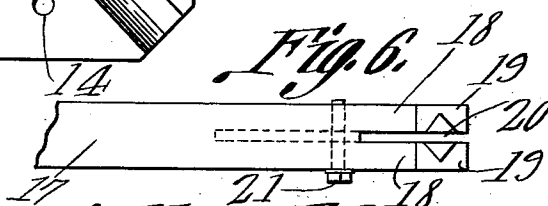
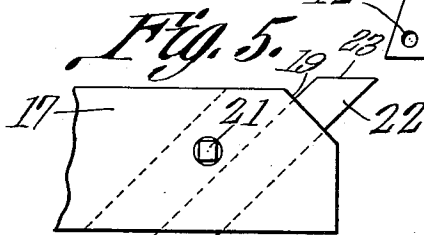
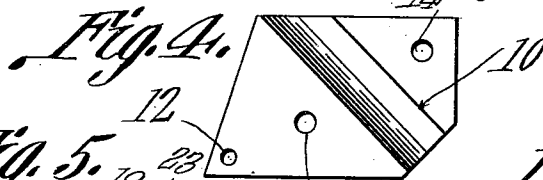
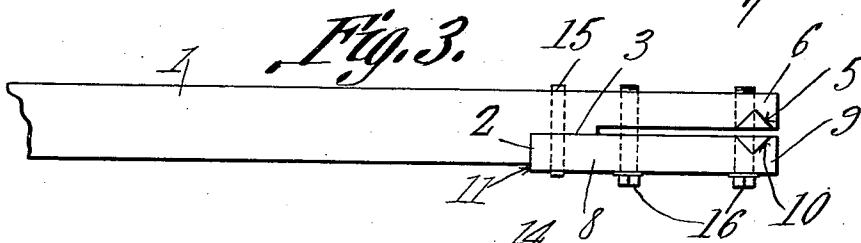
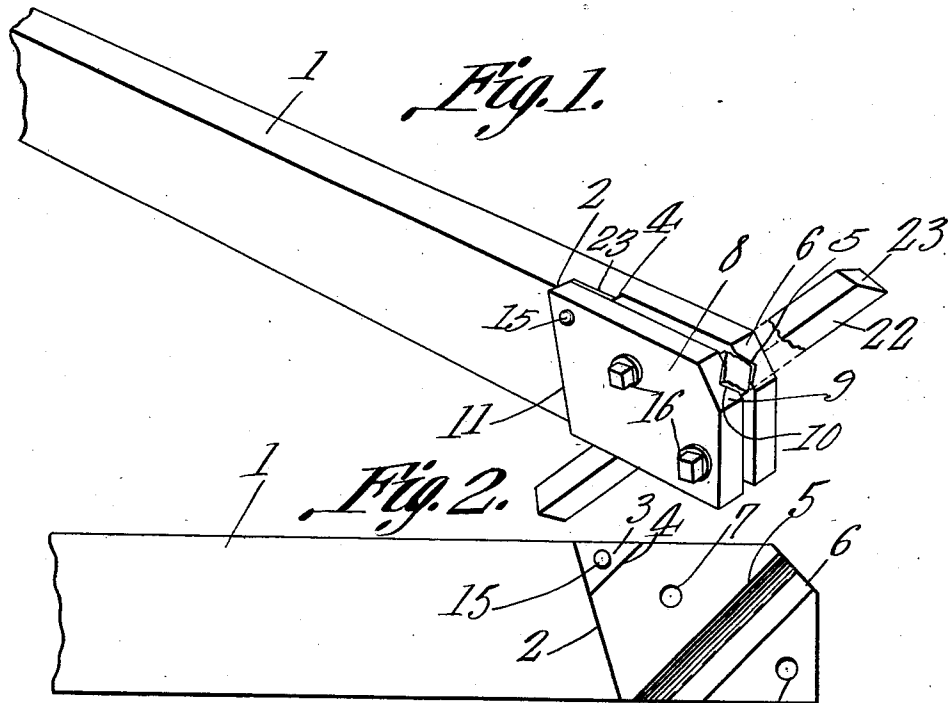


A. T. DUNCAN.
TOOL HOLDER.
APPLICATION FILED FEB. 15, 1911.

1,008,022.

