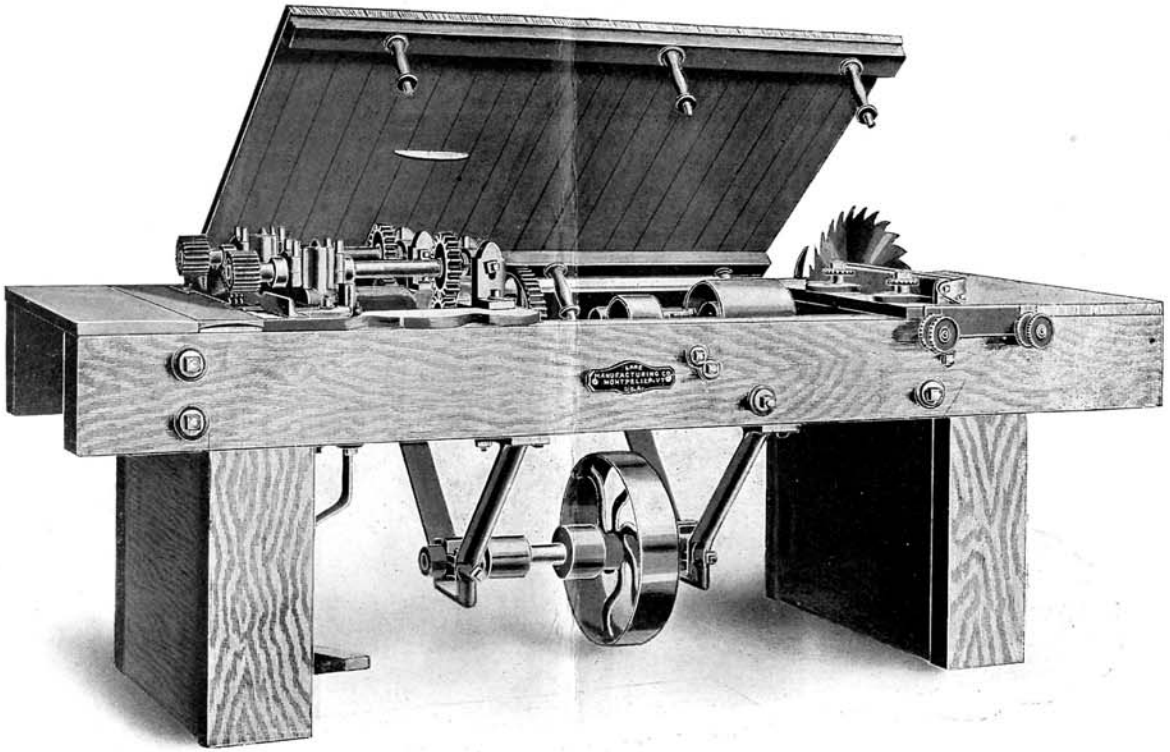
LANE MANUFACTURING COMPANY

JUNE 1, 1906.

LATH, SHINGLE AND HEADING MACHINERY.

DISCOUNTS QUOTED ON APPLICATION.

MONTPELIER, VERMONT, U. S. A.



Gang Lath and Bolting Machine.

GANG LATH AND BOLTING MACHINE.

A Machine that is now considered well-nigh **indispensable** in most Saw Mill Plants.

We were among the first to introduce machines for making laths from slabs and mill waste and our original design was so excellent that it has been adopted by many of our competitors, but our large and varied experience suggested several alterations and improvements and we are now offering a machine that for capacity, efficiency, durability and convenience of operation is not excelled by any 4-saw machine in the market.

The Machine illustrated on the preceding page (with the "bolt" table raised to show the working parts,) was designed to meet the requirements of the Mills in the New England States, and consists of a **right hand Lath Machine** with a **left hand Bolter.**

In New York State and other Sections the machine is generally preferred with the Lath Machine on the right end and the Bolter on the left. When built that way, the **Bolter** is made **right hand,** and the sawyer at either end works with the gauge at his right. This machine has a longer frame and a different top, but otherwise the machines are similiar, and briefly described as follows:

The main frame is made of suitable lumber, either birch, maple or hard pine, and the **legs are boxed** or cased to form spouts for conducting the sawdust to the conveyor.

