

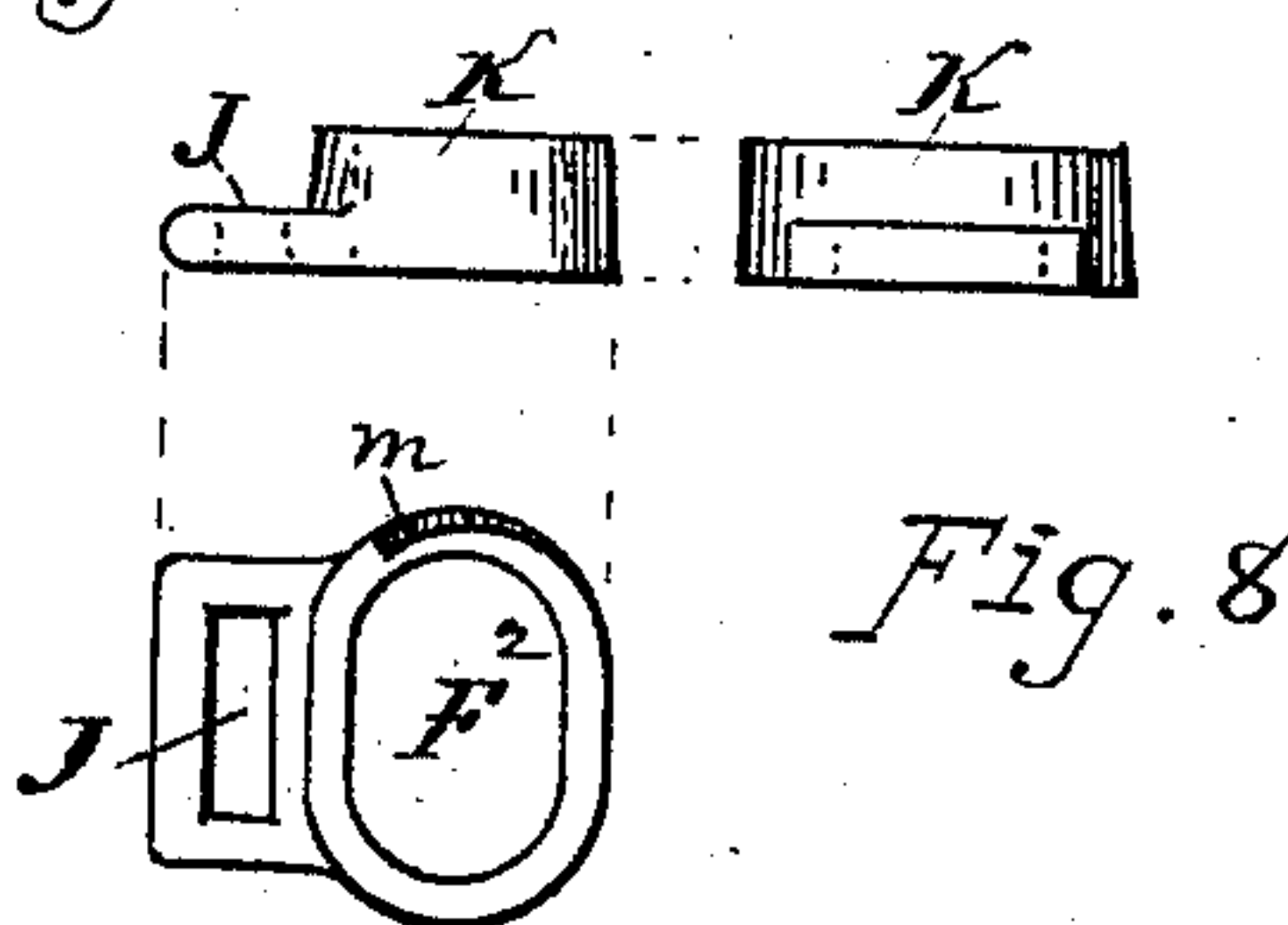
