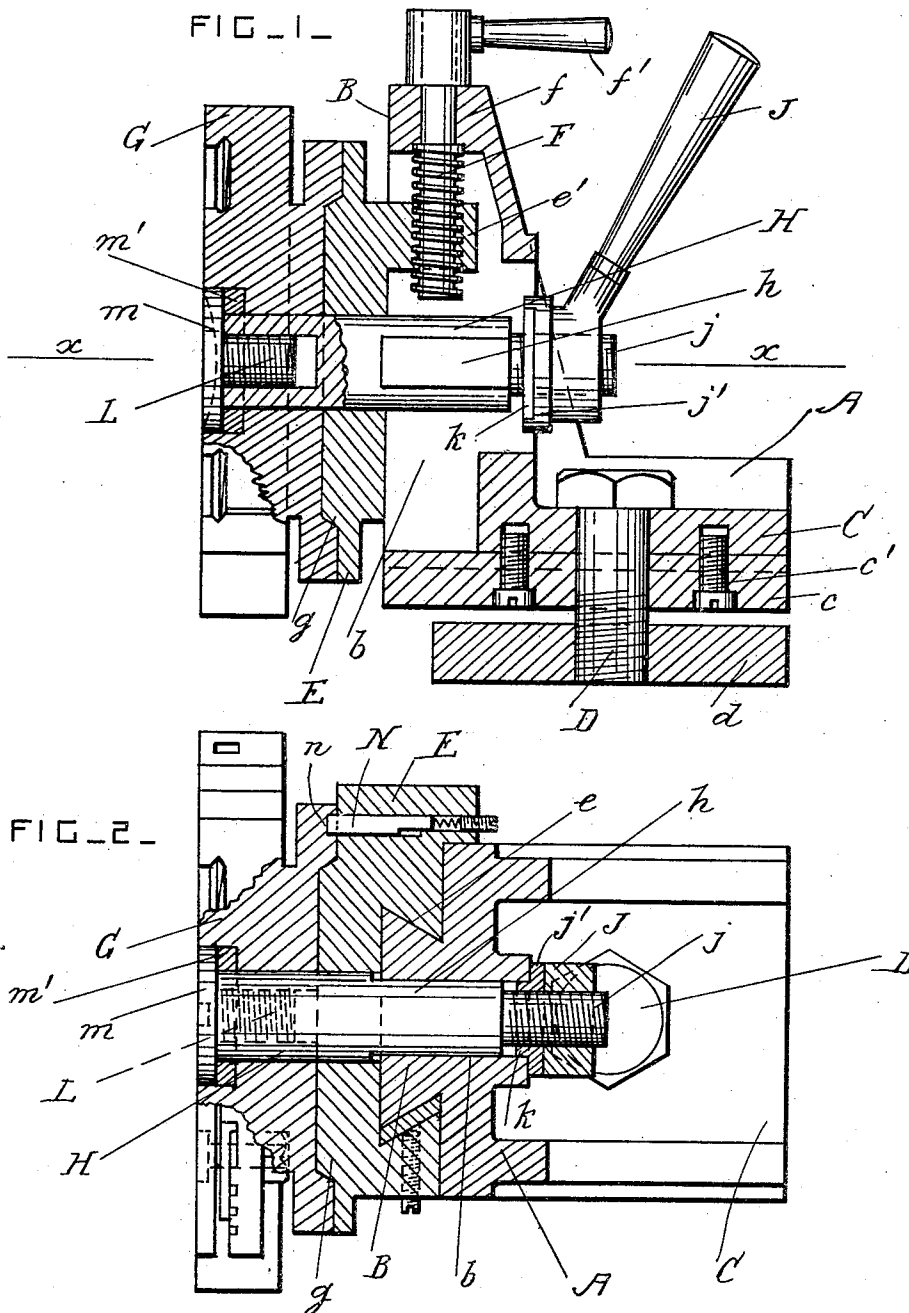


H. C. NORRICK.
TOOL HOLDER.
APPLICATION FILED MAR. 7, 1908.

940,185.

Patented Nov. 16, 1909.

