

No. 747,883.

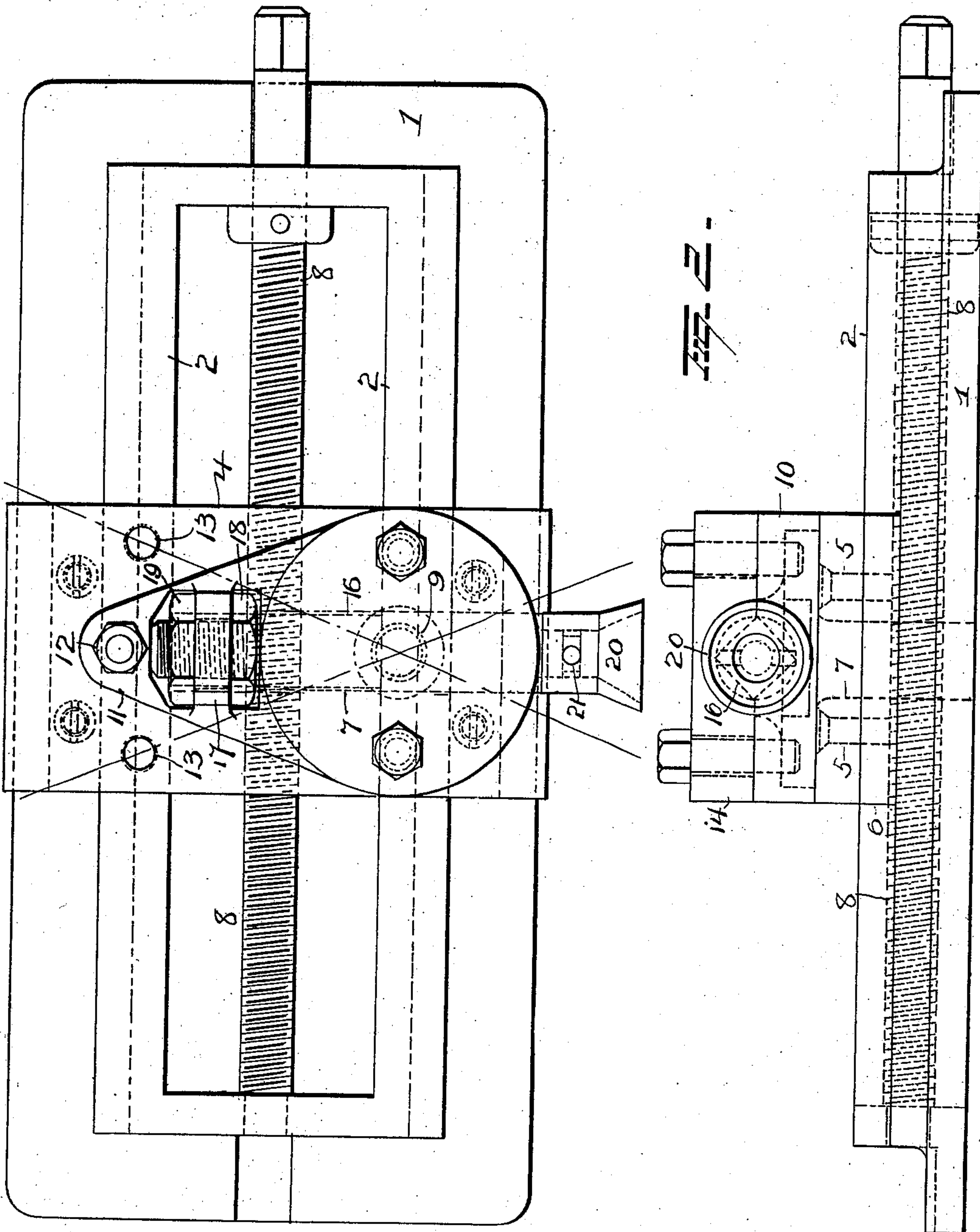
PATENTED DEC. 22, 1903.