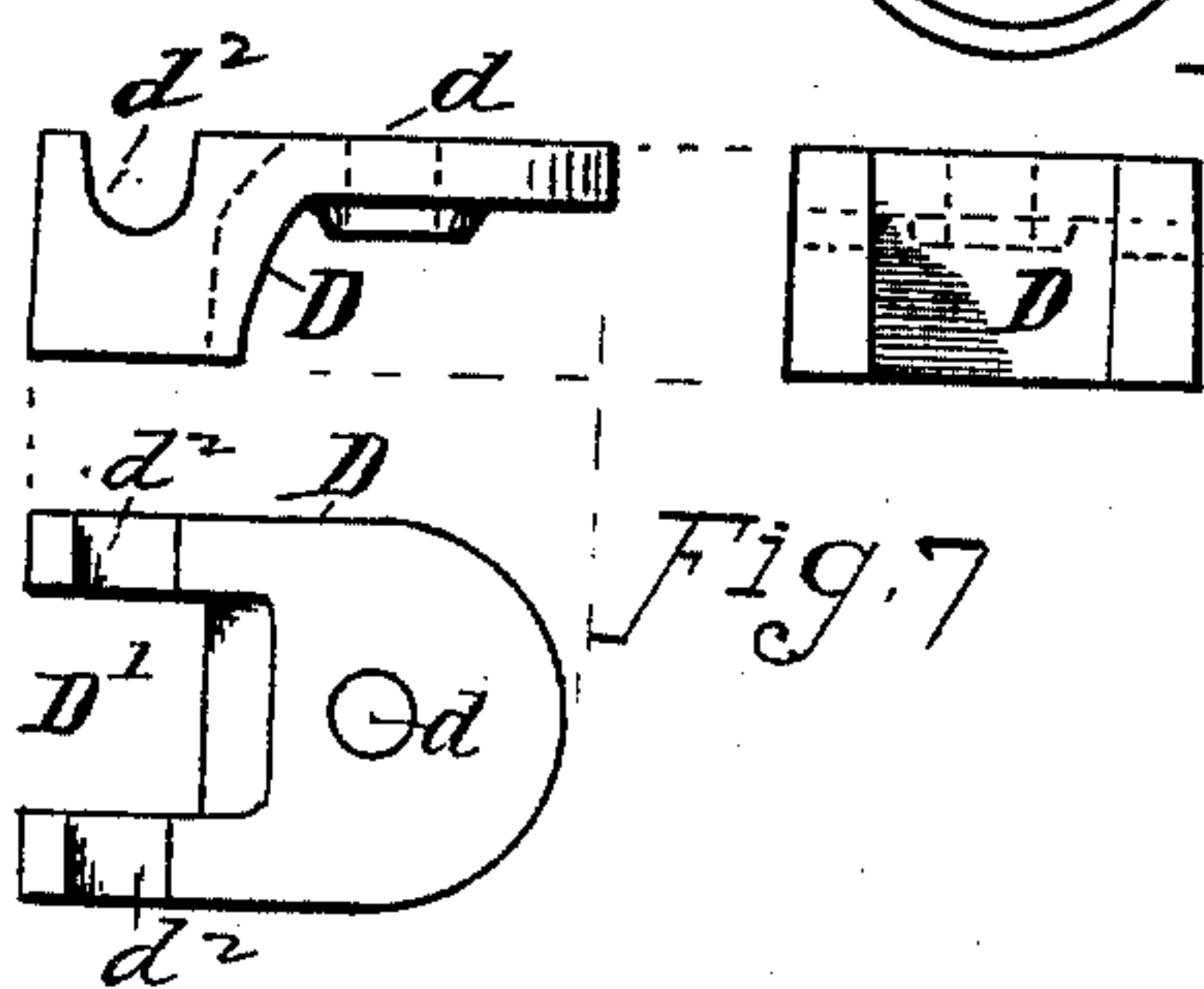
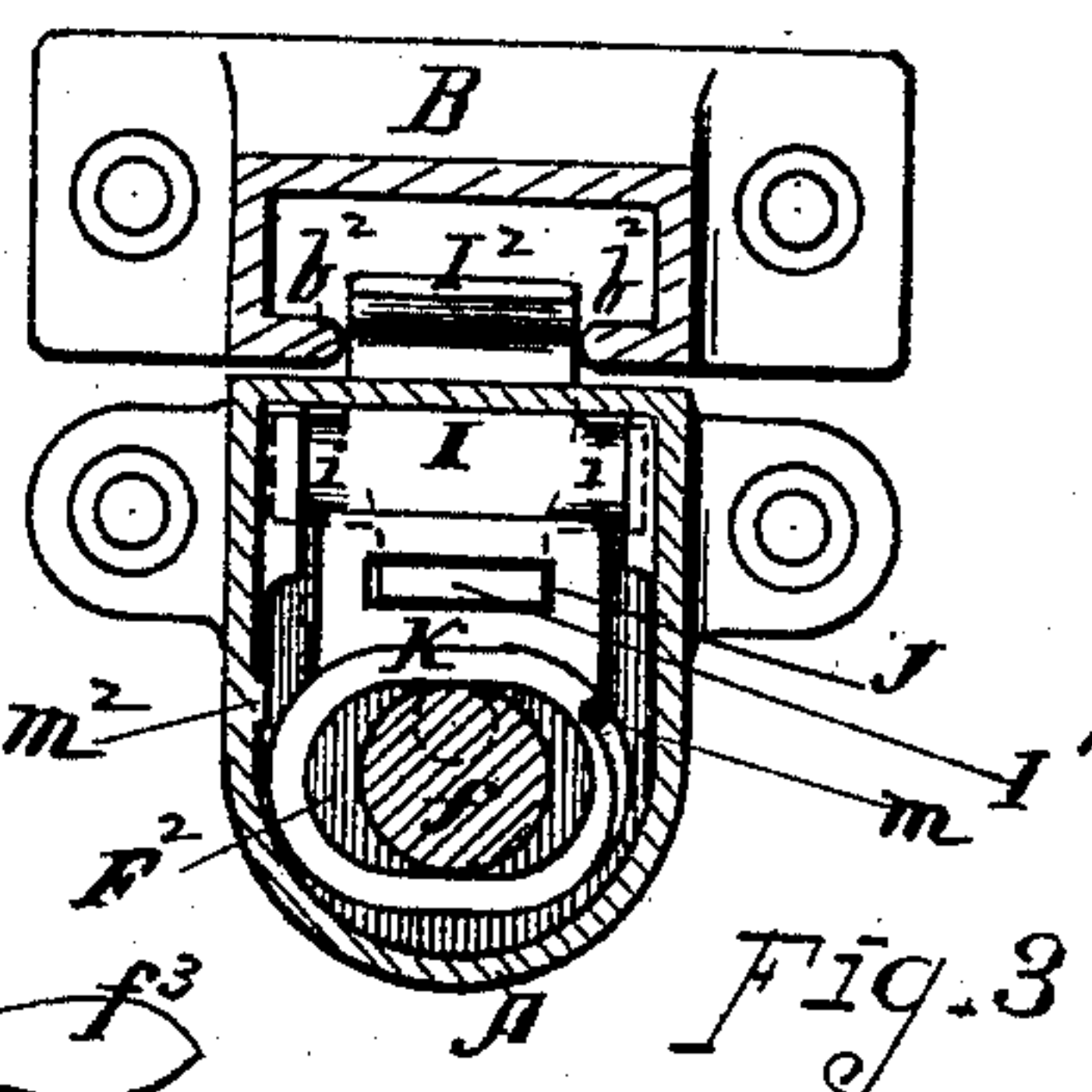
