No. 632,946. Patented Sept. 12, 1899.

J. A. NORTON & C. J. HINKLEY.

DOOR CATCH.

(Application filed Mar. 27, 1899.)

(No Model.)

Fig. 1

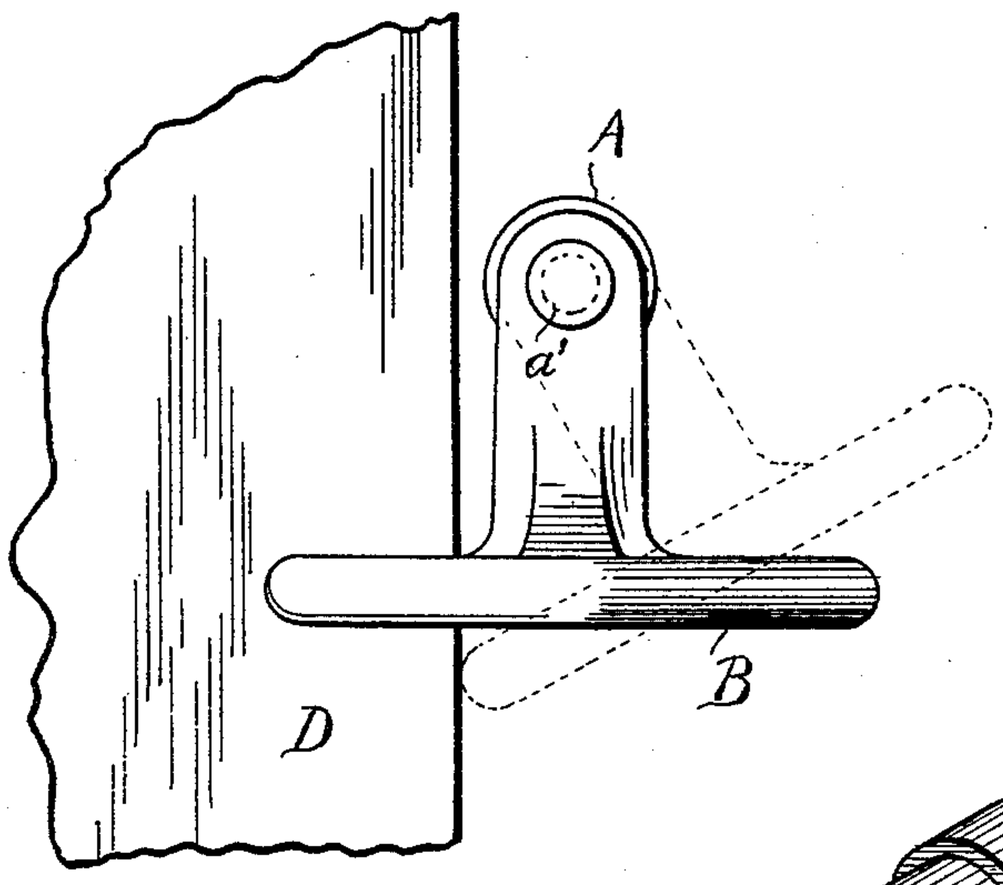
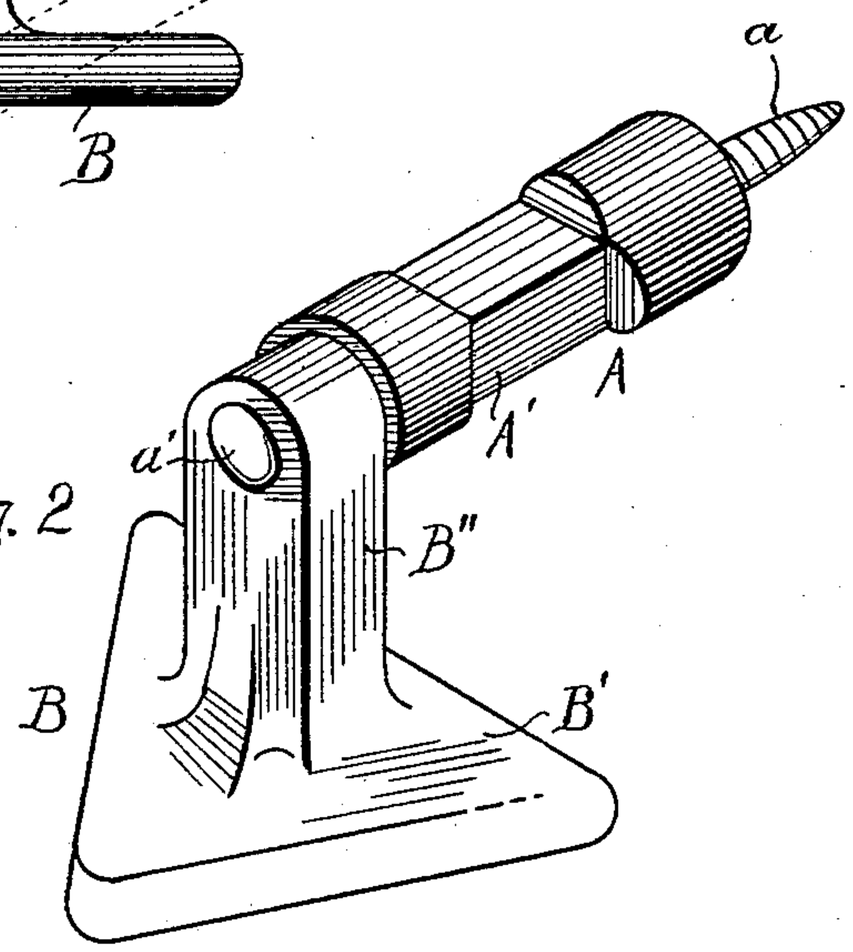


