

Hertzler & Zook Line

Revised Catalog

NO. 10



HERTZLER & ZOOK CO.. Belleville, Pa.

READ WHAT THESE STRONG BANKS SAY, THEY HAVE KNOWN US
FOR YEARS.

THE BELLEVILLE NATIONAL BANK
Bellefonte, Pa.

Bellefonte, Pa. June 2, 1915.

TO WHOM IT MAY CONCERN:

We have known the men connected with the
Herizler & Zook Company of Bellefonte, Pa., for a
number of years and we cannot speak too highly of
their integrity, ability and thorough business
principles.

They sell their goods all over the country and
we have dealings with people of all classes
and we have never known of a single incident
where they have failed or refused to fully satisfy
a customer.

We do not hesitate to recommend them to the
favorable consideration of purchasers everywhere.

Yours very truly,

A. A. Wilson

President.

Herizler & Zook Company
Bellefonte, Pa.

July 15th, 1915.

TO WHOM IT MAY CONCERN:--

The HERIZLER & ZOOK COMPANY of
Bellefonte, Pa., has been known to us for a
number of years, and each additional year brings
increased prosperity. Due very largely to the
sound methods which the Company have followed
since its inception.

We have no hesitancy in recommending
them or their products, and believe that all
business intrusted to them will receive prompt
and careful attention.

Very truly yours,

M. C. Brown
Treasurer.

W. B. B.

These strong banks vouch for the safety of every penny you send us.

The money you send the Herizler & Zook Co. may be withdrawn if your goods
are not satisfactory.

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READ OUR LIBERAL SELLING PLANS, ETC.

Our plans are the most liberal that have ever been offered on a similar line of machinery. Read them carefully to avoid misunderstandings and delays.

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 \$10,000.00 Legal Guaranteed Bond.

ALWAYS ORDER BY CATALOG NUMBER AND NAME OF ARTICLE.

CASH WITH ORDER 30 Days' Free Trial

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

GENERAL INFORMATION

Use our regular order blanks if you have them. Otherwise use any plain paper.

HOW TO ORDER

Always give the catalog number of each article and be sure to state the size you wish if the article is furnished in more than one size.

Enclose with your letter the necessary amount to cover the article ordered, according to the prices as set forth in our catalog.

Say how much money you enclose.

In case there is no railroad agent at your shipping point it will be necessary to prepay the freight and you should include in your remittance a sufficient amount to cover transportation charges. Be sure and send enough money for this purpose, so there will be no delay in handling the order. Any amount you send in excess of the actual freight charges will be returned to you.

Do not send currency in a letter unless it is registered. The best and safest way is to buy a P. O. money order, Express money order, or a Bank Draft or certified check, made payable to our order.

Always sign your name in full and see that it is written very plainly, so we cannot make a mistake and send the goods to the wrong party. Give your Post Office, County, State, and Rural Route, or street number. Also give your shipping point, if different from the Post Office.

If you wish to refer to any matter not concerning the order, please write it on a separate sheet of paper. Your orders will be handled in one department, and your inquiries or correspondence of any kind in another. We therefore ask that you observe this request, to avoid delay.

Before mailing your order, check it over carefully to see if you have conformed with the above requirements.

OUR GUARANTEE

We guarantee that each article listed in this catalog shall be exactly as represented, and that all shipments will be made with the distinct understanding and agreement 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 give it a fair trial. We further guarantee that in any such case we will give the necessary shipping instructions for the return of the article; promptly refund the purchase price and pay freight both ways.

Our policy is to give every purchaser a "SQUARE DEAL," and as a guarantee that he will get it we have deposited a bond for \$10,000.00 with the Belleville National Bank, of Belleville, Pa.

OUR RESPONSIBILITY

We refer you to the Belleville National Bank, of Belleville, Pa., or any other Bank in Mercer County, Pa. We also refer you to Dun's or Bradstreet's Commercial Agencies and to our numerous friends and customers throughout every State in the Union.

We own and operate our factory at Belleville, Pa., building and selling the well-known Hertzler & Zook line of money and labor saving devices for the farmer. In case you have never traded with us, talk with some of your neighbors who have done so, and see how well satisfied they are with the way we serve our customers and the kind of goods we ship to them. For the protection of every customer who wishes it, we have executed a legal bond for the sum of \$10,000.00, and it is now on deposit with the Belleville National Bank of Belleville, Pa. This bond is put up as a guarantee that we will fulfil our warranty and give to every purchaser a "SQUARE DEAL" from start to finish.

In buying from us you get PRICES which we claim are lower than it will be possible for you to obtain elsewhere on goods of equal quality. We buy for cash and sell for cash, no traveler's salary or expense, and ask but a very small profit.

We are manufacturers ourselves and on such goods as we make, sell them to you at actual manufacturer's cost, plus one small profit.

We are so situated that our operating expense is very low. In fact, much lower than any other house we know of. We own our buildings; are well organized; the business is conducted under our own personal control and supervision. We are well satisfied with a small profit and are thereby able to operate at a very low expense.

C. O. D. SHIPMENTS In order to avoid inconvenience and unnecessary delay, we would strongly urge that you send in the full amount of cash with your order. That will enable us to ship the goods direct to you under our liberal guarantee, which gives you the privilege of returning anything not satisfactory in every way, in which case we agree not only to refund the purchase price, but also to pay transportation charges both ways.

Where goods are shipped C. O. D. by express, it is necessary for you to make settlement with the express agent and pay the charges for having the money returned to us.

C. O. D. Shipments cannot be made by freight, but we can ship the goods to ourselves, and make draft on you through the bank with bill of lading attached. That plan often necessitates extra expense and inconvenience, as you must take up the draft at the bank and obtain the bill of lading so you can get the goods from the railroad company. In some instances the goods will be at one point and the draft at another, which will cause you to make two trips.

There is nothing to be gained by C. O. D. shipments and we would much prefer not to make them. If you send the full amount of cash to us with order, you run absolutely no risk, you will get the goods quicker and with less expense and trouble. You have the privilege of returning them under our guarantee, and your money will be promptly refunded on anything which fails to please you in every way.

While we do not like C. O. D. shipments, at the same time we are willing to make them, provided one-fifth the value of the goods is remitted with the order. This small cash deposit is required as an evidence of good faith. In the event the item is so small that one-fifth its value will not cover transportation charges, then the amount of cash which accompanies the order must be sufficient to pay such charges.

Where goods are shipped C. O. D. and are never accepted at destination, the amount paid will be applied against transportation charges and if any remains it will be refunded. Understand, however, if the goods are accepted, and fail to please you in any way, we pay the full amount of charges both ways and also refund the full amount of the purchase price.

SAFE DELIVERY GUARANTEED All goods are carefully crated by men who thoroughly understand their work, and there is little danger of breakage or damage while in transit. However, we guarantee safe delivery of any article we ship, and assume all responsibility for damage that may occur to the goods before they are delivered to you. If any article reaches you in a damaged condition, please see that it is examined in the presence of the freight or express agent; receive the goods and pay the transportation charges, but be sure and have agent make notation on your expense bill, setting forth the nature and extent of the damage or shortage. Do not accept the shipment unless the agent writes a clear notation of this damage or shortage on the freight bill. After the notation, as above, has been made, send the bill to us and write us just what you think should be done to repair the damage. We will immediately take such steps as are necessary to make the matter entirely satisfactory to you.

WE ALWAYS CRATE AND SHIP EVERY ARTICLE SO AS TO SECURE THE LOWEST FREIGHT CHARGES FOR OUR CUSTOMERS

If you believe you are being overcharged on the freight, and cannot make a satisfactory adjustment with the agent at the time, accept the shipment, and pay the charges; then send us the freight bill and we will investigate the matter for you. In case there has actually been an overcharge, we will see that the proper amount is refunded to you.

Remember we can do nothing, either in case of damage or overcharge, unless you send the railroad freight bill to us.

ILLUSTRATIONS AND DESCRIPTIONS We have tried to illustrate and describe every article so fully and so clearly that you can order intelligently. We advise you to read the descriptions carefully, as they cover the details accurately. The illustrations can be relied upon to show the style and general appearance of the article, but you must refer to the descriptions to get detailed information. We always ship goods of the latest design, and for that reason, the article may differ slightly from the one shown in our catalog, but, by giving you the latest and newest, we feel that you will be satisfied and will appreciate our effort to give you nothing but the best. You can rest assured we will **MAKE NO SUBSTITUTION**, unless by so doing we give you a better value.

SHIPMENTS FROM FACTORIES By shipping goods direct from factory, either our own or those of other manufacturers, we are able to make better prices to you because we can sell you the goods at the actual cost to manufacture, cost of materials and labor, and with only a small percentage of profit added. There is a saving of all expenses such as freight, storage, handling, carting, etc. By shipping direct from factories we are always able to give you absolutely new goods; goods which are fresh from the finishing rooms, which possess the latest improvements, and which are in the best condition possible.

RETURNED 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 factories, 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 very 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**.

REASON IT OUT YOURSELF

Don't let anyone tell you that retail dealers can give you the same goods for the same or less money than we can.

Reason it yourself. We manufacture and sell direct, in a few instances we ship you goods direct from another manufacturer, to you. The dealer buys from the jobber and the jobber from the manufacturer, so in nearly every case we can save you two profits.

Don't let the freight argument confuse you. The retailer dealer pays the freight on the goods when he buys from the jobber and when you pay the dealer, you are paying him the freight also. Reason it out for yourself.

THE GREATEST LINE OF WOOD SAW- ING MACHINERY IN THE WORLD.

No. 1

Is one of the greatest little saw frames offered to the trade. One horse power and upward will run it. Mandrel 1 5-16 in. by 41 in. long with arbor for saw blade having 1 1-4 in. hole.

Pulley 5 in. by 5 in. takes saw blade up to and including 22 in. Shipping wt. 100 lbs.

Price for frame less blade
Cash with Order \$ 7.90

Price as shown above with 16 in. blade filed and set ready for work .. 9.83
18 in. blade 10.05
20 in. blade 10.76
22 in. blade 11.35



No. 1 with 35 lb. Fly Wheel



Shipping wt. 135 lbs.

Cash with Order

Frame less blade \$ 9.50
With 16 in. blade filed & set 11.43
18 in. 11.65
20 in. 12.36
22 in. 12.95
\$1.00 extra for left hand.

No. 1 Saw Frame with Ripping table and Rip Saw attached

This table and frame will carry rip saws up to and including 20 in. A trial of this machine will convince you.

When ripping tables are used it requires a saw blade for ripping. No one should attempt to do ripping with a cordwood saw blade, or saw cordwood with a rip saw.

Price for ripping table only for No. 1 frame as shown \$2.00



This cut shows our saw frames knocked down as they appear when shipping west of the Mississippi River and south of Tennessee, also for exporting. This is done to secure the lowest possible freight rate for our customers at a distance, free of charge. An extra charge of \$1.50 for the No. 1 frames and \$2.00 for the No. 2 and larger will be made when crated other than that shown in this cut.



The No. 2 Wood Saw



This wood saw is designed similar to No. 1 with the exception that it is heavier, has a steel extension table, is built for heavier service, and requires two H. P. and upward to run it, and carries saws ranging in size from 20 inches to 28 inches inclusive. Will cut round wood nine to eleven inches thick.

This is one of our standard machines, and is built in such a manner as to permit putting on our ripping attachment which is one of the greatest features of the machines and is fully explained on page 18.

Mandrel—The Mandrel is one and seven-sixteenths inches in diameter and forty-nine inches long, fitted for a saw having a one and three-eighths inch arbor hole.

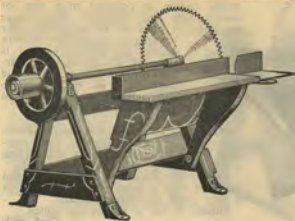
Boxes—The Boxes are of ample size and provided with a large oil cup lined with a high grade of bearing metal.

Pulley—It has a six inch Pulley. Shipping weight, 190 lbs.

	Cash with Order		Cash with Order
Price of frame without blade; otherwise as shown above ..	\$10.20	24 in. Cordwood blade	14.00
With		26 in. Cordwood blade	14.70
20 in. Cordwood blade	\$13.06	28 in. Cordwood blade	15.25
22 in. Cordwood blade	13.65		

In making up your order for shafting, boxes, hangers, belting, pulleys, clutches, etc., don't fail to carefully check out prices on another page of this catalog, as they are strictly factory prices.

The No. 2 Wood Saw with Fly Wheel



Price of No. 2 wood saw with 56-lb. fly wheel as shown in cut, without blade \$11.70

With	Cash with Order
20 in. blade	14.56
22 in. blade	15.15
24 in. blade	15.50
26 in. blade	16.20
28 in. blade	16.75

\$1.50 extra left handed.

Shipping weight, 240 lbs.

This Cut shows our No. 2 Saw Frame as it Appears with Ripping Table and Rip Saw Attached

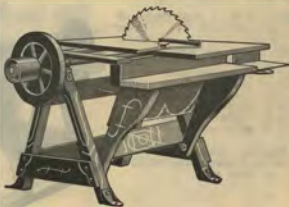
For full particulars of this attachment see Index.

Price for ripping table only for No. 2 frame as shown \$3.00

When ripping tables are used it requires a saw blade for ripping. No one should ever attempt to do ripping with a cordwood saw blade, or saw cordwood with a rip saw.

To get the price of above machine with all attachments add the price of the ripping table and the price of any size ripping saw you wish (26 in. or smaller) to the machine you want.

All blades filed and set ready for work.

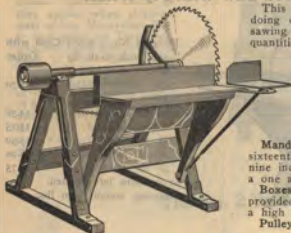


We further wish to impress on the minds of our farmer friends the fact that the ripping table attachment is the greatest feature of the wood sawing machines, as most of our farmers having gasoline engines first do their cordwood sawing, then they remove the cordwood blade, attach the ripping table which enables them to do all kinds of ripping of lumber such as making roofing lath, palings, pickets, crate lumber out of refuse that would otherwise be wasted and lost. Again, for hewing or pointing posts it has no equal and can be used in this way, twelve months in the year. **WHY NOT** order one right now to try out, and if it don't please you, return it at our expense.

Remember we make the **BEST** and **Largest** assortment of Wood Sawing Machinery in the world. Sold direct to the user.

No. 4 Wood Saw

This wood saw is built expressly for doing custom or contract work and for sawing pole and cordwood where large quantities of wood are to be handled; the capacity of the machine is very great; the power required is three H. P. and upward; carries cordwood saws up to and including 32 in.; rip saws up to and including 26 in. Is one of our standard machines.



Mandrel—The Mandrel is one and seven-sixteenths inches in diameter and forty-nine inches long, fitted for a saw having a one and three-eighths inch arbor hole.

Boxes—The Boxes are of ample size and provided with a large oil cup, lined with a high grade of bearing metal.

Pulley—It has a six by six pulley.

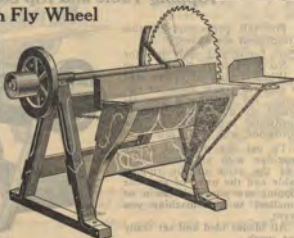
Shipping Weight, 200 lbs. Price Cash with
of frame without blade; other- Order
wise as shown above \$10.70
Price as shown above with
20 in. Blade \$13.56
22 in. Blade 14.15

Cash with
Order
24 in. Blade 14.50
26 in. Blade 15.20
28 in. Blade 15.75
30 in. Blade 16.45
32 in. Blade 17.20

No. 4 Wood Saw with Fly Wheel

Price of No. 4 wood saw with 56-lb. fly wheel: Cash with Order \$12.20
Price as shown with:
20 in. Cordwood Blade \$15.06
22 in. Cordwood Blade 15.65
24 in. Cordwood Blade 16.00
26 in. Cordwood Blade 16.70
28 in. Cordwood Blade 17.25
30 in. Cordwood Blade 17.95
32 in. Cordwood Blade 18.60

Shipping weight, 256 lbs.
Above frames made left-hand-
ed, \$1.50 extra.



A FEW SUGGESTIONS FOR SAWING POLES WITH THE ABOVE FRAME

Poles may be sawed with the above machine without the flywheel interfering by driving two stakes in the ground a little back of the alignment of the machine; to the left of the operator spike a pole on top of the stakes making a tressle so as to be higher than the table leaving the poles rest on the tressle 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 fly wheel. This will apply to any of the single shaft machines.

This Cut shows our No. 4 Saw Frame as it Appears with Ripping Table and Rip Saw Attached

For full particulars of its attachments, consult index for shingle tables.

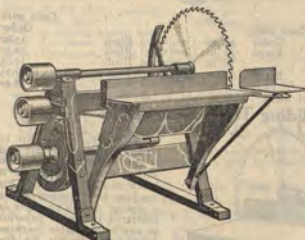
Price for ripping table only for No. 4 frame .. \$3.00

When ripping tables are used it requires a saw blade for ripping. No one should ever attempt to do ripping with a cordwood saw blade, or saw cordwood with a rip saw.

To get the price of above machines with all attachments, add the price of ripping tables and the price of any size ripping saw you wish (26 in. or smaller) to the machine you want. All blades filed and set ready for work.



The No. 5 Wood Saw



This saw is the strongest, best constructed and most popular saw frame in the country, suitable for sawing cordwood and long poles of every description.

The mandrel is 17-16 in. in diameter by 49 in. long, with 1-3-8 in. arbor and 6x6 pulley. Boxes are of ample size and lined with a high grade of babbit metal. The center pulley is hung on a heavy bracket with a steel pin and is made so that it will not get out of alignment. The fly wheel weighs 95 lbs. and is perfectly balanced to insure smooth running. The cast iron guard is made adjustable to fit any size saw blade from 20 in. to 32 in. inclusive. Machines

are all made right handed unless otherwise ordered, when an additional charge of \$1.50 will be made.

Shipping weight, 320 lbs. Cash with

Price of frame without blade; Order

otherwise as shown above \$16.00

Price as shown above with:

20 in. Cordwood Blade \$18.86

22 in. Cordwood Blade 19.45

Our standard or shingles ripping table attachment can be attached to the above

No. 5 machine.

Price for ripping table only for No. 5 frame .. \$3.00

When ripping tables are used, it requires a saw blade for ripping. No one should

ever attempt to do ripping with a cordwood saw blade, or saw cordwood with a rip

saw.

To get the price of above machine with all attachments, add the price of the

ripping table and the price of any size ripping saw you wish (26 in. or smaller) to

the price of the machine you want.

Cash with

Order

24 in. Cordwood Blade 19.80

26 in. Cordwood Blade 20.50

28 in. Cordwood Blade 21.05

30 in. Cordwood Blade 21.75

32 in. Cordwood Blade 22.40

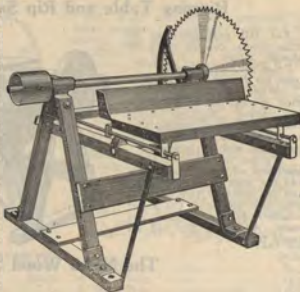
No. 10 Sliding Table Saw Frame

This cut shows our No. 10 sliding table saw frame which is made of selected lumber, is well built and has a cold rolled steel mandrel and the boxes are lined with a good grade of bearing metal.

This machine has the many good features of the Hertzler & Zook line of saws. Namely: the table is low, thus having the saw blade help pull the wood in, making it one of the best and easiest machines to operate on the market.

This machine is built in two styles and will carry saw blades up to and including 32 inches. Ripping device can also be attached. Ripping device will swing rip saws up to 26 in. inclusive.

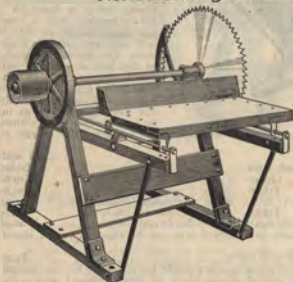
The mandrel is 49 in. long, 1 7-16 in. in diameter with 1 3-8 in. arbor and 6x6 Pulley.



	Cash with
Price of above machine less	Order
saw blade	\$12.00
Price of machine with:	
20 in. Cordwood Blade	\$14.86
22 in. Cordwood Blade	15.45
Extra for making left handed	\$1.50.

	Cash with
	Order
24 in. Cordwood Blade	15.80
26 in. Cordwood Blade	16.50
28 in. Cordwood Blade	17.05
30 in. Cordwood Blade	17.75
32 in. Cordwood Blade	18.40
Weight of above machine	187 lbs.

No. 11 Sliding Table Saw Frame



This cut shows our No. 11 sliding table saw frame and is the same as our No. 10 with the exception that it has a 36 lb. fly wheel. This machine is a favorite where a sliding or rolling table is preferred and is far superior to any rolling table machine as it is impossible for the table to do any binding or catching. This machine will swing saws up to and including 32 inches diameter. Our ripping device can also be attached and will swing rip saw blades up to and including 26 inches.

	Cash with
Price of above machine with-	Order
out saw blade	\$13.80

	Cash with
Price of machine with:	Order
20 in. Cordwood Blade	\$16.66
22 in. Cordwood Blade	17.25
24 in. Cordwood Blade	17.60

	Cash with
	Order
26 in. Cordwood Blade	18.30
28 in. Cordwood Blade	18.85
30 in. Cordwood Blade	19.35
32 in. Cordwood Blade	20.20



No. 12 Sliding Table Saw Frame

The opposite cut shows our No. 12 sliding table saw frame with a 90 lb. fly wheel mounted underneath the table, and is entirely out of the way for sawing long poles or slab wood. Our ripping device can also be attached to this machine and will swing saws up to and including 26 in. for ripping.

Extra for making left handed, \$1.50. Weight of above machine, 350 lbs.

Price of the above machine	Cash with Order
less saw blade	\$17.00
Price as shown above with:	
20 in. Cordwood Blade	\$19.86
22 in. Cordwood Blade	20.45

	Cash with Order
24 in. Cordwood Blade	\$20.80
26 in. Cordwood Blade	21.50
28 in. Cordwood Blade	22.05
30 in. Cordwood Blade	22.75
32 in. Cordwood Blade	23.40

Extra for making left handed, \$1.50.

STEEL FRAME WOOD SAWS

In order to give our customers what they want we are placing this steel frame on the market. We feel it our privilege to give our friends everything they ask for in the wood saw line.

This frame is similar to our No. 4 and No. 5 frames, with the exception it is all built of iron and steel with the exception of 5 pieces of hard wood $1\frac{1}{4} \times 5$ and 6" wide, making it more durable than all steel or all wood.

No. 13 Steel Frame

Shipping Weight, 170 Lbs.
Price of frame without blade, otherwise as shown above,

Price as shown above with	\$14.00
20 in. Cordwood blade	\$16.86
22 in. Cordwood blade	17.45
24 in. Cordwood blade	17.80
26 in. Cordwood blade	18.50
28 in. Cordwood blade	19.05
30 in. Cordwood blade	19.75
32 in. Cordwood blade	20.40

The shingle and ripping table may be attached to this frame.

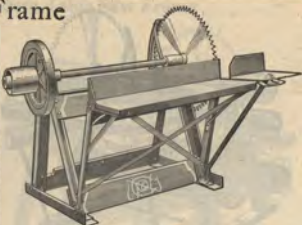


No. 14 Steel Frame

With 56 lb. fly wheel attached as shown, without saw blade. Price \$15.50
Price as shown above, with

20 in. Cordwood blade	\$18.36
22 in. Cordwood blade	18.95
24 in. Cordwood blade	19.30
26 in. Cordwood blade	20.00
28 in. Cordwood blade	20.55
30 in. Cordwood blade	21.25
32 in. Cordwood blade	21.90

The shingle and ripping attachment may be attached to this frame.

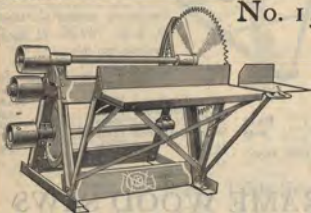


No. 15 Steel Frame

With 95 lb. fly wheel mounted underneath as shown. Price of frame, without blade \$20.00

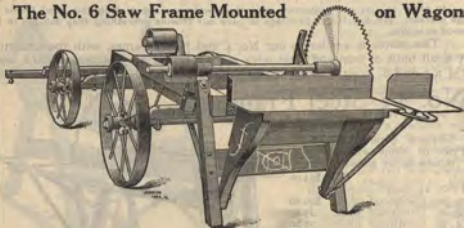
Price as shown above with	
20 in. blade	\$22.86
22 in. blade	23.45
24 in. blade	23.80
26 in. blade	24.50
28 in. blade	25.05
30 in. blade	25.75
32 in. blade	26.40

The shingle and ripping attachment may be attached to this frame.



