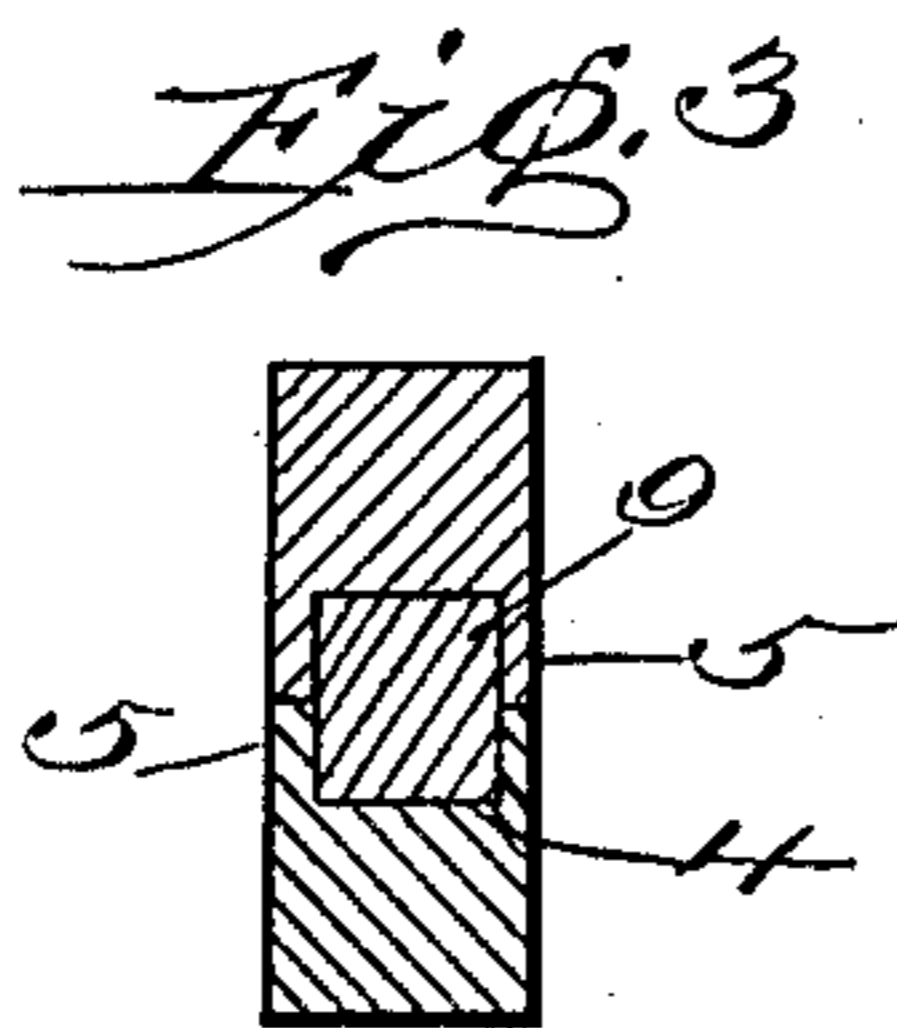
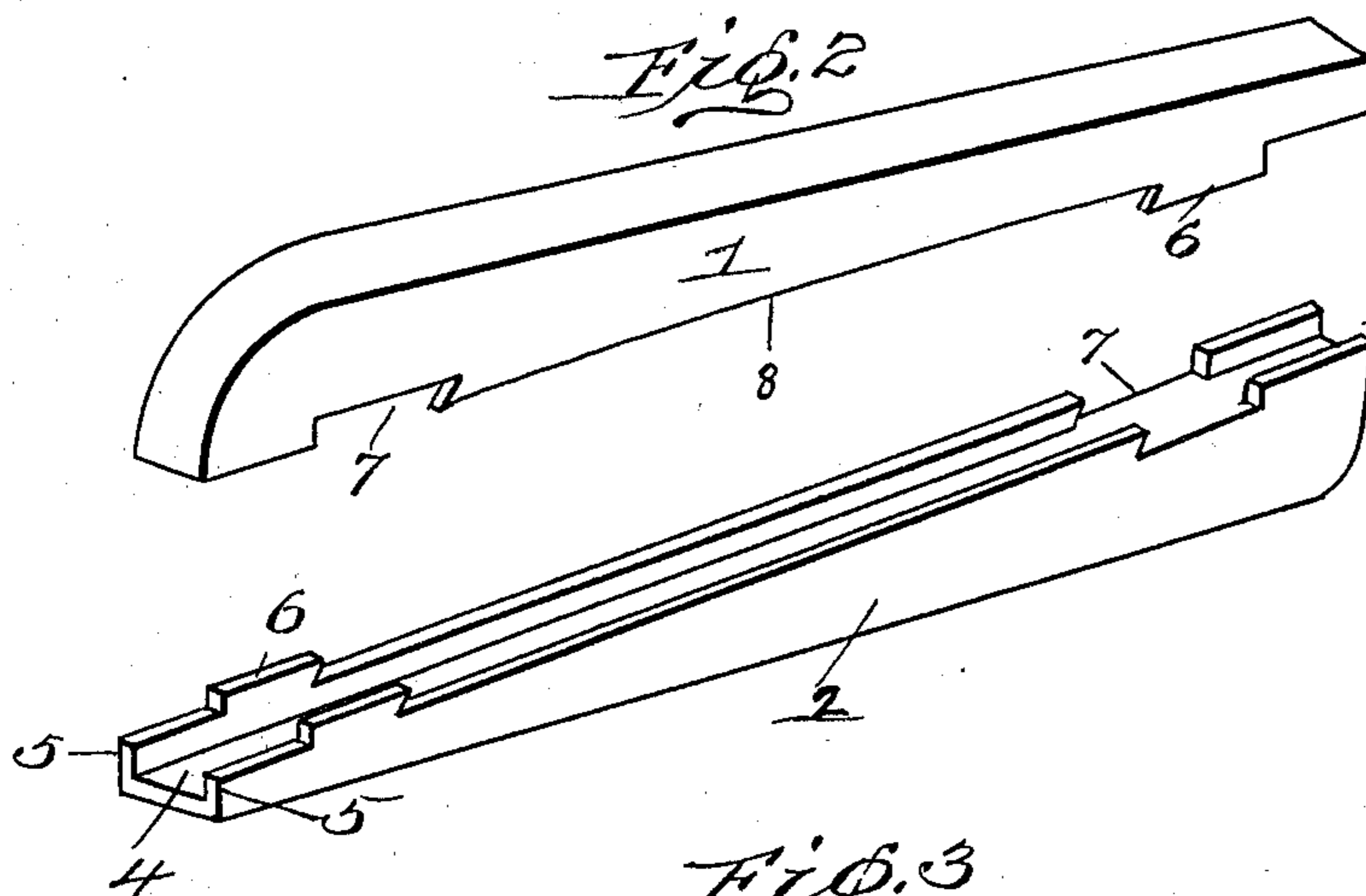
