its level position, about $2\frac{1}{4}$ inches of saw will project above the table.

Guides—Rip guide is interchangeable to either side of saw, and cross-cut guide can be set to any angle.

Special Saws—A 5" or 6" saw designed for cutting metals can be furnished in place of wood-cutting saw at a slight additional cost.

H. & Z. UNIT SAW



We are prepared to furnish the Famous Utility Saw described on the previous page assembled on a heavy cast iron base with or without motor, complete with saw blade and belt.

Base—The base is a heavy iron casting, accurately machined, which holds the saw and motor in perfect alignment, giving a smoother running outfit.

Belt—The belt furnished is a $1\frac{1}{2}$ " high grade rubber belt, which insures satisfactory service over a long period of use.

Motor— $\frac{1}{4}$ H. P., 110 volt, alternating current, 1750 R. P. M. motors of standard make are furnished with cord and plug. This motor operates on any light system of 110 volts.

This motor may not permit capacity cutting, but will do the vast majority of work satisfactorily. When using the larger blades, we recommend the use of a $\frac{1}{2}$ H. P. motor.

Model "H" Utility Saw, complete with 6" blade.....	\$12.00
$\frac{1}{4}$ H. P. Motor with pulley, belt, wire and plug.....	\$12.50
Saw and Motor complete, assembled on cast iron base.....	\$28.50
Extra Blades for above saw frame, 6".....	\$ 3.00
Extra Blades for above saw frame to be used in connection with $\frac{1}{2}$ H. P. motor, 7" or 8".....	\$ 4.00

RIP TALBE FOR H. & Z. FRAMES



Don't neglect to order a ripping attachment will find it useful and economical.

SHIPPING WEIGHT—25 lbs.

No. 1 Rip Table, for No. 1 frame only, without blade.....\$3.95

For rip blade prices see page 24.

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 of shingle, then the table is attached, the blocks squared on three sides, then by use of the block holder the shingles are sawed.

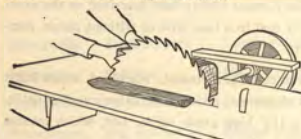


Fig A

shows the use of the block holders while sawing shingles. To properly locate the steel gauge, 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 gauge with screws. After gauge and block holders are adjusted, the minor adjustments can be made by adjusting pins.

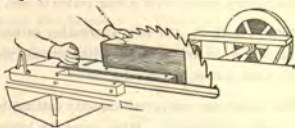


Fig. B

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

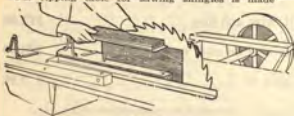


Fig C

No. 1 frame only, shipping weight 40 lbs. Price.....\$5.00

No. 2 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

All our saw frames with the exception of Nos. 3, 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.

SHIPPING WEIGHT—40 lbs.

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



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)

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 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

H. & Z. MANDREL SETS



No. 1 MANDREL SET

1 5-16 inch cold rolled steel mandrel, 41 inches long, with 35 lb. fly wheel; 5x5" pulley flat babbitted 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 babbitted boxes, 1 7-16" cold rolled steel mandrel, 49 inches long with 69 lb. fly wheel; 6x6 pulley, 1 1/4" arbor. **\$9.50**

Shipping weight, 109 lbs. Price.....
When balance wheel is not wanted deduct \$2.50.

No. B1 MANDREL SET

1 7-16 inch cold rolled steel Mandrel, 49 inches long with 79 lb. fly wheel; babbitted boxes connected by cast iron yoke full length of mandrel; 6x6" pulley; 1 1/4" arbor.

Shipping wgt. **\$12.50**
140 lbs. Price.....



When balance wheel is not wanted deduct.....**\$2.50**

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
Nos. 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".....	\$2.50
Special Tractor Pulley—8x6x1 7-16".....	\$3.00
Idler for Nos. 5, 12 and 1619, 6x6x1 7-16".....	\$2.25

BALANCE WHEELS

No. 1—35 lbs., 13" diameter.....	\$3.75
No. 2, 4, 5, 11, 12, 16, 1603, 1605, 1607, 1619.....	
Special 70 lbs., 12" 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, each.....	.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	.56

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 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 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 28.

Dia. in.	16	18	20	22	24	26	28	30	32	34	36
1 1/4" hole.....	\$1.80	1.95	2.20	2.55	2.90	3.65	3.90	4.70	5.35	6.50	7.45
1 1/2" hole.....	\$1.80	1.95	2.20	2.55							

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. Inches	Gauge	Arbor Hole In.	Shipping Weight	Price Each
10	16	1 1/4	2 1/2 lbs.	\$1.85
12	15	1 1/4 and 1 1/2	4 lbs.	2.25
14	14	1 1/4 and 1 1/2	6 lbs.	2.75
16	14	1 1/4 and 1 1/2	8 lbs.	3.50
18	13	1 1/4 and 1 1/2	8 lbs.	3.90
20	13	1 1/4 and 1 1/2	11 lbs.	4.30
22	12	1 1/2	14 lbs.	4.95
24	11	1 1/2	18 lbs.	5.70
26	11	1 1/2	20 lbs.	6.70
28	10	1 1/2	25 lbs.	7.80
30	10	1 1/2	31 lbs.	8.95
32	10	1 1/2	36 lbs.	10.15
34	9	1 1/2	43 lbs.	11.40
36	9	1 1/2	47 lbs.	13.10

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 Inserted and Solid Tooth Sawmill Saws at Money-Saving Prices

All H. & Z. Inserted and Solid 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 shank 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.



No. 3 INSERTED TOOTH				SOLID TOOTH	
Dia.	Thickness Gauge at Rim	Standard No. of Teeth	Price	Gauge	Price
38	8	24	\$ 57.50	9	\$30.00
40	8	26	62.50	9	35.00
42	8	28	68.50	8	40.00
44	8	30	75.00	8	46.00
46	8	32	82.50	8	54.00
48	8	34	90.00	8	62.00
50	8	36	100.00	7	70.00
52	7	38	110.00	7	78.00
54	7	40	125.00	7	87.00
56	7	42	140.00	7	98.00

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.
- 10—H. P. used to operate.

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 and all kinds of belt work on the farm. We can also furnish five and six ply for special purposes when wanted.

FREE BELT LACING SERVICE

If requested on your order we will lace the belt you specify with Alligator Lacers free of charge.

FOUR PLY RED STITCHED CANVAS BELTING

Width	Per Foot	Width	Per Foot
1½"-----	8c	6"-----	36c
2"-----	10c	7"-----	34c
3"-----	15	8"-----	38c
4"-----	21c	9"-----	42c
5"-----	25c	10"-----	46c
		12"-----	55c

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

	Length 50'	Length 75'	Length 100'	Length 125'	Length 150'
5"-----	\$12.75	\$18.75	\$25.00		
6"-----	14.75	22.50	29.50	36.50	
7"-----	17.50	25.00	33.50	42.00	49.50
8"-----	19.50	28.50	38.00	47.00	56.00



BEST QUALITY BELT DRESSING

This belt dressing will greatly add to the satisfaction and service given by your belts. Include one or more bars of it with your order.

Preserves Belts and Prevents Them From Slipping

This Stick Belt Dressing is of the highest quality and is adapted for use on leather, rubber and canvas belts.

It absolutely will not harm any kind of a belt, but the ingredients will keep the belt pliable and lengthen the belt's life.

Contains no tar or pitch.

The Best Belt Dressing on the Market

Has a Neatsfoot Oil base, which is a standard natural oil and preservative.
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, thresher, 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
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	2"	3"	4"	5"	6"	7"
4 Ply	.20	.28	.35	.43	.50	.60

RAW HIDE LACING

For the benefit of our customers who are not permitted to use the famous Alligator belt lacing listed on page 29, we carry a stock of exceptionally high grade Raw Hide Belt Lacing. Our laces are cut from selected hides and are guaranteed to be the equal of any on the market.

¼" Laces, per bundle of 100 feet	\$2.50
⅜" Laces, per bundle of 100 feet	3.50
½" Laces, per bundle of 100 feet	4.50
⅝" Laces, per bundle of 100 feet	5.50

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	8"	10"	12"	14"
Price, each.....	\$.25	.32	.40	.60

SAW SETS—For accurately setting cordwood and rip saw blades



Will set saws according to the best saw practice and cannot break saw teeth. The operator sees the angle of set he is giving the saw. Fully adjustable and any desired width of set can be had. Strong and durable. Will last indefinitely. Easy to use.

No. 5 Saw Set, for cordwood and rip saws 14 to 56", weight three pounds, price each \$3.00

Directions for Use

Adjust the anvil so that the edge over which the saw tooth is set strikes it about $\frac{1}{8}$ of an inch from its point. Run up the gauge screw until the desired angle of set is reached, then lock it. Average wood requires about 1-16 of an inch to each side. Frozen, hard or very dry wood less. Soft, green or wet wood more.

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 cordwood blade of the same size.

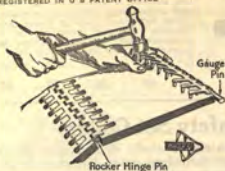
TABLE OF SPEEDS

Saw Dia. Inches	Speeds	Saw Dia. Inches	Speeds	Saw Dia. Inches	Speeds
18	2000	26	1334	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.

ALLIGATOR STEEL BELT LACING

REGISTERED IN U. S. PATENT OFFICE



For use on leather, rubber, balata, stitched canvas or solid woven belting, giving a smooth, flexible joint excellent for general service, high speed and heavy duty. Efficient separable hinge lacing of extreme strength. Protects end of fabric belts. Operates successfully with an idler or on serpentine drives.

No Tool Required but a Hammer
Packed in boxes complete with gauge and hinge pins.



QUICK INEXPENSIVE WAY TO LACE A BELT

It takes only a few moments to lace up a belt with economical Alligator Steel Belt Lacing. Just break to desired lengths with fingers, hammer it on and slip in the hinge pins. Anyone can do it after reading the simple directions on each box cover.

STRONG—PERMANENT—Alligator is the Strongest Flexible Lacing on Earth. It is practically and scientifically correct. Each tooth clinches through the belt in a vise grip that "Never Lets Go."

Many users find this joint to last as long as the belt. This joint can be taken apart at the "hinge" at any time by relaxing tension and pushing out the pin. Both sides of the joint are smooth and flat and will run in any service that the belt will stand.

SMOOTH—FLEXIBLE—In Alligator Steel Belt Lacing the user obtains a quick economical joint, one that saves time and belting.

