June 23, 1931. R. H. McLEOD 1,811,757

VENEER CUTTER AND MATCHER

Filed June 28, 1930 2 Sheets-Sheet 1

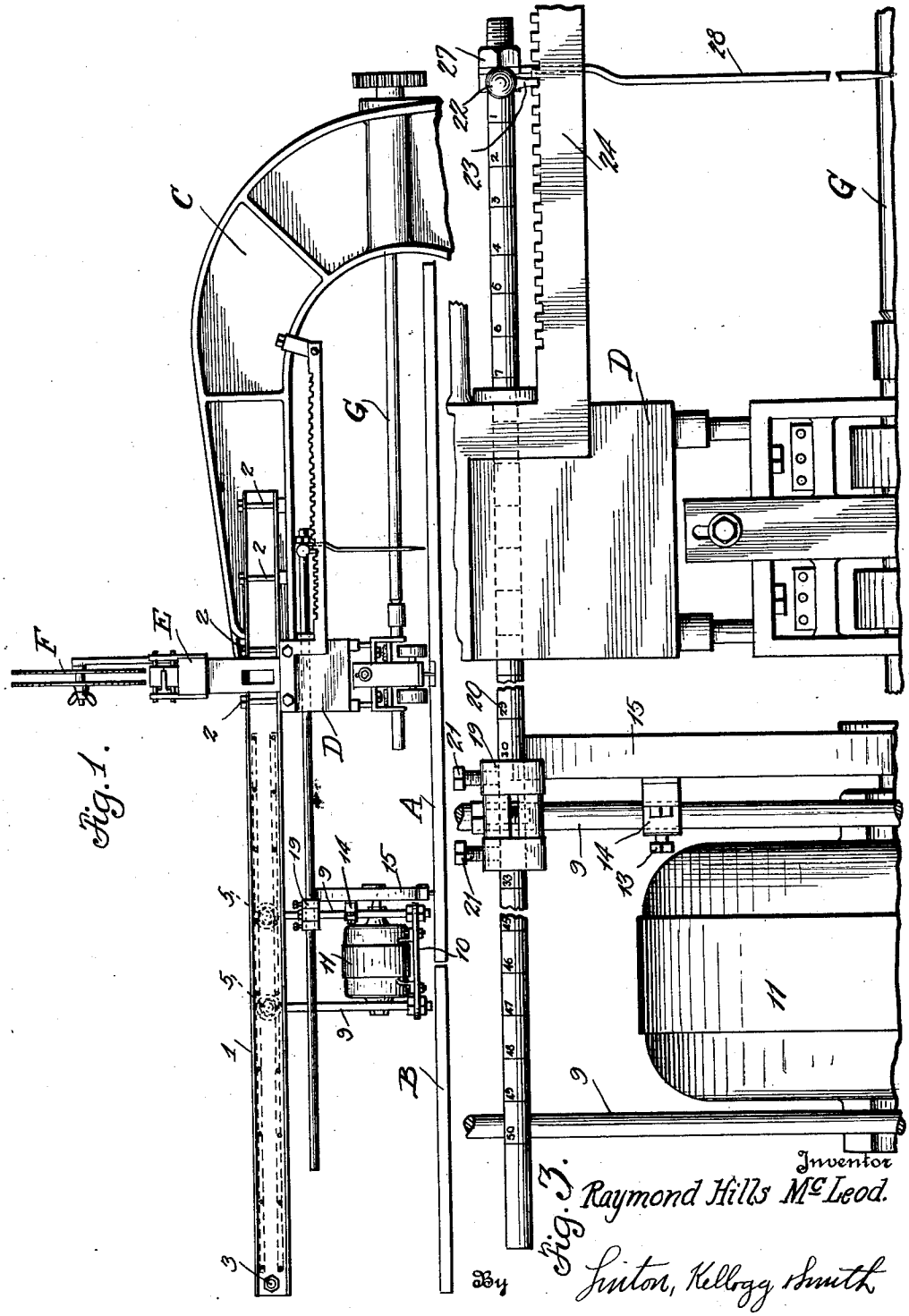


Fig. 1.

Fig. 3.