The No. 6 Saw Frame Mounted

on Wagon



The above cut shows No. 6 saw frame mounted on our light engine truck and on which any make of engine not weighing over 900 lbs. can be mounted and then you will have one of the best wood sawing outfits on the market. Shipping weight 800 lbs.

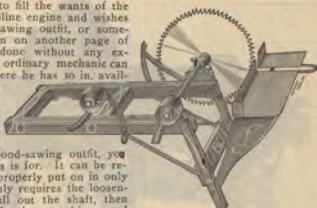
Cash With Order

Price of the above outfit with brake, pole, doubletree and yoke	\$48.00
With shafts instead of pole	45.00

*Above outfits made left handed \$1.50 extra. 12

The No. 6 Wood Saw

This wood saw is built to fill the wants of the man that already has a gasoline engine and wishes to make a complete wood-sawing outfit, or something similar to ours shown on another page of this catalog. This can be done without any experienced mechanic, or any ordinary mechanic can attach this to his engine where he has 30 in. available on the truck. Or at times by bolting on at each side of the truck beam, a timber or an I beam or channel, or anything that he can get 30 in. of space. By referring to our complete wood-sawing outfit, you will clearly see just what this is for. It can be removed from the truck after properly put on in only a few moments' time, and only requires the loosening of one set collar to pull out the shaft, then throw up the frame of the machine and you are ready to go; while otherwise, on the ordinary machines it is necessary to fasten to the ground. However, if a fly wheel is wanted on the mandrel, it can be had and is placed on the outside of the pulley on the mandrel shaft. It has all the good features of our other machines and the ripping table can also be attached. This machine will carry a saw blade up to and including 22".



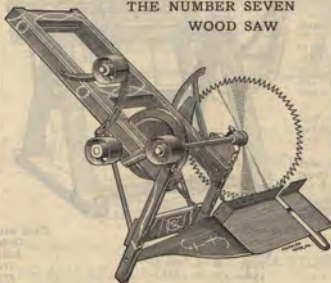
Mandrel—The Mandrel is one and seven-sixteenths inches in diameter and forty-nine inches long, fitted for a saw having a one and three-eighths inch hole.

Boxes—The boxes are of ample size and provided with a large oil cup, lined with a high grade of bearing metal. Shipping weight, 315 lbs.

Price as shown above with:		Price less blade		\$15.00
20 in. Cordwood Blade	\$17.86	28 in. Cordwood Blade		20.05
22 in. Cordwood Blade	18.45	30 in. Cordwood Blade		20.75
24 in. Cordwood Blade	18.80	32 in. Cordwood Blade		21.40
26 in. Cordwood Blade	19.50			

To get the price of above machines with all attachments, add the price of the ripping table, fly wheel and the price of any size ripping saw you wish (22" or smaller), to the price of the machine you want.

THE NUMBER SEVEN WOOD SAW



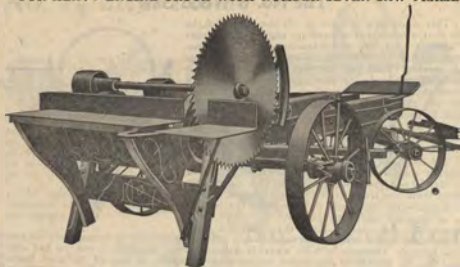
This machine is similar to our No. 6 with the exception it has the fly wheel underneath same as our No. 5. The mandrel is 47 in. long, 17-16 in. in diameter with 6x6 pulley, 1 3/8 in. arbor. Boxes are of ample size and lined with a high grade of babbitt metal.

	Cash with
Price of frame	Order
without blade:	\$20.50
Price as shown with	
20 in. Blade	23.36
22 in. Blade	23.95
24 in. Blade	24.30
26 in. Blade	25.00
28 in. Blade	25.35
30 in. Blade	26.25
32 in. Blade	26.90

All blades filed and set ready for work. Shipping weight, 410 lbs.

*Above frames made left handed, \$1.50 extra.

OUR HEAVY ENGINE TRUCK WITH NUMBER SEVEN SAW FRAME



The above cut shows our heavy engine truck with No. 7 saw frame mounted and on which any make of engine not weighing over 1200 lbs. can be mounted. This is an outfit made for hard usage and will give good service. Shipping weight, 1000 lbs.

Cash with
Order

Price of above without saw blade \$63.50

The above outfit made left-handed, \$1.50 extra.

No. 1604 Tilting Table Saw Frame

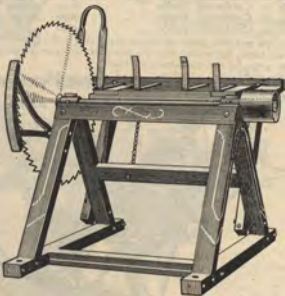
This frame is made of hard wood, thoroughly seasoned, well bolted and braced.

Will swing saw blades up to and including 30 in. Blades are made for cord and pole wood sawing exclusively. The wood may be brought in frame either side.

Mandrel—49 in. long, 1 7-16 in. diameter with 1 3-8 in. arbor and 6 in. by 6 in. Pulley. Shipping wt., 235 lbs.

Cash with
Price as shown less Order
blade \$12.00

Our ripping attachment cannot be used on this frame.



Price as shown with

20 in. Blade	\$14.85
22 in. Blade	15.45
24 in. Blade	15.80

Cash with
Order

26 in. Blade	16.45
28 in. Blade	17.05
30 in. Blade	17.75

Cash with
Order

26 in. Blade	\$16.50
28 in. Blade	17.05
30 in. Blade	17.75

Made left-handed, 1.00 extra.

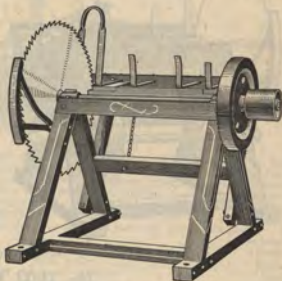
No. 1605 Tilting Table Saw Frame

Same as frame No. 1601 with 70 lb. fly wheel added. Wood to be brought in on saw side of frame. Ripping attachment cannot be used on this frame.

Mandrel—49 in. long, 1 7-16 in. diameter with 1 3-8 in. arbor and 6x6 Pulley.

Shipping weight 300 lbs.

Price as shown less blade	Cash with Order
Price as shown with 20 in. Cordwood blade	\$14.00
22 in. Cordwood blade	16.86
24 in. Cordwood blade	17.45
26 in. Cordwood blade	17.80
28 in. Cordwood blade	18.50
30 in. Cordwood blade	19.05
32 in. Cordwood blade	19.75
Made left-handed \$1.00 extra.	



No. 1607 Tilting Table Saw Frame with Pole Extension

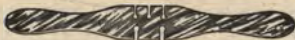


Same as No. 1605 but has an extra extension to attach which makes it suitable for sawing long pole wood. Price, less blade

\$14.00

STEEL SAW SETS

Just the tool to keep your saw properly set.



Saw sets like the above, Price each

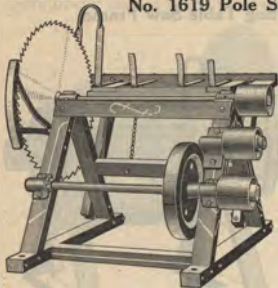
\$1.50

ROUND EDGE MILL FILES

Just the file for properly filing your saw.

Size	inches	8	10	12	14
Price	each	\$.12	.20	.25	.33

No. 1619 Pole Saw Frame



Made for pole or cord wood sawing expressly. Ripping attachment can not be used on this frame. 90 lb. fly wheel, which is underneath the frame out of the way of poles. Mandrel, 49 in. long, 1 7-16 in. diameter, 1 3-8 in. arbor, and 6x6 pulley. Shipping wt., 400 lbs.

Cash with

Price as shown less	Order
blade	\$16.00
Price as shown with	
20 in. Cordwood	
blade	18.86
22 in. Cordwood	
blade	19.45
24 in. Cordwood	
blade	19.80
26 in. Cordwood	
blade	20.50
28 in. Cordwood	
blade	21.05
30 in. Cordwood	
blade	21.75

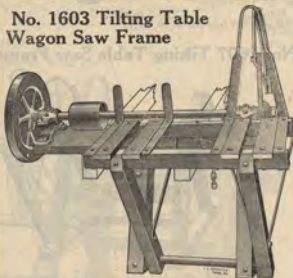
Making left-handed, \$1.00 extra.

No. 1603 Tilting Table Wagon Saw Frame

This frame is well built of good material. Interchangeable to fit almost any wagon. Mandrel, 49 inches long, 1 7-16 diameter, 1 3-8 arbor, with 6x6 pulley. 70 lb. fly wheel. Shipping wt., 235 lbs.

Cash with
Order

Price as shown less	
blade	\$12.50
20 in. blade	15.36
22 in. blade	15.95
24 in. blade	16.30
26 in. blade	17.00
28 in. blade	17.55
30 in. blade	18.25
Machine left hand	\$1.00 extra.



EXPRESSIONS MADE BY HARDWARE DEALERS OVER THE COUNTRY

"Yes, farmers are just beginning to get rid of the cross-cut saws and adopt more modern ways; this is where the circular saw comes in."

"I don't know why people have the impression that farmers don't buy good tools. It is a great deal cheaper to buy a first-class tool that will run true, than a cheap one that can not be depended upon. I think that the circular saw that is put before the public with a reliable guarantee is the saw that will get the trade."

"Regarding circular saws in place of the old cross-cut, will say now for the last three years there is not a farmer in this locality that has sawed up their winter wood by hand, but with a gasoline engine and circular saw. We have five or more such rigs in this neighborhood which do nothing else from December until March and charging 60 to 75 cents per hour and \$2.00 to \$3.00 for set job."



With friction feed. Positive and effective, yet very simple; will not stick or get out of order, the operator having full control of the machine. It is well balanced and runs very nicely and steadily, has three different strokes, unless otherwise ordered. Each machine is furnished complete with a drive pulley 24 x 6 inches, log truck, power rolls, tumbling rod with two universal couplings, 16 foot track and one saw 5 feet 6 inches.

Speed recommended, 125 to 175 strokes per minute. Weight, 1300 lbs.

Capacity, from 30 to 40 cords per day, depending on material, power and speed.

Cash With
Order

Price complete with 5 ft. 6 in. saw and tight pulley	\$65.00
Same as above described, with tight and loose pulley	70.00
Same as above with one saw and pulley, less power feed	60.00
Extra blades 5 ft. 6 in. long for drag saws	4.75

The Number Three Wood Saw

This saw is built for lumber, shingle and stave manufacturers. Built for heavy work such as cutting off billets, shingle blocks, etc.

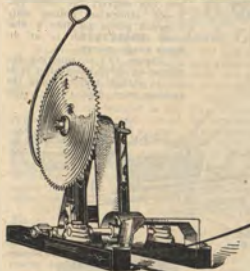
Mandrel—The Mandrel is 21 inches long, fitted for 1 1/2 inch saw arbor, will carry saw up to 36 inches in diameter.

Boxes—The Boxes are adjustable, of ample size and lined with a high grade of bearing metal.

Pulley—Mandrel Pulley is cast to the mandrel, making it all one piece and of great tensile strength. It is 7 1/2 by 7 inch face, turned and balanced.

This Wood Saw is inter-changeable and can be made to cut toward the belt 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, as it is when it cuts toward the belt.

The swinging frame ranges in length from 24 to 48 inches, to suit the requirements of the work.



Price as shown above without blade	2.00
Price as shown above with:	
28 in. Cordwood Blade	2.55
30 in. Cordwood Blade	2.95
32 in. Cordwood Blade	3.55
34 in. Cordwood Blade	4.10
36 in. Cordwood Blade	4.62
38 in. Cordwood Blade	5.20
40 in. Cordwood Blade	6.00
42 in. Cordwood Blade	6.85
44 in. Cordwood Blade	8.25
46 in. Cordwood Blade	9.60
48 in. Cordwood Blade	11.00
All blades filed and set.	

RIPPING TABLES OR ATTACHMENTS

A number of our circular saw frames are designed in such a manner so as to attach a ripping table at a very small additional cost, enabling our customers to derive the same benefits that would otherwise cost from \$12.00 to \$30.00 at least.



By using this attachment you have the benefit of two machines at practically the cost of one. The cut opposite shows the table, which only requires a few moments and three bolts to attach, making your

wood saw an indispensable outfit for sawing crate lumber, pickets, hewing wire fence posts, plaster and roofing laths, etc.

The No. 1 table will fit No. 1 frame only and will swing any size rip saw up to and including 20 in. with a $1\frac{1}{4}$ in. hole. Price \$2.00

The No. 2 will fit all the saw frames made to take ripping tables and will swing saws up to and including 26 in. with $1\frac{1}{2}$ in. holes. Price \$3.00

Shingle Sawing Tables

TABLE FOR SAWING SHINGLES—

When this attachment is used on the Hertzler & 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 the use of block holder the shingles are sawed.



Owing to the continual growing demand of 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. Fig. (B)



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.

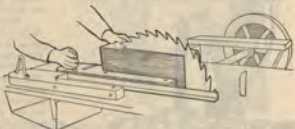
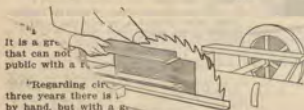


Fig B

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 something similar to our No. 2 ripping table, only it is longer and larger. This table is adapted to do general ripping, as it can be used just as



It is a great public with a r

'Regarding cir three years there is by hand, but with a g in this neighborhood w 60 to 75 cents per hour a

Fig C

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.

Price of No. 1 Ripping table .. \$ 2.00 Price of No. 2 Shingle table with
Price of No. 2 Ripping table .. 3.00 two block holders \$5.00

Hertzler & Zook Circular Saws

CORD-WOOD SAWS—GUARANTEED



When you are considering the purchasing of a cordwood saw, you want a blade that will give you entire satisfaction in every way. You desire a saw that is peculiarly and especially suited for just its class of work. You want the saw guaranteed to satisfy in every particular—a saw that has the right kind of temper even in 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 want the teeth not to split and you do not want to constantly be delayed and annoyed by sharpening the teeth every hour or so. You want a saw that will cut green wood, dry wood, frozen wood, hard wood, soft wood, knotty limbs, in fact, all kinds of wood, and stand right up and

do the work day after day. The only thing on your part being to keep the teeth well sharpened and the throats or gullets well rounded and free from sharp corners so as to freely discharge the saw dust. The H. & Z. cordwood saw will do all the above. The saws are broadly and liberally guaranteed, are hand set and filed, ready for use, so you can begin cutting as soon as you put the saw on the arbor. Instructions sent free with each saw giving valuable information as to care of saws and how to file properly and give long life to saw. The saws listed below are carried in stock. Always give size of arbor hole.

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 your doing so cancels our warranty.

Diameter, in.	16	18	20	22	24	26	28	30	32	34	36
1½ in. hole	\$1.93	2.15	2.86	3.45	3.80	4.50	5.08	5.75	6.40	7.15	7.90
1¼ in. hole	1.93	2.15	2.86	3.45							

Hertzler & Zook Guaranteed Rip Saws

For rough ripping of lumber for use as crating, for work on a farm, such as ripping material for posts, pickets and general rough ripping, the Hertzler and Zook Rip Saws are in great favor and demand, and give 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 same before you commence work.

If saws are wanted in any way different from the list below they must be made specially to order, and cannot be furnished at stock prices as given, on account of cost in making one at a time. If you must have a special saw, tell us what you wish and we will quote you best possible price. We will not make to order, saws that are unreasonably light in gauge, or with dangerously small mandrel holes. Be sure to always give the size of the arbor hole. For work in a carpenter shop, 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.

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



Rip Saw Blade

Diam., Inches	Gauge	Arbor Hole In.	Shipping wt. about	Price Each
10	16	1½	2½ lbs.	\$1.32
12	15	1½ and 1¾	4 lbs.	1.65
14	14	1½ and 1¾	6 lbs.	2.00
16	14	1½ and 1¾	8 lbs.	2.55
18	13	1½ and 1¾	8 lbs.	2.95
20	13	1½ and 1¾	11 lbs.	3.55
22	12	1¾	14 lbs.	4.10
24	11	1¾	18 lbs.	4.62
26	11	1¾	20 lbs.	5.20
28	10	1¾	25 lbs.	6.00
30	10	1¾	31 lbs.	6.85
32	10	1¾	36 lbs.	8.25
34	9	1¾	43 lbs.	9.60
36	9	1¾	47 lbs.	11.00

Set and Sharpened—Ready for Use—Guaranteed

MANDREL SETS

or any part of the Hertzler & Zook line of Saws may be used as repairs or when you wish to make your own frames.



These sets are ready to ship and we can furnish either plain, flat-bottom boxes or our regular pattern, as used on our Nos. 1 to 7 frames.

Price of the No. 1 with 35-lb. fly wheel, 5 x 5 pulley, $1\frac{1}{4}$ in. arbor and plain, flat boxes	\$6.50
Price of No. 1 with 35-lb. fly wheel, 5 x 5 pulley, $1\frac{1}{4}$ in. arbor with our own style of boxes, as used on our machines	6.75
Price of the No. 2 with 56-lb. fly wheel, 6 x 6 pulley, $1\frac{1}{4}$ in. arbor with plain, flat boxes	7.50
Price of the No. 2 with 56-lb. fly wheel, 6 x 6 pulley, $1\frac{1}{4}$ in. arbor with our own style of boxes, as used on our machines	8.75
Left-handed thread \$1.00 extra.	

PRICE-LIST ON PARTS OF OUR WOOD SAW MANDRELS

No. 1, 41 in. long, $1\frac{1}{8}$ in. diameter, $1\frac{1}{4}$ in. arbor	\$2.50
Nos. 2 and 5, 49 in. long, $1\frac{1}{8}$ in. diam., $1\frac{1}{4}$ in. arbor	3.75
For fly wheel for Nos. 5 and 7, $1\frac{1}{8}$ in. diameter	2.20
Nos. 6 and 7 key seated, 47 in. long, $1\frac{1}{8}$ in. diameter, $1\frac{1}{4}$ in. arbor	3.30

BOXES

Flat boxes for all frames, per pair	\$2.00
Our regular boxes for No. 1 frame, per pair	2.25
Our regular boxes for Nos. 2, 4, 5, 6 and 7, per pair	2.75

PULLEYS

No. 1, 5 in. x 5 in. x $1\frac{1}{8}$ in.	\$1.25
Nos. 2-4-5-6-7, 6 in. x 6 in. x $1\frac{1}{8}$ in.	1.40
Idler for No. 5, 6 in. x 6 in. Special	1.50
Tightener Pulley for Nos. 6 and 7, 6 in. x 6 in. Special	1.50
Tightener Pulley for Nos. 6 and 7, with pulley	2.75

FLY WHEELS

No. 1-35 lbs., $1\frac{1}{8}$ in. bore, 13 in. diameter	\$1.45
No. 2-56 lbs., $1\frac{1}{8}$ in. bore, 17 in. diameter	2.25
Nos. 5 and 7-90 lbs., $1\frac{1}{8}$ in. bore, 17 in. diameter	2.90
70 lbs.—Special, $1\frac{1}{8}$ in. bore, 17 in. diameter	2.50
125 lbs.—Special, $1\frac{1}{8}$ in. bore, 17 in. diameter	3.75

TABLES, ETC.

Steel swing table complete for Nos. 4-5-6 and 7 frames	\$6.00
Saw guards, Nos. 4-5-6 and 7	.55
Idler Pulley castings for No. 5	1.50
Tightening pulley casting for Nos. 6 and 7	1.75
Gauge for No. 1 Ripping Table	.35
Gauge for No. 2 Ripping Table and larger	.85

ENGINE AND SAW TRUCKS



Capacity	1200 lbs.
Front wheels	24" x 4"
Rear wheels	30" x 4"
With brake and shafts, as shown above	\$30.00
With brake pole, double tree and yoke	\$33.00

HEAVY ENGINE TRUCK

Capacity	1800 lbs.
Front wheels	24" x 4"
Rear wheels	30" x 4"
With brake pole, double tree and yoke	\$43.00
If brake is not wanted, deduct	\$ 3.30

UNIVERSAL WOOD SPLIT PULLEY With Interchangeable Bushing



Furnished complete with bushings and guaranteed to run perfectly true on the shaft.

Wood split pulleys do not require either key seat or set screws. They fit to the shaft by compression and will pull equally as heavy a load as an iron or any other kind of a pulley without slipping.

We recommend the use of Wood Split Pulleys in all dry places.

PRICE OF UNIVERSAL WOOD SPLIT PULLEYS

Diam.	Face									
	3	4	5	6	7-8	9-10	11-12	13-14	15-16	
4"	\$1.10	\$1.15	\$1.20	\$1.30	\$1.50	\$1.60	\$1.75			
5"	1.10	1.15	1.25	1.35	1.50	1.70	1.80			
6"	1.15	1.15	1.25	1.35	1.55	1.75	2.00			
7"	1.15	1.18	1.30	1.40	1.60	1.80	2.02	2.25		
8"	1.15	1.20	1.35	1.45	1.65	1.90	2.10	2.35		
9"	1.20	1.30	1.40	1.50	1.75	2.00	2.25	2.50		
10"	1.25	1.35	1.45	1.60	1.85	2.15	2.40	2.65	2.95	
11"	1.35	1.40	1.60	1.75	2.05	2.35	2.65	2.95	3.30	
12"	1.45	1.55	1.75	1.90	2.25	2.60	2.95	3.30	3.65	
13"		1.65	1.85	2.05	2.45	2.80	3.10	3.60	4.00	
15"		1.80	2.00	2.20	2.60	3.05	3.45	3.90	4.30	
16"		2.00	2.25	2.50	3.00	3.50	4.00	4.50	5.00	
17"		2.15	2.40	2.65	3.20	3.75	4.25	4.80	5.35	
18"		2.25	2.50	2.80	3.40	4.00	4.55	4.15	5.70	
19"		2.35	2.65	3.00	3.60	4.20	4.80	5.45	6.05	
20"		2.45	2.80	3.15	3.80	4.45	5.10	5.75	6.40	
22"		2.70	3.05	3.45	4.15	4.90	5.65	6.35	7.10	
24"		3.00	3.40	3.80	4.65	5.50	6.35	7.20	8.05	
26"		3.25	3.70	4.20	5.15	6.15	7.10	8.05	9.00	
28"		3.50	4.04	4.60	5.65	6.75	7.80	8.90	9.95	
30"		3.80	4.35	4.95	6.15	7.35	8.55	9.75	10.95	
32"		4.05	4.70	5.35	6.80	8.00	9.30	10.60	11.90	
34"		4.35	5.05	5.80	7.20	8.50	10.05	11.50	12.90	
36"		4.70	5.45	6.10	7.75	9.30	10.85	12.35	13.90	

IMPROVED READING WOOD PULLEY Iron Center



For price of wood split iron center pulleys, add 40 per cent. to the above prices. For example, we will take the 18" diameter with 4" face. The price is \$2.03—now by taking 40 per cent. of \$2.03 makes 81 cents, which added to \$2.03 makes the price \$2.84 or the price of the iron center pulley.

When ordering pulleys, state diameter of pulley, width of face, whether straight or crown face, diameter of shaft, and whether split or solid pulley is wanted.

Pulleys cannot be returned as they are made to order.

Prices will be quoted on larger sizes on application.

Pulleys having square holes an additional charge of 40c per wheel will be made.

All pulleys will be shipped direct from our factory in central Pennsylvania.

STANDARD MACHINE MOULDED IRON PULLEYS

They are bored, turned and balanced, with key seat or set screws. If bore is special size or is large in comparison with size of pulley, or if both key-seated and set-screwed, an extra charge will be made.

