

(Model.)

F. W. FRENCH.

DEVICE FOR SETTING FLOOR BOARDS.

No. 321,353.

Patented June 30, 1885.

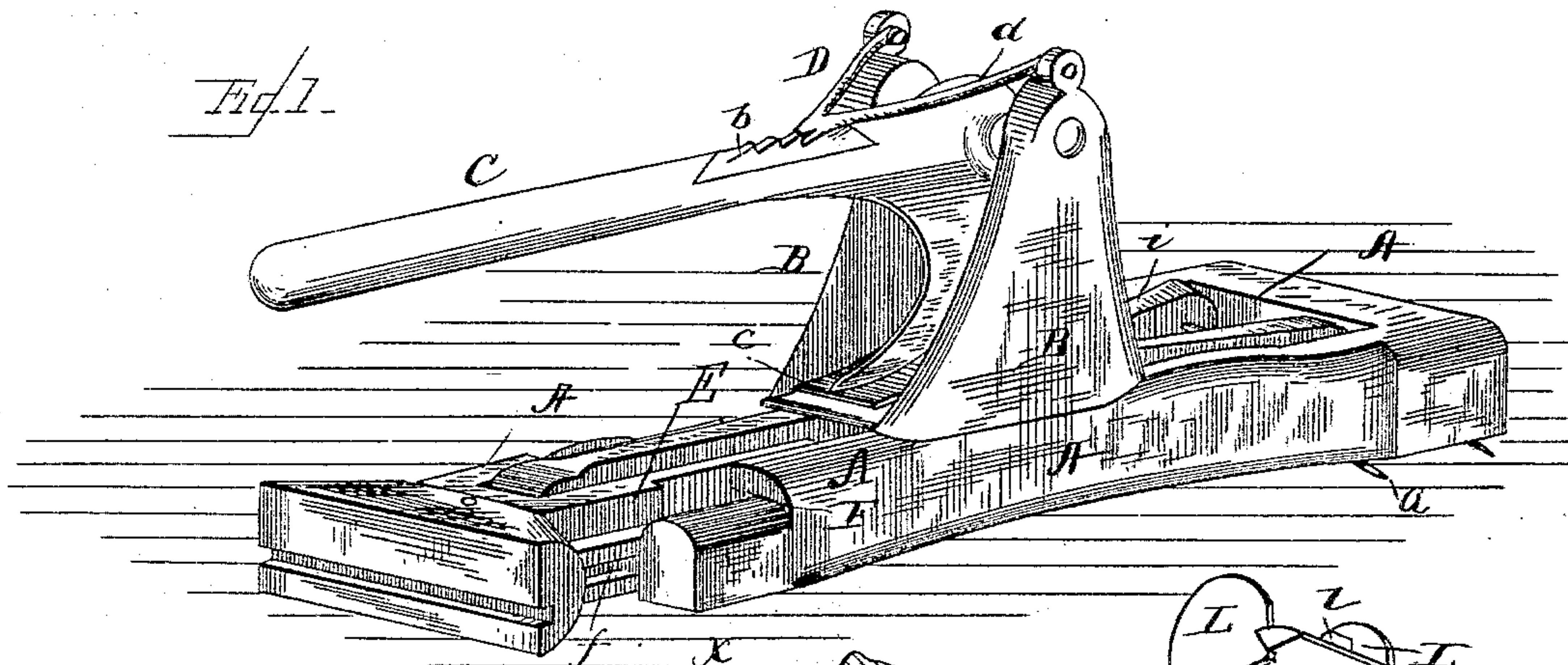


Fig. 4.

