J. B. ANNIN & J. A. NUTT.

VENEER-CUTTING MACHINE.

No. 169,759. Patented Nov. 9, 1875.

Fig. 1.

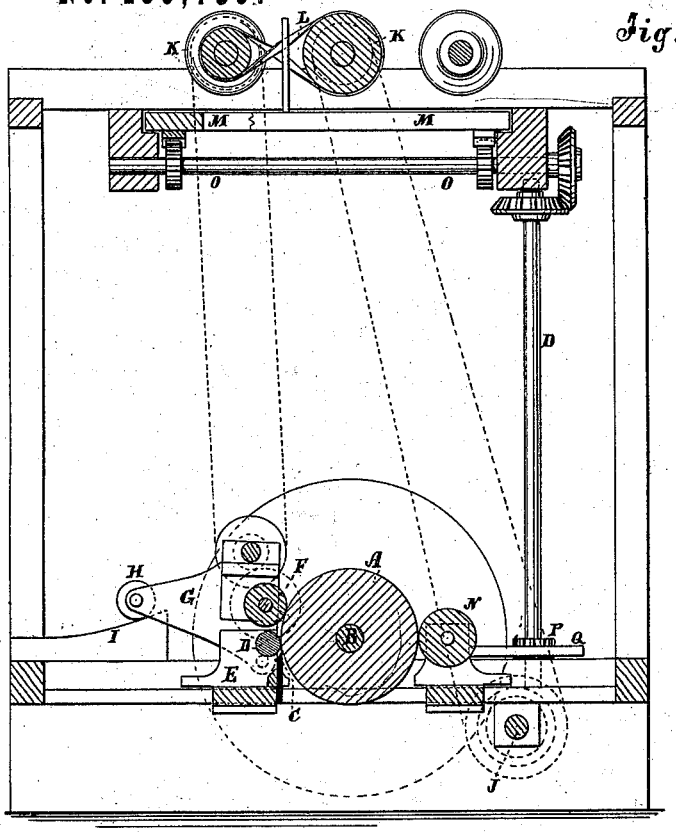


Fig. 3.

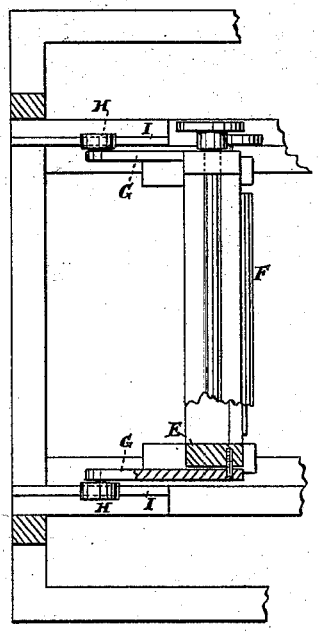


Fig. 2.

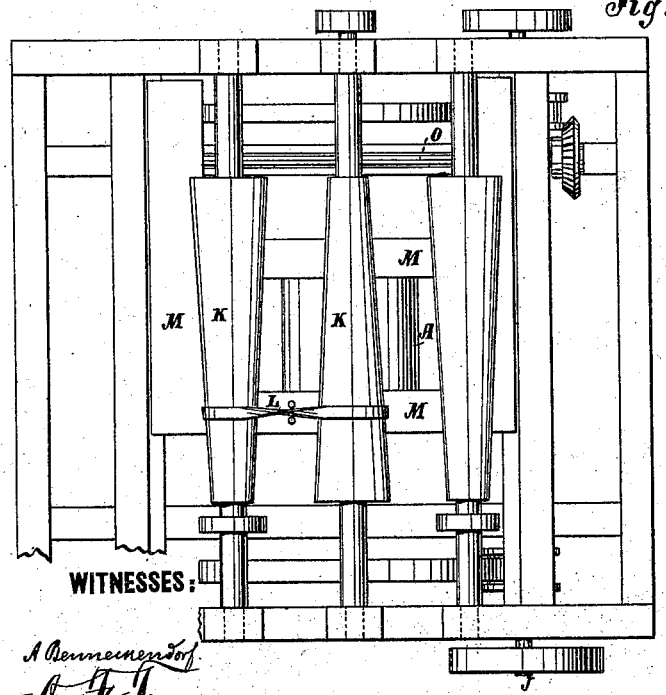
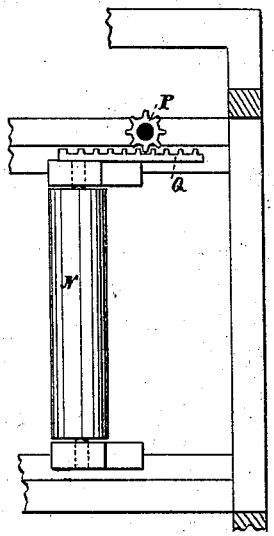


Fig. 4.



