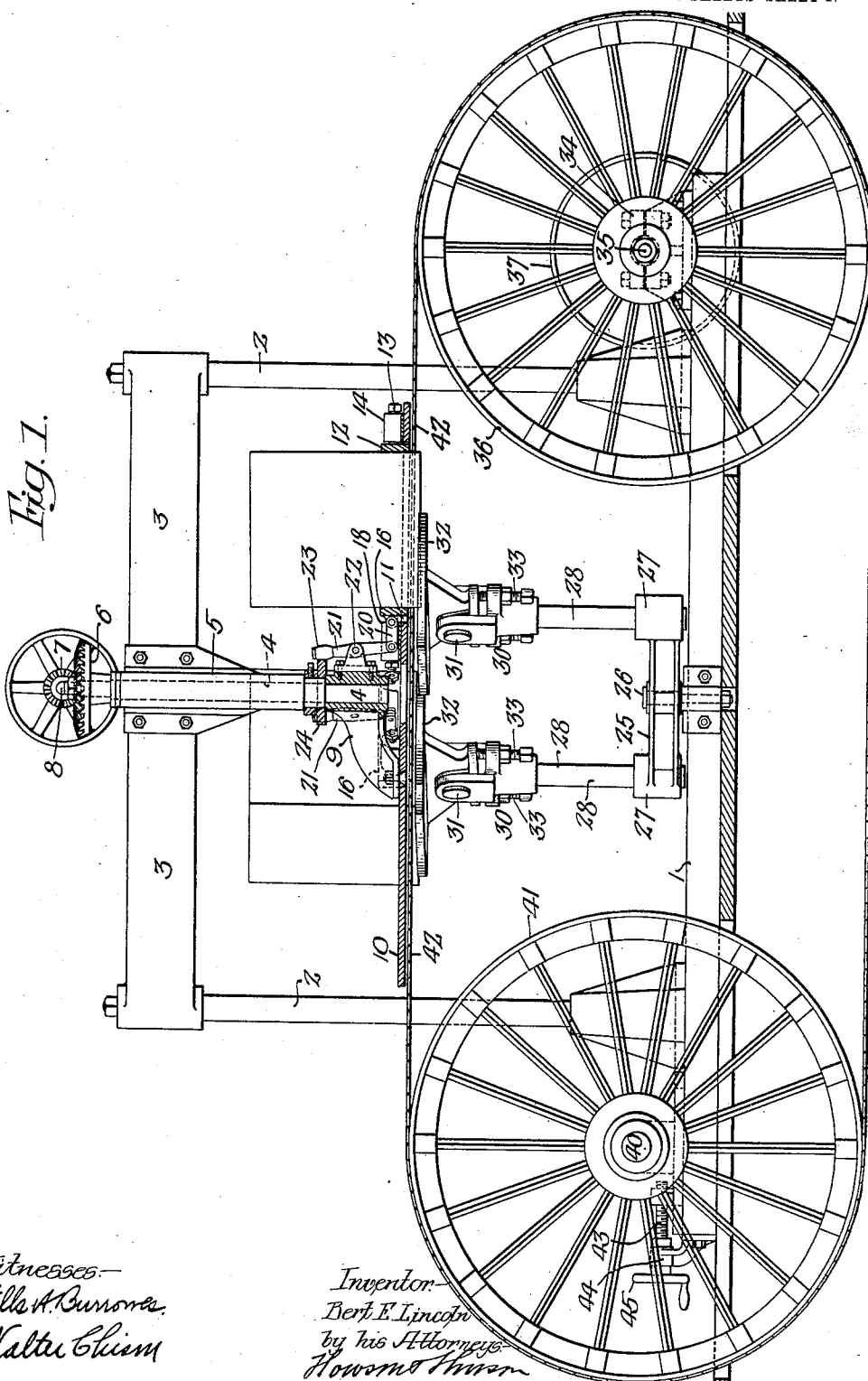


B. E. LINCOLN.
MACHINE FOR SAWING SHINGLES.
APPLICATION FILED APR. 25, 1912.

1,062,484.

Patented May 20, 1913.

