C. H. REID.

Tool Holder.

No. 85,329. Patented Dec. 29, 1868.

Fig. 1.

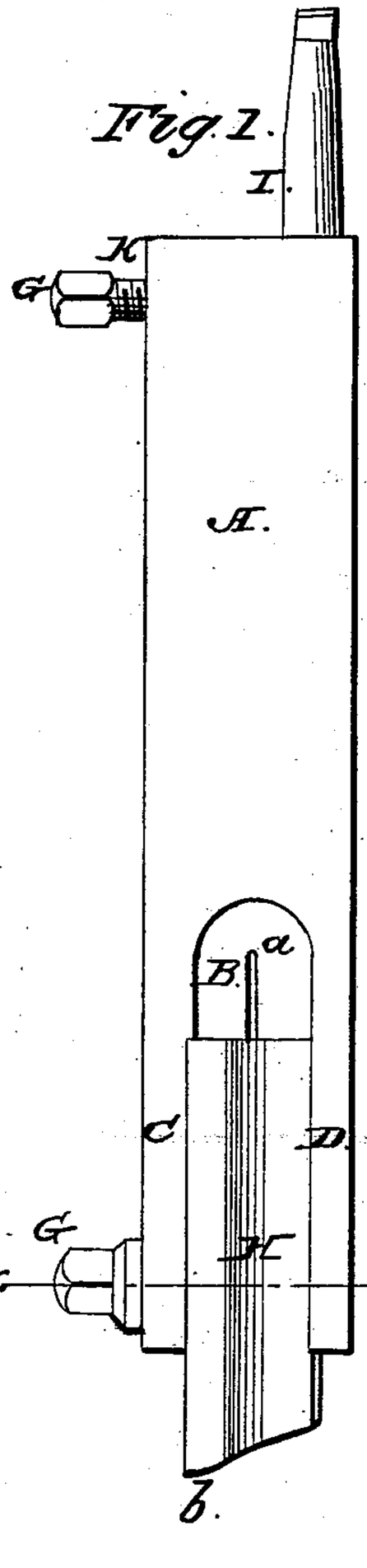


Fig. 2.

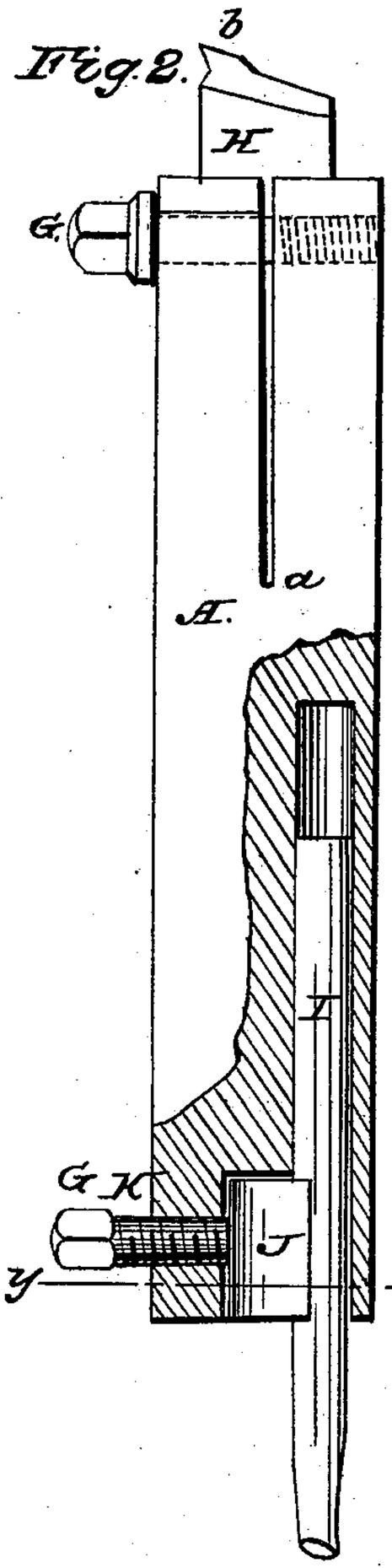
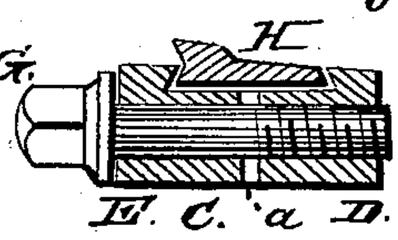
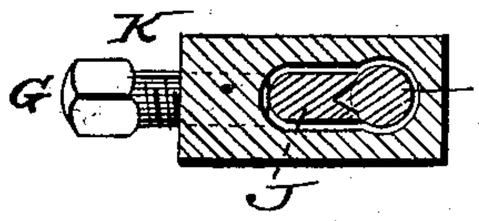


Fig. 3.