Lacing No.	Thickness of Belt Inches	For Lacing	Wt.	Will Join Length in Width Sec. Inches	Price
L27	1/4	9-32 Leather or 4-ply Belts	3 lbs.	86 12	\$2.50
827	1/4	9-32 Leather or 4-ply Belts	1/2 lbs.	12 6	.40

CAST IRON KETTLES



These are good heavy kettles for heating water, butchering, etc. Made strong with flange around rim. All sizes have feet as shown and are furnished complete with bail.

Guaranteed Capacity	Shipping Weight	Price
12 gallon	45 pounds	\$4.00
15 "	60 "	5.00
20 "	80 "	6.00
25 "	100 "	6.75
30 "	120 "	7.50

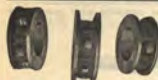
We recommend the 20 and 25 gallon sizes for use with our furnace plates.

Turned and Ground Steel Shafting



Our shafting is made of the best steel and is absolutely round and straight. These important qualities insure easy running shafting, resulting in a minimum loss of power. Can be furnished in any length up to 24'.

Size	15-16"	1"	1 3-16"	1 1-4"	1 7-16"	1 11-16"	1 15-16"	2 3-16"	2 7-16"
Price, per foot	\$.15	.18	.24	.28	.36	.48	.56	.72	.92



Safety Set Collars

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



No. 262, SOLID SLEEVE COUPLING

A low priced coupling that is very satisfactory for light service. Fitted with hollow set screws and machined all over. Can be used as a pulley.

Size	Diameter Outside	Length	Price
15-16	2"	3"	\$2.20
1 3-16"	2 1/8"	3 3/4"	2.40
1 7-16"	3"	4 1/2"	2.75
1 11-16"	3 1/2"	5 1/4"	3.75
1 15-16"	4"	6"	3.75
2 3-16"	4 1/2"	6 3/4"	4.45
2 7-16"	5"	7 1/2"	5.15



No. 288 Standard Rigid Post Boxes

These are strongly made post boxes, carefully babbited. The oil holes in caps are tapped to permit the use of grease cups if desired. Slotted holes in back of frame provided for vertical adjustment.

Size	1 3-16"	1 7-16"	1 11-16"	1 15-16"
Price, each	1.75	1.95	2.15	3.05
Size	2 3-16"	2 7-16"		
Price, each	3.60	4.40		

No. 286, Plain Flat Boxes



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

Size	15-16"	13-16"	11-16"	9-16"	7-16"	5-16"	3-16"
Price, each	\$.55	.70	.75	.85	1.10	1.30	1.60

No. 252 STANDARD RIGID PILLOW BLOCKS

An extra strong pillow block with long bearings lined with babbit. Ends faced smooth and bases ground. For heavy service.



Size	13-16"	11-16"	9-16"	7-16"	5-16"	3-16"
Price, each	\$.90	1.10	1.40	1.95	2.55	2.95

No. 287 SOLID JOURNAL BOXES



Babbit Lined Bearing

These bearings are simple and strong. They are fitted with oil cups set at an angle of 45 degrees, which permits their being used as pillow blocks or post boxes. Slotted holes in the base provide for lateral adjustment.

Size	No. 287 Bored	No. 287-B Babitted
15-16"	\$.40	\$.45
1 3-16"	.52	.60
1 7-16"	.70	.75
1 11-16"	.85	.95
1 15-16"	1.00	1.10
2 3-16"	1.30	1.30
2 7-16"	1.65	1.65

"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

Complete Hangers—Range of Drops in Inches

Shaft Sizes Inches	Bearings Only	7-9	10-12	13-15	16-18	19-21	23-25	26-30	34-36
1 3-16"	\$1.10	\$2.85	\$3.10	\$3.35	\$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 $\frac{3}{4}$ 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	2.78	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	3.36	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	5.23	6.39	7.46	8.52	9.59	10.66
17"			4.51	5.08	5.65	6.80	7.95	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	14.98	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	16.66	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 two set screws. If key way is wanted add 50c to price given. Unless otherwise specified we always ship crown face. These pulleys are extra well made.

Diam.	Face	3	4	5	6	8	10
4"					\$2.75		
5"				\$3.25	2.75		
6"		\$1.76	\$2.00	2.28	2.75	\$2.92	
7"		1.92	2.20	2.48	2.80	3.16	
8"		2.12	2.40	2.72	3.04	3.80	
9"		2.32	2.60	2.92	3.28	4.08	
10"		2.48	2.80	3.16	3.62	4.36	
12"		2.88	3.24	3.64	4.08	5.04	
14"		3.24	3.72	4.08	4.60	5.76	
16"		3.72	4.16	4.64	5.20	6.56	
18"		4.16	4.68	5.28	5.92	7.44	
20"		4.60	5.32	6.04	6.80	8.36	
22"		5.08	5.92	6.76	7.60	9.24	\$10.16
24"		5.64	6.56	7.48	8.40	10.24	11.08
26"		6.20	7.20	8.20	9.20	11.24	12.16
28"		6.84	7.96	9.08	10.20	12.44	13.36
30"		7.52	8.72	9.96	11.20	13.72	14.80
32"		8.24	9.52	10.84	12.16	14.88	16.28
34"		9.08	10.36	11.76	13.20	16.24	17.72
36"		9.92	11.36	12.84	14.40	17.68	19.32



We are glad to quote on any size or kind of pulleys. If you do not find what you want on these pages, write us.

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 Diam.	3"	4"	5"	6"	8"	10"
4"	\$2.15	\$2.50	\$2.35	\$2.65		
5"	2.20	2.35	2.45	2.75	\$3.80	\$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	6.85
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	9.30	11.20	13.35
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.

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

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

Diameter of Pulley in Inches	PRICE LIST											
	(Other Sizes on Application)											
	FACE WIDTH 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	\$3.20							
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	11.50	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				
16	11.85	12.80	13.70	14.60	15.50	16.40	17.35	18.25				

Post Drills, Blacksmith Blower and Forge

No. 103 BALL-BEARING SELF-FEED POST DRILL

\$6.95

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 $\frac{5}{8}$ inch in diameter, drills holes up to $\frac{3}{4}$ inch, and has an up-and-down run of 3 inches. Spindle bored like Never Slip Chuck for $\frac{1}{2}$ -inch straight shank drills; when specially ordered 41-64 inch. Greatest distance from table to spindle $8\frac{3}{4}$ inches.

Shipping weight, 60 lbs.

PRICE

\$6.95



COMPLETE SMITHING OUTFIT FOR FARM AND SHOP

\$14.75



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 share. Blower head gears are machine cut, geared 22 to 1 — runs silent and easy. Vise takes pipe up to 2 inches. Anvil face ground true. Drill attached has three speeds — takes $\frac{1}{4}$ inch round shank drill. Height over all 41 inches.

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

Price **\$14.75**

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.

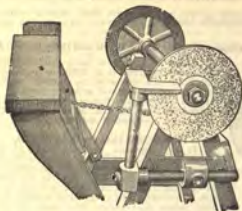
The fan is driven by cut helical gears running smooth and noiseless in a dust-proof oil-tight gear case.

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**

Grinding Attachments 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 abraasive, 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.....	3/4	1	1 1/4	1 1/2	1 3/4	2
Price, each	\$2.20	\$1.75	\$2.00	\$2.50	\$3.00	\$3.50

No. 320—Grinding Wheels 12-inch diameter:

Width of face, inches.....	3/4	1	1 1/4	1 1/2	1 3/4	2
Price, each	\$2.63	\$2.40	\$2.50	\$3.25	\$3.95	\$4.60

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 1/4 lbs. Price with two sets cutters \$.75
Extra cutters, per dozen..... 1.00



THE H. & Z.

CONCRETE AND ALL PURPOSE MIXER, A MOST USEFUL MACHINE

Here is a machine that will pay for itself within a very short time mixing concrete alone, and in addition there are almost innumerable uses for it on every farm mixing dairy and poultry feeds, fertilizers, etc.

Saves Cement and Insures Better Concrete, Eliminates Much Hard Work and Does Better Job

Hand mixing is a hard, back-breaking job, and because it is difficult it is often slighted—the concrete is poorly mixed, cracks, crumbles and goes to pieces. To insure a good job the concrete should be mixed with an H. & Z. Mixer—and that is the most economical way in the end, because

HAND MIXING IS WASTEFUL

It is estimated that at least 25 per cent. of the cement is wasted by hand mixing. With the H. & Z. Mixer no cement is wasted. Water is first poured into the drum then cement and the action of the machine, which is mixing while it is being loaded, thoroughly mixes the cement and water so that when the sand and gravel is put in every particle is coated with this cement and water solution. There is no chance for the cement to be wasted—no possibility of an uneven, wasteful mixture. The H. & Z. Mixer insures a good job of concreting, and at the least cost.

A FAST WORKING MACHINE

The H. & Z. Mixer will mix a batch of thoroughly mixed concrete in a minute or less. The drum is always revolving and as soon as any material is put into it the mixing begins. The revolving discharge insures a quick pouring of the entire contents of the drum, throwing out the heavy and lighter materials in an even flow and not draining off the water and sand first as would be the case in a stationary discharge.



Loading and Mixing Position
(No. 1 and No. 2)

SIMPLEST AND BEST DESIGN—LOADS ON ONE SIDE. DUMPS ON THE OTHER

The H. & Z. Mixer is built on the most approved, up-to-date plan of mixer construction. It can be loaded and dumped on either side. This permits piling the materials close to the side on which you wish to load and the concrete can be dumped directly into a wheelbarrow or forms on the other side. The drum is in a semi-upright position while being loaded. It is easy to shovel into as the drum has a large opening and is at a convenient height. The curved mixing blades or paddles are set at the correct angle and give the materials a folding, churning action, insuring a most complete mixture in the shortest possible time. The paddles are raised off the surface of the drum, which makes them self-cleaning, as the concrete flows through and under them.



BUILT TO LAST—BABBIT AND BALL BEARINGS

Instead of plain iron bearings such as most mixers have, we equip the main bearings of the H. & Z. Mixer with babbitt bearings, which will last much longer. If they ever do wear out, instead of buying a whole new yoke casting you simply re-babbit them. The drum rotates on ball bearings reducing friction, and requires less power to operate. The

drive used on the H. & Z. Mixer is the simplest known as can be seen from the illustration. The lower half of the drum is a solid casting and the upper half heavy gauge steel with a reinforcing band at the mouth. The whole machine is very strongly built to stand up under the severe service given a concrete mixer, and it will give satisfactory service for a very long time.

AN ALL-PURPOSE MIXER

In addition to adding to the value of your property by concrete improvements, the H. & Z. Mixer will pay for itself in a short time by mixing various feeds—bran, corn meal, oil meal, cotton seed meal and all rations, feed for cattle as well as slops for stock feeding; for mixing fertilizers and for washing vegetables, wool and other products. On account of its many uses you can readily see that you cannot afford to be without one of these valuable machines. Nos. 1 and 2 mixers are the same except as to size.