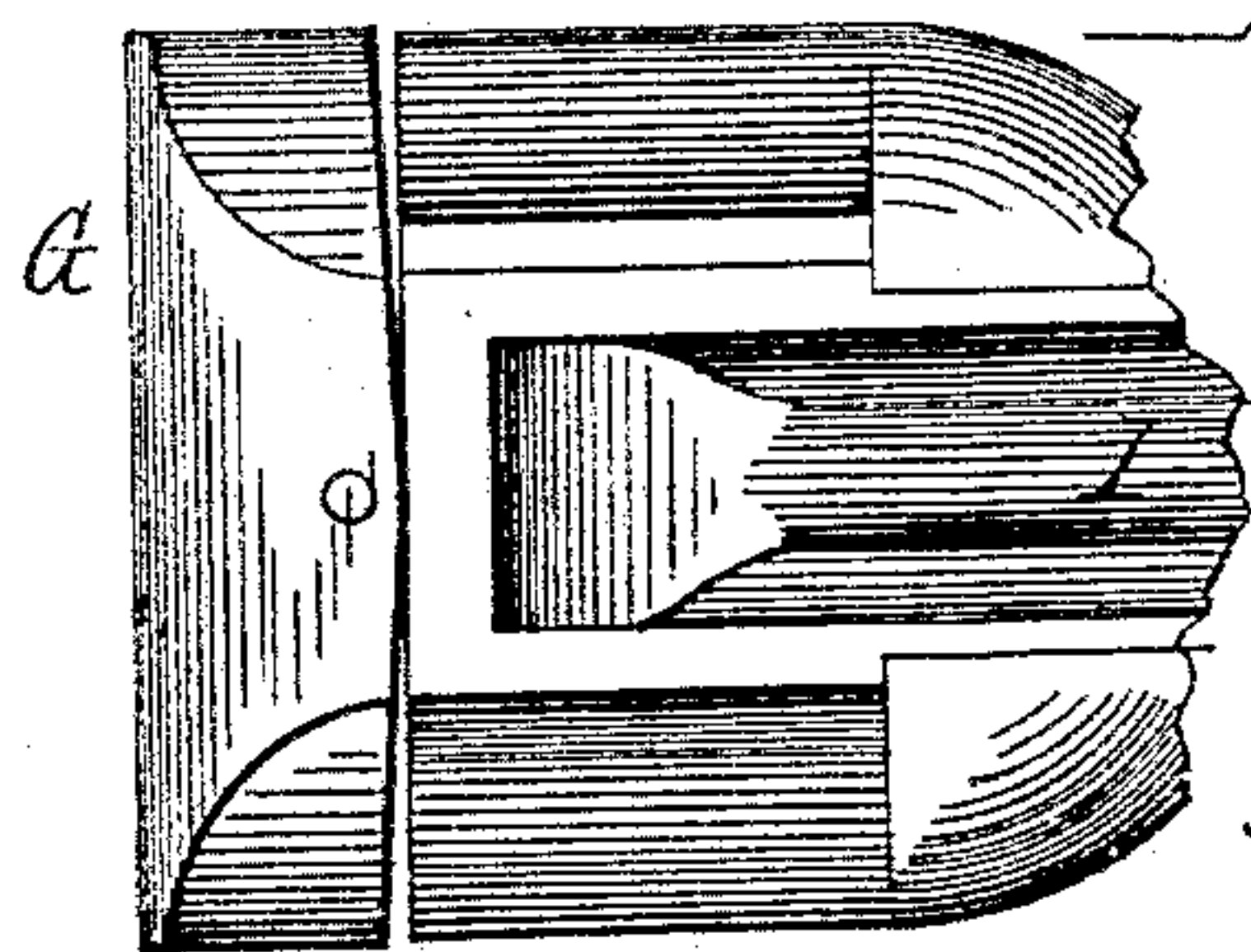


Fig. 2.

