WILLIAM HARVEY.

Improvement in Door Latch.

No. 122,011. Patented Dec. 19, 1871.

Fig. 1.

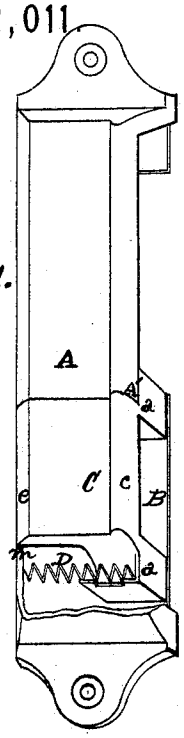

Fig. 2.

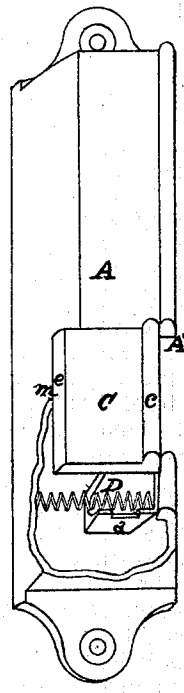

Fig. 3.

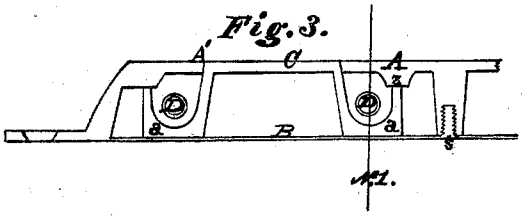

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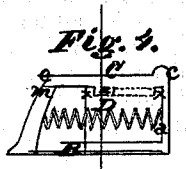
Fig. 4.



No. 1.

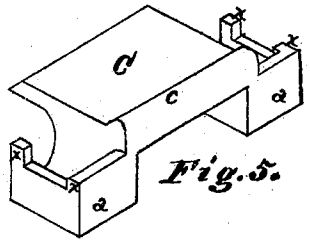


Fig. 5.

Witnesses { Lewis J. Newell. / James C. Rose

William Harvey
Inventor.
By his Attorney
Alex. Selkirk.

UNITED STATES PATENT OFFICE.

WILLIAM HARVEY, OF ALBANY, NEW YORK.

IMPROVEMENT IN KEEPERS FOR DOOR-LATCHES.

Specification forming part of Letters Patent No. 122,011, dated December 19, 1871.

To all whom it may concern:

Be it known that I, WILLIAM HARVEY, of the city and county of Albany, State of New York, have invented certain new and useful Improvements in Keepers for Latch-Locks; and I do hereby declare that the following is a description thereof, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 represents a perspective view of the invention, viewed from the front. Fig. 2 is a perspective view of the same, viewed from the back. Fig. 3 is a longitudinal cross-section of the same, taken at line No. 1, in Fig. 4. Fig. 4 is a cross-section of the same, taken at line No. 1, in Fig. 3. Fig. 5 is a perspective view of the sliding catch.

My invention consists in a keeper for latch-locks, having an elastic latch-catch, working on a back-wear plate, and provided with a rear-end bearing, and with stops, all of which are so arranged as to hold the elastic bolt-catch securely in the body of the keeper and yet permit its free movement in an elastic manner before the pressure of the usual latch-bolt without dragging or inclining in either direction, and also in such a manner that the said sliding catch will be supported at its front and in a line with its striking lip, and be sustained centrally by elastic pressure in its recess in the body of the keeper.

To enable others skilled in the art to make and use the same, I will proceed to describe my invention in reference to the drawing and the letters of reference marked thereon, the same letters referring to like parts.

Section I.—In the drawing, A represents the stationary portion or body of the keeper, which is secured to the jamb in the usual manner. A′ is a recess made in the said stationary piece A, as shown in Figs. 1 and 2.

Section II.—B is a wear-plate, secured to the back of the piece A, preferably by the screw *s*, one or more, as shown in Fig. 3, which wear-plate need only occupy a portion of the back of the said piece A, as shown in Fig. 1, if desired; and in such a case it is to be placed directly beneath the recess A, in which the sliding catch C is to work. By this arrangement of the wear-plate B with the stationary piece A the sliding catch will be held and supported from contact with the wood of the jamb, and be insured a free action in the body of the keeper.

Section III.—C is the latch-catch, which latch-catch sets in the recess A′ of the body of the keeper and on the wear-plate B, and is capable of being moved to a limited distance from the front of the keeper, as shown in Fig. 2. The said latch-catch is provided with a striking-edge, *c*, Figs. 1, 2, 4, and 5, which, when not acted upon, lines with the front of the stationary piece A, while its rear end *e* is supported by the rear portion *m* of the body A, as shown. Attached to the said latch-catch, on each side, are the supports *a a*, which work under the stationary piece A outside the recess A′, and between the said stationary piece A and wear-plate B, as shown in Figs. 3 and 4. The said supports *a a* are provided with stops *x x* between which works the stops *z*, made with the stationary piece A, as shown in Figs. 3 and 4. The said supports *a a* are also recessed, as shown in Figs. 1, 2, 3, and 5, to receive the springs D D, which are to render the latch-catch elastic, and are placed in a line with the front edge *c*, as shown, while the under side of the rear portion *e* of the said latch-catch is on a line with the top surface *m* of the rear of the recess made in the piece A. By this arrangement of the recessed supports *a a* with the latch-catch C and springs D D, placed in the recessed supports *a a*, the latch-catch will be capable of yielding in an even elastic manner before the pressure which the latch-bolt of the lock exerts in the operation of shutting the door, and will be prevented from dragging or inclining in either direction, the object of this part of my invention being to sustain the body of the sliding latch-catch in every circumstance in one given relative position with the stationary piece, and be allowed to yield in an elastic manner before the pressure of the latch-bolt, to a limited distance, to be returned when the pressure is removed.

I am aware that a sliding catch or plate connected with a keeper has been used, and that such sliding catches were kept in locking position by a weighted lever or spring; but in such keepers the said catches or plates had their modes of attachment with the main body of their keepers, consisting of ways and grooves, made correspondingly in the said plates or catches and main plate of the keeper, which ways and grooves were intended to keep the said catches or plates in position and sustain them against any outward pressure. Although the said arrangement of the grooves and ways with their catches or plates and

the body of their keepers would accomplish their intended results, yet the cost attending the forming of the said ways and grooves would effectually prevent their general use, for the said ways and grooves must of necessity be formed by a tool, or if made of core castings must be cleaned and turned by a tool. In my invention I dispense with all ways and grooves, and the several parts of the keeper as constructed by me may be cast or molded, so as to require but little if any outlay of labor to render their working perfect.

By my invention an elastic latch-keeper can be afforded at an expense but a little more than that of the solid keeper in common use, while the desideratum long known to exist will be fully supplied.

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

The arrangement of the sliding latch-catch C, provided with the supports *a a* and rendered elastic by the springs D D within the recess A′ of the body A of the keeper, and between the said body of the keeper and the wear-plate B, whereby the said sliding latch-catch will be held in place and supported from contact with the wood and have an elastic movement, substantially as and for the purpose set forth.

W. HARVEY.

Witnesses:
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