3 SHEETS—SHEET 1.



Witnesses—
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Walter Chum

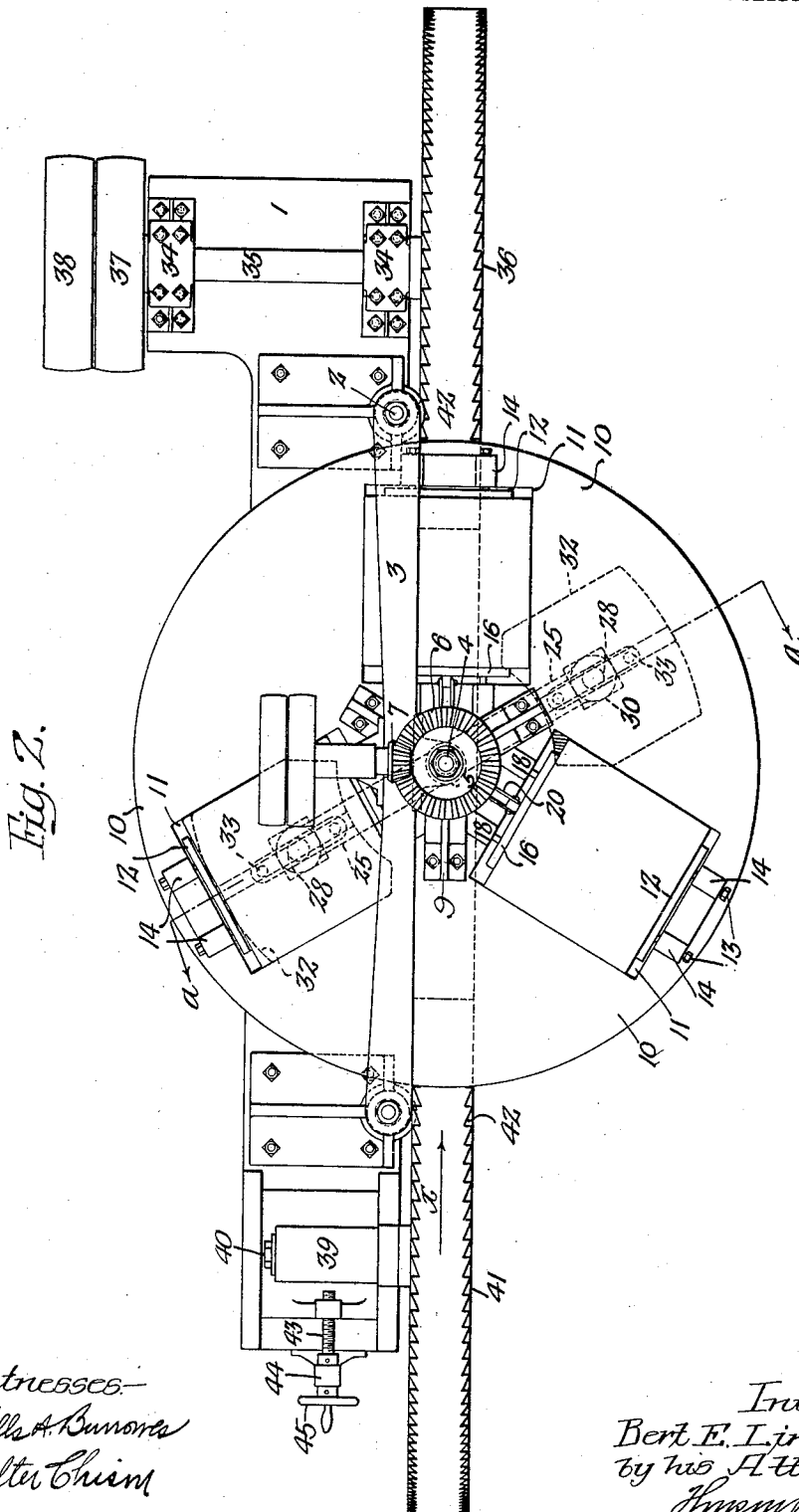
Inventor—
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by his Attorneys
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

Fig. 3.

