J. C. DOZIER & J. L. WALKER.

MACHINE FOR SLITTING VENEER.

APPLICATION FILED OCT. 17, 1916.

1,234,884.

Patented July 31, 1917.

3 SHEETS—SHEET 1.

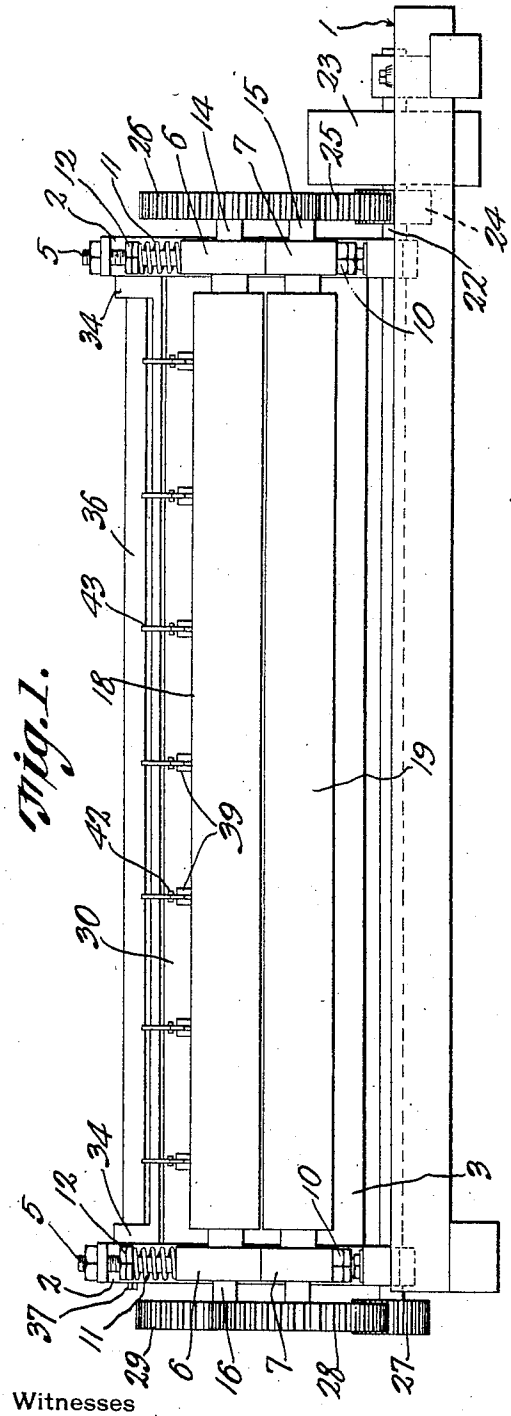


Fig. 1.

