(No Model.)

M. C. JOHNSON.

LATHE TOOL.

No. 390,604. Patented Oct. 2, 1888.

Fig. 1

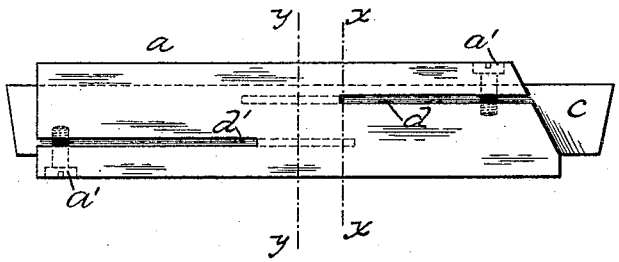


Fig. 2

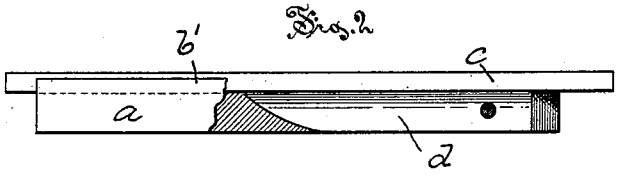


Fig. 3

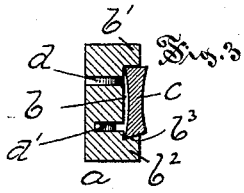
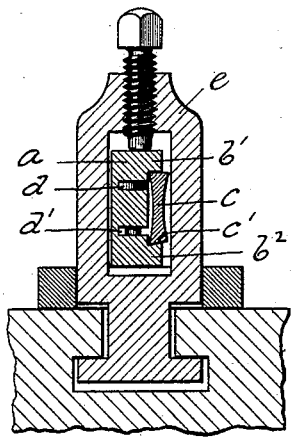


Fig. 4



Witnesses:

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UNITED STATES PATENT OFFICE.

MOSES C. JOHNSON, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE DWIGHT SLATE MACHINE COMPANY, OF SAME PLACE.

LATHE-TOOL.

SPECIFICATION forming part of Letters Patent No. 390,604, dated October 2, 1888.

Application filed March 24, 1888. Serial No. 268,346. (No model.)

To all whom it may concern:

Be it known that I, MOSES C. JOHNSON, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Tool-Holders, of which the following is a full, clear, and exact description, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, wherein like letters of reference indicate the same parts throughout.

Figure 1 is a view of one side of my improved device. Fig. 2 is a top view of the same with parts cut away to show construction. Fig. 3 is a detail view, in cross-section, of the device on plane denoted by line *x x* of Fig. 1. Fig. 4 is a view in cross-section of my device on plane denoted by line *y y* of Fig. 1, and showing it as held in a tool-post, also in section.

The object of my invention is to provide a holder of the class commonly used to hold cutting-blades for turning, planing, and the like; and it consists in the combination of a holder or stock having a lateral blade-socket and a plural number of slots that extend beyond each other in the body of the holder, and the blade specially adapted to be held in the blade-socket, and in details of the device, as more particularly hereinafter described and claimed.

In the accompanying drawings, the letter *a* denotes the body of the holder, preferably of steel, with the lengthwise mortise forming the blade-socket *b*, and having the overhanging lips *b' b''*. The inner face of the upper lip, *b'*, is formed at right angles to the back of the mortise, while the upper surface, *b'''*, of the lower lip lies at an acute angle with the same surface, so that the outer edge of the lip overhangs the mortise. The blade or cutter *c* is made of thin metal, as steel, with the sides concaved, and of a width that adapts it to fit closely within the mortise *b* in the side of the tool-holder. The upper edge of the blade is squared to fit beneath the lip *b'*, while the lower edge, *c'*, of the cutter is beveled to fit the angular recess at the lower side of the mortise *b*.

On one side of the center of the stock a slot, *d*, is cut, that extends from one end, at which it is open along the stock for a part of its length, and then gradually rises out, the slot opening completely through the stock from the mortise to the back for a part of the way from the upper end, and on the other side of the center another and similar slot, *d'*, is cut, that opens at the opposite end of the stock from the first, the two slots overlapping at the central part of the stock, where they do not extend completely through it. (See Figs. 1 and 2.)

By this construction of the holder I produce one that has a sufficient stock of metal at the point where it is usually gripped by the binding-screw of a tool-post, *e*, to prevent the stock from becoming permanently bent at that point. At points nearer the ends of the holder the thinner part, where it is completely divided by the slots, yields lengthwise as well as sidewise of the holder, and there is resistance enough in this portion to restore the stock to substantially its original shape and prevent its setting tightly upon the blade. The screws *a'*, one of which is seated at each end of the holder in position to draw the parts together, are used to hold the cutter in the stock temporarily, and is not intended to aid in holding it while the cutter is being used.

The cutting-blade, having one beveled and one squared edge that fits the blade-socket correspondingly shaped, is more readily placed in and removed from the socket, and is more securely held in it under the binding action of the screw than prior devices, owing to this peculiar construction of the edges.

I claim as my improvement—

1. The tool-holder having the lateral longitudinal tool-socket and the slots that extend for a part of their length through and through the holder on opposite sides of its center, open at the opposite ends, respectively, and overlapping at the center of the holder, all substantially as described.

2. As a new article of manufacture, a tool-holder, *a*, having the laterally-opening tool-socket *b* and the transverse slots *d* and *d'*, opening at the ends and from side to side of the stock for a part of its length and running out

gradually, the inner ends of the slots overlapping each other, all substantially as described.

3. In combination with a tool-holder, *a*, having a blade-socket, *b*, with the square lip *b'* and beveled lip *b''*, and the overlapping slots *d* and *d'*, that open toward opposite ends of the holder, the cutting-blade *c*, having one square and one beveled edge adapted to fit the blade-socket in the holder, all substantially as described.

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