

C. S. GRIFFIN & J. W. WILKINS.

Improvement in Dovetailing-Machines.

No. 116,178.

Patented June 20, 1871.

Fig. 3.

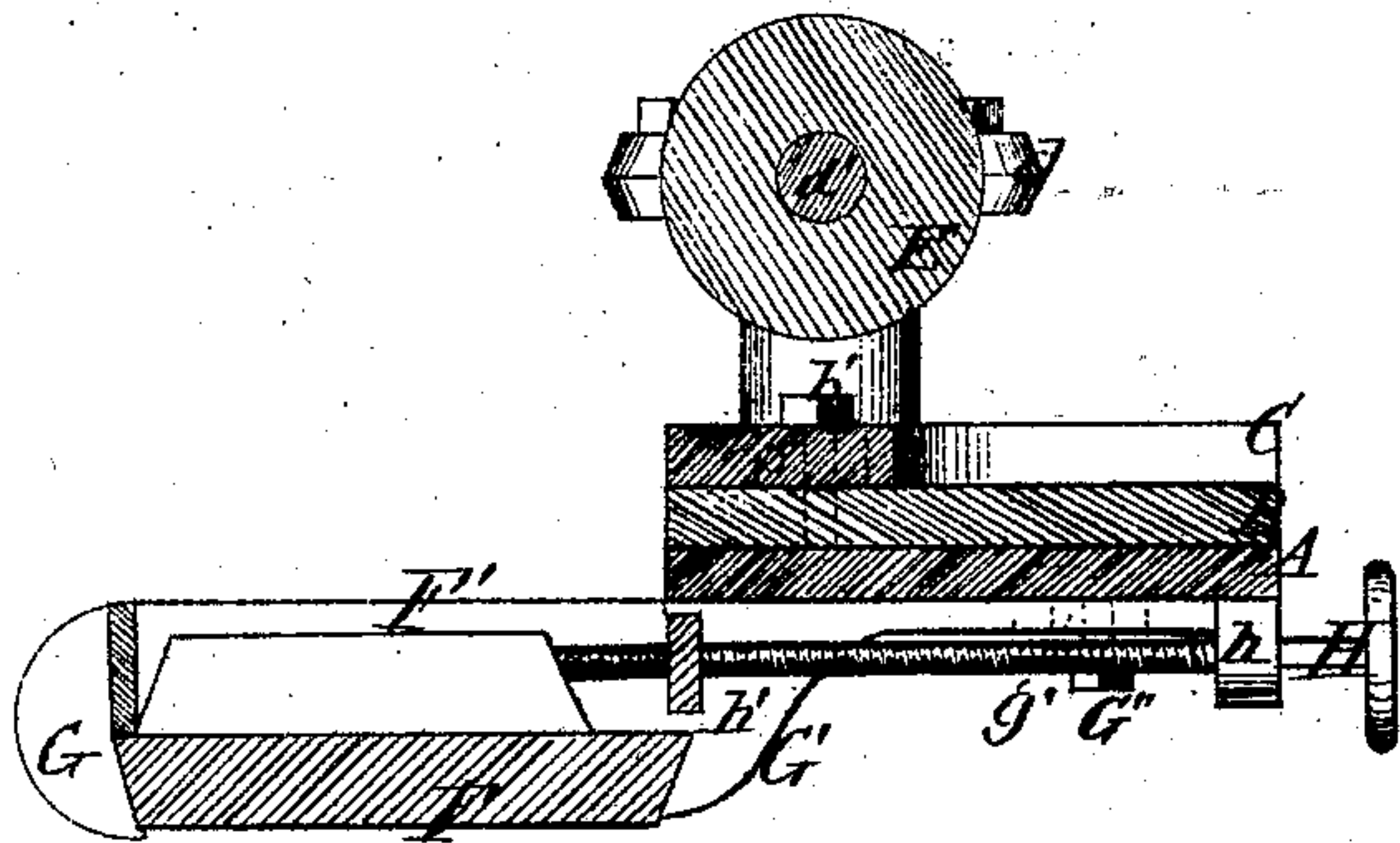


Fig. 4.

