

V. H. ANDERSON.
TOOL HOLDER FOR LATHES.
APPLICATION FILED AUG. 23, 1912.

1,063,903.

Patented June 3, 1913.

2 SHEETS-SHEET 1.

Fig. 1.

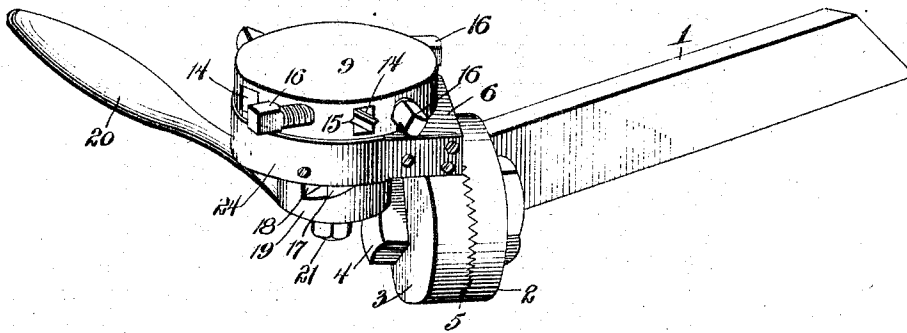


Fig. 2.

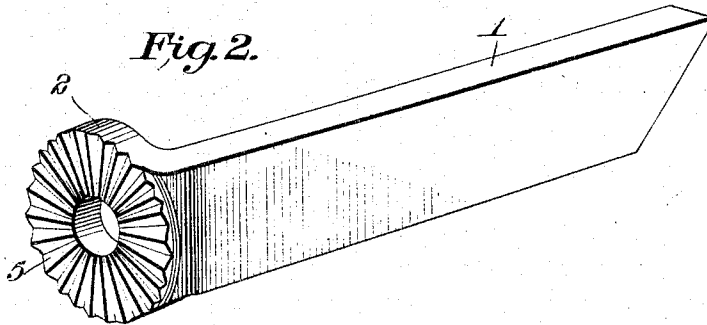


Fig. 3.

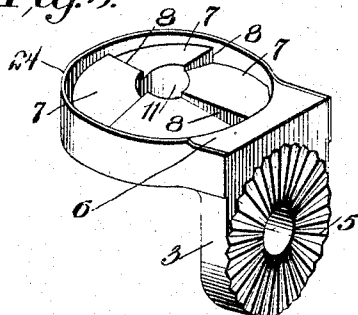
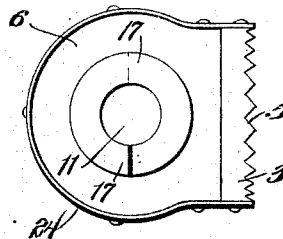


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 5.

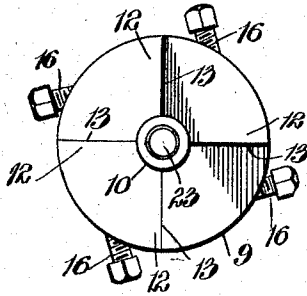


Fig. 6.

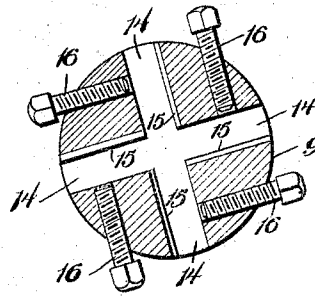


Fig. 7.

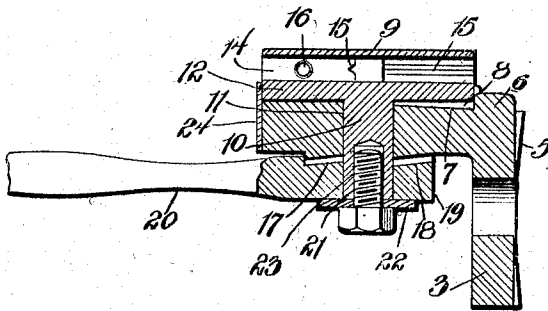
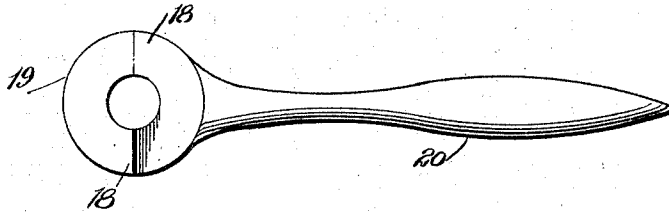


Fig. 8.

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TOOL-HOLDER FOR LATHES.

1,063,903.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed August 23, 1912. Serial No. 716,725.

To all whom it may concern:

Be it known that I, VICTOR H. ANDERSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Tool-Holders for Lathes, of which the following is a specification.