Iron plates, planed, set in the top on either side of the saws, for the stock to pass over, and make a durable table. The plates are in sections, and only one has to be removed to change the saws.

The bolt table between the lath and bolter saws serves as a cover for the machinery and protects it from dust and grit.

A countershaft for driving the feed rolls of both the Lath Machine and Bolter is suspended from the frame, and is driven from a pulley on the end of the Bolter arbor.

The Lath Machine has a strong **iron frame** which carries in suitable bearings a steel arbor with **three 12 inch saws,** two pairs of strongly **geared fluted rolls,** one pair for feeding in, the other for feeding out, and driving pulleys, and is fitted with an adjustable gauge; all of Lane quality.

The upper rolls are under spring tension, which is adjustable, and they **can be raised** clear of the bolt—so it or any piece can be withdrawn—by the pedal shown in the engraving.

The Bolter has a steel arbor which carries **a 22 inch saw,** a saw-guide adjusted by hand wheels on the outside of the frame, a feed roll, a **double, adjustable gauge,** driving pulleys and suitable bearings.

Both arbors are driven from a convenient shaft, either above or below.

If to be driven from above, so state when ordering, and also state whether the **N. E.** or the **N. Y.** style is wanted.

We can furnish the **Lath Machine only,** in a suitable

frame, without the Bolter or Countershaft. In ordering, give information mentioned above.

Description of Lath Saws	12 in. dia., 14 ga., 1⅜ in. hole.
Description of Lath Driving Pulley	8 in. dia., 8½ in. face.
Speed of Lath Driving Pulley	3000 R. P. M.
Speed of Lath Feed	87 ft. P. M. at 1650 R. P. M. of Bolter Saw.
Description of Bolter Saw	22 in. dia., 12 ga., 1 5-16 in. hole,
Description of Bolter Driving Pulley	8 in. dia., 8½ in. face.
Speed of Bolter Driving Pulley	1650 R. P. M.
Speed of Bolter Feed	288 ft. P. M. at 1650 R. P. M. of Saw.
Height of Feed Rolls from floor	2 ft. 10 in.
Dimensions of Machine;	
N. E. style	9 ft. by 3 ft.
N. Y. style	10 ft. by 3 ft.
Net weight, on skids	1650 lbs., approx.
Gross weight, crated for export	1850 lbs., approx.
Cubic measurements, crated for export;	
N. E. style	115 cu. ft., approx.
N. Y. style	127 cu. ft., approx.
Belting required, besides the driving belts	17 ft. of 3 in. leather.

PRICE: Combined Machine, either style, with 3, 12 in. lath and 1, 22 in. bolter saws, $225.00.
Gang Lath " only, " " " " saws; no Bolter or Countershaft, 125.00.

MANUFACTURE OF LATHS.

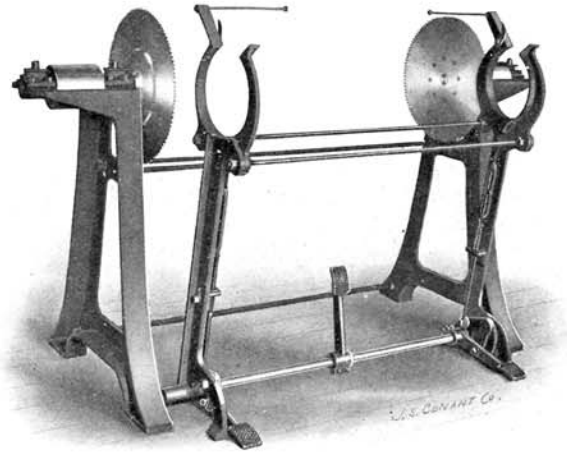
For the benefit of those not familiar with the manufacture of laths, we will say: Laths are usually cut from slabs and mill waste, and in most sections is the most profitable way of disposing of same. In many places slabs are not salable and are burned or given away. Sometimes they are sold for about what it costs to cut them up and deliver to team. Thus the material for a great many laths is wasted or sold without profit. Not all slabs will make laths, but many of them will, and such should be worked up and disposed of to advantage.