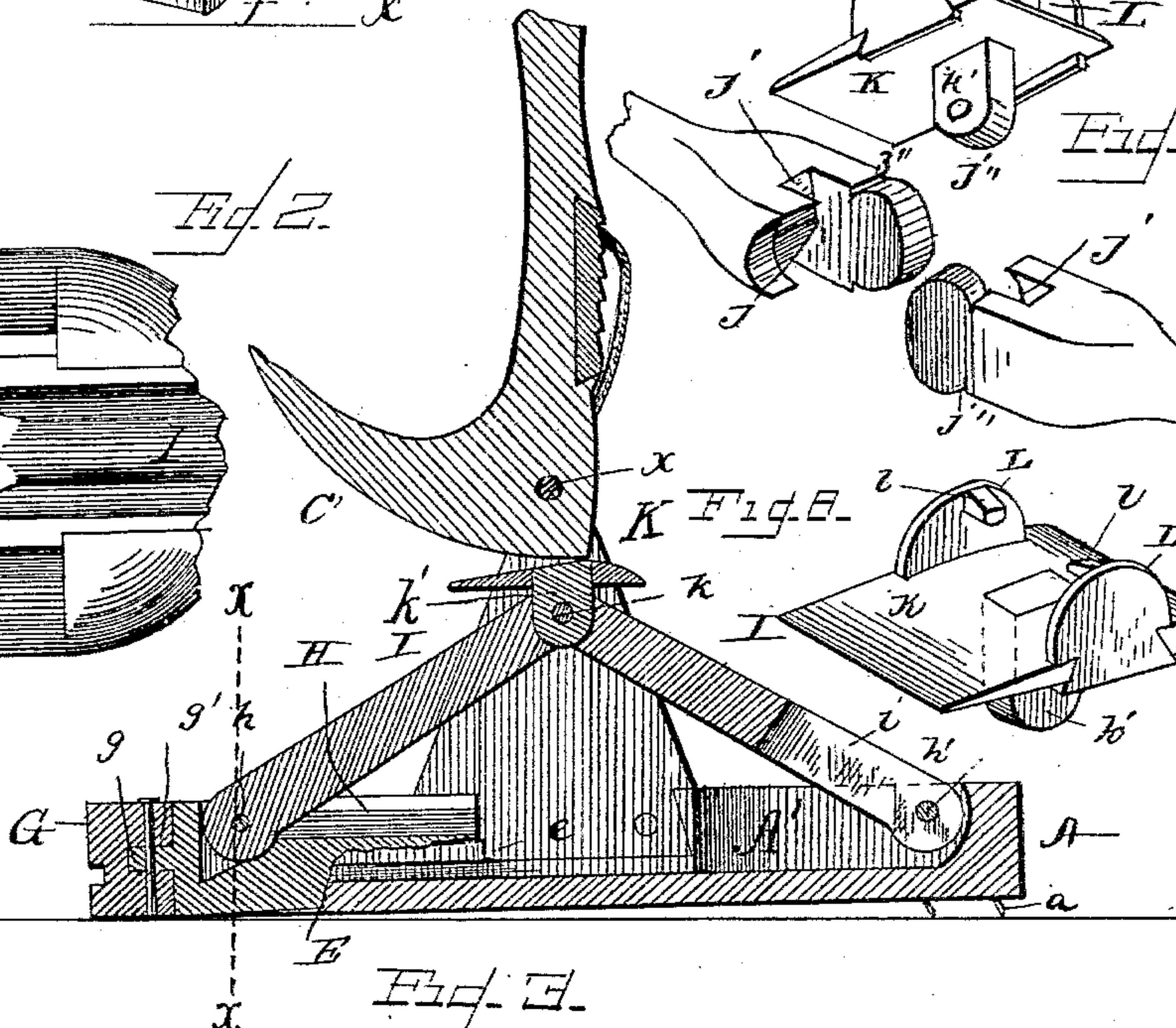


Fig. 5.

