

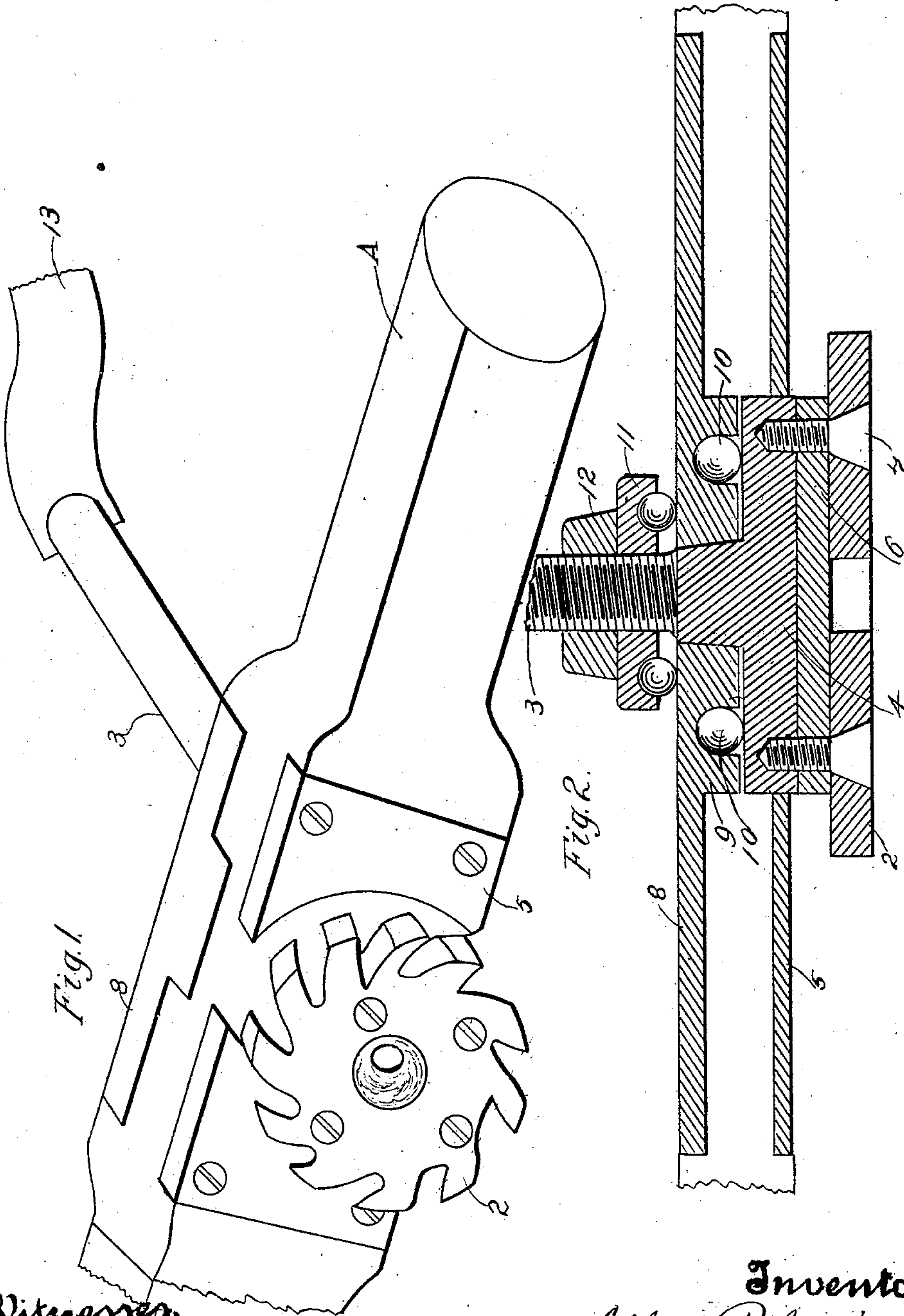
No. 705,268.

Patented July 22, 1902.

