(No Model.)

# D. S. ABBOTT.

## LATH SAWING MACHINE.

No. 400,991. Patented Apr. 9, 1889.

Fig. 1.

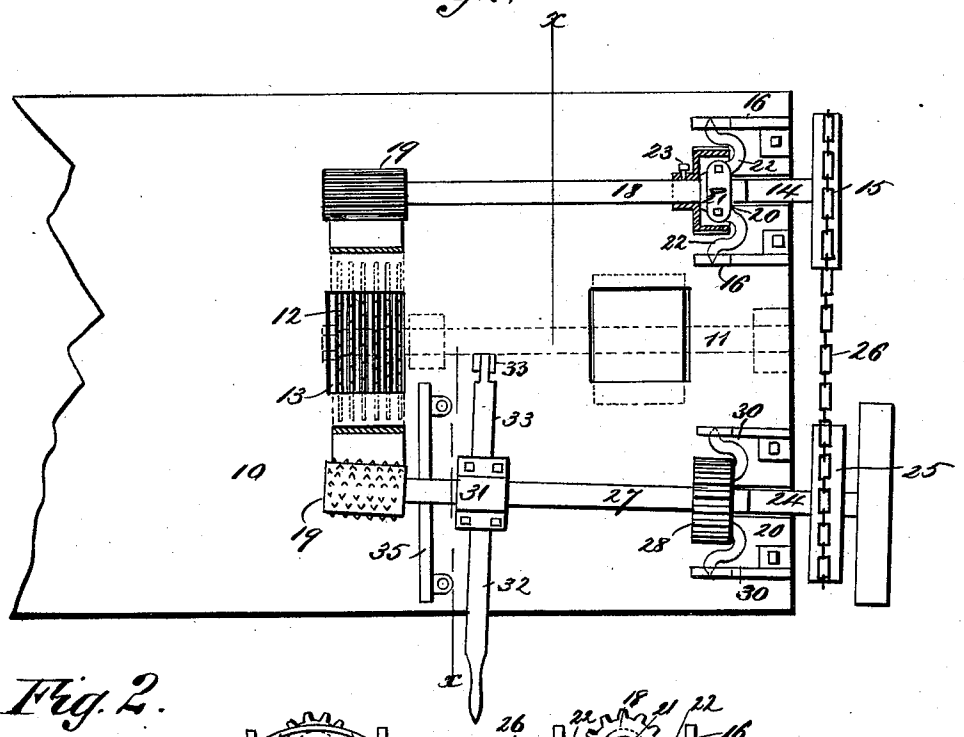



Fig. 2.

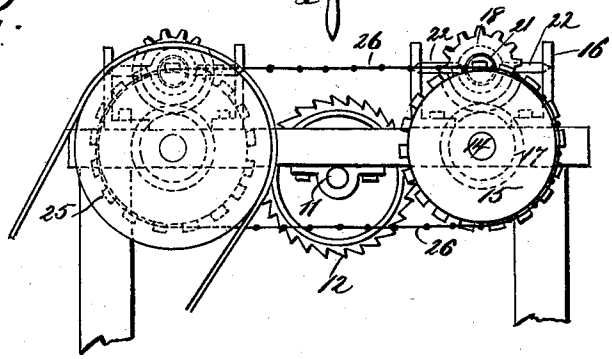
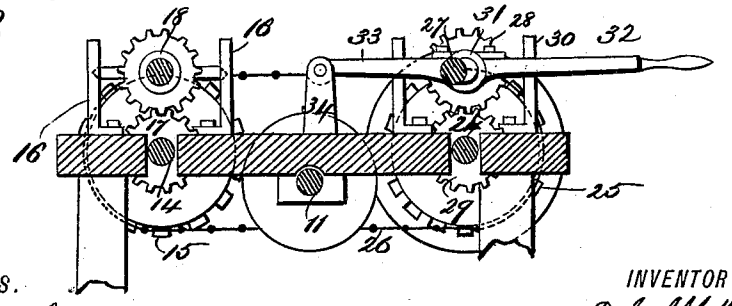



Fig. 3




WITNESSES.

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# UNITED STATES PATENT OFFICE.

DAVID S. ABBOTT, OF OLEAN, NEW YORK.

## LATH-SAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 400,991, dated April 9, 1889.

Application filed July 31, 1888. Serial No. 281,525. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID S. ABBOTT, of Olean, in the county of Cattaraugus and State of New York, have invented a new and Improved Lath-Sawing Machine, of which the following is a full, clear, and exact description.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the machine. Fig. 2 is an end view, and Fig. 3 is a transverse section on line *x x* of Fig. 1.

