June 19, 1923. 1,459,587

R. H. FOARD

VENEER CUTTING MACHINE SPUR BIT AND BLOCK

Filed July 31, 1922

Fig. 1.

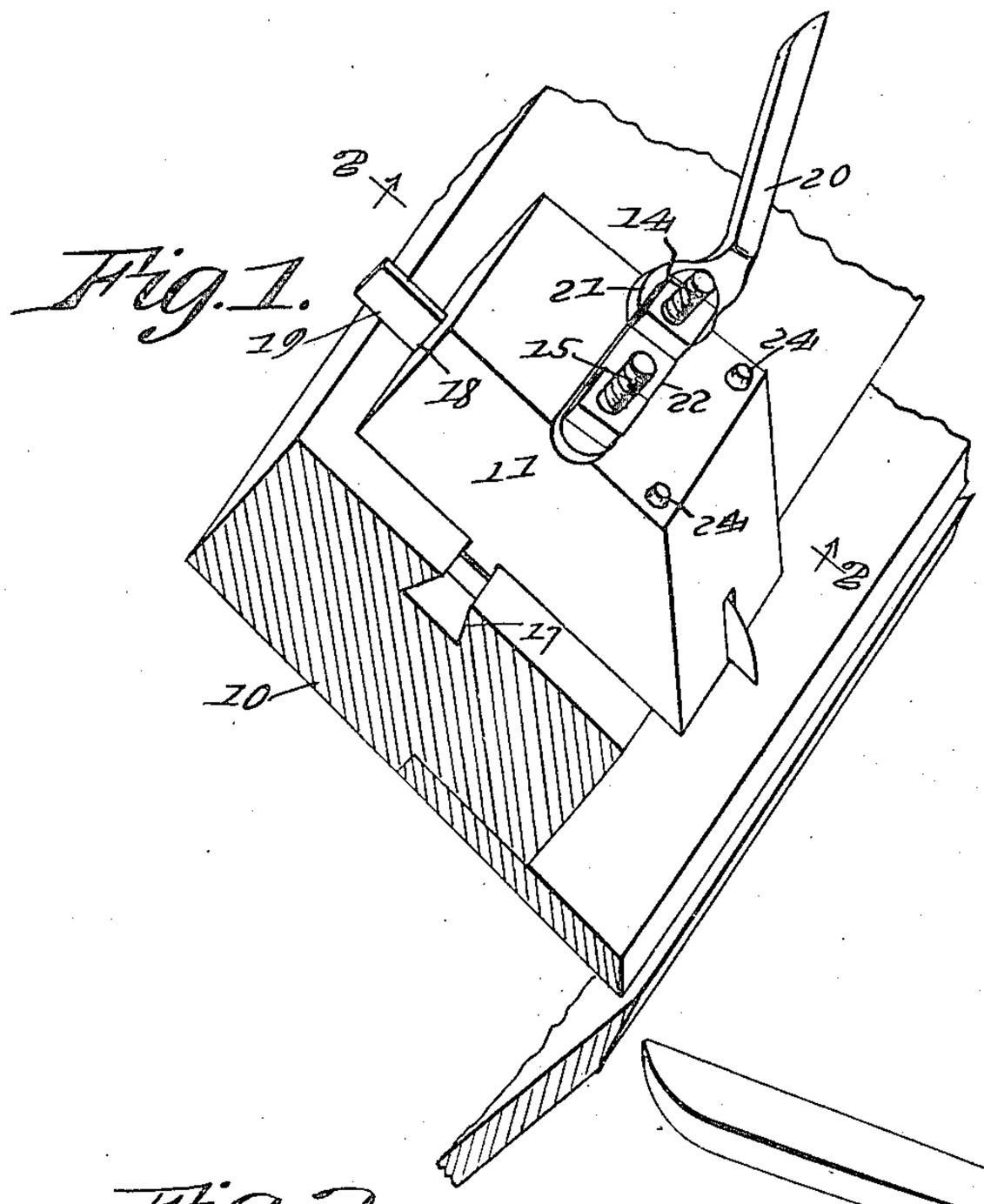


Fig. 2.

