No. 822,122. PATENTED MAY 29, 1906.

H. W. HATHORN.

TOOL HOLDER FOR LATHES.

APPLICATION FILED JULY 3, 1905.

Fig. 1.

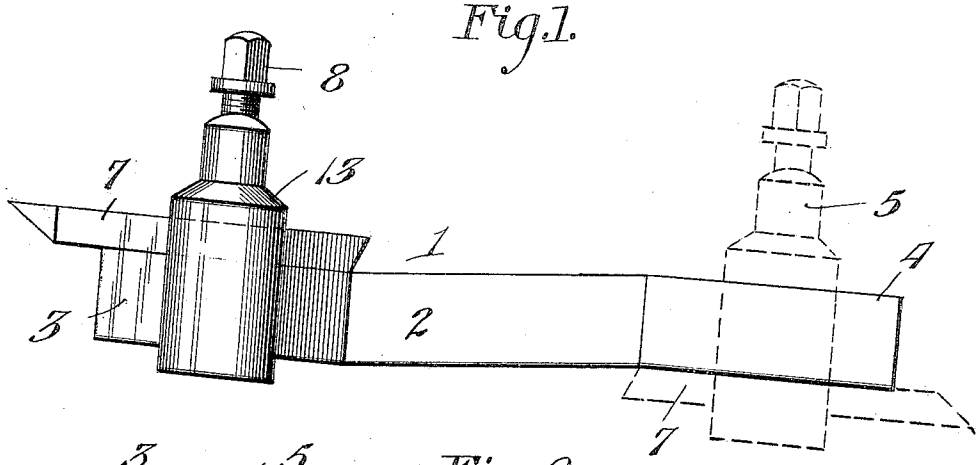


Fig. 2.

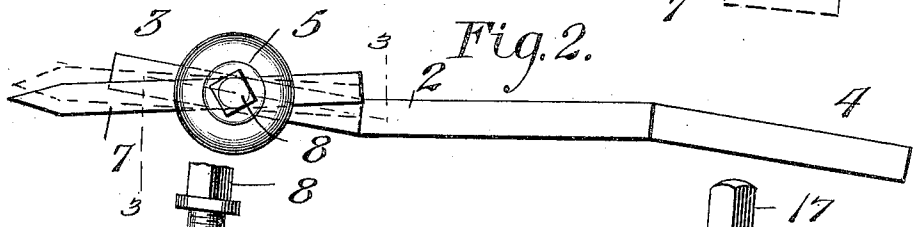


Fig. 3.

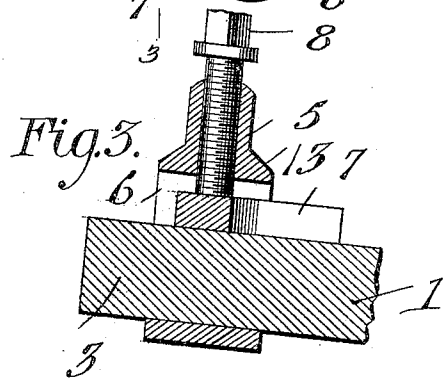


Fig. 6.

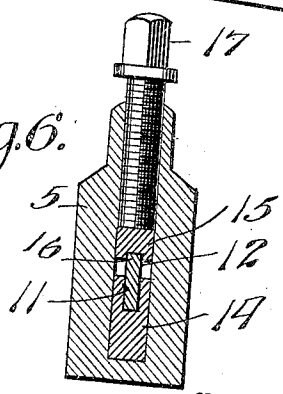


Fig. 4.

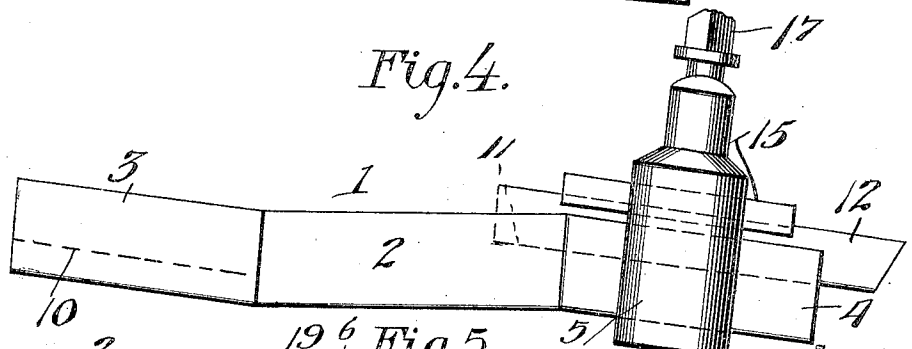
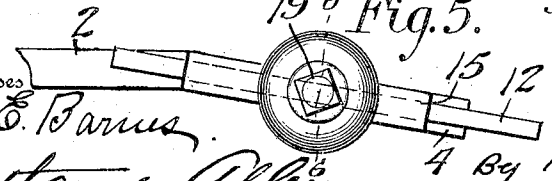


Fig. 5.