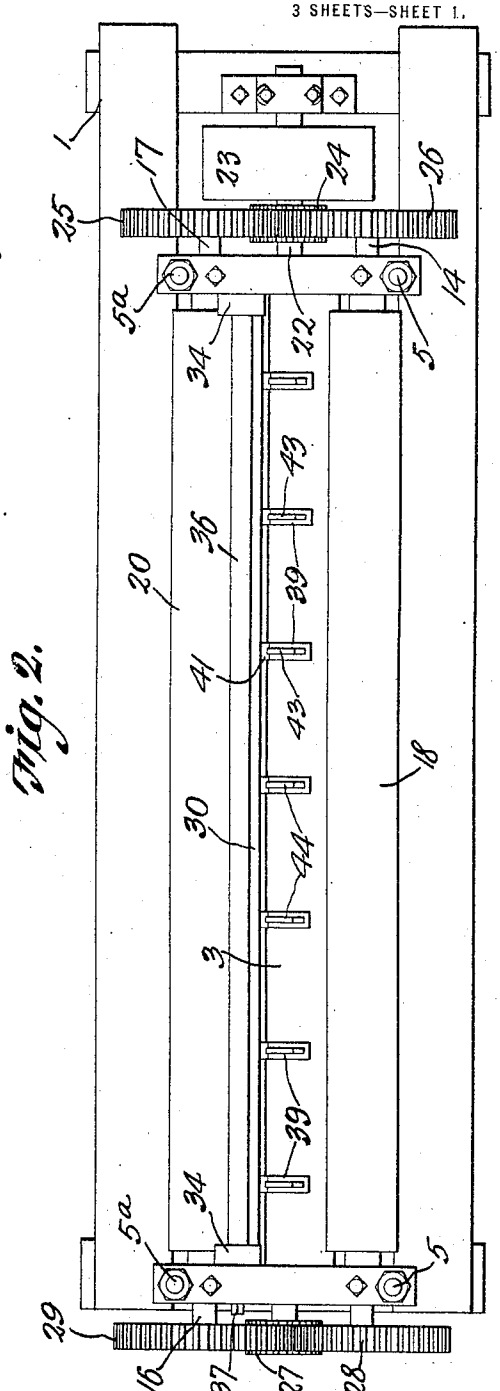


Fig. 2.

Witnesses

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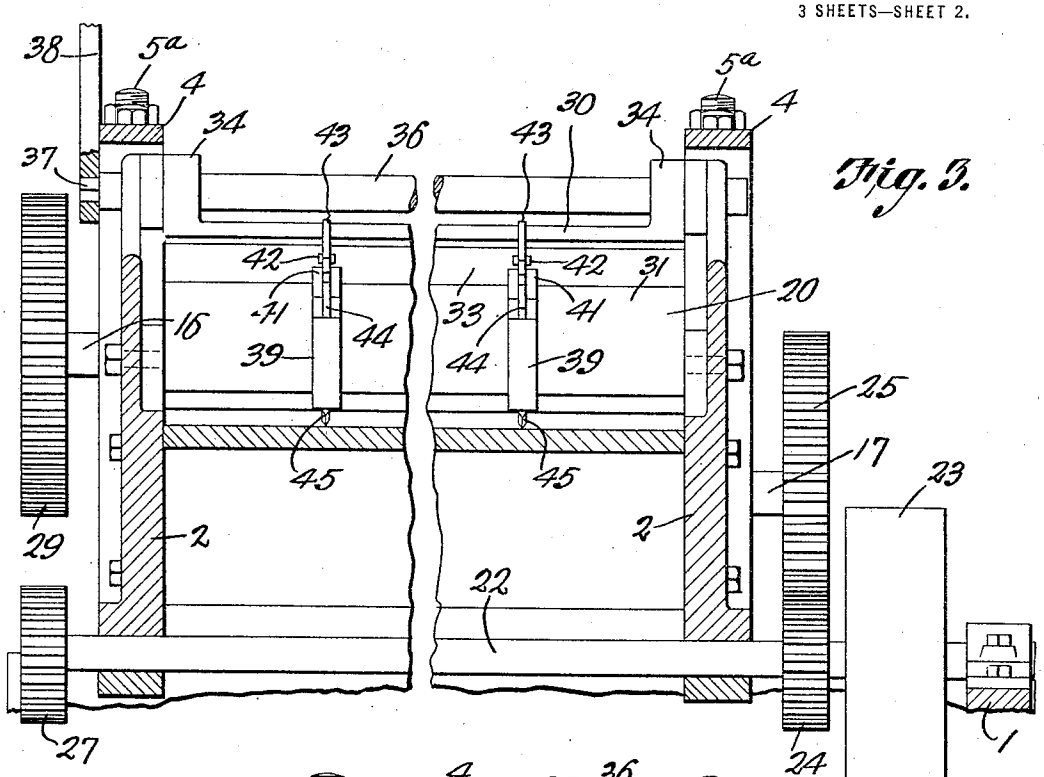


Fig. 3.