To operate the machine, as previously described, to full capacity, four men are required, two on each side. The lath-stock, cut to proper length, being delivered to the machine, is fed to the bolting saw by the bolt sawyer. The assistant at the back of the saw passes the lath bolts over the machine to the lath sawyer, or piles them on the cover, (the bolt table,) passing back to the bolt sawyer any piece large enough to be run again. The lath sawyer feeds the bolts to the lath saws, and his assistant sorts the perfect laths from the waste strips and edgings, delivers them to the binder or piles them up, and passes back any piece of good stock.

Five men constitute a full crew for sawing, sorting, binding and trimming, and can cut from 30,000 to 40,000 laths in a day, according to the quality of stock. Two men can saw and pack successfully, but the output would not be in proportion to what a full crew would do, and would probably be about 10,000 per day.

The stock should be carefully cut so that all pieces are of same length unless a Lath Trimmer is used to trim both ends of the bundle after it is bound, when the stock should be cut so as to allow for trimming.

WOOD'S IMPROVED LATH BINDER AND TRIMMER.



A radical departure from usual lines, and a complete success. The old style machine, with its massive binder and large saws on the same arbor, (of which we have made many,) was inherently wrong, and hence our efforts in another direction.

The new design **embodies all the desired elements** in a small amount of metal, and enables us to build and sell "the best machine" at a price within the reach of all.

The construction, operation and advantages of this machine must be obvious. Will say, however:

PRICE: Machine Complete, as illustrated - - - - - - - - $75.00.

It is entirely of metal, is self-contained and strong.

The Binder frame is light and easily moved, and protects the operator from the saws, the bundles being tied inside.

The cam and pedal movement gives the tightest possible squeeze, and holds the bundle while being trimmed, insuring a smooth cut.

The turnbuckles adjust for different size laths and also for pressure.

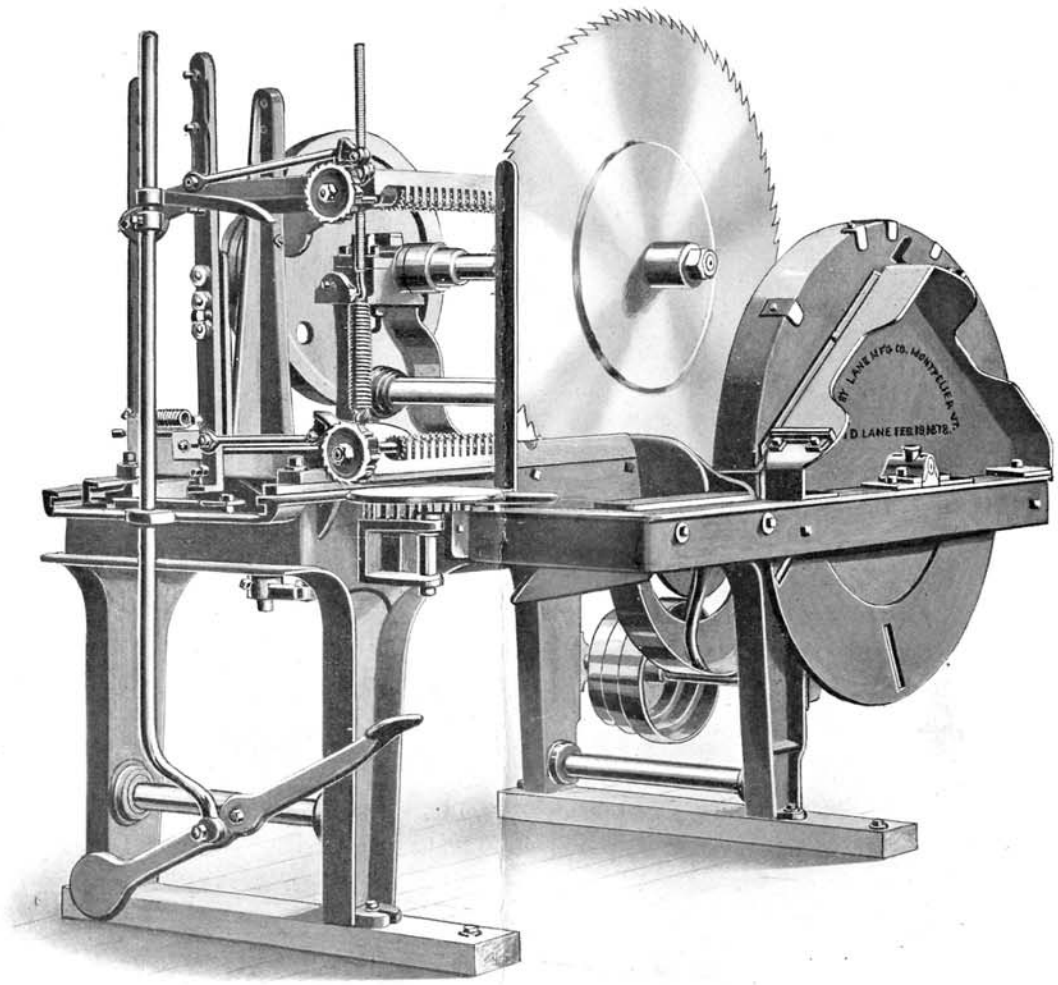
The jaws are closed by depressing either end pedal and opened by the center one and springs under the turnbuckles. They open toward the operator, making it easy to put in and take out the laths.