The No. 1 Mixer is the one we recommend for general purposes and individual use. No. 2 is built for contractors and those who want a mixer with larger capacity. Both machines are the same except as to size.

SPECIFICATIONS

No. 1

CAPACITY— $2\frac{1}{2}$ cu. ft. of loose material or a wheelbarrow load of mixed concrete per batch, and a batch per minute.

INSIDE MEASUREMENT OF DRUM—Opening 18", diameter at bottom 22". Depth, 26".

FRAME— $1\frac{1}{2} \times 1\frac{1}{2}$ " Angle Steel, well braced and bolted. The machine is mounted on strong hardwood skids, making it easy to move from place to place.

PULLEY—16" diameter, 3" face. Crank can be attached for operating by hand. We include a crank with each machine.

SPEED OF PULLEY—125 to 175 R. P. M.

POWER REQUIRED—As the drum runs on ball bearings the H. & Z. Mixer requires very little power and can be operated by hand or a one-horse power engine.

Shipping Weight—250 lbs.

Price..... **\$30.00**



No. 2 MIXER

No. 2

Our No. 2 Mixer is just like No. 1 in every way but is $3\frac{1}{2}$ foot capacity, and is, of course, built larger and stronger throughout. The drum has an $18\frac{1}{2}$ " opening, is 23" in diameter at the bottom and 28" deep. It can be operated by hand or a $1\frac{1}{2}$ H. P. engine. Shipping Weight, 285 lbs.

Price..... **\$37.50**

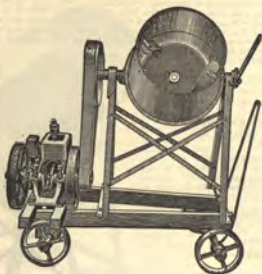
WE DO NOT ATTEMPT TO COMPETE IN PRICE with the cheap, poorly constructed mixers that are offered. We have been manufacturing farm machinery for more than twenty years and have every facility for turning out first class machinery at the lowest possible prices consistent with quality.

When our customers buy the H. & Z. Mixers we know that they will be pleased when they receive them, and that our Mixers will continue to give satisfaction long after the low grade mixers will be worn out.

In selecting a Mixer it will pay you to make certain that it has the following necessary features:

- Babbit Bearings,
- Grease Cup Lubrication,
- Satisfactory Pulley and Crank,
- Few Gears,
- Self Cleaning Mixing Blades,
- Strong Drum,
- Well Braced Frame,
- Hardwood Skid Mounting.

2 1/2 Cu. Ft. MIXER ON TRUCK WITH ENGINE COMPLETE



This is a handy portable concrete and general purpose mixer outfit for farm use or contractors. Mixes thoroughly and economically concrete, cement, chicken and dairy feeds. Saves time and money.

TRUCK—Strong wood frame to absorb vibration and give satisfactory service, with strong axles and semi-steel wheels 12" in diameter and 2 1/4" tread.

ENGINE—We furnish as standard equipment the dependable 1 1/2 HP. H. & Z. Engine, which is fully illustrated and described on page 60. Engine is so mounted that it may be used for many power jobs around the farm, thus saving much time and tiresome labor.

Shipping weight, 575 lbs.

PRICE, with 1 1/2 HP. Magneto Engine..... \$90.00

SPECIAL CONCRETE MIXER

BARROW AND TROWEL COMBINATION

Our No. 1 Concrete and General Purpose Mixer, Rex Wheelbarrow and Trowel Bargain Combination. Just the equipment needed to lay that barn floor or concrete your milk house. We have been enabled to make this money saving offer to you by a favorable purchase of materials.

MIXER, BARROW and TROWEL..... \$33.00

THE H. & Z. CONCRETE MIXERS

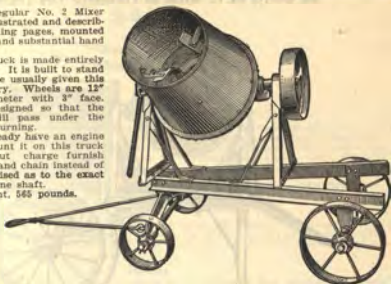
No. 3—3½ cu. ft. Mixer on Truck Without Engine

This is our regular No. 2 Mixer which is fully illustrated and described on the preceding pages, mounted on a convenient and substantial hand truck.

TRUCK—The truck is made entirely of iron and steel. It is built to stand the severe service usually given this kind of machinery. Wheels are 12" and 16" in diameter with 3" face. The truck is designed so that the front wheels will pass under the frame for short turning.

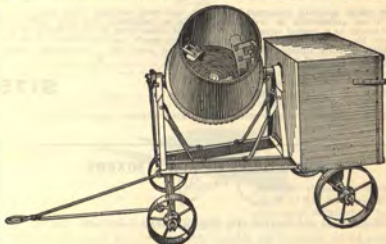
Note—If you already have an engine and want to mount it on this truck we will without charge furnish sprocket, pinion and chain instead of the pulley if advised as to the exact size of your engine shaft.

Shipping weight, 565 pounds.



\$66.00

No. 4—3½ cu. ft. Mixer on Truck With Engine and Housing



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

TRUCK—Made of metal throughout and built so that it will give satisfactory service for a long time. Wheels are 12" and 16" in diameter with 3" face. The truck is designed so that the front wheels will pass under the frame for short turning.

HOUSING—Strongly made of 18 gauge metal. Insures complete protection of the engine.

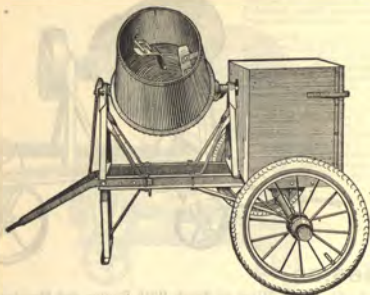
ENGINE—We furnish as standard equipment the dependable 2 HP. H. & Z. Engine which is fully illustrated and described on page 60.

PRICE, with 2 H. P. Magneto Engine..... **\$150.00**

PRICE, with ¼ H. P., 110 V. Single Phase Motor with Starter..... **\$160.00**

THE H. & Z. CONCRETE MIXERS

No. 5—3½ cu. ft. Mixer on Pneumatic Tire Trailer



A complete outfit specially designed for quick and easy moving from place to place, for attaching to an automobile or truck, etc. It is so balanced that any person can move it about as easily as a loaded wheelbarrow without connecting it to a wagon or auto. It is just like our No. 4 outfit with the exception of the truck, and includes a 2 H. P. Engine. Engine which is fully illustrated and described on page 60. Furnished complete with 30x3½" tires and tubes of a good standard make.

Shipping Weight—1600 pounds.

PRICE, with 2 HP. Magneto Engine.....\$175.00

PRICE with ¾ HP., 110 V. single phase motor, with starter.....\$185.00

FEATURES OF H. & Z. MIXERS

- 1—High grade babbit bearings.
- 2—Drum runs on ball bearings.
- 3—Load or dump on either side.
- 4—Perfect balance of drum makes it easy to discharge full load.
- 5—Mixing blades raised off the sides of the drum, making them self-cleaning.
- 6—The mixing is always in plain view.
- 7—Grease cups on all bearings insure positive lubrication.
- 8—Pulley is located outside of the frame so belt may be easily attached to any farm engine.
- 9—Simplest construction.
- 10—Mounted on substantial hardwood skids—easy to move.
- 11—In addition to concrete it will mix mortar, plaster, feeds and fertilizers, etc.
- 12—Fully Guaranteed.

Farm and Contractors' Steel Tray Wheelbarrows

THE REX WHEELBARROW

\$4.20



This is a high grade general purpose wheelbarrow at a low price, especially adapted for use around the farm and for the contractor. It is well balanced, of steel and wood construction. Pressed steel tray with wired edges. Capacity 3 cubic feet heaped. Hardwood handles, legs and braces. Wrought iron brackets. Wheel 16" diameter with $1\frac{1}{2} \times \frac{1}{4}$ " tire. Shipping weight, 43 pounds. Rex Wheelbarrow, price.....\$4.20

POINTS OF CONSTRUCTION OF OUR WHEELBARROWS

Trays

The trays are pressed from steel sheets and are seamless throughout. The sheets are sufficiently large in area before pressing to warrant the original gauge of the sheets after being pressed. The top edges are turned over steel rods, adding very materially to the strength and rigidity of the trays.

Handles

Our wood frame steel tray barrows are fitted with best grade well seasoned hardwood handles. The bolt holes are drilled in the center of the handle which method does away with the disadvantages of right and left handles. The handles are turned to obtain the best possible grip and are extremely neat in appearance.

Wheels

All of our wheelbarrow wheels are 16" in diameter with hubs 7" long, insuring a good bearing. They are well designed and strongly made.

Axles and Brackets

The brackets or bearings used on our barrows are made from malleable iron and are tapped to receive threaded axles. This insures the frame being tied securely together. Many years' experience have proved this construction to be the best on the market.

Paint

The metal parts on our barrows are painted with a rich shade of blue enamel paint.



TYPES M-3 AND M-7 CONCRETE OR MORTAR BARROWS

A most popular type designed particularly for contractors and builders. Special square front deep pressed tray with wired edges. Hardwood handles extended beyond the wheels and fitted with circular wheel guards for forward dumping. Channel legs with shoes. Malleable iron brackets.

Type	Capacity Heaped Cu. Ft.	Gauge Tray	Wheel		Weight	Prices
			Diameter	Face		
M-3	3½	15	16"	1½ x 5-16"	65 lbs.	\$6.20
M-7	4	15	16"	1½ x 5-16"	68 lbs.	\$6.50

New Type Concrete Barrows that are Different



New Type Concrete Mortar Barrows with a narrow rounded tray well suited for pouring concrete between studding, forms, etc. Hardwood handles extending beyond the wheel and fitted with a wheel guard, for forward dumping. The tray is substantially braced by two steel braces. Steel channel legs with riveted shoes and full bearing surface on the wood frame.

Type	Capacity Heaped Cu. Ft.	Gauge Tray	WHEEL		Weight	Price
			Diameter	Face		
M-4	4	15	16	1 3/4 x 5-16	71	\$6.90
M-5	5	15	16	2 x 5-16	77	\$7.50

KEYSTONE

The H. & Z. Pressed Steel Drag Scrapers



The Bowls are pressed from heavy plates of high carbon steel, specially rolled, are seamless throughout and offer no obstruction to the earth as it enters and leaves the bowls.

The corners, sides and back are rounded so as to allow the earth to slide readily. The sides are high, being on a line with the back of the bowls, preventing the earth from spilling on the haul and providing a smooth runway and avoiding unnecessary wear at any one point when returning from the dump.

