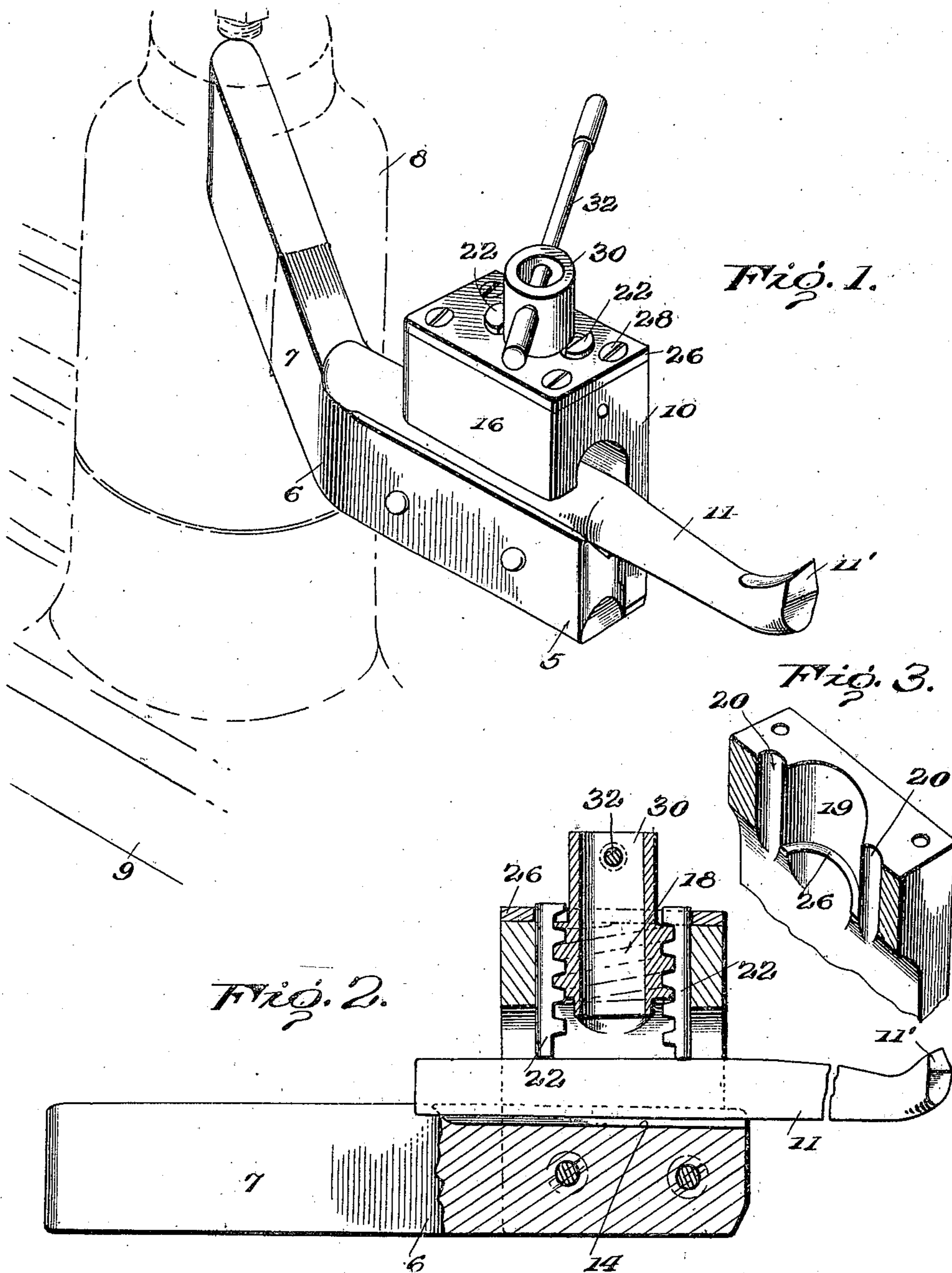


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A. A. GASSER.
TOOL HOLDER.
FILED MAR. 10, 1922.

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INVENTOR

Anton A. Gasser

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UNITED STATES PATENT OFFICE.

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TOOL HOLDER.

Application filed March 10, 1922. Serial No. 542,688.

To all whom it may concern:

Be it known that I, ANTON A. GASSER, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Tool Holders, of which the following is a specification.

This invention relates to tool holders especially adapted for use on lathes.