Patented Nov. 7, 1911.



Witnesses

J. P. Dunbar
L. A. Wilcox

Arthur T. Duncan
Inventor

by

C. A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

ARTHUR T. DUNCAN, OF CLINTON, MISSOURI.

TOOL-HOLDER.

1,008,022.

Specification of Letters Patent.

Patented Nov. 7, 1911.

Application filed February 15, 1911. Serial No. 608,736.

To all whom it may concern:

Be it known that I, ARTHUR T. DUNCAN, a citizen of the United States, residing at Clinton, in the county of Henry and State of Missouri, have invented a new and useful Tool-Holder, of which the following is a specification.

It is the object of this invention to provide a holder for lathe tools, so constructed that the tool may readily be removed from the holder, without disturbing the adjustment of the holder in the tool post, the device being adapted to retain tools of all standard shapes.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings,—Figure 1 shows the invention in perspective, a tool being mounted therein; Fig. 2 is a side elevation of the body of the tool holder, the removable jaw being displaced; Fig. 3 is a top plan of the tool holder, the removable jaw being assembled with the body of the tool-holder; Fig. 4 is an elevation of the removable jaw, showing the inner face thereof; Fig. 5 is a side elevation of a modified form of the invention; and Fig. 6 is a top plan of the device depicted in Fig. 5.

The tool-holder shown in Fig. 1 comprises a body 1 provided at one side with a primary shoulder 2, the end face of which is inclined at an angle to the longer dimension of the body 1. Adjacent the primary shoulder 2, a supplemental shoulder 3 is formed, the end face 4 of which is disposed at an angle to the end face of the primary shoulder 2. The outer, side face of the supplemental shoulder 3 is spaced inwardly from that face of the holder 1 in which the shoulder 2 is formed.

In the inner face of the body 1, adjacent the extremity thereof, there is a groove 5, disposed diagonally with respect to the longer dimension of the body 1, this groove 5 intersecting an inclined end face 6, formed by cutting off one corner of the body 1. Upon either side of the groove 5, there are openings 7, extended through the body 1.

The invention further includes a removable jaw, denoted generally by the numeral 8. The jaw is supplied with an inclined end face 9, corresponding to the inclined end face 6 of the body 1. The inner face of the removable jaw 8 is provided with a diagonally disposed groove 10, adapted to cooperate with the diagonal groove 5 in the body 1, the groove 10 intersecting the inclined end face 9 of the removable jaw. The rear end face of the jaw 8 is inclined at an angle to the longer dimension of the jaw, in order to mate properly with, and to engage, the end face of the primary shoulder 2, the rear end face of the removable jaw 8 being denoted by the numeral 11. Adjacent one corner, the removable jaw 8 is supplied with an opening 12, there being other openings 14, disposed upon opposite sides of the groove 10 in the removable jaw.

The opening 12 in the removable jaw 8 is adapted to be engaged by a pin 15, outstanding from the supplemental shoulder 3, and screw bolts 16, or other securing elements appropriate to a like end, are adapted to be mounted in the openings 14 and 7, these openings alining with each other.