The flanges around the top edges of the bowls stiffen and reinforce the bowls in such a manner that considerably more service is obtained.

The balls are made of steel and are fitted with perfectly working malleable iron swivels.

The hooks and sockets are made of heavy steel and are firmly riveted in place.

The runners are made of hardened steel and are fastened to the bowls with countersunk rivets.

The handles are made of high grade hardwood and tapered to fit snugly into the sockets.

All sizes furnished with runners without extra charge.

Size	Capacity	Weight	Prices
No. 3-K.....	3 cu. ft.	64 pounds	\$7.00
No. 2-K.....	5 Cu. ft.	78 pounds	7.50
No. 1-K.....	7 Cu. ft.	88 pounds	7.75

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

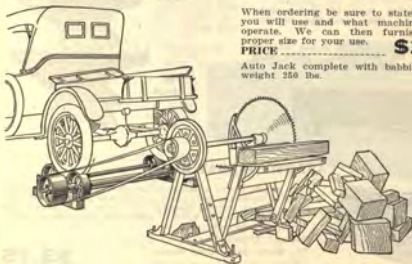


A practical device for utilizing the power of an automobile for any power purpose. Consists of a frame with two shafts, to which are attached flanged wheels on which the rear wheels of the auto run. An extension on one shaft carries the pulley to which is belted the saw, feed grinder or whatever machine it is desired to operate. To operate simply run the rear wheels of the auto on the jack, place a 2x4 or piece of iron pipe through the spokes of the front wheels as a safety measure, and start the engine. Experience proves that there is very much less wear on tires on this jack than running the same 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 an H. & Z. Jack in your car, drive to the wood lot, and begin sawing in ten minutes.

The "H. & Z." Auto Jack can be used with a car having pneumatic tires or with a truck having solid tires. The Auto Jack transmits sufficient power to drive all light farm machinery, such as, feed choppers, wood saws, etc.

The bearings are the solid safety type and are lined with high speed bearing metal which insures long life. The outfit is built of the best materials of heavy dimensions and is substantially braced, insuring lasting durability.

SHIPPING WEIGHT—250 lbs.



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.

PRICE \$22.50

Auto Jack complete with babbitted bearings, weight 250 lbs.

HEAVY CAST IRON HOG TROUGHS



corners or cracks and cannot harbor disease germs. Freezing will not crack them. 11" wide at top, 6" deep.

Made of heavy grey iron cast in one piece. The feet have holes so trough can be nailed to floor or to skids. Bottom is flat, sides slant. Success with hogs depends much on sanitation of feed troughs. These troughs have no

2 ft. long.....	Price each \$1.40
3 ft. long.....	Price each 2.10
4 ft. long.....	Price each 2.80
5 ft. long.....	Price each 3.50
6 ft. long.....	Price each 4.20
7 ft. long.....	Price each 4.90
8 ft. long.....	Price each 5.60
9 ft. long.....	Price each 6.30

Cast Iron Poultry Troughs



Cast in one piece. Will not upset; will not break from freezing; last forever.

No. 34—9 inches long, 5½ inches wide, 1½ inches deep. Price, each 33c. Per dozen, \$4.00.

No. 36—29 inches long, 7 inches wide, 3 inches deep. Wt. 20 pounds. Price, each \$1.20. Per dozen \$13.50.



Chilled Face Semi-Steel Anvils

An excellent anvil for shop and all farm purposes at an exceptionally low price. The anvil is made of a mixture of cast iron and steel making it hard and very tough. The face is chilled, true, even and hard.



Weight, lbs.	Price, each
20	50
\$1.20	\$3.00
70	100
\$3.50	\$5.00

CAST STONE BOAT HEAD



One single heavy casting. Has shoulder into which fits ends of three ten-inch planks; holes are provided for bolting. Attach bottom boards, bolt them fast, attach 2x4 side strips and you have a stone sled for hauling stone, wood, slop barrels, etc.

Weight, 75 pounds.
No. W-19—Stone Boat Head.
Price.....

\$3.75

METAL PARTS FOR FURNACES

A NECESSITY ON THE FARM

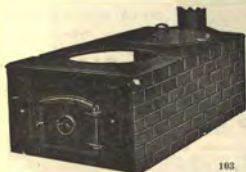
ONE KETTLE SIZE

\$17.75

These furnaces are very useful for heating water, boiling apple butter, butchering, cooking stock feeds and many other purposes. Our furnaces are simple and have a number of valuable features. They are strongly built and nicely finished. Made in sections to allow for expansion and contraction. The first kettle is fifteen inches from the door to insure getting best results from the fuel. We furnish the necessary metal parts including castings, consisting of top plates with 22" and 24" holes, one reducing bushings to 21" that will fit either hole, iron door frame, door, anchor bolts and one lid. (Lid is furnished with Nos. 102, 103, 104 and 105 two kettle sizes only.)



No. 102



103.

No. 105—Two kettle size, two door, as shown in lower illustration, but with collar for stove pipe flue, with lid and bushing. Shipping Wt. 310 lbs. Price.....**\$22.00**

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 frame 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**

For kettle prices see page 28.



No. 104

No. 100—Same as No. 102 but for one kettle, with bushing, for brick flue. Shipping weight 220 lbs.

Price.....**\$17.75**

No. 101—Same as No. 103, but for one kettle, with bushing, for stove pipe flue. Shipping Wt. 220 lbs.

Price.....**\$17.75**

No. 102—Two kettle size as shown in upper illustrations, with lid and bushing, for brick flue. Shipping Wt. 240 lbs.

Price.....**\$21.25**

No. 103—Two kettle size as shown in middle illustration, with lid and bushing, for stove pipe flue. Shipping Wt. 260 lbs.

Price.....**\$21.25**

No. 104—Two kettle size, two door as shown in lower illustration with lid and bushing, for brick flue. Shipping Wt. 310 lbs.

Price.....**\$24.00**

Adjustable Engine Truck



A handy truck for engines weighing up to 500 pounds. Made entirely of metal and are almost indestructible. The bolsters are not connected—engine base serves as side beams. Bolsters are 18" wide. Strong wheels 9x2".

Shipping weight, 55 pounds.
No. 15 Engine Truck.....

\$3.75

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 5½ feet long; height to top of sills 16 inches.

Shipping weight, 175 lbs.



No. 172—Wood sill Hand Truck
Price

\$14.50

Household and Radio Vise

The size of this vise appeals to mechanics and amateurs, and is a valuable addition to the tool kit of any household, also useful around automobiles. May be clamped to shelves, benches, tables, running board of automobiles, etc., having a thickness of ¼ inches to 2 inches. Made with smooth iron jaws only. A durable vise at a popular price.



Number	Price	Width Jaws Inches	Jaws Open Inches	Weight Pounds.
102¼	\$1.60	2¼	2	5½

Athol Universal Vise

This vise is designed to fill the needs of the individual for use around the house or home garage. It is well built, being made of the same high grade material that we use in regular Machinists' Vises. The steel beam, swivel base with a positive lock, the removable pipe grips that are fastened to the jaws, and the anvil with horn make it a vise that is particularly useful around the home. The vise is equipped with removable jaw steels.



Number	Price	Width Jaws Inches	Jaws Open Inches	Size Pipe Inches	Weight Pounds
023¼	\$3.25	3½	3¼	¼x1¼	16

BAG TRUCK

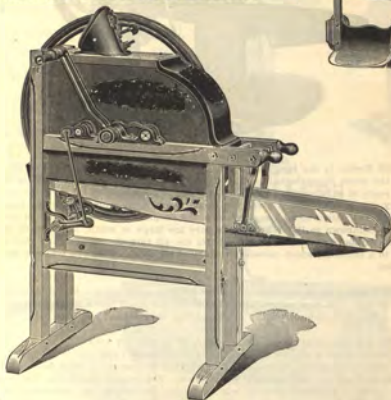
A good bag truck is indispensable on the farm or warehouse. This one is made entirely of metal and is very serviceable. Nicely painted.

We can furnish a very useful bag holder, as shown in illustration, when specified.

No. 113—Steel Bag Truck with Bag Holder,	
price	\$5.25
No. 113—Steel Bag Truck, without Bag Holder,	
price	\$3.90
No. 114—Bag Holder only, price	\$1.35



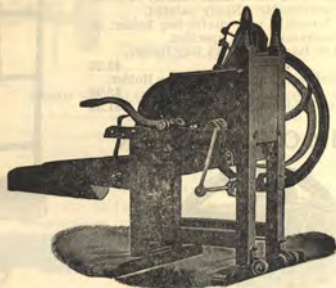
No. 100 CORN SHELLER



This is a right-hand single spout sheller made with a shaker. The frame is made of the best hard wood, and is mortised and fitted together same as our No. 200 Sheller frames. The shaftings are all turned and the casings keyed to a shoulder. This sheller has a wide reputation, and it is very easily adjusted and will shell the largest to the smallest ears of corn, and there is no danger of choking. It cleans the corn nicely; the dirt and chaff is taken out with the cobs. The capacity of this sheller is 25 bushels per hour.

Price with plain bearings			\$13.25
Roller bearings extra	\$1.00	Pulley extra	\$1.25

No. 200 TWO HOLE CORN SHELLER



The No. 200 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 loose. This you will not find in any other sheller.

The No. 200 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 independently of the others so that they cannot rub together.

CAPACITY—Hand, 25 bushels per hour; power, 60 bushels per hour.

This illustration shows a No. 200 Sheller. Bagger and Feed Table can be furnished, both of which are very convenient. Either can be furnished as extras as listed below. They are strongly made, and will give splendid satisfaction. The bagger includes a bag holder for two bags. Corn is delivered directly into the sacks, preventing any possibility of dirt or foreign matter getting into the corn. Very little additional power is required to operate it. A $1\frac{1}{2}$ H. P. engine will drive the complete outfit.

No. 200 Sheller with plain bearings, balance wheel, pulley and crank,	\$26.50
Roller Bearings, extra	2.00
Feed Table, extra	2.00
Bagger Attachment complete, extra	19.75

SINGLE HOLE CORN SHELLERS

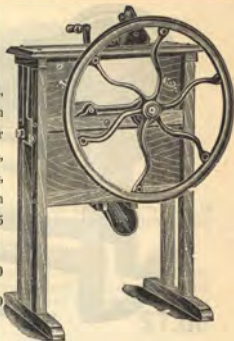
No. 1—SINGLE HOLE SHELLER

\$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



STEEL LAND ROLLERS



This illustration shows our 8'-24" two-section Steel Land Roller. It is a strong, dependable roller, and guaranteed to be satisfactory in every way. Can be furnished with wood or steel top. Wood top furnished unless otherwise specified.

