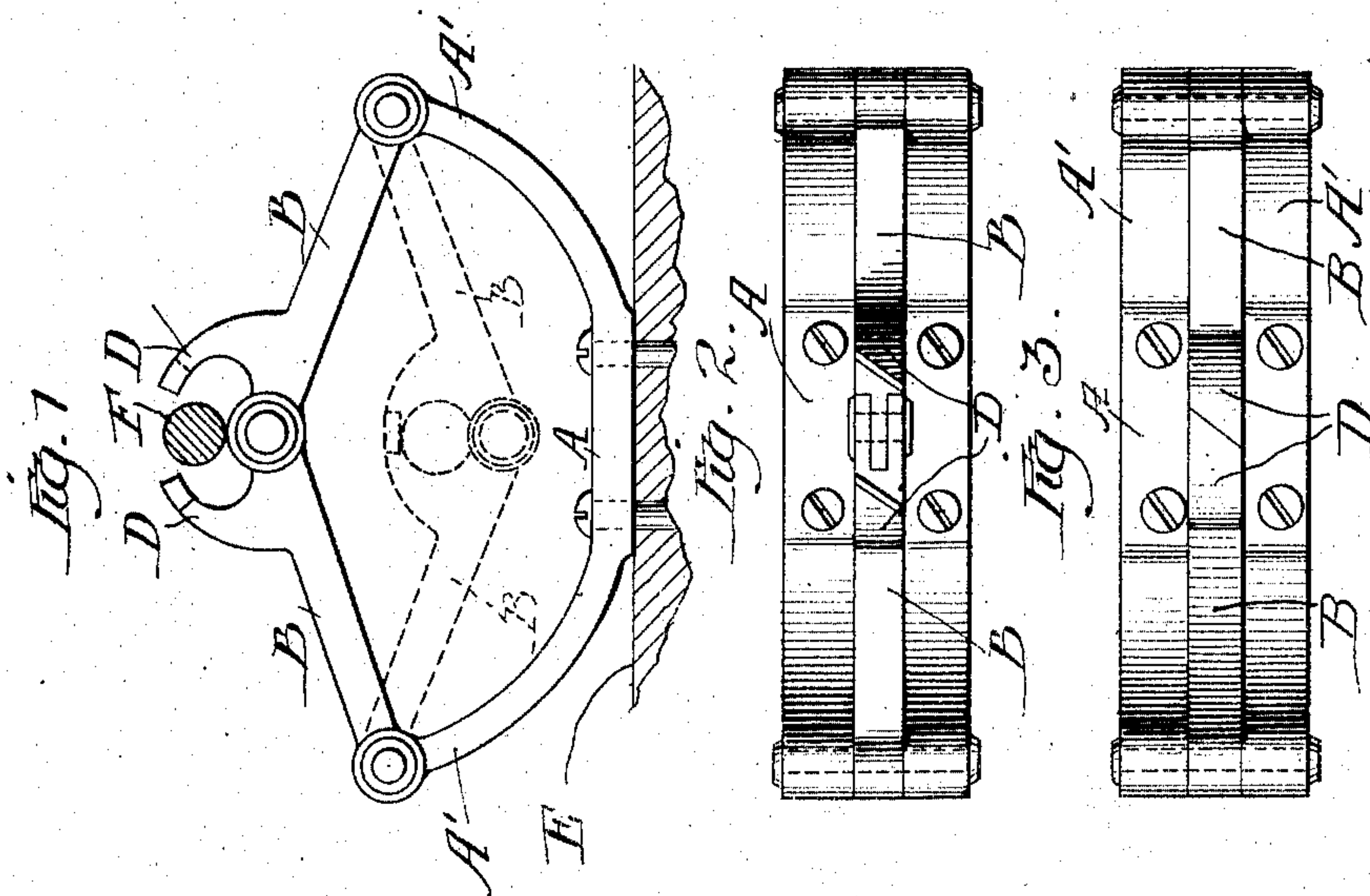