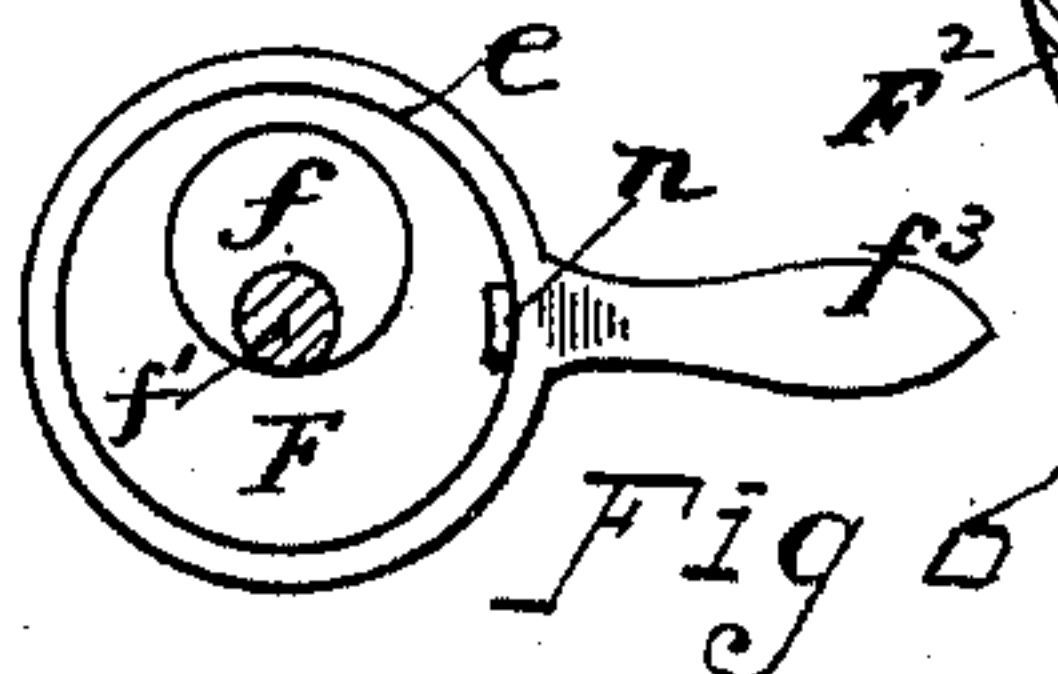
