

A. BERDAN.  
DOOR FASTENER.  
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941,057.

Patented Nov. 23, 1909.

Fig. 1.

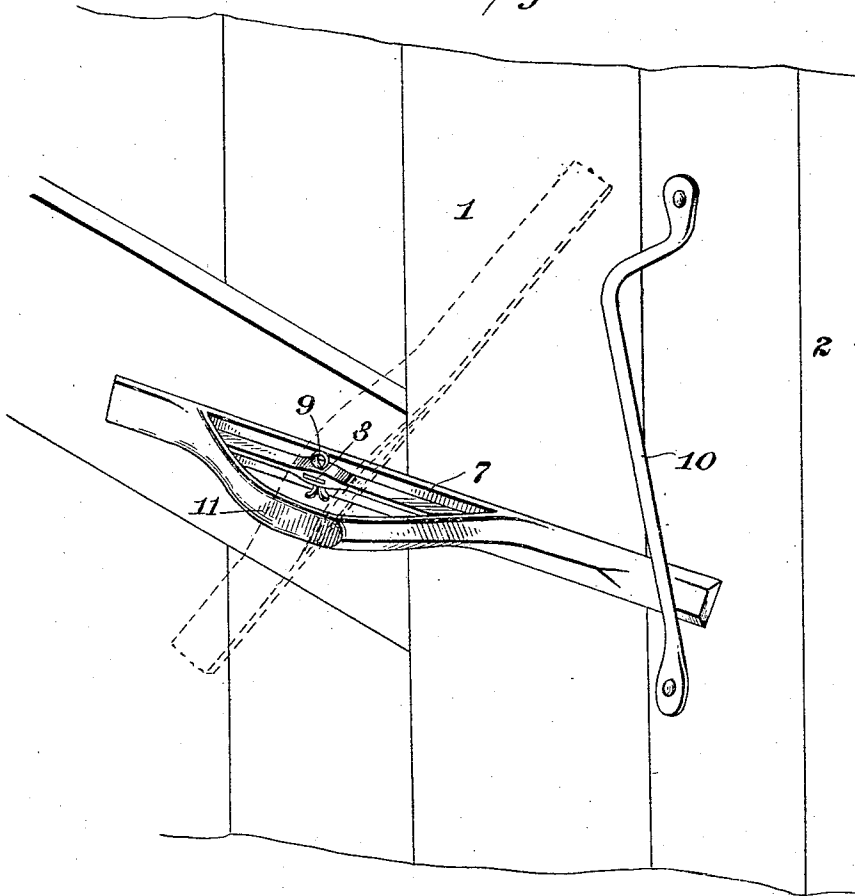
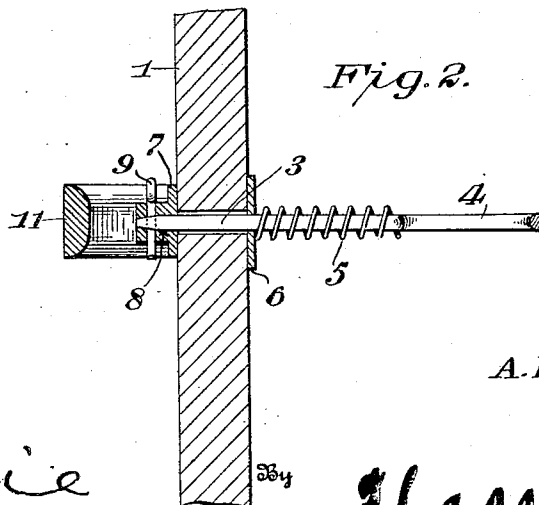


Fig. 2.



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# UNITED STATES PATENT OFFICE.

ALMO BERDAN, OF ORTONVILLE, MINNESOTA.

DOOR-FASTENER.

941,057.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed February 8, 1909. Serial No. 476,714.

*To all whom it may concern:*

Be it known that I, ALMO BERDAN, citizen of the United States, residing at Ortonville, in the county of Bigstone and State of Minnesota, have invented certain new and useful Improvements in Door-Fasteners, of which the following is a specification.

This invention comprehends certain new and useful improvements in fastening devices for swinging doors or the like, and the invention has for its object a simple, durable and efficient device of this character which is susceptible of application to both right- and left-hand swinging doors, and may be employed with doors of different thicknesses; which is arranged to effectually hold the door in closed position, and admits of the same being opened from both sides when desired; which may be easily and cheaply manufactured, and which possesses certain other advantages that will become at once apparent as the invention is hereinafter disclosed.

With this and other objects in view that will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that I shall hereinafter fully describe, and then point out the novel features thereof in the appended claims.

For a full understanding of the invention and the merits thereof, and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view illustrating the application of my improved door fastener; and, Fig. 2 is a sectional view thereof.

Corresponding and like parts are referred to in the following description and indicated in both views of the drawing by the same reference characters.

