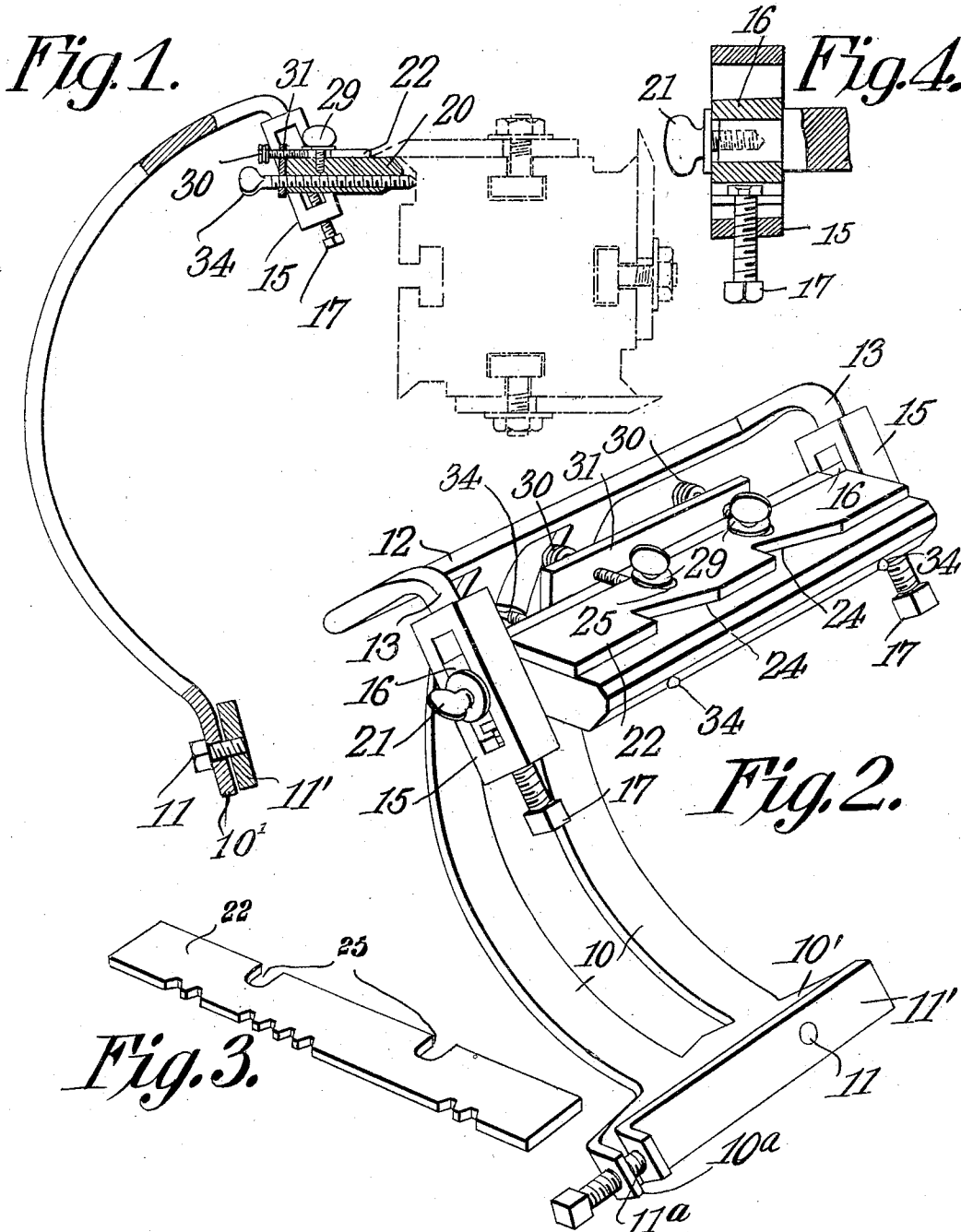


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PATENTED NOV. 27, 1906.

C. L. WHITENER.  
GAGE FOR ROTARY CUTTERS.  
APPLICATION FILED AUG. 31, 1906.



WITNESSES:  
*E. J. Whitener*  
*Geo. E. Parker*

*Columbus L. Whitener*, INVENTOR.  
By *C. A. Snow & Co.*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

COLUMBUS L. WHITENER, OF FREDERICKTOWN, MISSOURI.

## GAGE FOR ROTARY CUTTERS.

No. 836,847.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed August 31, 1906. Serial No. 332 826.

*To all whom it may concern:*

Be it known that I, COLUMBUS L. WHITENER, a citizen of the United States, residing at Fredericktown, in the county of Madison and State of Missouri, have invented a new and useful Gage for Rotary Cutters, of which the following is a specification.

This invention relates to devices for gaging the positions of the cutting-blades, molding-bits, and similar members of revoluble cutter-heads, and has for its principal object to provide a device which may be readily applied to a planer or other machine for this purpose.