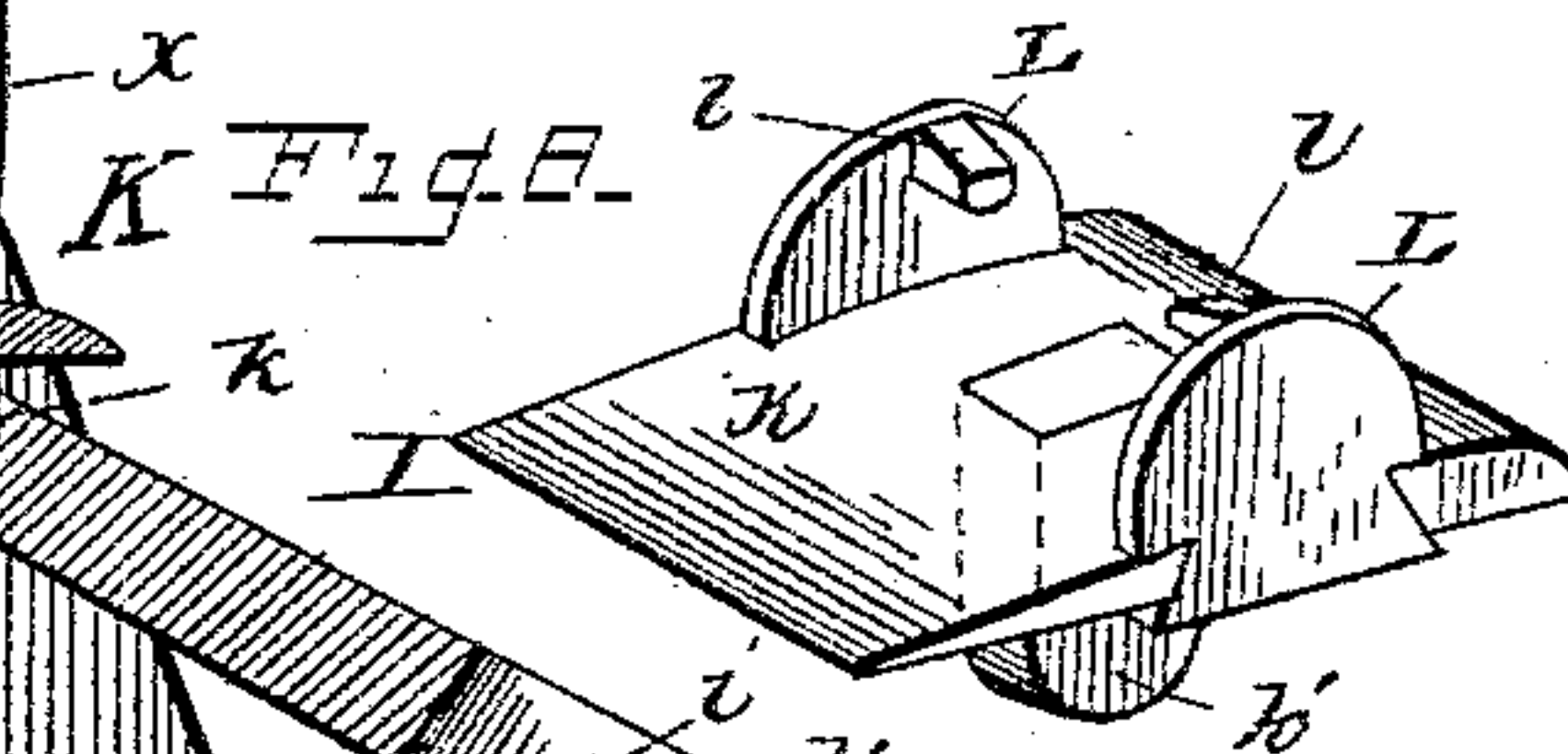
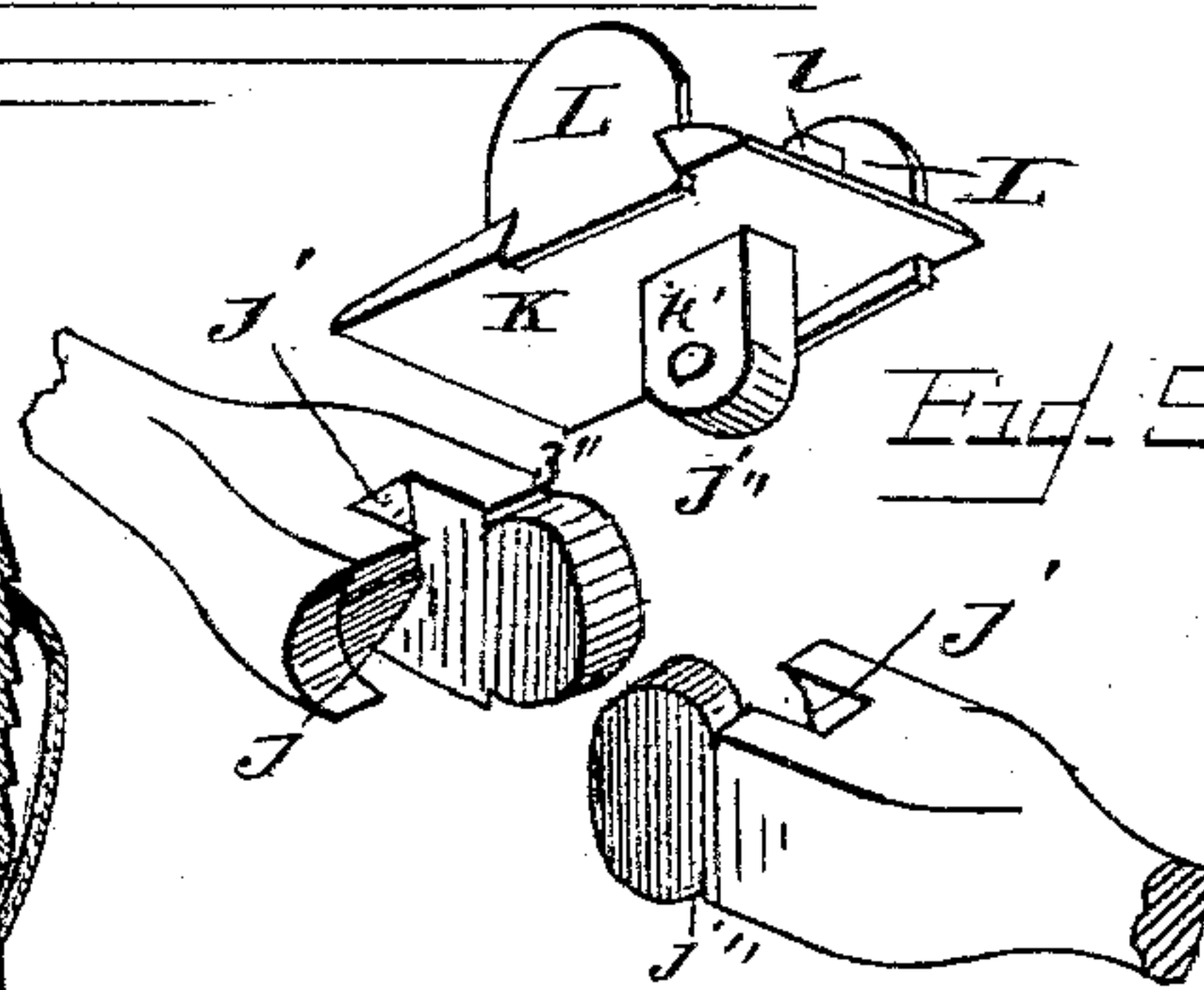


