L. T. BUNCH.

MOLDING FACE CUTTER.

APPLICATION FILED JULY 28, 1916. RENEWED NOV. 10, 1917.

1,269,378.

Patented June 11, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

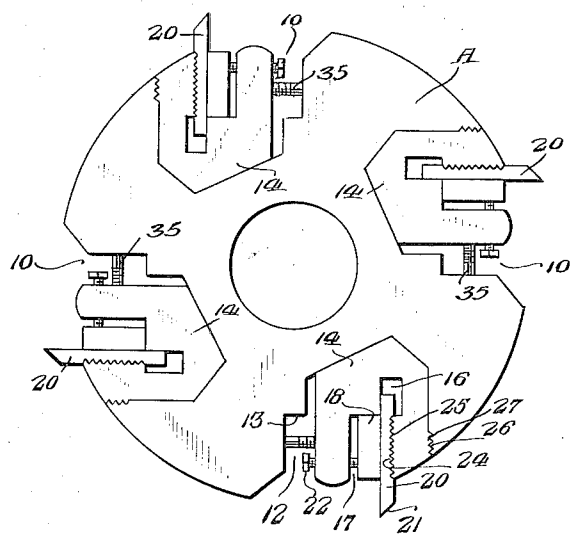


Fig. 2.

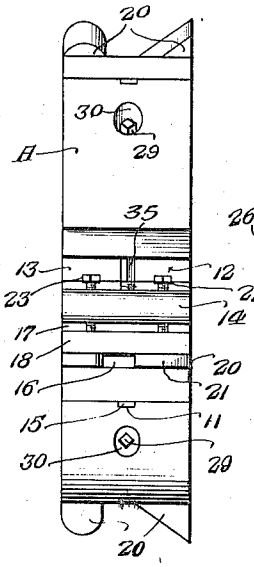
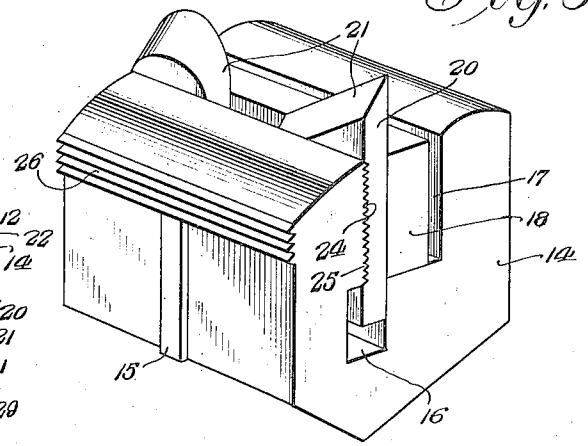


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 3.

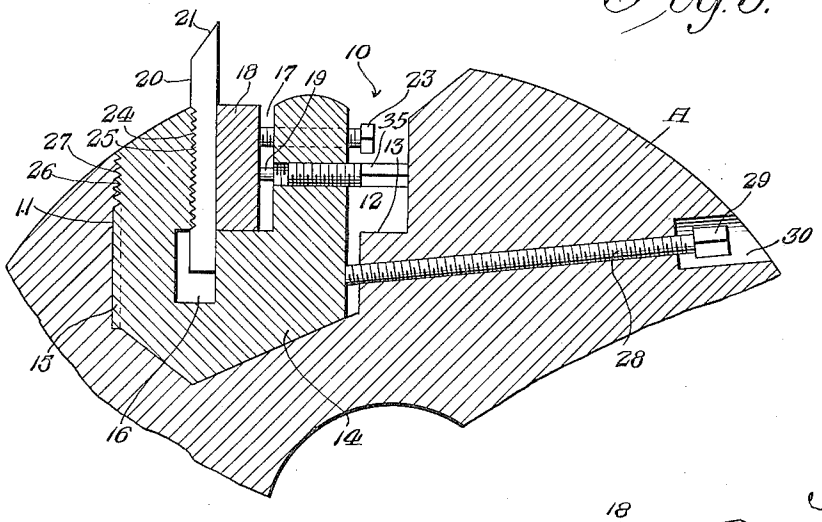


Fig. 7.