No. 116—8'-24" Two-Section Steel Land Roller, complete, but not including doubletree and neck yoke \$32.50

No. 116 Doubletree and Neck Yoke for roller, extra 4.75

No. 115 Power Feed Cutter and Shredder



This is an unusually well made cutter that does splendid work. It is solidly made throughout of the best materials, and is fully guaranteed to be entirely satisfactory.

FRAME—Made of selected hardwood, with mortised and tenoned joints.

FEED TABLE—Strong and of ample size.

FEED ROLLS—Large, and designed so that the machine is easy to feed.

KNIVES—Four 11½" knives are furnished. They are the best quality steel for the purpose, and hold an edge well. Knives are held by heavy bolts. They can be adjusted accurately to the cutter bar.

CUTTER BAR—Tool steel, with four different edges, and can be reversed so that each edge can be used. If in time all the different edges become dull, they can be ground.

SAFETY STOP LEVER—The feed to the knives can be stopped instantly by a conveniently located lever.

LARGE SAFETY FLY WHEEL—The fly wheel is large, giving the machine momentum, and making it very smooth running. The wheel is held to the shaft by a special friction clamp device, which will release if foreign matter gets into the cutter.

PULLEY—We regularly furnish a 12x4" crown face pulley. Tell us the size and speed of your engine pulley and we will supply the correct size cutter pulley to correspond. The fly wheel and pulley can be put on either side of the cutter, but not both on the same side.

CAPACITY—Dry fodder 1 to 1½ tons per hour. Green fodder 2 to 3 tons.

POWER REQUIRED—1 to 6 H. P.

SPEED—450 R. P. M.

LENGTHS OF CUT—¼", ½", ¾", 1", 1¼" and 2".

FODDER SHREDDING ATTACHMENT

A complete shredder head to be used instead of the cutter head can be furnished as listed below. With it the machine will produce very satisfactory shredded fodder.

No. 115—Power Feed Cutter with pulley.....	\$47.50
No. 115—Power Feed Cutter, with shredder head instead of cutter head.....	47.50
Complete Shredder Attachment for No. 115 Cutter.....	12.50
Crank for hand operation	1.30

No. 10 FARM WHEELBARROW



Here is a large, strong wheelbarrow suitable for general farm use. It is built of the best materials throughout and is designed to give service for many years.

Specifications

Size of bin, 30" long; 24" wide in front, 25" in rear; sideboards 12" high, 30" long; handles $5\frac{1}{2}$ feet long, $2\frac{3}{4} \times 1\frac{3}{4}$ ", wheel 22" in diameter, with eight staggered spokes. The wheel is well ironed and has four bands on the hub, tread $1\frac{1}{2}$ "; weight 60 pounds.

No. 10 Farm Wheelbarrow

\$7.00

No. 20 GARDEN WHEELBARROW



This wheelbarrow is made of the same high grade materials as No. 10, but is smaller and particularly adapted for garden purposes.

Specifications

Size of bin, 25" long, 19" wide in front, 23" wide in rear; sideboards 11" high; handles 5' long, $2\frac{1}{4} \times 1\frac{3}{4}$ "; wheel 22" in diameter with eight staggered spokes. The wheel is well ironed and has four bands on the hub, tread $1\frac{1}{8}$ "; weight 40 pounds.

No. 20 Garden Wheelbarrow

\$6.50

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.

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—Unequalled capacity.
- 8—Simple and durable.

Quick Release Lever

All Peerless Mills are 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 GRINDER

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.

Reg. Pulley

Capacity Ear

Shipping

Mill No.	Plates	Dia. Face	H. P.	R. P. M.	Corn 2 per Hour	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. 16-X and No. 14-X PEERLESS MILLS

These mills are the same except as to size of plates and the 14-X is slightly larger than the 16-X. 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 with fly wheel and an extra set of machine cut plates.



Reg. Pulley

Capacity Ear

Shipping

Mill No.	Plates	Dia. Face	H. P.	R. P. M.	Corn per Hour	Weight	Price
16-X	6½"	8"x5"	3 to 6	400 to	8 to 20 bu.	175 lbs.	\$34.00
14-X	8"	10"x6"	5 to 10	600	15 to 35 bu.	195 lbs.	37.00
6½" Machine Cut Plates for No. 16-X Mill, per pair							\$2.20
8" Machine Cut Plates for No. 14-X Mill, per pair							2.75
Bagger for either 16-X or 14-X 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 GRINDER

THE No. 10-X PEERLESS TRACTOR MILL

FOR TRACTOR POWER



A big, husky mill built especially for use with tractors. It has a 1 9-16" 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 end thrust are explained on page 52. 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 53. The No. 10-X 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.

Mill No.	Reg. Pulley		H. P.	R. P. M.	Capacity Ear	Shipping	Price
	Plates	Dia. Face			Corn 2 per Hour	Weight	
10-X	9"	14"x6"	8 to 20	600 to 700	40 to 60 bu.	400 lbs.	\$57.00

9" Machine Cut Plates for No. 10-X Mill, per pair.....	\$3.60
Bagger for No. 10-X 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
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GRINDSTONES

No. B-110 Ball Bearing Bi-treadle

\$7.50



This is a well made outfit that will give splendid satisfaction. The power applied with the legs by means of the duplex treadles is nearly double that obtained with a crank, enabling the operator to run the stone at much greater speed and perform faster and better work than with the ordinary grindstone. Stone 19 to 22" in diameter, 1 1/4 to 2 1/4" thick, weight 50 to 60 pounds and fitted on a shaft with improved ball bearings—encased—consisting of a heavy, case hardened, electro galvanized steel ball casing and a cone or sleeve which cannot rust, turned out of solid cold rolled steel shafting—balls cannot work loose or drop out. The stone is turned true to its own axis before mounting and each stone is tested before shipping, on the shaft, bearings and frame with which it is shipped and is guaranteed to run true. By use of our patent fixtures we are enabled to detach the shaft, leaving the flanges fast to the stone, and have the stone run true when the shaft is replaced. The Bi-Treadle frame is made of steel, is firmly riveted together and braced in a manner to insure absolute rigidity. All parts are coated with black waterproof paint. Shipped knocked down and crated. Shipping weight, 100 lbs.

No. B-110 Bi-Treadle Grindstone, complete.....\$7.50

No. 600 Farmers Special Grindstone

\$13.50

Harvest King No. 800

We want every man who has power available to have a Power Grindstone. Therefore, we are listing the Harvest King, an honest and substantial but popular priced outfit.

The frame construction is of heavy angle steel, 1 1/4 x 1 1/4 x 1/4" strongly braced, is equipped regularly with standard high grade selected Cleveland Grindstone 24"x2" mounted on 1/2" shaft, 12x2 1/2" pulley and heavy steel roller bearings, insuring easy operation, hand crank and drip cup.

The frame is shipped folded complete, stone crated separately to save freight. Anyone can set it up in a few minutes without instructions.

Speed, about 70 R. P. M.

Weight with regular equipment, 125 lbs.

Price complete with trough and treadle.....\$16.00

Price less trough and treadle..... 8.50



HIGH POWER. FAST CUTTING, CORUNDUM TOOL GRINDERS

For Shop, Farm and Home



A very well made, easy running, fast cutting grinder. Can be quickly clamped to a bench, shelf or table and is ready for use. This is a real heavy duty grinder that will give splendid satisfaction. The grinding wheel is the best to be had for the purpose, and with reasonable care will last for years. Made in four sizes as follows:

	Size Wheel	Weight	Price
No. 3-B.....	3 1/4 x 1 1/4"	5 lbs.	\$2.50
No. 4-B.....	4x1"	6 lbs.	3.00
No. 5-B.....	5x1"	12 lbs.	4.25
No. 6-B.....	6x1 1/4"	18 lbs.	5.75



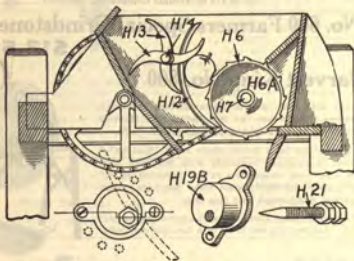
FRUIT CRUSHER

The H. & Z. Fruit Crusher is suitable for crushing grapes and berries. It is substantially built and braced. The hopper is 16x18x8" deep. Capacity, one-half bushel. Rolls 3 1/4"x5" and are designed to force the grapes through.

Price\$5.00

H. & Z. FORCE FEED CIDER MILLS

Interior View, Showing the Working Parts
and Patent Features



H6 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.

THE H. & Z. FORCE FEED CIDER MILLS

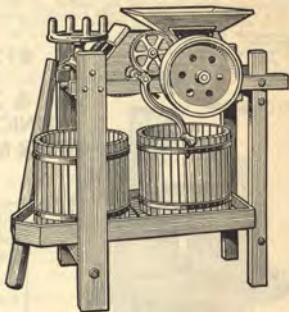
BUILT IN TWO SIZES

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

BUILT FOR SERVICE AND LONG LIFE

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.

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 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 lined with high speed bearing metal.

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	1½ x 20½"	2 x 23½"
Outside measurements of cribs.....	12 x 14"	14 x 17"
Diameter of Belt Wheel.....	13½"	13½"
Width of Belt Wheel.....	3½"	3½"
Shipping weight.....	256 lbs.	337 lbs.

PRICE \$25.95 \$37.50

H. & Z. SINGLE TUB CIDER MILL

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 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 1½" in diameter and 34" long. The tub is 10 inches high and 10 inches wide, inside measurement. Capacity, five to seven bushels per hour.

Shipping weight, 130 lbs.

Price

\$17.00



H. & Z. JUNIOR CIDER MILL



Six Points of Excellence

- 1—Oversize yoke.
- 2—Balance wheel makes turning easy.
- 3—Strong and durable, long service.
- 4—Very efficient, gets a high percentage of cider from any kind or condition of apples.
- 5—Built in modern, up-to-date factory.
- 6—Fully guaranteed.

A friend of the farmer—just the mill for the farmer or gardener who has a few apples to turn into cider, but does not have the time or care to go to the trouble of going to the public press. All of the fallen and rejected apples can be quickly and cheaply turned into a profit by making into cider by the use of this sturdy little press.

YOKE—The yoke is cast iron and made exceptionally heavy, so that it will withstand great pressure. The screw is steel, accurately machined and runs freely. Head and follower are cast iron.

GRINDER—Our grinders are so designed that it will grind apples very fine and rapidly, crushing the little globules that contain the juice.

BALANCE WHEEL—This mill is equipped with a balance wheel that gives the grinder momentum and makes turning easier. The bearings are of liberal dimensions, carefully machined and fitted which insure perfect alignment and easy running.

CRIBS—We furnish plain cribs as shown in illustration as standard equipment on this mill. Slat of cribs are securely riveted at both ends to a heavy gauge hoop.