Fig. 6-1.

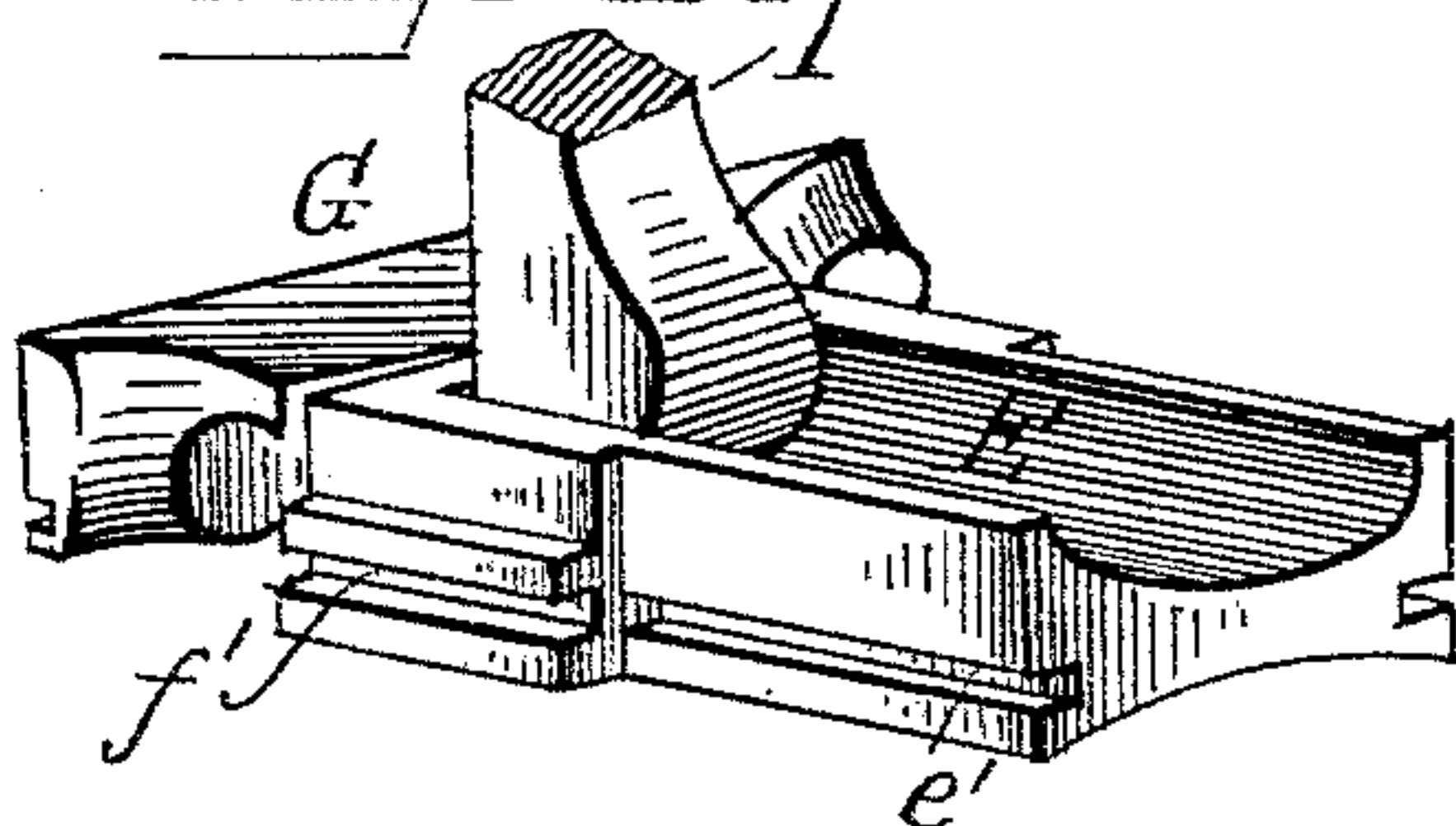