2 SHEETS—SHEET 1.



WITNESSES:

James M. Fisher
L. B. Middleton

BY

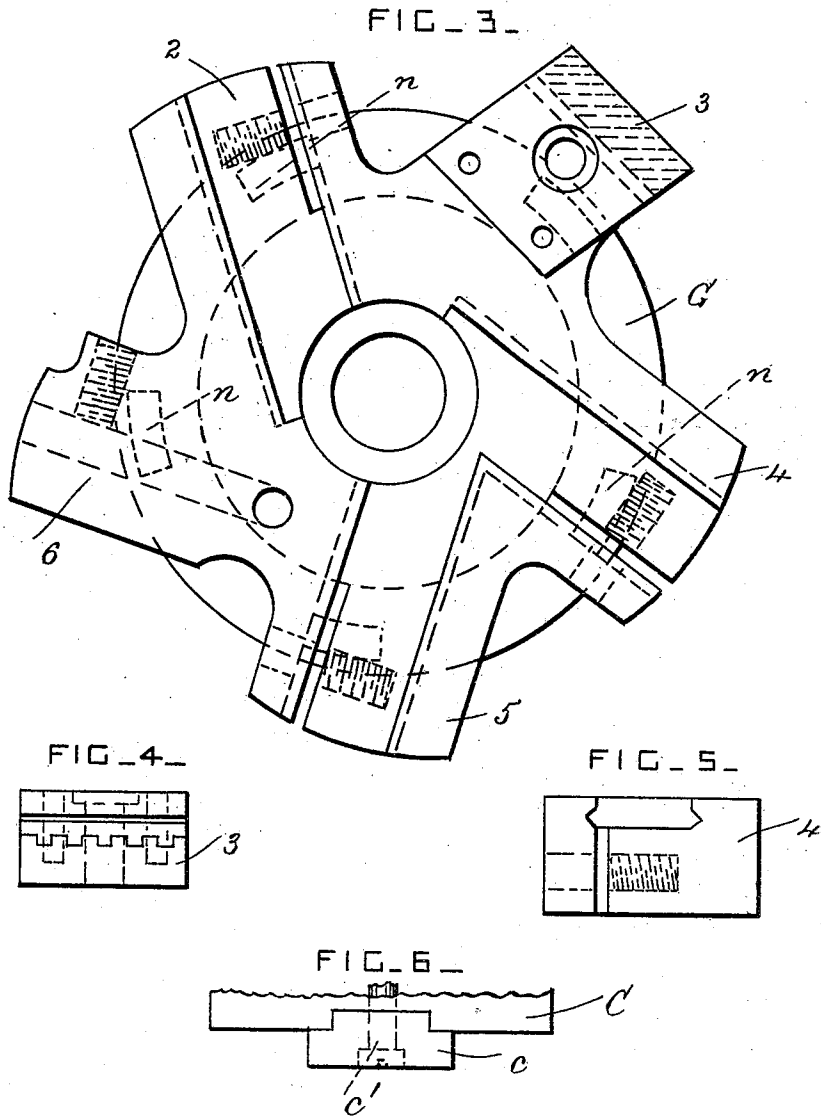
INVENTOR
Harry C. Norrick.
Herbert W. Jenner.
Attorney

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WITNESSES:

James M. Shea
& B. Middleton

INVENTOR

BY *Harry C. Norrick*
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UNITED STATES PATENT OFFICE.

HARRY C. NORRICK, OF MUNCIE, INDIANA.

TOOL-HOLDER.

940,185.

Specification of Letters Patent. Patented Nov. 16, 1909.

Application filed March 7, 1908. Serial No. 419,746.

To all whom it may concern:

Be it known that I, HARRY C. NORRICK, a citizen of the United States, residing at Muncie, in the county of Delaware and State of Indiana, have invented certain new and useful Improvements in Tool-Holders; and I do hereby 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.

This invention relates to devices for holding tools used in connection with turning lathes; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed whereby different tools are adapted to be brought into operative position successively.

In the drawings, Figure 1 is a vertical section through the tool-holder. Fig. 2 is a sectional plan view, taken on the line $x-x$ in Fig. 1. Fig. 3 is a front view of the turret-head. Fig. 4 is an end view of the thread-tool holder. Fig. 5 is an end view of the facing-tool holder. Fig. 6 is an end view of the bar which engages with the slot of the tool-post of the lathe.

A is a standard provided with a vertical guide B having dovetailed edges or sides, and a slot b .

C is the base of the standard A which is placed upon the compound-rest or tool-post carriage of the lathe. A bar c is rigidly secured to the bottom of the base C by screws c' , or other suitable fastening devices. This bar is made to fit snugly in the tool-post slot of the lathe, and it is formed separate from the standard so that different bars can be secured to the base to suit different sized slots, and so that one end portion of the bar can close the lower end of the slot b in the standard.