An important object of this invention is to provide a tool holder having novel means whereby a cutter may be securely and positively held in position thereby for producing a smooth and accurate cut in connection with the commutator and other work.

A further object is to provide a tool holder of the class described which is of highly simplified construction, durable in use and cheap to manufacture.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawing forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a perspective of the improved tool holder.

Figure 2 is a longitudinal sectional view through the same.

Figure 3 is a fragmentary view illustrating the means for holding the adjusting worm against endwise movement.

In the drawing wherein for the purpose of illustration is shown a preferred embodiment of the invention the numeral 5 designates a bar bent intermediate its ends as indicated at 6 to provide an attaching portion 7 adapted to be connected with the post 8 of a lathe 9 of any desired type.

In carrying out the invention, the forward portion of the bar 5 is provided with a head 10 having means whereby to securely and positively hold the cutter 11 in position so that the forward end 11' of the same will be held in engagement with the work such as a commutator. By reason of the elongated formation of the cutter 11 the forward end 11' of the same may be positioned within the commutator for accurately making the desired cut. The cutting lip 11' at the forward end of the cutter is provided by extending the forward portion of the cutter angularly and beveling the

end to a point as illustrated in Figure 1. It will be seen with reference to Figure 2 that the upper longitudinal edge portion of the bar 5 is provided with a groove 14 which is substantially V-shaped in cross section for providing a seat for the rear portion of the bar.

The head 10 is as illustrated in Figure 1 provided with an overhanging portion 16 which extends over the tool 11 and which is provided with a centrally arranged opening through which a tubular worm 18 extends. The opening for the reception of the worm is designated by the numeral 19 and the walls of the opening are provided with oppositely arranged recesses 20 for the reception of racks 22 of which there are 2. With reference to Figure 2 it will be seen that when the worm is rotated in the proper direction, the racks 22 will be moved into engagement with the tool and as is well known a longitudinal strain on the racks 22 will not cause the worm to rotate. It is thus seen that the tool holding means are self locking.

The worm 18 is held against endwise movement in one direction by a pair of oppositely arranged arcuate shoulders 26 formed at opposite sides of the opening 19. The worm is held against endwise movement in the other direction by the cover plate 27 which may be secured to the overhanging portion of the head 10 by means of fastening devices 28. The worm 18 is provided with a rearwardly extending tubular portion 30 through which a handle 32 is extended.

In positioning the tool the same is placed upon the seat formed by the V-shaped groove and the racks 22 are now advanced for securely and positively holding the tool in position. When desired, the racks may be released from locking engagement with the tool by a rotation of the worm 18 in the proper direction.

The invention is especially adapted for use in connection with commutator and other work and by reason of the formation of the tool it may be readily inserted into the commutator for making an annular or other desired cut.

I claim:—

1. A tool holder comprising a bar, a head carried thereby and having an overhanging portion provided with an opening, the wall

of which is provided with oppositely arranged recesses, a worm arranged in said opening, and racks arranged in said recesses and engaged by said worm, the worm constituting the sole means for actuating the racks and for locking the same in engagement with a tool.

2. A tool holder comprising a bar, a head carried thereby and having an overhanging portion provided with an opening, the wall of which is provided with oppositely arranged recesses, a worm arranged in said opening, and racks arranged in said recesses and engaged by said worm, the worm constituting the sole means for actuating the racks and for locking the same in engagement with a tool, one end of the wall of said opening being formed with oppositely arranged arcuate inwardly extending shoulders limiting the endwise movement of the worm.

3. The construction set forth in claim 2, and a cover plate secured to said overhanging portion and limiting the endwise movement of the worm in the other direction.

4. A tool holder comprising a bar having

a tool supporting seat extending longitudinally thereof, a head connected to one terminal portion of said bar and having an overhanging portion provided with an opening, a worm arranged in said opening, said overhanging portion being provided with a pair of arcuate inwardly extending shoulders limiting the endwise movement of said worm in one direction, racks carried by said overhanging portion and engaged by said worm, a cover plate connected to said overhanging portion and limiting the endwise movement of the worm in the other direction, a tool mounted on said seat and engaged by said racks, said worm constituting the sole means for actuating said racks and for locking the same in engagement with said tool, the rear end of said worm being extended exteriorly of the head, and a handle connected to said rearwardly extending portion of the worm.

In testimony whereof, I have affixed my signature in the presence of two witnesses.

ANTON A. GASSER.

Witnesses:

W. G. DORNAN,
ALFREDA PIFER.