Dec. 25, 1951 W. A. SABO 2,579,615

ROTARY CUTTER HEAD WITH RADIALLY EXTENDED BLADE SUPPORT

Filed May 19, 1949

Fig. 1.

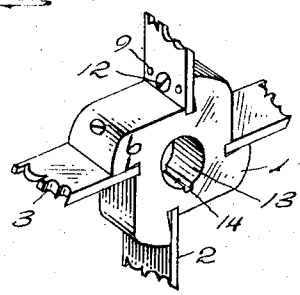



Fig. 2.

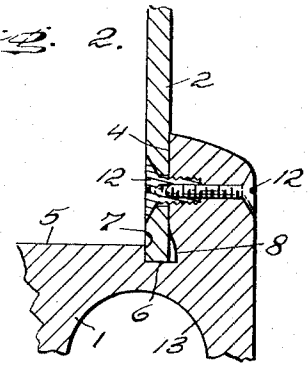



Fig. 3.

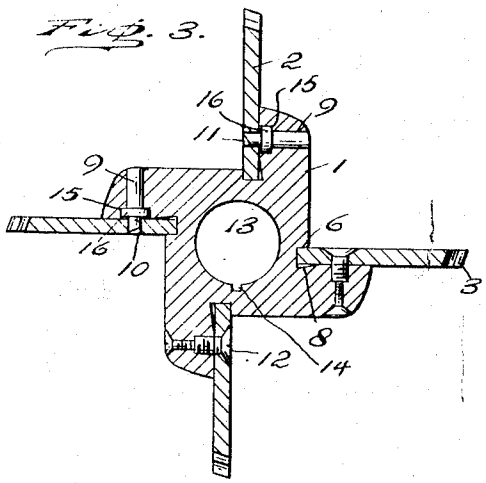



Fig. 4.

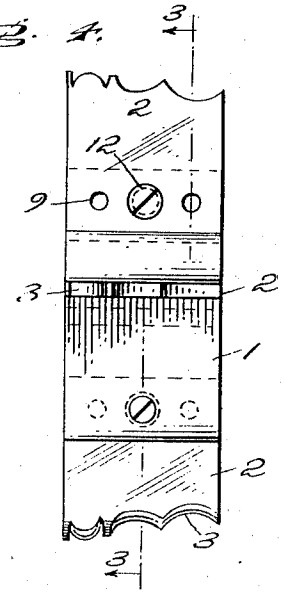
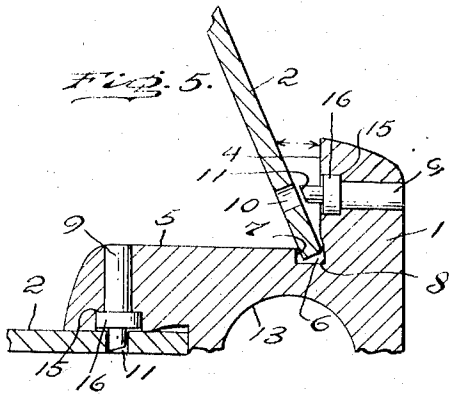



Fig. 5.




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## ROTARY CUTTERHEAD WITH RADIALLY EXTENDED BLADE SUPPORT

William Albert Sabo, Neshaminy, Pa.

Application May 19, 1949, Serial No. 94,111

3 Claims. (Cl. 144—229)

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The object of this invention is to devise a novel rotary cutter and more particularly novel means for mounting the knives or cutters so that they will be accurately positioned and thus eliminate the necessity of the use of scales and micrometers in the setting of the knives.

A further object of the invention is to devise a novel construction of a body portion with positioning means for the knives.

With the foregoing and other objects in view as will hereinafter clearly appear, my invention comprehends a novel rotary cutter.

It further comprehends a novel rotary cutter wherein a novel body portion is provided with shoulders and a slot at the base of a shoulder and wherein the body portion has spaced pins to be received in apertures in the knives.