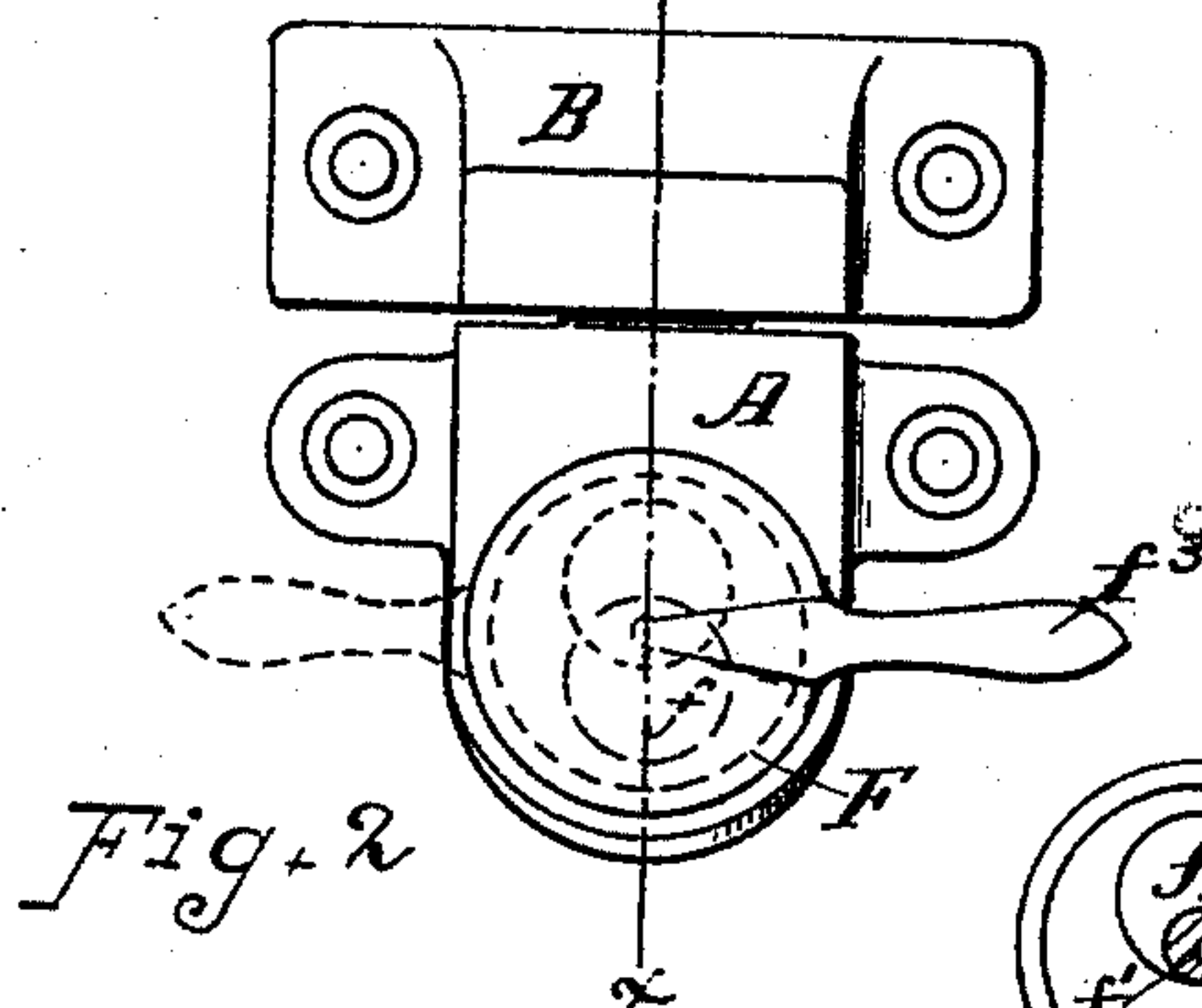
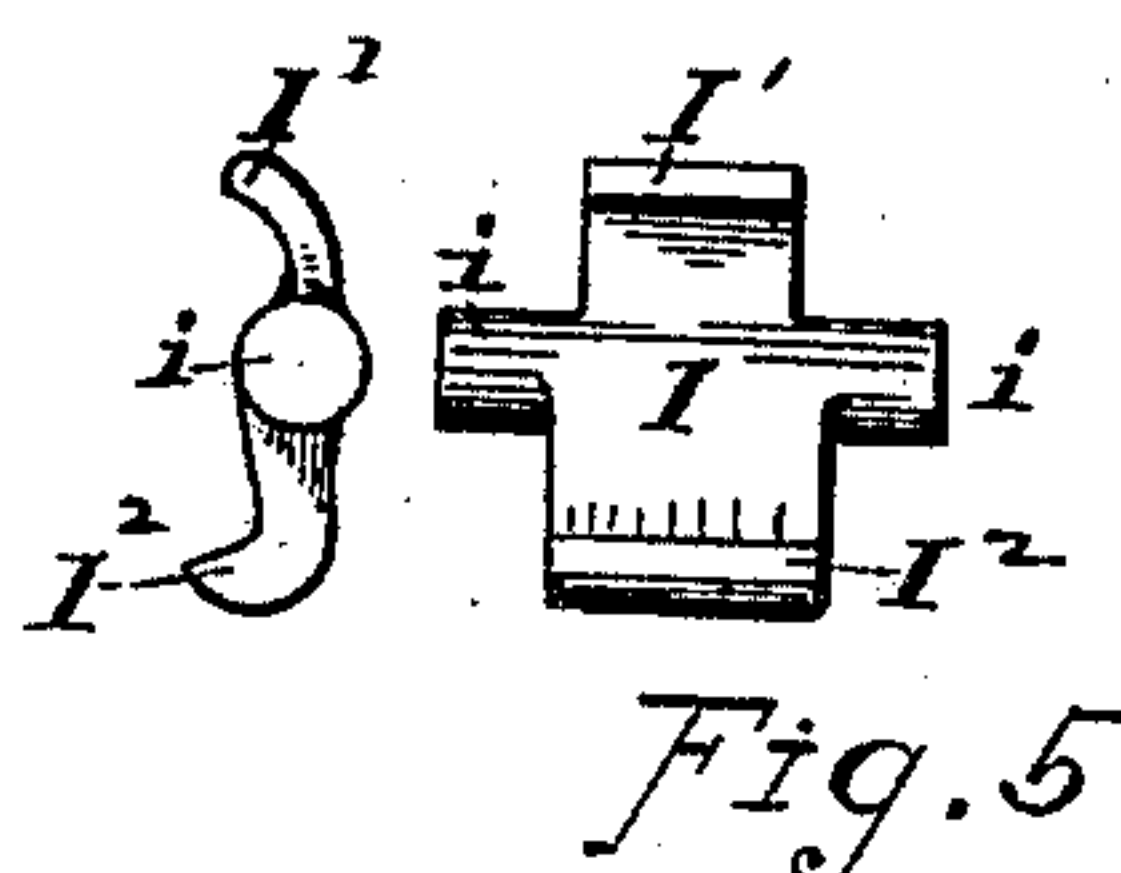
