

No. 754,319.

PATENTED MAR. 8, 1904.

H. F. KEIL.
LATCH.

APPLICATION FILED OCT. 23, 1903.

NO MODEL.

Fig. 1.

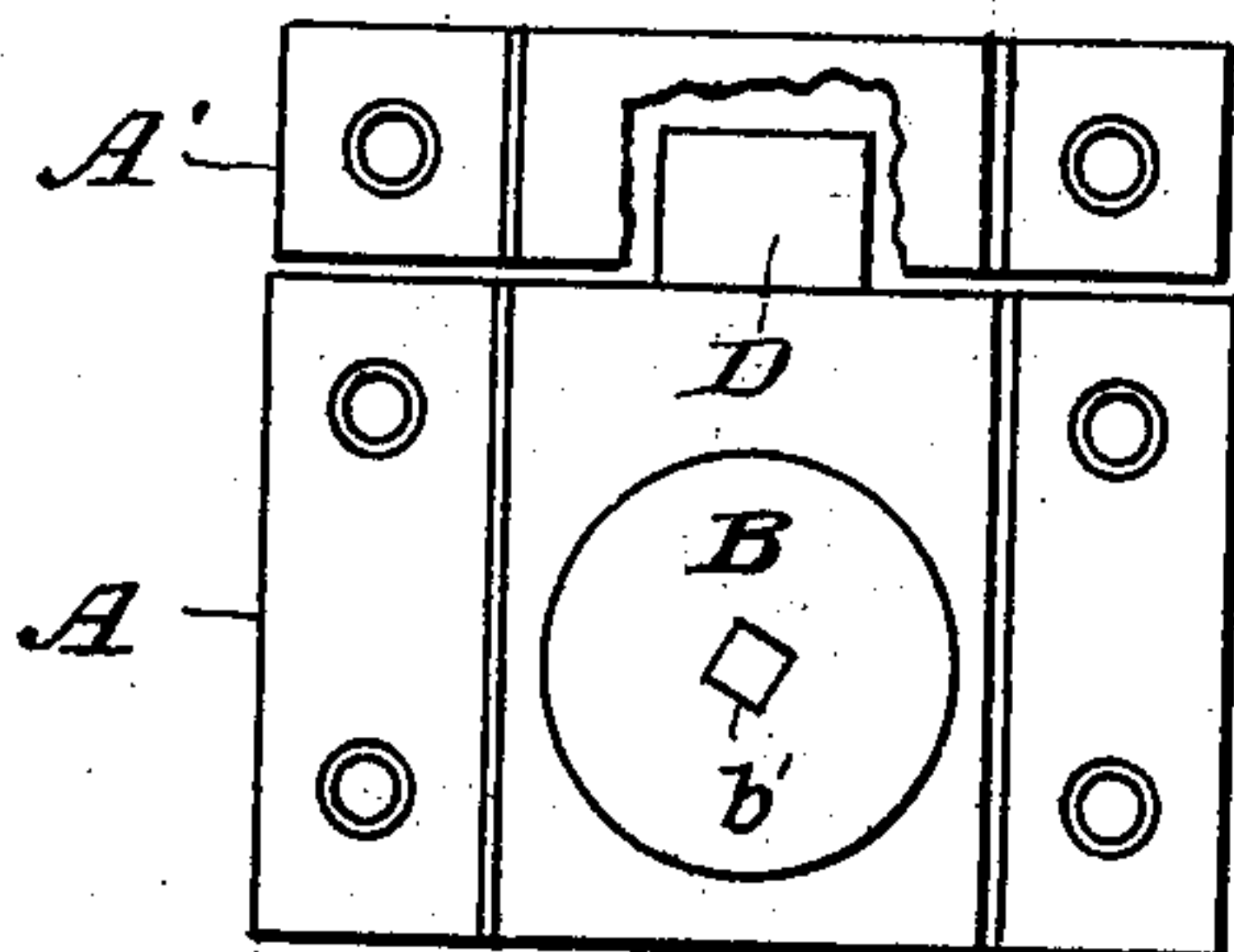


Fig. 2.