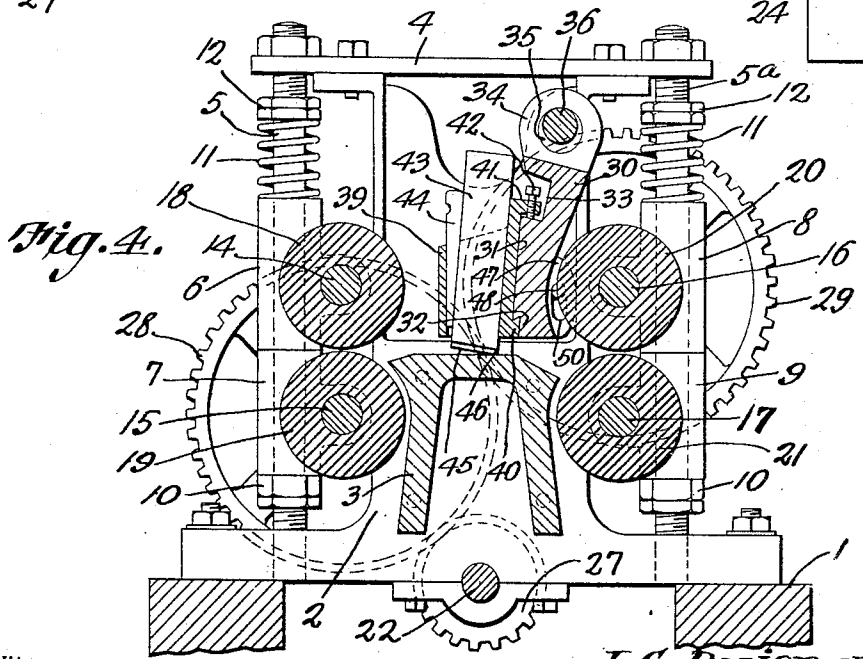


Fig. 4.

Witnesses

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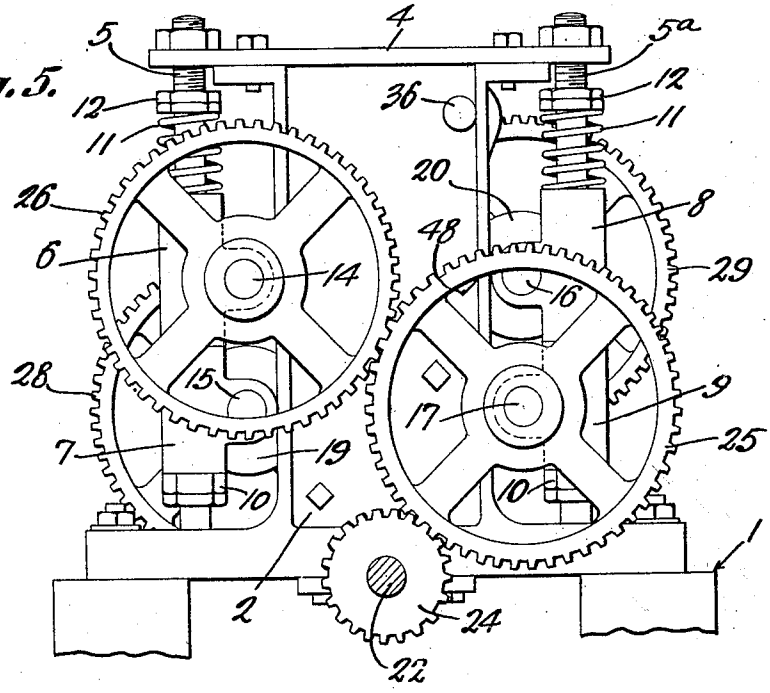
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3 SHEETS—SHEET 3.

Fig. 5.



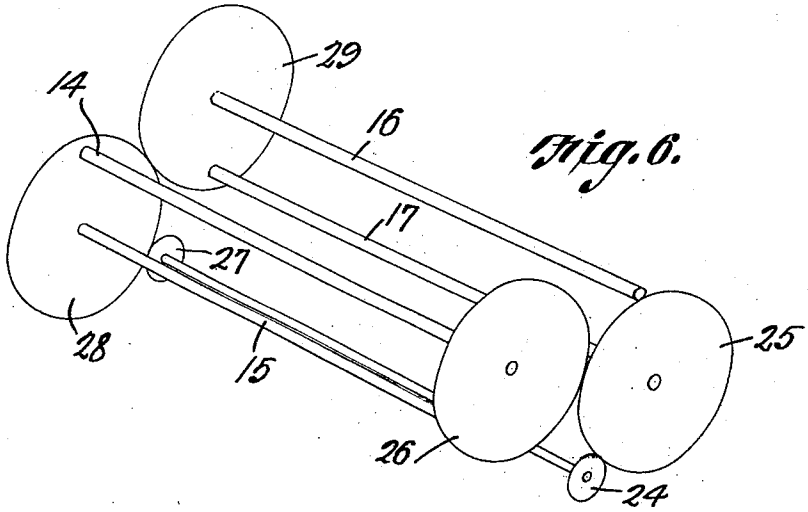


Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

JAMES C. DOZIER AND JOSEPH L. WALKER, OF BATON ROUGE, LOUISIANA.