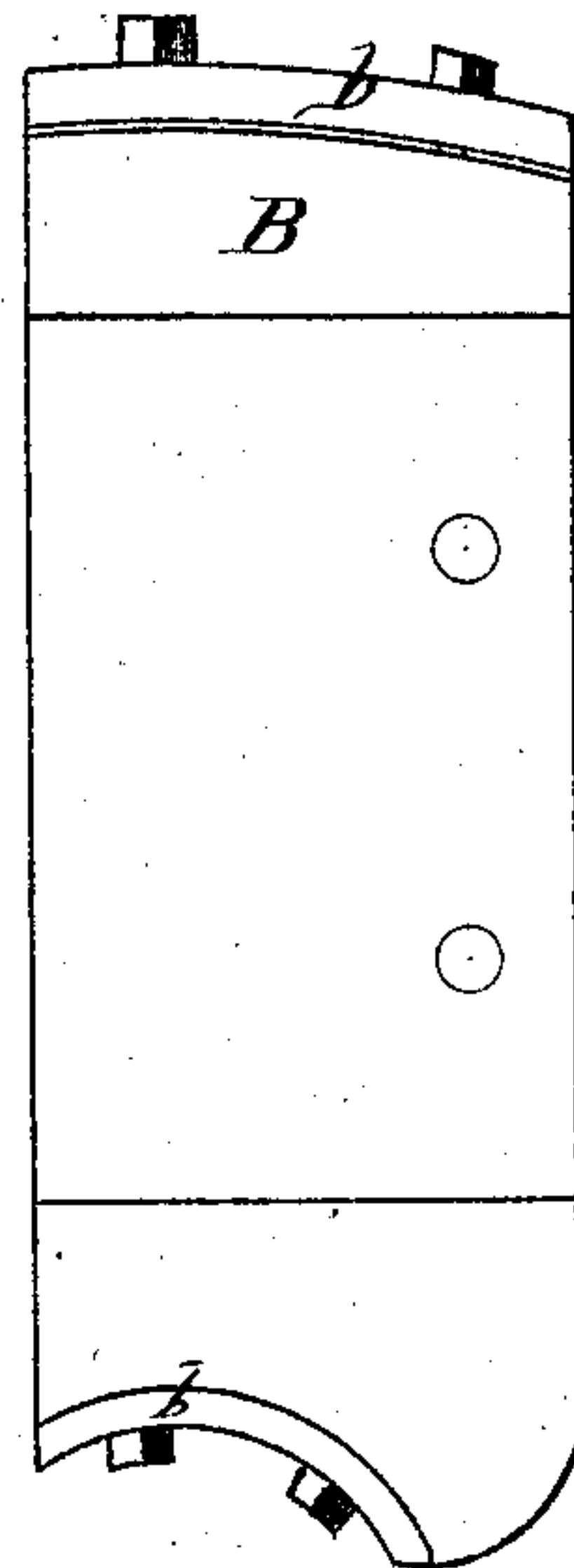


Fig. 5.

