

No. 627,863.

Patented June 27, 1899.

W. N. MAYNARD.

GRINDING ATTACHMENT FOR LAWN MOWERS.

(Application filed Apr. 6, 1899.)

(No Model.)

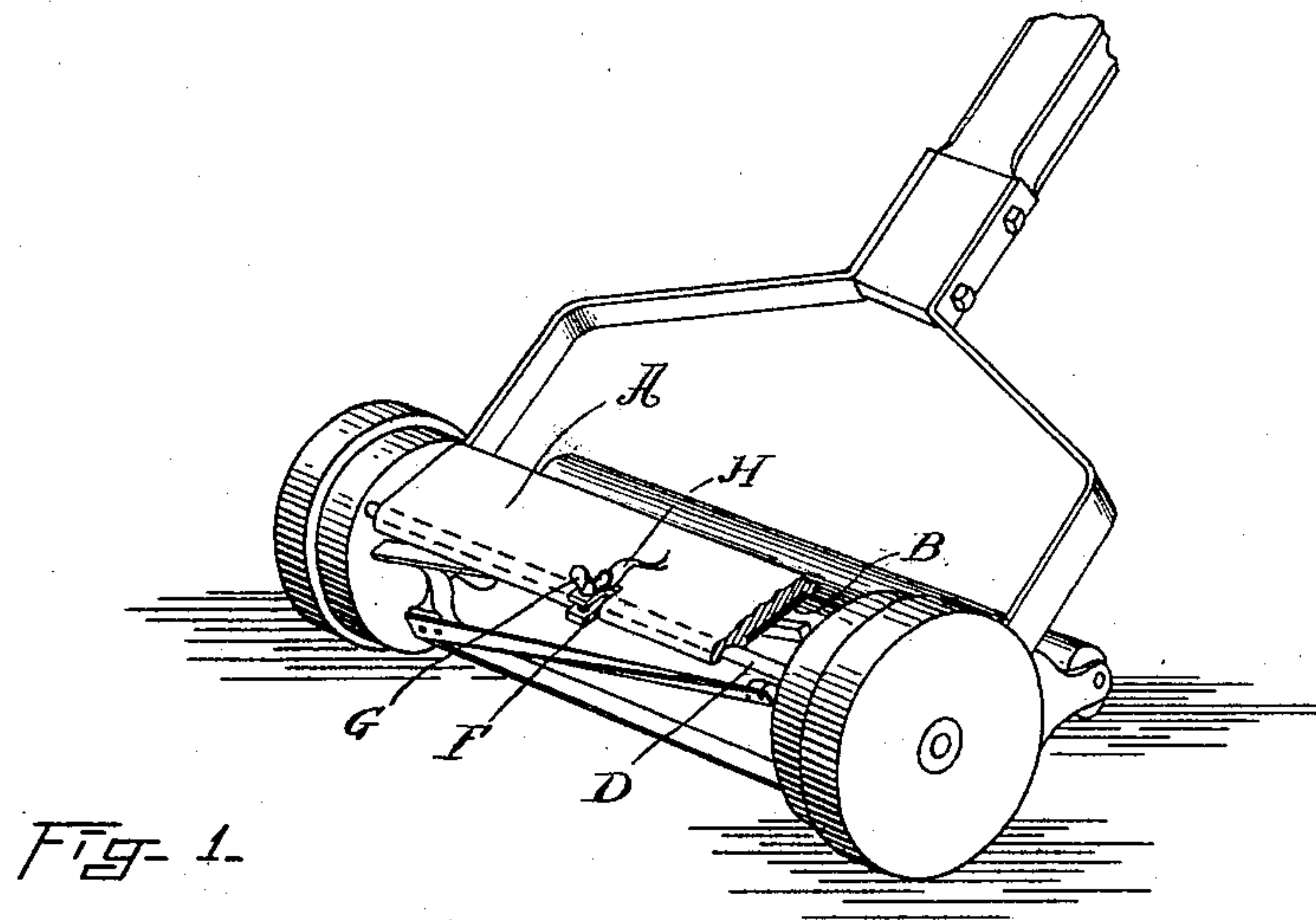


Fig- 1.