A. R. MEISTER.
ROTARY GROOVING TOOL.
(Application filed Apr. 10, 1902.)

(No Model.)

2 Sheets—Sheet 1.



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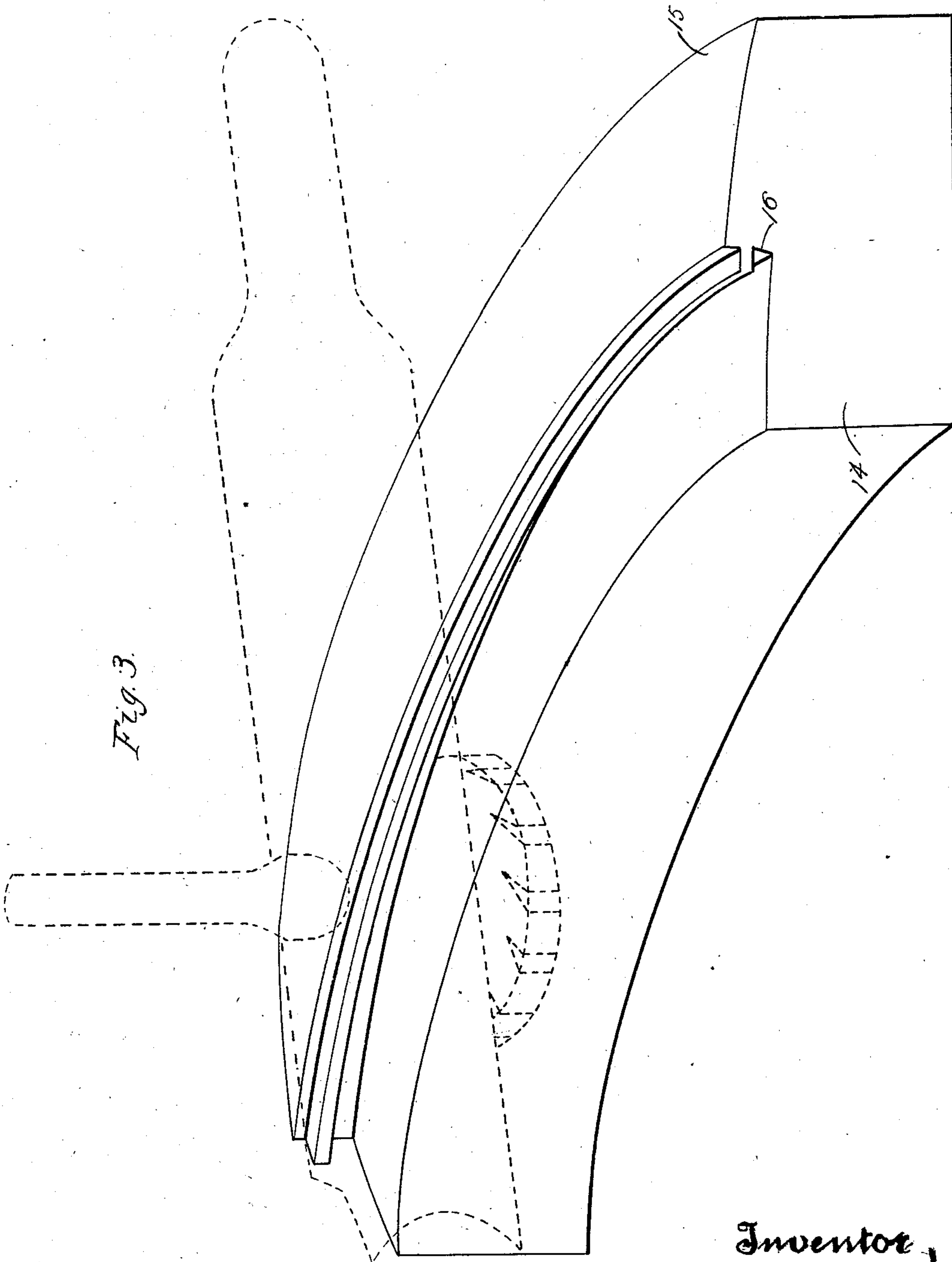
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UNITED STATES PATENT OFFICE.

