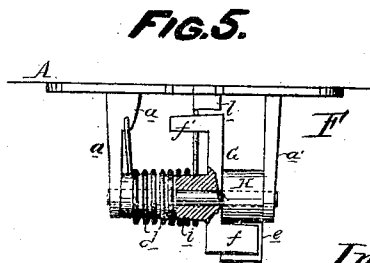
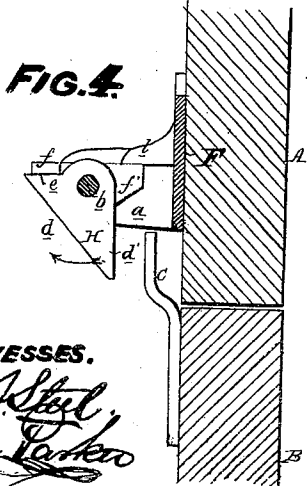
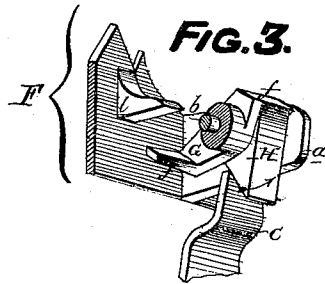
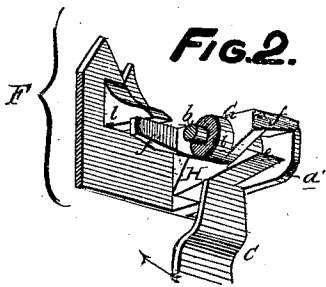
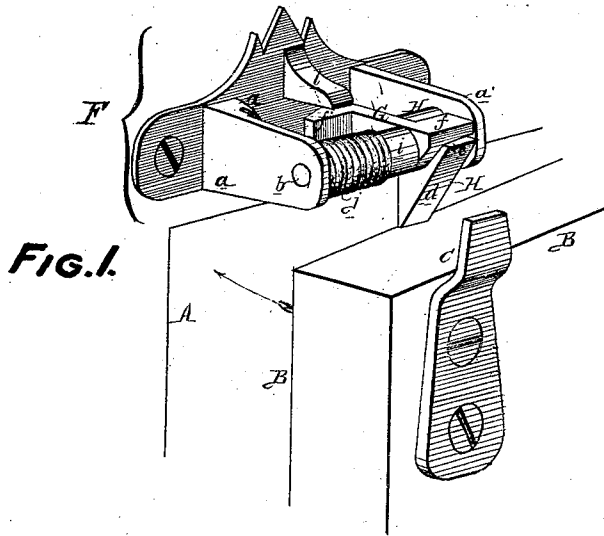


E. VOIGT.
AUTOMATIC LATCH.

No. 100,220.

Patented Feb. 22, 1870.



WITNESSES.
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EDWARD VOIGT, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 100,220, dated February 22, 1870.

IMPROVEMENT IN AUTOMATIC LATCHES.

See Schedule referred to in these Letters Patent and making part of the same

I, EDWARD VOIGT, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented an Improved Door-Retainer, of which the following is a specification.

Nature and Object of the Invention.

My invention relates to a retaining device, consisting of a tongue to be secured to a door, and of a plate and spring-lever or arm, to be secured to the adjacent door-frame or wall, as fully described hereafter, the arrangement being such that the door can be turned freely upon its hinges, and placed under the control of the retainer, but such that it cannot be withdrawn from the latter without exerting a sufficient effort to raise and turn the said spring-lever or arm, which is struck by the tongue on the door.

Description of the Accompanying Drawing.

Figures 1, 2, and 3 are perspective views in different positions of my improved door-retainer; Figure 4, a sectional view of the same; and Figure 5, a plan view, partly in section.

General Description.

A represents part of a door-frame, and B part of a door, the retaining device consisting of a lug or tongue, C, which is secured to the top of the door, close to its outer edge, and of a plate, F, secured to the door-frame directly over this lug or tongue, when the door is closed.

The plate F has two projecting-arms, *a* and *a'*, which support a horizontal pin, *b*; and to this pin are loosely hung a lever, G, and an operating-arm, H, arranged to be struck and turned by the tongue C of the door, as hereafter described.

The arm H, as will be best observed in fig. 4, has an inclined edge, *d*, a straight edge, *d'*, and an abrupt shoulder, *e*, upon which rests the bent end *f* of the lever G. The latter is secured to or forms part of a stem, *i*, which turns loosely on the pin *b*, and upon which is wound a spiral spring, *j*. One end of this spring rests upon the stationary arm *a*, and its opposite extremity bears against and raises the bent end *f* of the lever G, but the spring is prevented from throwing the said lever beyond a horizontal position, by a projection or lug, *l*, on the plate F.

In closing the door in the direction of the arrow, figs. 1 and 2, the tongue C will strike the inclined edge *d* of the arm H, and will turn and pass to the

rear of the same, and will then fall by its own weight to its original position, fig. 4, so as to retain the tongue between its edge *d'* and the door-frame.

When the door is opened the tongue C will again strike the arm H, and will turn it in the opposite direction, as indicated by the arrow, figs. 3 and 4.

In this movement, however, the arm will not turn loosely and independently upon the pin *b*, as in closing the door, but will raise the overlapping end *f* of the spring-lever G, and cause the latter to also turn, so that a slight effort must be exerted before the door can be opened.

When the tongue has raised the arm H, and has passed beneath the same, the spring *j* will cause the lever G and the said arm to return immediately to their original positions.

It will now be understood without further description, that while the retaining device offers no resistance to the free closing of the door, the latter, when closed, cannot be withdrawn from the control of the said retainer without exerting a sufficient effort to overcome the power of the spring *j*. This will effectually prevent the opening of the door by the wind, or the slamming, or creaking of the same upon its hinges.

It will also be evident that my invention is applicable for retaining doors in contact with the adjacent wall when opened to their full extent as for retaining them when closed, as above described.

Claims.

1. An arm, H, vibrating freely to a limited extent; in combination with a spring, so arranged that when the said arm turns in one direction and beyond a given point, it will resist the motion of the same, when the said spring and arm are arranged on a frame, substantially as described.

2. The combination of the arm H, a lever, G, vibrating adjacent to the arm, and projecting over the latter, a spring, *j*, bearing on the lever, and a lug, *l*, limiting the movement of the lever, substantially as described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD VOIGT.

Witnesses:

JOHN WHITE,
HARRY SMITH.