S. M. BUSH.

CUTTER FOR VENEER MACHINES.

APPLICATION FILED APR. 19, 1909.

945,690. Patented Jan. 4, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

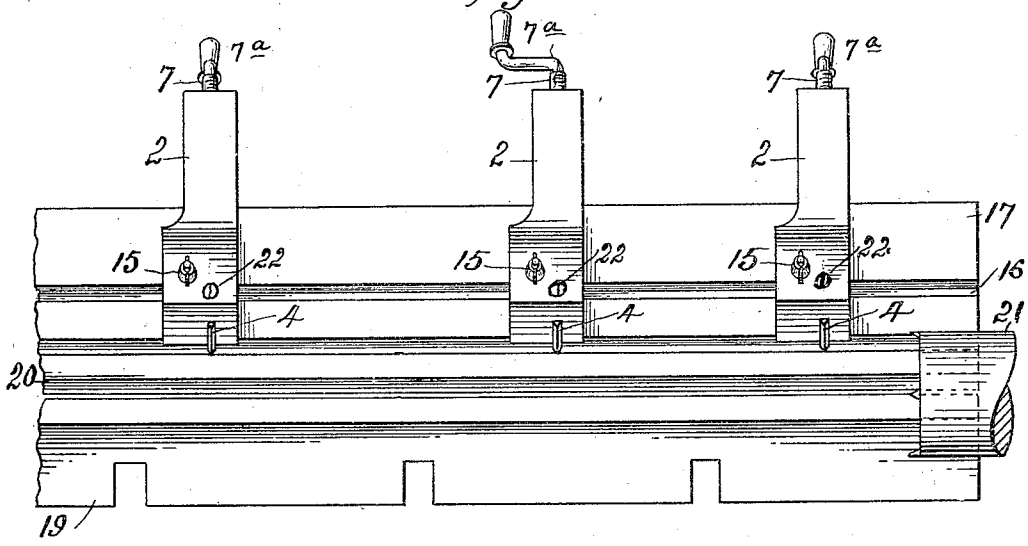

Fig. 2.

