

No. 625,504.

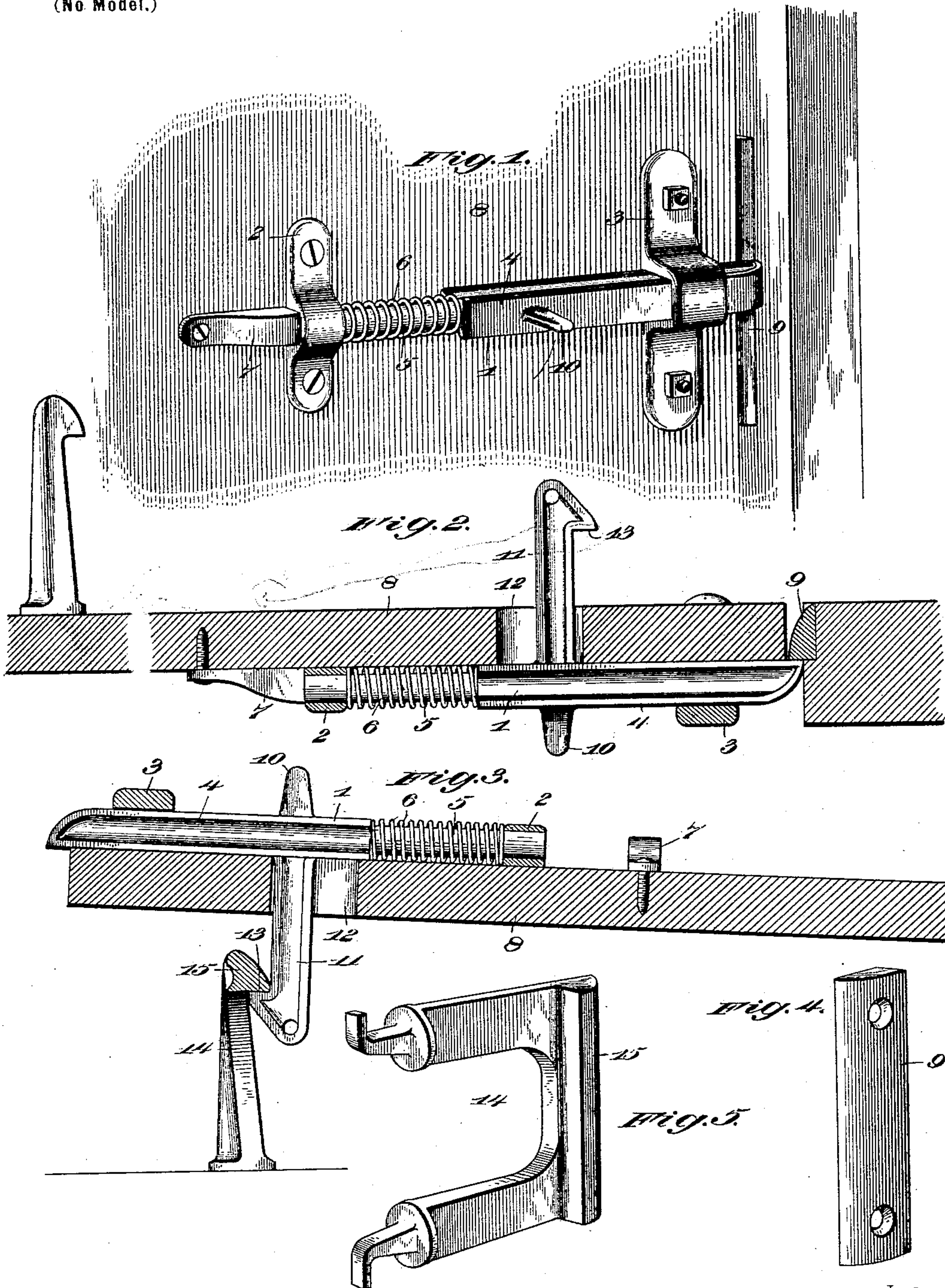
Patented May 23, 1899.

L. G. HAYES.

LATCH.

(Application filed Jan. 31, 1898.)

(No Model.)



Witnesses

*Wm. F. Doyle.*

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# UNITED STATES PATENT OFFICE.

LURELLE GARY HAYES, OF DAVENPORT, IOWA.

## LATCH.

SPECIFICATION forming part of Letters Patent No. 625,504, dated May 23, 1899.

Application filed January 31, 1898. Serial No. 668,619. (No model.)