M. GAIR.
GRINDSTONE DRESSER.

APPLICATION FILED MAY 27, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES
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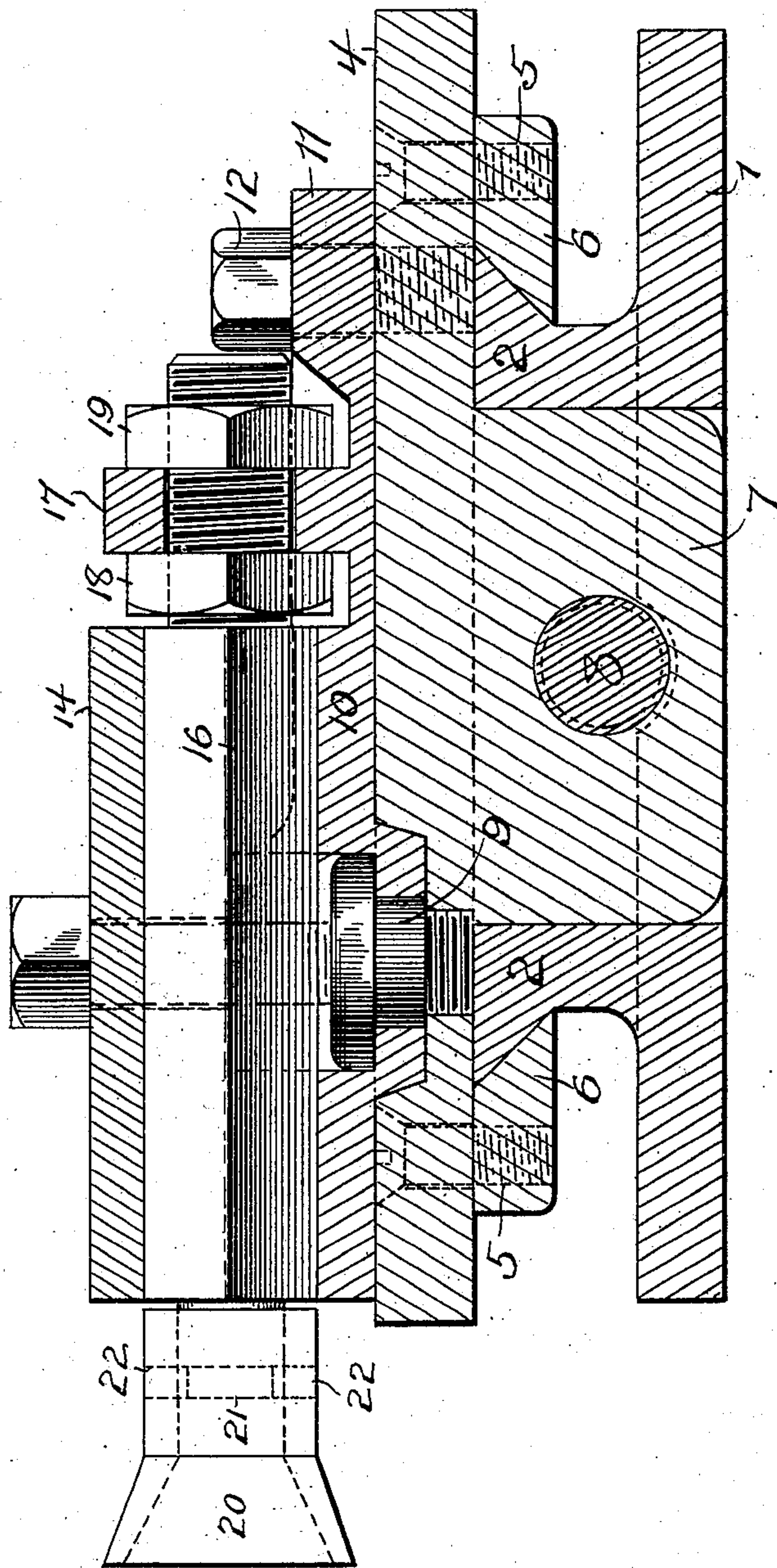
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2 SHEETS—SHEET 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

MARK GAIR, OF AKRON, OHIO, ASSIGNOR OF ONE-THIRD TO CHARLES WATTLEWORTH, OF AKRON, OHIO.

GRINDSTONE-DRESSER.

SPECIFICATION forming part of Letters Patent No. 747,883, dated December 22, 1903.

Application filed May 27, 1903. Serial No. 159,037. (No model.)

To all whom it may concern:

Be it known that I, MARK GAIR, a resident of Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Grindstone - Dressers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved grindstone-dresser, the object of the invention being to provide improvements of this character which will be absolutely true and which will provide improved mounting for my self-sharpening cutter.