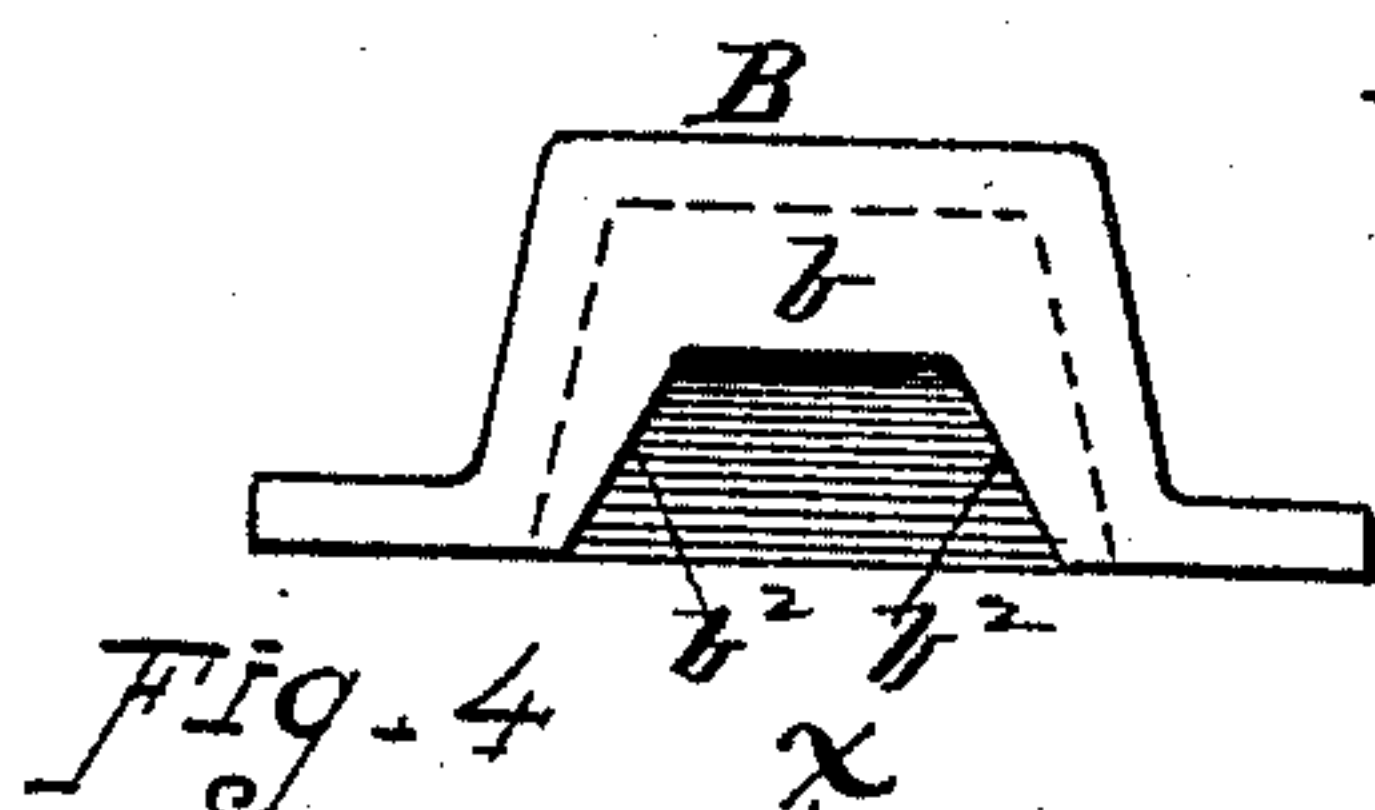