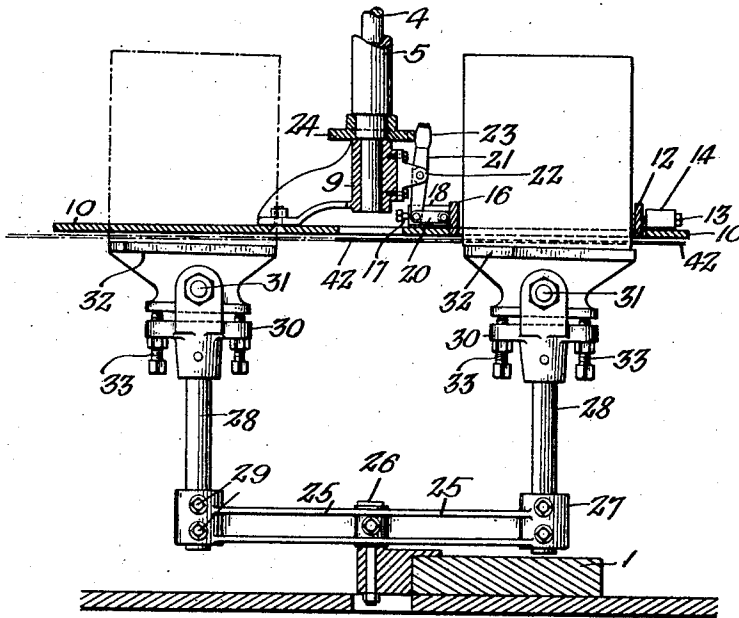
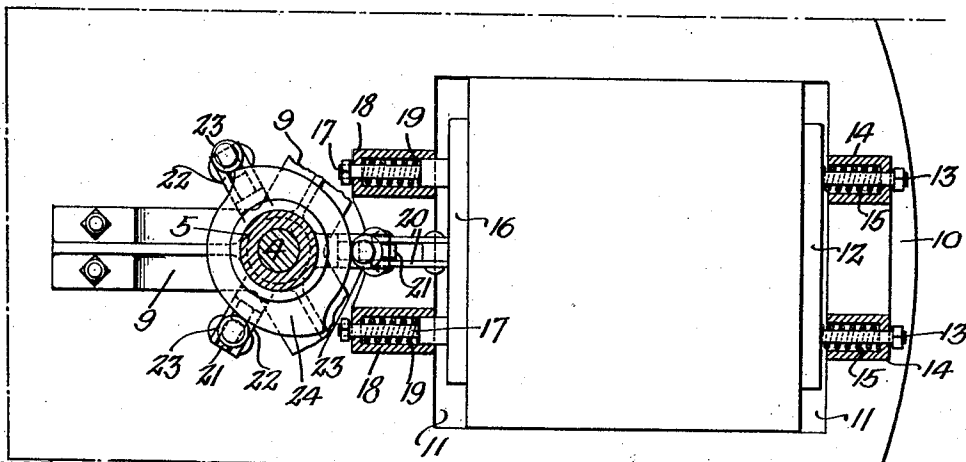


Fig. 4.



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UNITED STATES PATENT OFFICE.

BERT E. LINCOLN, OF CUSICK, WASHINGTON, ASSIGNOR OF ONE-HALF TO JOHN SHEAN, OF PHILADELPHIA, PENNSYLVANIA.

MACHINE FOR SAWING SHINGLES.

1,062,484.

Specification of Letters Patent.

Patented May 20, 1913.

Application filed April 25, 1912. Serial No. 693,028.

To all whom it may concern:

Be it known that I, BERT E. LINCOLN, a citizen of the United States, residing in Cusick, county of Stevens, State of Washington, have invented certain Improvements in Machines for Sawing Shingles, of which the following is a specification.

The object of my invention is to construct an improved machine for cutting shingles, so that the shingles can be more accurately cut than heretofore, and that a greater number of shingles can be cut in a given time. This object I attain in the following manner, reference being had to the accompanying drawings, in which:—

Figure 1, is a side view, partly in section, illustrating my invention; Fig. 2, is a plan view; Fig. 3, is a transverse sectional view on the line *a—*a**, Fig. 2; and Fig. 4, is an enlarged sectional plan view showing the gripping mechanism for the shingle block.

Referring to the drawings, 1 is a base frame mounted on a foundation or the floor of a building in which the shingle machine is located. Projecting upwardly from this base frame are standards 2 to which is attached a cross head 3.

4 is a vertical shaft adapted to a bearing 5 secured to the cross head, and on the upper end of this shaft is a bevel wheel 6 which meshes with a bevel pinion 7 on the shaft 8 also mounted in the bearing 5. On this shaft are the fast and loose pulleys through which the shaft is driven.

Secured to the lower end of the shaft 4 is a spider 9 to which is attached the circular carrier plate 10 for the shingle blocks. This carrier plate, in the present instance, has three openings 11 through which the blocks are fed. The openings conform in shape to the blocks and on the outer side of each opening is a clamp 12 having two spindles 13 adapted to bearings 14 secured to the table. On the spindles are springs 15, which are of sufficient strength to hold the shingle blocks during the cutting process, yet allowing the clamp to yield under considerable pressure. On the inner end of each opening is another clamp 16 having spindles 17 adapted to bearings 18, and on these spindles are springs 19, which tend to project the clamp. Connected to each clamp 16 by a link 20 is a lever 21 adapted to a bracket 22 and having at the upper end a roller 23, which bears against a fixed cam

24 on the bearing 5. This cam has two projections and, as the table revolves, the clamp is retracted twice in its revolution to release the block.