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JAMES B. ANNIN AND JOHN A. NUTT, OF ROCHESTER, ASSIGNORS TO ELIHU J. GRANGER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN VENEER-CUTTING MACHINES.

Specification forming part of Letters Patent No. **169,759**, dated November 9, 1875; application filed April 17, 1875.

To all whom it may concern:

Be it known that we, JAMES B. ANNIN and JOHN A. NUTT, of Rochester, in the county of Monroe and State of New York, have invented an Improvement in Veneer-Cutting Machines, of which the following is a specification:

Our improvement relates to machines for cutting compressed veneers from cylinders of wood; and our invention consists in the arrangement of a roller, which engages the cylinder in advance of the line of cut, and thus resists the thrust of the cutting-instrument, and counteracts its tendency to split off a segment of the cylinder.

Our roller has a positive motion, and, therefore, assists in rotating the cylinder from which the veneer is being cut, and is operated by the necessary mechanism for graduating its position and speed as the cylinder is reduced in size by the cutting of the veneer. Our invention, therefore, has two distinguishing features—first, that of supporting the cylinder of wood against the thrust of the cutting-instrument; and, secondly, that of driving the cylinder of wood from its periphery. We are thus relieved from the necessity of depending solely upon the dogs which engage the ends of the cylinder, and which, in some cases, will tear out of the ends when the dogs are alone relied upon for holding and turning the cylinder.

The accompanying drawings are as follows:

Figure 1 is a sectional elevation of a veneer-cutting machine embodying my improvement. Fig. 2 is a top view of the machine. Fig. 3 is a horizontal section through the line *x x* on Fig. 1, showing the device for maintaining the engagement of the supporting and driving roller with a cylinder of wood during the operation of cutting a veneer therefrom; and Fig. 4 is a horizontal section through the line *y y* on Fig. 1, showing the device for governing the speed of the supporting and driving roller.

Referring to the drawings, A represents a cylinder of wood, which is mounted upon the centers B, and revolved against the cutter C, outside of which is the ordinary compression-roller D, which acts directly in advance of the line of cut, to prevent the checking of the wood as the veneer is separated from the log. The cutter and compression-roller are mounted on a carriage, E, which is fed up to the cylinder of wood or log by leading-screws or any other suitable means.

Our roller F is mounted upon a rocking frame, G, which is pivoted on the cutter-carriage, and moves back and forth with it. The carriage E is rocked, so as to throw the roller forward as the cutter-carriage moves toward the log, by means of the cam-guides I. Our roller F is geared or beveled to the driving-shaft J, and, being thus rotated, is made to constitute an auxiliary means of revolving the veneer-log.

As the cutting operation proceeds, and the veneer-log diminishes in diameter, the speed of our driving-roller F is diminished by means of the cone-pulleys K and belt L. The movement of the belt L is governed by the shifting-slide M, which derives its motion from the carriage of the back pressure-roller N by means of the train of gearing O, P, and Q, as shown.

In the ordinary veneer-cutting machines of this class heretofore used, the carriages which support, respectively, the back roller and the cutting-instrument are fed toward the log with a motion corresponding to the diminution in diameter of the log as the veneer is cut therefrom.

We claim as our invention—

1. In a machine for cutting compressed veneers from a revolving cylinder of wood, the combination, with the cutting-instrument, of a roller having its bearing upon the cylinder of wood in advance of the line of cut, as shown, for the purpose of resisting the thrust of the cutting-instrument, and preventing the splitting of segments of wood from the revolving cylinder during the operation of cutting compressed veneers therefrom.

2. The combination of the roller F, mounted in the frame G, with the cam-guides I, for

the purpose of maintaining the engagement of the roller F with the cylinder of wood, as the latter is gradually diminished in diameter by the cutting of the veneer from it.

3. The combination of the cutting-instrument C and the compression-roller D with the driving-roller F, mounted in the rocking frame G, and rotated positively with a regular decrement of speed, as the log is reduced in diameter by the cutting of the veneer.

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