In the form of the invention shown in Figs. 5 and 6, the tool holder embraces a body 17, slotted at one end to form jaws 18, one or both of which may be yieldable. The jaws 18 are supplied with inclined end faces 19, corresponding to the end faces 6 and 9 of Fig. 1. The jaws 18 are grooved as at 20, to receive the tool, and a screw bolt 21, or other retaining element, is employed for securing a proper coöperation between the jaws 19. Into the tool holder above described, a tool, denoted generally by the numeral 22 may be mounted. This tool 22 is of the same cross sectional area throughout its entire length, and the cross sectional area of the tool may be varied as desired, the grooves into which the tool is received, of course being shaped to correspond with the cross sectional contour of the tool. The tools 22 are terminally beveled, as shown at 23, to define the cutting point of the tool, and it will readily be understood that by varying the cross sectional contour of the tool, the shape of the cut which is made by the tool will be varied. Owing to the fact that the tool, throughout its entire length, is of the same cross sectional contour, the tool may be sharpened simply by grinding off the beveled face 23, the original shape of the

tool remaining unchanged. Practically the entire length of the tool may, therefore, be made effective, by simply grinding off the beveled face 23, the grinding being accomplished more easily than would be possible, were the tool ground upon the sides.

By reason of the fact that the tools in all forms of the invention, protrude through the end face of the body of the tool holder, the thrust of the material against the tool, comes directly against one end of the tool, and by reason of the fact that the tool holding grooves intersect the end face of the holder, the thrust of the tool is against the end of the holder. The chance of breaking the tool is, therefore diminished, and the mounting of the tool in the holder is made more secure.

The tool holder shown in Fig. 1 is adapted peculiarly for the use of threading tools and tools of other irregular shapes, and the construction is such that the tool may be removed from the holder, be sharpened, and be mounted again in place in the holder, without changing the relative positions between the tool and the work in hand.

The supplemental shoulder 3 serves to space the removal jaw 8 from the body of the tool holder, so that a proper coöperation of the jaw and the body of the tool holder may be secured by manipulating the securing element 16. The pin 15, registering in the opening 12 in the removable jaw 8, serves to align the openings 14 in the removable jaw 8, with the openings 7 in the body 1 of the tool holder. When the openings 7 and 14 are thus aligned, the securing elements 16 may be inserted into the aligned openings.

Having thus described the invention, what is claimed is:—

1. In a tool holder, a body provided at one side with a primary shoulder and with a supplemental shoulder adjacent the primary shoulder; a removable jaw abutting terminally against the end face of the primary shoulder and abutting laterally against the side face of the secondary shoulder to space the jaw from the body; and means for securing a coöperation between the jaw and the body.

2. In a tool holder a body provided with a primary shoulder and with a supplemental shoulder disposed adjacent the primary

shoulder; a removable jaw adapted to rest terminally against the end face of the primary shoulder, and to rest laterally against the side face of the supplemental shoulder, the jaw being connected with the supplemental shoulder by a pin-and-opening connection, the supplemental shoulder constituting a means for spacing the jaw from the body of the tool holder; and means for securing a coöperation between the jaw and the body.

3. In a tool holder, a body provided with a primary shoulder and with a supplemental shoulder disposed adjacent the primary shoulder; and a removable jaw adapted to rest terminally against the end face of the primary shoulder, and to rest laterally against the side face of the supplemental shoulder to space the jaw of the body, the jaw and the body being provided with inclined end faces disposed at an angle to the longer dimension of the body, there being mating grooves in the adjacent faces of the jaw and of the body, the grooves being extended through the inclined faces; and means for securing a coöperation between the jaw and the body.

4. In a tool holder, a body provided at one side with a primary shoulder, and with a supplemental shoulder disposed adjacent the primary shoulder; a removable jaw adapted to rest in terminal abutment against the end face of the primary shoulder, and to rest in lateral abutment, against the side face of the supplemental shoulder to space the jaw from the body, the jaw being united with the supplemental shoulder by a pin-and-opening connection; the jaw and the body being provided with end faces disposed at an angle to the longer dimension of the body, there being in the adjacent faces of the jaw and of the body, coöperating grooves intersecting the angularly disposed faces; and means for securing a coöperation between the jaw and the body.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ARTHUR T. DUNCAN.

Witnesses:

W. M. STEVENS,
W. A. HASTAIN.