

No. 666,631.

Patented Jan. 22, 1901.

H. W. WALTERS.
CLAMP FOR ROUTING MACHINES.

(Application filed Mar. 12, 1900.)

(No Model.)

Fig. 1

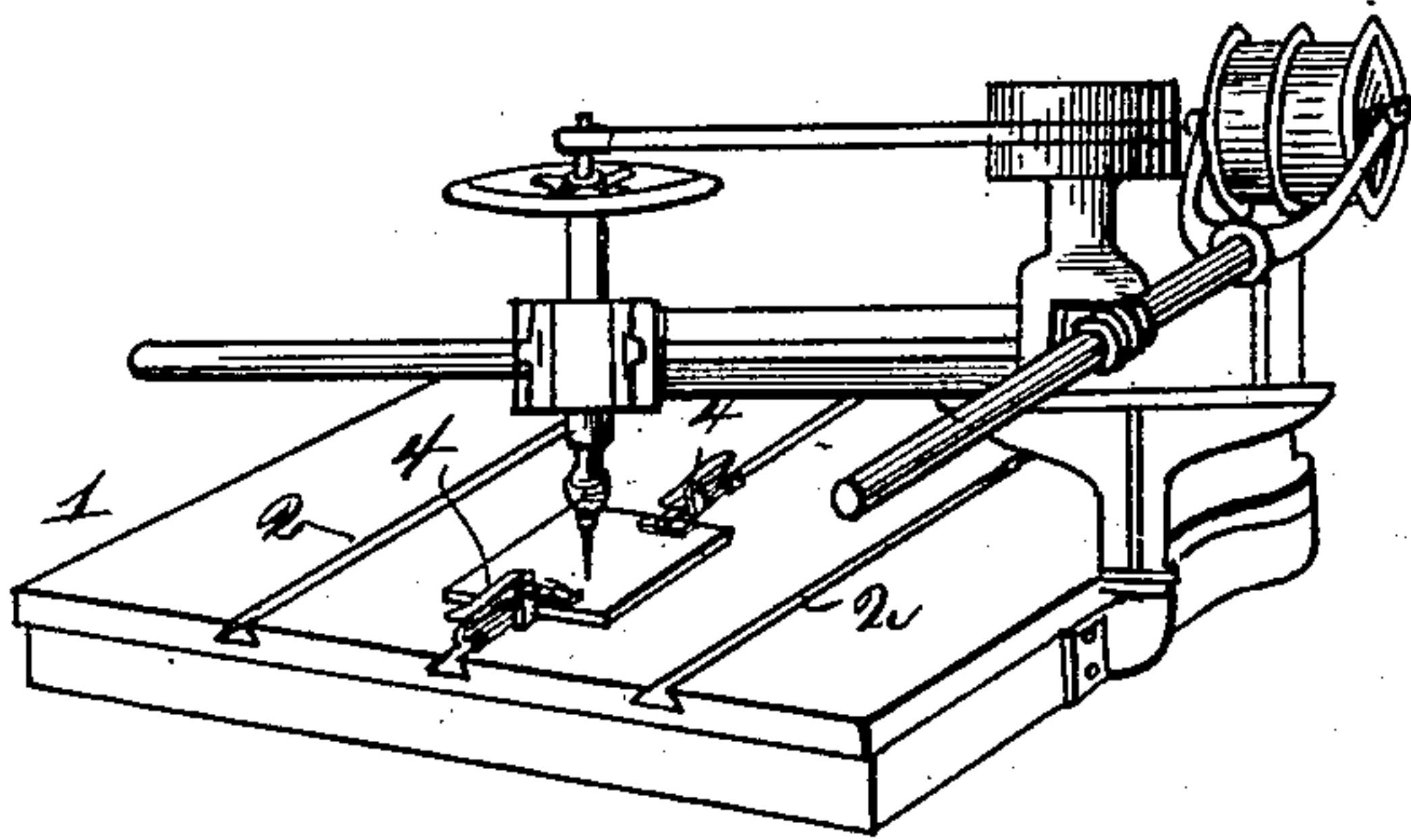
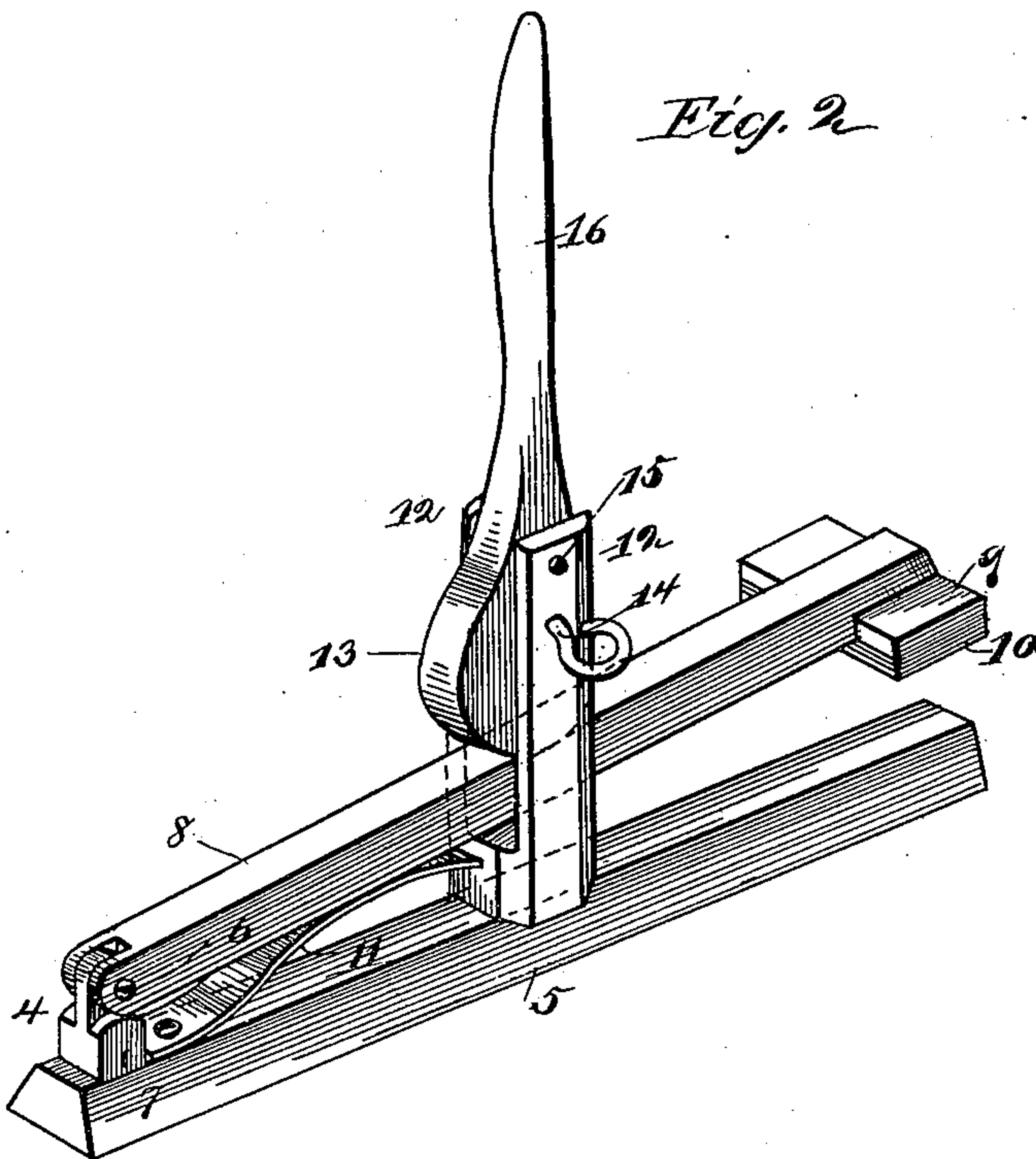