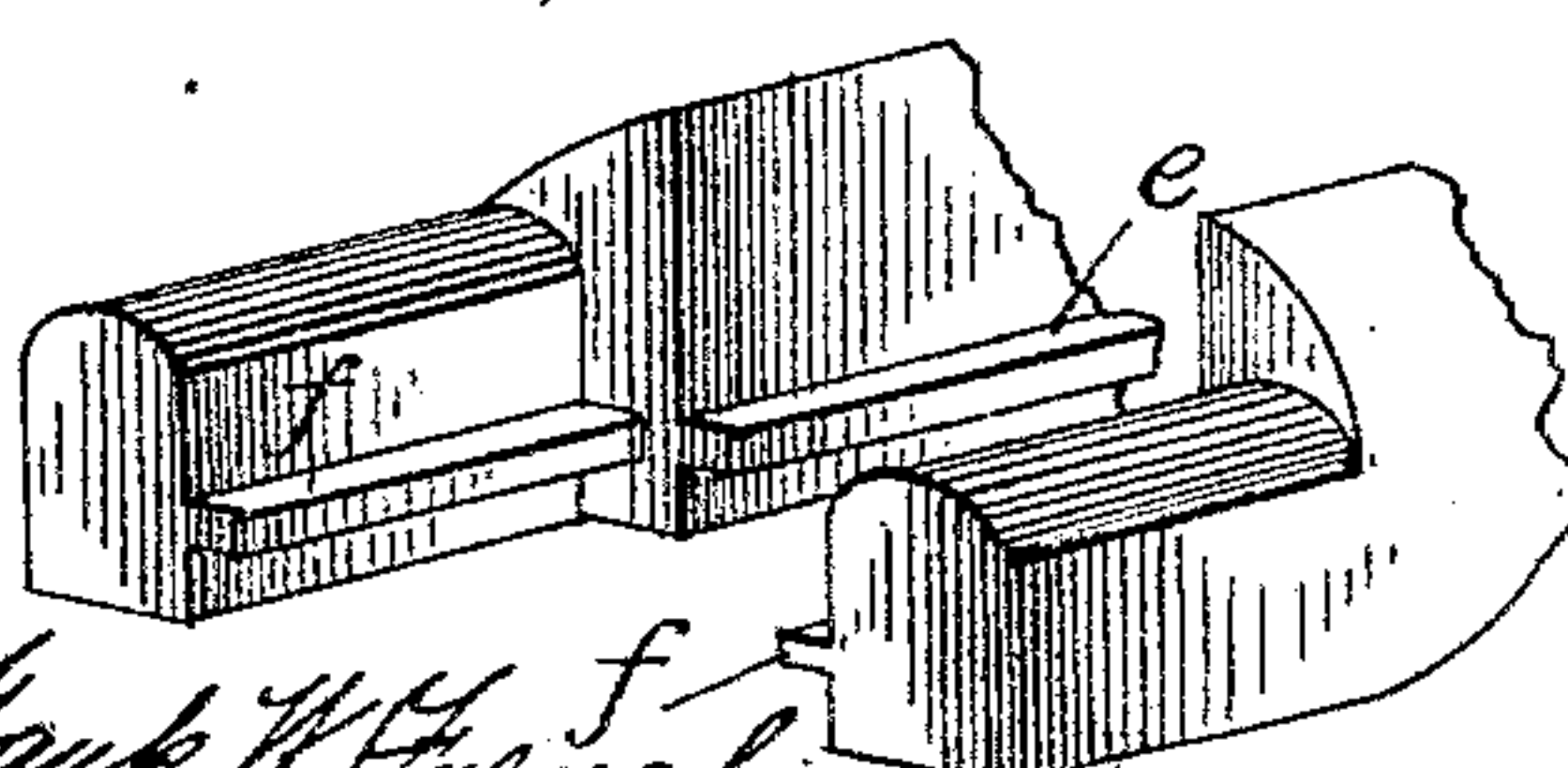