For the purpose of illustrating the invention, I have shown in the accompanying drawings a preferred embodiment of it which I have found in practice to give satisfactory and reliable results. It is, however, to be understood that the various instrumentalities of which the invention consists can be variously arranged and organized and the invention is not limited to the exact arrangement and organization of these instrumentalities as herein set forth.

Figure 1 is a perspective view of a rotary cutter, embodying my invention.

Figure 2 is a sectional detail showing a manner of fixing the blades in position.

Figure 3 is a sectional elevation, the section being taken on line 3—3 of Figure 4.

Figure 4 is an end elevation.

Figure 5 is a sectional view of a portion of the cutter showing the manner of assembling the knives in the body portion.

Similar numerals of reference indicate corresponding parts.

Referring to the drawings:

The cutter has a body portion 1 which is adapted to receive a plurality of knives 2 having their outer ends shaped to provide cutting edges 3 of any desired character in accordance with the work which is to be done, as illustrated, the knives are shown as forming knives for wood trim.

The body portion at different angular locations is cut away to form bearing walls 4 and clearance walls 5 extending at an angle to the walls 4. The wall 5 at its inner end merges into a slot 6 extending transversely of the body portion and having one side wall 7 parallel to the bearing wall 4. The slot 6 has a side wall 8 into which the wall 4 merges and this wall 8 inclines downwardly and laterally to form a clearance for the

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insertion of a knife into the slot. The body portion of the knives have opposite sides parallel and their bottoms are flat and straight and at right angles to the sides to seat in the bottom of the slots.

Pins or studs 9 are set into the body portion 1 and extend beyond the walls 4 and have reduced end portions to enter apertures 10 in the knives. The reduced ends of the pins are cutaway at an angle as at 11, see Figure 5.

The knives may be locked in position by fastening devices 12, shown in the form of sectional screws having cooperating threaded portions.

The body portion 1 has a shaft receiving opening 13 and a keyway 14.

In order to retain the pins 9 in fixed position, I preferably form recesses 15 to receive shoulders or collars 16 which abut against the inner wall of the recesses 15 and are integral with the pins.

The manner in which the knives are assembled will now be clear to those skilled in this art and is as follows:

The clearance formed by the wall 8 in the body portion permits the knife to be moved into the slot 6 at an angle and then moved towards the wall 4 so that the pins 9 will be received in the apertures 10 to accurately position the knives. When in such position, the knives will bear against the walls 7 of the slots 6 and against the walls 4 of the body portion. The pins are accurately spaced so as to accurately register with the apertures in the knives.

In accordance with this invention, the knives have a precision fit in the body portion, and the necessity of employing scales and micrometers, as has heretofore been the practice, is eliminated.

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

1. A rotary cutter, comprising a body portion having its outer portion angularly cut away at peripherally spaced locations to provide bearing walls and clearances, spaced pins fixed in the body portion, projecting through the bearing walls and projecting from them, said body portion having slots at the base of the bearing walls, one side wall of each slot merging into its bearing wall and being angularly inclined to provide clearance for the insertion of a knife into the slot, each slot having its opposite wall parallel with the bearing wall for such slot, and a knife for each slot having apertures to receive the pins and having a bearing against said opposite wall of a slot and the bearing wall for such slot.

2. The construction defined in claim 1, wherein

the free ends of the pins are downwardly inclined to permit entrance into the knife apertures.

3. A rotary cutter, comprising a body portion having its outer portion cut away at peripherally spaced locations to provide knife bearing walls and clearances, spaced pins fixed in the body portion and extending through and projecting from the bearing walls, said body portion having slots at the base of the bearing walls, one side wall of a slot merging into its bearing wall and being angularly inclined to provide clearance for insertion of a knife into a slot, the other side wall of a slot being parallel to the bearing wall of such slot, a knife bearing against each bearing wall, having apertures to receive the pins, seated in the bottom of the slot and having a bearing against the opposite side wall of the slot, and fastening devices securing the knives in fixed position against their bearing walls.



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