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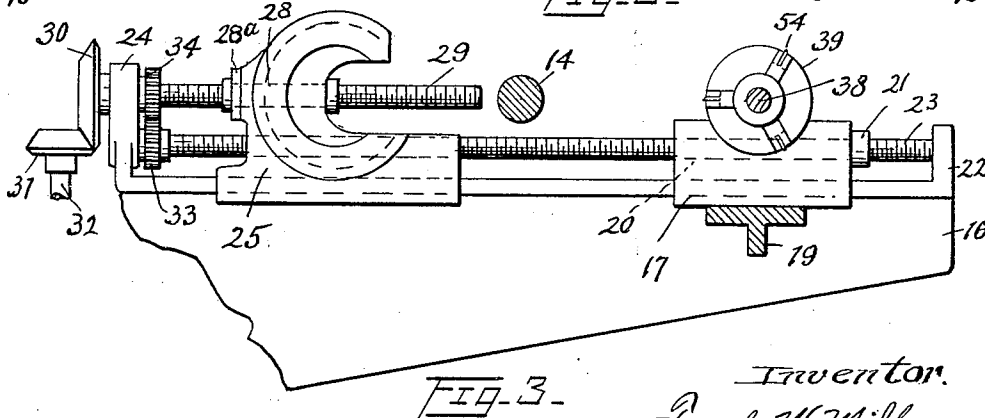
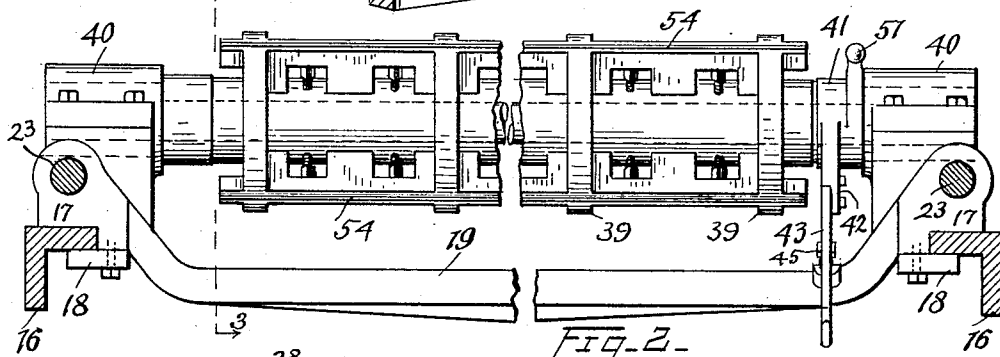
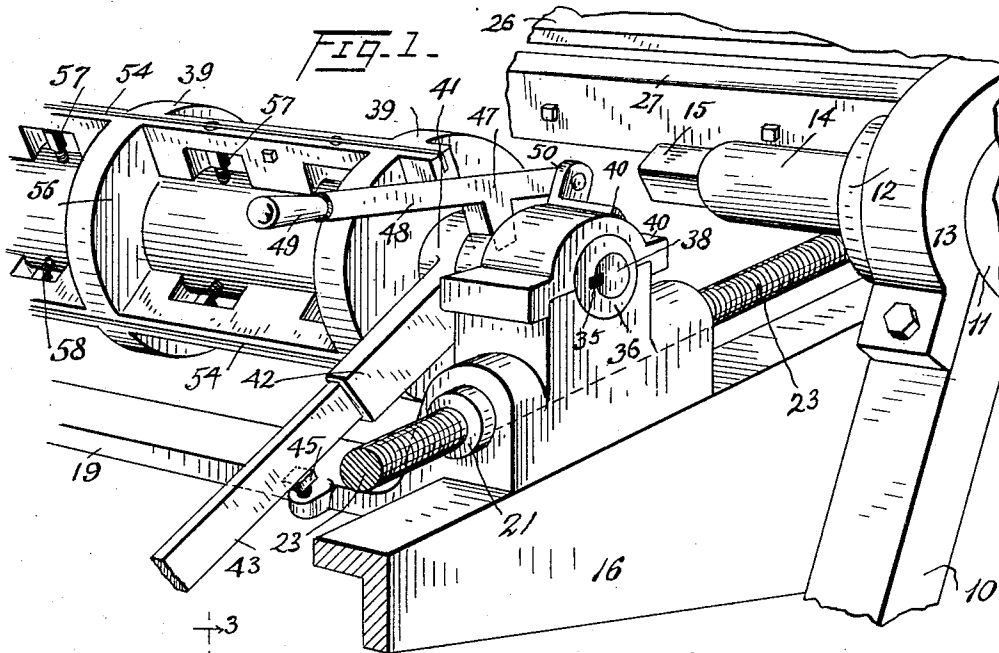
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ROLLER MOUNTING FOR VENEER LATHES

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ROLLER MOUNTING FOR VENEER LATHES

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This invention relates to rotary veneer lathes and more particularly to the type of veneer lathe employing the impression or back roller for the purpose of marking or impressing the log so that sheets of veneer are cut from the log in exactly uniform widths. This method of cutting veneer from the logs does away with the necessity of later having to cut the veneer from a continuous sheet into sheets of desired sizes. The use of the impression roller has been found very effective where it is desirable to cut great quantities of sheets of uniform size.