D is a clamping-bolt, and d is a clamping-plate on the end portion of the said bolt, for securing the standard in position.

E is a slide provided with a dovetailed slot e which straddles the dovetailed guide B of the standard, and which is provided with a lug e' which projects within the slot b .

F is an adjusting-screw which is journaled in a bearing f at the top of the standard, and which engages with a screwthreaded hole in the lug e' . A handle f' is secured to the projecting upper end portion of the screw F for the purpose of revolving it.

G is the revoluble turret-head which is provided with a tapered recess which is journaled on a circular projection g on the face of the slide E. The turret-head has also a central hole which is journaled on the locking-spindle H. The locking-spindle is mounted in the slide, and it has a guide portion h provided with parallel sides which is slidable vertically in the slot b . The locking-spindle has also a screwthreaded portion j which projects rearwardly from the said slot, and J is the locking-lever provided with a nut which engages with the said screwthreaded portion. A washer-plate j' is mounted loosely on the part j under the nut of the locking-lever, and it has a projection k which enters the slot b so that the plate cannot revolve.

L is a screw which engages with a hole in the front end of the locking-spindle, and which has a large circular head m which is let into a recess in the face of the turret-head. An adjusting collar m' is arranged in the said recess under the head m of the screw, and collars of different thickness can be used to adjust the locking-spindle. The screw L and collar m' constitute an adjustable stop for retaining the revoluble turret-head on the front end portion of the spindle H.

The turret-head is provided with a series of holders for different sorts of tools used in turning metal.

2 is a holder for a cut-off tool; 3 is a holder for a thread-tool; 4 is a holder for a facing-tool; and 5 and 6 are holders for side or facing-tools and for straight turning-tools. Any other holders may be provided however for any sort of tools which may be required.

N is a spring-actuated pawl carried by the slide which engages with recesses n in the turret-head and temporarily holds it steady as each tool is placed in its working position.

In bringing the different tools into working position, the locking-lever is turned backward to release the turret-head, and the turret-head is then revolved. The tool is raised or lowered by means of the adjusting-screw F to place it in the most desirable position, and the turret-head and the slide are then clamped together and to the standard simultaneously by means of the locking-lever.

The tools mostly used in turning are al-

ways secured in their holders, and the operator does not have to search for them, and the device is found to be of great advantage in turning work having numerous shoulders and bearings of different diameters.

What I claim is:

1. In a tool-holder, the combination, with a supporting standard provided with a base for supporting it on a machine-rest and having also a guide arranged at an angle to the said base, of a slide engaging with the said guide, means for sliding the said slide on the guide, a turret-head carried by the said slide and revoluble in a plane arranged at a right-angle to the said base and provided with a series of holders for tools, and a single locking-device for clamping the said turret-head and slide to the said guide.

2. In a tool-holder, the combination, with a supporting standard provided with a base for supporting it on a machine-rest and having also a dovetailed guide provided with a slot and arranged at an angle to the said base, of a slide provided with a dovetailed portion which engages with said guide and having also a projection, means for sliding the said slide on the said guide, a turret-head mounted to revolve against the said projection in a plane arranged at a right-angle to the said base and provided with a series of holders for tools, and a single locking-device for clamping the said turret-head and slide to the said guide.

3. In a tool-holder, the combination, with

a guide, a slide adjustable on the said guide, and a revoluble turret-head carried by the said slide and provided with a series of holders for tools; of a non-revoluble spindle passing through openings in the said turret-head, slide and guide and having a screw-threaded portion at one end, a locking-device engaging with the said screwthreaded portion, and an adjustable screw secured to the other end of the said spindle and provided with a head for retaining the turret-head on the spindle and affording a means for compensating for the wear of the bearing surfaces of the said turret-head, locking device slide and guide.

4. In a tool-holder, the combination, with a standard provided with a base for supporting it on a machine-rest and having also a guide which projects upwardly from the said base at an angle thereto, of a slide mounted on the said guide and provided with a circular projection on one side, means for sliding the said slide toward and away from the said base, and a turret-head mounted on the said circular projection and revoluble in a plane arranged at a right-angle to the said base.

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

HARRY C. NORRICK.

Witnesses:

M. H. MONROE,

B. DUNGAN.