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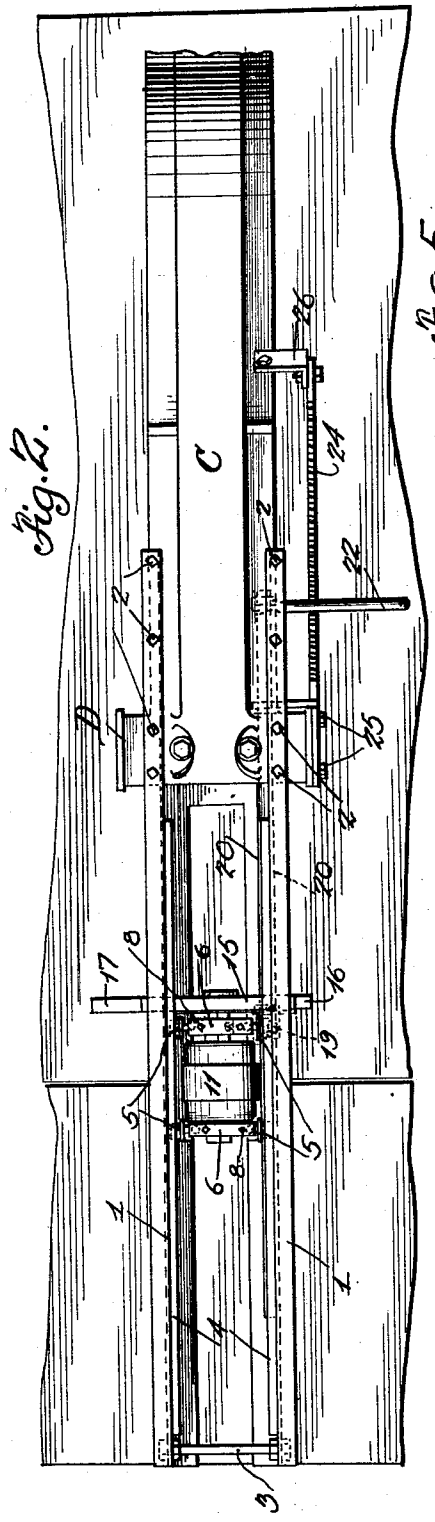


Fig. 2.

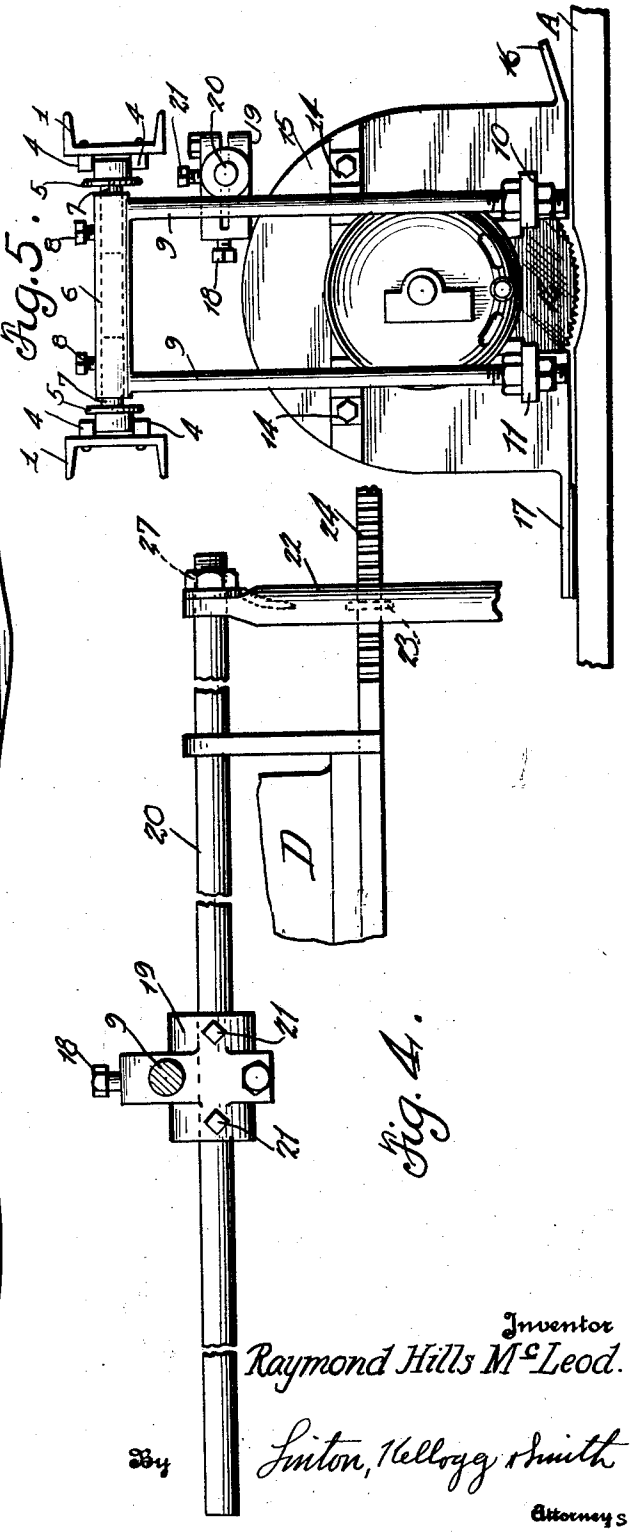


Fig. 5.

