

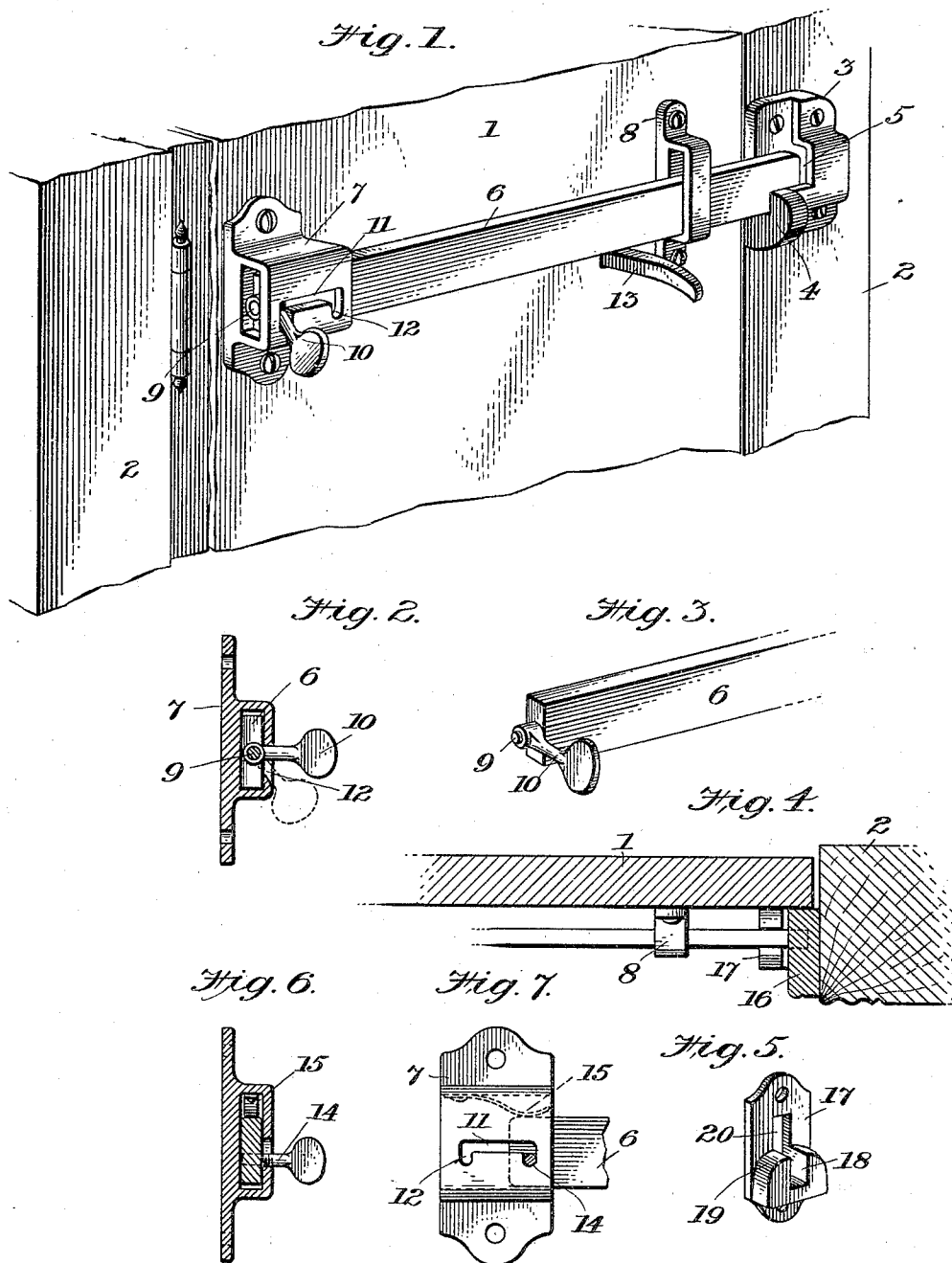
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Patented Apr. 1, 1902.

H. CHESHER.
COMBINED LATCH AND BOLT.

(Application filed Feb. 26, 1901.)

(No Model.)



Witnesses.
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UNITED STATES PATENT OFFICE.

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COMBINED LATCH AND BOLT.

SPECIFICATION forming part of Letters Patent No. 696,411, dated April 1, 1902.

Application filed February 26, 1901. Serial No. 48,885. (No model.)

To all whom it may concern:

Be it known that I, HARRY CHESHER, a citizen of the United States, and a resident of the city of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in a Combined Latch and Bolt, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to certain improvements in combined latches and bolts, the novel features of which will be hereinafter fully set forth.

The main object of my invention is to provide a latch which is simple in construction, yet strong and durable and inexpensive to manufacture; also, to provide a latch which can be readily converted into a sliding bolt for locking the door against opening from the outside.

With these objects in view my invention consists in the construction and arrangement of the various parts, such as hereinafter fully described, and particularly set forth in the claims made hereto.