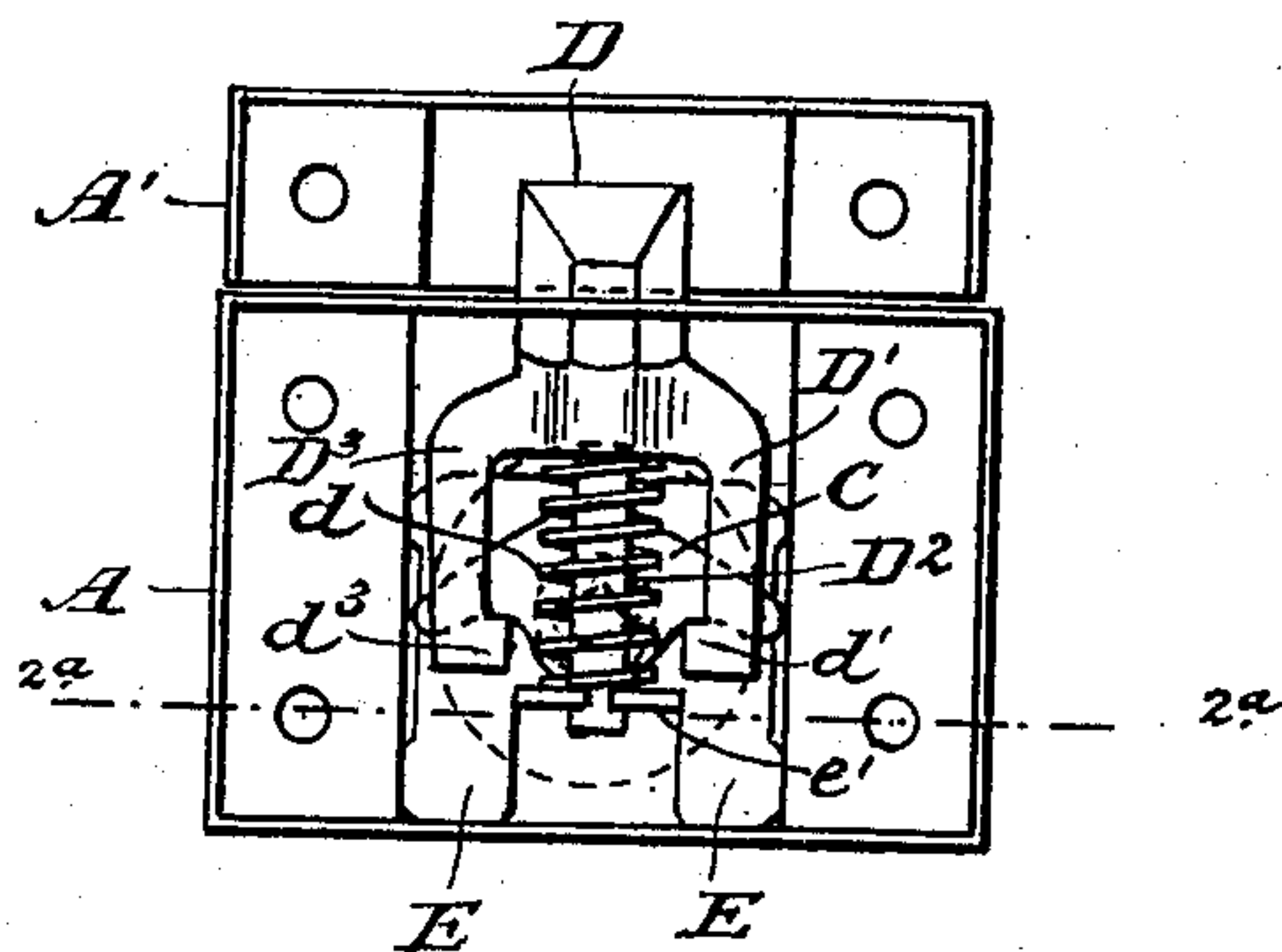


Fig. 3.