Knives are attached to the jaws for cutting the yarn after it is tied, and a saving thereby effected.

The Trimmer frame is so connected that the saws, on separate arbors, can be given lead or set nearer at the cutting side, which prevents binding and heating when dull.

The saws while small are 8 or 9 inches larger than the bundle of laths, an ample allowance for wear, and renewals can be had at small expense.

Description of Saws	18 in. dia., Lane's standard.
Description of Driving Pulleys	4½ in. dia., 5¼ in. face.
Speed of Driving Pulleys	2200 R. P. M.
Net weight, on skids	375 lbs., approx.
Gross weight, crated for export	450 lbs., approx.
Cubic measurements, crated for export	15 cu. ft., approx.



The Lane Patent Automatic Shingle and Heading Machine.

THE LANE PATENT AUTOMATIC SHINGLE AND HEADING MACHINE.

Illustrated on the preceding page and manufactured exclusively by us, was patented by Dennis Lane, and the invention contained so many points of excellence and advantage over other machines that it has been a great favorite from the beginning.

Thousands of them have been built and they are in successful operation all over this and in foreign countries.

The large demand induced us to give the machine special attention, with the result that it has been so simplified and perfected that it is now regarded as "the best and most desirable single block machine in the market."

It holds the **World's Record** of over 50,000 shingles sawed and jointed in 10 hours by one man.

Although the general design has been closely imitated, no machine has been produced that anywhere near equals it, and prospective purchasers will do well to bear in mind that its important features are not to be found in any other make.

The Frame is of cast iron, with heavy web and broad ribs, and is thoroughly supported by tubular bracing. Every joint is machined and all parts firmly bolted together.

The Saw-Arbor is made from hammered crucible steel, finished 2 3-16 inches diameter its entire length and runs in long adjustable bearings lined with phosphor babbitt.

The Carriage is of excellent proportions, and designed to securely hold the bolts or blocks and to admit of all possible dispatch in putting them into the jaws and taking out the slabs.