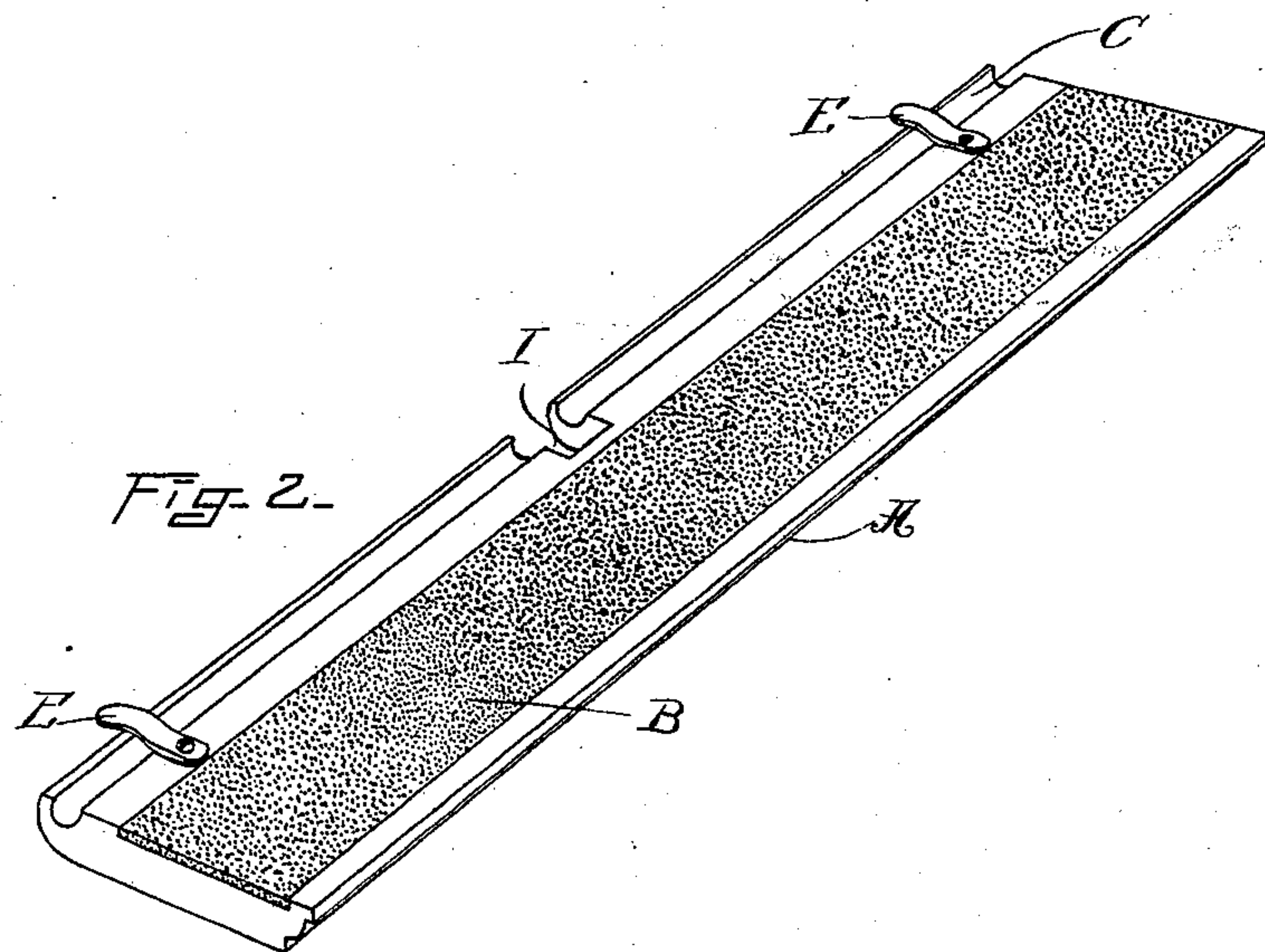


Fig- 2.

WITNESSES.