Diam.	3	4	5	6	8	10	12	14	16
4	1 25	1 60	1 50						
5	1 30	1 50	1 60	1 80					
6	1 50	1 60	1 80	1 90	2 30				
7	1 60	1 70	1 90	2 05	2 50				
8	1 70	1 80	2 05	2 30	2 75				
9	1 80	2 05	2 15	2 40	3 80				
10	1 85	2 10	2 20	2 45	3 90	4 20			
12	1 90	2 25	2 40	2 50	3 00	4 75	5 45		
14	2 05	2 30	2 45	2 75	3 25	5 40	6 25	7 25	
16	2 25	2 45	2 75	3 05	5 10	6 70	7 15	8 30	9 50
18	2 50	2 80	3 10	3 45	5 80	6 95	8 15	9 50	10 75
20	2 80	3 10	3 45	4 00	6 25	7 50	9 50	10 50	11 75
22	3 05	3 45	3 75	4 30	7 50	9 00	10 50	13 00	14 00
24	3 40	3 75	4 30	4 80	8 50	10 00	11 50	14 00	15 50
26	3 75	4 30	4 80	5 35	9 50	11 00	12 50	15 00	17 00
28	4 20	4 80	5 35	5 90	10 25	12 25	14 00	18 00	18 50
30	4 75	5 35	5 90	6 60	11 00	13 50	15 50	19 75	21 00
32	5 30	5 90	6 55	7 40	12 50	14 50	17 00	20 50	23 50
34	5 90	6 50	7 10	8 00	13 50	16 00	18 75	21 85	25 00
36	6 50	7 10	8 00	8 75	14 50	17 50	20 60	23 50	27 00

VALVES

POWELL BRASS BODY GLOBE, ANGULAR AND CHECK VALVES

Size in inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Price, Globe, each	\$1.20	1.35	1.75	2.40
Price, Angle, each	1.20	1.35	1.75	2.40
Price, Check, each			1.45	2.10
Size in inches	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	
Price, Globe, each	\$3.00	4.40	6.00	
Price, Angle, each	3.00	4.40	6.00	
Price, Check, each	2.86	3.00	5.50	

Parts for Powell Valves

Size in inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Discs, each	\$.05	.05	.05	.06
Size in inches	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	
Discs, each	\$.08	.10	.15	

STANDARD GLOBE, ANGLE AND CHECK VALVES

Brass Body

These valves are of good weight, well proportioned and will stand very heavy pressure.

Size in inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Price, Globe, each	\$.40	.40	.45	.55
Price, Angle, each	.40	.40	.45	.55
Price, Check, each			.40	.50
Size in inches	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$
Price, Globe, each	\$.77	1.10	1.55	2.20
Price, Angle, each	.77	1.10	1.55	2.20
Price, Check, each	.70	1.00	1.35	2.10

Our standard black and galvanized wrought pipe is of the very best quality. Due to the variation of prices, we solicit your inquiries and are in a position to save you considerable money on pipe, especially so on mill shipments direct to you.

GAUGES AND GAUGE COCKS

Compression Gauge Cocks



$\frac{3}{8}$ inch, each \$.45
 $\frac{1}{2}$ inch, each50

Brass Steam Stop Cocks



$\frac{1}{2}$ inch \$1.25
 $\frac{3}{4}$ inch 1.75
 1 inch 2.20

Water Gauges



Solid brass body, complete with $\frac{1}{4}$ inch connection, 2 guards \$1.70
 Upper valve for gauge90
 Lower valve for gauge, with drip cock 1.10
 Brass rods for gauge, each08

Drip Cocks



$\frac{1}{4}$ inch \$.22
 $\frac{3}{8}$ inch25
 $\frac{1}{2}$ inch30

Air Cock, Bent Nose



$\frac{1}{4}$ inch \$.30
 $\frac{3}{8}$ inch35
 $\frac{1}{2}$ inch40

POP SAFETY VALVES

When you buy a Safety Valve for your engine you want one that is reliable—one that you can depend upon. We can conscientiously recommend and guarantee our Pop Valve to fill the bill in every respect.

1 inch, for 5 to 10 H. P. Engines \$3.60
 1 $\frac{1}{4}$ inch, for 10 to 20 H. P. Engines 4.40
 1 $\frac{1}{2}$ inch, for 20 to 30 H. P. Engines 5.60
 2 inch, for 30 to 40 H. P. Engines 8.50

STEAM GAUGES

carefully made and are designed for all classes of service where it is desired to indicate pressure accurately. The double spring gauge is best suited for traction engines, or any service where the jar is severe.

These gauges are well and Single Spring Gauge without siphon, $\frac{3}{4}$ inch dial \$2.50
 Single Spring Gauge without siphon, 5 inch dial \$2.50
 Single Spring Gauge with brass siphon, with cock, $\frac{3}{4}$ inch dial \$3.75

Single Spring Gauge, with brass siphon, with cock, 5 inch dial \$4.75
 Double Spring Gauge, without siphon, $\frac{3}{4}$ inch dial 4.50
 Double Spring Gauge, without siphon, 5 inch dial \$4.00
 Double Spring Gauge, with brass siphon, with cock, $\frac{3}{4}$ inch dial 5.50
 Double Spring Gauge, with brass siphon, with cock, 5 inch dial 5.50



Solid brass, nicely finished, producing three distinct, harmonious and musical sounds, which can be heard at a great distance.

2 in. bell, $\frac{3}{4}$ in. pipe connection	\$ 4.30
2½ in. bell, $\frac{3}{4}$ in. pipe connection	5.75
3 in. bell, 1 in. pipe connection	6.80
4 in. bell, 1 in. pipe connection	11.50
5 in. bell, 1½ in. pipe connection	17.00

Plain Whistles

2½ in. bell, $\frac{3}{4}$ in. pipe connection	\$ 3.25
3 in. bell, 1 in. pipe connection	4.25
3½ in. bell, 1 in. pipe connection	6.25
4 in. bell, 1½ in. pipe connection	7.75
5 in. bell, 1½ in. pipe connection	11.50



Chime

D

SPECIAL HIGH GRADE DRY CELL BATTERIES

With high amperage, for engine ignition purposes.

Price, each 45c.



UNITED STATES INJECTOR



No. 1, 4 to 8 H. P., $\frac{3}{4}$ inch pipe connection	\$5.30
No. 2, 8 to 16 H. P., $\frac{1}{2}$ inch pipe connection	6.00
No. 3, 15 to 20 H. P., $\frac{1}{2}$ inch pipe connection	8.00
No. 4, 20 to 30 H. P., $\frac{3}{4}$ inch pipe connection	9.00
No. 5, 30 to 40 H. P., $\frac{3}{4}$ inch pipe connection	11.50
No. 6, 40 to 60 H. P., 1 inch pipe connection	15.00

ALL BRASS STRAINERS

iron pipe by the use of a short piece of
Iron pipe threads, suitable for hose or
pipe or nipple.

Pipe sizes, in.	$\frac{1}{8}$	$\frac{1}{4}$	1	1½	2
Price, each	.35	.40	.45	.50	.70



THE "SWIFT" SINGLE CONNECTION SIGHT FEED LUBRICATOR



This Lubricator is designed for use where it is desirable to attach with only one connection to the steam pipe. It is so constructed that it will feed any oil, no matter how heavy, even in exposed conditions in cold weather. Owing to the reliability of lubricators of this class under these conditions, more of them are used on threshing engines in cold climates than all other makes combined.

The ease with which this style of lubricator can be connected and disconnected has helped to make it a favorite with all classes of the trade. It is designed to be connected to the steam pipe between the throttle valve of the engine or pump and the boiler, thus insuring a steady pressure on the lubricator. Many thousands of these lubricators are in use, not only upon threshing engines, but also on all kinds of portable and stationary engines, steam pumps, etc., both in the United States and foreign countries.

Class F, capacity $\frac{1}{2}$ pint	$\frac{3}{4}$ inch pipe connection.	Price	\$3.25
Class F, capacity $\frac{1}{2}$ pint	$\frac{3}{4}$ inch pipe connection.	Price	3.50
Class F, capacity 1 pint	$\frac{1}{2}$ inch pipe connection.	Price	5.00

We carry in stock a full line of repairs for the Swift Lubricators

AUTOMATIC COMPRESSION GREASE CUPS

These Grease Cups are made heavy and strong, nicely finished, and are adapted for use on all classes of bearings where grease is used as a lubricant.

Number	1	2	3
Diameter	inches 1½	2	2½
Height over all	inches 3½	4½	4½
Pipe Thread	inches ¾	¾	¾
Capacity	ounces ¼	1½	2
Finished	each 65c	75c	95c



PLAIN SPRING GREASE CUPS

This is a simple grease compression cup, with a spring attachment to prevent the cup from jarring off. First designed for automobile use, but it is equally as well adapted to all machinery subject to excessive vibration.

Size	00	0	1	2
Outside diameter .. inches	1	1½	1½	2
Shank pipe thread, inches	¾	¾	¾	¾
Capacity grease .. ounces	¾	¾	1	2
Price	each 30c	35c	40c	50c

Highest Grade Steam Boiler Tubes

Price cut, ready to length for your boiler on application. Get our prices before ordering.

PACKINGS FOR STEAM ENGINES

Grendall's Spiral Piston we carry in 3-16 in., 1-4 in., 5-16 in., 3-8 in., 7-16 in., 1-2 in.	
Price, any size, per lb.	\$1.00
Rubber Sheet Packing, will cut any quantity across 36 in. sheet; thickness, 3-32 in.	
Price, per lb.	\$.75
Asbestos Sheet Packing, 3-32 in. thick with wire inserted, cut any size across 36 in. sheet.	
Price, per lb.	\$1.70

WESTCALL ADJUSTABLE S WRENCHES

STILSON WRENCHES



These wrenches have been extensively used and widely advertised among threshermen. They are drop forged from bar steel and are interchangeable in all their parts.

They do not lock upon the pipe, but release their hold readily; they grip the pipe firmly without lost motion; they do not crush the pipe nor slip. The movable jaw and the nut are made with a round top and bottom thread, guaranteed not to strip or burr.

8 in. takes pipe from ¾ to 1 in.	\$.85
10 in. takes pipe from ¾ to 1¼ in.	\$.95
14 in. takes pipe from ¾ to 1½ in.	\$1.25
18 in. takes pipe from ¾ to 2 in.	\$1.65
24 in. takes pipe from ¾ to 2½ in.	\$2.50

PARTS FOR STILSON WRENCHES

Size, inch	8	10	14	18	24
Extra Jaws, each	\$.40	.40	.50	.65	1.00
Extra Nuts, each	.15	.15	.20	.25	.35

WESTCALL ADJUSTABLE S WRENCHES

6 in. opens to ¾ in.	Price, each	\$.50
8 in. opens to 1 in.	Price, each	.65
10 in. opens to 1¼ in.	Price, each	.80
12 in. opens to 1½ in.	Price, each	1.00

The "Westcall" Wrench is acknowledged to be the most convenient and most useful Wrench for general use, and can be used in many places inaccessible with the Monkey Wrench. These wrenches are made of first-class material, are strong and durable. Handle, malleable iron; jaw, forged steel.



\$1.05 ANVIL AND VISE COMBINED

No. 24—Anvil and Vise combined, with jaws for holding pipe; jaws are 3 in. wide; opens 5 in.; weighs 24 lbs. The base is of cast-iron and is intended only for medium or light work. Usual value of \$1.25 and up. Each



\$1.30

Smoke Stack and Guys

Diameter of Stack, inches	8	10	12	14	16	18	20	22
No. 16 Iron, per foot	.57	.62	.66	.70	.75	.79	.84	.89
" 14 " "	.80	.84	.88	.92	.97	1.01	1.06	1.10
" 12 " "		1.01	1.14	1.22	1.26	1.30	1.45	1.54
" 10 " "			1.05	1.58	1.71	1.84	1.97	2.10
Galvanized Wire Rope for Guys, per foot	.02	.02	.02	.02	.02	.02	.02	.02
Damper in Stack	2.20	2.42	2.64	2.84	2.64	2.82	3.02	3.22
Umbrella, Ton for Stack	2.20	2.20	2.64	2.84	2.64	2.82	3.02	3.22



We carry a large stock of Grate Bars for all different styles and types of boilers. Write us at once, giving us the size of fire box, stating whether round or square, "Straight Bar" or "Zigzag" Bars are wanted and we will name you a price that will get your order.

Has smooth face highly chilled anvil so as to prevent denting.

Weight, lbs.,	20	50	70	100
Price	\$.80	\$ 2.75	\$ 3.50	\$ 4.50

Wheelbarrow Engine Truck



Suitable for engines up to 3 H.P. Can be bolted to any engine skids. By using these fixtures, you can mount any small engine, making it portable. Lag screws can be placed in the feet to make it stationary. Can be turned in its own length, and is much handier than a four-wheeled truck. The bolster can be located on engine skids to give proper balance. Plank shown in illustration is not furnished.

Wheelbarrow Truck. Weight, 35 lbs. Price	\$3.50
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Engine Truck

FOR ENGINES NOT EXCEEDING 450 LBS. IN WEIGHT

The handiest, most economical and most useful little truck for use about the farm, especially adapted to portable gasoline engines and serviceable for other kinds of light hauling.

It is made exceedingly strong and is easily handled.

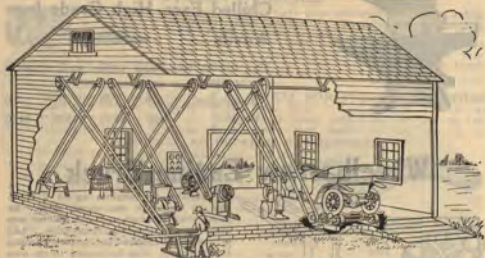
Wheels are iron, 11" in diameter with 1 1/4" wide tires. Platform is 36" long by 16" wide, but by laying boards on top, any width or length of platform may be obtained, as the wheels are under the platform. Has strong hand tongue, and steel axles. Strong turn table, allowing front wheels to turn under platform. Weight, 70 lbs. Hand Truck. Price \$4.00



FOR GASOLINE AND KEROSENE ENGINES, STEAM ENGINES AND BOILERS

Write us stating just what you are interested in, and the purpose you want to use it for, and we will mail you special valuable information and prices. Hertzler and Zook Co., Power Dept., Belleville, Pa.

How to Reduce Labor and Make Farm Life a Pleasure



This cut will show you how to hitch up your automobile, and how to make the hard and disagreeable jobs on the farm a pleasure.

The above illustration will at least give an idea as to how you can do many of the disagreeable jobs on your farm, and do them well with pleasure, by the use of the AUTO JACK.

The machines on opposite page, reading from left to right, are as follows:

- 1st—The Hertzler & Zook Wood Saw, the one that leads the world today.
- 2nd—A grindstone.
- 3rd—The Hertzler & Zook Improved Burr Mill, for grinding feed.
- 4th—Wash Machine.
- 5th—Churn.
- 6th—Corn Sheller.

7th—Cream Separator.

8th—The Auto Jack, that drives it all and enables you to convert power from your auto to the different machines.

9th—The Dynamo, which makes the electric light to light all your different buildings.

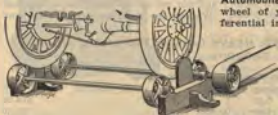
The Auto Jack can be used successfully portably and may be used at any place, but when placed in the building where the machine is store, located as shown in above illustration, it can be put to use without stopping the motors and by the aid of 3x4" scantlings nailed on the floor, making guides for the front wheels, which enables you always to locate at the same and proper place.

This cut shows our late design Auto Jack in use with a delivery truck. A glance at the cut will show its great value. It is impossible to give an exact rating of just how much power may be developed, as very much depends on the conditions. In an actual brake test made in our factory, with a 30 H. P. Touring Car, $7\frac{1}{2}$ actual horse power was developed on the belt with the intermediate speed gear.

AUTO JACK



PRICE \$18.50



This cut shows the Jack in use with the Automobile. Instead of blocking up the one wheel of your auto and wearing out your differential in order to get power on your belt you simply run on the Auto Jack and you are ready for business without running any chance of injuring a high price car. This Jack is not injurious to either car or tire as the weight each wheel has to support is divided in two. It will only be a matter of a very short

time until the farmer will get all his power for sawing, grinding, threshing, etc., from the auto or truck. Here is what a customer say

Hertzler & Zook Co., Belleville, Pa.

Dear Sirs:—The Auto Jack I purchased a year ago has given perfect satisfaction. Would not be without one for sawing wood as I had a small steam engine before I got your Auto Jack, and now I can saw a large quantity of wood while I would get my steam engine ready. With my 14 H. P. Auto Buggy and your No. 1 Wood Saw and Auto Jack we sawed wood as fast as two men got it to the saw. I have tried it on my feed mill and it is very satisfactory power.

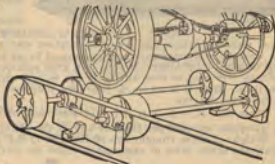
When ordering, state whether you want it for an Auto or Truck or both, and we will give you pulleys best suited to your work. It will also help us if we know what machines you wish to run with it.

Price, with high grade babbit bearing, shipping weight, 290 lbs.

\$18.50

Price on Jack with a high grade of roller bearings enclosed in dust proof casings finished in highest grade of workmanship, shipping suitable for heavy Touring Cars,

shipping weight, 255 lbs. **\$40.00**



HAND ENGINE TRUCKS

On account of making a cushion to take up the jar of engine we recommend wood beam instead of steel.

These trucks are made strong and for service. Front wheels 12 in. high; rear, 14 in.; top of wood beams 14 in., 28 in. tread.

Regular lengths of sills, 5½ feet; any length shorter, same price.

Price as shown \$10.00

Shipping weight, 175 lbs.

We have some customers who wish to build their own truck to suit their own special requirements

In order to fill this requirement we will furnish all irons, castings and bolts for this hand engine truck for \$7.00



OUR TROUGH DEPARTMENT



Our troughs are all made in our own factory and our prices are based on actual cost of material and labor and just one small profit. We cut the pudding right in two and give our farmer friends a big half.

FLAT TOP, ROUND-CORNERED, HEAVY GALVANIZED STEEL STOCK TROUGHS

With Cast Iron Heads and Flat Bottoms

31—10 in. top, 13 in. bottom, 12 in. deep	32—25 in. top, 18 in. bottom, 16 in. deep
4 feet long \$ 6.50	5 feet long \$12.00
5 feet long 7.00	6 feet long 13.50
6 feet long 9.00	8 feet long 16.00
8 feet long 10.00	10 feet long 20.00
10 feet long 11.00	12 feet long 23.00
12 feet long 12.50	

CAST IRON HOG TROUGHS

Prices are within reach of all



No. 22

Any man who raises pigs or shoats cannot afford to do without them.

At this age greater attention is being paid to the raising of hogs than ever before, and our hog troughs im-

proved these conditions, and are of the highest standard, made of cast iron well braced with wrought iron cross bars and guaranteed by us not to burst from freezing.

Send us your order today. If your own good judgment doesn't tell you they are the best you have ever used or seen, advise us and we will give shipping directions for you to return them. Here it is all up to your own judgment. These troughs are furnished in the following lengths:

Three ft., 4 ft., 5 ft., 6 ft., 7 ft. and 8 ft. Size of trough, 12" top, 2" bottom, 6" deep. No. 33—price 45 cents per foot for any of the above lengths.

Weight of these troughs run 16 lbs. and 17 lbs. per foot. The above named price is only the actual price of castings.

CAST IRON POULTRY TROUGHS

Made in our own foundry and sold direct to you. The price we ask is cost of material and only one small profit, no middleman's profit. These troughs have all the advantages a poultry trough can have. They will not upset nor spill the contents, neither will they break by freezing. To remove any ice, invert and pour warm water on and your trough is empty and clean.



Each	No. 34—Size, 9 in. long, 5½ in. wide, 1¾ in. deep.	\$0.18	Per dozen	\$2.00
Each	No. 35—Size, 16 in. long, 5½ in. wide, 1¾ in. deep.	\$0.50	Per dozen	\$5.50
Each	No. 36—Size, 29 in. long, 7 in. wide, 3 in. deep.	\$0.60	Per dozen	\$6.75

THE HERTZLER & ZOOK GRIT CRUSHER

A heavy cast iron mortar with extra heavy removable perforated bottom, made to give long service. Granite, limestone or boulders readily reduced to proper grit size.

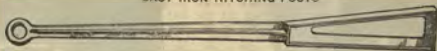
Poultrymen have long felt the need of a strong, reliable grit crusher. Here it is, a half-hour's work will crush enough grit to supply a large flock several weeks. You can gather the material for nothing. Ready prepared grit is expensive owing to heavy freight charges. With a Hertzler & Zook Grit Crusher you can give poultry grit every day. It means better health, more eggs, thriftier fowls.

The mortar is 10 inches in diameter, 10 inches high, weight 50 pounds.

Order one for your poultry yard today. If you are not pleased, you can return it, and we will return your money, and besides, pay freight both ways. You are taking no chances. Neither are we, for if you try it we know you will like it.

No. 39—Price..... \$2.25

CAST IRON HITCHING POSTS



Strong, Durable, Handsome, Cheap.

Never Rots or Pulls up.

The Best is Not too Good for the American People.

Is made neat and very strong.

No. 23—Price \$3.00



HITCHING-WEIGHTS

Solid iron, nicely finished and painted hitching-weights.

No. 24, weighs 18 pounds \$.75

No. 25, weighs 40 pounds 1.50

SASH WEIGHTS

Cast iron sash weights, eastern patterns, all sizes 2½ cents per pound.

Lead sash weights, all sizes to specifications.

Price on Application

Champion Post Drills

BALL-BEARING SELF-FEED DRILL.

No. 90 BALL-BEARING SELF-FEED DRILL.

No. 92 BALL-BEARING DRILL.



Three Gears. Two Speeds. Crank turns in same direction on both the speeds. Back gears with double journal bearings. All ground out of the solid metal. Drills to center of 16-inch circle. Spindle 1 1/4 inches in diameter, with an up-and-down run of 3 1/2 inches. Bored for 1 1/2-in. shank bits. If specially ordered, 41-64-in. Drills holes up to 1 1/4 in.

Champion self-feed blacksmith post drill with ball bearings; weight 130 lbs.
Price \$ 9.50

No. 90 has one speed and is back-gear. All bearings are ground out of the solid metal. Slotted lathe-turned table like all higher priced drills. Drills to center of 14 1/2 inch circle. Spindle 1 1/8 inches in diameter, with up-and-down run of 3 inches. Bored for 1-2 in. straight shank bits. If specially ordered, 41-64 inch. Drills holes up to 1 inch.

No. 90—Champion self-feed post drill with ball bearings; weight 100 lbs.
Price \$ 6.60

No. 92 has hand feed, without fly wheel or back gearing. Drills to center of 12-inch circle. Spindle 7/8 inch in diameter, with up-and-down run of 3 inches. Bored for 1-2 inch straight shank bits. If specially ordered 41-64 inch.

No. 92—Champion hand-feed post drill with ball bearings; weight 65 pounds.

Price \$ 4.15

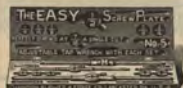
The Champion "Easy" Screw Plate

Every set is furnished with the celebrated electric adjustable tap wrench. All our taps are machine-relieved.



No. 1b Plate Complete in Box. Has two stocks, one 15 1/2 in. long for the first two sizes, one 23 in. long for the largest sizes. Cutting 1-4", 3-8", 1-2", 5-8", 3-4" \$6.95

No. 1b Plate Complete in Box. Length of stock, 15 1/2 in. Cutting 1-4", 5-16", 3-8", 7-16", 1-2" \$6.10



No. 5B, Plate Complete in Box. Has two stocks, one 15 1/2 in. long for the first four sizes, one 23 in. long for the larger sizes. Cutting 1-4", 5-16", 3-8", 7-16", 1-2", 5-8", 3-4", \$8.15



No. 7B, Plate Complete in Box. Has two stocks, one 15 1/2 in. long for the first four sizes, one 26 in. long for the larger sizes. Cutting 1-4", 5-16", 3-8", 7-16", 1-2", 5-8", 3-4", 1", \$13.25

Unless otherwise ordered, we will send all Screw Plates 1-32 oversize V thread. Can supply Screw Plates with exact sizes, V, U. S. Standard, A. L. A. M. or Whitworth form of thread, at regular prices, when ordered.

The Champion Lancaster Geared Agriculture Forge

The Champion Lancaster Geared Agricultural Forges are well built, direct drive forges, and are good blast producers. All gears are supplied with bushed journal bearings, built to run smoothly and noiselessly. All gears are enclosed in dust proof casing and crank turns in either direction.



No. 45 Champion Lancaster Geared Direct-Drive Agricultural Forge. Hearth 22 in. in diameter, fan 10 in., with shield. weight 115 lbs. \$10.75

No. 43 Champion Lancaster Geared Direct-Drive Agricultural Forge. Hearth 23x35 in., height 30 in., fan 12 in., with half wood, weight 170 lbs. \$16.50

Champion Agricultural Lever and Crank Forges

Champion Agricultural Lever and Crank Forges are good, well built forges for farmers use, or where light odd jobs are to be done.



No. 150 Champion Agricultural Lever Forge with shield, hearth 18 in., height 30 in., fan 8 in., weight 80 lbs. .. \$ 4.40

No. 151 Champion Agricultural Lever Forge, same as No. 150, with half hood, weight 85 lbs. \$ 4.70

No. 152 Champion Agricultural Crank Forge with shield, hearth 18 in., height 30 in., fan 8 in., weight 75 lbs. .. \$ 4.48

No. 153 Champion Agricultural Crank Forge, same as No. 152, with half hood, weight 80 lbs. \$ 4.75



Heavy Service Boxes

Made of gray iron babbitted and reamed. Not to be compared with the light boxes that are on the market.