The lower jaw, which holds the bottom feed roll, is a part of the carriage casting, and the upper jaw only is movable, to accommodate bolts of different lengths. This is preferable to moving both jaws, because it is of the utmost importance that the lower jaw, which supports the bolt and resists the cutting strain of the saw, should be as solid and firm as possible. **The standards** which support the saw-arbor are of such height that the cut of a 36 or 38 inch machine is practically to the center of the bolt when cutting short shingles or headings. If it is desired to use a 40 or 42 inch machine for cutting short shingles as well as cloth boards, it is best to use **short standards** when cutting bolts from 16 to 24 inches long, and raise them, by putting **iron plates** underneath, for cutting bolts 24 inches and up in length. This is far better than to move the lower jaw and suspend the bolts midway in the carriage. But little time is required to make the change, and the advantage is great. We now arrange all 40 and 42 inch machines as above, furnishing accurately fitted plates without extra charge.

The upper jaw, which holds the top feed roll, is raised by a foot pedal so that the operator can use both hands in putting the blocks into the machine.

The carriage is driven by a substantial **friction feedworks,** having three changes of feed. **No racks, gears, clutches or weights** are used in the machine. The wear of the friction (for which ample means for adjustment is provided) is a matter of little consequence, as a friction costing about ONE DOLLAR averages to cut *half a million* shingles, being but one-fifth of one cent for *each thousand.*

The carriage slides on **planed iron ways,** which are ad-

justable, to compensate for the wear, and is moved by means of a **compound crank, with quick return stroke.** The working parts of the crank are made of **best cast steel,** and means of adjustment provided in case of wear. **The length of stroke** or run of carriage **can be varied** according to the width of block.

The movement of the carriage, even when running at the highest speed **is noiseless,** and entirely free from the shock or jar which is unavoidable in machines having racks, gears, clutches or weights.

The Setting Mechanism is very simple, and positive accuracy is insured. Our improved **sectional feed-rolls** are furnished with each machine. They are far superior to straight fluted rolls, as ofttimes one or two more shingles can be dropped from a bolt or block than could have been with rolls having the teeth on a straight line. **The bolt is set** while the carriage is moving about one inch **in passing the dead center,** at which point the carriage moves the slowest; consequently the setting is uniform, and there is no liability of moving the bolt too far, even when running at the rate of **sixty** cuts per minutes,

The shipper lever, for starting or stopping the movement of the carriage, is attached to the circular plate in front of the carriage, and is within reach of the operator, whether sawing or jointing. The plate serves as a table upon which the sawyer can rest the bolt while taking out the slab.

An upright guard, which stands directly in front of the saw teeth when the carriage is at rest, makes it impossible for the sawyer to get caught by the saw when putting in a block. The guard, being attached to the revolving shipper-plate, swings out of the way when the carriage is set in motion.

Another guard is provided in a **"safety block,"** which is connected with the shipper in such a manner that it is impossible for the carriage to start until the shipper is moved.

The lower end of the bolt rests upon a **sharp knife,** which is held firmly against the bolt by a spring, entirely preventing the bolt from turning in the jaws when not cut squarely across at both ends.

The adjustable box for catching the shingles as they drop from the saw, is suspended on rods, and held in position by springs, so that should a splinter wedge in between the saw and box, the box can be sprung away to let it pass through. An adjustable saw guard or sliding bar upon the edge of the box prevents the saw teeth from catching upon the box, if a loose knot causes the saw to dodge out of the cut.

The Jointer, which is driven from the saw-arbor, is attached to the machine in such a position that the sawyer can stand at the saw and joint the shingles without even turning his body. **The wheel** is made with a web center and banded with heavy wrought-iron, making it perfectly safe at high speed. It is covered with **an iron case,** to prevent the shavings from flying, and liability of injury to the operator. Two persons can joint at the same time, and the jointer can be detached from the machine and set in a separate frame, if desired.

We build an Independent Jointer, in Iron Frame, Enclosed; see description on a subsequent page.

The Drive Pulley commonly furnished is 12 in. diameter by 8½ in. face. Either one of the following will be furnished instead, if desired, viz: 8 in. x 12½ in., 10 in. x 10½ in., 16 in. x 8½ in. All drive pulleys have a *heavy balance wheel attached.*

Standard Saws furnished with machines are 9 ga. at center by 14 ga. at rim. **The Collar or Flange** being 18 in. dia. for 36 in. and 20 in. dia. for 38, 40 and 42 in. machines. In some sections of the country, thinner saws are preferred, and when so requested, we will furnish 16 ga. saws on 24 in. collars, with machines, without extra charge.