Witnesses

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TOOL-HOLDER FOR LATHES.

No. 822,122. Specification of Letters Patent. Patented May 29, 1906.

Application filed July 3, 1905. Serial No. 268,173.

To all whom it may concern:

Be it known that I, HENRY W. HATHORN, a citizen of the United States of America, residing at Grinnell, in the county of Poweshiek and State of Iowa, have invented new and useful Improvements in Tool-Holders for Lathes, of which the following is a specification.

My invention relates to an improved lathe and planer tool, one object of the invention being to provide a simple and efficient construction of tool which is readily adjustable for right, left, or straight common lathe or "drag" work without the necessity of changing the body or shank of the tool to suit the specific character of work to be done. Another object is to provide a construction which is also applicable for right, left, and straight work to cutting-off tools.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevational view of a tool constructed in accordance with my invention, the tool proper being shown applied in full and dotted lines to the opposite ends of the tool-body for left-hand and drag work, respectively. Fig. 2 is a top plan view of the same, the dotted-line position of the tool proper shown in Fig. 1 being omitted. Fig. 3 is a longitudinal section on line 3 3 of Fig. 2. Fig. 4 is a side elevational view of the device as constructed for cutting-off work. Fig. 5 is a top plan view of the same, and Fig. 6 is a transverse section on line 6 6 of Fig. 5.

The numeral 1 in the drawings designates the tool body or shank, which comprises a metallic bar of proper length and thickness to be held in the tool-post of an ordinary lathe or planer. This bar has a straight main portion 2 and left and right angularly bent ends 3 and 4, said ends 3 and 4 extending laterally at an oblique angle to the portion 2, as clearly shown in Figs. 2 and 5.

A tool-clamp 5 is adapted to be fitted upon either end 3 or 4 and is formed with a slot 6 to receive the same, the slot being of greater depth than the bar to also receive the tool proper, 7, which is adapted to be secured with the clamp against the bar by a set-screw 8, carried by said clamp. By this means and owing to the reverse angular disposition of the end portions 3 and 4 of the body the tool proper may be clamped against the upper edge of either end portion to project at an angle to the plane of the portion 2 on one side or the other of the bar for left or right hand work, as respectively indicated in Figs. 2 and 5. Also the tool proper may be reversed or clamped against the lower edge of either end portion of the bar, as shown in dotted lines in Fig. 1, to adapt the device for use as a drag-tool for planers. The tool proper is preferably of less width than the slot 6 to admit of its adjustment to the position shown in dotted lines in Fig. 2, in which it may be clamped to further adapt the device for straight work. The ends 3 and 4 of the bars in addition to being bent or curved laterally are also bent or curved upwardly to give the desired "rake" to the tool.

Figs. 4, 5, and 6 show the application of the invention to a cutting-off tool. In this embodiment of the invention the tool body or bar is of the same form as that previously described, but is provided in the upper and lower edges of its end portions 3 and 4, respectively, with longitudinal grooves 10 and 11 to receive the cutting-tool 12, which may thus be applied for left or right hand work. The tool-clamp 5 in this construction is provided with a slot 14, as before, to receive the end of the bar on which the tool-clamp is fitted, and the tool proper, 12, rests in the groove 10 or 11, as the case may be, and projects therefrom into the slot 14. A clamping-bar 15 is extended through the slot 14 and has a grooved edge 16 to receive the outer edge of the tool proper and is held in engagement therewith by a set-screw 17, carried by the tool-clamp, whereby the tool proper and clamp are securely fastened to the bar.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of the device will, it is thought, be readily understood by those versed in the art without further description and its manifold advantages appreciated.

Having thus described the invention, what I claim as new is—

A tool-holder comprising a shank having

its end portions respectively bent obliquely to the right and left, the upper and lower faces of said end portions forming tool-seats, the end portions also being bent obliquely in opposite directions in planes at right angles to the right and left bends, and means for securing a tool against any of said seats.

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

HENRY W. HATHORN.

Witnesses:
S. J. POOLEY,
GEO. H. WALKER.