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GRINDING ATTACHMENT FOR LAWN-MOWERS.

SPECIFICATION forming part of Letters Patent No. 627,863, dated June 27, 1899.

Application filed April 6, 1899. Serial No. 712,034. (No model.)

To all whom it may concern:

Be it known that I, WILBUR N. MAYNARD, a citizen of the United States, residing at Leominster, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in Grinding Attachments for Lawn-Mowers, of which the following is a specification.

My invention consists of a grinding attachment to a lawn-mower in combination with the cutter and of the means of combining the same whereby the knives may be sharpened by running the mower in the usual manner of operating it and without removing or changing any of its parts.

My invention is simple and inexpensive to construct and use and enables any unskilled person to do the work.

Figure 1 is a perspective view of a lawn-mower, showing a top plan view of my attachment with a portion broken away. Fig. 2 is a perspective view of the under side of the attachment.

In the accompanying drawings like letters refer to corresponding parts.

A is a rectangular piece of hard-wood board or plate of suitable material, having upon its under side a sheet or coating B of emery and glue or other composition of emery or abrading material.

C is a longitudinal groove in the piece or plate A of sufficient size to span the rod D, which extends from side to side of the frame of the mower. This rod is always employed in the construction of lawn-mowers, and although varying in diameter in different styles of machines it is but slightly, and a groove C, which will fit the largest rod, is suitable for all sizes in general use. The groove serves as a bearing for the rod D, which forms the axis on which the piece or plate A may turn.

E E are flat metal springs having one end of each secured to the under side of the piece A. The other ends are free and extend across the groove C and beyond the edge of the piece A to retain the rod D in the groove C and to prevent the piece or plate A from being jolted off the rod by the motion of the machine.

The grinding-surface of the piece or plate A is held in contact with the knives of the cutter by gravity, which is sufficient for the purpose when the mower is being run on an even surface.

pose when the mower is being run on an even surface.

To compensate for any irregularities in the surface upon which the mower is run while being sharpened and for carelessness in running it, I provide a clamp F, which is fitted to the rod D, upon which it is secured by the thumb-screw G. A notch I is cut out of the piece A to admit the clamp. To the clamp F is rigidly fastened one end of a spring of flat metal H, the free end of which rests upon the top of the piece or plate A and holds its grinding-surface in contact with the knives of the cutter. The tension of the spring H may be regulated by changing the position of the clamp F on the rod D, and thereby the pressure of the grinding-surface on the knives may be varied.

It is obvious that the attachment is readily applied and removed by slightly pressing the free ends of the springs E E away from the piece A to allow the rod D to pass between them into or out of groove C.

I do not limit my invention to the particular means described of attaching the piece A to the rod D, as it is obvious that other forms of construction would operate in the same way. Neither do I limit it to the attachment of the piece A to the rod D, as the operation would be the same if it were pivoted to some other fixed portion of the frame of the machine. The essence of the invention resides in pivoting the attachment to a fixed portion of the frame of the mower, so that gravity will cause the grinding-surface to yieldingly rest upon the knives while the cutter is being rotated in the usual method of operating the machine. By pivoting it to the rod, as shown, or to any portion of the frame located above the axis of the rotating cutter the weight of the board alone is sufficient to preserve contact between the knives and the grinding-surface and to exert the requisite pressure.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A blade-sharpener for a rotary-cutter lawn-mower loosely hung to the mower at a point above the axis of the cutter, and resting yieldingly by gravity upon the rotary cutter, substantially as described.

2. A rotary-cutter lawn-mower provided

with a rod located at a point above the axis of the cutter, in combination with a cutter-sharpener consisting of a plate loosely hung on said rod and resting yieldingly by gravity upon the cutter, and a spring adjustably mounted on the rod and bearing at its free end on said plate, substantially as described.

3. A rotary-cutter lawn-mower provided with a rod arranged at a point above the axis of the cutter, in combination with a blade-

sharpening device consisting of a plate having a grinding-surface, and provided with a longitudinal groove to fit upon said rod, and clip-springs secured to the plate and engaging the rod, substantially as described.

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Witnesses:

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