

No. 667,877.

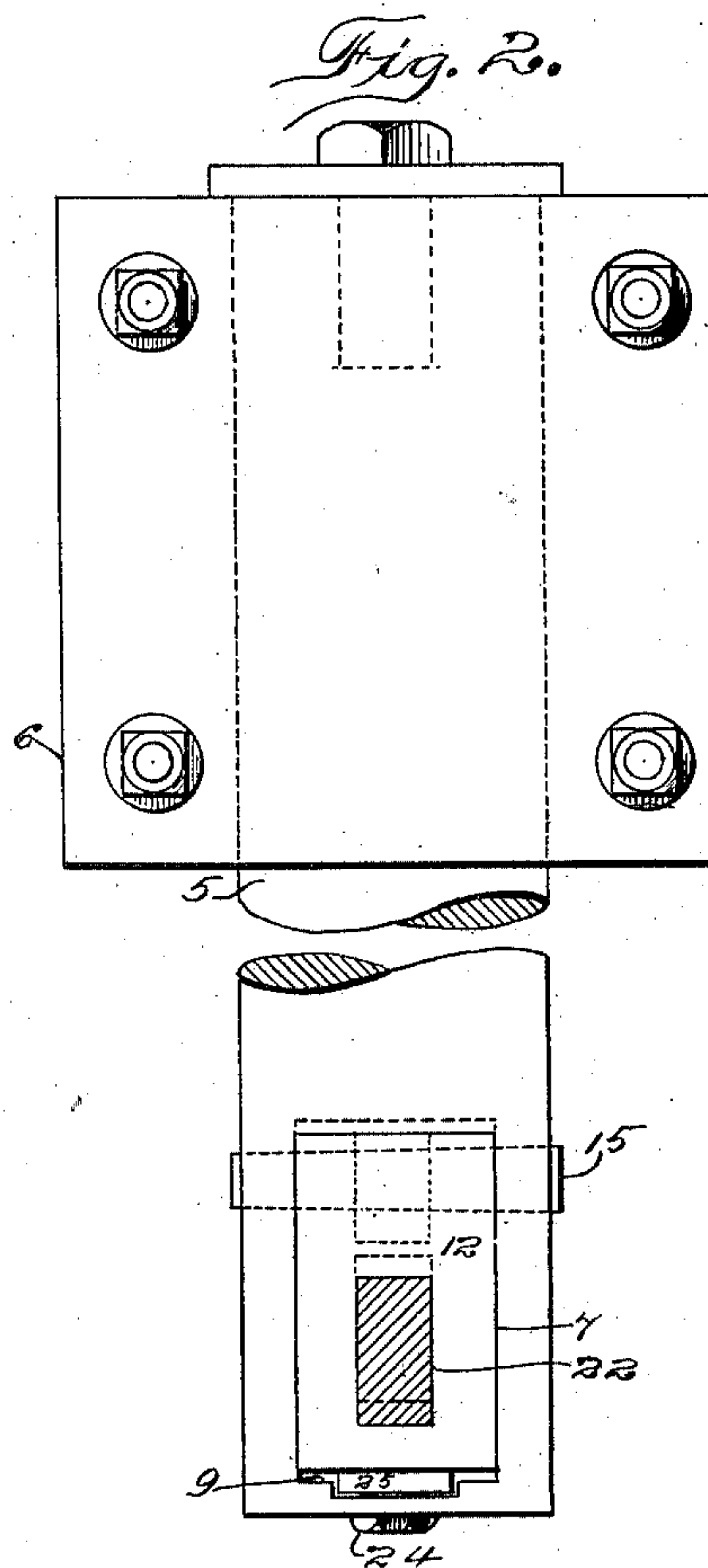