Fig. 7.



WITNESSES
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FRANK W. FRENCH, OF ABBOT, MAINE.

DEVICE FOR SETTING FLOOR-BOARDS.

SPECIFICATION forming part of Letters Patent No. 321,353, dated June 30, 1885.

Application filed December 3, 1884. (Model.)

To all whom it may concern:

Be it known that I, FRANK W. FRENCH, a citizen of the United States, residing at Abbot village, in the county of Piscataquis and State of Maine, have invented certain new and useful Improvements in Devices for Setting Floor-Boards; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved device for setting floor-boards or forcing them against each other prior to nailing; and to this end my invention consists in an implement the construction of which will be hereinafter fully set forth, and is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the floor-board clamp embodying my improvement. Fig. 2 is a central longitudinal sectional view. Fig. 3 is a sectional view on the line X X of Fig. 2, the operating-lever being represented in a different position. Figs. 4, 5, and 6 are detailed views; and Fig. 7 is a perspective view illustrating the front of the base. Fig. 8 is a detailed perspective view of a plate supported upon the toggle-lever.

A represents the main bed-plate, which is provided with a flat under surface, one end of which has inclined pins *a* attached thereto. The upper surface of this frame is recessed throughout its entire length, as shown at A', the recess being enlarged at one end for the reception of the bifurcated end of a link of the toggle-joint, the edges of the balance of the recess being parallel with each other. To the central portion of the base A, on opposite sides of the recess, are secured two uprights or standards, B B, at the upper end of which is pivoted a cam-lever, C, the curved portion C' of this lever having side flanges, *c*, between which the body portion of the lever projects. This lever is provided on its upper edge with a serrated plate, *b*, with which engages a pawl, D, having members *d d*, which are pivoted to the extreme upper ends of the standards B B.