MACHINE FOR SLITTING VENEER.

1,234,884. Specification of Letters Patent. Patented July 31, 1917.

Application filed October 17, 1916. Serial No. 126,129.

To all whom it may concern:

Be it known that we, JAMES C. DOZIER and JOSEPH L. WALKER, citizens of the United States, residing at Baton Rouge, in the county of East Baton Rouge, State of Louisiana, have invented a new and useful Machine for Slitting Veneer, of which the following is a specification.

The device forming the subject matter of this application is adapted to be employed for slitting veneer or thin lumber into strips.

One object for the invention is to improve the driving means of the feed rollers.

Another object of the invention is to improve the construction of the knife, so far as its coaction with the supporting table for the veneer is concerned.

A further object of the invention is to provide novel means whereby the knives may be adjusted vertically.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 shows in end elevation, a veneer slitting machine embodying the present invention;

Fig. 2 is top plan of the structure shown in Fig. 1;

Fig. 3 is a longitudinal section of the machine;

Fig. 4 is a transverse section of the machine;

Fig. 5 is an end elevation of the veneer machine, parts appearing in section; and

Fig. 6 is a diagram illustrating the gear trains.

The numeral 1 indicates a base of any desired kind on which are mounted side standards 2. A table 3 which may be of hollow construction is located between the standards 2 and is secured thereto. The standards 2 carry cap plates 4. Guide rods 5 and 5ª are mounted in the ends of the cap plates 4 and in the base portions of the side standards 2. Mounted on the guide rods 5 are lower tubular bearings 7 and upper tubular bearings 6, the inner ends of which abut against each other. Mounted on the guide rods 5ª are upper tubular bearings 8 and lower tubular bearings 9, the inner ends of which abut. Bearings 6—7 and 8—9 may be adjusted vertically by means of nuts 10 which, being threaded onto the rods 5 and 5ª engage the lower bearings 7 and 9. Springs 11 surround the rods 5 and 5ª and engage the upper ends of the bearings 6 and 8. The compressive effort of the springs 11 may be adjusted by means of nuts 12 threaded onto the rods 5 and 5ª.

A shaft 14 is journaled in the bearings 6, a shaft 15 is journaled in the bearings 7, a shaft 16 is journaled in the bearings 8, and a shaft 17 is journaled in the bearings 9. The shaft 14 carries an upper roll 18, and the shaft 15 carries a lower roll 19 which coacts with the roll 18. The shaft 16 carries an upper roll 20, and the shaft 17 carries a lower roll 21 which coacts with the upper roll 20. Journaled in the side standards 2 and on the frame 1 is a drive shaft 22 which may be rotated by any suitable means indicated at 23. Adjacent one end, the drive shaft 22 carries a pinion 24 meshing into a gear wheel 25 secured to the shaft 17. The gear wheel 25 meshes into a gear wheel 26 secured to the shaft 14. Fixed on the other end of the drive shaft 22 is a pinion 27 meshing into a gear wheel 28 on the shaft 15, the gear wheel 28 meshing into a gear wheel 29 on the shaft 16. Owing to the arrangement of pinions and gear wheels as above described, a powerful drive on both sides of the machine is afforded, and the use of intermediate gears is dispensed with.