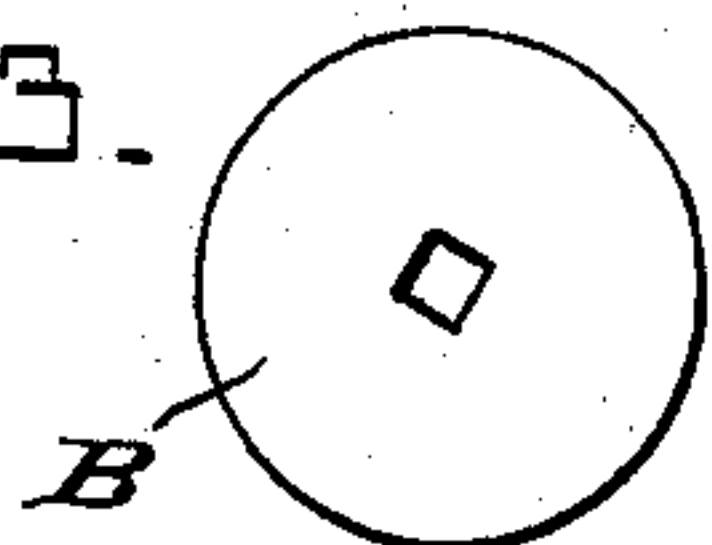


Fig. 3^a.

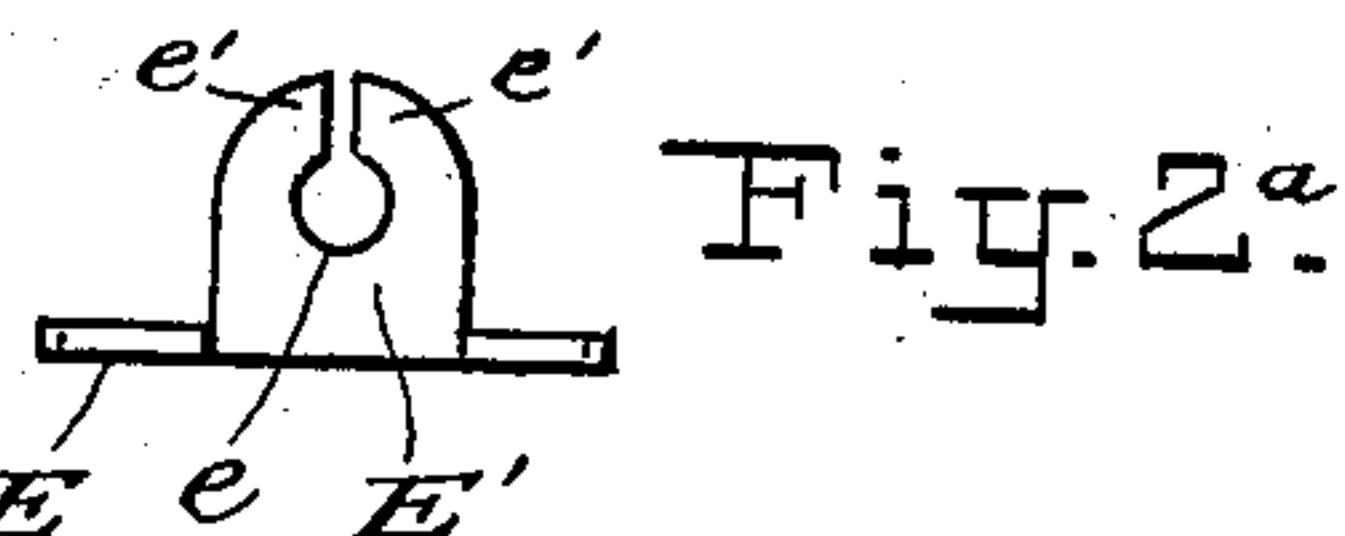
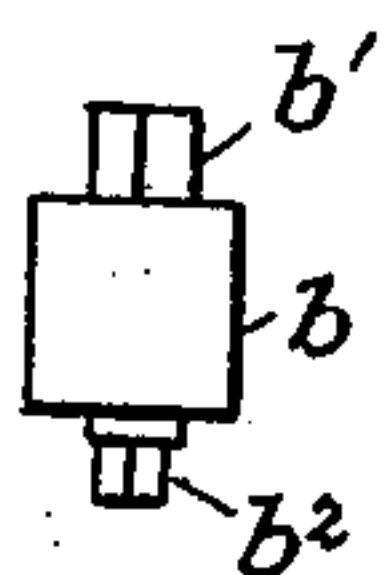


Fig. 5.