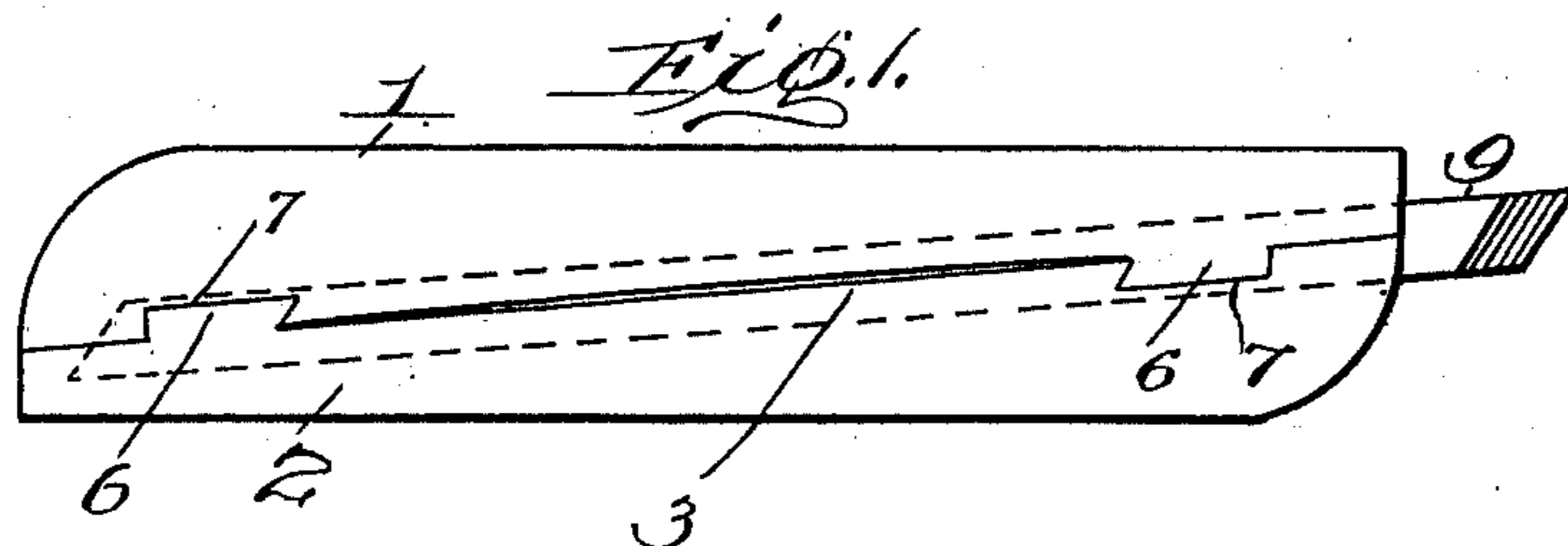