TROUGHS—Troughs are made with liberal dimensions to conform with the balance of the mill. They are jointed together by a special wide tongue and groove to take care of the swelling and drying conditions that exist in any cider mill.

SPECIFICATIONS

Height of Legs.....	35"
Screw.....	1 1-16x29"
Outside measurement of cribs.....	10x12"
Shipping weight	165 lbs.

PRICE

\$21.00

HOUSEHOLD FRUIT PRESS



A durable, well made Table Fruit Press suitable for home use. Frame: Made entirely of hardwood. Cylinder: Tub Slat: are riveted to heavy steel bands. Machine cut screw $\frac{3}{4}$ x 15"; has a clean cut thread and operates through a heavy nut. Two long bolts running through side members from stand to cross head prevent the "wobble" usually found in small presses. Drain Board: Made in one piece and has deep groove for juice. Will not leak. Juice comes in contact with wood only.

Round Wood Follower: Has beveled piece on top serving as support and a handle for removing follower. Has steel plate on top of support against which press screw operates.

Height of Frame, 18 ins.; width 14 $\frac{1}{2}$ ins.; depth of press 10 ins.; size of tub, 9x9 $\frac{1}{4}$; capacity about 8 quarts; weight, 23 lbs.

PRICE ----- **\$3.00**

CIDER PRESSES

Strong and Durable—Built for Service

The H. & Z. 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 bolts.

The under cross piece is reinforced 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 conditions which exist 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 Legs Size of Screw Size Tub Inside Wgt.

No. 1.....	35 $\frac{1}{2}$ "	1 $\frac{1}{2}$ x 18 $\frac{3}{4}$ "	10x10"	70 lbs.	\$ 9.95
No. 2.....	29 $\frac{1}{2}$ "	1 $\frac{1}{2}$ x 20 $\frac{1}{2}$ "	12x12"	98 lbs.	12.90
No. 3.....	46"	2 x 23 $\frac{1}{2}$ "	16x14"	166 lbs.	17.85

"H. & Z." ALL PURPOSE ENGINE



Easy to Start—Wico Magneto

USES GASOLINE

The above illustration shows the H. & Z. Hit and Miss Governor Engine which we furnish in sizes $1\frac{1}{2}$, $2\frac{1}{2}$, $3\frac{1}{2}$, $4\frac{1}{2}$, 6, 8, 10 and 12 H-P. The engine is of the valve-in-head type, water cooled, operates on gasoline. It is simple in construction, easy to operate, rugged and dependable in any climate and under any conditions. 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, Hit and Miss 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.

Rate H-P.	R.P.M.	Bore	Stroke	Pulley		Ship Wgt.	Price
				Diam.	Face		
$1\frac{1}{2}$	600	$3\frac{1}{2}$	$3\frac{1}{2}$	4"	4"	200 lbs.	\$48.00
2	600	$3\frac{3}{4}$	4	4"	4"	220 lbs.	55.00
$2\frac{1}{2}$	600	$3\frac{3}{4}$	5	4"	4"	270 lbs.	65.00
$3\frac{1}{2}$	550	$4\frac{1}{2}$	6	6"	4"	335 lbs.	90.00
$4\frac{1}{2}$	525	$4\frac{1}{2}$	7	8"	4"	525 lbs.	115.00
6	475	5	8	12"	6"	800 lbs.	150.00

H. & Z. 8 In. COMBINATION WOODWORKER

Ball Bearing



**Rips, Cross-cuts, Miters, Dadoes
Bevels, Tenons, Grooves
Rabbets Joints
Bores, Sands, Grinds**

18 TOOLS IN ONE

Table raises and lowers $2\frac{1}{2}$ "
Always on the level.
Tilts to a full 45° angle for beveling.
Degree indicator on tilting device 0 to 45°

The best all-around combination bench woodworker for cutting material up to the capacity of the 8" saw blade which allows a thickness of cut of $2\frac{1}{4}$ ". The table raises and lowers and is level at any height. No hinges whatever are used on this table for elevating but it operates on two $\frac{3}{4}$ " shafts working up and down, controlled and locked in place by means of the convenient hand wheel connected to the frame. For beveling it tilts to a full 45° angle, and any angle desired may be had by setting according to the indicator marked on tilting casting.

The utility and the economy of this machine cannot be realized until you have tried it. This machine is sturdy, rugged, and smooth running and built to stand up under hard usage for years.

CONSTRUCTION—Only the best grade of cast iron and steel are used. The table top is accurately planed and grooved.

BASE—The base for mounting on bench covers an area of $9"x27"$, which includes base for motor, with belt tightening arrangement, consisting of two slotted rails.

TABLE—Size $14"x18"$, planed level and true with grooves on both sides of saw slot for guide. A 3" knock-out block is inserted for removal when moulding head or dado head is to be used.

SPINDLE—Steel shaft machined for saws or tools with $\frac{3}{4}"$ hole. Threaded to receive sanding disc, emery wheel, or drill chuck for drills up to $\frac{1}{2}"$ shank.

BEARINGS—Ball bearings of the best grade are used and require no attention whatever for at least six months after leaving the factory. Grease twice a year and these bearings will last indefinitely.

PULLEYS—A $4\frac{1}{4}"$ pulley is used on motor running at 1725 R.P.M. to give necessary speed to tool operating with pulley of $1\frac{3}{4}"$ diameter.

SAWS—The largest saw which can be used is 8" diameter. With an 8" saw on the table in its lowest position, $2\frac{1}{4}"$ of saw will project above the table.

GUIDES—The rip guide is machined on both sides so that you may work either from the right or left of the saw. This guide runs across the table top as shown in cut. The cross-cut and mitering guide operate in machined groove on either side of saw.

GUARD—Cast iron, raises and lowers with table top.

SPECIAL SAWS—Saws for cutting any materials can be furnished in place of wood cutting saws at slight additional cost.

MOTORS—Standard equipment motor with this machine is $\frac{1}{4}$ H.P. 110V AC, 60 cycle, 1725 R.P.M. of standard make, furnished with cord and plug. This motor operates on any 110V light system. Motors of any capacity, voltage, or cycle, can be supplied if desired. For cutting from $1\frac{1}{4}"$ to $2\frac{1}{4}"$ material we would recommend a $\frac{1}{4}$ H.P. motor.

GAS ENGINE DRIVE—This machine may also be equipped to operate from a gasoline engine, and we will be pleased to submit prices on engines of $\frac{1}{2}$ H.P. capacity and larger.

H. & Z. 8" Combination Woodworker, complete with $\frac{1}{4}$ H.P. 110V, D.C. 60 cycle motor \$50.00

H. & Z. Combination Woodworker, without motor, motor pulley or belt..... 35.00

With $\frac{1}{2}$ H.P. Motor..... 75.00

Extra 8" Blades..... \$4.00 **7" Sanding Disc**..... \$ 2.90

Boring Chuck with adapter for bits up to $\frac{1}{4}"$ shank..... 2.50

Dado Heads and Moulding Heads, price on request.

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.

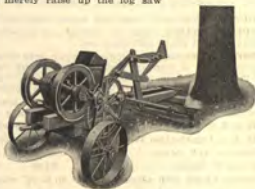
Price ----- **\$135.00**

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, 550 lbs.

PRICE ----- **\$155.00**



"H. & Z." PORTABLE SAW RIG

Sizes 3½, 5, 7, 12 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
3½	22"	1100	\$160.00
4½	24"	1300	185.00
5	25"	1500	210.00
12	30"	2100	390.00

Neck Yoke, Double and Single Trees, extra.....\$5.00

Shafts, extra\$4.00

"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 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 according to the recommendation 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. K635-13—Medium weight; 6 bars; 36 in. high. Top and bottom wires No. 11; intermediate wires No. 12; 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 \$3.60; 30 Rod Roll \$5.40; 40 Rod Roll \$7.20.

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 \$4.60; 30 Rod Roll \$6.90; 40 Rod Roll \$9.20.

No. A635-9—Top and bottom wires No. 9½; all other line wires No. 9½; cross bars No. 9½, spaced 7 to the rod. All wires are Basic Open Hearth Steel, Extra-Heavy Galvanized by the old-time Peerless Process.

Price—20 Rod Roll \$5.20; 30 Rod Roll \$7.80; 40 Rod Roll \$10.40.

No. B635-9—Top and bottom wires No. 9½; all other line wires No. 9½; cross bars No. 9½, spaced 14 to the rod. All wires are Basic Open-Hearth Steel, Extra-Heavy Galvanized by the old-time Peerless Process.

Price—20 Rod Roll \$6.40; 30 Rod Roll \$9.00; 40 Rod Roll \$12.80.

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. 12; 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 \$4.80; 30 Rods \$7.20; 40 Rods \$9.60.

No. K-845—Heavy weight. Top wire No. 9, bottom wire No. 10, intermediate wires No. 12, cross bars No. 12; crossbars 12 inches apart (16 to the rod). All double galvanized open-hearth fence wire.

Price—20 Rods \$6.00; 30 Rods \$9.00; 40 Rods \$12.00.

No. A-845-9—Top and bottom wires No. 9½; all other line wires No. 9½; cross bars No. 9½. Spaced 7 to the rod. All wires are Basic Open-Hearth Steel, Extra-Heavy Galvanized by the old-time Peerless Process.

Price—20 Rod Roll \$6.80; 30 Rod Roll \$10.20; 40 Rod Roll \$13.60.



No. B-845-9—Top and bottom wires No. 9½; all other line wires No. 9½; cross bars No. 9½, spaced 14 to the rod. All wires are Basic Open-Hearth Steel, Extra-Heavy galvanized by the old-time Peerless Process.

Price—20 Rod Roll \$8.20; 30 Rod Roll \$12.30; 40 Rod Roll \$16.40.

ECONOMICAL CATTLE FENCE



No. A-742-9—DESCRIPTION

Top and bottom wires No. 9½; all other line wires No. 9½; cross bars No. 9½, spaced 7 to the rod. All wires are Basic Open-Hearth Steel, Extra-Heavy galvanized by the old-time Peerless Process.

PRICES—20 Rod Roll.....	\$ 6.00
30 Rod Roll.....	9.00
40 Rod Roll.....	12.00

No. B-742-9—DESCRIPTION

Top and bottom wires No. 9½; all other line wires No. 9½; cross bars No. 9½, spaced 14 to the rod. All wires are Basic Open-Hearth Steel, Extra-Heavy galvanized by the old-time Peerless Process.

PRICES—20 Rod Roll.....	\$ 7.40
30 Rod Roll.....	11.10
40 Rod Roll.....	14.80

"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 wire.