For shaft in	1	1 3-16	1 1-4	1 7-16	1 1-2	1 11-16	1 15-16	2 3-16
Price each	\$.50	.60	.75	1.00	1.00	1.25	1.50	1.85

E356 Special Adjustable Hanger

Made especially for cream separator and wash room purpose. It can be used as shown in cut or may be inverted and ranges in length from 6 in. to 8 in. The box is of double ball type. Nothing better on the market for lining up and keeping in line at any price. Made for 1 3/8 in. size shaft only. Price each \$1.50



Fig 235

No. 209 Solid Drop Hanger



Specially well adapted for the chop mill and work shed being lined with heavy lining of babbitt metal, solid and simple. Has hard grease oiler. Does not spill or drop oil on the floor making fire risk greater. Has 9 in. drop made for any size shafting from 1 7-16 to 1 3-4 in. Give size shafting when ordering. Wt. 18 lbs. Price \$1.50

LANCASTER FRICTION PULLEY

Designed expressly for the cream separator and is attached to cream separator shaft.



No. 210 Adjustable Drop Hanger

Having 14 to 16 inch Drop

Size of Shaft.	Price.
1 7/16 in.	\$2.00
1 1/2 in.	2.25
1 5/8 in.	2.50
1 3/4 in.	3.25



ATTACHING

The pulley is attached to the Separator by removing the handle or crank, and attaching the pulley where the handle or crank was, and securing by a set screw.

ORDERING

All we want to know is the diameter of the shaft where the handle is attached, whether it is straight or tapered, diameter at both ends if tapered, and the length of the shaft outside of the bearing.

A few of the advantages of the "Lancaster" Friction Pulley are: 1st. That it may be attached to any make of dairy size Cream Separator. 2nd. When the pulley is once adjusted, it needs very little further adjusting outside of an occasional 1-6 to 1-4 turn of the hand wheel. 3rd. The friction may be released, allowing the pulley to run "loose" and the Separator to stop by giving the release wheel a 2-5 turn, which, however, does not affect the adjustment. 4th. With the pulley properly adjusted, it is positively not necessary for the attendant or operator to watch the Separator while getting up the speed.

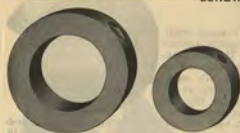
Weight of 12 in. Pulley, 18 lbs. Price of 12 in. Pulley \$7.30

Weight of 16 in. Pulley, 23 lbs. Price of 16 in. Pulley \$8.40

All prices F. O. B. Lancaster, Pa. Pulleys are shipped secure in boxes.

Every Pulley Guaranteed.

SOLID SAFETY COLLAR FINISHED ALL OVER WITH COUNTERSUNK SET SCREW HEADS



Inches.	Price.
1 1/16	\$.17
1	.20
1 7/16	.22
1 9/16	.22
1 7/8	.24
1 15/16	.30
1 11/16	.35
1 13/16	.40
1 15/16	.45

LINE SHAFTING

SMOOTH, FINISHED TO SIZE, POLISHED COLD ROLLED STEEL SHAFTING
In 20 Ft. Lengths, or Less; Cut to Order. No Charge for Cutting

Sizes, inches	3-4	1	1 3-16	1 7-16	1 11-16	1 15-16	2 3-16	2 7-16
Price, per ft.	\$.14	.26	.38	.55	.65	.90	1.10	1.32

SHAFT COUPLINGS

COMPRESSION COUPLINGS

For coupling shafting together. No key required

Sizes	3-4 in.	1 in.	1 3-16 in.	1 7-16 in.	1 11-16 in.	1 15-16 in.	2 3-16 in.
Price, per ft.	\$1.00	\$2.25	\$2.75	\$3.25	\$3.50	\$4.50	\$5.00



Price per lb.	\$.20
We also carry in stock, a grade of babbitt metal known as No. 4.	
Price per lb.	.20

Canvas, Leather and Rubber Belting

Stitched Canvas Belting



Our Stitched Canvas Belting is unaffected by atmospheric changes, uninjured by water or steam, and may be subjected to a degree of heat ruinous to other belting. It is, therefore, the best belting for outdoor use and for wet, damp or hot places. Made of special long fibre cotton duck, carefully stitched, and thoroughly stretched. Saturated in oil, Painted Red. Always remains flexible. Quality guaranteed.

SPECIAL ENDLESS BELTS—If belts are wanted endless, always allow the price of 3 feet extra to cover cost of lap and the labor. Usual delay, two to three weeks, to make endless at factory.

Four-Ply Red Stitched Canvas Belting	Width	Per foot	Width	Per foot
1 1/2 in.	8c.	6 in.	21c.	
2 in.	10c.	7 in.	24c.	
2 1/2 in.	12c.	8 in.	28c.	
3 in.	13c.	9 in.	31c.	
3 1/2 in.	14c.	10 in.	36c.	
4 in.	16c.	12 in.	41c.	
5 in.	18c.			

Six-Ply Red Stitched Canvas Belting	Width	Per foot	Width	Per foot
3 in.	19c.	8 in.	41c.	
4 in.	22c.	9 in.	46c.	
5 in.	27c.	10 in.	51c.	
6 in.	31c.	12 in.	60c.	
7 in.	36c.			

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. Each belt is made endless at the factory, and as it requires three feet to make the lap, therefore, each belt will measure just three feet short. For example, the actual net length of a 100-ft belt will be 97 ft. The following standard lengths are carried in stock and can make prompt shipment: 80, 100, 120, 130, 140, 150, 160-ft. Special lengths and sizes have to be made to order at factory and usually cause a delay of two to three weeks.

Four-Ply Endless Thresher Belts

Width, 6 inch, per foot	26c.
Width, 7 inch, per foot	29c.
Width, 8 inch, per foot	32c.



Lace Leather

Our lacing is nothing but the highest quality. Rawhide Cut Lace. Leather, by the foot, 100 feet. Suitable lengths for lacing belts. We do not sell less than a full bundle. $\frac{1}{4}$ inch, \$1.65; $\frac{3}{8}$ in., \$2.60; $\frac{1}{2}$ in., \$3.00; $\frac{5}{8}$ in., \$3.50.

Innerduck Leather Belting



In introducing our INNERDUCK LEATHER BELTING, we wish to impress upon our customers, and all users of Belting, that we have endeavored to overcome some of the difficulties encountered with ordinary Leather Belting for high speed work. It has also been our effort to eliminate the objectionable stretch, and still leave our Belting full of life. These two important and essential features have been built into our Belt.

Our Innerduck Belting is built up in such a manner that it will run on a small spindle at a very high speed, and with great flexibility. It will run straight. The core of the Belt, upon which the Leather is built, is of 46 ounce Duck of special weave and construction. Before the Leather is applied, the duck is thoroughly stretched and treated with a preserving compound. As in regular Leather Belting, the weight of the top and bottom ply of Leather determines the weight of the Belt, as to Single or Double. The duck core acts as a hinge, producing a belt of exceptional pliability and permits it to hug the pulley more closely than a Belt built in the usual way. The edge stitching also adds a valuable reinforcement to the Belt.

We emphasize, therefore, the following individual points, all of which have been proven out by actual service.

1. Actual tensile strength of Innerduck Belting is about 20% greater, as determined by actual test, than regular short lap stock.
2. Innerduck Belting will run absolutely straight on the pulley, producing fully 30% additional power efficiency.
3. Innerduck Belting is built to a perfect gauge, producing additional pulley contact and positively increasing the transmission of power.
4. Innerduck Belting has a very low percentage of stretch, only enough elasticity being left in the belt to give it life when it goes into service.

We guarantee this belting to be as represented.

Width in inches	Price per foot	Width in inches	Price per foot	Width in inches	Price per foot	Width in inches	Price per foot
1	.12	3	.38	5	.65	7	.90
1½	.18	3½	.42	5½	.70	8	1.00
2	.25	4	.50	6	.75	10	1.40
2½	.31	4½	.58	6½	.85	12	1.50

Above belting can be furnished in double leather size also in double and water proof. Price on application.

RUBBER BELTING Guaranteed To Be of a High Grade

2 inch, 3 ply—per foot	 \$0.11	6 inch, 4 ply—per foot	 \$0.32
3 inch, 4 ply—per foot	19	7 inch, 4 ply—per foot	34
4 inch, 4 ply—per foot	23	8 inch, 4 ply—per foot	44
5 inch, 4 ply—per foot	28		

If belt is to be made endless allow 3 feet for doing so, and three weeks time.

Belt Dressing



"EASE-ON"

This is a preparation carefully compounded exclusively from vegetable fibres best known for their preservative and adhesive qualities. It positively contains no chemicals, prevents absolutely all slippage, keeps Belts soft and pliable, relieves all strain on shafting, insures against hot bearings and all waste of Belt power, and will add materially to the life of a Belt. We guarantee its efficiency for Leather, Canvas and all kinds of Belting, Ropes and Cables. For convenience of the trade EASE-ON is put up in Bar and Paste form as follows:

Put in up 1 Pound Bars and 5 lb. Screw-Top Tin Cans.

Trade Mark Reg. U. S. Pat. Office.

Price per bar, 30c. Per 5 lb. can, \$1.50.

ATLANTIC CUP GREASE—Only the very best grade carried in stock. Put up in 10 lb. cans with tight lid and bale. Price, per 10 lb. can \$1.25

HIGH GRADE LUBRICATING OILS FOR ALMOST EVERY PURPOSE—Special high grade oils at exceptionally low prices. Shipping weights of oils run about as follows: bbl., 400 lbs.; 1-2 bbl., 250 lbs.; 5 gal. cans, 40 lbs. No extra charge for cans or barrels.

Hertzler & Zook Red Engine

Barrels, about 52 gallons, per gal.	27	Barrels, about 52 gal., per gal.	36
1-2 Bbls., about 28 gallons, per gal.	30 1-2	Bbls., about 28 gal., per gal.	40
5 gallon can, per can 1.75		5 gallon cans, per can 2.25	

Harvester Oil

Barrels, about 52 gallons, per gal.	25	Barrels, about 52 gal., per gal.	33
1-2 Bbls., about 28 gal., per gal.	28	1-2 Bbls., about 28 gal., per gal.	35
5 gallon cans, per can 1.75		5 gallon cans, per can 2.00	

Steam Engine Cylinder Oils

Gas Engine Cylinder Oil

Cast Stone Boat Heads—\$2.50



This stone boat head is a single heavy casting. Has shoulder to fit ends of three to four inch planks and holes to fasten them with bolts. There are six holes for bottom boards and four for side strips.

Attach bottom boards, bolt them fast, attach side strips and end piece and stone boat is complete. Get a boat casting, and make your own stone boat and save

freight charges. No. W19, wt. 75 lbs. Price \$2.50

Expressions made by Hardware Dealers over the country

"As the farmers become more progressive they are going to use more tools and with the gasoline engine on nearly every farm they are going to have a circular wood saw to attach to work up the wood which they are now raising on their own farms and the refuse."

"I notice farmers about here are using the portable circular saws more and more each winter to saw up their wood. Usually a farmer or some one else who has a circular saw, saws for several farmers. The old cross-cut isn't very much around here."

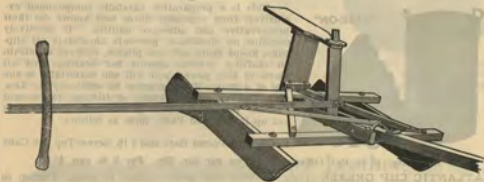
"Time is short for everything now and there will be more circular saws in a few years than there is now, because you can't get a man who wants to saw with a buck saw and the farmer has so much other work to attend to he hasn't the time."

The above clippings are real expressions made by the different Hardware Dealers over the country. Which is ample proof that the Hertzler & Zook line of Wood Saws leads the market today. The above illustration shows the old and the New Way of sawing wood; the new way is very general in many parts of the country.

Our line of Wood Saws this year is greater than ever before. Let us send you one to try out? Order it now.

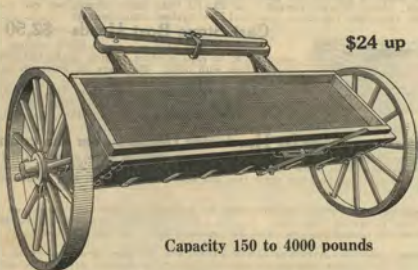
HERTZLER AND ZOOK MARKER

A simple and inexpensive tool adapted especially for marking off corn rows and also very desirable for any crop planted in rows. In fact you can make your field almost as perfect as a checker board. The runners have grey iron points, are amply



long to insure straight rows, having shoe on rear enabling the operator to make a wide or narrow furrow. Has a seat provided in center enabling the operator to make straight rows and do it with ease. Has a variable gauge to use on either side adjustable to the width of row desired, and when not in use will stand straight up out of the way firmly fastened by the special latch, provided for the purpose. Shipping wt. 125 lbs. Price \$3.80

Low Down Force Feed Lime Sower



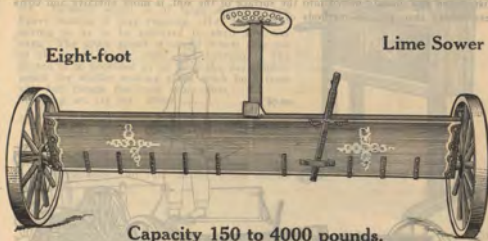
\$24 up

Capacity 150 to 4000 pounds

This cut shows our 5-foot overall spreader for vineyard use, also 3-foot hopper. Simple, strong and durable. This sower or broad caster is strongly built of good material and workmanship and sold absolutely on its merits that if it does not sow (Commercial fertilizer, Hydrated Lime, Pulverized or ground lime, Ground Lime rock, Plaster Ashes, Cotton seed meal, etc.) to your entire satisfaction you can return it at our expense as per our guarantee.

In order to supply the long looked for spreader for vineyard purpose, we make this spreader in two sizes, 5-foot overall and 5-foot hopper.

No. 83.	3 ft. 7 in., capacity 5 bu., 375 lbs., with shafts, no screen	\$24.00
No. 84.	3 ft. 7 in., capacity 5 bu., 400 lbs., with shafts and screen	26.40
No. 85.	5 feet, capacity 7 bu., 400 lbs., with shafts, no screen	25.00
No. 86.	5 feet, capacity 7 bu., 425 lbs., with shafts and screen	27.50



Capacity 150 to 4000 pounds.

Capacity 150 to 4000 lbs. This sower or broad caster is strongly built of good material, is simple in construction and is made to last, and is one of the best paying investments any farmer or gardener can make. The above illustration shows the rear view, showing the lever whereby the operator can set the flow to the desired amt. per acre and after this is found the adjustment is made permanent by a thumb screw and lock casting and may be closed off entirely or changed to any amount under the set amount to be sown without losing the former adjustment. No gears, clutches, chains, sprockets, or in fact anything to get out of order. The eight-foot sowers are sold with or without screen as shown in the illustration of the five-foot sower only on the eight-foot sizes they are made in two sections and need only to be used when obstructions are found in that which is to be sown.



This cut shows the simplicity of the sower. The heads of the hopper are of cast iron being a part of the end bearing through which the agitator shaft runs and upon which the weight is carried. Braces run from these heads to the double-tree bolt in the tongue relieving the strain from the body and is shown in the following illustration.

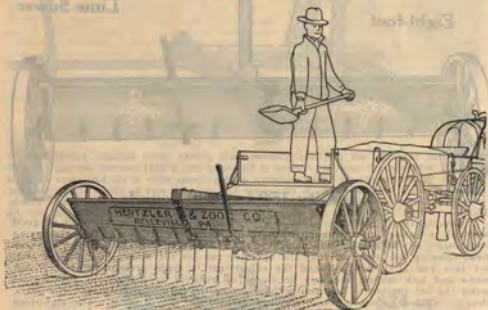
WHEELS—The wheels are made of hand shaved and driven spokes, 3 in. iron rim, 34 inches in diameter, each wheel consisting of a cast iron hub with ratchet making a permanent, direct drive from each end avoiding any missing or skipping.

This illustration shows very distinctly the inside of the hopper as well as the impossibility of any bridging or choking. The agitator consists of eight iron bars well locked together by four interior hubs with lock wedges and washers.

BOTTOM—The bottom consists of heavy sheet steel with a number of holes very close together enabling the operator to sow perfectly any quantity within the limit of capacity of the sower.

THE BEST METHOD TO DISTRIBUTE LIME OR COMMERCIAL FERTILIZER

It has been proven that a smaller quantity of lime, properly and more frequently distributed and quickly mixed into the surface of the soil, is more effective and costs less money than the old methods of application.



In the above illustration we show our latest method of applying lime and fertilizer. This method has been thoroughly tried out and approved as being the best way to apply lime. As you will see from the above illustration, the wagon is loaded with lime, or the material to be applied, and instead of hauling it to the field and putting it on heaps, and then loading into the sower, we simply have arranged a short tongue with a hitch to the coupling pole

METHOD OF HITCH



or axle of the wagon, then with a driver, and one man to keep the sower full as it moves across the field, the contents of the wagon are shoveled into the sower, and it is evenly distributed until the load is on the field. Then, by uncoupling, the sower may be left in the field until another load is secured, and the operation is repeated. This enables the sower to keep lime in the shelter until sown, and is not subject

to the heavy losses frequently experienced by the lime getting wet just before it is applied and thereby losing much of its value.

No.	Length	Capacity	Ship Wt.		
87SH	8 ft.	11 bu.	430 lbs.	less seat and screen with short hitch for back of wagon	\$30.00
87	8 ft.	11 bu.	450 lbs.	Less seat, double tree, yoke, and screen	\$30.00
Doubletree and yoke					2.50
Screens					1.65
Seat and spring					1.93

One Hole Corn Sheller

Known to be the most prominent sheller on the market. It meets the full requirements and needs of the average farmer. It is well built, runs easy and does first class work. Frame work is made of hard wood strongly bolted together making a firm, well-made sheller. Balance wheel is of large diameter and heavy making it easy running. Has adjustment spring so as to be adjusted to shell any size ears. The grain spout is on fly wheel side out of the way of the cobs and operator. The screen is so provided as to drop the dust underneath the sheller making clean work both from cob and cleans the corn from dust.

Shipping wt. 115 lbs. Price \$7.00



Two Hole Corn Sheller

This sheller is well built of good material neatly finished in a workman like manner. Has a large capacity and runs easily. This sheller



may be run by hand but is more frequently used in connection with a small gasoline engine.

It is built to meet the demand of those who desire larger capacity than found in the one hole sheller.

Has a large diameter fly wheel with $17\frac{1}{4} \times 3\frac{1}{2}$ in. face pulley. No belts or sprocket chains to get out of order. The rub irons and springs can be adjusted to the different size of corn ears so as to do perfect clean, shelling from the cob. The double screen shaker separates the grain from the cobs as well as screens the dirt from the corn. In fact a perfect machine from start to finish. Capacity 20 to 30 bu. per hour. Shipping weight 200 lbs.

Price \$13.22

Feed, Ensilage, Fodder Cutters and Shredders



No 26 is one of the simplest and most durable cutters on the market. It has an 11-inch steel laid knife which can be adjusted to take up all wear, thus giving a perfect shear cut at all times. It has a slide gauge plate by which the length of the cut can be gauged to suit the requirement.

These cutters are knocked down for shipment to secure low freight rates. Wt. 50 lbs.

Price \$2.00

No. 8 Feed Cutter



This cutter is made to meet the demand for a good, yet cheap and durable machine. It is well adapted for parties who wish to cut for a few head of stock and will answer the same purpose as a more expensive machine. It is substantially constructed having a $1\frac{1}{4}$ inch tempered tool steel cutting knife which makes a downward shear and cut against a hardened cutting edge. The knife makes three cuts to one turn of crank and length of cut is adjustable from $\frac{3}{8}$ to $1\frac{1}{2}$. Lower feed roller is smooth while upper roll is grooved. Shaft is $\frac{3}{4}$ inch in diameter. Capacity per hour, 150 to 200 pounds dry fodder. Weight, knocked down, 150 pounds.

Price

\$8.50

Extra for Pulley

1.25

Cyclone Success No. 9

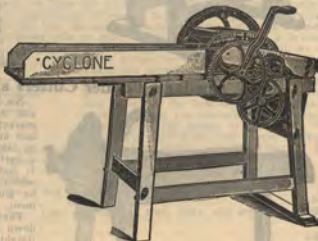


Two lengths of cuts $\frac{1}{2}$ " and 1" are furnished on No 9 and four lengths $\frac{1}{2}$, $\frac{3}{4}$ and $1\frac{1}{4}$ " on Nos. 11 and 13.

The Frames of the machines are firmly joint bolted together and made of the best seasoned oak.

CYCLONE SUCCESS NOS. 11 AND 13

Our line of Success feed cutters are furnished in 3 sizes; 9, 11 and 13, and are intended to be operated either by hand or a small gasoline engine. The combination cutting and shredding cylinder used on these machines will put hay, fodder or green corn in the proper shape for feeding.



PRICES ON FOLLOWING PAGE

DIMENSIONS, PRICE, ETC.

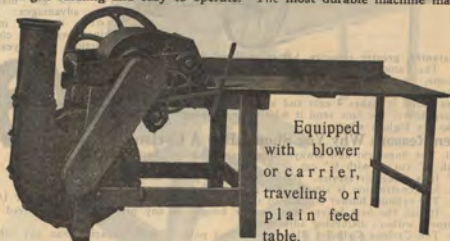
No.	Length of Cylinder	Capacity per hour	Power required	Speed	Weight	Price
9	9"	1 Ton	½ to 1 H. P.	700	300	\$26.25
11	11"	2½ Tons	1 to 2 H. P.	1000	350	33.25
13	13"	4 Tons	2 to 3 H. P.	1000	400	38.00

The above prices include feed trough for all sizes. Feed table furnished at \$1.00 extra. A hand crank is furnished on No. 9. 10" pulley \$1.00 extra. Pulleys only are furnished on Nos. 11 and 13. Hand crank \$1.00 extra. No. 9, 11 and 13 Suc. Cut. may be equipped with the straight knife cylinder at same price as the combination cutting and shredding cylinder or the spiral cylinder.

Cyclone Special Ensilage Cutters

A Dandy for the Farmer's Individual Use.

Light running and easy to operate. The most durable machine made.



Equipped with blower or carrier, traveling or plain feed table.

No. 13 Special Ensilage Cutter with Blower and Plain Feed Table

Capacity five to eight tons per hr. Power required 4 to 8 H. P.

It fills your silo, then by simply changing a gear it is ready to shred your hay and fodder.

COMPOUND SPIRAL CYLINDER

The Compound Spiral Cylinder cuts and splits the stalks, making silage pack better, keep better, and feed better.

If you prefer the Straight Knife Cylinder, it will be furnished at same price as the Spiral Cylinder.



Size No.	Lg. of Cyl. in.	Capacity per hr. Ensilage	Fodder	Power required Blower	Carrier	Speed R. P. M.	Wt.
11	11	5 Ton	3½ Ton	5 H. P.	2 H. P.	800	500
13	13	8 Ton	5 Ton	6 H. P.	3 H. P.	800	550

Machine No.	Machine with plain Feed Table	With 14 ft. of direct carrier	With Blower, Blower-Pipe for 30 ft. silo and elbow.	Blower-Plain Feed Table	Traveling Feed Table Extra	Trucks Extra
11	\$41.25	\$66.00		\$105.00		\$28.90
13	\$50.00	\$72.00		\$115.00	\$20.63	\$28.90

Additional lengths of carrier, in any length \$1.65 per ft.
Additional blower pipe in 2, 3, 5, and 10 ft. lengths50 per ft.

CYCLONE CYLINDER BLOWER ENSILAGE CUTTERS

Largest in Capacity ... Finest Cut ... Lowest Power Required



Safety
Service
Simplicity

No. 110 Cyclone Cylinder Blower Ensilage Cutter..

When you buy a Cyclone Cylinder Blower Ensilage Cutter, you get all the good qualities and advantages in any other style, type and make of machine. You also get many new advantages: a more durable machine, scientific construction, a five-year

guarantee, greater capacity, better ensilage, **SAFETY.**

The Famous Cylinder Blower — cutter, blower, fly wheel — all in one. It marks a new era in cutting and blowing efficiency. It cuts and blows and blows and cuts. Every time the Cylinder wheel goes round it makes 4 cuts and as the cut ensilage falls from the sharp knives the fans send it whirling up through the blower pipe into the highest silo.

Ten Reasons Why You Should Buy A Cyclone.