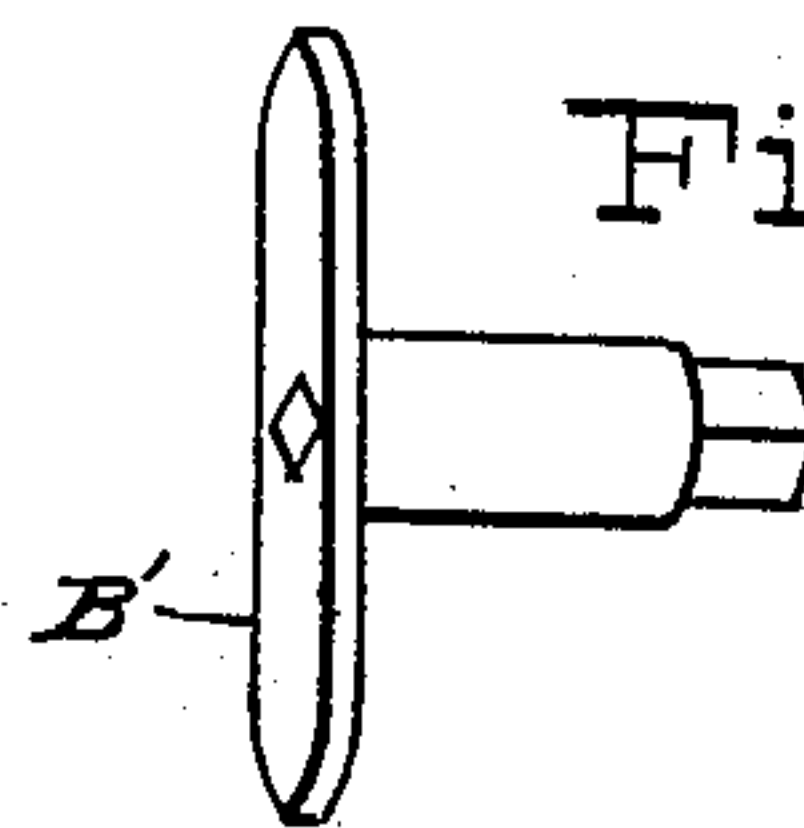
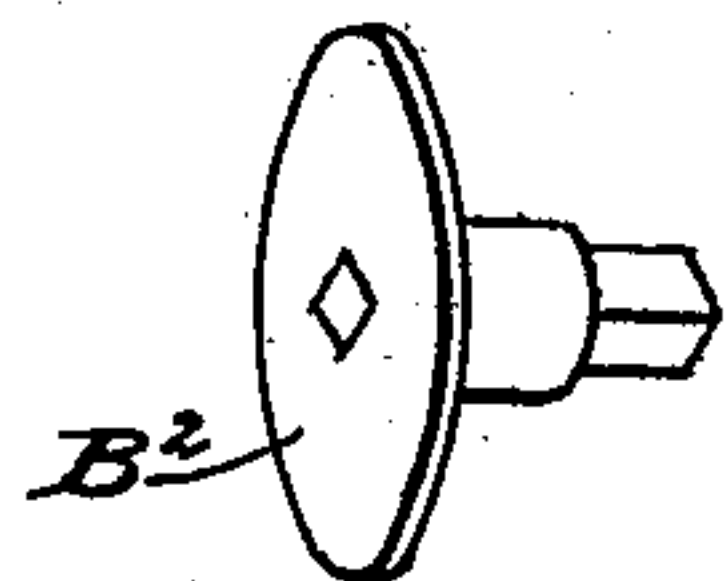


Fig. 4.



Witnesses:

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By

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UNITED STATES PATENT OFFICE.

HENRY FRANCIS KEIL, OF BRONXVILLE, NEW YORK.

LATCH.

SPECIFICATION forming part of Letters Patent No. 754,319, dated March 8, 1904.

Application filed October 23, 1903. Serial No. 178,203. (No model.)

To all whom it may concern:

Be it known that I, HENRY FRANCIS KEIL, a citizen of the United States of America, and a resident of Bronxville, in the county of Westchester and State of New York, have invented a certain new and useful Latch, of which the following is a specification.

My invention relates to latches, and in particular to a fastening device primarily adapted for doors for cupboards, swinging windows, or like articles; and it has for its object the provision of an appliance simple and inexpensive in construction, readily applied and operated, and efficient in practical use.

To attain the desired end, this my invention consists in the construction, arrangement, and operation of parts herein set forth.

In order to enable my invention to be fully understood, I will proceed to explain the same by reference to the drawings which accompany and form a part of this specification, in which—

Figure 1 represents a plan view of the top of my latch. Fig. 2 is a view of the interior of the same embodying the main features of my invention. Fig. 2^a is a view in section taken on the lines 2^a 2^a, Fig. 2. Figs. 3 and 3^a are views of the parts of my manually-actuated knob, and Figs. 4 and 5 are views of other style of knobs used by me in my latch.