With this object in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view illustrating my improvements. Fig. 2 is a side view, and Fig. 3 is a transverse sectional view.

1 represents the base-plate, to be fastened to the frame of a grindstone by means of suitable clamps provided for the purpose and on this base-plate 1 a raised track 2 is made integral and provided with beveled or inwardly-inclined side edges, as clearly shown in Fig. 3. On this track the slide-plate 4 is mounted and has secured to its under face at both ends by means of screws 5 beveled cleats or gibs 6 to run against the beveled or inclined side edges of the track to insure the retention of the side plate thereon. This slide-plate 4 is provided at its center with a downwardly-projecting lug 7, having a screw-threaded opening therein to receive a screw 8, having rotary bearings in the ends of the track-frame and base-plate and made angular at one end for the reception of a suitable tool to turn the screw and move the slide-plate longitudinally on the track.

The slide-plate 4 near one end is provided with a pin 9, on which a plate 10 is pivotally mounted, and this pivot-plate 10 is made with a circular enlargement at one end and has a rearwardly-tapering extension 11, in

which a screw 12 is mounted and adapted to enter any of a series of threaded sockets 13 in the slide-plate to secure the pivot-plate at any angle desired. The circular enlarged portion of pivot-plate 10, which is concentric to the pivotal point, is made with a V-shaped groove at its center running longitudinally of the pivot-plate, and a cap-plate 14 is secured on the circular enlarged portion of the pivot-plate and has a corresponding V-shaped groove to receive the angular portion of a spindle 16. This spindle 16 is round at both ends and screw-threaded at its inner end and passed through a perforated lug 17 on pivot-plate 10, and adjusting-nuts 18 and 19 are located on the threaded portion of the spindle on opposite sides of lug 17 to adjust the spindle longitudinally and clamp it at any adjustment.

The outer end of the spindle affords a smooth bearing for a hollow rotary cutter 20, and the spindle has an annular groove 21 to receive pins 22 in the cutter for preventing longitudinal displacement of the latter.

The cutting edge of cutter 20 is flared outward, and the internal bore of the cutting end thereof is at an angle different from the outer face, while the outer end is perfectly flat or smooth, so that the cutter is self-sharpening, for as it wears away the bevel of the tool will always present a sharp cutting edge.

A great many slight changes might be made in the general form and arrangement of the parts described without departing from my invention, and hence I would have it understood that I do not confine myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In a millstone-dresser, the combination with a base-plate, a slide-plate, and a plate pivoted on the slide-plate, of a spindle mounted to slide longitudinally on the pivoted plate, a threaded shank projecting from one end of said spindle, a perforated lug on the pivoted plate, through which the threaded shank

passes, nuts on the shank at respective sides of said lug, and a revoluble cutter mounted on the forward end of said spindle.

2. In a millstone-dresser, the combination
5 with a base and a plate mounted to slide thereon, of a plate pivoted to the slide-plate and having a V-shaped groove in its upper face, a perforated lug on said pivoted plate in rear of said groove, a cap mounted on the
10 pivoted plate and having an inverted-V-shaped groove, an angular spindle confined in the V-shaped grooves of the pivoted plate and cap, a cutter mounted on the forward end of the spindle, a threaded shank project-
15 ing from the spindle and passing through the perforated lug on the pivoted plate, and nuts on said shank at respective sides of said lug.

3. In a grindstone-dresser, the combination
20 of a grindstone, a sliding plate on the base-plate, and a screw to move said slide-plate, of a plate pivoted on said slide-plate having a circular enlargement concentric with the

pivotal point, and a contracted extension, a screw in said extension to enter any of a se- 25 ries of threaded sockets in the slide-plate to secure the pivoted plate at various angles, a circular cap-plate secured on the circular enlarged portion of the pivoted plate, a spindle angular throughout a portion of its length, 30 and said circular enlarged portion of the pivoted plate and the cap-plate having opposite V-shaped grooves to receive the angular portion of the spindle, a perforated lug on the slide-plate through which the screw-threaded 35 inner end of the spindle is passed, nuts on the spindle on opposite sides of the lug to adjust the spindle longitudinally, and a rotary cutter on the opposite end of the spindle.

In testimony whereof I have signed this 40 specification in the presence of two subscribing witnesses.

MARK GAIR.

Witnesses:

THOS. SOMMERVILLE,
HENRY BOCKSTED.