1. The finest cut and always in uniform lengths. Same capacity with $\frac{1}{4}$ " cut as with $\frac{1}{2}$ " cut.
2. It is made for service. Its parts are heavy and strong.
3. Its construction is simple. Only six slow-speed gears.
4. The cylinder blower is made of special process iron, and **CAN NOT BLOW UP.**
5. It has the best knives that can be bought at any price. Easily removed to sharpen without disturbing adjustment.
6. The Cyclone Cylinder Blower uses less power for its capacity than any other machine.
7. It is the most durable machine made.
8. The Cyclone will elevate as high as silos are built.
9. It is easy to set to any silo, because it can be belted "fore" or "back," and can be fed from either side or end of feed-table.
10. The machines are constructed so they can be bolted to your own wagon truck, thereby saving you the extra expense if you already have good trucks.

In selecting your silo filler always consider the capacity and the square inches of throat on the different makes of cutters. When you consider carefully these vital points we know your good judgment will be in our favor.

There are no worm gears on this machine to get out of order. The cylinder Blower is encased in a heavy steel case. The lid is easily opened, giving free access to knives, which may easily be removed or adjusted, it requiring less than ten minutes to change knives.



Nos. of machine	90	110	130	150
Throat capacity in square inches	50	60	70	80
Machine complete with Blower pipe for 30 ft. silo, traveling feed table and elbow, without trucks	\$110.00	\$132.00	\$154.00	\$185.00
Machine complete with trucks	\$135.85	\$158.00	\$181.00	\$213.00
Capacity per hour	6-9 T.	10-12 T.	12-15 T.	18 T.
Horse power required	6-9	8-12	10-15	15-18
Shipping weight without trucks — pounds	1100	1200	1300	1600

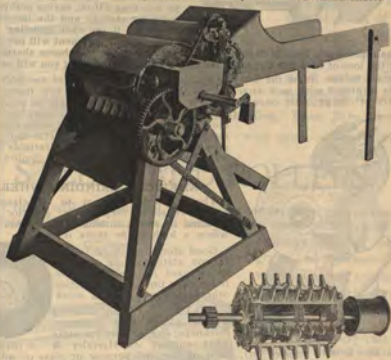
Distributor pipe can be furnished in 3 foot sections at \$1.35 per section. Extra blower pipe in 2 ft., 3 ft., 5 ft., and 8 ft. lgs. at \$4.00 per ft. If you want a stationary frame to set the machine on, we can furnish this for \$10.00 above the price of the machine without the trucks.

FODDER SHREDDER

A Fodder Shredder and not a Cutter. A machine that does not spoil the leaves but makes the leaves and stem just right. No knife grinding—always ready.

This machine was designed to meet the demand for a light running, durable and strong shredder at a price in reach of every farmer. The cylinder is reversible in the machine, giving double wearing power.

Top and bottom roll are driven at several speeds. There is also a device to instantly separate the rolls not shown in the cut which will instantly stop the feed if the engine should lag. The following cut shows the cylinder used on shredder.



We use six staves on cylinder with seven teeth on staff. These teeth are made the same on both sides, while shaft of cylinder is long at both ends, and if one side of teeth wears off rounding, it is only necessary to reverse the whole cylinder, and you have a new wearing surface. In other words, when you buy a shredder, you practically buy two cylinders. The teeth are malleable and will not break off.

We use wrought iron band in center of cylinder, to bolt staves to; all bolts used to fasten staves to cylinder heads are riveted; every cylinder is balanced before it is put in machine. Teeth are blunt; instead of cutting through heavy part of stalk and leaving it in long sharp pieces, we break up the heavy part of the stalk and leave blades and tops in almost natural condition. After passing through this machine, the fodder can be handled with a fork.

This machine is made in two sizes, 14-inch and 20-inch cylinder; the 14-inch machine should be run 900 to 1,200 revolutions per minute; pulley 5-inch x 5-inch or 6-inch x 6-inch; power, 2 to 6 horse power; capacity, 1 to 3 bundles per minute. 20-inch machine should be run from 900 to 1,200 revolutions per minute. Pulley, 6-inch x 6-inch or 6-inch x 8-inch; power required from 6 to 10 horse power. Capacity according to power.

155 14-inch. Shipping weight, 315 lbs. Price, \$39.50.

With 18 ft. Elevator.

156 20-inch. Shipping weight, 645 lbs. Price, \$70.00.

350 lbs. Price, \$66.00

920 lbs. Price, \$90.00

WE SELL A LARGE AMOUNT OF ALL KINDS OF BELTING AND SUPPLIES, WHICH ARE LISTED ON ANOTHER PAGE. SEE OUR PRICES BEFORE PLACING YOUR ORDER, AND YOU WILL GIVE US THE ORDER.

Grinding Attachment

for Hertzler & Zook Wood Saws



THIS ATTACHMENT CAN BE USED ON ALL OF THE HERTZLER & ZOOK WOOD SAWS EXCEPT NOS. 3 AND 8

It will accommodate 12-in diameter stones by 1¼ inch thick or any size thinner

By adding this attachment to your saw you have the benefit of a grinding machine that would otherwise cost you no less than \$10.00, saying nothing of the room for storage and the inconvenience of setting it up when grinding is to be done. This attachment will pay for itself

in less than one year's time in keeping the plow and implements' shares sharpened, not counting the loss of time nor the tools and other grinding and filing you will save.

To attach to saw frame the first time only requires the boring of two holes for the two bolts furnished with each attachment. When ordered with a saw frame we will attach free of charge; after once attached it only requires a moment to re-attach.

Fig. 175 shows how it is possible to grind mower sections clear up in the corner as well as for gumming saws and for general tool grinding purpose. The attachment is adjustable in every way enabling the operator to duplicate bevel work on exactly the same bevel.



Fig. 175

AMERICAN GRINDING WHEELS

These wheels are not to be classed with emery wheels as they are far superior for tool grinding or saw gumming or any other purpose where a high grade stone is wanted.

Good stones are hard to get. If you state purpose stone is to be used for we can sometimes save time by substituting other sizes we have in stock.



NOTE. — When ordering wheels please give diameter, thickness, size of hole (or state what number of Hertzler & Zook machine it is to be used on), shape of face and purpose or class of work. We will always select a wheel best adapted for your work. A 10x¼ wheel weighs 5¼ lbs.

Thickness of wheels (in inches)	¾	¾	¾	¾	1	1¼
Diameter (in inches)	10	5.00	5.00	5.00	5.00	5.00
Diameter (in inches)	12	6.00	6.00	6.00	6.00	6.00

HUNTINGDON EMERY WHEEL DRESSER.

For truing, shaping and removing glaze from emery wheels while running at full speed.

Weight 1½ pounds

Price with two sets of cutters 50c.

Extra cutters, per dozen sets 75c



CAST IRON POST MAULS



Has 3-foot handle, standard size and weight.					
Shipping weight, lbs. to	13	16	18	20	
Price, each	45c	55c	70c	80c	85c

FELLOE OILERS

Solid Cast Iron Oil Troughs. Every person wanting to prevent his tires from coming loose should have one.



Shipping weight, 13 lbs. Each \$.60

Hertzler & Zook Wood Stave Land Roller

\$18.50

Buys This Roller

**Satisfaction
Guaranteed**



This Hard Wood Stave Land Roller has the pressed steel heads, steel spring seat steel end brackets, as shown in cut, is well built of good materials, with closed end. 1½ in. iron axle extending full length of roller.

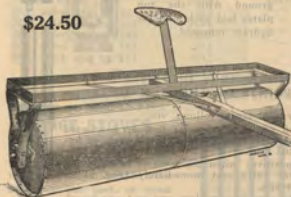
Length 8 feet. Diam. 26 in. Sections 2

Wt. 500. Price \$18.50. With double-tree and Yoke \$21.00

STEEL LAND ROLLERS

This roller will be furnished in two or three sections, just as customers may request. The frame is made of heavy angle steel, well braced. The

\$24.50



bearings are of the best grade of seasoned hard wood. The end brackets are of steel channels forged to shape. The heads are of solid pressed steel all in one piece, with heavy cast flange bearing riveted to heads. The seat is of pressed steel, with high carbon spring steel for spring. The axle is 1½" best of wrought iron. Boards may be laid on top between frame, making a solid top. Made in 8' length only.

No.	Length.	Section.	Diameter.	Weight.	Price.
90	8'	2	24	565 Lbs.	\$24.50
91	8'	3	24	580 Lbs.	\$25.50

Don't overlook the fact that when buying from us you are buying direct from the manufacturer.

THE I. X. L. YARD HYDRANT

SUCCESSORS TO D. F. LUSE Mfg. Co.

Two motions are necessary in opening and closing the "I. X. L." Fig. 1 represents the hydrant closed and the exhaust open, and without the frost casing. When opening to draw water the lever or handle is pushed down towards the spout, when it enters the slot in the top and may be moved sideways to obtain the desired stream; closing, the lever need only be shoved back to the end of the slot, and released, when the pressure of the water, assisted by a small spring, throws the handle up and the second or self-closing occurs.

THE "I. X. L." VALVE

Fig. 2 is the water box or valve and water chamber, cut in two, showing the heavy rubber valve closed up against the valve seat, with the exhaust open, and the top packing raised out of the recess at the top or neck of the valve chamber, opening the slot.

Fig. 3 is the valve and water chamber showing the exhaust closed with the top packing in the recess and the heavy rubber valve at the bottom away from the valve seat so the water may freely pass over the top of same in the direction shown by the arrows.



Fig. 2



Fig. 4

Fig. 4 shows the top of the ground casing a few inches out of the ground with the top plates laid aside and the hydrant removed.



Fig. 3

FIVE INTERESTING POINTS OF THE "I. X. L."

The leading features of this hydrant are as follows, viz:

1st. Exhaust slot is closed off completely by the first or downward motion of the lever (Fig. 3) so no water can waste at the bottom of hydrant when drawing a full or partial flow.

2nd. The shut-off is always positive; when the lever is released the rubber valve comes up against the valve seat immediately (Fig. 2) so solid that no water can possibly escape.

3rd. The valve is made of the very best rubber, one and one-fourth inches in diameter and seven-eighths of an inch high.

4th. The hydrant is placed in a wood casing, top of casing shown in Fig. 4. In case of repairs or the removal of any obstruction from the water chamber, the top plates being taken off the hydrant can be screwed off at the bottom and slipped out of the casing and again returned without any digging out of same.

5th. Again, this casing also prevents the frost from raising the hydrant and breaking the connection below on end of pipe which is often the case unless there is a lead connection on end of pipe to connect with, which expense is saved by this casing. The plates on top of Fig. 4 are so arranged that they hold the hydrant nicely in place yet allow the casing to slip up and down on hydrant.



Fig. 1

Price of Hydrant (less Casing) each \$5.00. Price of Wood Casings each \$.55

Plow Doubletree and Singletrees



No. 2. A. Doubletree $3\frac{1}{2} \times 38$ in. oval, centre clip $\frac{3}{4}$ in., centre hook $\frac{3}{4}$ in., end clip 9-16 in. Two Singletrees $2\frac{1}{4} \times 34$ in. oval, centre clip 9-16 in., end clip 7-16 in., end hook $\frac{3}{4}$ in., two open links $\frac{3}{4}$ in. List \$1.85

No. 2 B, the above doubletree, List .85

No. 2 C, the above singletree only, List .55

Rings can be used on any of above singletrees at same price of hooks. In ordering always use No. and letters. The above goods made from S. G. Oak, Hickory and Ash.



Fig. 208

Power Line Shaft Complete

We make up this combination to meet the demand of the separator and wash room requirements. Fig. 208 shows the line shaft ready to fasten to the ceiling while fig. 235 shows how the hanger can be set on girders or on the floor. It has a drop variation of from 6 to 8 inches. All made to use the standard size of 13-16 in. polished steel shafting consisting of 2 hangers, one drive pulley, 1 tight and one loose pulley and one safety set collar.

Two small pulleys of either size	Drive pulley	4 ft. of 13-16 in. shafting	Shipping weight	Price
No. 208-a 4x4 or 5x5	4x4	"	61	\$ 9.92
No. 208-b 4x4 or 5x5	11x4	"	70	11.32
No. 208-c 4x4 or 5x5	14x3	"	75	11.68
No. 208-d 4x4 or 5x5	14x4	"	75	11.82
No. 208-e 4x4 or 5x5	16x3	"	75	12.00

Farm and Warehouse Bag Truck

The Favorite Bag Truck is made for service, has $5\frac{1}{2}$ in. wheels, cast iron base. Shipping wt. 22 lbs. Price \$ 1.50

RANGE STOVES

It is actually claimed by people who use this grate that they have saved from 25 to 50 per cent. of wood when this grate is properly used. The proper way to use it is to tip up the coal grate and lay this grate on the tips, which will bring the wood up—making the fire box shallow, thus saving wood. Grates are 6 or 7 inches wide and 18 inches long. Can be made to fit any stove by breaking off as many bars as required to fit stove.



055. 6 inches wide, 18 inches long. Price.....	.50
55. 7 inches wide, 18 inches long. Price.....	50

We have the Best largest assortment of Cast Iron Furnace Plates or Cookers on the market



Our cast iron furnace plates are superior to many plates on the market. They are made in sections so as to take care of all expansions and contractions. Our plates are 15 inches from the door to first kettle, enabling you to get the best results from the fuel. We furnish the castings only, consisting of top plates with 22 and 24 inch holes, one bushing to fit any smaller size kettle, one cover to cover either hole, cast iron door frame and anchor bolts, etc.

- No. 40, same as above for one kettle only, complete with all castings, etc. \$ 8.25
- No. 41—Plate only for one kettle 5.50
- No. 41—Plate only for two kettles 8.25
- No. 42—All castings, etc., to make furnace same as above cut 13.20

No. 45—Same as shown for one kettle only, complete with all castings \$ 8.25

No. 46—Plate only for one kettle 5.50

No. 47—Plate only for two kettles 8.25

No. 48—All castings, etc., to make furnace same as shown 13.20



No. 49—All castings and iron work to make furnace same as shown \$16.50



No. 50—Same as above, with stove pipe collar for pipe instead of flue \$16.75

When coal is to be used for fuel, we furnish grates which are placed in proper place by the mason.

No. 51—Straight bar grates, 3 in. wide, 33 in. long, three bars in one .. 40 cents each

No. 52—Straight bar grates, 3 in. wide, 25 in. long, three bars in one .. 30 cents each

The Hertzler and Zook Ditching and Subsoiling Plow, \$11.45

Fig. 153



Shows the plow in the ditch at work. From this cut you will notice the bed attachment is only used for finishing.

	Cash With Order	Bank Deposit
Price of plow as shown, Fig. 153,	\$11.45	\$12.45
Subsoil Attachment,	\$1.25	
Extra Cast Iron Points, Each,	.50	
Tile Bed Shovel, Each,	.40	
Extra Steel Points, Each,	2.50	

A Well Designed Implement, made for the purpose of excavating drain for tile, stone, sewer pipe, etc., and it has well been said that this plow is of more value to a farmer who has ditching to do than any other implement he has on his farm, for by its use he is able to do his ditching at a very small cost, and it need not be contingent upon being able to secure hired help.

The Ditching Plow is extensively used throughout the United States and Canada and other foreign countries—and acknowledged by all to be the most practical implement of its kind made.

This plow is designed to do the digging, or loosening up the earth in the ditch, after which it is shoveled out, and we guarantee it to work successfully in the hardest ground, to the depth of at least 3 feet. The width the ditch is dug can be regulated at will from 8 inches up. The quantity of drain that can be excavated in a day depends very much upon the kind of ground in which you are ditching, but we have frequently known two men, with two horses, to throw out 40 rods per day in ground where it could not have been thrown out with a spade.

OUR IMPROVED TILE-BED SHOVEL

For finishing up the bottom of the ditch ready for laying the tile, is a very important adjunct to our plow. All who have ever drained with tile know that the most important thing about making drain is finishing it up, grading and leveling it, having all uneven places removed, so that the fall is exactly uniform.

Our important attachment is of great assistance in doing this, as it cuts a true groove in the bottom of the ditch, and all that is necessary is to clean the loose ground out with a tile shovel. To use the shovel, bolt it to the standard, to the two holes back of the share, with the cutting edge below the landslide; set the slider down to the last hole. It is not necessary to remove the share.

Pass along the ditch once, and sometimes when the ground is very hard it is well to go twice, passing each time in the same direction.

We would call the attention of the manufacturers of drain tile to this plow as an important adjunct to the success of their business in having more drainage done and more tile used.



Fig. 154.

Fig. 154 Shows the Plow With the Subsoiling Attachment

THE HERTZLER AND ZOOK PORCH SWINGS



Made in Our Factory and sold by us direct to the Consumer

This swing is made of iron and steel for the frame and of the best selected maple, oak or beech slats highly finished in weathered oak. Can be reclined in an instant to any position at will and will stay in any position until changed by the occupant. It is made in two lengths with an 8-inch reclining table on each side. Seat 24 inches deep, back 32 inches high, foot-rest 17 inch drop with 11-inch foot-board. Thirty-foot galvanized chain, hooks to screw into ceiling joist, everything ready to screw in the hooks and hang up the swing. Shipping weight, 145 lbs

No. 34—30-inch seat, 40 inches over all	\$6.50
No. 35—36-inch seat, 46 inches over all	7.15
No. 36—40-inch seat, 50 inches over all	7.48

To hang this swing, place the four screw hooks firmly in ceiling joist with points to correspond with holes in arm rails of swing as near as possible. Two rear chains should be one link shorter than the front. Foot-rest step must come just close enough to the floor so it does not touch when swinging.

Porch Swings

This swing has no foot-rest and is a reclining swing well shaped to fit the occupant as the back it not rigid. Is made of selected maple and oak highly finished in weathered oak, very neat, and accommodates two and takes up very little space. Suitable for a narrow porch and when not in use can be folded and hung up and requires very little space.

DIMENSIONS

Seat 19 inches deep, back 21 inches, 34 inches long. Galvanized chain, screw hooks and everything ready to hang. Shipping weight, 22 lbs.

No. 37—Price \$4.30

To hang, place two screw hooks in ceiling just about 34 inches or more apart as only two hooks are required for this swing.



Porch Swings



This swing has a rigid back, is well made of oak and maple and well finished in weathered oak. Is strong and durable. It is hung on two screw hooks same as No. 37.

DIMENSIONS

Seat 17½ inches deep, back 18 inches, length of seat 35 inches. Galvanized chain, screw hooks, all complete ready to hang. Shipping weight, 31 pounds.

No. 38—Price \$3.00

Remember when you buy the Hertzler & Zook line, you are the judge.

WOOD PLANERS

A Line of High Grade

Wood Planers, Matchers and Moulders

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

It works either hard or soft wood equally well, and is particularly adapted to planing short stock. The work turned out is first-class and equal to that done by the larger, high priced machines.

The Cutter Head is made from high grade steel and is accurately turned and balanced. All adjustments are quickly and easily made.



Prices Quoted on Application

It has two Fluted Power Feed Rolls, one in front and one in rear of the cutter head, to insure a strong, positive feed. Two speeds of feed are provided for by means of cone pulleys. The feed can be stopped or started instantly by means of a convenient belt tightener. The Bed is cast in one piece with heavy ribs underneath, and is accurately planed and fitted with two steel idle rolls.

It is built in two sizes to plane up to 16 inches and 20 inches wide, and from $\frac{1}{4}$ inch to 6 inches thick. It is furnished with one pair of planer knives, and with or without countershaft as ordered. No belting is furnished. Feed belts require $12\frac{1}{2}$ feet of $1\frac{1}{2}$ inch belting.

Cash With
Order

Price, 16 in. machine without countershaft as shown above \$ 89.00
Shipping weight 570 pounds.

Cash With
Order

Price, 20 in. machine without countershaft as shown above 98.75
Shipping weight 595 pounds.

If countershaft is wanted add 13.00
Shipping weight 150 pounds.

We also have a heavier single surfacer that will plane stock 20 in. and 24 in. wide $\frac{3}{4}$ to 6 in. thick. Further description will be given on application.

Cash With
Order

Price, 26 in. complete less countershaft and belting 177.75
Shipping weight 1,285 pounds.

Cash With
Order

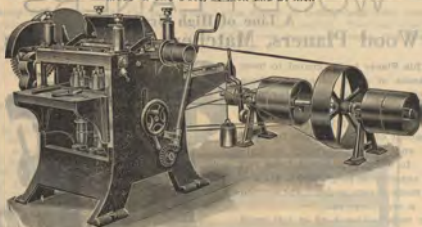
Price, 24 in. complete less countershaft and belting 210.00
Shipping weight 1,475 pounds.

If countershaft is wanted add 14.30
Shipping weight 215 pounds.

For prices on Belting See Pages 27 and 28.

"TRIUMPH" PLANER, MATCHER AND MOULDER

Made in two sizes, 20 inch and 24 inch



View of operating side, showing Matcher Heads. Lever for raising Table and Hand Wheel for adjusting Matcher Heads.

This is a very compact, rigid machine and is designed to economize space and withstand the hardest usage as well as to do the best class of work. There is an entire absence of vibration so common in small planers of this class; hence, the work turned out is uniform and equal in quality to that of large, expensive machines. The workmanship and material throughout are of the highest grade. It is adapted to the use of saw mills and small planing mills having limited room and power where a machine is required for a large variety of work, such as planing and matching, beading, working flooring, ceiling, siding, casing, wainscoting, and a large variety of moulding and trim.

The Main Frame is amply proportioned and strongly ribbed, insuring the greatest strength and stiffness.

The Table is cast in one piece and is deep and strong, being heavily ribbed and having arched braces under side. It is planed on top and has raised edges to prevent the material from leading against the side frames. The slides are long and placed far apart, being fitted to the outer edges of the main frame to which they are gibbed, thus securing the greatest rigidity and least possible wear.

The Cylinder is made of special grade steel and is accurately milled on four sides, two of the sides being slotted to carry beading and moulding knives in addition to the regular planing knives, which do not have to be removed when beading and moulding is being cut.

Matcher Spindles are unusually large and run in long babbitted boxes, ample provision being made for thorough lubrication. The matcher frames are also very strong and are carried by $1\frac{1}{4}$ inch round steel guides at top and bottom, provision being made to easily take up any wear or lost motion. One of the matcher spindles is adjustable by means of a hand wheel at the side of the machine and has an eccentric clamp for instantly securing it in any desired position.

Matcher Heads are made of bronze of standard design and will carry matcher, edger or moulding bits $\frac{1}{8}$ inch thick and up to $2\frac{3}{4}$ inches wide. Shimmer heads can be used when desired. Moulding knives can also be used on the main cylinder where the cut is not over $\frac{1}{8}$ inch deep.

Chip Breakers. A heavy adjustable chip breaker is placed in front of the cylinder, which also acts as a hood. It may be swung back to expose the knives. Each matcher head has a chip breaker, one of which is self-adjusting.

Pressure Bar is adjustable and prevents any vibration of material between the cylinder and matcher heads. This bar and the front chip breaker may be set close to the cylinder for special smooth surfacing and can be set out so as to clear moulding bits when used.

"TRIUMPH" PLANER, MATCHER AND MOULDER

The Feed is simple, powerful and positive, with steel rolls 3 inch diameter, turned from the solid; the top feeding-in roll being fluted. It is driven by a belt from the countershaft, to which a belt tightener is attached so that the operator can stop or start the feed at will. Two rates of feed are provided, namely 55 feet and 42 feet per minute, and the change from one to the other can be quickly and easily made.

Each planer and matcher is furnished with one pair of planer knives, one pair beading bits and one set standard matcher bits for 1 inch flooring.

The cuts show the machine Double Geared with both top and bottom rolls driven, but it is also furnished Single Geared with the top rolls only driven; see price list.



View of Feed Side Showing Double-gear'd Machine with all Four Feed Rolls Driven

Prices Quoted on Application

Specifications:	20 in. Mach.	24 in. Mach.
Planes any width up to	20"	24"
Planes any thickness from	$\frac{3}{8}$ " to 6"	$\frac{3}{8}$ " to 6"
Matches up to 3" thick and up to	10" wide	14" wide
Tight and Loose Pulleys (speed 800) ..	12" x 6"	12" x 6"
Floor space, including countershaft ..	8' 6" x 6'	8' 6" x 6' 4"
Distance from cylinder to countershaft ..	5' 6"	5' 6"
Shipping weight	2100	2500
Cylinder Belt 6" wide	14' 9" long	14' 9" long
Feed Belt 3" wide	16' long	16' long
Two Matcher Belts 3" wide, each	13' 8" long	13' 8" long
Belts not included, for prices see belt list		
	Cash With Order	
Price including countershaft with top rolls only driven, 20 in. machine	282.00	
24 in. machine	310.50	
Price including countershaft with top and bottom rolls driven, 20 in. machine ..	300.50	
24 in. machine	347.00	

For prices of belting see pages 27 and 28.

GRAIN THRESHER, SEPARATOR, AND CLEANER

Do your own threshing, When you want it done, and the way you want it.