A sliding block, E, having grooved edges, is secured within the recess A' at the end A' of the base; and said base, near its lower por-

tion, is provided with tongues *e*, which lie within recesses *e'* in the block E, and also with tongues *f*, which lie within the recesses *f'*, the tongues and grooves being on the same horizontal line with each other, and providing a bearing the whole length of the sliding block, and permitting the formation of a shoulder, F, which acts as a stop for the sliding block when it is slid within the base A. The sliding block E, at its end, is provided with a projecting portion, *g*, which fits within a recess, *g'*, in the end block, G, which end block is provided with a transverse groove which will fit over the tongue of the floor-board, so as to allow the same to be pressed into place without bruising or breaking said tongue. The rear portion of this block G is curved, as shown in Fig. 1, and is secured to the sliding block E by a vertical pin, so that it will adjust itself and insure a direct movement when the base A is placed otherwise than exactly at right angles to the floor-board. The upper portion of the block E is provided with a longitudinal recess, H, within which is secured, by means of a transverse pin, *h*, the link I, the opposite link, I', being secured to the base A by a transverse pin, *h'*, which passes through each member *i i* of said link. The links I I' together form a toggle-joint. The upper portion of the links I I' are similarly constructed, each having a central recess, *j*, on one side of which is a socket, *j'*, and opposite thereto a circular bearing portion, *j''*, which fits within said socket. This bearing portion *j''* has formed on its upper portion a stop, *i'*, against which the upper portion of the socket will abut when the links I I' are brought on a line with each other; and a stop, *i''*, is also formed on the lower portion to prevent undue vertical play of the links. The links I I' are secured to each other by a pin, *k*, which pin passes through a projecting portion, *k'*, which depends from the plate K, which plate is curved longitudinally, as shown in Fig. 2, the greater portion of said plate being to one side of the projecting portion *k'*. Opposite this projecting portion *k'* the plate K is provided with two upwardly-projecting members, L, having at their upper ends inwardly-projecting lugs *l*, which engage with

the upper edge of the foot C' of the lever. These members L L also depend below the plate K, so as to prevent any lateral movement of the same upon the toggle-joint.

5 The operation of my invention is as follows:

The base A is secured near and at right angles with the board which it is desired to force in place prior to nailing, the pins *a a* holding the same in place. The lever is then raised and the block G placed against the board. The lever is then depressed, so as to force the sliding block outwardly, and when sufficient pressure has been exerted upon the board to bring the same snugly in place the lever will be held at such a point by the pawl which engages with the serrated portion of the lever, and the board will be held in place while it is being nailed. When the lever is raised, it will carry with it the links I I', and thus retract the sliding block.

20 I claim—

1. The combination, in a device for tightening floor-boards, of a base and block located therein and adapted to play horizontally relative thereto, a toggle-joint having its members respectively pivoted to the sliding block and brace, a platform or plate pivotally connected to the toggle-joint at its central pivotal connection, and a lever suitably pivoted and

provided with a cam-head adapted to contact with said plate and depress the same, and flanges located on said plate and engaging the edges or sides of the cam portion to guide the same and permit an upward movement thereof to elevate the toggle-joint, substantially as set forth. 30

2. The combination, in a device for tightening floor-boards, of a base recessed as described, a block located and guided to move horizontally in said recess, the toggle-joint having its members connected, respectively, to the base and to the block, the pivoted lever having a cam portion, as specified, a plate pivotally secured at the center of the toggle-joint, and having side flanges engaging the edges of the cam portion of the lever, and designed, when the cam portion is elevated, to effect the elevation of the toggle-joint, and a device for locking the said lever in its depressed position, substantially as set forth. 35 40 45

In testimony whereof I affix my signature in presence of two witnesses. 50

FRANK W. FRENCH.

Witnesses:

D. H. BUXTON,
H. H. TAYLOR.