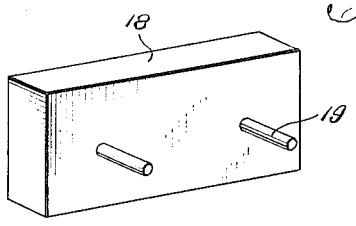
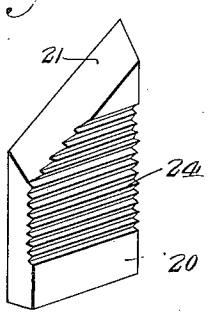


Fig. 6.



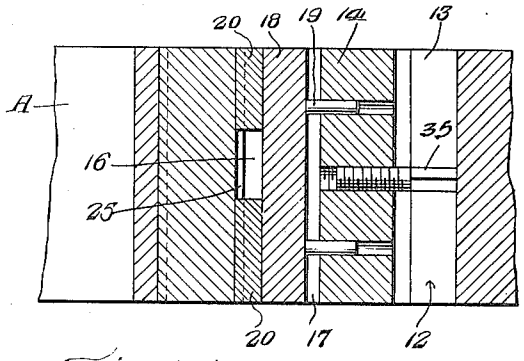


Fig. 4.

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UNITED STATES PATENT OFFICE.

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MOLDING-FACE CUTTER.

1,269,378. Specification of Letters Patent. Patented June 11, 1918.

Application filed July 28, 1916, Serial No. 111,894. Renewed November 10, 1917. Serial No. 201,398.

To all whom it may concern:

Be it known that I, LEMUEL T. BUNCH, a citizen of the United States, residing at Charleston, in the county of Charleston and State of South Carolina, have invented new and useful Improvements in Molding-Face Cutters, of which the following is a specification.

The invention relates to a molding face cutter, and more particularly to the class of molding cylinders for use in wood working machines. The primary object of the invention is the provision of a cylinder of this character wherein the knives for cutting the molding profile are mounted within blocks which are removably fitted within the heads or disks so that the said blocks can be properly adjusted and made fast therein and also detached without disturbing the knives.

Another object of the invention is the provision of a cylinder of this character wherein the blocks carrying the knives can be readily removed from the said cylinder so that in event the knives get long heels from excessive jointing said heels can be removed by the grinding of the knives and thereafter the blocks replaced in the cylinders with despatch, and in this manner expediting the facing of moldings.

A further object of the invention is the provision of a cylinder of this character wherein the same is fitted with a plurality of blocks carrying the cutting knives which act upon the work, namely, the molding, for facing the same when the cylinder is rotated, and in this manner the profile of the molding can be carried forth with despatch.

A still further object of the invention is the provision of a cylinder of this character having the removable blocks carrying the knives, thereby simplifying the construction of the same, enabling the knives to be firmly and securely held in place and properly adjusted.

A still further object of the invention is the provision of a cylinder of this character which is thoroughly reliable and efficient in its operation and inexpensive in manufacture.

Other objects will be in part obvious and in part hereinafter set forth.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter described, and the scope of the application of which will be indicated in the appended claim.

In the accompanying drawings:

Figure 1 is a side elevation of a cylinder constructed in accordance with the invention;

Fig. 2 is an edge elevation thereof;

Fig. 3 is a fragmentary vertical sectional view;

Fig. 4 is a horizontal sectional view illustrating the invention;

Fig. 5 is a perspective view of the block with the knives therein;

Fig. 6 is a perspective view of one of the knives, and

Fig. 7 is a perspective view of the follower plate.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to the drawings in detail, the device comprises a rotary cylinder A preferably in the form of a relatively wide disk, the width of which can be varied as the occasion may require, and has formed in its periphery at intervals thereof notches 10, one wall of each being provided with a groove 11 while the opposite wall is recessed at 12 to provide a step 13, and in each of these notches is removably fitted a knife holder hereinafter fully described.