The following illustration shows our No. 1 grain thresher and cleaner taken apart for storage. There are special castors not shown in illustration to fasten on legs of machine so as to enable owner to store it without heavy lifting or strenuous efforts.

The CYLINDER is well built of the large diameter and is the over shoot type making it easy to get to concave as well as the cylinder for any repairs or adjustments.

COMPLETENESS OF MACHINE. When straw carrier and Tailings elevator are attached to this machine it makes a complete outfit and we guarantee it to do as good clean and accurate work as any large machine only less of it.

This thresher is built for use with small power such as tread power and small gasoline engines and in fact, it is a machine that the independent farmer cannot afford to be without and with an average crop can be almost paid for in one season.

The machine is well built using nothing but the best of material throughout.

Size of Cylinder

Size of Riddles

Size of Trunk

Power required, two horse tread power or three horse power engine and upward. Has a capacity of 16 to 20 bushels wheat and 20 to 40 bushels of oats per hour.



Price of No. 1 machine as shown above
Extra for machine if desired.

	Shipping Weight 1000 lbs.	Cash With Order
Straw Stacker, 16 or 18 feet long to work straight with windlass		26.50
Tailings Elevator for No. 1 machine each		17.50
Grain Bagger for No. 1 machine		11.00

Junior America Grain & Peanut Thresher & Separator

A splendid machine to do your own Threshing as well as your neighbor's



With this machine at your service you can thresh as you wish and when you wish.

With extra attachments will thresh and clean peanuts, cow peas, and Soja beans. Threshing peanuts and cow peas 98% of unbroken shake. This machine is built in three sizes, No. 1-A with 22-in. cylinder, No. 2 with 26-in. cylinder, No. 3 with 30-in. cylinder made if specially ordered. Capacity of No. 1 A, threshing wheat, 20 to 30 bushels per hour; No. 2, 25 to 40 bushels per hour; No. 3, 30 to 50 bushels per hour. About double these quantities threshing oats. Furnished with or without trucks, baggers, tailings elevators or straw carriers as desired. Weight 1400 pounds.

Designed to meet conditions where all kinds of cereals are grown. This machine will thresh and clean wheat, rye, oats, buckwheat, barley, and other grain ready for market or seeding.

Power required for Nos. 1 A, 2, or 3 thresh-er 5 H. P. and upward.

Left-Hand View of the JUNIOR AMERICA Mounted



ca Grain and Peanut Thresher and Separator. Description and capacity same as above. Weight 2260

1, 2, 3 and 4 Fan shafts	2 00
Rake teeth	10
Cylinder spikes	10

No.	Price
1A Overshot 22 in. Cylinder, grain or peanuts	\$135 00
2 Overshot 26 in. Cylinder, grain or peanuts	160 00
3 Overshot 26 in. or 30 in. Cylinder, grain or peanuts	183 00
Bagger and Tailings Elevators, each	15 00
Wagon box elevators	17 50
Stackers for Nos. 1 or 2, per foot	1 60
Stackers for No. 3, per foot	1 75
Brake or Windlass, each	6 00
4-Wheel Truck	36 00
Angle Straw carrier attachment	10 00
Cow pea attachment	20 00
Kaffir corn attachment	20 00
Peanut or Grain attachment, each	35 00
No. 1 Thresher crated for export, including bagger, tailings and 4-wheel-truck, weight 2200 cubic measurement 180 feet.	
No. 2 Thresher crated for export, including bagger, tailings and 4-wheel truck, weight 2400, cubic measurement 200 feet.	
No. 3 Thresher, including bagger, tailings, elevators and 4-wheel truck, weight 2600 cubic measurement 230 feet.	

No.	Parts for above	Price
	Cylinder complete	1 25 00
	Concave without spikes	5 00
	Eccentric fan shaft	5 00
	A-3, A-4, A-5 front plate	2 00
1	Outside box for fan shaft	1 00
2	Inside adjustable box for fan shaft	2 50
3	High rake shaft box	1 50
4	Low rake shaft box	1 00
6	Eccentric adjuster for shaker	25
8	Shaker rod box	1 25
9	Circle for cylinder	75
10	Spring bracket	30
	Spring for same	25
12	Cylinder box complete	2 50
13	Tightener arm	1 25
15	Tightener pulley	1 25
20	60 or 23-X Rake Shaft	5 00
21	Half spider for fan	50
22	Concave adjuster complete	1 00
23	Lower flange pulley for carrier	1 00
25	Top flange pulley for carrier	1 00
26	Double rake pulley	2 50
27, 28, 29 and 30	Carrier hinge	50
40, 41 and 42	Driving fan or shaker pulleys	3 50
46	Solid spider	1 25
47	Undershot shaker pulley	3 00
48	Bagger or tailings pulley	1 00

49	Pulley to run bagger, tailings stack	1 00
50	Pulley to run rakes	1 00
51	Grain fan pulley	1 50
52	Peanut fan pulley	1 40
53	Peanut drive pulley	1 50
54	Rack	60
55	Concave lever	60
56, 57 or 58	Peanut Cylinder Pulley	2 50
103	Tightener arm rake shaft belt ..	1 00
106	Tightener pulley rake shaft belt ..	1 00
76	and 79 Lower and top boxes for elevator	50
97	and 98 Upper, lower elevator support	40
No.		Price
99	Cylinder pulley	2 50
100, 101, 102	Stacker support	1 00
103	Cylinder pulley	2 50
107	Double pulley	2 50
104	Cylinder pulley drive fan	1 00
01X	Top side	2 50
02X	Top side	2 50
03	Bottom side	2 50
04	Bottom side	2 50
120	Cylinder box complete	2 50
P4	Fan box	1 50
P2	Inside Crank Box	2 50
P3	Outside crank box	2 50
CL	Cr Concave holders	1 25
4G	Cast grate	3 00
1X	and 2X Eccentrics, each	2 00
1625	Tightener pulley	1 50
175X	Tightener arm	1 50
174X	Tightener Rack	75
173	U2 Elevator bracket	40
XXX	Elbow support	1 50
231	Rope bracket	1 00
235	Rocket	40
264	Windlass spool	1 25
263	Windlass spool	1 25
005	Windlass boxes	2 50
RAT	Fan box and hanger	2 50
1, 2	3 Grain spouts	\$1.75, \$2.00
D	Sieve back of Cylinder	2 00
	Wheat sieves complete	3 25
	Wire sieves complete	2 50
	Screen boards complete	2 50
	Peanut sieves	3 25
D1	Duster hanger	1 50
D2	Duster box	75
D3	Duster clamps	25
D4	Duster hood	1 50
D5	Duster sides	1 50
D6	Duster pulley	1 00

Valuable Information for the Man Who Wants To Buy a Feed Mill

The Hertzler & Zook line of feed mills is gotten up expressly to fill every requirement of the farmer and stock raiser and since such is the case it has become necessary that we have the iron plate mill and the Burr Mill. There are no iron plate mills made by any manufacturer that will make as floury chop as the Burr Mill will make.

Most of our enterprising farmers want for stock feeding a chop that is not too fine and also wish to grind ear corn as well as shelled grains and for this purpose we can recommend nothing better than the Hertzler & Zook Iron Plate Mill which will make as much and as nice a chop as any plate mill on the market will make. We would be only too glad to ship you one and let you try it out on your own place to prove the statement we make.

The Hertzler & Zook Improved Burr Mill for



This mill will grind **\$68.20**

chop and make it floury or it will grind it for stock raising or feeding or anything from fine floury chop to cracked corn as well as make the finest kind of corn meal and graham flour. It will grind as much as any other mill with the same size burr, making nice, even chop. The illustration shows the mill with Corn Breaker in hopper. This is the Only Burr Mill that will crush the corn ears and grind them into chop at one operation, or in other words—a breaker is not required to first run the ear corn through.

The mill is made in one size and has a capacity of from 6 to 20 bushels per hour and can be operated with as low as three horse power.

You do not need to be an expert to start and keep this mill in good order as it is built in the best workmanlike manner.

The stone is of the best available in America for the purpose.

It will certainly pay any one feeding Hogs to investigate this mill. Why not send us your order right now and try one out?

Price of mill complete for grinding shelled grain only (weight 500 pounds) \$68.20

Complete for grinding ear corn and shelled grain (weight 580 pounds)
Price \$82.50

The Hertzler and Zook Plate Mill

\$15.60 WILL BUY this high grade mill, which is made for grinding ear corn as well as shelled corn and has a capacity of from five to twenty-five bushels per hour, requiring 2 to 5 H. P. to operate. The plates are made of a special composition alloyed for this purpose, has a ball bearing end thrust, quick release, and the bearings are of a good grade of bearing metal. This mill is furnished as shown in the cut.

The frame is cast in one piece and cannot get out of line. The legs and hopper are made of the best selected lumber. Pulley is 14 x 4. Weight, about 175 lbs.

Cash with order

Price of mill with 2 pr.

plates \$15.60

Extra plates, fine, medium or

coarse, per set \$1.00



Hertzler & Zook Plate Mill with Fly Wheel.

No. 139 shows our mills as they appear with fly wheels, which we always recommend. This style being made in two sizes, No. 139 and No. 139 A.

No. 139 has a capacity of from five to twenty-five bushels per hour and requires from 2 to 5 H. P. to operate.

No. 139 A. has a capacity of from twenty to forty-five bushels per hour, according to the speed and fineness of grinding and requires from six to ten H. P. to operate. This mill is suitable for doing custom work for your neighbors.



These mills are constructed same as our No. 138 with the ball bearing thrust, quick release and bearing with a good grade of bearing metal.

Cash with order

Price of No. 139 as shown above with two sets of plates \$17.40

Price of No. 139 A. as shown above with two sets of plates 27.25

Price of extra plates for No. 139 per pair, fine, medium or coarse \$ 1.00

Price of extra plates for the No. 139 A per pair, fine, medium or coarse 1.50

Shipping weight, 139, 200 lbs. Shipping weight, 139 A., 335 lbs.

The Hertzler & Zook Plate Mill With Fly Wheel, Elevator And Bagger

No. 140 shows our elevator and bagger as it is when attached to our No. 139 and 139 A. mills. No mill is complete without this attachment which only costs a trifle.

Cash with order. Price of No. 139 mill with elevator and bagger as shown \$28.50

Price of No. 139 A. mill with elevator and bagger as shown \$37.50

Extra plates for No. 139 mill per set, fine, medium or coarse 1.00
Extra plates for No. 139 A. per set, fine, medium or coarse 1.50

Shipping weight, 139, as above, with elevator, 280 lbs.

Shipping weight, 139 A., as above with elevator, 410 lbs.

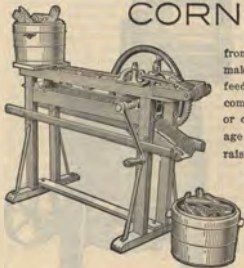


WE SELL A LARGE AMOUNT OF ALL KINDS OF BELTING AND SUPPLIES, WHICH ARE LISTED ON ANOTHER PAGE. SEE OUR PRICES BEFORE PLACING YOUR ORDER, AND YOU WILL GIVE US THE ORDER.

CORN SPLITTER

This machine will split green corn ears from end to end in three and four pieces, making it possible to get the best results when feeding cattle and hogs on green corn; overcomes the trouble of stock getting sore mouths or choking on large ears. This is an advantage that will appeal to every farmer and stock raiser.

A number of our practical farmers and stock feeders consider the use of this machine far superior to that of feeding whole corn or green corn chop. This machine is sold on our regular guarantee. Why not try one out? Shipping weight, 240 lbs. Price \$20.00



FACTS YOU SHOULD KNOW

The Lancaster Hand Washer

In designing the Lancaster hand washer, it was our aim to put on the market a machine free from the petty little breakages which are so common with the average cheap washer on the market.

In this machine, the dolly is driven from underneath the tub by means of rack and pinion. Rack is held in mesh with pinion by means of square shaft, and two large rollers, one at each end, which takes the thrust of the rack, and insures easy motion with no possibility of rack springing away from pinion and jumping teeth.

We do not bolt our working-mechanism to bottom of tub; we use an iron frame fastened to legs of washer by means of bolts. This strengthens the legs of washer, and does away with from 12 to 15 bolts through bottom of tub.

In driving dolly from underneath the tub, it does away with from 12 to 20 pounds weight on lid.

Another strong point in favor of the Lancaster Washer, is in oiling, as all oil holes are on side, or underneath tub; no oil or rusty water to get into clothes, as is in the case where working parts are on lid.

In case you wish a cheap belt drive machine the belt may be put on the fly wheel and driven successfully by power. Shipping weight, 125 lbs. Price \$13.60

The Lancaster Power Washer with Swinging Wringer

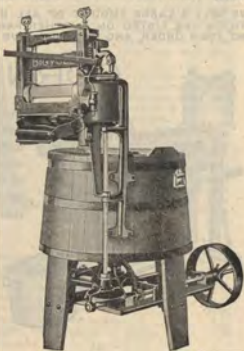
A practical washer designed with the view to durability, convenience and freedom from liability to get out of order and breakage. The wringer has three positions: First wrings out of washer into rinse tub; second from rinse water into blue tub and third from blue water into basket. It also has reverse motion. The tub is made of red cedar and has the same good features as the Hand Machine. When driven by belt power is just like cut, when driven by electric motor the motor is underneath and is all enclosed making a safe and complete machine and is mounted on heavy castors enabling the operator to move around with ease.

Shipping wt., Belt Power Machine, 175 lbs. Electric driven 200 lbs. When Electric driven give with your order the kind of current, the voltage, and phase. We supply the best possible motor for the purpose.

Price, Belt Power Machine with Swinging Wringer \$30.00

Price Electric Power Machine with Swinging Wringer \$53.00

Lancaster Machines shipped from Lancaster, Pa.



The Hand Lever Washer



The tubs are made from the best cypress wood obtainable. The corrugations inside are cut in the wood, not nailed on. Tubs are drained by a specially designed spigot in the bottom of the tub. The hoops are made of the best galvanized steel.

Shipping wt., 75 lbs.

Price \$6.00

The Miller Water Motor Washer

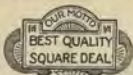
This cut shows same machine as above driven by water motor. Is neat and compact sold complete as shown. Shipping wt., 75 lbs.

We are very desirous that every article we sell shall give our customers entire satisfaction, and if your water pressure is less than 30 pounds we would not advise you to buy this or any other water power washer. While it is true that our motor will operate on 20 pounds pressure, quicker and better work could be done with a washboard, and this is true of all similar machines under like conditions. Moreover, our motor is so constructed that it works on a pressure as high as 175 pounds. Because we so plainly state the facts, it is rarely, indeed, that we have any complaints about these washers; but if something should go wrong, it is not necessary to return the entire machine for repairs: send back the motor only, as it can be quickly removed.



Price \$15.00

Ball Bearing wringer 5.00



\$10,000.00 GUARANTY BOND

THE HERTZLER & ZOOK CO.

Manufacturers and Wholesalers of

The Great Hertzler & Zook Line from Factory to Customer

This is to certify that we guarantee every article to be exactly as represented, or we will return your purchase money and pay freight both ways. As a protection to persons who may desire to purchase anything in our line, we have given the Belleville National Bank of Belleville, Pa., a legally executed bond in the sum of \$10,000.00 shown in the letter reproduced herewith. This is to protect our customers and to give them every assurance in our power that we will give you a square deal.

HERTZLER & ZOOK CO.

B. Hertzler Treasurer.

The Belleville National Bank.

TO WHOM IT MAY COME: *Belleville, Pa.* SEPTEMBER 21, 1911

THIS IS TO CERTIFY THAT THE HERTZLER & ZOOK COMPANY, A CORPORATION ORGANIZED UNDER THE LAWS OF PENNSYLVANIA, DEALERS IN THE MANUFACTURE AND SALE OF REFRIGERATORS & OTHER APPLIANCES, HAS REQUESTED IN YOUR NAME OF APPROVED FUND IN THE SUM OF TEN THOUSAND DOLLARS AND DOLLARS TO SECURE THE PAYMENT OF MONIES HEREIN AND GUARANTEED BY THEM IN THE PAYMENT TO PURCHASERS OF GOODS FROM SAID CORPORATION.

THE OFFICERS OF THIS CORPORATION ARE INCORPORATED AND CONSIDERED NATIONAL AND NOT SIMPLE MORTGAGE, AND SHALL BE BOUND BY THEIR OATHS.

WITNESSETH:

Arthur J. Zook
CASHIER.

We want you to have confidence in our way of doing business.

This bond is your absolute protection. It guarantees you against loss in doing business with us.

It makes your money sent to us as safe as if it were placed in any bank. You take no risk in buying of us on our fair and square plan.

Our customers who have done business with us, and that means thousands who have sent us their money with order, feel just as safe as if they were doing business with their home bank.

But we want to tell you we do not put up this bond merely to inspire confidence on the part of our customers.

It is a form of protection from unscrupulous manufacturers who make claims and promises and do not keep them. It distinguishes us from this class of manufacturers who do not have faith enough in their goods or in their customers to be willing to stand back of the one and protect the other.

\$10,000.00 Bond

This \$10,000 bond is deposited with the Belleville National Bank, of Belleville, Pa. It means just this—if at any time it was proven that we did not do just as we had agreed to do, we could be made to do as we agreed to do or forfeit this \$10,000 bond. You can write to the Belleville National Bank and find out about this. Our goods have got to be right, and if people try our goods out and don't find them to be as represented, we simply would be compelled to send back the money deposited with us or forfeit this bond.

Hertzler & Zook Grain, Seed and Fertilizer Drills

Manufactured and Sold by

The Hertzler & Zook Company

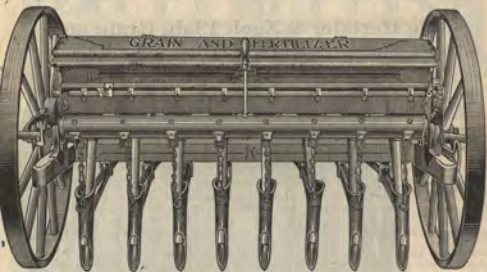


Fig. 1

Sold from factory direct to the farmer and guaranteed to be satisfactory or all money refunded, giving the farmer the privilege of trying it out on his own farm before the deal is considered closed.

Hoe drill is better in stony ground. It shoves the stones around, it sows properly, while the discs will raise up over the stones and cause imperfect seeding as well as covering. Cannot distribute unevenly as others do, see figures 150 and 93, where it is shown. Cannot skip or miss as others do, when stopping or starting anywhere in the field, figure 150 will explain why. Fertilizer won't clog even though it is moist. No tin spouts to rust out. Will sow either way turn is made at end of field if desired. Any parts easily detachable.

SIMPLICITY OF CONSTRUCTION OF THE HERTZLER & ZOOK

- (A) Note only three gears are required to run the seeding or fertilizer sowing device, others use four to eight. See figures 94 and 105.
- (B) Grain Feed on other drills require three to five parts; the "Hertzler & Zook" consists of two highest grade rubber rolls.
- (C) Volume of seed or fertilizer is regulated by a lever.
- (D) Our fertilizer sowing device has three parts; others have more.
- (E) Both wheels drive main shaft; all feeding devices are driven direct from main shaft.

(F) The only drill having the famous "Greencastle" rubber roll feed.

Price of the Hertzler & Zook Spring Hoe Drill, complete, with Grain, Seed, and Fertilizer Attachments as shown above:

	Cash With Order	Shipping Weight
8 Hoe 8 inches	\$61.60	875 lbs.
9 Hoe 7 inches	65.45	915 lbs.
10 Hoe 8 inches	73.00	1140 lbs.
11 Hoe 7 inches	77.00	1180 lbs.

The 10 and 11 hoe drills will be furnished with tongue, double tree, etc., for either two or three horses; unless otherwise ordered, it will be shipped with tongue, double tree, etc., for two horses.

The Hertzler & Zook Plain Grain and Seed Drill

PRICE

\$43.75

UP



Fig. 157.

This drill is built expressly for sowing grain and seeds, alfalfa included, and does not sow Beans, Peas, Corn or fertilizer. In construction, it is the same as the High Grade Hertzler & Zook Drill with the fertilizer sowing device removed. Is fully covered with the regular guarantee. Remember, it is not to be compared with the low price old style pin braker hoe drill, but has the Spring Hoes, Double Tree and Neck Yoke. Is complete for sowing grain.

Price Less Grass Seed Box.

	Cash With Order	Shipping Weight
8 Hoe 8 inches	\$43.75	650 lbs.
10 Hoe 8 inches	50.00	710 lbs.

Extra for grass seeder which can be used front or rear of drill, \$3.00.

Remember, we make in our own factory, and sell direct to the user every year, more goods in our line, than any other concern in the world, selling in the same way. WHY? Because our plan of selling enables us to save money for our customers, and our policy of Satisfaction Guaranteed or Money Refunded relieves them of all risk.



The Hertzler & Zook Grain, Seed and Fertilizer Drill now being manufactured by us in our own factory and sold by us direct to the farmer, giving the purchaser the right to try it out on his own ground and if not found entirely satisfactory after trying, it may be returned and we will refund all the money and all freight charges you have paid, and back of it all our regular guarantee and Guarantee Bond as shown in our catalog.

Have you a proposition you can make us as to how we could offer you a fairer deal?

Now as to price, we cut the pudding right in two, giving our farmer friends the half which belongs to them, charging the actual cost of material and workmanship plus one small profit, which is based on a large amount of machines.

Why not send us your order now and get the best drill made and save from **\$10.00 to \$20.00** and buy it entirely at our risk?

The dealer will say: "Don't send your money away out of town. Keep it at home. Spend it with us."

Now this would be all right if there was anything to it, but there is absolutely nothing to this argument. It has no bottom.

If you can save from \$10 to \$20 on the drill and buy out of this catalog and you put that saving in your own pocket, isn't that keeping your money just about as near home as you can get it?

Read all about this drill. We will tell you what it consists of.

The Hertzler & Zook is the simplest, lightest running and most durable drill on the market; in all respects a strictly modern and superior spring hoe drill. It is substantially built, being designed for hard usage and to give the farmer the best possible service. It has three positive force feeds—grain, seed and fertilizer—a grain feed that will not choke, a grass seed feed that can be instantly regulated to any quantity desired and a fertilizer feed that will sow any kind of fertilizer and prevent bridging. The grass seeder can be arranged to sow either in front or behind the boots, as desired. The drill is of the low down type, the wheels being standard height, the hopper only being dropped, making it convenient and easy to fill. The fertilizer drops directly into the boot through rubber tubes and will not lodge. Drill is provided with levers for changing quantity of grain and fertilizer, so that there are no gear wheels to change. Amount of fertilizer can be changed while the machine is in motion. Grain, seed and fertilizer hoppers are filled from behind, making it unnecessary for operator to go in front of drill. Hoes can be raised with one hand by lever conveniently located in the center of the drill. Even when in the ground the hoes raise sufficiently to pass obstructions when drilling rocky or stumpy ground. Hoes can be thrown "zigzag" while drill is in operation. We furnish the drill with spring hoes only.

of price and show the back view of the different drills we manufacture on the foregoing pages and will now give you the construction and point out to you a few of the many good features of the Hertzler & Zook Drill.

By referring to the above cut we call your attention to the frame of this drill, which is built of the best oak timber available, well braced and bolted. It is absolutely impracticable for any ordinary blacksmith or even a mechanic to straighten a steel frame, while a wood frame can be straightened up or repaired by any ordinary farmer and the drill will again be as good as new. Without a good frame it is impossible to get the best results from seeding.

For the 10 hoe 8-inch and the 11 hoe 7-inch drills, tongue, doubletree and yoke are sent for either two or three horses, but must be specified in ordering if tongue and doubletree is wanted for three horses, as if not specified, it will be equipped for two horses and shipped out.

On the right hand side of the drill, a hand is pointing to a lever which is the grain seed regulating lever, which opens the grain slide to the desired amount of wheat or oats that is wished to be sown. The wheat is regulated by the peck and is marked on the lever gauge which is shown at figure 103.

The oats regulations are on the lower side of the dial, marked oats, pecks, and will sow from 1 to 12 pecks of oats and from 1 to 10 pecks of wheat. After this is set it is very seldom necessary to fasten it, but in case the operator wishes to lock this up, it is provided with a lock nut or thumb screw which can be readily adjusted without a wrench and will stay until removed.



Fig. 103

On the left hand side of the drill, the hand pointing to the fertilizer feed lever and just one hoe distance to the right, you will see the dial shown on the drill, with a pointer showing the amount it is opened and the amount of fertilizer that will be sown per acre, any quantity from nothing up to five hundred pounds per acre and will sow the same volume in lime or anything you wish to sow with the fertilizer sowing device that is sowable on a fertilizer drill. This lever is arranged with a ratchet so that it is impossible to get loose from any jolts, as it will stay positively where it is placed by the operator.