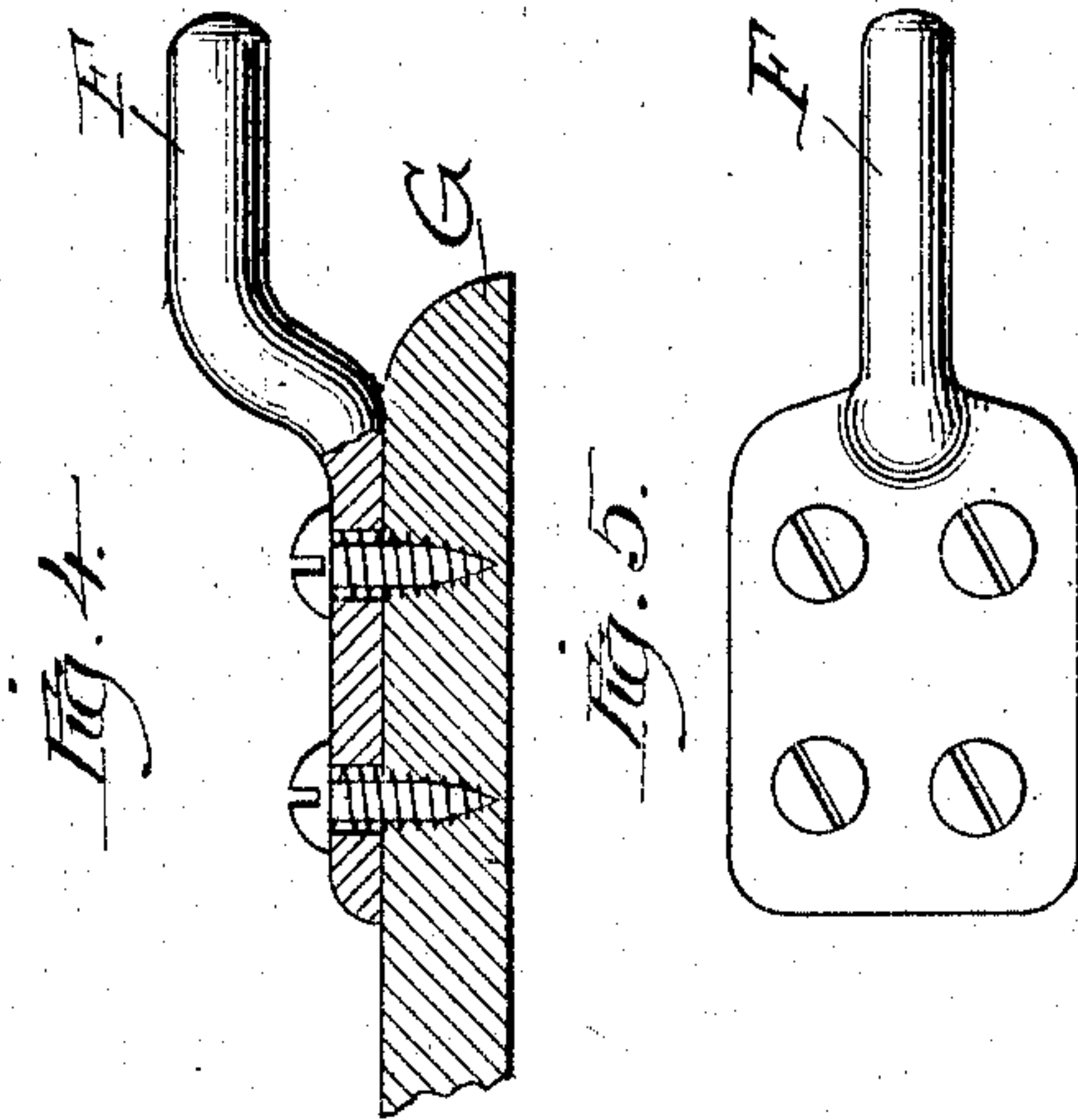