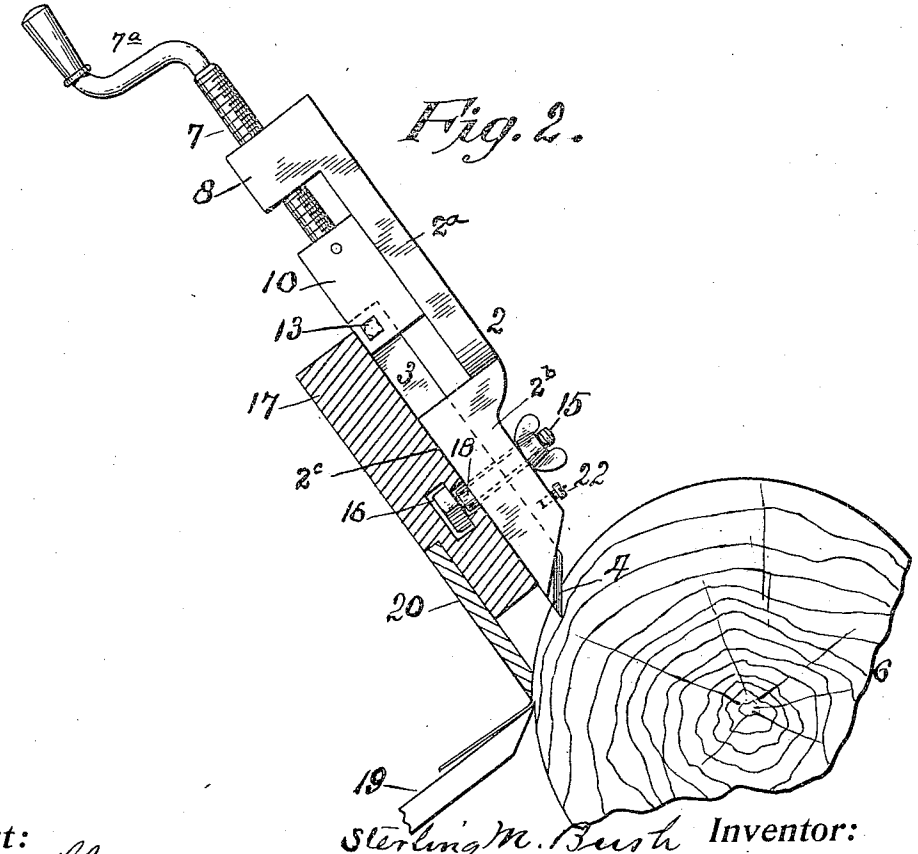

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Fig. 3.

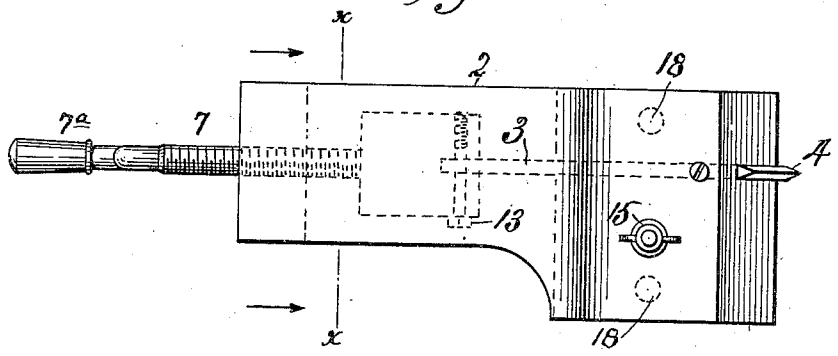


Fig. 4.

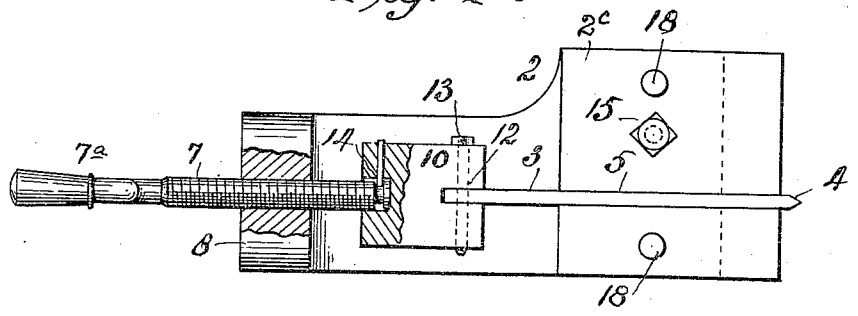
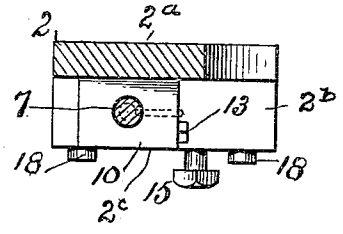


Fig. 5.



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UNITED STATES PATENT OFFICE.

STERLING M. BUSH, OF SINCLAIRVILLE, NEW YORK.

CUTTER FOR VENEER-MACHINES.

945,690. Specification of Letters Patent. Patented Jan. 4, 1910.

Application filed April 19, 1909. Serial No. 490,948.

To all whom it may concern:

Be it known that I, STERLING M. BUSH, a citizen of the United States, and a resident of Sinclairville, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Cutters for Veneer-Machines, of which the following is a specification.

My invention consists of trimmers for veneer machines, for slicing the veneer into any desired number of strips of any desired width.

The sharp cutting ends of the trimming blades or knives are adapted to cut into or score the log, in advance of the veneer knife, or in advance of the pressure bar, if one be used in the machine, and by preference they are held by the pressure bar carriage, so as to be fed forward to the log by the usual feeding screws of the veneer machine.