Again by referring to Figure 99, you will notice on the extreme left hand of the drill you will see the surveyor.

If you will refer to Figure 98 you will notice a pencil pointing to the center of the



Fig. 98

dial, where you will see a burr and when you start to drill a field, loosen this burr and you can adjust the pointer to whatever place you wish or directly where it now is and it will register exactly every acre or the fractional part of an acre up to one-eighth that is sown. In fact it can be gotten as close as a sixteenth of an acre. In making the turn at the end of a field, the bolster puts the working part out of gear, and, in consequence, the surveyor does not move in the least and can, therefore, be re-

lied upon to measure correctly. By being able to set this surveyor, when you start a new field, is one of the great features of the drill, as you can measure up your field to the very sixteenth of an acre.



Fig. 105

Fig. 105 shows the gear arrangement which drives the grain seeding side of the drill as well as the grass seeder which we control. This is the simplest of any in use. It consists of an eccentric pin, cast and turned in two parts, upon which the middle gear wheel is fastened. When the shovels are lowered, the eccentric causes the middle gear wheel to mesh into the upper and lower gear wheel, and when the holst lever is raised, the wheel is withdrawn, and the whole feed is thrown out of gear. By referring to Fig. 105, this can readily be seen, and we also wish you to note the simplicity of this arrangement; also how it is driven directly from the main axle which is driven from both wheels, so as to sow around any corner or turning either way.

The grass seeder is also driven with a sprocket chain running from the same shaft that sows the grain and the instant the hoes are lifted, all is thrown out of service.

We also call your attention to the dove-tail which is fastened on the front part of the drill head which is to receive the grass seeder in front of the hoes and which can be readily changed in a few moments' time and is then driven from the same shaft at the opposite end which will be explained and shown in Figure 94.

ment and compact, as well as shielding it from all grit and dirt. By referring to Figure 96, you can also see the full working of the hoe shifter.

The hoe shifter is made of iron—no wooden bars to get out of fix, and is considered by farmers who have used it, superior to any other. The change can be made at the pleasure of the operator almost instantly, even while the machine is in operation. The drill should only be used "zig-zag" where a great deal of rubbish remains on the surface of the ground. With the hoe "zig-zag" the rear shovel is liable to throw more or less ground or clods in the furrow of the forward hoe. This applies to drills of every make.

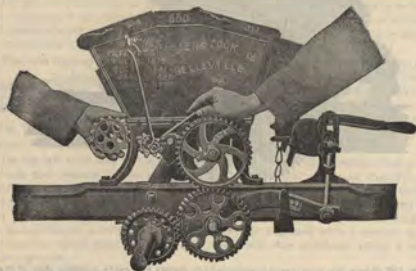


Fig. 94

Figure 94 shows the gear of the fertilizer feed as well as the part pointed to with pencil shows where gear wheel No. 388 is taken off and No. 434 put on when the grass seeder is used in front of the hoes, which is only wanted when sowing wheat at which time the agitator is not used. By this method the grass seeder can be used equally well in front of the drill and only requires a few moments to change it. An extra sprocket, however, is furnished free of charge with every drill. The fertilizer drill gear arrangement which is shown in Figure 94, is practically the same as that just described that drives the grain seeder with the exception of the attachment of the lever extending back which is to make it convenient to throw the fertilizer gear in or out of gear when the drill is in motion, and independent of wheat feed. For instance, you have a spot in your field which is very rich and you would consider it waste to sow fertilizer on this spot, as the operator is moving along, without stopping the drill, he can throw the lever up which will throw out of gear the fertilizer sower and when he comes to the place where he wishes to throw it in, by pulling lever down it will go into service and thereby make it possible for a great saving of fertilizer and enable the operator to sow fertilizer just where it is needed. Just notice the simplicity of the gear device of this drill—there is practically nothing to it to keep in repair, no gears to change for the different seedings.



Fig. 106

The ground wheels are furnished with 3-inch tread. They are made with steel tire, one-fourth inch thick and we use none but the best materials in the spokes and felloes. These spokes are all hand-shaved and of the best material available. With this wide tread, the draft is considerably less in passing over loose or uneven ground; and it also makes a rolled mark, which cannot be mistaken in following after for the score of a barrow tooth.

Figure 106 also shows the simplicity of the hub or ratchet which drives the main shaft of the drill from which the different feeds are driven. The ratchets are made of a very high grade of steel and annealed in a furnace to a temper best suited for the purpose; one being a little longer than the other so as to catch the wheel at a very short gauge, and is all nicely encased, making it dust-proof.



Fig. 96

Figure 96 shows the drill after the shield and wheel has been put on, making it

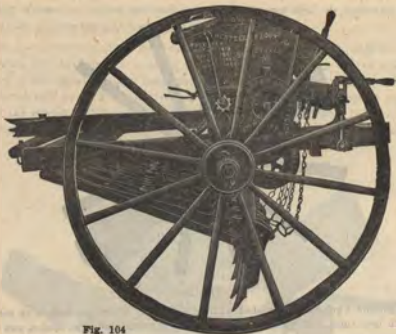


Fig. 104

This shows the drill again after the shield and wheel are in place, shows just how neatly the shield and everything is constructed, keeping the dirt and grit out of the machinery.



Fig. 4

The spring hoe is almost indispensable where the land is not clear of roots, rocks or obstructions. The spring is nearly three inches long, and fastened perpendicularly upon the bar by means of a bolt. This bolt has a center drag bar, which is fastened upon the top of the boot or hoe. The whole maintains an even, steady motion, when passing over the ground, and can be made to sow deeper or shallow by means of two holes in a lug on the boot, which is done by changing a bolt. In stony ground where a disc will not cut through a stone, this will shove the stone around and get the grain in, and in many instances preferred to the disc.

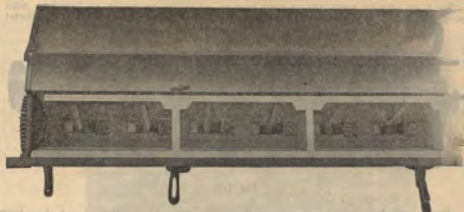


Fig. 91

Grain Feed.—Figure 91 shows the grain feed as it appears when you look into the hopper. You will notice the agitator, a part of which runs down directly to the opening where the rubber roll takes charge of the grain, making it impossible for the choking of any grain sown. The grain feed is a rubber roll feed made of the best rubber—sows all kinds of grain with absolute regularity, no cracking or bunching, and is so constructed that it cannot choke. The flow of grain is constant and regular—all straw, white caps or any foreign substances that should chance to be in the wheat is fed through without stoppage. In this way the "skipping" or bunching which is so frequent and objectionable in the fields of drilled wheat, is entirely avoided. The quantity to be sown can be instantly regulated by a lever, which is described at Figure 103, no change of gear wheels being necessary. In turning at the ends, or in passing from one field to another, no grain passes down the tubes, as the hoisting of the hoes throws the distributing apparatus out of gear. This feed has proven to be the most positive and regular feed ever devised, distributing seed with unvarying equality. The growing crops will show no "skips" or "over-sowing." The grain conveyors in this drill are so arranged that there cannot possibly be any lodging of the grain in going down the steepest hills.



Fig. 150

Fig. 150 shows the rubber roll grain feed enlarged and as it really is when at work. Just notice the many good features of this feed device.

1st—Simplicity. Two parts make this feed, while others have anywhere from four to six parts.

2nd—It is impossible to sow in bunches whether sowing on smooth or rough ground. The rubber roll holds the grain firmly so they cannot be jarred or shaken down ahead of time, while practically every other sowing device sows in bunches when going over rough ground.

3rd—A close examination of Fig. 150, you will notice how the grains are held firmly by the rubber rolls the instant the drill stops, again releasing the grains and dropping them the instant it starts, making it impossible for anything like skipping when stopping and starting anywhere in the field.

The grain hopper lid opens from behind so that the grain can be put in without going in front of the drill.



Fig. 100

Figure 100 shows the hopper inverted to show the rubber roll feed and also shows the great simplicity of the Hertzler & Zook Drill. In case there should ever be any occasion to remove the feed shaft, it can be done very readily and is easily gotten at.



Fig. 97

Figure 97 shows the sectional gear of the fertilizer feed which consists of a series of non-corrodible discs, one for each hoe, arranged to revolve horizontally in the bottom of the hopper. A bar provided with upwardly extending fingers, extends along the bottom of the hopper, which constantly agitates the mass of fertilizer and prevents bridging. On the upper surface of the non-corrodible discs referred to, there are revolving radial arms well shown in Figure 93, which serve to keep the upwardly extending fingers in motion, agitating the mass of fertilizer, breaking up lumps, and at the same time forcing the fertilizer down through the openings in the center of the discs into the conductors. These openings or grates are wider towards the discharge, facilitating the passage of the fertilizer and preventing anything like clogging.

Figure No. 92 shows how easily and readily the discs can be removed for cleaning, especially at the end of the season, so as to have the drill in good condition when next wanted. The fertilizer feed can be thrown in and out of gear when machine is in motion and independent of wheat feed. Quantity of fertilizer sown is regulated with lever, no change of gear being necessary. This feed will distribute fertilizer that others will not sow at all, and also does nice work distributing air-dried or ground

lime, and will distribute air-slaked or ground lime to the same volume as it will sow fertilizer. As the weight of air-slaked and ground lime varies it is hard to give an

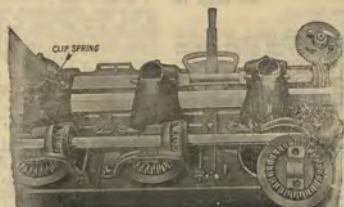


Fig. 92

accurate statement as to what the drill will do, any more than that it will sow the same volume of lime as fertilizer.

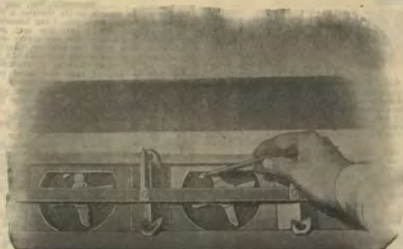


Fig. 93

By referring to Figure 93 you will notice a little point extending at the point of the pencil. This point is more fully shown on Figure 100, where the arrow is pointing. As this disc revolves the little scraper, extending in on the disc plate, scrapes off the amount of fertilizer wanted and as the scraper is moved towards the the hand, or the point towards the center of the disc, the more readily and larger quantity of fertilizer or lime it will scrape off, therefore, you can readily see that the fertilizer can be sown by volume and not by weight, making it one of the most durable and accurate fertilizer sowing devices on the market, inasmuch as it is one of the simplest as well as the best.

Peas, beans and corn are also sown in the fertilizer sowing device and is regulated in the same manner. They can be successfully sown just as the drill is, but when a large quantity is to be sown, the agitator should be taken out by removing the spring cotters as shown in Figure 97. At the end you will notice the bar on which the agitator is fastened to the revolving disc bar by a spring cotter. This can easily be removed, as the beans and corn do not need agitating. It will not be as liable to break the grain when this is out.

TESTIMONIALS

Gentlemen:—

Hertler & Zook Co.,
Belleville, Pa.
Gentlemen:—

Your auto jack, wood saw, chopper, folder shredder and corn sheller all received and are doing fine work. My 20 H. P. Ford auto furnishes sufficient power to shed 90 bundles of fodder per hour or grind 10 bushels of wheat or shelled corn per hour. It does not heat the chop at all. I am well pleased with the machinery and would not sell them for several times what I paid for them if I could not get new ones of the same kind.

Yours respectfully,
M. A. DETWEILER.

Gentlemen:—

Bluff Point, N. Y.
The lime spreader ordered from you made specially for vineyard purpose, extreme width 5 feet, has come to hand. I am very much pleased with it and find it will do all and more than you claim for it. It works perfectly with lime, also commercial fertilizer, ashes, etc., and works nicely in vineyard where rows are seven and eight feet apart. Would highly recommend it to all who have use for one.

Yours truly,
E. H. KINYOUN.

Gouverneur, N. Y.,
Hertler & Zook Co.,
Belleville, Pa.

Gentlemen:—The No. 2 Wood Saw that I bought of you last Spring is working fine and true, exactly as you have mentioned. I have not used it until Fall so could not say how satisfied I was until using it. I am recommending the saw frame to all of my neighbors far and near, as will say again that wherever or to whoever I can recommend your saw I will be glad to do so.

Yours very truly,
CHARLES E. LISCUM.

Waterbury, Conn., Vt.
Gentlemen:—I received the No. 1 saw frame O. K. and it is a little dandy. I have a 1 horse tread power that I use and it goes fine.

Thanking you very much, I am
Yours truly,
FRED J. HOUSTON.

Holly, Mich.

Dear Sirs:—I received the saw today. I put it together and started running it and it works O. K. It is the best saw I ever saw.

Yours truly,
LLOYD JONES.

Mohrsville, Pa.
Gentlemen:—The No. 2 Saw Frame which I received some time ago is O. K. I never sawed with a frame that worked nicer and easier than this one. I enclosed a list of names who might buy something along your line.

Yours truly,
WM. R. K. BUCKS.

Plumbsteadville, Pa.

Dear Sirs:—Received your saw I sent for. Came in fine shape. Gave it a fair trial and it did all that can be asked of any saw to do.

Thanking you for your promptness and kindness, I am
Yours truly,
HOWARD REIDLER.

McConnelleville, Ohio.

Dear Sirs:—I have been trying my wood saw and it is the finest thing to cut wood with that I ever saw. I am running it with a 1 H. P. engine and it will cut it just as fast as you can get it to it. I put a heavy fly wheel on it which I took off an old cider mill and fixed it on and I think I can cut just as much wood with my 1 H. P. engine as I could with a 2 H. P. without the fly wheel.

I will try to sell as many saws for you as I can. Remember me as a friend,
H. D. RICHARDSON.

Dear Friend:

Odesa, N. Y.
I am able to make a satisfactory reply in regard to wood saws. The wood saw shipped and received by Wm. Chapman yesterday is more than satisfactory. Set it up last night and sawed a little. I have had 35 years experience in wood sawing with a great many kinds of saws and can sincerely say that the construction and workmanship are superior to any I have ever operated and the price is more than satisfactory.

Hoping to be able to place of your goods in this vicinity, I remain
Respectfully yours,
ALAN WOODFORD.

Dear Sirs:

Asbury, N. J.
I received my No. 12 rolling table saw and frame last week, tested it Monday and find it works even better than I expected. Am very much pleased with it and am satisfied I saved in price at least \$5.00 to what I would have had to pay an agent here for a saw. Yours truly,
SAMUEL S. KINNEY.

Washington, Pa.
Dear Sirs:—I received the No. 2 wood saw I ordered from you and will say that I am very well pleased with it as it certainly will do the work. The swinging table is very easy to handle and I think it is a great improvement over the sliding table. Would not take twice the price I paid for it if I could not get another like it.

Hoping to be able to recommend it for you, I remain
Yours truly,
WM. MCDAVID.

Barnesville, Pa., Aug. 9, 1913.
Gentlemen:—In regards to the Hertler & Zook Grain Drill which I bought from you, I can honestly say that it is the handiest drill I have ever used, and I have used five different makes. One can always see the drill in operation, both grain and fertilizer, these being one that all the tubes are sowing and need not wait until the grain is up before knowing if you have a well seeded field or not. I have also saved considerable money by buying direct from your factory.

The saw frame and outfit I bought from you on Dec. 2, 1908, is giving good service and has been used for all kinds of hard work, sawing and ripping.

Very respectfully,
J. H. HEILMAN.

Livermore, Pa., Apr. 10, 1914.
Gentlemen:—The Hertler & Zook Grain Drill comes up to all expectations. I have sowed wheat, rye, oats and buckwheat and fertilizer last fall. I sowed 5/8 tons of lime with my drill. I took the tubes of the drill, which made it run lighter, and I tell you it worked like a top. I never used a drill to equal the Hertler & Zook for sowing oats or any other kind of grain, fertilizer, lime, etc. For grass seeding there is no better made, I don't care where you go. I will put the Hertler & Zook Drill up against any drill made for good work and accurate sowing.

Yours for success,
JAS. W. BURN.

Starr, Pa., Apr. 27, 1914.
Dear Sirs:—I will write just a line in regard to my drill I received a year last summer. Must say I am well satisfied in every respect I have tried. I would not take twice the money I paid if I could not get another one like it. I have showed it to my neighbor who will want to get one like mine. Yours truly,

WM. E. BEERS.

Belleville, Pa., July 2, 1913.
Dear Sirs:—Replying to your inquiry concerning my experience with your Hertler & Zook Grain Drill, beg to say that I am very much pleased with it. It is the lightest running drill I have ever operated. I sowed from 2 pecks to 2 bushels of wheat per acre and found that it sowed evenly on any quantity. I have the most wheat from the light sowing and attribute this to the regular and even work done by your drill.

It works equally well on oats as on wheat. The fertilizer attachment is the simplest of any I have ever seen and distributes the fertilizer evenly and has never choked for me.

Yours truly,
P. L. CIVITA.

**A Few of the Many Testimonials we have from Our Customers. If you wish to Read
More we will cheerfully mail you more.**

South Portland, Maine, Feb. 12, 1914.

Dear Sirs:—We got the cordwood saw all right and were very much pleased with it. The freight on it was \$1.60. It works fine and have sawed enough wood to more than pay for it. We are well pleased with it. Will not forget you.

Yours,
F. W. & A. H. PILLSBURY.

Stewartville, N. J.

Dear Sirs:—The No. 10 wood saw I bought of you about a year ago is all you claim for it. I do not hesitate to recommend it to any one.

Yours respectfully,
ISAAC B. HANCE.

Boomerille, Ark., Jan. 23, 1914.

Gentlemen:—The No. 1 wood saw I bought of you is all O. K. Just got through sawing our winter's wood. Have a little 2 H. P. gasoline engine and sawed 35 loads of pole wood in one day, some of the poles 35 ft. long. I can heartily recommend it to any one wanting a saw for small power.

Yours respectfully,
J. A. KNOWLES.

Pulaski City, Va., Feb. 17, 1914.

Dear Sirs:—I received my No. 4 wood saw, which I am well pleased with. I have tried it thoroughly on hickory wood and find it all right. Cut 5 two-horse loads in one hour with one man to help, and using my 3 H. P. gasoline engine.

Thanking you for prompt attention, I remain,
Yours truly,
WALTER P. MORRIS.

Sodus, N. Y., Apr. 10, 1914.

Dear Sirs:—We received saw frame, ripping table and saw blades and found them satisfactory and are well pleased with them.

Yours truly,
G. A. JACOBS.

Fairfield, Pa., Mar. 12, 1914.

Gentlemen:—The feed mill you shipped me come in good shape and proved satisfactory and I am very much pleased with its work.

Yours respectfully,
DAVID C. SHULKY.

Middleboro, Mass., Apr. 27, 1914.

Gentlemen:—I received the lime spreader the day previous to which I wanted to use it, for which I am glad. It arrived in good time and has proved a valuable addition to other labor saving farm machinery.

I wish to say also that the shafts sent to replace broken ones on roller bought of you arrived promptly and I am very grateful to you for the readiness with which you made good this break. You have certainly done the square thing by me and I am very favorably impressed with your line and business dealings and shall be glad to serve you in any way I can in future. I have in the past bought several things from you. All have given excellent satisfaction, at prices, with freight added, much below what I could buy locally, the same standard of goods. Between now and next winter I shall order several other articles from you.

Small favors seldom incur much expense, yet they often bring as much added business as many dollars' worth of advertising could do.

Wishing you continued success, I remain,
Yours very truly,
ROLFE A. DELANO.

Midport, N. Y., Jan. 19, 1914.

Dear Sirs:—The No. 1 saw frame and 30" saw purchased of you a little over a year ago has given the very best of satisfaction. I use it with a 4 H. P. engine and have cut about 900 cords of wood to this time. It is the best rig in this part of the country. I shall order from you when in need of more.

Very truly yours,
HENRY BRINK.

Easton Pa., R. F. D. 6, Jan. 22, 1914.

Sirs:—I have been using a No. 1 Hertzler & Zook circular saw about two months and I would not part with it for twice the price I paid.

Yours truly,
HERBERT UNANGST.

Hamilton, Ia., Jan. 21, 1914.

Gentlemen:—You ask me to write you about my saw. I can say that it works fine and I run it with 1 1/2 H. P. I have sawed 30 cords of wood so far and I would not take any money for it. It is all you claim for it.

Yours truly,
HENRY CHAIN.

Geneva, N. Y., Jan. 25, 1914.

Gentlemen:—The saw I purchased from you is a perfect saw and am very much pleased with it. I have sawed 7150 worth of wood with it and have a good run of sawing this winter. Have not had a minute of trouble with the saw. I have a I. H. C. Gas Engine 2 H. P. that runs the saw.

The grinding attachment you have is a fine one. I will order one for my No. 2 saw frame as soon as convenient.

I remain your customer,
ROY LYND.

Bergen, N. Y., Jan. 30, 1914.

Dear Sirs:—I have received the No. 4 saw that I bought of you all in good shape and I am more than pleased with it for the price I paid. I have the only Hertzler & Zook Saw in my section that I know of and I have lots of work for it every day in my neighborhood and it is just the one that will stand this business.

Yours truly,
ALONZO BLINN.

Macungie, Pa., Feb. 2, 1914.

Gentlemen:—My No. 1 saw frame which I bought from you nearly four years ago has done good work and it is just as good as the first time I used it. Last summer I sawed about two carloads of dead apple wood in 10 hours with good results. I will show it to all, as it is in good shape.

GEO. W. SNYDER.

Emporia, Va., Mar. 25, 1914.

Dear Sirs:—Received your saw and pulley in first class condition and am very well pleased with your promptness in filling my orders and I think I have saved one-half by buying from you. Will try and send for more later on.

Yours truly,
FRANK SWARTY.

Sunnyvale, Wash., Feb. 23, 1914.

Gentlemen:—The auto jack and wood saw received a few days after I wrote you requesting that you put on a tractor. I am very much pleased with the jack and I think I have all the power I will need for most all kinds of work that might come up on a farm, but wish you had sent me an 18" drive pulley in place of the 14", as with my big car I have power enough and with a larger drive wheel would not have to run my car so fast.

We set the machine up and have sawed wood part of one day to try it out and we run out about 30 cords in six hours, which I consider pretty good for a starter. I am anxious now to try it out on cutting silage and filling the silo.

Yours truly,
R. E. FERSON.

North Islesboro, Maine, Aug. 24, 1914.

Gentlemen:—I am well pleased to tell you that I have been running your No. 4 machine about a week now and can make good shingles and boards. Have had gages made to saw the boards. I mean the round timber as it is cut from the wood and it goes fine. Shall send soon for a cut off saw to make my shingle blocks with and saw up my winter's wood.

Yours truly,
N. K. BUNKER.

Doster, Mich., Feb. 17, 1914.

Dear Sirs:—I thought that I would write you a few words as I have never said a word to you about the saw I bought of you. It is O. K. and when I want any more I will let you know. I cut all the wood three men can get to it with 2 1/2 H. P. engine, so you see it will cut some. It will outcut any saw that I ever saw and I have worked around them quite a lot.

Yours respectfully,
JAMES L. WISWILL.

NET CASH REPAIR PRICE LIST

for the HERTZLER & ZOOK Grain, Seed, Fertilizer, Bean, Pea and Corn Drill. Plain Seed Drill. Always give No. and name of part wanted, with price and enough to cover postage. If more is sent it will be returned with the billing. Parcel Post will take many of these parts to your door promptly avoiding delays of going through the different hands.