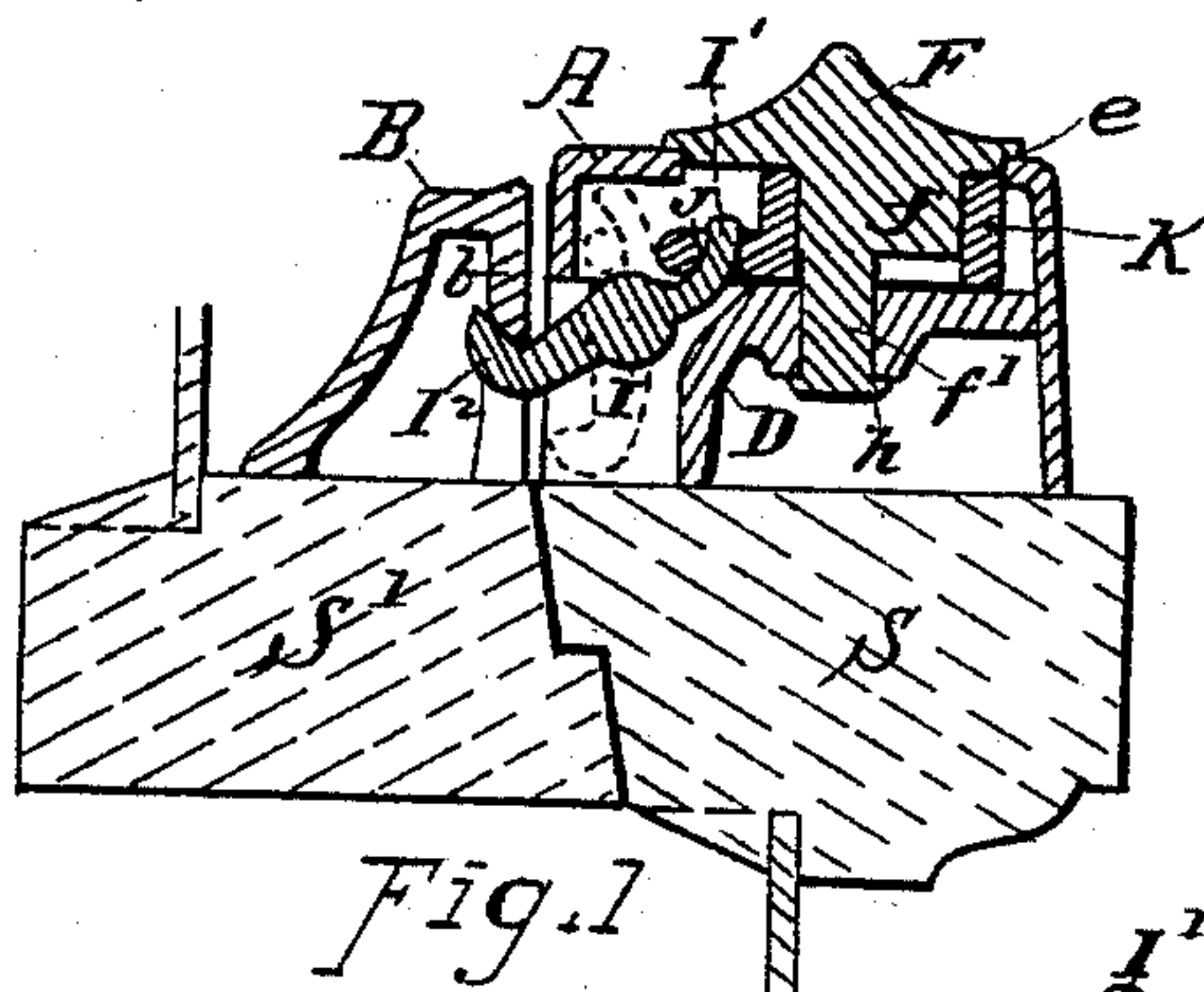
(No Model.)