Referring to the accompanying drawings, Figure 1 is a perspective view of a portion of a door and jamb, showing my improved latch applied thereto. Fig. 2 is a sectional elevation through the rear keeper, showing the latch-bar in end elevation. Fig. 3 is a detail perspective view of the rear end of the latch-bar, illustrating the pivoted detent which serves to hold the latch-bar in its proper position in the keeper. Fig. 4 is a sectional plan view illustrating the manner in which the latch will be applied to a door having an inside rabbet. Fig. 5 is a detail perspective view illustrating a double keeper, such as used on the rabbet construction shown in Fig. 4. Fig. 6 is a sectional elevation through the rear keeper, illustrating a slightly-modified form of mechanism for retaining and sliding the latch-bar. Fig. 7 is a front elevation of the form shown in Fig. 6.

In the said drawings, 1 designates a door of any approved form of construction, and 2 the door-frame. To this door-frame is secured a keeper 3, which is provided with a catch 4, having a beveled face for guiding the latch-bar into engagement with the catch

4. To one side of the catch is formed a slot 5, which is in line with the latch-bar and is adapted to receive the end of said latch-bar when the same is slid forward in the manner hereinafter described.

6 designates the latch-bar, which is composed of a flat metallic strip supported at one end in a keeper 7 and at its forward end in a keeper 8. The rear end of the latch-bar, which is supported in the bracket 7, is provided with a stud 9, upon which is loosely fitted a small detent or lever 10. This detent may be retained on the stud 9 by upsetting or riveting the end of said stud, or by inserting a pin through the projecting end of the same, or in any other suitable manner. The face of the bracket 7 is provided with a horizontally-disposed slot 11, having recesses 12 provided on the lower edge thereof at each end of said slot. The detent 10 passes through this slot 11 and rests in one of the recesses 12, as illustrated in Fig. 1 of the drawings. When it is desired to use the latch-bar 6 simply as a latch, so that the door can be opened from the outside by means of the latch-lever 13, the detent 10 is placed in engagement with the left-hand recess of the slot 11, which maintains the latch-bar in the position illustrated in Fig. 1 and allows it to engage the catch 4, from which it can be easily disengaged by operating the lever 13 and the door opened. When it is desired to lock the door against opening from the outside, the detent 10 is raised to the perpendicular, when it can then be slid along in the slot 11, which operation also slides the latch-bar 6 until its end passes into the slot 5 of the keeper 3. The detent 10 is then dropped and will enter into the right-hand recess 12, formed at the end of the slot 11, and thus hold the latch-bar in a locked position.

Instead of using the pivoted detent 10 a stud 14, having a suitable head provided thereon, may be screwed, riveted, or otherwise secured to the face of the latch-bar adjacent the end thereof, which stud passes through the slot 11, as illustrated in Fig. 6 of the drawings. In this construction a space must be left in the bracket above the latch, so that the said latch can be raised and disengaged from the recesses 12 when it is desired to slide the latch-bar either forward or backward. A flat

spring 15 is provided above the latch-bar, which tends to normally keep this end of the said bar down and in engagement with the recesses 12. If it should be desired to apply my improved latch to a door having an inside rabbet-strip, such as 16, (illustrated in Fig. 4,) a keeper, such as 17, is used, the said keeper being secured to the face of the rabbet, as illustrated. This keeper 17 is provided with the catch-recess 18, having beveled faces 19 on each side of said recess, so that the said keeper might be used on a door opening in either direction. The slot 20 is provided in the main body of the keeper, adapted to receive the end of the latch-bar when the same is converted into a bolt.

I am aware that it is not new to provide a combined bolt and latch and do not desire to claim the same broadly, but wish to be confined to my improved construction such as herein fully described, and pointed out in my claims made hereto.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a combined latch and bolt, the combination of a latch-bar carried by the door, a keeper secured to the door-frame comprising a hook adapted to be engaged by the latch and a slot adjacent to said hook in line with the latch-bar adapted to receive the said latch-bar when the same is adjusted longitudinally, a bracket carried by the door adapted to support the rear end of the latch-bar, a detent secured to the end of the latch-bar, a longitudinal slot formed in the bracket through which the detent passes and means for engaging the detent at each end of the longitudinal slot, substantially as described.

2. In a combined latch and bolt the com-

bination of a latch-bar to be carried by the door, a keeper adapted to the door-frame comprising a hook for engagement with the latch and a slot adjacent to said hook in said keeper in line with the latch-bar adapted to receive the said latch-bar when the same is adjusted longitudinally, a bracket carried by the door having a recess formed therein of slightly-greater height than the width of that portion of the latch-bar adapted to be engaged therein to allow that end of the latch-bar to slide and to have a slight up-and-down movement therein, a longitudinal slot formed through the outer face of the said bracket, a pivoted detent secured to the end of the latch-bar passing through said longitudinal slot and transverse slots formed at each end of the said longitudinal slot, substantially as described.

3. The combination of a combined latch and keeper carried by the door-frame, a longitudinally-adjustable latch-bar supported by the door, a keeper for supporting the rear end of the latch-bar having a horizontally-disposed slot, 11, provided therein, transversely-disposed slots, 12, formed at each of the horizontal slots, a small detent or lever, 10, pivoted loosely to the end of the latch-bar, said lever extending through the slot in the keeper, and a weighted end formed on said lever adapted to cause the same to drop by gravity into one of the transverse slots, and hold the latch-bar in its adjusted position, substantially as described.

In witness whereof I have hereunto set my hand this 23d day of February, A. D. 1901.

HARRY CHESHER.

Witnesses:

JNO. T. CROSS,
J. HENDERSON.