Cart- ing No.	Name of Parts	Price	Cart- ing No.	Name of Parts	Price
1-A	Pivot or Bearing for Fertilizer Disc	1.25	30-A	Box for Fertilizer Feed Shaft, 1 1/2" bore	1.25
2	Star Wheel	1.25	31	Sprocket Wheel for Grain Feed Shaft, 1 1/2" bore	1.25
3	Yoke for Grain Slide	1.25	32	Arm with Hoe or Shovel Point	1.25
4	Hinge for Grass Seed Hopper Lid (Left)	1.25	33	Arm with Pin for No. 49 Gear Wheels (O. B.)	1.25
24	Hinge for Grass Seed Hopper Lid (Right)	1.25	34	Pulley for No. 24 Bracket for Chain Tightener	1.25
25	Pin for Fertilizer Hopper Lid	1.25	35	Sprocket Wheel on Grain Feed Shaft, 1 1/2" bore	1.25
26	Pin for Grain Feed Shaft 1 1/2" inch bore	1.25	36	Cap on end of Wood Roller to lift Boots (Right)	1.25
27	Crank for Zigzag Rod	1.25	37	Latch with Pawl for No. 45A Cap	1.25
28	Washer for Drag Bar Spring	1.25	38	Lift Bar latch lug	1.25
29	Gear Wheel on No. 45-L Arm 4 1/2" Teeth 1" bore	1.25	39	Bracket with Pin for No. 46 Latch	1.25
30	Lever to move Grass Seed Slide	1.25	40	Eccentric for No. 43 Cap on end of Wood Roller	1.25
31	Bracket with Pin for No. 28 Lever	1.25	41	Lever for No. 47 Link, for Fertilizer Slide Bar	1.25
32	Coupling for Zigzag Bar	1.25	42	Link between No. 43-A Arm and No. 43 Lever	1.25
33	Bracket on end of Tongue for Hook Bolt	1.25	43	Bracket on Wood Roller for Chain for Lifting Boot	1.25
34	Box with No. 210 Nutram for Grain Feed Rod	1.25	44	Bracket with Pin for No. 49 Lever	1.25
35	Hinge for Fertilizer Hopper Lid (Left)	1.25	45	Star (with Pin) to Feed Fertilizer	1.25
36	Hinge for Fertilizer Hopper Lid (Right)	1.25	46	Star (without Pin) to Feed Fertilizer	1.25
37	Hinge for Grain Hopper Lid (Left)	1.25	47	Head for Grain Hopper with No. 40-A Cap for Box (Left)	1.25
38	Hinge for Grain Hopper Lid (Right)	1.25	48	Head for Grain Hopper with No. 40-A Cap for Box (Right)	1.25
39	Bracket for Axle Shaft (Right) (O. B.)	1.25	49	Cap for Box on No. 41 Head (Right)	1.25
40	Triangle to move Oats Actuator	1.25	50	Frame for Fertilizer Disc (Malleable)	1.25
41	Arm for Oats Actuator	1.25	51	Angular Cut-off Gate for Fertilizer	1.25
42	Frame on Grain Roller	1.25	52	Bracket on Wood Frame for Zigzag Lever	1.25
43	Gear Wheel on No. 40 Arm 4 1/2" Teeth 1 1/2" bore	1.25	53	Bed Plate for Fertilizer Disc	1.25
44	Gear Wheel for Grain Feed Shaft, 4 1/2" Teeth 1 1/2" bore	1.25	54	Bed Plate for Fertilizer Disc	1.25
45	Worm for Grain Feed Shaft, 1 1/2" square hole	1.25	55	Gauge Plate for Fertilizer	1.25
46	Bracket on Wood Frame for Drag Bar End	1.25	56	Pointer for Fertilizer Gauge	1.25
47	Slide (Section) under Grain Hopper with Pin	1.25	57	Top or coupling G pieces with spring for Gum Tube	1.25
48	Slide (Section) under Grain Hopper without Pin	1.25	58	Shield over No. 46 Bed Plate for Fertilizer (it together)	1.25
49	Dial for Acres Register	1.25	59	Guide on Wood Frame for No. 45-L Arm	1.25
50	Gear Wheel for Acres Register (Outside)	1.25	60	Frame protection casting	1.25
51	Gear Wheel for Acres Register (Inside)	1.25	61	Box for Zigzag Shaft (Right)	1.25
52	Cap for Shaft for Acres Register	1.25	62	Box for Zigzag Shaft (Left)	1.25
53	Link on Foot 1 1/2" Drag Bar (Right)	1.25	63	Hub (Grate) for Truck Wheel (Right and Left)	1.25
54	Link on Foot 1 1/2" Drag Bar (Left)	1.25	64	Cap for No. 46 Hub (Left)	1.25
55	Bracket on Drag Bar for Soring	1.25	65	Cap for No. 46 Hub (Right)	1.25
56	Grain Regulator in Hopper	1.25	66	Arm for No. 418 and No. 42 Gear Wheels	1.25
57	Head for Grass Seed Hopper (Left)	1.25	67	Gear Wheel with Set Screws for Drive Axle, 2" Cog, 1 1/2" bore (Right and Left)	1.25
58	Head for Grass Seed Hopper (Right)	1.25	68	Arm (G Piece) for No. 42 Gear Wheel	1.25
59	Bracket with Pin for No. 41 Pulley for Chain Tightener	1.25	69	Shield over Gearing (Left)	1.25
60	Gear Wheel for Fertilizer Feed Shaft to sow 500 lbs. 3 1/2" tooth 1 1/2" Bore (Special)	1.25	70	Shield over Gearing (Right)	1.25
61	Pointer for Grass Seed Slide	1.25	71	Hand for Acres Register	1.25
62	Sprocket Wheel for Grain Feed Shaft, 8 Teeth 1 1/2" Bore	1.25	72	Tie in Seed Hopper	1.25
63	Cap on end of Wood Roller to lift Boots (Left)	1.25	73	Sprocket Wheel (Special) to Drive Seed Shaft 1 1/2" bore, 3 1/2" sprockets	1.25
64	Register Plate on Grain Hopper (for Wheat and Oats)	1.25	74	Wrench for 1" Nuts	1.25
65	Lever for Wheat and Oats Register	1.25	75	Set Collar Part Shaft, 1 1/2" bore	1.25
66	Stand for Wood Roller to Lift Boots (Right)	1.25	76	Oil Hole Cap	1.25
67	Stand for Wood Roller to Lift Boots (Left)	1.25			
68	Disc to Feed Fertilizer (some not numbered)	1.25			

Cart- Ing No.	Name of Parts	Price	Cast- Ing No.	Name of Parts	Price
254	Washer on Drag Bar	10	10	Hopper for Grass Seed (8 Hoe) (Wood only)	1 50
255	Casting to hold Shift Bar	10	11	Hopper for Grass Seed (9 Hoe) (Wood only)	1 50
256	Bracket for Seeder Box	15	12	Hopper for Grass Seed (10 Hoe) (Wood only)	1 75
257	Pawl for Latch for 63 Catg.	15	13	Hopper for Grass Seed (11 Hoe) (Wood Only)	1 75
258	Catg. for Slot in 613	10	14	Hoe or Shovel for Root	1 50
259	Swing Tree Hook	10	15	Lid for Grass Seed Hopper (8 Hoe)	1 50
260	Bracket for Lid	10	16	Lid for Grass Seed Hopper (9 Hoe)	1 50
261	Collar for Seeder Shaft	10	17	Lid for Grass Seed Hopper (10 Hoe)	1 50
262	Slide under Grains Hopper	10	18	Lid for Grass Seed Hopper (11 Hoe)	1 50
263	Slide under Grains Hopper	10	19	Lever for Zigzag Rods	1 50
264	Slide under Grains Hopper	10	20	Neck Yoke, 10-11 Hoe, 2 Horse yoke, 4 1/2" long, each	1 75
265	Tooth Gear, U. 8	10	21	Neck Yoke 8-9 Hoe, 2 Horse Yoke, 4 1/2" long	1 75
266	Tooth Gear, U. 8	10	22	Plate to hold Fertilizer Slide (Casting)	1 50
267	Hub Cap, R. H.	10	23	Pinion (Steel) on Fertilizer Shaft to Drive Disc	1 50
268	Hub Cap, R. H.	10	24	Pinion (Wood) for Chain to Lift Rods (8 Hoe)	1 50
269	Hub Cap, R. H.	10	25	Roller (Wood) for Chain to Lift Rods (9 Hoe)	1 50
270	Shield, R. H.	10	26	Roller (Wood) for Chain to Lift Rods (10 Hoe)	1 50
271	Shield, L. H.	10	27	Roller (Wood) for Chain to Lift Rods (11 Hoe)	1 50
272	Box for Axle 1 1/2" bore	10	28	Roller (Wood) for Chain to Lift Rods (12 Hoe)	1 50
273	Box for Axle 1 1/2" bore	10	29	Shaft for Bevel pinion to Drive Fertilizer Disc, (8 and 9 Hoos) 8 1/2" x 1/2"	1 50
274	Box for Axle 1 1/2" bore	10	30	Shaft for Bevel pinion to Drive Fertilizer Disc (10 and 11 hoos) 8 1/2" x 1/2"	1 50
275	Box for Axle 1 1/2" bore	10	31	Shaft to Drive Gum Feeders (Front) (8 Hoe) 8 1/2" x 1/2"	1 50
276	Box for Axle 1 1/2" bore	10	32	Shaft to Drive Gum Feeders (Rear) (8 Hoe) 8 1/2" x 1/2"	1 50
277	Box for Axle 1 1/2" bore	10	33	Shaft to Drive Gum Feeders (Front) (9 Hoe) 8 1/2" x 1/2"	1 50
278	Box for Axle 1 1/2" bore	10	34	Shaft to Drive Gum Feeders (Rear) (9 Hoe) 8 1/2" x 1/2"	1 50
279	Box for Axle 1 1/2" bore	10	35	Shaft to Drive Gum Feeders (Front) (10 Hoe) 8 1/2" x 1/2"	1 50
280	Box for Axle 1 1/2" bore	10	36	Shaft to Drive Gum Feeders (Rear) (10 Hoe) 8 1/2" x 1/2"	1 50
281	Box for Axle 1 1/2" bore	10	37	Shaft to Drive Gum Feeders (Front) (11 Hoe) 8 1/2" x 1/2"	1 50
282	Box for Axle 1 1/2" bore	10	38	Shaft to Drive Gum Feeders (Rear) (11 Hoe) 8 1/2" x 1/2"	1 50
283	Box for Axle 1 1/2" bore	10	39	Shaft for Grass Seeder (8 & 9 Hoos) 8 1/2" x 1/2"	1 50
284	Box for Axle 1 1/2" bore	10	40	Shaft for Grass Seeder (10 & 11 Hoos) 8 1/2" x 1/2"	1 50
285	Box for Axle 1 1/2" bore	10	41	Shaft for Coupling for Zigzag Bar (8 & 9 Hoos)	1 50
286	Box for Axle 1 1/2" bore	10	42	Slide for Grass Seeder (8 & 9 Hoos) 8 1/2" x 1/2"	1 50
287	Box for Axle 1 1/2" bore	10	43	Slide for Grass Seeder (10 & 11 Hoos) 8 1/2" x 1/2"	1 50
288	Box for Axle 1 1/2" bore	10	44	Slide for Fertilizer (8 Hoos) 8 1/2" x 1/2"	1 50
289	Box for Axle 1 1/2" bore	10	45	Slide for Fertilizer (9 Hoos) 8 1/2" x 1/2"	1 50
290	Box for Axle 1 1/2" bore	10	46	Slide for Fertilizer (10 Hoos) 8 1/2" x 1/2"	1 50
291	Box for Axle 1 1/2" bore	10	47	Slide for Fertilizer (11 Hoos) 8 1/2" x 1/2"	1 50
292	Box for Axle 1 1/2" bore	10	48	Slide for Fertilizer (12 Hoos) 8 1/2" x 1/2"	1 50
293	Box for Axle 1 1/2" bore	10	49	Slide for Fertilizer (13 Hoos) 8 1/2" x 1/2"	1 50
294	Box for Axle 1 1/2" bore	10	50	Slide for Fertilizer (14 Hoos) 8 1/2" x 1/2"	1 50
295	Box for Axle 1 1/2" bore	10	51	Slide for Fertilizer (15 Hoos) 8 1/2" x 1/2"	1 50
296	Box for Axle 1 1/2" bore	10	52	Slide for Fertilizer (16 Hoos) 8 1/2" x 1/2"	1 50
297	Box for Axle 1 1/2" bore	10	53	Slide for Fertilizer (17 Hoos) 8 1/2" x 1/2"	1 50
298	Box for Axle 1 1/2" bore	10	54	Slide for Fertilizer (18 Hoos) 8 1/2" x 1/2"	1 50
299	Box for Axle 1 1/2" bore	10	55	Slide for Fertilizer (19 Hoos) 8 1/2" x 1/2"	1 50
300	Box for Axle 1 1/2" bore	10	56	Slide for Fertilizer (20 Hoos) 8 1/2" x 1/2"	1 50
301	Box for Axle 1 1/2" bore	10	57	Slide for Fertilizer (21 Hoos) 8 1/2" x 1/	

FREIGHT CLASSIFICATION.—Railroads Charge for Freight According to its Classification, and the Classification varies according to the nature and value of the goods. Following is a classification of our line of goods:

CLASS

CLASS

ITEMS	CLASS			ITEMS	CLASS		
	East	West	South		East	West	South
Anvils, cast iron	4	4	4	Shafting Hangers	4	3	5
Babbitt Metal	3	3	4	Shafting Collars	4	3	5
Belting, Canvas	1	3	2	Stove Grates	4	4	3
Belting, Leather	1	3	2	Swings, Porch	3	1	2
Belting, Rubber	1	2	2	Threshing Machines	1	1	1
Crushers, Gilt	3	3	2	Troughs, Cast	2	2	3
Drag Saws	2	1	1½	Troughs, Stock	1	2	3
Dust Collectors	1	1	1	Troughs, Poultry	2	2	3
Feed Cutter, hand	2	2	3	Trucks, Hand	1	3	3
Feed Grinders	2	2	3	Trucks, Two Horse	1	1½	1½
Friction Clutches	2	2	4	Washing Machines	1	1	1
Furnace Plates	4	3	3	Weights, Sash	2	4	6
Grates, Wood	4	4	3	Wood Planers	1	2	1
Grain Drills	3	3	3	Wood Saws, Mounted, K. D. ..	2	2	2
Hitching Weights	1	1	1	Wood Sawing outfits with			
Lead, White	1	1	1	engines, K. D.	1	1	1½
Line Spreaders	4	4	3	Wood Saw Parts	1	1	1
Mandrel Sets	3	3	5	Wood Saw Tables, K. D.	1½	1	1½
Paints, Brushes	1	1	1	Wood Splitters	1	1	1
Paints, Varnishes, etc.	2	2	2	Fodder Shredders, K. D.	1	1	1
Plows, Hitching, K. D.	2	3	3	Corn Splitters, S. U.	1	1	1
Plows, Subsoiling, K. D.	3	3	3	Land Rollers, wood, K. D. ..	2	2	3
Pulleys, Iron	3	3	3	Tread Power (Auto Jacks)			
Pulleys, Wood	2	2	2	K. D.	1	1	1
Saw Blades, on Boards	1	1	1	Circular Saws, with frame att.	1	1	2
Shafting Couplings and boxes	4	3	5	Corn Shellers, S. U.	3	3	3
Saw Frames, set up.	1½	1½	2	Bag Trucks, S. U.	3	3	3
Saw Frames, K. D.	2	2	3				

Freight Rates, per 100 lbs.

Freight Rates, per 100 lbs.

From BELLEVILLE To	CLASS						From BELLEVILLE To	CLASS					
	1st	2d	3d	4th	5th	6th		1st	2d	3d	4th	5th	6th
ALBERTA							GEORGIA						
Calgary	3.38	2.85	2.26	1.68	1.50		Atlanta	1.26	1.11	.99	.83	.67	.53
ALABAMA							Thomasville ..	1.26	1.11	.99	.83	.67	.53
Birmingham ..	1.34	1.16	1.02	.88	.71	.58	IOWA						
Montgomery ..	1.23	1.13	1.00	.84	.68	.54	Des Moines ...	1.26	1.08	.86	.63	.44	
ARKANSAS							INDIANA						
Little Rock ...	1.86	1.68	1.23	.92	.70	.53	Indianapolis ..	.64 ⁴	.56 ⁵	.44 ⁶	.33 ⁷	.27 ⁸	.22 ⁹
BRITISH COL.							Evansville ...	.74 ⁴	.63 ⁵	.51 ⁶	.38 ⁷	.31 ⁸	.26 ⁹
Roseland	4.08	3.45	2.74	2.10	1.84		ILLINOIS						
Vancouver ...	3.83	3.33	2.77	2.37	2.00		Springfield ...	.76 ⁴	.67 ⁵	.52 ⁷	.39	.32 ⁸	.26 ⁹
COLORADO							Chicago	.68 ⁷	.60 ⁶	.47 ⁴	.35 ⁸	.29 ³	.24 ²
Denver	2.46	2.03	1.66	1.19	.98		IDAHO						
CALIFORNIA							Avery	3.78	3.27	2.62	2.13	1.90	
Los Angeles ...	3.78	3.28	2.72	2.32	1.95		KENTUCKY						
Sacramento ...	3.78	3.28	2.72	2.32	1.95		Frankfort	.99	.83	.71	.54	.47	.40
CONNECTICUT							Louisville ...	.68 ⁷	.60 ⁶	.47 ⁴	.35 ⁸	.29 ³	.24 ²
Hartford ...	.50 ⁸	.53	.41 ⁵	.32 ¹	.26 ⁴	.22 ⁹	LOUISIANA						
New Haven ...	.60 ⁸	.53	.41 ⁵	.32 ¹	.26 ⁴	.22 ⁹	Baton Rouge .	1.20	1.00	.83	.66	.57	.46
DELAWARE							MAINE						
Dover	.55	.49	.39	.29	.23	.19	Augusta	.70 ⁸	.62 ⁵	.49 ²	.37 ¹	.30 ⁴	.24 ⁷
Wilmington ...	.49	.43	.36	.27	.22	.18	Portland ...	.60 ⁸	.53	.41 ⁵	.32 ¹	.26 ⁴	.21 ⁹
DIST. OF COL.							MARYLAND						
Washington ...	.47	.41	.35	.26	.21	.17	Baltimore ...	.47	.40 ⁸	.34 ³	.26	.20 ⁵	.17 ⁶
FLORIDA							Cumberland ...	.47	.40 ⁸	.34 ³	.26	.20 ⁵	.17 ⁶
Jacksonville ..	1.14	.96	.79	.59	.46	.40	Hagerstown ...	.47	.40 ⁸	.34 ³	.26	.21	.17 ⁶
Tampa	1.64	1.38	1.12	.90	.74	.66							

HELLEVILLE, PENNA.

Date of this order _____ 1991

Enclave - degree first

(Chap. 18) as ΔH_{vap} (since ΔH_{vap} is always positive, we can drop the minus sign).

State

100

Box No. or R. F. D.

County

E. J. Meehan, P. O.

On what railroad is your shipping point?

HOW TO BE SUPPLIED
See Ref. 2 in Catalogue

Freight: Express

Small Mall Lane

Trail	Trail
Number	Designation

Signs. Frequent
red. Euphorbia
(10 per cent.)

4. **Modeling a growth factor** (the growth factor is a function of the growth rate)

Is there a freight agent
at your railroad station?

Order your Mail Shipments Insured
and allow \$6 fee each \$5.00 in value

If there is no freight agent at your shipping point, you must send money to prepay the freight charges. If there is an agent you can pay the freight when shipment reaches you. It is only necessary to prepay when there is no agent at your station. The charges will be the same.

Click here to mark history for and/or

Give Number or name of catalogue from which this order was selected.

Read the introductory pages of catalogue for information about how to send money, how to shop, etc.

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

More order sheets will be sent upon request.

Be sure to read about Freight Rates.

DO NOT FORGET TO GIVE SIZES AND NUMBER

[illegible]

Freight Rates, Per 100 lbs.

Freight Rates, Per 100 lbs.

From BELLEVILLE To	1st Class	2d Class	3d Class	4th Class	5th Class	6th Class
MICHIGAN						
Lansing	.65 ¹	.58	.45 ⁴	.34	.28	.23 ³
Marquette ...	.93	.79	.64 ⁴	.48	.42	.31
MINNESOTA						
St. Cloud	1.30	1.12	.88	.64	.54	
MISSOURI						
Hannibal	.79	.69 ³	.54 ³	.40 ²	.33 ⁴	.27 ⁷
St. Louis	.79	.69 ³	.54 ³	.40 ²	.33 ⁴	.27 ⁷
MISSISSIPPI						
Jackson	1.25	1.11	.98	.88	.74	.66
MONTANA						
Great Falls ..	3.36	2.87	2.33	1.85		
MASS.						
Boston	.60 ³	.53	.41 ⁵	.32 ¹	.26 ⁴	.21 ⁸
NEW YORK						
Albany	.52	.46	.36	.27	.22	.18
Buffalo	.49	.41 ⁷	.36 ⁴	.27	.23 ⁸	.18
Rochester	.49	.41 ⁷	.36 ⁴	.27	.23 ⁸	.18
Utica	.50	.44	.38	.27	.22	.18
N CAROLINA						
Asheville	1.27	1.14	.90	.82	.67	.57
Raleigh	1.04	.91	.62	.54	.42	.37
N DAKOTA						
Bismarck	2.06	1.77	1.39	1.03	.85	
N HAMPSHIRE						
Concord	.60 ³	.53	.41 ⁵	.32 ¹	.26 ⁴	.21 ⁸
Plymouth	.60 ³	.53	.41 ⁵	.32 ¹	.26 ⁴	.21 ⁸
NEBRASKA						
Lincoln	1.51	1.28	.95	.79	.54	
NEW JERSEY						
Bridgeton ...	.54	.47 ⁷	.41 ⁴	.32	.26 ⁸	.22 ⁷
Trenton	.49	.42 ⁷	.36 ⁴	.27	.21 ⁸	.17 ⁷
OHIO						
Cincinnati ...	.60 ³	.53 ⁷	.42 ²	.31 ⁶	.26 ¹	.21 ⁴
Columbus ...	.55 ⁴	.49	.38 ⁸	.29 ¹	.23 ⁹	.19 ⁸
Dayton	.59	.52 ²	.41	.30 ⁸	.25 ⁴	.21
Portsmouth ...	.60 ³	.53 ⁷	.42 ²	.31 ⁶	.26 ¹	.21 ⁴
Toledo	.55 ⁴	.49	.38 ⁸	.29 ¹	.23 ⁹	.19 ⁸
OREGON						
Portland	3.78	3.28	2.72	2.32	1.95	

From BELLEVILLE To PENNA.	1st Class	2d Class	3d Class	4th Class	5th Class	6th Class
ERIE						
Erie	.47 ³	.41	.35 ⁵	.26 ¹	.21	.16 ⁸
ALTOONA						
Altoona	.39 ⁸	.32 ²	.25 ³	.19 ⁸	.16 ⁸	.14 ³
READING						
Reading	.49	.42 ⁷	.36 ⁴	.27	.21 ⁸	.17 ⁷
PHILADELPHIA						
Philadelphia ...	.49	.42 ⁷	.36 ⁴	.27	.21 ⁸	.17 ⁷
LOCK HAVEN						
Lock Haven ...	.44 ⁸	.39 ⁵	.31 ²	.24 ⁹	.19 ⁷	.16 ⁸
WAYNESBORO						
Waynesboro ...	.47	.40	.34	.26	.21	.17
EVERETT						
Everett	.43 ⁷	.38 ⁵	.31 ²	.24 ⁹	.25	.17 ⁹
QUEBEC, Canada						
Quebec	.67	.59	.46	.34	.23	.24
RHODE ISLAND						
Providence ...	.60 ³	.53	.41 ⁵	.32 ¹	.26 ⁴	.21 ⁸
S. CAROLINA						
Abbeville	1.34	1.16	1.02	.88	.71	.58
Columbia	1.16	.99	.86	.73	.58	.46
SOUTH DAKOTA						
Watertown ...	1.54	1.33	1.04	.74	.54	
SASKATCHEWAN						
Regina	2.68	2.28	1.79	1.33	1.36	
TEXAS						
Dallas	2.23	1.92	1.56	1.36	1.07	
TENNESSEE						
Chattanooga ...	1.13	1.01	.90	.75	.61	.48
Nashville	.93	.80	.65	.47	.39	.33
UTAH						
Salt Lake City	3.58	3.09	2.56	2.07	.72	
VERMONT						
Bennington ...	.60 ³	.53	.41 ⁵	.32 ¹	.26 ⁴	.21 ⁸
Montpelier ...	.70 ³	.62 ⁵	.49 ³	.37 ¹	.30 ⁴	.25 ⁷
VIRGINIA						
Roanoke	.81 ⁸	.72 ¹	.60 ⁴	.40 ⁶	.34 ⁴	.28 ²
Portsmouth ...	.65	.56	.45	.32	.26	.21
Richmond	.65	.56	.45	.32	.26	.21
Winchester ...	.46 ⁶	.40 ⁴	.35 ⁴	.25 ³	.20 ⁸	.16 ⁸
WEST VA.						
Parkersburg ...	.52 ⁷	.46 ⁷	.36 ⁸	.27 ³	.22 ⁹	.18 ⁸
Romney	.56 ⁷	.49 ⁷	.39 ⁸	.29 ³	.24 ⁸	.20 ⁸
Wheeling	.47 ⁸	.43 ³	.35 ⁵	.26 ¹	.21 ⁷	.17 ⁸
WASHINGTON						
Seattle	3.58	3.09	2.56	2.07	1.72	1.47
WISCONSIN						
Madison	.98	.85	.68	.50	.45	

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