Referring to the drawing, the numeral 1 designates a swinging door which may be of any desired or approved construction or design, as for instance, a barn door or the like, and which is preferably mounted in and arranged to close against a suitable frame 2.

My improved fastening device consists essentially of a spindle 3 which passes through and is rotatably mounted in the door 1 in proximity to the swinging end thereof. The ends of this spindle project beyond the opposite faces of the door, and one end of the

spindle, preferably the one arranged at the inner face thereof, is provided with a handle 4 which is preferably formed by bending the extremity of the spindle to constitute a laterally extending closed loop, as shown. An expansion spring 5 encircles the spindle between the handle 4 and the adjacent face of the door, for a purpose to be presently disclosed, a washer 6 being preferably loosely mounted upon the spindle at such inner face of the door, in order to prevent the spring from scratching or otherwise marring the same. To the outer end of the spindle is rigidly secured a latch bar 7 that is formed with an opening 8 in which the end of the spindle is received, and which is detachably connected thereto in any approved manner, as by means of a cotter pin 9 or the like, the expansion spring 5 tending to slide the spindle 3 inwardly through the door, and thus holding the latch bar frictionally against the outer face of the same.

In its normal or operative position, the extremity of the latch bar projects laterally beyond the adjacent edge of the door and is designed to be engaged with a substantially vertically disposed keeper 10 that is constructed of an integral bar of metal secured at its opposite ends in a suitable position on the outer face of the door frame 2, the keeper being offset in close proximity to its upper end, and the main portion of the keeper being inclined inwardly and downwardly in convergent relation to the face of the door frame so as to provide a downwardly tapering opening into which the projecting end of the latch bar is designed to be wedged. For convenience, the latch bar is cast or otherwise formed with an outstanding bowed portion or handle 11 which extends longitudinally thereof and the terminals of which join with the latch bar on opposite sides of the point of fixture of the same to the spindle.

In the operation of the catch, when the door is closed and the latch bar engaged with the keeper, one of the handles 4 or 11 is grasped, and the spindle 3 turned in the requisite direction so as to move the latch bar upwardly to withdraw the same from the keeper, thereby releasing the door and admitting of the same being opened from either side, according as desired. It is to be observed that by mounting the expansion spring upon the spindle 3, in the manner

hereinbefore described, the latch bar is held in frictional engagement with the outer face of the door and is thus effectually maintained in raised position and substantially out of the way, after having been lifted out of engagement with the keeper. In addition to its function just described, attention is directed to the fact that the spring also serves to absorb the shock, in event of the door being blown to or otherwise accidentally closed, and the projecting extremity of the latch bar impacted against the keeper or some other obstruction.

With the construction just described, it will be obvious that the door fastening is susceptible of holding the door in substantially closed position, even when the door is swollen or has become sagged so as to prevent it from closing tightly against the door frame, by engaging the latch bar with the enlarged upper portion of the keeper, whereby any further downward movement of the latch bar causes the same to ride upon the inwardly inclined portion of the keeper, and thus effects the further inward movement of the door against the frame with considerable force. If desired, I may employ a suitable catch which is arranged on the outside of the building or the like and is adapted for engagement with the latch bar to hold the door in open position.

Among the many advantages residing in this structure, it will be seen that the fastener may be easily and quickly applied to both right- and left-hand swinging doors and to doors of different thicknesses, that it embodies to a marked degree the characteristics of simplicity, durability and efficiency in construction and operation, and that it consists of comparatively few parts that may be easily and cheaply manufactured and readily assembled.

It is to be understood that the extremity of the spindle to which the latch bar is se-

cured, may be round or polygonal in cross section according as desired.

Having thus described the invention, what I claim is:

1. A door fastener comprising a spindle mounted in the door for reciprocatory rotation and projecting beyond opposite faces thereof, a latch bar detachably fixed to one end of the spindle to turn therewith, the opposite end of the spindle being bent to form a laterally disposed handle, a washer loosely mounted on the spindle and arranged at the face of the door adjacent to the handle, an expansion spring encircling the spindle and confined between the handle and the washer and tending to hold the latch bar frictionally against the corresponding face of the door, and a catch adapted for engagement with the latch bar.

2. A door latch embodying a spindle mounted in the door for reciprocatory rotation and projecting beyond the opposite faces thereof, a latch bar detachably fixed at an intermediate point to one end of the spindle to turn therewith, a bowed handle outstanding from the latch bar and extending longitudinally thereof, the terminals of said handle being joined to the latch bar on opposite sides of the point of fixture of the same to the spindle, a second handle carried at the other end of the spindle, a washer loosely mounted on the spindle and arranged at the face of the door adjacent to the last named handle, and an expansion spring encircling the spindle and confined between the washer and the second handle and tending to hold the latch bar frictionally against the corresponding face of the door.

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

ALMO BERDAN. [L. s.]

Witnesses:

CHAS. E. CHRISMAN,  
J. FRY.