Fig. 2



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UNITED STATES PATENT OFFICE.

HARVEY W. WALTERS, OF NORWALK, OHIO.

CLAMP FOR ROUTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 666,631, dated January 22, 1901.

Application filed March 12, 1900. Serial No. 8,422. (No model.)

To all whom it may concern:

Be it known that I, HARVEY W. WALTERS, a citizen of the United States, and a resident of Norwalk, county of Huron, State of Ohio, have invented certain new and useful Improvements in Clamps for Routing-Machines, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in clamps for securing work upon the table of a routing-machine, in which the table is provided with dovetail channels in which the clamps are movably placed.

My invention consists in a clamp having the detail of construction and arrangement of parts as hereinafter described and shown in the accompanying drawings and specifically pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of a routing-table, upon which an engraved or otherwise-prepared plate is secured by means of my improved clamp. Fig. 2 is a perspective view in detail of the clamp.

In the views, 1 represents the table of a routing-machine shown in dotted lines. 2 represents the dovetail channels therein. 3 is the plate, and 4 the clamps, which move longitudinally in the dovetail grooves. In Fig. 2 the clamps 4 are seen to consist of a base-plate 5, inclined at the sides to fit the dovetail grooves. Pivoted at 6 upon a post 7, which is secured to this base, is a longitudinal bar 8, provided at its front extremity with a short cross-piece 9, to which is secured a soft pad or clamping-plate 10. A spring 11 is adapted to throw up this bar, which moves between the vertical guides 12. In order to bring down the bar into close contact with the engraved plate and lock it rigidly in position, so that it will not move while under the routing-tool, the cam 13 is pivoted at 14 between said guides and is provided with a handle 16, so that it can be brought down against the bar 8 in the position shown in dotted lines in Fig. 2, and thus force down the bar and lock it in that position. A strong grip is thereby obtained between the base-plate 5 and the dovetail sides of the grooves 2 and the clamp-bar 9.

Heretofore clamping devices for this purpose have been provided with clamp-screws having sharp or knife-edged points to grip the engraved plate. This, however, is inconvenient, since the points of the screws become dull and the clamps will back away from the plates before they grip them securely. Another disadvantage is found in the fact that the set-screw points must be placed upon the metal of the engraved plate where it must be routed, since they cannot be placed upon the delicate surface where the plate has been engraved without destroying it. Hence these clamps have to be moved to other places several times before the plate can be routed completely. With this device, however, the plate is clamped by vertical pressure, and the soft pad 10, attached to the clamp-bar 9, may rest anywhere upon the engraved portion of the plates without injury to them.

Since at times it is necessary to rout the surface of blocks of the thickness of type-metal or mounted plates, a second pivotal opening is made in the guides 12 at 15, and the cam is mounted upon the pin 14, placed therein.

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

In combination with a table provided with dovetail grooves, a base portion provided with a dovetail slide, a post at one end thereof and vertical guides at the other end, a longitudinal bar pivoted in said post and moving in said guides, a clamping-plate and pad at the outer end of said bar, located above said base portion, a spring underneath said bar, and a cam mounted between said guides, above said bar, whereby direct pressure can be obtained between the slide and clamping-plate substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARVEY W. WALTERS.

Witnesses:

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