With Every Machine, we send unless otherwise ordered, three sets of wheels for cutting shingles with 5-16, 3-8 and 1-2 in. butts, and one set of wheels for cutting parallel stuff from 1-8 inch to 1 inch thick, varying by eighths. If different wheels are wanted, they can be furnished.

The 36 inch Machine will cut **full width, 13 inches,** up to 18 inches in length; the 38 inch up to 22 inches, the 40 inch up to 26 inches and the 42 inch up to 30 inches, or 4 inches wide up to 24, 28, 32 and 36 inches in length respectively. Either size **will take a bolt 15 inches diameter** and will cut stuff as short as 12 inches. The 40 and 42 inch machines are best adapted for heading and cloth boards, and are very desirable for use in Florida, as they cut orange box sides 27 inches long and the ends and centers 12 in. x 12 in. x 1 in.

The Power required is from 10 to 15 horse power for an ordinary business of 10,000 to 20,000 shingles per day, varying with the kind of stock to be cut. For a larger business, more power would of course be necessary.

	36 in.	38 in.	40 in.	42 in.
Speed of Driving Pulley, in R. P. M...	1200-1500	1125-1425	1050-1350	1000-1300
Speed of Feed, in Revs. of Saw per Cut;				
Slow	54	54	54	54
Medium	34	34	34	34
Fast	26	26	26	26
Height of Feed Roll from floor	2 ft. 11 in.	2 ft. 11 in.	2 ft. 11 in.	2 ft. 11 in.
Length of Feed Roll	11 in.	11 in.	11 in.	11 in.
Height of Machine from floor	5 ft. 2 in.	5 ft. 4 in.	5 ft. 6 in.	5 ft. 8 in.
Length of Machine	7 ft. 2 in.	7 ft. 2 in.	7 ft. 2 in.	7 ft. 2 in.
Width of Machine	4 ft. 9 in.	4 ft. 9 in.	4 ft. 9 in.	4 ft. 9 in.
Net weight, on skids, approx.	2500 lbs.	2550 lbs.	2600 lbs.	2675 lbs.
Gross weight, crated for export, approx.	2750 lbs.	2800 lbs.	2850 lbs.	2925 lbs.
Cubic measurements, crated for export, approx	185 cu. ft.	190 cu. ft.	195 cu. ft.	200 cu. ft.
Belting required, besides the driving belt, single leather	10 ft. 0 in. of 3 in. and 6 ft. 2 in. of 3 in.			

PRICE: 36 in. Machine, with 36 in. Saw and Jointer, - - - - - $260.00.
38 " " " 38 " " " " - - - - - - 280.00.
40 " " " 40 " " " " - - - - - - 300.00.
42 " " " 42 " " " " - - - - - - 325.00.
Either Machine without Shingle Box and Jointer, deduct - - - - 25.00.
Extra Saw Collar, with Screws, for 36 in. Saw, - - - - - 12.60.
" " " " " " 38, 40 or 42 in. Saw, - - - - 14.00.
" " " " " " Thin Saw, (24 in. dia.) - - - 16.80.

The Drive Pulley commonly furnished is 12 in. diameter by 8½ in. face. Either one of the following will be furnished instead, if desired, viz: 8 in. x 12½ in., 10 in. x 10½ in., 16 in. x 8½ in. All drive pulleys have a *heavy balance wheel attached.*

Standard Saws furnished with machines are 9 ga. at center by 14 ga. at rim. **The Collar or Flange** being 18 in. dia. for 36 in. and 20 in. dia. for 38, 40 and 42 in. machines. In some sections of the country, thinner saws are preferred, and when so requested, we will furnish 16 ga. saws on 24 in. collars, with machines, without extra charge.