In the accompanying drawing, to which reference is made and which forms a part of this specification: Figure 1 is a view illustrating the application of the trimmers to the machine, and also parts of a veneer machine. Fig. 2 is a sectional elevation of the same. Fig. 3 is a top view of one of the cutters. Fig. 4 is a bottom view of the same, and Fig. 5 is a sectional elevation on line *x*—*x* of Fig. 3.

In the drawings 2 designates the body or frame which holds the trimming knife 3. This body or frame is by preference a single casting and comprises a comparatively thin top piece 2^a, a thickened front portion 2^b, having a flat face 2^c and a thickened rear portion or lug 8. Between the thickened front portion 2^b and the rear lug 8 is left an open space for the purposes hereinafter described. The lower surface of the said front portion 2^b is flat and in it is cut a slot 5 which receives the trimming knife 3. The said slot is open through to the bottom of the said thickened portion of the frame and the lower edge of the knife 3 is flush with the flat lower surface of said thickened portion. The cutting edge 4 of the trimming knife is in angular or pointed form in order to penetrate the log 6 as illustrated in Fig. 2. In the thickened rear portion or lug 8 is formed a screw threaded bearing in which works the controller 7 preferably in the form of a screw or worm having a crank 7^a for turning the same. In the space beneath the top plate 2^a and between the ends of the thickened front portion 2^b and the rear lug 8 is placed a movable intermediate block 10 which is slotted at 12 to receive the rear end of the trimming knife 3 the same being fastened to the block preferably by a bolt 13 as shown clearly in Fig. 4. The block 10 is connected to the controller 7 preferably by a swivel 14.

Through the front thickened portion of the body or frame 2 is placed a bolt 15 the head of which enters an undercut slot 16 formed in the bar 17 of the veneer machine so that by turning down the nut on the bolt 15 the body or frame may be clamped to said bar. In order to obviate any tendency of the frame to turn on the bolt 15 the flat under surface of the front thickened portion of the frame is provided with a pair of lugs 18 which are on a line with the clamp bolt 15 and adapted to enter the slot 16 as clearly shown in Fig. 2. The slot or race 5 which forms the side bearings for the trimming knife 3 is open through to the bottom of the frame so that the lower edge of the trimming knife rests flat upon the bar 17 of the veneer machine and is supported thereby, in other words it is so held that the bar 17 forms the lower bearing for the trimming knife and takes the strain or pressure of the knife resulting from its cutting into the rotating log. In this way the frame may be made light and the point of the trimming knife and the edge of the veneer knife 19 be separated only by the thickness of the bar 17. The space in which the inner ends of the trimming knife, the controller and the block 10 work is open at its sides so that when the trimming knife becomes dull or broken or is to be removed for any other cause and replaced this can be done by removing the bolt 13 and sliding the knife forward out of its bearing which can be quickly and easily done without disturbing the location or adjustment of the body or frame 2 and without disturbing the adjustment of the controller.

In Figs. 1 and 2 are illustrated the veneer knife 19, and the pressure bar 20, which is attached to the above mentioned bar 17, all of which are fed forward by the usual feeding mechanism of the veneer machine, and not necessary to be shown in the drawings. In Fig. 1 is also illustrated a portion of one of the usual chucks 21 of a veneer machine for centering and rotating the log.

The trimmers are to be positioned along the bar 17 to slice the veneer into proper and

various widths, and for convenience in setting them I provide the body or frame 2 with a stud 22, which stands immediately over the center of the blade so that measuring from the stud of one trimmer to that of the other the exact width of veneer desired may be produced.

