O. ENGELS.

TOOL HOLDER.

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1,351,632. **Patented Aug. 31, 1920.**

Fig. 1.

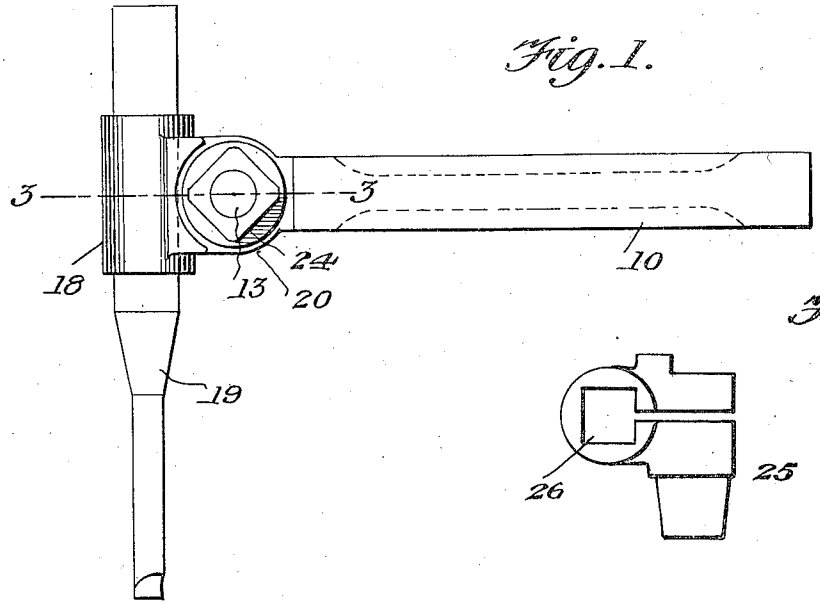


Fig. 5.

Fig. 2.

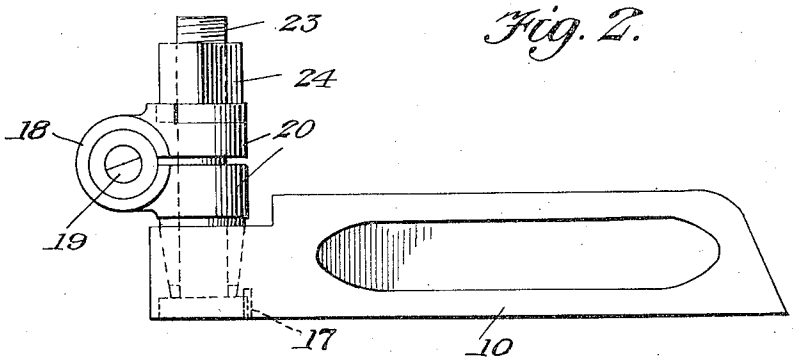


Fig. 3.

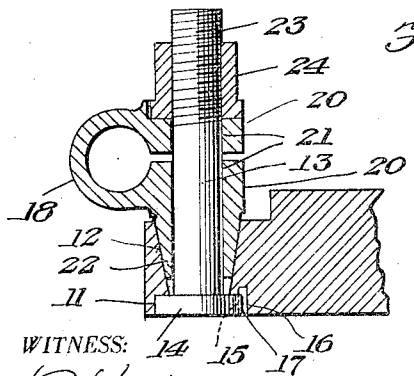
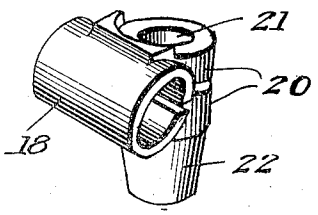


Fig. 4.



WITNESS:

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OSWALD ENGELS, OF FLINT, MICHIGAN.

TOOL-HOLDER.

1,351,632. Specification of Letters Patent. Patented Aug. 31, 1920.

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To all whom it may concern:

Be it known that I, OSWALD ENGELS, a citizen of the United States, residing at Flint, in the county of Genesee and State of Michigan, have invented new and useful Improvements in Tool-Holders, of which the following is a specification.

This invention relates to improvements in tool holders and aims to provide a tool holder in which the tool may be positioned to various positions without removal from the tool post.

Another object of the invention is the provision of novel means for effecting this adjustment by the adjustment of a single clamping nut, the said nut acting to bind the tool in the clamping sleeve and to prevent the latter from turning with respect to the supporting arm.

To this end the invention includes the following novel features and details of construction, to be hereinafter more fully described and illustrated in the accompanying drawings.

In the drawings:

Figure 1 is a top plan view of a tool holder embodying the present invention.

Fig. 2 is a side elevation of the same.

Fig. 3 is an enlarged sectional view on the line 3—3 of Fig. 1.

Fig. 4 is a detail perspective view of the clamping sleeve.

Fig. 5 is a view of a clamping sleeve for use in connection with tools having a squared shank.

Referring to the drawings in detail, like characters of reference denote corresponding parts throughout the several views.

In carrying out the invention, there is provided an arm 10, which is designed to be removably secured upon the tool post of a lathe. This arm may be of any suitable length and thickness and is formed at one end with an opening 11, which communicates with a flared socket 12, so as to provide an opening extending entirely through the arm. Removably positioned within this opening is a bolt 13, which is provided with a head 14, designed to be received into the opening 11, the said head having a semi-circular notch 15 formed therein, which is adapted to register with a notch 16, for the reception of a pin 17, the latter engaging the notches 15 and 16, so as to prevent the bolt from turning with respect to the arm 10. Removably positioned upon the bolt 13, is a split sleeve 18, the latter being designed to receive a suitable tool 19. The ends 20 of the sleeve 18 are formed with registering openings 21, for the passage of the bolt 13, one of said ends being provided with a tapered extension 22 for entrance into the flared socket 12. The outer threaded end 23 of the bolt is designed to receive an adjusting nut 24, the purpose of which is to force the ends 20 of the split sleeve together to hold the tool 19 in position and to bind the extension 22 within the socket 12, to prevent relative rotation of the sleeve 18 and the arm 10. By loosening the nut 24, the sleeve may be adjusted to adjust the tool 19 to any desired angle, or to permit of the removal of one tool and the insertion of another.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is herein reserved to make such changes as properly fall within the scope of the appended claims.

As an example of one of the many changes which may be made in the invention, there is illustrated in Fig. 5 a clamping sleeve 25, which is provided with a squared opening 26 for the reception of a tool having a squared shank. In other respects the clamping sleeve is identical with that previously described.

Having described the invention, what is claimed is:

1. A tool holder comprising an arm having an opening extending transversely through one end thereof, a bolt removably positioned in said opening, means for locking the bolt against rotary movement, a split clamping collar for receiving a tool, registering openings formed in the adjacent end of the collar to receive the bolt and a nut secured upon the threaded end of the bolt for clamping the tool and collar against movement.

2. A tool holder comprising an arm having an opening extending transversely through one end thereof, a flared socket communicating with said opening, a bolt removably positioned in said opening, means

for locking the bolt against rotary movement, a split clamping collar for receiving a tool, registering openings formed on the adjacent ends of the collar to receive the bolt, a tapered extension formed on one end of the split collar for engagement in the flared socket of the arm and a nut adjustable upon the threaded end of the bolt for clamping the tool within the collar and binding the tapered extension within the flared socket for holding the collar against rotary movement with respect to the arm.

In testimony whereof I affix my signature.

OSWALD ENGELS.