The impression roller is provided with longitudinally extending knives or blades which engage with the log as it is rotated and thereby cuts into the log at the points at which the knives engage the logs. However, the logs are not always of the same diameter throughout their lengths and very often it is desirable to produce cuts of different depths. It is, therefore, one of the objects of my invention to provide a means for adjusting these knives or blades radially.

It is a further object of the invention to provide a means for locking the impression roller in engagement with the log, it being, of course, understood that the roller depends upon its frictional engagement with the log for its rotation.

It should be understood, of course, that the mechanism which feeds the veneer cutting blade against the log is also connected to the impression roller in such a manner that the same is fed simultaneously inwardly as the cutting blade is fed inwardly, and vice versa. In this case, when a new log is placed in the machine it is necessary to first remove the bark, and during the removal of the bark, it is not desirable to have the impression roller engaging the log but it is desirable, however, to have the impression roller in a position where it can be thrown into engagement with the log as soon as the bark has been removed and the veneer ready to be cut from the trimmed log. It is, therefore, a further object of the invention to provide a means for disengaging the impression roller from the log as the bark is being removed from the log, or at any time it is desirable to remove the

roller from engagement with the log while the veneer cutting blade and support for the impression roller are being fed toward each other.

With the objects, above indicated, and other objects, hereinafter explained, in view, my invention consists in the construction and combination of elements hereinafter described and claimed.

Referring to the drawings:

Fig. 1 is a fragmentary perspective view of a section of a veneer lathe of the type employing an impression roller, showing the manual means for removing the roll from engagement with the log.

Fig. 2 is a front view, partly in section, showing an impression roller with my invention attached thereto.

Fig. 3 is a cross sectional view taken along the line 3—3 of Fig. 2, showing the screw mechanism for moving the cutter blade and the impression roller toward and away from each other.

Fig. 4 is a fragmentary end view showing the means for disengaging the impression roller from the log.

Fig. 5 is a cross sectional view of an impression roller showing the means for adjusting the knives.

Fig. 6 is a fragmentary top plan view of the impression roller showing the mounting for the knives and the manner in which the adjustable members are connected to the roller.

In the drawings, 10 represents one of a pair of standards disposed on opposite sides of the machine and mounted upon any suitable support, such as a floor. The upper ends of the standards are provided with bearing portions 11 in which are mounted suitable bushings 12 maintained in position by bearing caps 13 bolted to the upper portion of the standard 10. A spindle 14 is mounted for rotation within each bushing 13 and any suitable mechanism may be employed for moving the spindle longitudinally of its axis for engagement with the log. The inner end of the spindle is provided with a squared shank 15 adapted to receive a chuck, not shown, to engage the end of the log.

Secured to the inner sides of the standards or formed integral therewith, are slideways 16 of inverted L-shape in cross section, the base of the L extending inwardly, and the ways extending transversely of the axis of the log and of sufficient length to accommodate the largest log of which the machine is capable of handling.

Mounted for sliding upon the base of each of the ways 16 are a pair of slides 17 which are prevented from disengagement therewith by clips 18 bolted to the under side of the slides 17 and engaging the under side of the slideways 16. These slides 17 are connected together by a transverse brace 19 secured to the slides or formed integral therewith. The slides 17 are provided with longitudinally extending openings in which are disposed interiorly screw-threaded sleeves 20 having an annular flange 21, bolted or otherwise secured to the front end of the slide.

At the front end of the slideways 16 are upward extensions 22 provided with an opening adapted to receive the reduced end of a screw-threaded shaft 23 which extends rearwardly into engagement with the screw-threaded sleeve 20 and has its opposite end rotatably journaled in the lower portion of an upward extension 24 secured to or formed integral with the rear portion of the ways 16.

Slidably mounted upon the ways 16 but on the opposite side of the axis of the machine to that on which the slides 17 are mounted, are veneer cutting blade slides 25 which have secured transversely thereof a nose bar 26 and a cutter blade 27. The slides 25 are provided with longitudinally extending openings, parallel to but above the shaft 23, in which are disposed interiorly screw-threaded sleeves 28 having an annular flange 28^a formed integral with the rear end thereof and bolted or otherwise secured to the slides 25.

A screw-threaded shaft 29 extends through said sleeve 28 and the rear end of the shaft is journaled in the upper portion of the extension 24, the end extending slightly beyond the outer face thereof and upon which is secured a bevel gear 30 which meshes with the bevel gear 31 upon the end of a shaft 32 connected to a suitable driving mechanism.

To cause the shafts 23 and 29 to move together, the shaft 23 has mounted thereon a gear 33, interposed between the extension 24 and the slide 25, which meshes with a gear 34 fixed upon the shaft 29. These gears, in the present instance, are of the same size and so arranged that upon rotation of the shaft 29 to move the slide 25 toward the log, the shaft 23 is rotated to move the slide 17 also toward the log at the same rate of speed, and vice versa.

The parts and operation of the machine so far described are common to machines of

this type and form no part of the present invention.