Each knife holder comprises a block 14 which is correspondingly shaped to the notch 10 for detachable engagement therein and is formed on the outer face of one wall with a rib 15 constituting a key which is correspondingly shaped to the groove 11 and is adapted to be received therein so as to prevent lateral displacement of the block within the notch. Each block 14 is formed with a blade receiving channel 16 and a recess 17 opening into the same, the latter being occupied by a follower plate 18 having mounted therein guide pins 19 which slidably fit in suitable bores or apertures formed in one wall of the block 14, while removably fitted within the channel 16 are sectional knives 20, each being formed with a beveled cutting edge 21 shaped for the proper cutting of the face of the molding to give a profile thereto as may be desired.

Threaded in one side of the block 14 are the adjusting screws 22 and 23 respectively, which act upon the follower plate 18 for the clamping of the knives 20 within the

channel 16 in the block 14, and these knives on one face are formed with corrugated surfaces 24 to lock with a companion corrugated surface 25 formed on the inner face of one wall of the channel 16 so that when the knives 20 are clamped therein there is no possibility of the slipping of the same or said knives working loose or getting out of position.

Formed in the straight wall of each notch 10 is a corrugated surface 26 and likewise formed on the outer face of one side wall of the block 14 is a companion corrugated surface 27 which is adapted to lock with the surface 26 when the block 14 is made fast in the notch 10 in the cylinder A as is clearly shown in Fig. 1 of the drawings. It is to be understood that the width of the notch 10 in the cylinder is such as to permit the block to be inserted therein without interference from the corrugations 26—27, the angularly related lower surface of the block and the corresponding formation of the bottom of the notch permitting such movement with the block in place, the upper portion thereof is held by a screw 35, tapped in the block with its outer end formed for wrench engagement, and adapted to bear against the wall of the recess 12, remote from the block, the operation of this screw serving to force the block to interlock the corrugations 26 and 37, and the rib 15 in the recess 11. Tapped in the cylinder A at one side of each of the notches 10 is a set screw 28 which engages with the block 14 within the notch 10 to fasten the same therein, the wrench engaging head 29 of the set screw 28 being confined within a countersink 30 formed in the outer periphery of the cylinder A and any suitable wrench can be engaged with the head 29 for the turning of the screw to permit the loosening of the block or the fastening of the same in place in the cylinder.

The cylinder A is mounted in the wood working machine in the usual manner upon a driving spindle so that said cylinder will rotate and a plurality of sectional knives 20 will operate upon the work for cutting the same to give the profile or facing to the molding.

The economical feature of the block 14 is the fact that the knives carried thereby can be ground in the block without disturbing the position originally assumed in the cylinder A should the knives from excessive jointing become long heeled.

It will be apparent that the knives held within the block 14 which are made fast within the cylinder A cannot possibly slip when coming in contact with the work and when the blocks are fitted in the cylinder there is no possibility of the same working edgewise therein or falling out of the same.

The salient feature of the invention is the manner in which each block is held within the notch 10 in the cylinder A and also the mode of holding the sectional knives 20 in each block so that when it is desired to joint the knives the block carrying the same can be readily removed from the cylinder without disturbing the said knives.

From the foregoing description, taken in connection with the accompanying drawings, the construction and manner of use of the herein described molding face cutter will be readily apparent and, therefore, a more extended explanation has been omitted.

Having thus described my invention, I claim:

The combination with a cylinder having notches at equal distances apart in the periphery thereof, removable blocks held within the notches, cutting knives removably fitted within the blocks, means adjustably mounted in the blocks for the fastening of the knives therein, means mounted within the cylinder for securing the blocks in the notches, one wall of each notch being formed with a groove, a key on each block for engagement in the groove, roughened surfaces formed on each knife and the wall adjacent thereto of the block for interlocking engagement with each other, a filler plate carried by each block and acting upon the knife to move the same for the interlocking engagement of the roughened surfaces, and roughened surfaces formed in the notches and on the blocks for interlocking engagement with each other.

In testimony whereof I affix my signature.

LEMUEL T. BUNCH.