H. F. CLIFFORD.
 TOOL HOLDER.
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Patented May 30, 1911.



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HARRY FRANCIS CLIFFORD, OF CONCORD, NEW HAMPSHIRE.

TOOL-HOLDER.

993,759.

Specification of Letters Patent.

Patented May 30, 1911.

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To all whom it may concern:

Be it known that I, HARRY F. CLIFFORD, a citizen of the United States, residing at Concord, in the county of Merrimack and State of New Hampshire, have invented certain new and useful Improvements in Tool-Holders, of which the following is a specification.

This invention relates to tool-holders, and more particularly to that class adapted for holding tools in a tool-post for lathe work, also planer and shaper.

The invention is more particularly designed for holding high speed cutting tools, commonly known as high speed steel, which comes in square bars of various sizes, the object being is to provide means for handling such steel so as to do away with the necessity of cutting the same in short pieces, as any length can be placed in my holder without being in the way of the operator, thereby producing a great saving of material.

A further object of my invention is to provide a tool-holder which is so constructed and arranged as to securely hold a tool in the tool-post of a lathe in such a position that the rake of the tool is in the proper position for all ordinary work, since the holder can be used with either end toward the work in the lathe without turning the tool-post to insert the same.

A further object of the invention is to provide a tool-holder which overcomes the objection of set screws or keys, which are invariably getting out of order, and which require a wrench every time it is desired to take out a cutter to grind the same, thereby producing a tool-holder which is exceedingly cheap and simple in its construction, durable, and will efficiently perform all of its intended functions.

It is, of course, to be understood that my holder is to be made in various sizes to accommodate the various sizes of high speed steel now upon the market; therefore, changes in proportion and minor details of construction may be resorted to without sacrificing any of the principles or advantages of this invention.

With these objects in view, and such others as may hereinafter appear, my invention consists in the particular construction of the parts, and in the novel manner or combination and arrangement of said parts,

all of which will be hereinafter more fully described and specifically pointed out in the appended claims.

In the drawings forming a part of this specification: Figure 1, is a side elevation of my tool-holder complete, showing a piece of high speed steel held therein, Fig. 2, is a perspective view, showing the parts disconnected, and Fig. 3, is a sectional view.

Referring by numerals to the drawings, 1 and 2 represent corresponding pieces consisting of a block which is beveled or curved upon one edge as shown at 3. This beveled or concaved curved edge is provided with a longitudinal groove or channel 4, which forms corresponding flanges 5. These flanges are provided approximately near one end of the block with tenons 6 cut in the form of a dove's tail spread, or of a reverse wedge, and approximately near the other end of the block with mortises 7. The tenons and mortises on one block being adapted to receive and engage the tenons and mortises upon the other block. The flanges between the tenons and mortises being slightly curved as shown at 8 in order that the respective ends of the block may be brought more firmly together, and thereby clamp the high speed steel 9 firmly within the holder, inasmuch as it is my intention to construct the holder of tool steel, which will allow of a yielding or compression when placed in the tool-post of a lathe.

Though I have shown and described what is commonly known as a dovetail-joint for securing or locking the pieces 1 and 2 together, I do not limit myself to such joint, inasmuch as various other styles of joint may be used without materially affecting the nature of this invention.

The principal feature of my invention is the corresponding blocks having registering longitudinal channels therein, with means for securing the blocks together in such a manner that their respective ends will be in close contact with each other, while the central portion of the blocks will be held apart, yet susceptible of being clamped together when placed in the tool-post, inasmuch as the said central parts have a yielding quality.

It is also to be understood that a tool-holder constructed in accordance with my invention may be used with either end toward the work in the lathe, without the necessity of turning the tool-post, and fur-

ther that high speed steel of any length may be used in a holder of the character described.

Having thus described the various features of my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a tool-holder, corresponding blocks, means for securing the blocks together, longitudinal grooves in the adjacent faces of the blocks, each block having a concaved face, the respective ends of the blocks being in close contact, the central portions of the blocks being held apart, substantially as specified.

2. In a tool-holder, corresponding blocks, each having a concaved edge, grooves cut in

said concaved edge, corresponding flanges formed by said grooves, tenons formed upon said flanges near one end of the block, mortises formed in said flanges near the other end of the block, the said tenons and mortises upon one block being adapted to engage the tenons and mortises on the other block, the respective flanges intermediate, the tenons and mortises being spaced apart, substantially as shown and for the purpose specified.

HARRY FRANCIS CLIFFORD.

Witnesses:

Mrs. H. F. CLIFFORD,

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