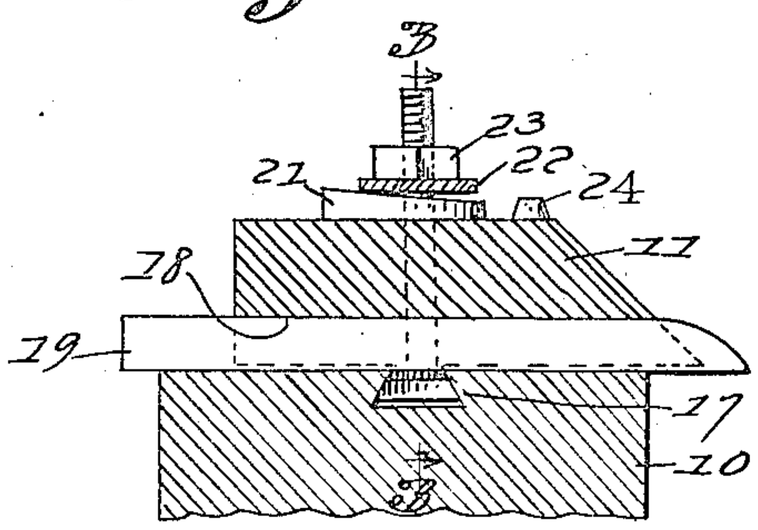
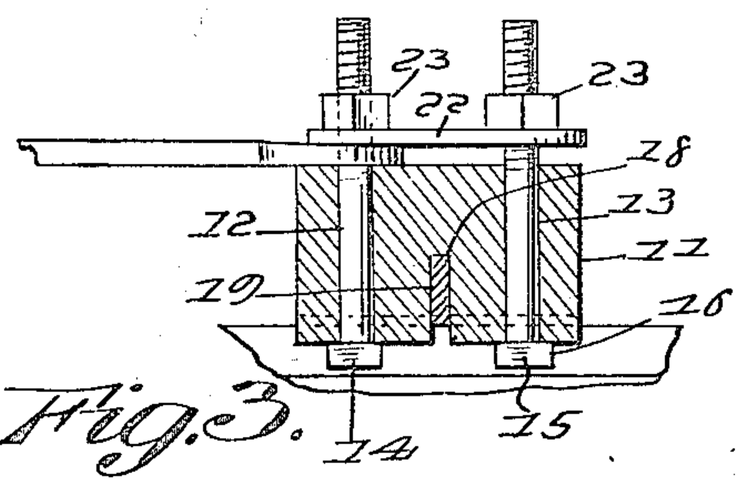


Fig. 3.



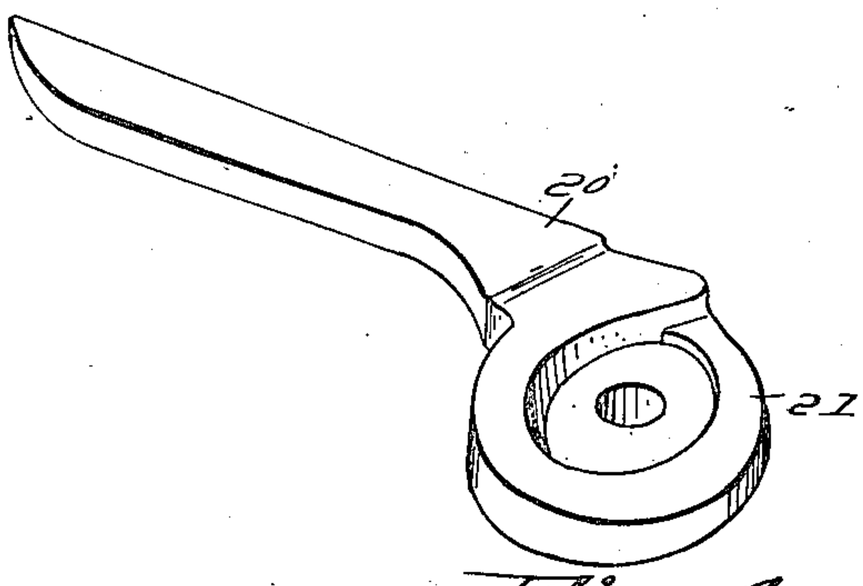


Fig. 4.

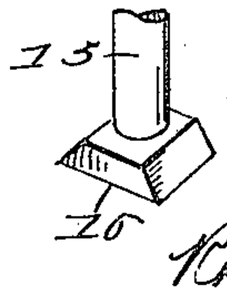


Fig. 5.

Inventor,
Robert H. Foard,
By Franks & Ackerman.
Attorney

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UNITED STATES PATENT OFFICE.

ROBERT H. FOARD, OF CLEVELAND, NORTH CAROLINA.

VENEER-CUTTING-MACHINE SPUR BIT AND BLOCK.

Application filed July 31, 1922. Serial No. 578,696.

To all whom it may concern:

Be it known that I, ROBERT H. FOARD, a citizen of the United States of America, and resident of Cleveland, in the county of Rowan and State of North Carolina, have invented certain new and useful Improvements in Veneer-Cutting-Machine Spur Bit and Block, of which the following is a specification.

This invention relates to veneer cutting machines, and particularly to mechanism to be associated with the rail and each knife for adjusting each knife with respect to other knives, or with respect to the log being cut.

It is an object of this invention to provide novel means whereby the knife can be quickly adjusted to advance or withdraw it with respect to the log or wood being treated, while at the same time permitting the knife carrying block to be adjusted longitudinally of the bed plate or rail, novel means being provided for simultaneously clamping the block to the rail for holding it in different positions of adjustment and for frictionally holding the blade in its position of adjustment.