Price—20 Rods.....	\$7.40	30 Rods.....	\$11.10	40 Rods.....	\$14.80
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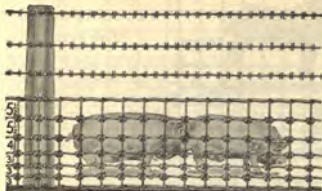
No. 1155-H—Heavy weight—has top wire No. 9; bottom wire No. 10; intermediate wire No. 11; cross bar wires No. 11; cross bars spaced 12 inches apart (16 to the rod); all double galvanized open-hearth fence wire.

Price—20 Rods.....	\$8.80	30 Rods.....	\$13.20	40 Rods.....	\$17.60
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STANDARD 26" HOG FENCES

These patterns are the established standard hog fences of the West; they are usually used with three strands of barb wire above, and when thus constructed make a stock and field fence for all purposes.

SPECIFICATIONS AND PRICES—Furnished in 20, 30 and 40 Rod Rolls



0726-13—7-bar 26-in. medium weight hog fence. Top and bottom, No. 10; filling, No. 13; crossbars 6 inches apart.

Price, per rod.....27c

726-13—Same as 0726-13, but with crossbars 12 inches apart

Price, per rod.....20c

0726—7-bar 26-in. standard weight hog fence. Top and bottom No. 10; filling No. 12; crossbars, 6 inches apart.

Price, per rod.....29c

726—Same as 0726, but with crossbars 12 inches apart.

Price, per rod.....23c

0726-H—7-bar 26-in. heavy hog fence, made with a No. 9 top No. 10 bottom and No. 11 filling; crossbars 6 inches apart.

Price, per rod.....34c

726H—Same as 0726H with crossbars 12 inches apart. Price, per rod.....27c

726-9—7-bar 26-in. hog fence, made from all No. 9½ wire throughout. Crossbars 12 inches apart. Price, per rod.....34c

0726P-J—7-bar 26-in. light hog fence. Top and bottom, No. 11; filling No. 14½; crossbars 6 inches apart.....20c

32" HOG AND SHEEP FENCE

A style coming into widespread use, especially in the West. The 3-inch spaces at the bottom of this fence will turn small pigs. The use of the all No. 9½ style is rapidly increasing. Progressive farmers realize that a few cents is a small amount to consider when making permanent improvements.

SPECIFICATIONS AND PRICES—Furnished in 20, 30 and 40 Rod Rolls

0832-13—8-bar 32-in. hog and sheep fence. Top and bottom, No. 10; filling, No. 13; crossbars 6 inches apart. Medium weight. Price, per rod.....30c

832-13—Same as 0832-13, but with crossbars 12 inches apart.

Price, per rod.....23c

0832—8-bar 32-in. hog and sheep fence. Top and bottom, No. 10; filling, No. 12. Crossbars 6 inches apart. Standard weight. Price, per rod.....34c

832—Same as above, except that crossbars are 12 inches apart. Price, per rod.....25c

0832H—8-bar 32-inch hog and sheep fence made with No. 9 top, No. 10 bottom, and No. 11 filling. Crossbars 6 inches apart. Price, per rod.....39c

832H—Same as 0832H but with crossbars 12 inches apart. Price, per rod.....29c

832-9—8-bar 32-in. hog fence, made from all No. 9½ wire. Price, per rod.....40c

0832-9—Same as 832-9 with crossbars 6 inches apart. Price, per rod.....53c

(Not furnished in 40 rod rolls.)

0832P-J—8-bar 32-in. hog and sheep fence. Top and bottom, No. 11; filling, No. 14½ crossbars 6 inches apart.....23c



"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, \$6.00; 30 Rods, \$9.00; 40 Rods, \$12.00.

No. 1047—Heavy Weight—Has top wire No. 9, bottom wire No. 10; intermediate wire No. 12; crossbars No. 12. Crossbars 12 inches apart (16 to the rod), all double galvanized open-hearth fence wire.
Price—20 Rods, \$6.80; 30 Rods, \$10.20; 40 Rods, \$13.60.

BELLEVILLE SQUARE MESH POULTRY FENCE

Made of the same quality wire used in our field fences—and in the same manner, tied with the same patented non-slip knot.

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 1½ inches apart, top wires 4 inches apart; stay wires 8 inches apart (25 to the rod).

Price, 10 Rod Roll \$3.80; 20 Rods \$7.00; 30 Rods \$11.40; 40 Rods \$15.20.

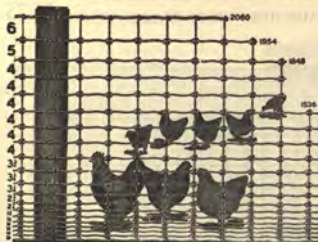
No. 2060—60 inch, 20-Bar Fence. Same specifications as No. 1848, but is 60 inches high and has 20 bars. Price, 10 Rod Roll \$4.30; 20 Rods \$8.60; 30 Rods \$12.90; 40 Rods \$17.20.

CLEAN FENCE ROWS—Peerless Fence, stretched on Peerless Steel Posts, enables you to keep your fence rows looking neat and tidy—also prevents growth and spreading of thistles and other obnoxious weeds. When your farm is so fenced you can burn off your fence rows every year without damaging your fence or the posts. The labor cost of erecting wood posts is very high while Peerless Steel Posts can be set with a few taps with a maul—an item that makes a big difference in the total cost of a fence. Peerless Steel Posts are cheaper than wood—read about them in this catalog.



4 AND 5 FOOT POULTRY FENCE

A couple of low priced styles that were developed to meet the demand for something that would sell for less money than anything else on the market.



SPECIFICATIONS AND PRICES

Furnished in 20, 30 and 40 Rod Rolls

01760—A 17-bar 60-inch poultry fence made with No. 11 top, No. 12 bottom and No. 14½ filling. Crossbars 6 inches apart. Price, per rd. 42c
01548—A 15-bar 48-inch poultry fence. Same make-up as 01760. Price, per rod.....37c

First four wires at bottom of fence spaced 1¼, 1¼, 1¼, 1¼.

A crossbar is put on fences to stiffen the fence and hold all the wires in their relative positions.

A stiff one-piece crossbar will serve this purpose better than any other style of construction.

BELLEVILLE SQUARE MESH WALK GATES

Frame 1¼ 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.	Price.....	\$1.95
No. K 4-48—Gate 4 ft. wide; 48 inches high.	Price.....	2.10
No. K 4-38—Gate 4 ft. wide; 58 inches high.	Price.....	2.30

DID YOU EVER NOTICE

—that the farmers in your community who are leaders in every progressive movement
—that the farmers who seem to have the most spare time
—that the farmers who are always looked up to for advice
—that the farmers who raise the best crops and have the best stock
always are the ones whose farms are well fenced? Having your farm well fenced is like being well dressed—it gives you pride and confidence—it actually makes you a better, more prosperous farmer.

"Belleville" Square Mesh Farm, Field and Poultry Fence

"BELLEVILLE" SQUARE MESH DRIVE GATES

\$5.75



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 $1\frac{1}{2}$ inch high carbon steel tubing, electrically welded making the frame in effect one piece. The wire is all heavy No. $3\frac{1}{2}$ 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..... **\$5.75**

No. K 12-48—Gate 12 feet wide, 48 inches high, complete with fittings for wood posts. Price..... **\$6.50**

No. K 14-48—Gate 14 feet wide, 48 inches high, complete with fittings for wood posts. Price..... **\$7.50**

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
1¼ inch.....	87 to pound
1½ inch.....	72 to pound
1¾ inch.....	65 to pound

Price, per keg (100 lbs.) any length.....\$5.75

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 20-rod roll of Belleville Fence measures 330 feet.

80 rods will fence ¼ mile

320 rods will fence 1 mile

For stock, posts should be set from 16½ to 30 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. 14 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.

Prices per 80 Rod Spool

Two point Long Distance Barb Wire with barbs 5" apart, for cattle.....	\$2.70
Barbs 3" apart, for hogs.....	2.95
Four point Long Distance Barb Wire with barbs 6" apart, for cattle.....	\$3.00
Barbs 4" apart, for hogs.....	3.15



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 subject to market change.

SETTING POSTS

End or corner posts should be larger size than line 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 H. & Z. Lugged Steel Fence Posts

LUGGED ANGLE POSTS

NO STAPLES NEEDED

Here is a real triumph of H. & Z. inventive genius—a steel post that holds any wire fence tight “for keeps” without a single staple!

When the line of posts is set, you just string out a roll of fencing, hang the line wires over the lugs that project from the face of the steel posts, and there you are!

No fuss and bother. No clinching a whole row of staples on the back of every post. Just tap a few of the hooks with the hammer and the fence is gripped like a vise, never to let go as long as it stands. This feature will save you 26 per cent. of every day you spend in putting up fence.

GREATEST STEEL POSTS MADE

This new H. & Z. “no staple” post is the biggest improvement in fencing since H. & Z. first put the steel fence post itself on the market. This invention reduces the labor of putting in a line of fence to the absolute minimum. We know that this economy of time will make the New Peerless Posts a favorite at once.

It is the ideal H. & Z. post, stronger and more convenient than ever—the greatest steel fence post ever made!

PRICES

“LUGGED ANGLE” POSTS FOR FENCES

Length	up to	Price, each
60 in.	36 in.	23c
66 in.	42 in.	25c
72 in.	48 in.	27c
78 in.	54 in.	29c
84 in.	60 in.	31c
90 in.	66 in.	34c
96 in.	72 in.	37c
108 in.	84 in.	40c

LUGGED TEE POSTS

FENCE UP IN A JIFFY!

You can see at a glance that the remarkable idea of using hooks instead of staples will save you a lot of time. But you can't really appreciate how MUCH trouble it saves until you start using these new improved H. & Z. steel posts. They actually enable you to put up 20 to 30 per cent. more fence in a day.

The new H. & Z. Steel Posts are of exactly the same high Peerless quality—built for the purpose and give the greatest possible strength for the amount of metal used. For fencing to be subjected to extraordinary shocks we recommend the Tee design—somewhat heavier and with TWO resting angles.

FIRST COST IS LAST COST

When you put up a line of Peerless fencing upon these new H. & Z. Steel Posts you put it up to STAY. A special rust-resisting paint makes them remain like new for years. The hooks are part of the post itself, thick and strong, and cannot bend or break off.

Figure out how many of these perfected H. & Z. posts you will need and order them at once. The factory-to-farm prices shown here give you more for your money than ever before, for you get the added economy and advantages of this new, labor saving improvement, which makes the NEW H. & Z. the biggest post bargain ever offered.