Like letters of reference indicate like parts in all the views.

Referring particularly to the drawings, A denotes the shell or casing of one member of my fastening device, consisting of the latch proper, which shell or casing is drawn up from wrought metal, and A' is the other member, constituting my keeper, which is made in a similar-manner. Mounted on said casing is a manually actuated part or head, as a knob, preferably made in disk form, as B, or, if desired, constructed in oval or elongated form, as shown in Figs. 4 and 5. The knob B, shown in the drawings as horizontally disposed, is provided with an orifice in which is inserted and rigidly or otherwise suitably secured the extension *b'* of the vertical shank *b*, which latter is provided at the opposite end with an extension *b''*, which is rigidly attached to the horizontal rock-plate C, located within

the casing. The extensions *b'* and *b''* are preferably angular in form with respect to their peripheral contours or otherwise constructed so as to be non-circular in cross-section in order to afford greater strength to the operated portions of my latch.

The rock-plate or cam C rests and works freely upon a plate E, the shank *b* passing through the latter in order to hold the same in proper position and to prevent any movement thereof. The said plate E is provided with an upset portion E', having a bifurcated upper part, and is struck up with two prongs *e'*, standing a little distance from each other, and an intermediate orifice *e*.

The head of the latch-bolt D works in a slot or opening in the front vertical wall of the casing, and the rear portion thereof is trifurcated in form, the two outer legs D' D'' being provided with widened and thickened end portions or lugs *d'* *d''*, which work upon the plate E and also afford a bearing for the opposite working end portions of the rock-plate C and which serve to prevent the bolt from being pushed too far forward, and the central leg D³ is preferably made circular in cross-section, in order to work freely in the bearing formed by the orifice *e* of the upset portion E' of the plate E, intermediate which part E' and the bolt-head is located the spring *d*, the latter being preferably spiral in form and constructed and arranged to encircle the leg D² of the latch.

It is manifest that various omissions of some particulars could be made without materially affecting the essential features of my invention or the operation of the remaining parts, and I do not, therefore, wish to be limited to the specific structural details of the organization herein set forth.

Obviously the elements of the structures described may be located at an angle to the plane in which they are shown. I accordingly use the words "horizontal," "vertical," and the like in a relative sense.

The particular features of novelty in which my invention consists are the casing A, formed with a bolt-opening and an orifice, the plate E adjacent thereto and having an orifice to register with the first-named one, the rock-plate or cam C working on the plate E, the

knob B and shank therefor passing loosely through the orifices and secured to the rock-plate, the said plate having an upset part E' formed with an open portion *e*, and the latch-bolt D constructed and arranged to be snapped in the casing and to work in the last-named open portion and the bolt-opening of the casing.

In operation the casing A and keeper A' are first drawn up from wrought metal into the desired shape. Then the knob B is secured to the shank *b* and the latter passed through the horizontal top face of the casing and also through the plate E, after which the extension *b*² thereof is secured, as by riveting, to the rock-plate C, the plates E and C being assembled within the said casing. Afterward the bolt carrying the spring *d* is inserted or snapped in the casing, the head D being passed through the front wall of the same and the outer end of the leg D² resting in the orifice *e*. The two prongs *e'* are now brought near enough together to encircle and hold the end of the leg D² and to prevent the same from being removed therefrom, after which the casing A may be applied to a door and the keeper to the jamb in the ordinary manner.

As it is evident that many changes in the construction, form, proportion, and relative

arrangement of parts might be resorted to without departing from the spirit and scope of my invention, I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but that such changes and equivalents may be substituted therefor, and that

What I claim as my invention is—

As a new article of manufacture a casing formed with a bolt-opening and an orifice, a plate adjacent thereto and having an orifice to register with the first-named one, a rock-plate or cam working on the plate, a knob and shank therefor passing loosely through the orifices and secured to the rock-plate, the said plate having an upset part formed with an open portion, and a latch-bolt constructed and arranged to be snapped in the casing and to work in the last-named open portion and the bolt-opening of the casing.

In testimony of the foregoing specification I do hereby sign the same in the city of New York, county and State of New York, this 30th day of September, 1903.

HENRY FRANCIS KEIL.

Witnesses:

DICK STEGEN,
H. BAMMAN.