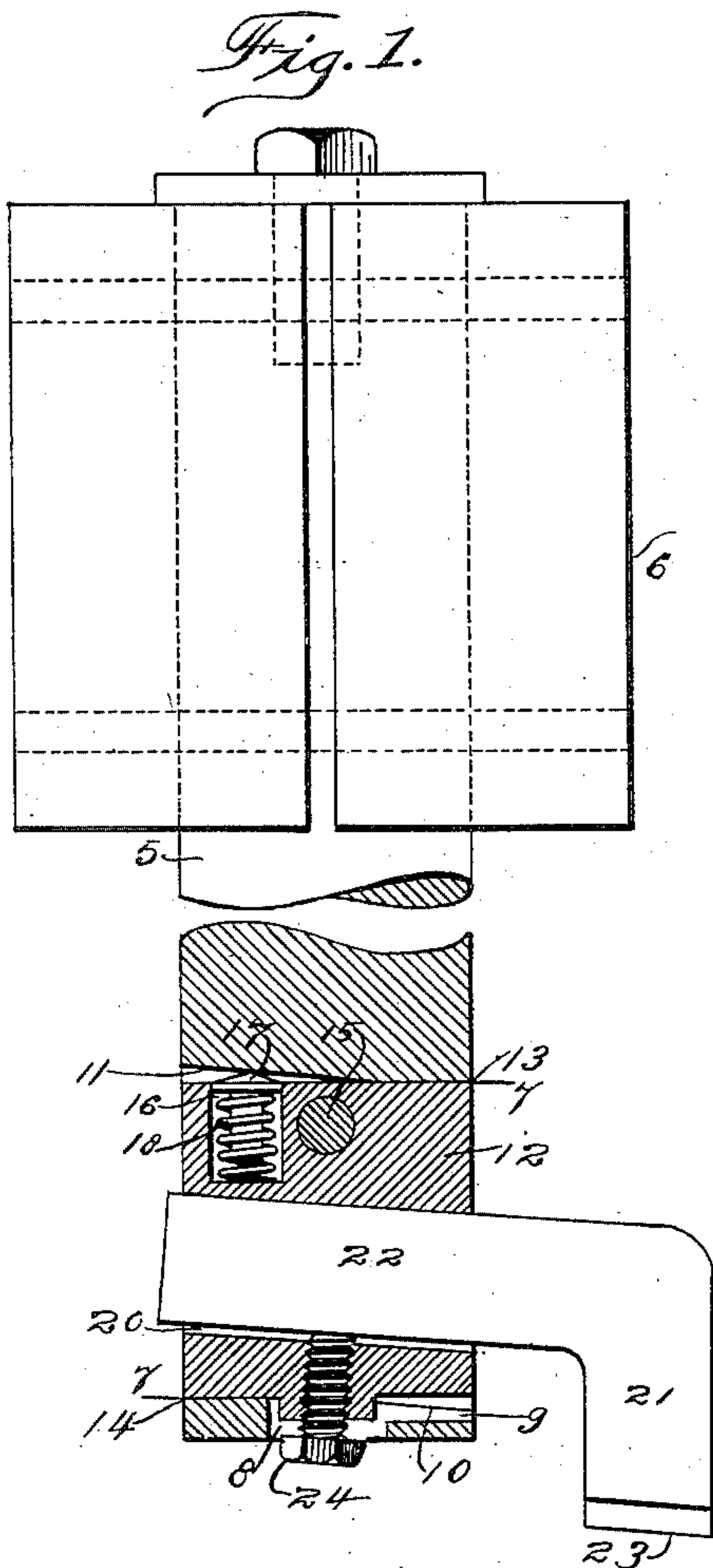
Patented Feb. 12, 1901.