PRICES—“Lugged Tee” Posts

Length	For Fences up to	Price Each
60 in.	36 in.	26c
66 in.	42 in.	28c
72 in.	48 in.	30c
78 in.	54 in.	32c
84 in.	60 in.	35c
90 in.	66 in.	37c
96 in.	72 in.	40c
108 in.	84 in.	45c

Bargains in New and Used Machinery

We do not guarantee used machinery further than to be as represented. It is not returnable. We shall gladly give any additional information requested. Most of these machines are mechanically equal to new. All are splendid values at the price.

TERMS:—Cash with order, F. O. B. Belleville, Pa.

FEED GRINDERS

1—1400 Double Crusher Roll Peerless Feed Grinder equipped with 8" plates, in good used condition. Price.....	\$ 30.00
1—1400 Double Crusher Roll Peerless Feed Grinder, equipped with 8" plates. This Grinder is in excellent used condition, being almost as good as new. Price.....	\$ 40.00
1—1500 Double Crusher Roll Peerless Feed Grinder, equipped with 9" plates, and in good condition, suitable for tractor power. Price.....	\$ 45.00
1—10 inch Peerless Combination Feed Mill, used as a demonstrator. Is in new condition and cannot be told from a new mill. It will pay to investigate this bargain. Price.....	\$160.00

ENGINES

1—1½ H. P. Hercules Engine, equipped with Magneto. Has been reconditioned and is in good running condition. Price.....	\$ 20.00
1½ H. P. New Monarch Engine equipped with Magneto, Hit and Miss Governor, and has never been used. Price to close out.....	\$ 45.00
1—3 H. P. Domestic Engine equipped with Battery and Magneto Ignition, hopper cooled, mounted on truck, in good condition. Price.....	\$ 20.00
1—7 H. P. Stickney Engine, mounted on good strong four wheel truck, battery ignition, in good used condition. Price.....	\$ 30.00
1—12 H. P. Columbus Engine mounted on strong four wheel truck, equipped with battery ignition. Water Cooling Tank and Pump. This is a good big engine and is in good used condition. Price.....	\$ 75.00

SAW FRAMES

1—No. 1 H. & Z. Saw Frame with balance wheel and 18" blade. Practically as good as new. Price.....	\$12.00
1—New No. 4 Peerless Saw Frame equipped with solid safety boxes, saw guard and 6x6 inch pulley with arbor for saw with 1½ arbor hole. Price.....	\$ 15.00
1—New No. 5 Peerless Saw Frame equipped with self aligning boxes, saw guard and 6x6 inch pulley, mandrel accurately machined for saw blade with 1½ inch arbor hole. Price.....	\$ 17.00
1—New Lauson Wood Sawing Outfit. Tilting table saw frame with 4 H. P. Lauson Engine mounted on strongly built two-horse truck. Price \$340. Sale price.....	\$275.00

MISCELLANEOUS

1—One Hole Corn Sheller in good used condition. Price.....	\$ 5.00
1—Combination Harrow and Roller, consisting of a 17 tooth spring harrow and an 18x78 inch Steel Roller. Does the work of a roller and harrow at one operation. This outfit has never been used and is a bargain. Price.....	\$ 60.00
1—28x46 Red River Special Threshing Machine equipped with Feeder, Wind Stacker and Weigher. This machine has only been used three seasons and is in excellent condition. For quick sale, price.....	\$500.00
1—24" American Pony Planer, with a direct connected 7½ H. P. motor. This equipment is in excellent condition and is a great bargain at price.....	\$300.00

WE MANUFACTURE AND SELL

MORE WOOD SAW FRAMES

MORE ALL PURPOSE CONCRETE MIXERS

MORE CIDER MILLS AND FRUIT PRESSES

THAN ANY OTHER MANUFACTURER IN THE EAST

WE ARE WELL PREPARED TO SUPPLY YOUR NEEDS IN

WOOD SHOP AND PLANING MILL MACHINERY



**New
FRICK
Machinery**

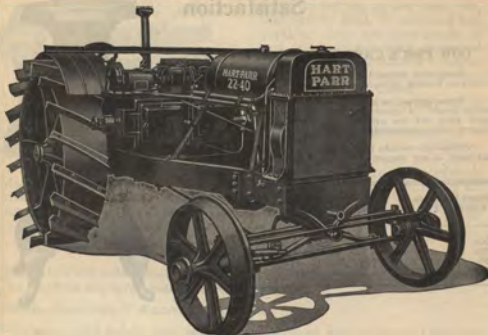
**THRESHERS
SAWMILLS
TRACTION AND
PORTABLE ENGINES**

Write for complete catalog and
quotation on the machinery you
are interested in.



HART PARR TRACTORS

Built in three sizes, 12-24, 18-36, 28-50



SOME OF THE FEATURES

- 1—Built by the founders of the tractor industry.
- 2—Surplus power for peak loads.
- 3—Economy in burning Kerosene Fuel.
- 4—Simplicity of operation.
- 5—Accessibility for quick repairs.
- 6—Adaptability to all kinds of draw-bar and belt work.
- 7—Durability of construction.
- 8—Ease and safety of operator.

Write us for complete catalog and quotation on the size you are interested in.

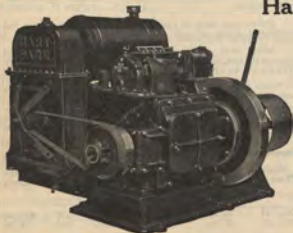
Hart Parr Stationary Power Plants

Built in three sizes—24, 36 and 50

H-P. The most power for the
longest time at the lowest
cost.

This is a compact, dependable power plant that is easy to start and delivers steady, smooth power well above its rating.

Write us for a complete catalog and quotation on the size you need. The price will agreeably surprise you.



The Heaters That Will Give You Service and Satisfaction

LOW PRICE CAST IRON COAL BURNERS

Especially adapted for heating small offices and homes, chicken houses, private garages, etc.

These stoves are made of cast iron with heavy flat shaker style grate. A quick little heater; just put in a little fuel and light the fire and in a few minutes the room will be warm and comfortable.

These stoves are made of the same quality and material as used in our larger and higher priced stoves.

Made in 4 Sizes	Diam. of Fire Pot	Height Inches	Floor Space In.	Shpg. Wt.	Price Each
No. 6	9½ in.	26	13 x 14	70	\$6.25
No. 8	10½ in.	28	14½ x 15½	80	7.50
No. 10	12 in.	30	15 x 16½	90	8.80
No. 12	13½ in.	32	16½ x 18½	100	10.00



BUILT FOR YEARS OF SERVICE

Will stand the hard firing and rough usage usually expected from this kind of stove.

For large rooms, halls, business places, garages, depots, churches, school houses, homes, factories and machine shops.

An ideal heater if you have a large space to heat.

This stove is truly a big value at the very low price we are able to make you, because you buy direct from our factory.

Burns any kind of fuel, hard coal, coke and even the cheapest kinds of soft coal, siftings and slack.

Solid cast iron, strongly bolted, reinforced and strengthened, one of the best coal heaters made. Easily regulated to any amount of heat you want.

Top has removable lid. Triplex rocker grates are made extra strong and heavy.

Don't compare this high grade, heavy weight cast stove with the cheap, light weight cast stoves offered at less money.



Made in Two sizes	Diam. of Fire Pot	Height Ins.	Floor space in.	Shpg. Wt. Lbs.	Price Each
No. 15	15 in.	40	19 x 21	175	\$17.50
No. 17	17 in.	44	19½ x 21½	225	21.50

The No. 2 Saw Frame With Balance Wheel

The Greatest Wood Saw Value on the Market



This machine is the best stationary outfit for cutting up fire wood, etc., that can be had. It is strong and durable. Only the best grade of cast iron and seasoned hardwood are used in its manufacture. Large sheet steel table adds to its durability and including 32" blade. This frame swings up to

The Rip Table attachment is a great feature to our machines. Most farmers first saw their cordwood, then 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. 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.

SPECIFICATIONS

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.

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

Balance Wheel—50 lb. balance wheel furnished with this outfit. We consider a balance wheel a necessity on a wood saw frame as it makes the machine steadier and smoother running.

Shipping Weight—225 lbs.

No. 2 Saw Frame, with 50 lb. balance wheel, less blade	\$15.00
With 20" Blade	17.20
With 22" Blade	17.55
With 24" Blade	17.90
With 26" Blade	18.65
With 28" Blade	18.90
With 30" Blade	19.70
With 32" Blade	20.35

This order is sent in with the understanding that you may return any merchandise that is defective or unsatisfactory. Other goods will be sent in exchange, or your money, with transportation charges will be refunded, whichever you prefer. See guarantee, Page 1 of Catalog.

Hertzler & Zook Co.

BELLEVILLE, Mifflin Co., PENNA.

The safest ways to send money are by Post Office Money Order, Express Money Order, Bank Draft or Personal Check. If impossible to obtain any of these, send currency wrapped in heavy paper by Registered Mail.

DATE _____ 192...

NAME ----- First Name Middle Initial Last Name

RURAL BOX
ROUTE No. STATE

STREET
AND No. _____
Place give Shipping Point with State and County, if different from Post Office

Shipping Point	State	County
-------------------	-------	--------

STATE HOW YOU WANT GOODS SHIPPED BY PLACING
AN X IN PROPER SQUARE BELOW

PARCEL POST ☐ Please be sure to include in the enclosed payment to pay for parcel post charges in addition to the cost of the goods. If you send more than necessary, the balance will be returned immediately.

EXPRESS ☐ If there is no freight agent at your station you should send money to prepay freight charges. If you send more than necessary, the balance will be returned immediately.

FREIGHT ☐	PREPAID FREIGHT ☐
----------------------------------	--

On what Railroad is your Shipping Point?.....

Make Remittances Payable

to

HERTZLER & ZOOK CO.

Please State Total Amount

Enclosed

If this order blank is not large enough for your order use another sheet of blank paper, following this style.

More sheets will be sent upon request.

CATALOG No. 24

[illegible]

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 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 28.

Dia. in.	16	18	20	22	24	26	28	30	32	34	36
1 1/8" hole.....	\$1.80	1.95	2.20	2.55	2.90	3.65	3.90	4.70	5.35	6.50	7.45
1 1/4" hole.....	\$1.80	1.95	2.20	2.55							

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

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 axles are hardwood with iron skids upon which rest the heavy hardwood engine skids.



24 inches front and 36 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 36". Shipped knocked down to save freight charges. For complete description of saw frame see page 2.

No. 1200—Portable saw rig truck only with pole, but without saw frame or saw blade, weight 400 lbs.	\$45.00
No. 1603—Saw frame with 70 lb. balance wheel, without blade, weight 255 lbs.	\$21.95
Neck yoke, double and single trees, extra	\$5.00
Belt Tightener, complete, extra	\$7.50

See page 24 for saw blade prices.

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 not 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 station. 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

“**H**

and

Z”

Line