T. L. WEBSTER.

HOLDER FOR SLOTTED TOOLS.

No. 64,388. Patented Apr. 30, 1867.

Fig. 4

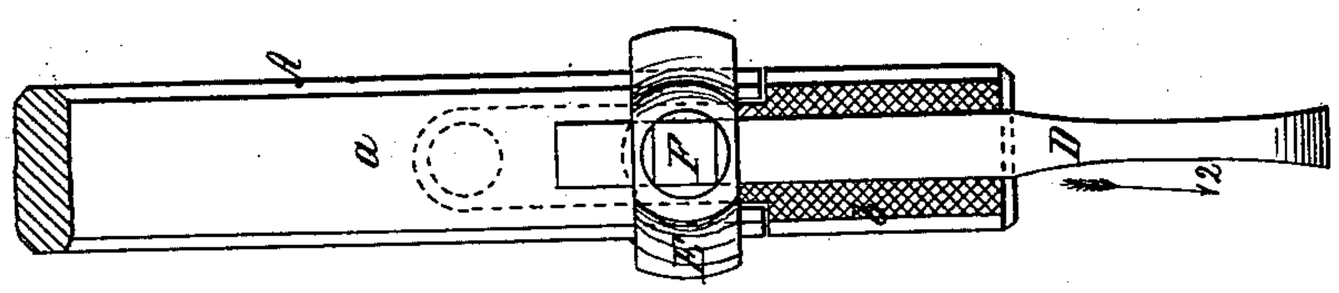


Fig. 3

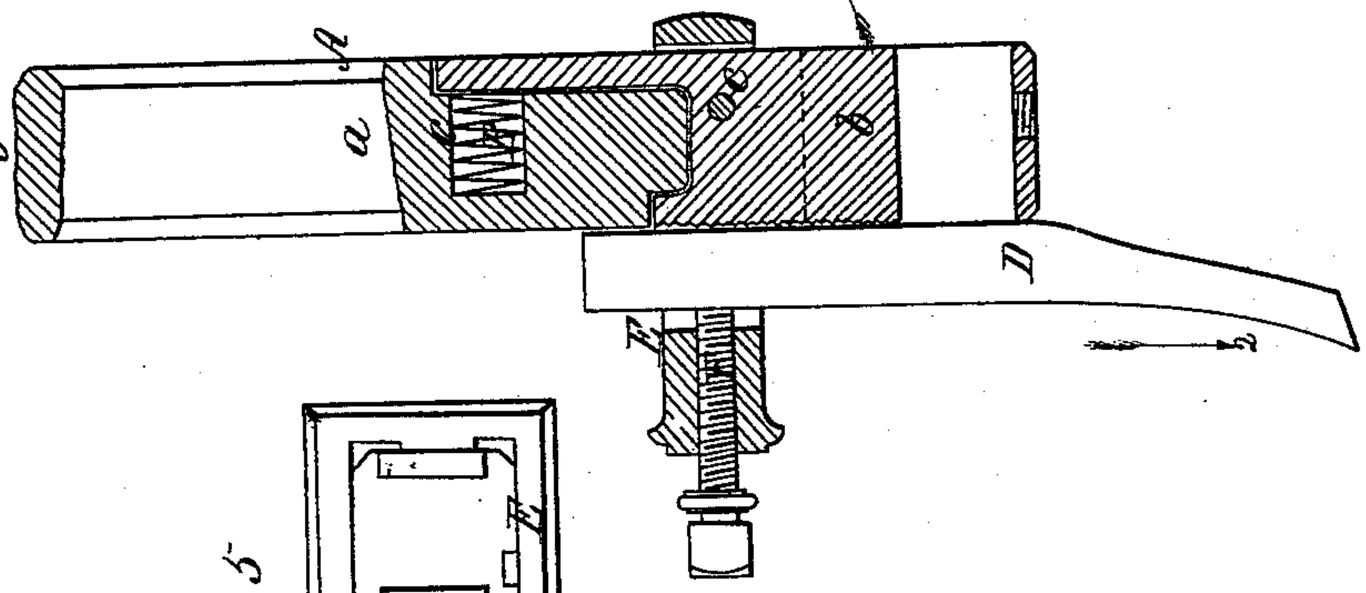


Fig. 5

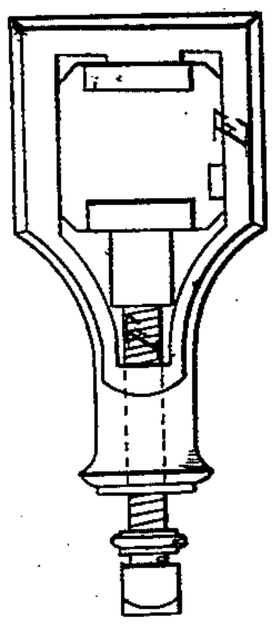


Fig. 2

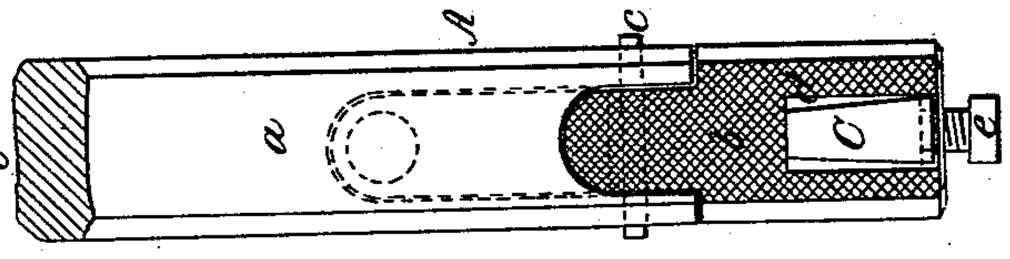
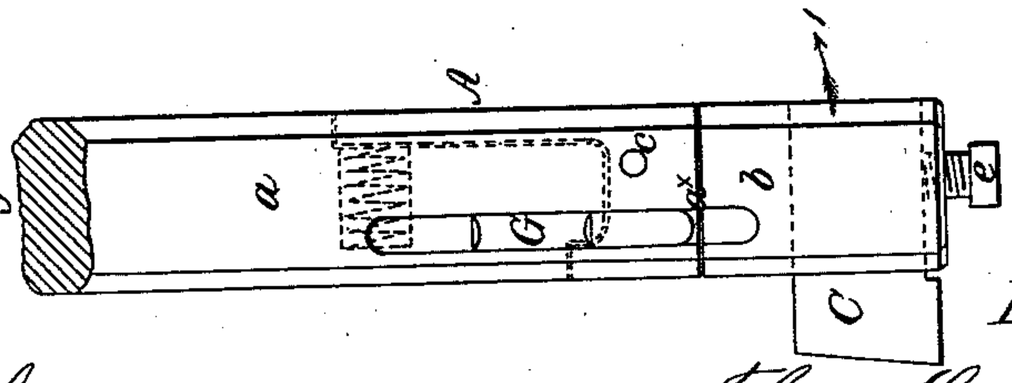


Fig. 1



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Letters Patent No. 64,388, *dated April* 30, 1867

IMPROVED HOLDER FOR SLOTTING-TOOLS.

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, T. L. WEBSTER, of Brooklyn, in the county of Kings, and State of New York, have invented a new and improved Tool-Holder for Iron-Working Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved tool-holder, designed for slotting machines. The invention consists in constructing the tool-holder of two parts, connected by a joint, and having a spring applied, all being arranged in such a manner that the tool, during its return or backward movement, will be enabled to relieve itself and pass over the surface of the work with but little friction. In the accompanying sheet of drawings—

Figure 1 is a side view of my invention, having a short tool applied to it.

Figure 2, a front view of the same.

Figure 3, a side sectional view of the same, having a long tool applied to it.

Figure 4, a front view of fig. 3.

Figure 5, a detached plan or top view of a clamp used for attaching the long tool to the holder.

Similar letters of reference indicate like parts.

A represents my improved holder, constructed of iron, steel, or other suitable metal, and of two parts, *a b*, fitted together, and connected by a pin, *c*, to form a joint which will admit of the lower part *b* moving in the direction indicated by the arrow 1, but not in the opposite direction, as will be fully understood by referring to figs. 1 and 3. A spring, B, is fitted in a recess, *c*, in the upper part *a* of the holder, and has a tendency to keep part *b* in a proper position to enter upon its downward cutting stroke, as shown clearly in fig. 3. The tool C, as shown in figs. 1 and 2, is a short one, and is fitted in a slot, *d*, made transversely in the lower part of *b*, and secured therein by a set-screw, *e*, passing upward in the lower end of *b*. The tool D, shown in figs. 3 and 4, is a long one, and is secured to *b* by a clamp, E, shown more particularly in fig. 5, said clamp encompassing the part *b* of the holder, and the upper part of the tool D, and causing D to be pressed firmly against *b* by a screw, F, the front of *b* being roughened or corrugated to prevent the tool from slipping, as shown clearly in fig. 3. From the above description it will be seen that when the tool is forced down in the direction indicated by arrow 2, to perform its work, that the part *b* cannot move or yield in the least, as the resistance the work or article operated upon offers to the tool will cause the upper part of *b* to bear firmly against the lower part of *a*, a result due to the position of the pin *c*, and to the shape of the tool. While, however, the tool is rising, in order to make a succeeding downward stroke, the part *b* will have yielded or moved slightly outward in the direction indicated by arrow 1, and thus the point of the tool will be relieved of any tendency to drag against the metal, except that due to the tension of the spring. Tool-holders, as generally constructed, when forced downward for the tool to perform its work, will invariably spring outward or backward a little from the article operated upon, owing to the resistance the latter offers to the tool, and this spring of the holder causes the tool to rub or press hard against the article when the holder is being raised for a succeeding downward stroke. If it were possible to have or make a tool-holder which would be perfectly rigid or inflexible, my invention would not be of any material use, as the metal cut away by the descending stroke of the tool would form a channel to admit of a free return movement of same. The spring of the holder, however, is inevitable, even when the latter is made of the greatest practical dimensions, and hence the importance of my invention, which admits of the yielding of the tool on its return stroke, to obviate the difficulty referred to. The spring B causes the part *b* of the holder to be immediately adjusted to a working position at the completion of the return stroke of the tool, so that the latter will be ready for the downward-working stroke. The long tool D is used when slots are to be cut in holes of small diameter, such, for instance, as key-seats in small pulleys, the holes of which would not admit of the entrance of the horizontal tool C. I would remark that in order to prevent any movement of the part *b* of the tool-holder when a tool is being secured in it, I have a slide, G, fitted in a groove, a^x, in one side of *a* and *b*, which slide when shoved down, so as to be in the parts of a^x which are in both parts *a b* of the holder, will hold the part *b* thereof immovable. This slide, however, is not indispensably necessary.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

The tool-holder for slotting machines, constructed as described, consisting of the parts *a b*, fitted together and connected by the pin C, to form a joint which will admit of the slotted part *b* moving only in one direction; spring B, fitted in the recess *c* of the part *a*, substantially as herein shown and described.

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Witnesses:

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