B. R. CRAMPTON.  
LATCH FOR DOORS, GATES, WINDOWS, &c.  
APPLICATION FILED SEPT. 17, 1908.

928,030.

Patented July 13, 1909.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

BASIL R. CRAMPTON, OF CHICAGO, ILLINOIS.

LATCH FOR DOORS, GATES, WINDOWS, &c.

No. 928,030.

Specification of Letters Patent.

Patented July 13, 1909.

Application filed September 17, 1908. Serial No. 453,470.

*To all whom it may concern:*

Be it known that I, BASIL R. CRAMPTON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Latches for Doors, Gates, Windows, or any other Two Relatively-Movable Parts, of which the following is a specification.

10 The object of the invention is to provide a simple and inexpensive, but at the same time efficient latch which will operate automatically in both the opening and closing action, by simply exercising pressure on one of the  
15 relatively movable parts.

The improved latch is particularly adapted for use on refrigerator doors but it is also well adapted for use on doors, generally, and on other objects such as window sashes, window shutters, gates, etc. Since the latch was originally designed and intended for doors, the following specific description will be confined to its application thereto.

25 The latch comprises two members, one of which has a pair of jaws adapted to be opened and closed, which member may be called a "keeper" and the other of which consists of a pin which is adapted to engage and be, in turn, engaged by the keeper. Preferably  
30 the keeper is secured to the door-jamb and the pin is carried by the door, but this is not essential, and the arrangement may be reversed, if desired.

The invention consists in the features of  
35 novelty that are hereinafter described with reference to the accompanying drawing which is made a part of this specification, and in which:

40 Figure 1 is a side elevation of the keeper with the open positions of the jaws shown by full lines and their closed positions indicated by dotted lines. Figs. 2 and 3 are front elevations of the keeper showing the jaws in open and closed position, respectively. Figs.  
45 4 and 5 are, respectively, a plan view and a front elevation of the pin.

The keeper comprises a base-plate A having curved spring-arms A<sup>1</sup> and a pair of levers or arms B which are jointed at their outer  
50 ends to the extremities of the spring-arms, and at their inner, meeting ends are jointed to each other forming a toggle joint of characteristic construction. The base-plate A is secured by screws or other suitable means to  
55 the door or to the door-jamb, as the case may

be, a fragment of which door or door-jamb is shown at E. The juxtaposed ends of the arms B of the toggle joint are provided with jaws D adapted to receive and engage a pin F on the door, or the door-jamb as the case  
60 may be, and hold or confine it when the door is closed and automatically open and release the pin when pressure is exerted upon them in the process of opening the door.

The jaws, D, are carried at or near the inner or meeting ends of the two arms of the  
65 toggle joint. Their adjacent sides are concave and follow semicircular lines so that when the jaws are closed there is a circular space between them adapted to receive, and  
70 corresponding to the cross sectional shape and size of, the pin, F, which latter is carried by the door (or door jamb), a fragment of which is shown at E as aforesaid.

The meeting faces of the jaws are similar  
75 to each other and their meeting ends or faces are diagonal relatively to the axis of the joint between the toggle arms, as shown more clearly in Fig. 3, the object of which is to cause the pin to bear firmly upon both  
80 jaws during the opening movement and insure the moving of the joint between the toggle arms beyond their center of movement.

It will be understood that when the door is open the jaws will be open, as shown by  
85 full lines in Fig. 1 and that upon closing the door the pin will enter between the jaws and force the toggle arms past their center of movement to the position indicated by  
90 dotted lines in Fig. 1. This is permitted by the outward yielding of the springs as the toggle arms approach their center of movement, after which the reaction of the springs will hold said arms in the positions indicated  
95 by dotted lines. An outward pull upon the door, for opening it, will cause the pin to bear upon the diagonally overlapping outer portions of the jaws and cause an action the reverse of that just described, returning the toggle arms to the positions shown by full  
100 lines.

What I claim as new is:

1. A latch having a keeper, said keeper having, in combination, a pair of jaws, a pair of toggle arms carrying said jaws, and means  
105 for yieldingly resisting the movement of the toggle arms toward their center of movement.

2. A latch having a keeper, said keeper having, in combination, a pair of jaws, a pair  
110



of toggle arms carrying said jaws, and a pair of springs to which the outer ends of said toggle arms are jointed.

3. A latch having a keeper, said keeper  
5 having, a pair of jaws the adjacent faces of which are concave, a pair of toggle arms carrying said jaws, and means for yieldingly resisting the movement of said toggle arms toward their center of movement, in combination  
10 with a pin adapted to engage the toggle arms between the jaws.

4. A latch having a keeper, said keeper

having, in combination, a pair of jaws, a pair of toggle arms carrying said jaws and means for yieldingly resisting the movement of said 15 toggle arms toward their center of movement, the opposite faces of the jaws being diagonal relatively to the axis of the joint of the toggle arms.

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Witnesses:

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