This invention relates to tool holders for lathes, the object in view being to provide an attachment for a lathe adapted to be connected to the ordinary tool post, and embodying a simple and reliable construction of revoluble head or turret, by means of which a number of different cutting tools or bits may be successively and accurately presented to the work on the lathe.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

In the drawings: Figure 1 is a perspective view of the complete device ready for attachment to the tool post of a lathe. Fig. 2 is a detail perspective view of the supporting arm, showing the teeth thereof. Fig. 3 is a similar view of the bracket, showing the teeth and inclined steps thereof. Fig. 4 is a bottom plan view of the bracket. Fig. 5 is a bottom plan view of the revolving head. Fig. 6 is a horizontal section through the head. Fig. 7 is a top plan view of the clamping lever. Fig. 8 is a vertical diametrical section through the bracket, head and lever.

The tool holding attachment contemplated in this invention comprises essentially a main supporting arm 1, adapted to be clamped in the usual tool holder found upon lathes, said arm having its outer end deflected to form an annular extension 2, to which an L-shaped bracket 3 is attached by means of a connecting bolt 4. The inner abutting faces of the extension 2 of the supporting arm, and the pendant portion of the L-shaped bracket are toothed or serrated, as shown at 5, the teeth extending radially from the connecting bolt, so as to permit the bracket to be adjusted to any desired angle relative to the fixed supporting arm, for the purpose of obtaining the necessary clearance for the cutting bits or tools in performing their work.

The main body 6 of the bracket extends

horizontally, and is provided on its upper side with a circular series of inclined steps 7 terminating in abrupt radial shoulders 8, as shown in Fig. 3. Mounted just above the body of the bracket is a revoluble tool carrying head 9, having a central stud or stem 10 which extends downward through a central opening 11 in the bracket, for a purpose which will hereinafter appear.

On its under side, the revoluble head 9 is provided with a circular series of inclined steps 12 corresponding in size and number to the steps 7 of the bracket, and also terminating in similar abrupt radial shoulders 13 adapted to come into contact with the shoulders 8 above referred to, for the purpose of positioning with accuracy the final adjustment of the head, in order that the tools carried thereby may be accurately positioned with respect to the work.

Extending diametrically through the revoluble head 9 is any desired number of mortises or sockets 14 adapted to receive a corresponding number of tools or cutting bits. These sockets are shown as square in cross section, but provided in one or more sides with V-shaped grooves 15, which adapt tools or cutting bits which are round in cross section to be clamped in the head. In connection with each of said sockets, a binding screw 16 is employed, the same being threaded through an opening in the head at right angles to the direction of the socket for the tool or cutting bit. This enables a series of tools of different shapes to be inserted in and carried by a common revolving head, so that said tools may be successively presented to the work.

On its under side, the main body of the bracket is provided with cam-shaped projections 17 which cooperate with corresponding cam-shaped projections 18 on the hub 19 of a clamping lever 20, said lever being secured in place by an adjusting screw 21 which passes through a washer 22 into a threaded bore 23 in the downwardly extending stem or stud of the revoluble head.

The adjusting screw 21 is adapted to take up on the hub 19 of the clamping lever, so as to give the necessary clearance to permit the head to rise sufficiently to enable the steps thereof to pass over the steps 7 of the bracket. By then turning the clamping lever back to its clamping position, the radial shoulders 8 and 13 above described are clamped in firm contact with each other,

which accurately positions the tool with respect to the work.

24 designates a guard which embraces the body portion of the bracket, and a portion of the revoluble head, so as to cover or inclose the steps 7 and 12, and prevent chips and other material from getting into the space between the head and bracket, so as not to interfere with the proper registration of said steps.

What is claimed is:

1. A tool holder for lathes, comprising a supporting arm adapted to be held by the tool post of a lathe, a bracket having a pivoted and adjustable connection with said arm, a revoluble tool carrying head journaled on said bracket, and manually operated means for clamping and releasing said head.

2. A tool holder for lathes, comprising a supporting arm adapted to be held by the tool post of a lathe, a bracket having a pivoted and adjustable connection with said arm, a revoluble tool carrying head journaled on said bracket, and manually operated means for clamping and releasing said head, embodying a lever, and cooperating cam faces on said lever and bracket.

3. A tool holder for lathes, comprising a supporting arm adapted to be held by the tool post of a lathe, a bracket having a pivoted and adjustable connection with said arm, a revoluble tool carrying head jour-

naled on said bracket, manually operated means for clamping and releasing said head, embodying a lever, and cooperating cam faces on said lever and bracket, and an adjusting screw connecting the lever and head and extending axially of the head.

4. A tool holder for lathes, comprising a supporting arm adapted to be held by the tool post of a lathe, a bracket having a pivoted and adjustable connection with said arm, a revoluble tool carrying head journaled on said bracket, manually operated means for clamping and releasing said head, and steps on the head and bracket for accurately positioning the tools carried by the head.

5. A tool holder for lathes, comprising a supporting arm adapted to be held by the tool post of a lathe, a bracket having a pivoted and adjustable connection with said arm, a revoluble tool carrying head journaled on said bracket, manually operated means for clamping and releasing said head, steps on the head and bracket for accurately positioning the tools carried by the head, and a guard embracing the bracket and head and inclosing said steps.

In testimony whereof I affix my signature in presence of two witnesses.

VICTOR H. ANDERSON.

Witnesses:

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