

Jacob Edson's Improved Lathe Tool Holder.

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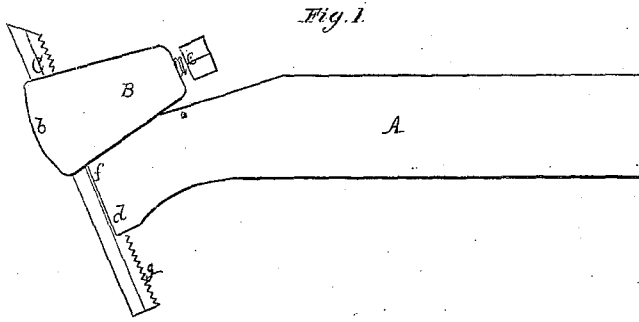


Fig. 1.

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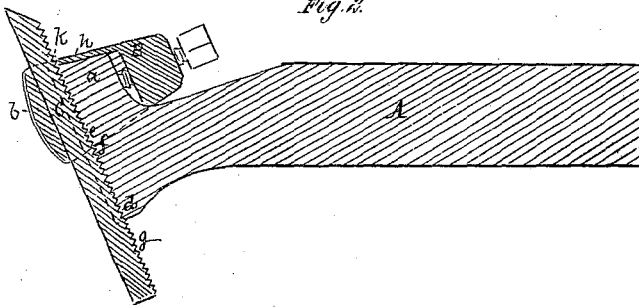


Fig. 2.

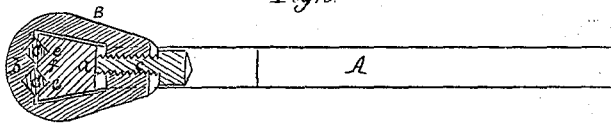


Fig. 3.

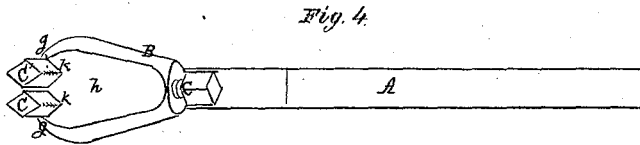
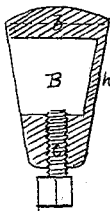


Fig. 4.

Fig. 5.



Witnesses

S. A. Piper.

J. R. Snow

Jacob Edson.

by his attorney.

R. W. Ledy

United States Patent Office.

JACOB EDSON, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 72,468, dated December 24, 1867.

IMPROVED LATHE TOOL-HOLDER.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL PERSONS TO WHOM THESE PRESENTS MAY COME:

Be it known that I, JACOB EDSON, of Boston, in the county of Suffolk, and State of Massachusetts, have invented an improved Lathe Tool-Holder; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation,

Figure 2 a longitudinal and vertical section,

Figure 3 a transverse section, and

Figure 4 a top view of it.

Figure 5 is a section, taken through the screw-clamp, and lengthwise thereof.

The whole article is to take the place of a common cutting-tool, as usually employed in the tool-post of a lathe. My tool-holder carries and supports one or more cutters, held to it by a clamp, or by the same and other devices, as hereinafter specified.

I am aware that the principle of such a tool-holder is not new, that is to say, that a holder supporting a separate chisel, and having a means of affixing such tool to it, is not new, and therefore I make no claim to it in the abstract. I have made some new and important changes in it, to be hereinafter described, by which its value and utility are much enhanced.

In the said drawings, A denotes the shank of the tool-holder, such shank being provided with a clamp-holding horn or projection, *a*, extending from it, and projecting into and serving to support the yoke *b* of a screw-clamp, B, in manner as represented. The screw *c* of such clamp acts against the rear side of the projection *a*. Furthermore, the shank A has another projection, *d*, which extends downward from it, for the purpose of aiding in increasing the bearing for the support of the cutters C C', which are arranged in grooves *e e* made throughout the head part *f* of the shank, and also pass through the yoke of the clamp, in manner as represented. Each of these grooves is curved concavely lengthwise, so as to insure the cutter, while under the action of the holding-clamp, and in use, such a bearing as will prevent it from vibrating or "chattering," as workmen term it. Furthermore, each groove is toothed or notched lengthwise, to engage with a rack or series of teeth, *g*, formed on the rear side of the cutter, the same being to prevent the cutter while in use from slipping downward. The yoke of the clamp is formed with a cap or cover, *h*, to extend over the top of the projection *a*, for the purpose of preventing oil or turnings, while the cutter or cutters may be in use, from getting between the projection and the clamp, there being openings, *k k*, through the cover for the passage of the tools or cutters.

The advantage of having two cutters or tools fixed in or to the shank, and arranged therewith in manner as represented, is, that it enables us, by placing the shank at a slightly obtuse angle with respect to the axis of a piece of metal to be turned in a lathe, to employ one cutter for the "roughing," and the other for the finishing of the work, both cutters operating at once on it. The arrangement of the clamp on the top of or over the shank, causes the tools to hold with great firmness close to their cutting-points or parts, and enables ready access to be had to the screw of the clamp, when it may be desirable to revolve it.

I claim the arrangement of the clamp-holding projection *a* and the clamp B with the shank A, and one or two cutters C C' applied thereto, as specified.

I also claim the holder-shank A, as made with the auxiliary projection *d*, arranged with it and its clamp-projection, as specified.

I also claim the holder, as made with one or more notched or toothed grooves constructed in its head or front end to receive one or more tools or cutters held against such notches, as explained.

I also claim the arrangement and combination of the two separate cutters or tools with the single holder and its clamp, as specified.

I also claim the holder, as made with each of its grooves curved longitudinally, as and for the purpose above specified.

I also claim the yoke of the clamp, as formed with the cap or cover, to extend over the projection *a*, and that part of the screw of such clamp which extends within the projection-receiving recess of the clamp.

JACOB EDSON.

Witnesses:

R. H. EDDY,
SAMUEL N. PIPER.