O. K. PUTNAM.

FASTENER FOR THE MEETING RAILS OF SASHES.

No. 474,405.

Patented May 10, 1892.



WITNESSES.

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OLIVER K. PUTNAM, OF WORCESTER, MASSACHUSETTS.

FASTENER FOR THE MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 474,405, dated May 10, 1892.

Application filed August 28, 1891. Serial No. 403,928. (No model.)

To all whom it may concern:

Be it known that I, OLIVER K. PUTNAM, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Sash-Fastener, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons skilled in the art to which this invention appertains to make and use the same.

The object of this invention is to provide a fastening mechanism for the meeting-rails of window-sashes of simple, efficient, and improved construction, and in which the fastener is a lifting hook or lever pivoted in the bed or frame and having a curved arm that works through a horizontally-movable link or slide in combination with an eccentric for operating the same, whereby said hook can be operated with a powerful and easy action for lifting the outer sash, at the same time drawing the two parts of the sash together and securely holding the same; also, to provide a striker-plate in combination with said fastener that will automatically bring the sash to a laterally uniform position in relation to each other. These objects I attain by the mechanism illustrated in the accompanying drawings, wherein—

Figure 1 is a vertical section on line $x x$, Fig. 2, of my improved sash-fastener. Fig. 2 is a plan view. Fig. 3 is a horizontal sectional view. Fig. 4 shows the face of the striker-plate. Fig. 5 shows by side and end views the locking-dog, lever, or lifting-hook. Fig. 6 is a bottom view of the operating-plate and its eccentric. Fig. 7 shows in detail the form of the bed-block, and Fig. 8 shows in detail the form of the link or slide for connecting the eccentric and locking-lever.

The several parts of my improved sash-fastener are constructed and arranged for operation in the peculiar manner illustrated in the drawings.

Referring to said parts, A denotes the case for inclosing the mechanism. Said case is made to fit in horizontal position upon the top of the meeting-rail S of the lower sash, while the striker-plate B is made in the form indicated and fits adjacent thereto upon the bottom rail of the upper sash, said parts A

and B being provided with suitable attaching ears that are perforated for receiving the screws, by which they are attached to the sash in the usual manner.

D indicates a bed block or frame, preferably made, as shown in Fig. 7, with an opening d for the pivot-stud, an open end space D' for the locking hook or lever, and bearing-recesses d^2 for supporting the lever-pivots or locking-hook trunnions. Said bed-block is fitted into the interior of the case, as indicated in Fig. 1.