J. B. HAINES.

TOOL POST.

(Application filed Sept. 22, 1900.)

(No Model.)



Witnesses  
Fred. C. Maynard.  
Geo. H. Chandler.

J. B. Haines, Inventor.  
By *C. A. Snow & Co.*  
Attorneys

# UNITED STATES PATENT OFFICE.

JOHN B. HAINES, OF RICHMOND, VIRGINIA.

## TOOL-POST.

SPECIFICATION forming part of Letters Patent No. 667,877, dated February 12, 1901.

Application filed September 22, 1900. Serial No. 30,793. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN B. HAINES, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented a new and useful Tool-Post, of which the following is a specification.

This invention relates to tool holders or posts for slotting-machines, one object of the invention being to provide a construction wherein the tool will be pivotally mounted and may swing outwardly to draw its cutting edge away from the work upon the return movement of the tool, a further object of the invention being to so construct and arrange the several parts of the structure that the cutting edge will have a maximum movement when the mounting of the tool is pivotally moved.

Additional objects and advantages of the invention will be evident from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in both views, Figure 1 is a view, partly in elevation and partly in section, showing the tool-post of a slotting-machine having a tool therein and held by mechanism constructed in accordance with the present invention. Fig. 2 is a front elevation of the structure shown in Fig. 1, the tool being in section.

Referring now to the drawings, 5 represents the shank of the ordinary tool-post of a slotting-machine and which is held in the clamp 6 in the usual manner. The lower end of the tool-post in the present instance is provided with a transverse slot 7 at a point above its lower end, and through the bottom wall of the slot is formed an opening 8, said bottom wall of the slot between the opening and the front of the post having a groove 9. The forward portion of the lower wall of the slot 7 and the rear portion of the upper wall thereof are formed parallel and lie at an acute angle to the axis of the tool-post, these slanting portions of the walls being shown at 10 and 11, while the forward portion of the upper wall and the rear portion of the lower wall are formed parallel and lie at right angles to the axis of the tool-post.

In the slot 7 is disposed a rectangular block

12, the height of which is equal to the perpendicular distance between the forward portion 13 of the upper wall and the rear portion 14 of the lower wall of the slot, so that said block may lie flat against said portions 13 and 14, the slanting portions 10 and 11 of the slot-walls permitting tilting of the block in the slot.

A pivot-pin 15 is passed transversely through the tool-post and the block, adjacent the upper edge of the latter, and substantially midway between its front and rear sides, whereby said block may have its lower end swung rearwardly to lie with its upper and lower ends against the portions 11 and 10 of the slot.

In the upper end of the block 12 is formed a recess 16 in the rear of the pin 15, and in this recess is disposed a headed pin 17, the head of which is disposed against the portion 11 of the upper wall of the slot 7 and is held yieldably in such position by means of an encircling helical spring 18, which bears at one end against the under side of the head of the pin and at its opposite end against the bottom of the recess, the effect of this spring being to hold the block normally and yieldably in its forward position.

A slot 20 is formed transversely of the block 12, from the front to the back thereof, said slot ranging downwardly at its forward end, and this slot is adapted to receive a tool 22, the cutting end of which is preferably bent downwardly, as shown at 21, to bring its cutting-point 23 some distance below the pin 15, whereby a minimum pivotal movement of the block will give a maximum movement to the cutting-point of the tool. The tool 22 is held in place in the block 12 by means of a set-screw 24, which is engaged with a threaded perforation in the bottom of the slot 20.

With this construction it will be seen that as the post moves downwardly the tool will be held projected by reason of the action of the helical spring 18, while upon return movement of the post the pressure against the tool will swing it outwardly against the tendency of said spring, so that the cutting point or edge of the tool will not be injured.

It will be understood that in practice various modifications of the specific construction shown may be made and that any suitable



materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

- 5 The combination with a tool-post having a transverse slot adjacent its end and a terminal opening communicating with the slot, of a block disposed in the slot of the post, said block having a transverse slot to receive  
10 a tool and having a recess at one side of its pivot, a spring-pressed pin in said recess and bearing against the end of the slot of the post to hold the block yieldably at one limit of its pivotal movement, a lug upon the block and  
15 disposed to play in the terminal opening

of the post and having a threaded opening therethrough alining with the terminal opening of the post and a set-screw passed through the terminal opening of the post and engaged with the opening of the block, said screw projecting into the slot of the block to clamp a tool therein.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN B. HAINES.

Witnesses:

R. K. ARMOUR,

W. V. VAUGHAN.