In carrying out the invention the table 10 is made of any desired dimensions and supported in any approved manner. Below the table, longitudinally of the same and at or near the center, the saw-mandrel 11 is journaled, driven in any approved manner, and having attached thereto any desired number of saws, 12, which saws project upward through an opening, 13, in the table. The opening 13 is preferably covered by the ordinary hood, whereby the saws are covered at the top of the table. In the body of the table, at the rear side, a longitudinal feed-shaft, 14, is journaled parallel with the saw-spindle, carrying at the outer end a sprocket-wheel, 15, and at the inner end a corrugated, fluted, or spiked feed-roller. At each side of the shaft 14, at the end of the table, parallel hangers 16 are secured, which hangers extend upward and at an inclination in direction of the opposite end of the table, as best shown in Fig. 1. Between the said hangers 16 a cog-wheel, 17, is keyed upon the shaft 14. Above the shaft 14 a second and parallel shaft, 18, is held to rotate, the inner end whereof is provided with a feed-roller, 19, of like construction to the lower feed-roller, the two rollers being in frictional contact. The inner end of the upper shaft, 18, has a bearing in a box, 20, consisting of a preferably cylindrical and sectional body or hub, 21, and two aligning and laterally-curved arms, 22, which arms are pivoted in the hangers 16, as best shown in Figs. 1 and 3. The upper shaft, 18, is driven by a cog-wheel, 23, secured thereto, and the said cog-wheel 23 is recessed upon its outer face, as best shown in Fig. 1, to receive the hub of the pivoted box 20, the arms of the said box being curved to clear the periphery of the wheel. The box 20 is pivoted in horizontal alignment with the center of the cog-wheels, whereby the cogs will always mesh the same depth. At the front side of the table another longitudinal shaft, 24, is journaled in the body, which shaft is inclined from the outer end inward in direction of the saws and provided upon the said outer end with a sprocket-wheel, 25, and at the other end with a feed-roller similar to the feed-roller upon the shaft 14. The sprocket-wheels 25 and 15 are connected by a chain belt, 26, and although said sprocket-wheels are not in alignment the chain belt cannot, by reason of the nature of the wheels, run off at their sides, as would be the case in the event of the employment of an ordinary smooth belt and the omission of guides. Above the shaft 24 another parallel shaft, 27, is held to revolve, provided with a recessed cog, 28, and a feed-roller, 19, similar to the opposite upper shaft, 18, the said cog 28 meshing with the solid cog 29 upon the lower shaft. The hangers 30 at each side of the shaft 27 are similar to the hangers 16 and are arranged parallel with the shaft, and the said shaft is journaled at the outer end in another box, 20, pivoted in the said hangers 30. A second box, 31, is provided for the shaft 27, near its inner end, which box is provided with a front and rear extension, 32 and 33, the front extension forming a handle, the rear extension being pivoted in a standard, 34, projected from the table, as illustrated in Fig. 3. By means of this construction the shaft 27 may be raised and lowered without injury to the operator.

A guide, 35, is secured to the table adjacent to the opening through which the material is passed to the same. The said guide, the arrangement of the same, and the openings leading thereto and therefrom form no part of my invention.

It will be observed that by reason of the pivotal bearing-boxes of the upper shafts, the said shafts may be raised and lowered a

considerable distance without changing but very slightly the pitch-line of the gears or their relation to said pitch-line.

By reason of the angle of the forward shafts the feed-rollers thereon cause the material fed through to draw toward the guide or fence 35 even when the saw is dull, and prevent the tendency existing to draw the material the other way, whereby the ends of the laths are prevented from being made thin.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a lath-sawing machine, the combination, with a lower feed-shaft provided with a cogged pinion and hangers at each side of said shaft, of an upper parallel feed-shaft, a box supporting said upper shaft, provided with arms pivoted in said hangers, and a cog-wheel recessed to receive the body of said box, meshing with the cog of the lower shaft, substantially as shown and described.

2. In a lath-sawing machine, the combination, with a lower feed-shaft provided with a cogged wheel, vertical hangers at each side of the said shaft at its forward end, and a second parallel and upper shaft, of a box supporting the forward end of the upper shaft, provided with arms pivoted in the hangers, a recessed cog-wheel inclosing the body of the box, meshing with the cog of the lower shaft, a pivoted box supporting the inner end of the upper shaft, and a handle attached to said box, substantially as shown and described, whereby the upper shaft may be vertically adjusted without separating the cogs, as set forth.

3. In a lath-sawing machine, the combination, with a feed-shaft and hangers at each side of the same, of a box supporting the shaft, provided with oppositely-projected arms pivoted in the hangers, and a cogged wheel secured upon said shaft, recessed to receve the body of the box, substantially as shown and described.

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Witnesses:
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