F indicates the horizontally-disposed operating-plate having a circular shoulder e , that fits into a correspondingly-formed opening in the top of the case, and also having an eccentric f and centering-pivot f' formed upon the under side of said plate integral therewith. Said centering-pivot extends through the opening d in the bed-block, and is headed over on the under side thereof, as at h , for confining or binding the several parts of the mechanism together.

I indicates the locking dog or lever, made in the form shown in Figs. 1 and 5, with side trunnions or fulcrum-studs i , that enter the recesses d of the bed-block whereon said lever is supported, a lifting-hook I^2 , that swings forward and engages under the lip b of the striker-plate B, also provided with a curved tail or arm I' , by means of which said hook or locking-dog is actuated.

K indicates a link or slide formed, as shown in Fig. 8, with an elliptical opening F^2 or eccentric-strap that embraces the eccentric f , and with a mortise or opening J, through which the curved arm I' of the locking-lever extends. Said link is arranged to slide back and forth horizontally between the operating-plate F and the bed-plate D by the horizontal partial rotation of the operating-plate and its eccentric f . The operating-plate is provided with a handle or thumb-piece f^3 , by means of which it can be conveniently swung horizontally from one side to the other, thereby causing the eccentric f to move the link K toward and from the front end of the case, and thus actuate the locking-lever by moving forward or drawing back its arm I' , which is embraced loosely in the mortise J. When the operating-plate F is at a position with its handle and eccentric as shown in dotted lines,

Fig. 2, the hooked end I^2 will be swung downward to the position indicated by dotted lines on Fig. 1; but when the operating-plate is swung around to the position indicated in full lines, Figs. 2 and 3, the hooked end of the locking-lever will be drawn up beneath the lip b of the striker-plate, thereby lifting on said striker-plate and drawing the meeting-rails of the sash closely against each other, securely locking the sash in the manner indicated in Fig. 1. The side lips b^2 of the striker-plate are made inclined inward, as indicated in Fig. 4, so that the operation of swinging the locking-hook outward and upward between said lips will tend to draw the meeting-rails laterally to a central or uniform position with relation to each other in case there is any lateral looseness in the working of the sash.

The several parts of my improved fastener are of such form and construction that they can be readily cast, finished, and put together in an economical and efficient manner, the parts being readily assembled and then quickly and securely fastened by simply riveting the end h of the pivot-stud f' .

When desired, a notch m can be formed on the link or eccentric strap K to serve as a stop for the rotary movement of the operating-plate, the latter being provided with a downwardly-projecting lug n on its inner side that engages said notch when the parts are moved into corresponding position. Likewise, if desired, a lug m^2 may be formed on the inner side of the casing to engage said lug n when the handle and operating-plate are swung round to the opposite position. These stops m m^2 and lug n can, however, if in any case desired, be omitted.

Among the advantages incident to the construction herein shown may be mentioned the economy and facility of manufacture, the simplicity of construction and assembling of the parts, its compactness of structure, and non-liability of getting out of order; also, the

ease with which the device can be operated while it holds the window-sash close together with a strong and powerful grip.

I claim as my invention herein, to be secured by Letters Patent—

1. The combination, as hereinbefore described, of the casing, the bed-block fitted within said casing, the locking-lever having the hooked end and side trunnions supported in recesses in said bed-block for outwardly and upwardly swinging action, the horizontally-rotative operating-plate having the eccentric and pivot-stud formed thereon mounted in an opening in the top of the case, and the link or eccentric-strap embracing said eccentric and provided with a mortise, through which the curved upper arm of the locking-lever is arranged for operating, substantially as set forth.

2. The striker-plate B , having the inclined side lips b^2 , in combination with the outwardly and upwardly swinging locking-hook, substantially as and for the purpose set forth.

3. The movable link provided with the shoulder or notch m and the casing provided with the notch or lug m^2 , in combination with the operating-plate having the lug n and actuating eccentric, and the locking-lever, as and for the purposes set forth.

4. The locking-lever having a hooked end I^2 , adapted to latch under and lift the striker-plate, and side trunnions i , whereby it is fulcrumed on the bed-block, and a backwardly and upwardly curved arm I' , that extends through a recess in a horizontally-movable link or slide, whereby the said lever is swung outward and inward by backward and forward movement of the slide, substantially as set forth.

Witness my hand this 25th day of August, 85 A. D. 1891.

OLIVER K. PUTNAM.

Witnesses:

CHAS. H. BURLEIGH,
ELLA P. BLENUS.