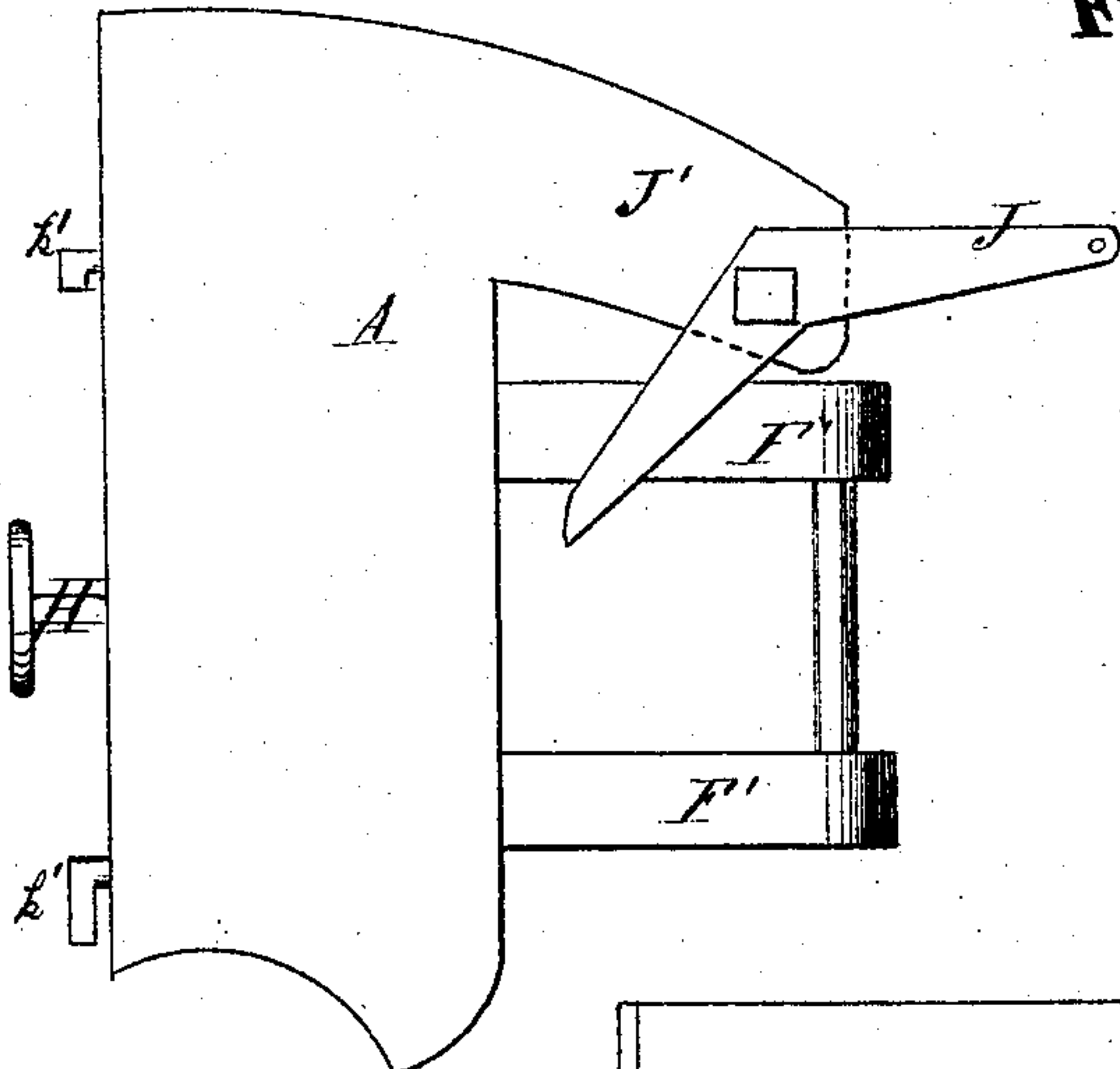
