No. 622,987. Patented Apr. 11, 1899.

R. C. WAGNER.

KNURLING WHEEL TOOL.

(Application filed Aug. 22, 1898.)

(No Model.)

FIG. 1

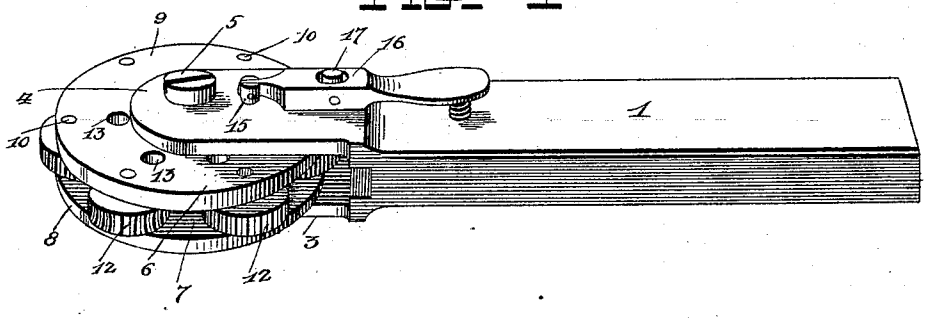


FIG. 2

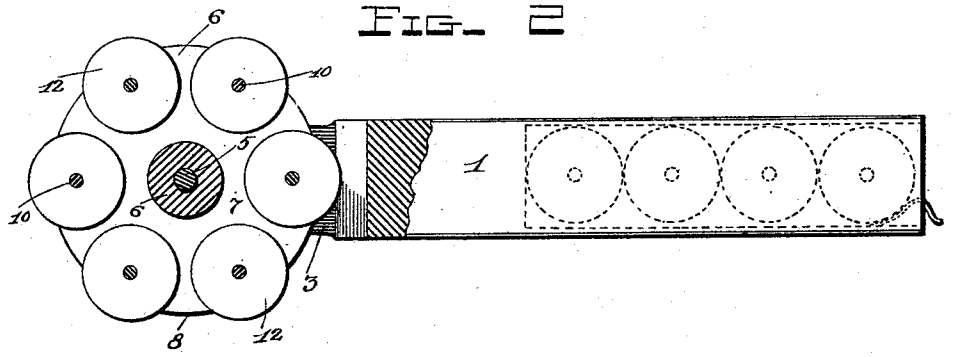
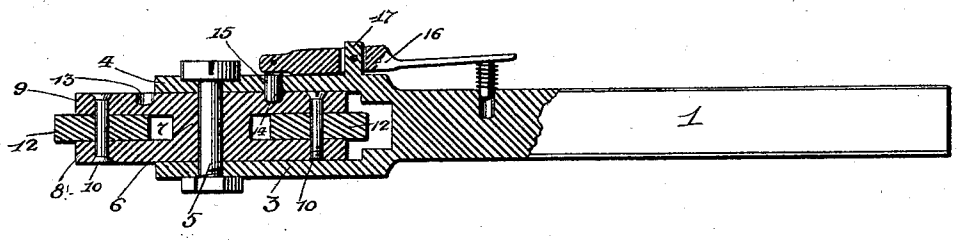


FIG. 3



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UNITED STATES PATENT OFFICE.

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KNURLING-WHEEL TOOL.

SPECIFICATION forming part of Letters Patent No. 622,987, dated April 11, 1899.

Application filed August 22, 1898. Serial No. 689,195. (No model.)

To all whom it may concern:

Be it known that I, ROBERT C. WAGNER, a citizen of the United States, residing at Jonesborough, in the county of Grant and State of Indiana, have invented certain new and useful Improvements in Knurling-Wheel Tools; and I do 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 improvements in knurling-wheel tools; and the object is to provide a simple and convenient device of this character for carrying several knurls or milling-wheels, so that either one of them may be used, as desired.

To this end the invention consists in the construction, combination, and arrangement of the device, as will be hereinafter more fully described, and particularly pointed out in the claim.

The accompanying drawings show my invention in the best form now known to me; but many changes in the details might be made within the skill of a good mechanic without departing from the spirit of my invention as set forth in the claim at the end of this specification.

The same reference characters indicate the same parts of the invention.

Figure 1 is a perspective view of my improved knurling-tool. Fig. 2 is a side elevation, partly in section. Fig. 3 is a top plan view, partly in section.

1 denotes the tool-shank, which is inserted in the tool-post of the machine-lathe, or it may be provided with a suitable handle when used on a hand-lathe. This shank 1 is formed with integral longitudinal parallel jaws 3 4 to receive the bolt 5, on which is journaled the turret-head 6. In the present instance this head is shown as cylindrical in form, though it may be of any polygonal-faced form to correspond to the number of knurls to be used. This head 6 is provided with a circumferential groove 7, formed between its integral parallel walls 8 9, in which are secured a concentric series of transverse rivets or countersunk flush-head screws 10 10, on which are journaled the knurls or milling-wheels 12 12, having their outer edges projecting beyond the periphery of the head 6.

13 13 denote a concentric series of lateral recesses formed in one side of the head and spaced to correspond to the knurls 12 12.

14 denotes an alined orifice in the contiguous jaw 4, through which extends a transverse locking-pin 15, pivoted to the outer end of the spring-actuated thumb-lever 16, fulcrumed on the stud-post 17, extending laterally from the side of the jaw 4, whereby the head may be locked in the tool-shank when the desired knurl has been longitudinally alined with the shank.

Heretofore in machine-shops it has been the custom to provide a separate shank or tool-handle for each knurl, or a series of knurls have been adapted to a single handle, so that one must be removed before another can be inserted. These loose knurls or milling-wheels, being comparatively small, are liable to loss or misplacement and the present invention does away with this objection.

In Fig. 2 I have shown the shank 1 formed with a chamber to retain any surplus or special knurls that may only be required occasionally, a leaf-spring being arranged to retain them in the chamber, as shown.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

In a knurling-tool, a disk-shaped turret-head formed with a concentric circumferential groove, a concentric series of knurling-wheels within the groove and adapted to be used independently, a tool-holder to carry said head, and means for locking said head in the holder, so that the knurl-wheel to be used will be alined with said holder-shank, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ROBERT C. WAGNER.

Witnesses:
AMOS L. CROY,
HENRY C. EILER.