Fig. 4.

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UNITED STATES PATENT OFFICE

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VENEER CUTTER AND MATCHER

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The present invention relates to woodworking machines and more particularly, to an attachment for veneer taping machines, having for its principal object to provide means for cutting the veneer in specified panels or sizes, whereby each panel, being so formed, may be properly matched.

Veneering is usually manufactured in thin strips of varying lengths and widths, which are known to the trade as being in their "flitch" form and all of the strips of veneer out of the same flitch have corresponding markings as to figure, grain and texture. In the working up of flitch veneer, these strips are first cut to their proper lengths, according to the grain of the wood, then carried through a veneer jointer, which latter puts a perfect joint on the opposite edges of each strip and finally, these strips are placed edge to edge and brought into intimate contact upon a taping machine, which latter attaches these separate pieces together by means of adhesive tape, in order to form a panel. These panels of veneer strips are than cut to the desired length or width to meet the required form or pattern and in matching these panels, considerable waste is incurred. Accordingly, it is a further object of the present invention to provide an attachment for ordinary taping machines, whereby these veneer panels may be readily cut and matched while upon the taping machine, thereby not only effecting a saving in the material used, but also, a saving in labor as well as effecting a perfect match of the panels or faces thereof.

A still equally important object of the present invention is to provide a veneer cutting and matching attachment of the character aforesaid, which may be easily and readily applied to an ordinary taping machine and when installed thereupon, will not in any manner, interfere with the working of the taping machine, but is readily accessible upon the latter and capable of cooperation therewith.

Other objects of the invention will be in part obvious and in part pointed out hereinafter.

In order that the invention and its mode of operation may be readily understood by persons skilled in the art to which it appertains, I have in the accompanying illustrative drawings and in the detailed following description based thereupon, set out one possible embodiment of the invention.

In these drawings:—

Figure 1 is a side elevation of the attachment embodying the present invention, when applied to an ordinary taping machine;

Figure 2 is a plan view of the same;

Figure 3 is a fragmentary view in side elevation of the adjustable graduated bar, a portion of the taping machine and the frame which carries the motor driven cutter of my improved attachment;

Figure 4 is a detail plan view of the adjustable graduated bar and its locking arrangement; and

Figure 5 is a detail end elevation of the attachment embodying my invention and the table of the taping machine.

Referring now more particularly to the accompanying drawings, wherein like corresponding parts are designated by similar reference characters throughout the several views, I have herein shown in fragmentary elevation, a portion of a conventional veneer taping machine which consists of a wooden bed plate or table A, provided with an extension B arranged contiguous with one end thereof. The usual bracket arm C of the taping machine support or frame has attached to its outer end, a presser head D, having arranged thereupon, the usual water container E, taper holder or reel F, which latter supplies the tape having adhesive thereon, and which, is used for connecting the strips of veneer which are to be attached, and the taping mechanism within the presser head is driven by the usual tumbling shaft G. The strips of veneer which have been cut to their proper lengths and passed through the jointer, are placed upon the table A of the taping machine, edge to edge, and brought into intimate contact, whereupon the tape from the reel F is fed and applied to the edges of the contacting strips of veneer in order that the strips will be fastened together, but, of course, it is understood that the joints of these veneer strips are perfect-

ly matched before applying the tape thereto. These panels so formed upon the taping machine have, heretofore, been cut in sheets or shapes to meet the desired pattern, and in this matching and cutting of the panels, not only considerable loss of the material is experienced, but, considerable time and labor is necesasry to complete the same.

With the present attachment applied to taping machines, it is possible that as the panels are formed upon the bed plate A, they may be readily cut in the exact lengths or widths desired to meet almost any pattern, and that section severed will be used in forming the next succeeding panel.