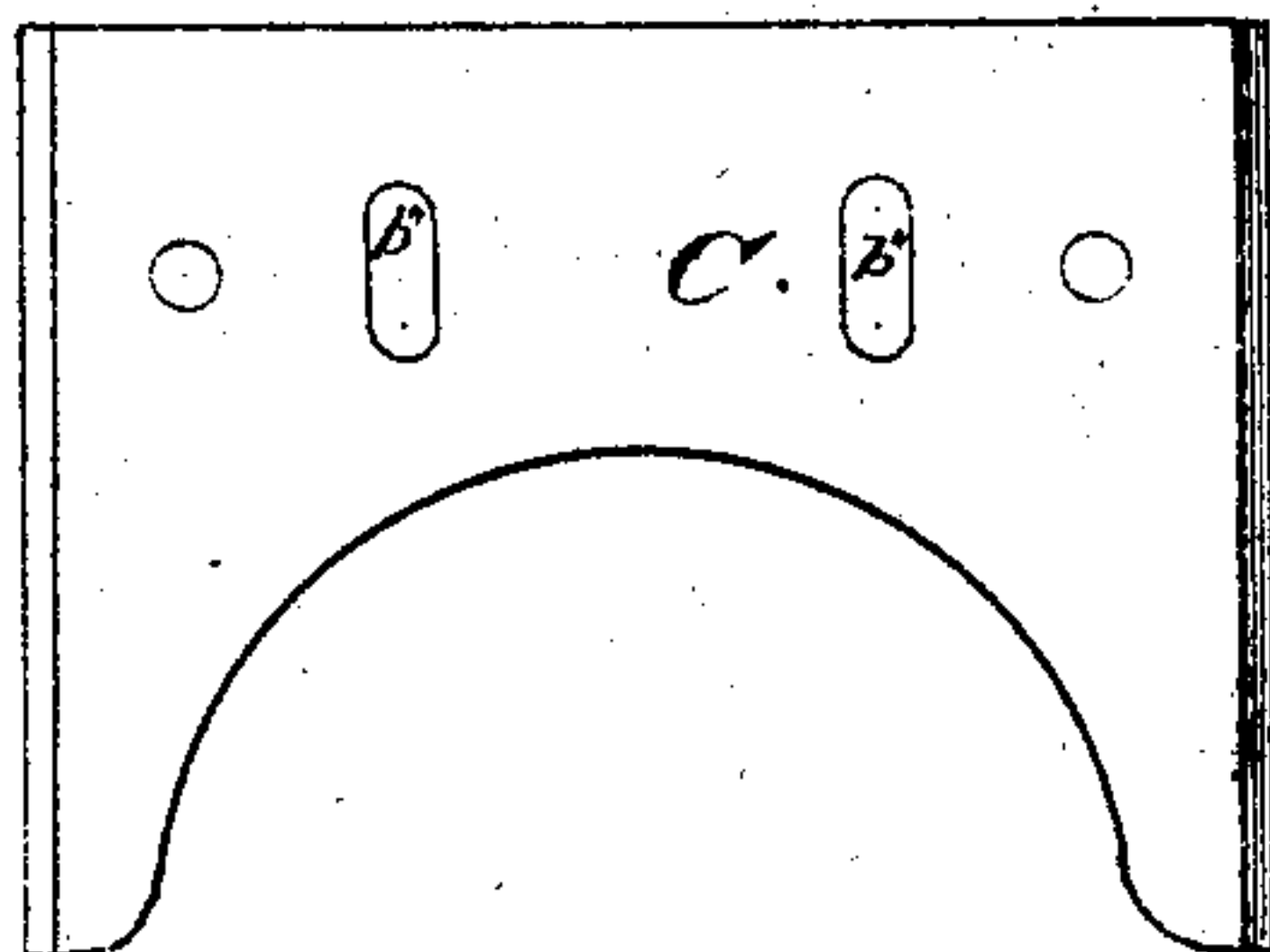