Extended transversely of the machine is a knife bar 30 provided on its forward face with a rib 31 which is under cut as shown at 32. Above the rib 31, the knife bar 30 has a recess 33. The knife bar 30 has rearwardly projecting ears 47 engaged by pins 48 carried by the side standards 2, the ears having longitudinal slots 50 in which the pins are received, the construction being such that an efficient mechanism is provided for guiding the knife bar 30 vertically, as the same is raised and lowered by a mechanism to be described hereinafter. The knife bar 30 is provided on its upper face and at its ends with bearings 34 in which rotate eccentrics 35 carried by a shaft 36 journaled

in the standards 2 near to the upper ends thereof. The shaft 36 has a squared end 37 adapted to receive a removable arm 38 whereby the shaft may be rotated.

The invention comprises any desired number of knife holders 39 abutting against the forward face of the knife bar 30. The knife holders 39 are provided on their rear faces and at their lower ends with ribs 40 interlocked in the under cut edge 32 of the rib 31 on the knife bar 30. At their upper ends, the knife holders 39 are supplied with ears 41 extended into the recess 33 of the knife bar 30. Threaded into the ears 41 are set screws 42 engaging the knife bar 30 at the base of the recess 33. Each knife holder 39 has a vertical passage into which is inserted a knife 43 held by a wedge key 44. The lower edge 45 of each knife 43 is disposed at an acute angle to the upper face of the table 3, and this edge is sharpened from opposite sides of the knife toward the center line thereof. The construction is such that the rear lower corner 46 of each knife 43 bears on the top of the table 3 in a manner which will be clearly understood from Fig. 4.

In practical operation, the material which is to be cut into strips is advanced by the rollers 18 and 19, and is drawn by the rollers 20 and 21, across the top of the table 3. The material engages the rear lower corners 46 of the knives 43 and is cut into strips.

The knives 43 may be adjusted vertically, and may be held in adjusted positions by manipulating the wedge keys 44. The knife holders 39 may be slid lengthwise on the rib 31 of the knife bar 30, and may be held in adjusted positions, transversely of the machine, by the set screws 42. This operation adjusts the width of the strips which are cut. The knife bar 30 and consequently all of the knives 43 which are carried thereby, may be raised and lowered by rotating the shaft 36 through the medium of the arm 38, the eccentrics 35 on the shaft coacting with the bearings or straps 34 of the knife bar 30 to bring about the result above mentioned. The springs 11 hold the bearings 6 and 8, and consequently the rolls 18 and 20 down yieldingly, so that these rolls coact with the rolls 19 and 21 to advance and to grip the material. The compressive effort of the springs 11 may be adjusted by the nuts 12. All of the shafts 15, 14, 16 and 17, and consequently the rolls 19, 18, 20 and 21 may be raised by manipulating the nuts 10 which are threaded onto the lower ends of the guide rods 5 and 5a.

Having thus described the invention, what is claimed is:—

1. In a veneer slitting machine, a frame including side plates; caps mounted removably on the upper ends of the side plates and projecting beyond the edges of the side plates; means for securing the caps to the upper ends of the side plates; rods mounted at their lower ends in the side plates and mounted at their upper ends in the projecting portions of the caps; upper and lower bearings slidable on each rod; nuts threaded onto the rods and supporting the lower bearings; nuts threaded onto the rods above the upper bearings; compression springs interposed between the last specified nuts and the upper bearings; coacting rolls journaled in the upper and lower bearings respectively; and slitting means coacting with the rolls.

2. In a veneer slitting machine, a frame including a table; a bar extended transversely of the frame and provided upon its forward side and adjacent its lower edge with a rib, the bar being provided upon its forward side and adjacent its top with a recess which is elongated longitudinally of the bar; holders interengaged with the rib for adjustment toward and away from each other longitudinally of the bar, the holders being provided at their upper ends with ears projecting into the recess; clamping devices carried by the ears and housed in the recess, the clamping devices bearing against the bar at the bottom of the recess; vertically adjustable knives coöperating with the table and carried by the holders; means for retaining the knives in the holders in adjusted vertical positions; means assembled with the bar and with the frame adjacent the lower edge of the bar for guiding the vertical movement of the bar; means assembled with the frame and with the bar adjacent its upper end, for raising and lowering the bar with respect to the table; and feeding means carried by the frame and coacting with the knives and the table.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

JAMES C. DOZIER.
JOSEPH L. WALKER.

Witnesses:
ELLA MAE PRUYN,
ROSA LE BLANC.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."