

G. N. MASON.
RIM LATCH.

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1,021,417.

Patented Mar. 26, 1912.

Fig. 1.

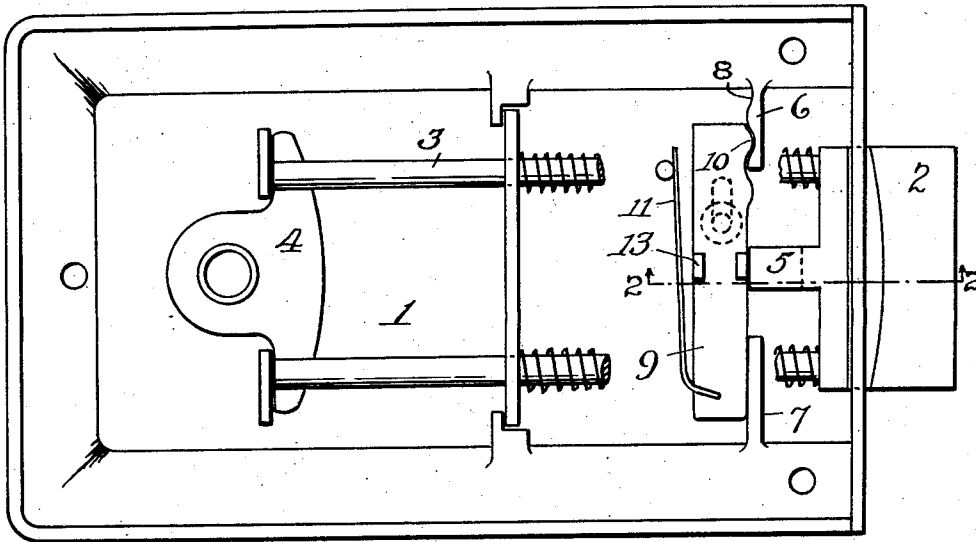
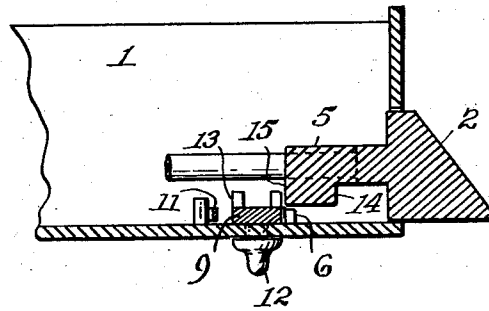


Fig. 2.



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UNITED STATES PATENT OFFICE.

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RIM-LATCH.

1,021,417.

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To all whom it may concern:

Be it known that I, GEORGE N. MASON, citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Rim-Latches, of which the following is a specification.

This invention relates to improvements in rim latches and the object in the present instance is to provide a rim latch with a dead locking device of simple construction, one that is easily assembled and one that will not tend to become easily disarranged.

The invention consists of a vertically movable spring backed slide, formed with an undulated edge adapted to register with an undulated projection on the casing so that it will be held in either upper or lower position, and one by means of which the latch bolt may be dead locked in either retracted or projected position.

The invention is more fully described in the following specification and clearly illustrated in the accompanying drawing, in which:—

Figure 1 is a plan view of my lock, with the back plate removed and the latch stems broken away to show more clearly the slide. Fig. 2 is a sectional view taken through line 2—2 of Fig. 1.

The numeral 1 designates the lock casing and 2 the latch bolt, which latter is provided with the usual stems 3 and which are engaged for operation by a yoke 4 attached either to the thumb knob or the key cylinder. The latch bolt 2 is provided with a central shank 5 which is cut away on its under side to form abutments 14 and 15 by means of which the latch may be held in either retracted or projected position. On the inside of the casing, above and below the latch, I form projections 6 and 7, which serve as guides for the dead locking slide 9. The upper guide 6 is formed on one side with a series of undulations 8, and the upper edge of the slide 9, at the point where it contacts with this guide 6 is also formed with registering undulations 10. The slide is backed by a spring 11 which tends to keep the slide at all times against the guides 6 and 7, but which will permit of its movement in vertical line, against the surfaces of said guides.

This spring is intended to retain the slide in either raised or lowered position, that is, with the upper undulation on the slide engaging either of those on the guide. The slide 9 is also provided with two posts 13, which are adapted to engage the abutments 14 and 15 on the bolt 2 in either position.

As shown in Fig. 1, the bolt is projected, and the slide 9 is in lowered position, dead locking the bolt. When it is desired to release the bolt, the slide is pushed up, by means of the usual projecting thumb pin 12, where it will be retained by the spring 11. This will release the bolt and it may be retracted. To lock the latch bolt in retracted position, the slide is pushed down, when the post 13 will engage the abutment 14 and dead lock the bolt.

My invention lies primarily in the dead locking slide and its means for retaining it in either position.

Having thus described my invention, I claim:—

In a latch, the combination with a casing, a spring actuated latch bolt, an undercut shank on said bolt forming an abutment for the dead locking means, and means for actuating the bolt, of a vertically movable dead-locking slide having undulations formed on one of its edges at the top, guides formed in the casing against which one edge only of the slide contacts, the upper guide having undulations which register with the undulations on the slide, two oppositely positioned posts on the face of the slide, one of which is adapted to engage the undercut portion of the bolt to hold it deadlocked in retracted position and the other to engage the end of the bolt shank and hold it in deadlocked projected position, a spring bearing directly against the slide and adapted to keep it normally in sliding contact with the guides and a thumb pin on the slide, projecting through an opening in the casing, for moving the slide.

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

GEORGE N. MASON.

Witnesses:

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