When the veneer machine is in operation the proper relation of the trimming knives to the log and to one another is maintained and the relation of the same to the log may be controlled by the attendant without stopping the veneer machine, so that he may instantly adjust some or all of the blades to meet the changing contingencies that may develop in the condition of the log from the time of starting until the entire log, or so much of it as is practicable, is cut into veneer; that is to say, assume that a butt log is in the veneer machine, or a log that is larger at one end than the other. The first that is cut off by the veneer knife is trash, then will come merchantable veneer, say six inches in width, then a foot in width, then a foot and a half, then two feet, then three feet in width and so on until the whole log is reduced to uniform diameter. The six inch width of good veneer is separated from the trash directly by the veneer machine itself without any other separate operation whatever, and so also with the other narrow widths. When, in the example taken, the foot width of good veneer comes off the first trimming knife will be withdrawn from the log by the attendant turning back its controller and this can be instantly done without stopping the veneer machine. This foot-width veneer is continued until a foot and a half of good veneer comes off. At the first appearance of this the second trimming knife will be withdrawn from the log as before and so on thus separating all widths of serviceable veneer from the trash by the veneer machine itself and without once stopping the continuous operation of the veneer machine.

While I have given but one example of the usefulness of my invention—that of a butt log—it is manifest that it has great advantage in almost every exigency that may be met with in cutting veneer, as for example in cutting crooked logs, or logs having decayed spots or large knots in them. In all of these instances all of the useful widths of veneer, however narrow, can be saved at a profit,—those which have hitherto been thrown into the trash being saved and without any waste of time of the attendant or of the veneer plant.

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

1. A veneer trimmer comprising a body or frame having a top plate thickened at each end leaving an open space between said thickened portions, a trimming knife held to slide longitudinally in a bearing formed in one of said thickened portions, a controller for said knife working in the other of said thickened portions and a block working in said space to which the said trimming knife and said controller are attached, substantially as described.

2. A veneer trimmer comprising a body or frame having a top plate thickened at each end leaving an open space between said thickened portions, a slot open at the bottom formed in one of said thickened portions, a trimming knife held to slide longitudinally in said slot, a controller for said knife working in the other of said thickened portions and a block working in said space to which the said trimming knife and said controller are attached substantially as described.

3. A veneer trimmer comprising a body or frame having a top plate thickened at each end leaving an open space between said thickened portions, a slot open at the bottom formed in one of said thickened portions, a trimming knife held to slide longitudinally in said slot, a controller for said knife working in the other of said thickened portions, in combination with a bar secured in the veneer machine and a bolt for securing said body or frame upon said bar so that its surface forms a bearing and support for said trimming knife, substantially as described.

4. A bar held in a veneer machine, a body or frame adjustably secured to said bar and formed at one end with a slot open at the bottom of the said body or frame, a controller working in a bearing at the opposite end of said body or frame and a longitudinally movable trimming knife held in said slot to rest upon the surface of said bar, substantially as described.

5. A bar held in a veneer machine said bar having a longitudinal slot formed therein, a body or frame, a bolt adjustably securing said body or frame to said bar, a trimming knife held upon said bar in an open slot formed in one end of said body or frame and a controller for said knife working in a bearing at the opposite end of said body or frame, substantially as described.

6. A veneer trimmer comprising a body or frame having a top plate thickened at each end, a slot formed in one of said thickened portions, a worm or screw working in a bearing formed in the other thickened portion, a trimming knife held to slide longitudinally in said slot, a block, means for detachably securing said knife to said block, and a swivel connecting said block to the said worm or screw, substantially as described.

7. A trimmer for veneer machines comprising an open sided body or frame, the trimming knife, a bearing for said knife formed at one end of said body or frame, a block to which said knife is bolted, a screw

threaded bearing formed at the opposite end of said body or frame and a screw or worm working in said last mentioned bearing and a swivel connecting said screw or worm to said block, substantially as described.

8. A trimmer for veneer machines comprising an open sided body or frame having a flat face at one end thereof, a trimming knife, a bearing for said knife formed in said flat face, a bolt passing through the said flat face and a stud projecting from said flat face in line with said bolt, a block to which said trimming knife is secured, a screw threaded bearing formed at the opposite end of said body or frame, a worm or screw controller working in said last mentioned bearing and a swivel connecting said controller to said block, substantially as described.

STERLING M. BUSH.

Witnesses:
H. A. WEST,
M. M. CHASE.