A further object of the invention is to provide a gage which may be readily adjusted for use in connection with cutter-heads of any diameter and for the adjustment of molding bits or cutters of different contour.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts herein-after fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a sectional elevation of a gage for rotary cutters constructed in accordance with the invention. Fig. 2 is a detailed perspective view of the same. Fig. 3 is a detail perspective view of a different form of gage-plate. Fig. 4 is a sectional view through one of the block pintles or trunnions.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The main frame of the device is in the form of an arcuate bar 10, the central portion of which is preferably cut away or slotted in order to reduce the weight. The lower end of this bar is somewhat widened, forming a plate 10', at one end of which is a bent portion forming an arm 10<sup>a</sup>. The plate 10' is provided with an elongated slot through which passes a screw 11, the threaded end of the latter fitting in a threaded opening in an adjustable bar 11', and said bar has at one end a bent arm which is engaged by a screw 11<sup>a</sup> passing through the arm 10<sup>a</sup>. In turning the screw 11<sup>a</sup> the bar 11' may be adjusted

in the direction of its length, so that when the end of the bar is placed against the guide-bar of the planer the position of the device with respect to the length of the cutter-head may be adjusted, it being understood, of course, that the molding or other cutters are placed at different distances from the main guide-bar of the machine in accordance with the character of work to be performed.

At the upper end of the bar 10 is a pair of laterally-extended arms 12, having downturned end portions 13, to which are secured longitudinally-slotted arms 15. Mounted in the slotted arms 15 are adjustable bearing-blocks 16, the lower ends of which are swiveled to adjusting-screws 17, that extend through threaded openings formed in the lower ends of arms 15. These screws may be turned for the purpose of raising and lowering the bearing-blocks in accordance with the diameter or shape of the revoluble cutter-head.

The blocks 16 are provided with bearing-openings for the reception of a pair of pintles or trunnions projecting from the opposite ends of an angularly-adjustable bar or plate 20, which may be turned on its pintles or trunnions to assume various angular positions with respect to the horizontal and then locked in place by means of the clamp-nuts 21.

On top of the bar or plate 20 is arranged a gage-plate 22, the shape of which is determined by the character of the cutters to be adjusted, the gage-plate shown in Fig. 2 being provided with notches 24 in its gaging edge to permit the reception of molding-cutters, while in Fig. 3 is shown another form of gage-plate having a larger number of notches. Each gage-plate is provided with short transverse slots 25, the rear ends of which are opened, and said slots serve to receive clamping-screws 29, that pass into threaded openings formed in the bar 20, and thus serve as a means for locking the gage-plate in adjusted position. The position of the gage-plates may be adjusted by a pair of set-screws 30, which extend through threaded openings formed in a flange 31 at the rear of bar 20 and engage against the rear edge of the gage-plate.

The bar 20 is provided with transversely-extending threaded openings for the passage of stop-screws 34, the forward ends of which are adapted to engage with the edge of the cutter-head, this being for the purpose of determining the cutting depth of the blade.

The final adjustment of the gage-plate proper may be accomplished by the screws 30 when the first of the blades is to be placed in position.

5 In practice the device is held in the left hand with the end of the bar 11' resting against a vertical portion of the main guide-bar of the machine. The bar or plate 20 is then moved until its edge or the ends of the  
10 screws 34 engage against the cutter-head, and as said bar 20 is pivotally mounted and angularly adjustable its angle may be made to correspond to that of the cutter-head without difficulty. The cutter-blade is then  
15 placed in position by the right hand, this position being determined by the gage-plate 22, after which the gaging device is removed or allowed to fall back, while the securing-bolts of the cutter-blade are tightened. The cutter-head is then revolved and the gaging device again placed in position to properly  
20 gage the second cutter-blade, and so on until all of the blades have been placed in proper position on the cutter-head.

25 The various parts of the device may be readily adjusted in order to accommodate cutter-heads of different diameter and shape, and as the gage-plates are interchangeable the device may be employed in connection  
30 with cutter-blades of any contour.

I claim—

1. A blade-setting gage for rotary cutter-heads, comprising a frame, an adjustable member for engagement with the main guide-  
35 bar of the machine, an angularly-adjustable bar carried by the frame, and a gage-plate adjustably secured to said bar and adapted for engagement with the edges of the cutter-blades.

40 2. A blade-setting gage for rotary cutter-heads comprising a supporting-frame, an ad-

justable member carried thereby for engagement with the main guide-bar of the machine, an angularly-adjustable bar supported by the frame, means for clamping said bar in place, and an edge gage-plate adjustably  
45 mounted on said bar.

3. In a device of the class described, a main frame having a pair of spaced arms provided with vertically-elongated slots, vertically-adjustable bearing-blocks in said  
50 slots, means for adjusting the blocks, a bar or plate having end pintles mounted in the bearing-blocks, adjustable stop-screws extending through said bar and adapted to en-  
55 gage the cutter-head, a gage-plate mounted on the bar, means for adjusting said gage-plate, and means for clamping the gage-plate in adjusted position.

4. In a device of the class specified, a 60 curved frame member, a longitudinally-adjustable bar at the lower end thereof, said bar being arranged to engage the main guide-bar of the machine, a pair of longitudinally-slotted arms supported by said  
65 curved frame, bearing-blocks in said slots, adjusting-screws for the bearing-blocks, an angularly-adjustable plate having end pintles mounted in said bearing-blocks, clamping-screws for holding said plate in adjusted  
70 position, a gage-plate mounted on the angularly-adjustable plate and provided with slots, clamping-screws extending through said slots, and adjusting-screws for engaging the rear ends of said gage-plate.

75 In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

COLUMBUS L. WHITENER.

Witnesses:

FELIX J. PARKIN,  
ABRAM WATTS.