Fig. 6.



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UNITED STATES PATENT OFFICE.

CRAWFORD STAPLES GRIFFIN AND JOSIAH WELLS WILKINS, OF CHELSEA, MAINE.

IMPROVEMENT IN DOVETAILING-MACHINES.

Specification forming part of Letters Patent No. 116,178, dated June 20, 1871.

To all whom it may concern:

Be it known that we, CRAWFORD STAPLES GRIFFIN and JOSIAH WELLS WILKINS, of Chelsea, in the county of Waldo and State of Maine, have invented a new and valuable Improvement in Dovetailing-Machines; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters of reference marked thereon.

Figure 1 of the drawing is a front view of our invention. Fig. 2 is a vertical section of the same. Fig. 3 is a horizontal section thereof. Fig. 4 is a face view of detached turning plate. Fig. 5 is a face view of detached back plate. Fig. 6 is a face view of detached top plate. Fig. 7 is a sectional view of devices for attaching the saw.

This invention has relation to certain improvements in dovetailing-machines, designed for use in connection with tenoning-machines. The object in view is to render the adjustment of the machine more perfect, and otherwise adapt it more fully to its proper purpose.

The invention in question may be considered as an improvement on the dovetailing-machine for which Letters Patent bearing date November 8, 1870, were granted to us.

In the accompanying drawing illustrating this invention, A represents the main plate, on which the turning plate B turns as on a pivot, the latter being provided with curved guiding-flanges *b*, fitting to the curved ends of the main plate. C is a dovetailed plate, fitting in a dovetailed recess in the face of the plate B, where it is secured by screws *b'* passing through slots *b''*, formed in plate C, into plate B. To the plate C are attached the standards D, supporting, in boxes *d*, the saw-shaft *d'*, on the lower end of which is the saw E, and between the boxes *d* the belt-pulley E', all as represented clearly in Figs. 1 and 2 of the drawing. By means of the plate C the saw may be adjusted laterally. F denotes a vertical standard or plate, with dovetailed edges, and F F' a pair of horizontal parallel arms, with lugs G G', dovetailed on their inner sides to correspond with the edges of the plate F, upon which they fit, and serving as a means of vertical adjustment to the plate A and at-

tachments. These arms are connected together by vertical pieces, and are beveled on their upper and lower edges, respectively, so as to fit in a dovetailed chamber formed in the back plate A, and allow the latter to have a lateral adjustment thereon. To secure said plate in any proper position screws G'' are provided; they pass through slots *g'* and into the plate B. H indicates an adjusting screw-shaft, having its fixed bearing in a bracket, *h*, projecting from the plate A, and its movable bearing in the connecting-piece *h'* of the horizontal arms F', so that when turned horizontal lateral motion will be given to the plate A. I indicates a vertical adjusting screw-shaft, which passes through a bracket, *i*, on top of the plate F, and also through one or both the lugs G', in which it should have its screw or movable bearing, so that, when turned, it will operate to raise or lower the horizontal arms F' and their connections. J represents an elbow-lever, pivoted to the laterally-projecting wing J' of the plate A, and connected to the trip-gear of a tenoning-machine. Through the medium of this lever, when its outer end is drawn down, the turning plate B is thrown up into a vertical position, so as to cause the saw to make the first or straight cut of the dovetail. The lever is then released and the turn plate allowed or caused to fall back, in order to give the proper angle to the saw for making the beveled cut of the dovetail.

For the purpose of cutting a parallel-sided kerf the saw must be kept horizontal, and vertical and horizontal adjustment only resorted to. With this object in view, a button, *k*, is inserted in the outer edge of the plate B, so that when turned with the head downward it will overlap the outer edge of the plate A, and in this way prevent the turning back of the plate B. A like provision is made to keep the plate B from moving outward past the edge of the plate A, the buttons *k'* being attached to the latter and arranged to overlap the former plate.

Referring to the saw E, it will be seen that there are secured to the arbor *d'* a nut, *e*, above, and one, *e'*, below said saw, so that it may be more readily adjusted, and that a washer or nut, *e''*, is arranged between the saw and the arbor for the purpose of preventing the wear of the latter.

The whole apparatus, as herein described, is to be attached to the back part of a tenoning-machine.

Having thus fully described our invention, we claim—

1. In a dovetailing-machine, the back plate, A, upon which is supported the turning plate B, in combination with the standard F, when constructed substantially as and for the purpose specified.

2. The arms F', in combination with the standard F and back plate A, constructed substantially as and for the purpose set forth.

3. The combination of the screw-shafts H and I, arms F', standard F, and plates A and B, constructed substantially as and for the purposes specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

CRAWFORD STAPLES GRIFFIN.

JOSIAH WELLS WILKINS.

Witnesses:

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