With Every Machine, we send unless otherwise ordered, three sets of wheels for cutting shingles with 5-16, 3-8 and 1-2 in. butts, and one set of wheels for cutting parallel stuff from 1-8 inch to 1 inch thick, varying by eighths. If different wheels are wanted, they can be furnished.

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The Power required is from 10 to 15 horse power for an ordinary business of 10,000 to 20,000 shingles per day, varying with the kind of stock to be cut. For a larger business, more power would of course be necessary.

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Speed of Driving Pulley, in R. P. M.,.	1200-1500	1125-1425	1050-1350	1000-1300
Speed of Feed, in Revs. of Saw per Cut;				
Slow	54	54	54	54
Medium	34	34	34	34
Fast	26	26	26	26
Height of Feed Roll from floor	2 ft. 11 in.	2 ft. 11 in.	2 ft. 11 in.	2 ft. 11 in.
Length of Feed Roll	11 in.	11 in.	11 in.	11 in.
Height of Machine from floor	5 ft. 2 in.	5 ft. 4 in.	5 ft. 6 in.	5 ft. 8 in.
Length of Machine	7 ft. 2 in.	7 ft. 2 in.	7 ft. 2 in.	7 ft. 2 in.
Width of Machine	4 ft. 9 in.	4 ft. 9 in.	4 ft. 9 in.	4 ft. 9 in.
Net weight, on skids, approx.	2500 lbs.	2550 lbs.	2600 lbs.	2675 lbs.
Gross weight, crated for export, approx.	2750 lbs.	2800 lbs.	2850 lbs.	2925 lbs.
Cubic measurements, crated for export, approx	185 cu. ft.	190 cu. ft.	195 cu. ft.	200 cu. ft.
Belting required, besides the driving belt, single leather	10 ft. 0 in. of 3 in. and 6 ft. 2 in. of 3 in.			

PRICE: 36 in. Machine, with 36 in. Saw and Jointer, - - - - - $260.00.
38 " " " 38 " " " " - - - - - - 280.00.
40 " " " 40 " " " " - - - - - - 300.00.
42 " " " 42 " " " " - - - - - - 325.00.
Either Machine without Shingle Box and Jointer, deduct - - - - 25.00.
Extra Saw Collar, with Screws, for 36 in. Saw, - - - - - 12.60.
" " " " " " 38, 40 or 42 in. Saw, - - - - 14.00.
" " " " " " Thin Saw, (24 in. dia.) - - - 16.80.

INDEPENDENT SHINGLE AND HEADING JOINTER.

This is a compact, convenient and carefully-built machine.

We havent a cut with which to illustrate same, but will say it is similar in appearance to other Rotary Knife Jointers and is briefly described as follows :

The frame, which is entirely of iron, is of the box pattern, of heavy section and thoroughly bolted, and of ample strength to withstand all strains that come upon it.

It has large bearings for the jointer arbor, and with the case or hood completely encloses the jointer wheel, excepting only where the stock is jointed, and protects the operator from shavings, splinters, etc., which must pass through to the "blower" pipe or conveyor.

The case or hood, also of iron, is semi-circular, fitting the frame at its flat side, and to it is attached a **table** or rest for the stock to be jointed.

The bearings are lined with the best metal for the purpose, and arranged for thorough and efficient lubrication.

The arbor is of steel and perfectly fitted to the jointer wheel.

The wheel is a cast iron disc banded with wrought iron, which makes it safe at high speed,—the same as used on our 40 inch Shingle Machine—is carefully balanced and machined on its own arbor, and it carries **five capped knives,** the best that can be procured.

The driving pulley is flanged on one side, and can be belted from above or below.