The upper portion of the slides 17 are provided with transverse recesses 35 in which are freely mounted eccentric bushings 36, or rather bushings provided with an eccentric bore 37, in which is keyed or otherwise secured, a transverse shaft 38 upon which is rotatably mounted the impression or back roller 39. The bushings 36 are maintained in position by caps 40 bolted or otherwise secured to the upper portion of the slides 17.

Rigidly secured to a portion of the bushings 36 which extend inwardly beyond the inner face of the slides 17 are sleeves 41, one of the sleeves, the one to the right in Fig. 2, having an integral channel shaped extension 42 to which is bolted a lever 43 formed with a handle grip 44 at its free end.

As shown in Fig. 4 the horizontal center of the bushing 36 and the horizontal center of the eccentric bore 37 are in alignment and when in this position the lever 43 engages an adjustable stop 45 screw-threaded into the brace 19, and at the same time the roller 39 is in a position to engage the log. To prevent disengagement of the roller from the log, a shoulder 46 formed integrally with the sleeve 41 is engaged by a detent or extension 47 on the under side of a lever 48 which is pivotally connected at 49 to a bracket 50 bolted to the upper surface of the cap 40. A suitable hand grip 51 may be formed at the free end of the lever 48.

The arrangement of the parts just described denote the relative positions of the various elements when the roller 39 is in engagement with the log to mark the same as the veneer is being cut by the blade 27.

As heretofore referred to, it is desirable to remove the roller 39 from engagement with the log while the log is undergoing the operation of having its bark removed, but at the same time it is desirable to have the roller in such a position as to be readily and quickly moved back into engagement with the log when the bark has been removed therefrom. Therefore, assuming that a new log has been positioned in the machine and the bark is about to be removed, the lever 48 is raised until the detent 47 has cleared the shoulder 46, at which time the lever 43 is raised, thereby rotating the bushing 36 from the position shown in Fig. 4, to a position wherein the shaft 38 has been shifted through an angle of substantially 180°, in which case the roller 39 has been removed from engagement with the log and remains so until the log has been relieved of its bark and the roller returned to its former position by lowering the lever 43 and again lowering the detent 47 into engagement with the shoulder 46.

It very frequently happens that the longitudinal diameter is not the same throughout the length of the log, and also, it is often de-

sirable to produce cuts of different depths upon the log by the blades or knives of the impression roller. To take care of these features a special adjustable means is provided wherein the knives or blades are permitted to be radially adjusted.

The impression roller 39 has a plurality of angularly spaced arms 52 which extend longitudinally of the axis of the roller. These arms are provided with centrally extending grooves 53 in which are disposed knives or blades 54 adapted to be held in temporary position by a plurality of positioning screws 55 screw-threaded into the arm transversely of the knives. Spaced at intervals along the roller 39 are a plurality of transverse ribs 56 extending between the arms 52 and formed integrally therewith which serve to support or reinforce the said arms.

In each of the arms 52 and extending transversely thereof are a plurality of openings 57 of sufficient width and height to receive the head of a tool such as a wrench and for a purpose to be described.

Centrally of the portion of the arms 39 above the openings 57 is a bore extending therethrough, in which is freely disposed one end of an adjusting member 58 which is adapted to engage the lower end of the knives or blades 54, while the opposite end is screw-threaded into the roller 39. The adjusting member 58 has at its mid-portion a squared portion 59 which is disposed substantially centrally of the openings 57 and adapted to receive a wrench or other tool for adjusting the radial movement of said blades.

To adjust the knives or blades 54 in proper position against the log, the adjusting members are turned until the knives extend the required distance beyond the outer edge of the arms 52. The positioning screws 55 are turned tightly into engagement with the knives and they are thereby prevented from becoming disengaged from the grooves 53. It is understood, of course, that each blade or knife is adjusted in the same manner.

While I have described the construction disclosed, and the preferable construction, it is nevertheless to be understood that I am not to be limited to this specific structure, but may make certain changes in the details, without departing from the spirit of the invention as set forth in the appended claims.

Having thus described my invention, what I claim is:

1. In an impression roller for veneer lathes, a central body portion provided with a plurality of longitudinally extending spaced members, laterally extending openings in said members, knives mounted in said members and extending centrally thereof, and adjustable members disposed within said openings having one end in screw-threaded engagement with the body portion while the opposite end engages the knives.

2. In an impression roller for veneer lathes, a central body portion provided with longitudinally extending spaced members formed integral therewith, grooves in said members, blades disposed within said grooves, said members being provided with transverse openings, and means adjustably mounted in said body portion within said transverse openings and adapted to engage with the lower portion of said blades.

3. In an impression roller for veneer lathes, a central body portion provided with longitudinally extending members formed integral therewith, said members being provided with transverse openings, grooves in said members, blades disposed therein, and an adjustable member in screw-threaded engagement with the central body portion and extending centrally of the transverse openings into engagement with the lower edge of said blades, said members being provided with a portion adapted to be engaged by a wrench within said transverse openings.

In testimony whereof, I hereunto affix my signature.

FRANK W. MILBOURN.