ALBERT R. MEISTER, OF SACRAMENTO, CALIFORNIA.

ROTARY GROOVING-TOOL.

SPECIFICATION forming part of Letters Patent No. 705,268, dated July 22, 1902.

Application filed April 10, 1902. Serial No. 102,181. (No model.)

To all whom it may concern:

Be it known that I, ALBERT R. MEISTER, a citizen of the United States, residing at Sacramento, county of Sacramento, State of California, have invented an Improvement in Rotary Grooving-Tools; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in woodworking-tools of the class known as "jiggers" or grooving devices. Its object is to provide a simple light rotary cutter that can be held in the hands and which is capable of use wherever an irregular groove or channel is to be cut, such as cannot ordinarily be done by means of a stationary grooving-machine. It is intended particularly for use in coach and carriage manufacture where it is desired to mortise the parts intended to receive the edges of the panels. Frequently the latter are not only curved along their edges, but are also transversely curved or convexed. Accordingly the part into which these edges fit must have a groove or mortise corresponding to the curvatures of the panel. To form such a groove by the ordinary routing-tool has always been a matter of extreme difficulty and has required a very considerable amount of skill and labor on the part of the workman.

The invention consists of a rotary cutter or saw mounted upon a handle which is adapted to be grasped at either end by the operator and guided somewhat after the manner of a draw-shave and flexible shaft connections by which said cutter is revolved. It comprises details which will be more fully set forth hereinafter, having reference to the accompanying drawings, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a vertical longitudinal section. Fig. 3 shows the application of the device.

A represents a handle adapted to be grasped at either end. A rotary cutter or saw 2 is mounted centrally of the handle upon a shaft 3. The latter is provided with a flange 4, which is substantially flush with the bottom or lower side of the handle. This lower side

is shod or protected by a plate 5, as in operation the tool is supported on this plate, as shown in Fig. 3. The cutter is separated a suitable distance by means of the spacing-plate 6. The saw can be removed at any time by means of the screws 7. The plate 8 on the upper side of the handle has a central reinforcement or portion 9, carrying the annular row of antifrictional members or balls 10. The flange 4 serves as the opposite bearing-surface for these balls. The shaft 3 is screw-threaded to receive an adjustable ball-bearing 11 and a set-nut 12. Motion is imparted to the saw by means of the flexible shafting 13.

In operation the tool is grasped by both hands and laid upon the piece of wood, as 14, which is to be grooved with the plate 5 resting upon that surface 15 of the piece which shall be parallel with the completed groove 16. The device is in fact an under-cutting as distinguished from a surface-grooving tool, and the width of the outer wall of the groove depends on the thickness of the spacing-plate 6. The surface 15 of the piece serves as a support for the tool as the latter is guided thereover much after the manner of a draw-shave. One is thus able to cut an absolutely-uniform groove or mortise along an edge or surface of almost any configuration.

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

1. The combination in a grooving-tool of a handle and a revoluble cutter mounted thereon between opposite ends and turnable in a plane parallel with the handle.

2. The combination in a grooving-tool of a handle adapted to be engaged at either end, a revoluble cutter turnable in a plane parallel with the handle, and transversely-extending means intermediate of its ends for supporting said cutter.

3. The combination in a grooving-tool of a handle, a transverse revoluble shaft supported intermediate of the ends of said handle, a cutter mounted on said shaft and turnable in a plane parallel with said handle, and

means by which the space intermediate of the saw and handle may be varied.

4. The combination in a grooving-tool of a handle adapted to be grasped at either end,
5 a cutter, a revoluble shaft disposed transversely of the handle, and having a flange to which said cutter is secured, antifrictional supporting means for said shaft and flexible

connections between said shaft and a source of power.

In witness whereof I have hereunto set my hand.

ALBERT R. MEISTER.

Witnesses:

MANUEL SILVA,
CHARLES E. MEISTER.