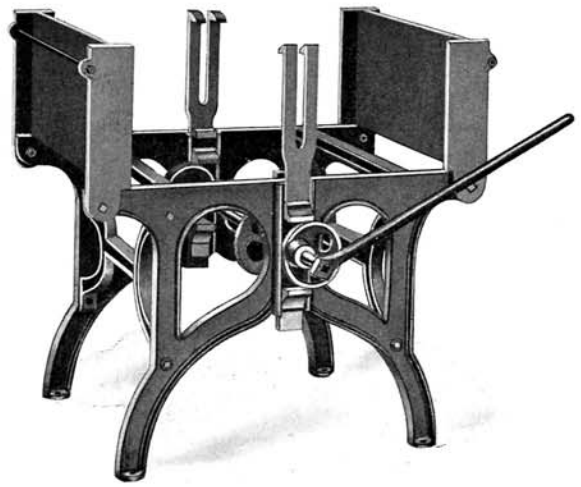
Diameter of Jointer Wheel	3 ft. 3 in.
Dimensions of Driving Pulley	10 in. dia., 3¼ in. face.
Speed of Driving Pulley	500 R. P. M.
Dimensions of Machine	4 ft. 0 in. by 1 ft. 8 in.
Net weight, on skids	900 lbs., approx.
Gross weight, crated for export	1000 lbs., approx.
Cubic Measurements, crated for export	25 cu. ft., approx.

PRICE: Machine Complete as above, - - - - - - - - $125.00.

BOLTERS OR BLOCK SAWING MACHINES.

Ask for Catalogue of Cutting-Off Machines.

SHINGLE PACKER.



The above engraving shows well our improved device for packing or bunching shingles.

It has been generally adopted, even by manufacturers of shingle machinery, and is considered the most convenient packer ever invented.

All parts are of iron, except the panels at each end, which are of wood.

The panels are adjustable, laterally, for different lengths of shingles, and the frames which holds them are hinged, so as to turn down for the removal of the bunch.

Its operation is simple: The end pieces and the lever operating the cams having been raised, place a slat to which has been fastened the iron bands in the lower jaws and bend the bands out through the slots in the upper jaws. The required number of shingles having been packed in (the points to the center,) place the top slat under the upper jaws and bear down on the lever, which presses the upper and under jaws together; when in that position bend back and nail the bands to the upper slat, release the lever, turn down the ends and remove the bunch of shingles.

Dimensions of Packer	2 ft. 11 in. by 2 ft. 5 in.
Net weight	200 lbs., approx.
Gross weight, crated for export	250 lbs., approx.
Cubic measurements, crated for export	5½ cu. ft., approx.

(Crates with Shingle Machine—underneath—without increasing measurement).

PRICE: Machine Complete, as described, - - - - - - - - $15.00.

LANE MANUFACTURING COMPANY MONTPELIER, VERMONT, U. S. A.

WE MANUFACTURE A LARGE AND VARIED LINE OF

The Lane Patent Lever-Set Circular Saw Mills,

(10 Sizes and Styles)

Saw Mill Carriages, Set-Works, Dogs and other Attachments,

Feed Works, both Steam and Friction,
Offsets, Wood's Automatic,
Air Buffers, or "Cushions,"
Log Jackers, or "Hauls,"
Log Cars and Car Trucks,
Log Rolls, both Live and Dead,
Log Cutting-Off Machines,
Log Unloaders, Stops and Loaders,
Log Canters and Niggers,
Lumber Rolls, both Live and Dead,
Lumber Transfers, (Chain, etc.)

Lumber Cars and Car Trucks,
Lumber and Timber Edgers,
Lumber C-O Machines, Trimmers, Slashers, Etc.,
Planers, Matchers and Jointers,
Lath Machines and Bolters,
Lath Binders and Trimmers,
Shingle and Heading Machinery,
Clapboard Machinery,
Universal Sawing and
Jointing Machines,
Belt Tighteners, Swing and Slide,

Water Wheels, Monitor Turbine,

Power Transmission and Conveyor Machinery,

ANDERSON'S PATENT TRAVELING CRANES,

Boom Derricks up to 100 Tons Capacity,

Derrick Turning Gears, Steam or Air,

Special Machines and Devices, and we do Job and Repair Work in the best possible manner.

——————We also deal in——————

STEAM, ELECTRIC AND AIR MACHINERY, AND MILL SUPPLIES.

CATALOGS AND PRICES ON APPLICATION.