25 is a beam mounted on a pivot pin 26 secured to the base 1. This beam can be adjusted in any position desired and is held in position by a set screw. At each end of the beam is a bearing 27 in which is adjustably mounted standards 28 held by set screws 29 in any desired manner. On the upper end of each standard is a head 30 having a pivot pin 31 on which is mounted a gage plate 32, having arms at each side of the pivot, and on the head 30 are set screws 33 bearing on the gage plate at each side of the pivot, so that by adjusting these set screws the gage plate can be adjusted to any degree desired to vary the taper of the shingles, while the spindle can be raised or lowered to vary the thickness of the shingles.

Mounted on one end of the base frame 1 are bearings 34 for a power driven shaft 35 on which is mounted a band wheel 36. On the opposite end of the shaft are fast and loose pulleys 37 and 38, respectively. On the opposite end of the frame 1 is an adjustable bearing 39 for the shaft 40, on which is mounted the band wheel 41. The bearing 39 for the shaft 40 may be adjusted by means of a screw 43 adapted to a bearing 44 on the base 1 and turned by means of a hand wheel 45, so as to take up the slack of the saw.

Passing around the band wheels 36 and 41 is a band saw 42 having teeth at each edge. The teeth, in the present instance, are shaped to cut as the blade travels in the direction of the arrow *x*, Fig. 2. The blade is arranged so that it will travel directly under the center of the table 10, and the openings in the table are so located that upon each revolution of the table three shingle blocks are first cut on one side of the center of rotation by the teeth on one edge of the saw and are then cut, on the other half of the revolution of the table, on the other side of the center by the teeth on the other edge of the saw, so that six shingles are cut at each revolution.

The gage plates are so set with respect to the saw that the blocks will be released by the clamps and allowed to drop onto a gage plate immediately after a shingle is cut and are clamped in position by the action of the cam immediately before the next cut. One

gauge plate is adjusted so as to slant in one direction to give a bevel to the shingle, and the other gauge plate is adjusted so as to slant in the opposite direction to give a reverse bevel to the shingle. Thus, while the shingles are cut and tapered their butt ends are alternately cut from opposite ends of the block, so that the block is fed vertically through the openings.

10 I claim:—

1. The combination in a shingle machine, of a frame; band wheels mounted thereon; a band saw mounted on the wheels and having teeth at each edge and also having a horizontal run; a rotating table mounted above the horizontal run of the band saw and having an opening therein; a clamp at the opening for holding the shingle block; with two gauge plates located under the table, one at each side of the saw; means for adjusting the plates so that they can be set at opposite angles; a cam for releasing the clamps to allow the shingle block to drop first on one gauge plate and then on the other gauge plate after it passes over the saw so that two shingles are cut from the block at each revolution of the table.

2. The combination in a shingle machine, of a base; two band wheels mounted thereon; a band saw mounted on the wheels having teeth at each edge and having an extended horizontal portion; a vertical shaft; a table carried by the shaft adapted to rotate above the horizontal run of the saw, the center of rotation being the center of the saw blade; said table having openings therein; clamps at each opening for holding a shingle block therein; two gauge plates under the table, one at each side of the saw; said gauge plates be-

ing set at opposite angles; with a fixed cam for actuating the clamps so as to allow the shingle blocks to drop onto the gauge plates on each side of the saw as the table rotates in order that two shingles are cut from each block at each revolution of the table.

3. The combination in a machine for sawing shingles, of a base; two band wheels mounted thereon and spaced apart; a band saw mounted on the wheels having teeth at each edge and having an extended horizontal run; bearings extending above the band saw; a vertical shaft in the bearings located midway between the band wheels and directly above the saw; a table carried by the shaft and adapted to travel over the saw; said table having openings therein; clamps at each opening; a fixed cam on the bearing for engaging one clamp of each set; a bar mounted on the frame under the saw; two standards carried thereby; each standard having a head at its upper end; a gauge plate pivotally mounted on each head; and means for adjusting and holding the plates in the position to which they are adjusted; said plates being located on each side of the saw directly under the table so that as the table is rotated, the shingle blocks will be released and adjusted on each side of the saw before the shingle is cut by the saw so that two shingle blocks are cut from each block on each revolution of the table.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

BERT E. LINCOLN.

Witnesses:

JAS. H. KLEIN,
WM. A. BARR.