The attachment embodying the present invention, comprises a pair of equally spaced and parallelly arranged channel bars 1 which have one end fixedly secured by means of the bolts 2 to the bracket arm C of the taping machine, and their opposite ends connected together and held in spaced relation by means of the spacing bolt 3. As will be noted in Figure 1 of the drawings, these channel bars 1 project from the bracket arm C and are suspended above the base plate A, as well as its extension B of the taping machine. The inner faces of these channel bars 3 have secured thereto, rails 4 forming a trackway in which are adapted to freely travel, the ball bearing rollers 5, which latter support the cutter frame.

This cutter frame consists of a pair of spaced inverted U-shaped members or sections, each of which comprises a central tubular portion 6 in which are mounted the stub shafts 7 of the rollers 5. These shafts 7 are retained against rotation within the tubular members 6 by means of the set screws 8. Each section of the cutter frame is formed with a pair of parallel and depending rods 9 which are adjustably connected at their lower ends to a pair of longitudinally extending plates or bars 10, and secured to these bars 10 is the frame of a suitable electric motor 11. The armature shaft of this electric motor has keyed thereto, a cutting member 12 which may be a circular knife, or saw, and the purpose of which will be later set forth. The depending rods or arms 9 of the forward section of the cutter frame, have adjustably connected thereto, by means of the set screws 13, brackets 14 which carry a housing 15 for the cutter 12, as is shown arranged therein. One edge of this housing 15 is provided with a lip extension 16 so that the veneer strips or panels may be readily passed below the housing to the saw, which is arranged above the table A of the taping machine, whereas, projecting from the opposite side of the housing 15 is a projection 17 known to the trade as a "splitter" which latter is for the purpose of keeping the veneer from binding during the cutting operation.

From the foregoing, it is obvious that this suspended cutter frame may readily travel in a longitudinal direction upon the beams 1 and upon the setting of the motor 11 in rotation, the strips of veneer or panels, as they are fed below the housing 15, may be readily cut, but, in order to retain this suspended cutter frame in the desired position along the table A, I provide an adjustable locking device, which will now be described.

One of the depending bars 9 of the cutter frame has adjustably connected thereto a bracket 19, by means of the set screw 18. This bracket 19 has a sleeve formed therewith, through which extends a rod 20 and this sleeve 19 may be retained in any adjusted position upon the rod 20 by means of the set screws 21. This rod has suitable graduations thereon, which as shown in the drawings, range from 1 to 50 and indicate inches, but it is to be here understood that these graduations may be in fractions of inches, as conditions or preference may dictate.

Secured to the rod 20, but adapted to oscillate thereupon, is a sleeve having a handle 22 formed therewith and which handle is provided with a lug projection 23 which latter is adapted to be seated within any one of the notches of the rack bar 24. This rack bar has one end secured by means of the bolts 25, to the frame of the presser head, whereas, its opposite end is connected by means of the bracket 26, to the bracket arm 3 of the taping machine. Depending from this rod 20 and detachably connected thereto by means of the nut 27, the latter engaging the threaded end of the rod 20, is a depending plate 28 forming a guide and indicator, and the lower end of this guide plate 28, as will be noted from Figure 1 of the drawings, projects adjacent the upper face of the bed plate A of the taping machine.

The handle 22 projects from one side of that side of the taping machine to which the operator stands for controlling the same, and the operator, by lifting upwardly upon this handle 22, will release the lug 23 from engagement with the rack bar 24, whereby upon movement of the rod 20 in either direction, the cutter frame will be caused to travel within the channel beams 1, and when it has assumed the described position along the base plate A of the taping machine, the handle 22 may be released, whereupon it will again be seated within one of the notches of the rack bar 24 and retained against further longitudinal movement. Also, the cutter frame is retained in the desired position upon the rods 20, by means of the set screw 21 whereby the panels of veneering of various lengths or widths, or that which equals the distance between the indicator 28 and the saw blade 12, may be readily cut when placed upon the table A of the taping machine, and the motor to which the saw is attached, set in motion.