*To all whom it may concern:*

Be it known that I, LURELLE GARY HAYES, a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented a new and useful Door-Latch, of which the following is a specification.

The invention relates to improvements in door-latches.

The object of the present invention is to improve the construction of door-latches and to provide a simple, inexpensive, and durable one designed to be mounted on the inner face of a door and capable of locking the same in its closed position and of securing it when open.

A further object of the invention is to provide a latch which will catch automatically when a door is opened or closed and which will be unaffected by any sagging of the same.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a door-latch constructed in accordance with this invention and shown applied to a door. Fig. 2 is a horizontal sectional view of the same. Fig. 3 is a similar view showing the latch in engagement with the keeper for holding the door open. Fig. 4 is a perspective view of the keeper for holding the door closed. Fig. 5 is a similar view of the keeper for holding the door open.

Like numerals of reference designate corresponding parts in the several figures of the drawings.

1 designates a sliding spring-actuated bolt mounted in inner and outer guides 2 and 3 and consisting of a polygonal front portion 4 and a rounded rear portion 5, which receives a coiled spring 6, that is interposed between the inner guide 2 and the shoulder formed by reducing the rear portion of the bolt. The opening of the outer guide 3 is rectangular to conform to the configuration of the outer portion of the bolt, and the inner guide 2 is provided with a circular aperture for the reception of the rounded inner portion of the bolt. The front or outer end of the sliding bolt is beveled, as shown, and the outer guide

3, which is disposed vertically, is provided with a rectangular opening to receive the outer portion of the bolt, which is preferably substantially rectangular in cross-section. The inner guide 2 is provided with a circular opening to receive the round portion of the bolt, and the rear end of the same is adapted to be engaged by a pivoted button 7, mounted on the door in rear of the inner guide to lock the sliding bolt in its extended position and prevent it from being disengaged from a keeper 9 from the exterior of the door. The keeper 9, which is mounted on the door jamb or casing, is arranged vertically, being provided with a beveled outer face and having an inner straight edge, as shown.

The bolt is provided with an inner handle 10, and it has a rigid outwardly-extending arm 11 projecting through a slot 12 of the door and provided at its outer end with a shoulder. The outer end of the arm, which is adapted to serve as a handle, is beveled and forms a catch 13, adapted to engage a keeper 14, arranged to hold the door in its open position.

The keeper 14, which is substantially U-shaped, is provided at its outer portion with a vertical rib or enlargement 15, beveled at the outer face and forming an inner shoulder to be engaged by the catch 13 of the arm 11. The sides of the keeper 14 are arranged horizontally and suitably secured to the building, having the door 8, and the keepers 9 and 14 by being vertically elongated, as shown, prevent the operation of the latch from being affected by any sagging of the door.

The horizontal arm, which forms the outer handle of the bolt, is provided at its outer end with a horizontal eye, but may be formed into a loop, so as to adapt the arm to be engaged by a hasp and lock when the door is closed.

The invention has the following advantages: The spring-latch is simple and comparatively inexpensive in construction, it is strong and durable, and it is adapted to be operated from the exterior as well as the interior. It is capable of locking a door in its open position as well as in its closed position, and it is also adapted to be engaged by a hasp and padlock.

Changes in the form, proportion, and minor details of construction may be resorted



to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

5 In a device of the class described, the combination of the independent guides 2 and 3 provided respectively with a circular and a rectangular opening, the sliding bolt designed to be arranged on the inner face of a door and mounted in the said guides and provided with  
10 an outer rectangular portion and an inner rounded portion to fit the said openings, a coiled spring disposed on the rounded portion of the bolt and interposed between the guide 2 and the inner end of the rectangular portion, the button 7 pivoted at one end adjacent  
15 to the inner guide 2 and arranged to engage the inner end of the bolt, the arms 10 and 11 extending from opposite sides of the bolt and

forming handles and arranged respectively on the interior and exterior of the door, the 20 arm 7 being extended through an opening of the door and provided at its outer end with a catch, the vertical keeper 9 arranged to be engaged by the end of the bolt, and the substantially U-shaped keeper 14 arranged on 25 the exterior of a building and provided with a vertical engaging portion 15, and having shanks at the ends of its sides, substantially as and for the purpose described.

In testimony that I claim the foregoing as 30 my own I have hereto affixed my signature in the presence of two witnesses.

LURELLE GARY HAYES.

Witnesses:

JAMES SEAMAN,  
JOS. M. MCMANUS.