It is well known that in cutting veneer, the knives have to be adjusted longitudinally of the bed plate when imperfect sections of logs are uncovered or encountered, as the cutting process proceeds. It is possible, of course, by adjusting the knives to have them operate clear of the imperfect sections of the log, and by this means, a comparatively great saving will result, as veneer of less width than the original cut will be taken from the log, whereas if the adjustment is not quickly and easily attainable, an operator is apt to leave the knives in the adjusted state and continue the cutting action which will produce an imperfect veneer where the imperfect portion of the log is encountered.

It is an object of this invention, therefore, to produce means by which the block and knife securing device may be expeditiously tightened or released, means being also provided for limiting the movement of the means for operating the securing device, in order that it may be prevented from striking the log or interfering with the rotation of the log.

It is a further object of this invention to produce a block and knife adjusting mechanism which will be of comparatively simple and inexpensive construction, and which may be installed on machines now in common use.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of the application wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a view in perspective of a fragment of a frame of a veneer cutting machine and parts associated with it;

Figure 2 illustrates a sectional view on the line 2—2 of Fig. 1, omitting the knife;

Figure 3 illustrates a sectional view on the line 3—3 of Fig. 2;

Figure 4 illustrates a perspective view of the clamping cam; and

Figure 5 illustrates a perspective view of the head and a portion of the shank of one of the bolts.

In these drawings, 10 denotes the usual slotted rail or bed plate of a veneer cutting machine, with relation to and on which the block 11 is adjustably mounted. The block has apertures 12 and 13 for the reception of the bolts 14 and 15 respectively, and each bolt has a head 16 with beveled sides that fit in the slot 17 of the bed plate, and the heads of these bolts bear against the bed plate for frictionally retaining the block in different positions of adjustment, as will presently appear. The block has a slot 18 forming a seat for the knife 19, and the said slot is of less depth than that of the knife in order that the knife will be clamped against the bed plate by the action of the block.

In the present embodiment of the invention, one or the other of the bolts 14 or 15 will act as a pivot for a cam lever 20, the head 21 of said lever being rotatably mounted on a bolt. It is the purpose of the inventor that the cam shall be made right or left hand, according to the desires of the user, and the head of such cam would be rotatably mounted on either of the bolts, according to the character of cam.

In the present embodiment of the invention, the cam is shown as in coactive relation to a plate 22, and the said cam is interposed between the plate and the block. The plate is adjustably secured in place by nuts 23 that are threaded on the bolts, and hence as the head of the cam is rotated, it will act to increase or diminish the pressure on the block. The camming action has been found in practice to effectually retain the block in different positions of adjustment when the cam is properly set, whereas when the cam lever is operated to reduce pressure on the block, the block will be free to slide, in order that the knife 19 associated with the block may be moved into certain operative relation to the other blocks on the bed plate, or with relation to the work being cut.

Stops or abutments 24 rise from the upper surface of the block near its inner edge, and these abutments are intended to be engaged by the cam lever to limit the inward oscillatory movement thereof. These abutments may be formed integral with the block, or they may consist of studs properly seated or otherwise secured to it, and the inventor does not wish to be limited with respect to this feature of the invention.

From an inspection of the drawing, it will be apparent that when the deep portion of the cam is interposed between the plate 22 and the block, the pressure on the block and the pull on the heads of the bolts against the walls of the slot may be such as to frictionally retain the block in its adjusted position, while at the same time, forcing the knife into engagement with the bed plate to retain the parts in their proper positions, whereas by slight oscillatory movement of the cam lever to cause the interposition of the shallow portion of the cam between the plate 22 and the block, the parts just described will be released to such an extent as to permit movement of the block, or the removal of the knife from the slot of the block. If the knife needs sharpening, it can be re-set to proper position by the simple insertion of the knife in the slot and the operation of the same.

I claim:

1. In a veneer cutting machine, a bed plate having a slot, bolts having heads slidable in the slot, a block on the bed plate through which the bolts extend and beyond which they project, a plate having apertures to receive the bolts, members for limiting the movement of the plate with relation to the face of the block, a cam operative in conjunction with either bolt and rotatably mounted thereon between the said plate and the said block, and a knife held between the block and bed plate by the action of the said block and its clamping means.

2. In a veneer cutting machine, a bed plate having a slot, bolts having heads slidable in the slot, a block on the bed plate through which the bolts extend and beyond which they project, a plate having apertures to receive the bolts, members for limiting the movement of the plate with relation to the face of the block, a cam operative in conjunction with either bolt and rotatably mounted thereon between the said plate and the said block, a knife held between the block and bed plate by the action of the said block, and means on the block in positions with relation to the bolts to form abutments to limit the movement of the cam with relation to either of the said bolts.

ROBERT H. FOARD.