Witnesses
M. Orlamler
Wm A Morgan

Fig. 4.



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United States Patent Office.

CHARLES H. REID, OF DANBURY, CONNECTICUT.

Letters Patent No. 85,329, *dated December* 29, 1868.

IMPROVED TOOL-HOLDER.

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

To all whom it may concern:

Be it known that I, CHARLES H. REID, of Danbury, in the county of Fairfield, and State of Connecticut, have invented a new and improved Tool-Holder; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my invention.

Figure 2 is a similar view of the same, inverted and reversed, and with a portion of the stock or holder broken away, to exhibit the boring-tool and its gib and clamp-screw.

Figure 3 is a section through *x x*, fig. 1.

Figure 4 is a section through *y y*, fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide a simple, convenient, and effective stock or tool-holder for machinists' use, and which is available both as a tool-holder for lathes and planing-machines; and also for holding a boring-tool for such shallow work as is capable of being bored out on the chuck of a lathe.

It consists in a metallic bar, preferably of rectangular section, provided with devices for holding the various tools required, as is herein fully set forth.

By reference to the drawings, it will be seen that one end of the bar A is formed for holding the tools for ordinary lathe-work, as the turning-tool, cutting-off tool, thread-tool, and the like, or for holding a planing-tool, when the invention is used in the tool-part of a planing-machine.

The other end is formed for holding a boring-tool, for any shallow work capable of being bored out on the face-plate or chuck of a lathe.

Both ends are provided with screws for securing the tool.

On one side of the tool, and near the end of the same, a shallow dovetailed recess, B, is planed out to the end of the bar.

A slit, *a*, is then sawed through the bar, extending from its extreme end back nearly or quite the length of the recess, and at right angles to the bottom of the same, thus forming two spring-jaws, C D, through which a clamp-screw, E, passes.

The threaded part of the screw works in a hollow thread, in the jaw D, while the cylindrical part works freely in an unthreaded hole in the jaw C, as shown in fig. 3.

The heads G of both screws may be formed square, hexagonal, or capstan-headed, as desired.

The tool H is formed to fit in the recess, its edges being either dovetailed, bevelled, or grooved, to fit easily within the recess B, filling the same as far as the tool extends back.

The jaws are drawn toward each other by the clamp-screw, and thus bind the tool firmly in the recess.

The tools are milled out in the proper form, in a milling-machine, and may be formed with increased thickness of metal at the upper edge, as shown, to confer greater stiffness to it in the line of its cutting-point *b*.

The opposite end of the holder is bored out to about half its length, for the reception of a round or octagonal shank of a boring-tool, I, and is recessed at the end to receive a gib, J, having a concave or V-shaped groove, which enables the said gib to set upon the boring-tool, as shown.

A recess, K, works in a hollow thread in the bar, and is so arranged that the point of the said screw impinges against the gib, and bears it upon the boring-tool, as shown at figs. 2 and 4.

In using this tool-holder, it is secured in the tool-post of the lathe or planing-machine, and from its form and usual dimensions, is adapted to be thus secured in the eye or mortise of tool-posts, in the manner in which the main body of the bulky tools, as heretofore made, are secured.

It will be observed that the bar A need not necessarily combine the devices for holding the boring-tool I with the spring-jaws C and D, for the said bar may be made plain at one end, while the other may contain either of the two different tool-holding devices; and I desire to be understood as not limiting my invention to this double formation of the bar, although, when so made, it is of course more useful as a tool-holder in general.

One of the principal advantages of this invention obtains in the fact that the tools employed are comparatively small, easily made and fitted, and the points are easily renewed when dulled or worn, and in wear and renewal the tools can be used up to within much less than half of their original length, and still be held firmly in the holder.

The dovetailed form of the recess is perhaps the most preferable, as being most easily made, but it will be obvious that the sides of the said recess may have a V-shaped or semicircular section, and the tools be formed with corresponding grooves; but such modification partakes essentially of the spirit of the invention, and I desire to be understood as not limiting myself to the precise form of the sides of the recess, as illustrated by the drawings.

When one end of the tool-holder is used, the screw of the other end is generally removed, to enable the stock A to be inserted in the mortise of the tool-post.

I claim as new, and desire to secure by Letters Patent—

1. The improved tool-holder A, when constructed as set forth, to hold both the tools H and I, in the manner described.

2. The tools H *b*, in combination with a tool-holder, A, all constructed substantially as set forth.

The above specification of my invention signed by me, this 29th day of September, 1868.

C. H. REID.

Witnesses:

FRANK BLOCKLEY,

ALEX. F. ROBERTS.