The strips of veneer, after they have been

passed through a jointer, are placed upon the table A, edge to edge, and brought into intimate contact. The contacting edges of the veneer strips are passed below the presser head of the taping machine, whereat they are glued together by the tape, in the customary manner. These strips or separate pieces of veneering which have been joined together by means of the tape form a sheet of veneering until one edge thereof contacts with the indicator 28. It is from this sheet of veneering the panels of a known or required form or pattern are cut. The cutting blade 12 should be adjusted and retained in this adjusted position upon the rod 20 so that the distance between this cutting blade and the pointer 28 will be the same as the width of the pattern of which the panels of veneering follow. When this sheet of veneering which has been formed upon the bed plate A is of greater width than the distance between the cutter 12 and the pointer 28, the motor 11 is set in operation whereupon the cutter 12 will sever from the sheet of veneering so formed, a panel which is equal to the distance between the cutter and the pointer 28. That portion or section of the sheet of veneering which has been severed, will still have one edge with a perfect joint thereon, to which, may be secured, by means of a taping machine, additional strips of veneering until a second sheet is formed. After the cutter frame has been locked in the proper position upon the rod 20, it is obvious that duplicate panels of veneering may be readily cut from the sheets as formed upon the bed plates, and each panel will be properly matched and cut in the desired width, while upon the taping machine. That portion of the veneering which has been severed from the sheet formed upon the taping machine as heretofore been wasted, but with my improved attachment, these sections or pieces which have been severed from the sheet can still be used in forming the next panel, thereby not only saving in the material used, but also in the labor required to properly cut and match these panels.

Manifestly, the construction shown and described is capable of many modifications and those modifications that are within the scope of the claims, I consider within the spirit of my invention.

I claim:—

1. A veneer cutting and matching attachment for taping machines comprising a pair of angle bars, rollers adapted to travel upon said bars, a frame suspended from said rollers, a motor driven cutter mounted upon said frame, a bar having graduations thereon, means for adjustably connecting said bar to said cutter supporting frame whereby the latter may be retained at the predetermined positions upon the taping machine, and means for retaining said bar in various adjusted positions.

2. A veneer cutting and matching attachment for taping machines comprising a trackway, a frame adapted to travel upon said trackway, a motor driven cutter carried by said frame, a bar having graduations thereon, means for adjustably connecting said bar to said frame, a lever rotatably mounted upon said bar, whereby the frame and bar may be manually moved, and means for locking said lever whereby said frame and cutter carried thereby may be retained in various adjusted positions.

3. A veneer cutting and matching attachment for taping machines comprising a trackway, a frame suspended from said trackway, a motor driven cutter arranged upon said frame, a bar having graduations thereupon, means for adjustably connecting said bar to said frame, an indicator carried by said bar, and a handle connected to said bar whereby said bar and the frame connected thereto may be manually moved.

4. A veneer cutter comprising a trackway, rollers adapted to move upon said trackway, a frame, said frame consisting of a pair of inverted U-shaped sections, each section having a tubular medial portion, stub shafts extending from said rollers, means for detachably connecting said stub shafts within said tubular medial portion of the sections of the frame, and a motor driven cutter secured to the lower end of each section of the frame.

5. The combination with a taping machine having a base plate, a bracket arm and a presser head carried by said bracket arm, a trackway, means for detachably connecting one end of said trackway to said bracket arm of the taping machine, the opposite end of said trackway projecting over the base plate of the taping machine and retained in spaced relation therewith, and a motor driven cutter adapted to travel upon said trackway and be suspended therefrom, whereby the cutter may engage panels of veneering arranged upon said base plate of the taping machine.

6. The combination with a taping machine having a bed plate, a bracket arm extending above said bed plate, and a presser head carried by said bracket arm, of a trackway having one end detachably connected to the bracket arm of the taping machine and extending above the base plate thereof, a frame suspended from and adapted to travel upon said trackway, a motor driven cutter arranged upon said frame, a rod adjustably connected to said frame, an indicator carried by said rod, a rack bar secured to the taping machine, and means for bringing said rod into locking engagement with said rack bar.

7. The combination with a taping machine comprising a bed plate and a bracket arm, and a presser head carried by said bracket arm, of a trackway to be connected to said

bracket arm and adapted to project over the bed plate of the taping machine, a traveling frame suspended from said trackway, a rod, means for adjustably connecting said frame to said rod, a motor driven cutter arranged within said frame, an indicator connected to said rod and arranged at one side of the presser head of the taping machine, a handle rotatably connected to said rod, a rack bar fixedly connected to the bracket arm of the taping machine, and a lug carried by said handle for engagement with said rack bar whereby said frame and the motor driven cutter carried thereby may be retained in various adjusted positions at one side of the presser head of the taping machine to which said pointer is arranged.

8. The combination with a veneer taping machine having a bed plate, a bracket arm and a presser head supported above said bed plate, of a motor driven cutter, means for adjustably supporting said cutter above the bed plate at one side of the presser head, an indicator connected to said means for supporting said cutter and arranged at the opposite side of the presser head, and means for adjustably locking said means for supporting the cutter to the bracket arm of the taping machine.

In witness whereof I have hereunto set my hand.

RAYMOND HILLS McLEOD.