Fig. 2



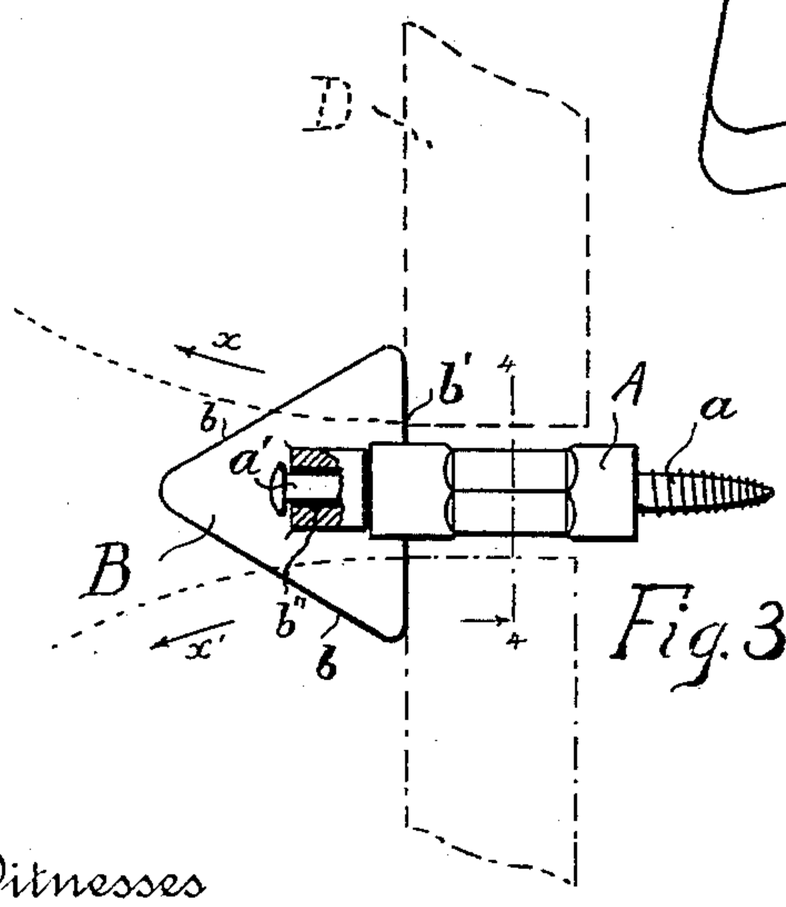
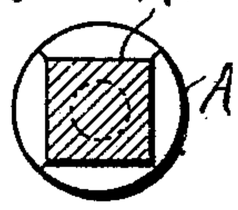


Fig. 3

Fig. 4



Witnesses
John C. Fogarty
James McSmith

Inventors
James A. Norton and
Charles J. Hinkley.
By William S. Heller – Attorney

UNITED STATES PATENT OFFICE.

JAMES A. NORTON AND CHARLES J. HINKLEY, OF ODEBOLT, IOWA; SAID NORTON ASSIGNOR TO JOHN H. KETTERER, OF SAME PLACE.

DOOR-CATCH.

SPECIFICATION forming part of Letters Patent No. 632,946, dated September 12, 1899.

Application filed March 27, 1899. Serial No. 710,585. (No model.)

To all whom it may concern:

Be it known that we, JAMES A. NORTON and CHARLES J. HINKLEY, citizens of the United States, residing at Odebolt, in the county of Sac and State of Iowa, have invented certain new and useful Improvements in Door-Catches, of which the following is a specification.

This invention relates to improvements in devices for holding doors, blinds, shutters, and the like in an open position to prevent rattling and slamming; and the objects of this improvement are to provide a device which shall be simple in construction, effective in operation, and which may be easily applied to or removed from the wall, as desired. This device is particularly adapted for use in connection with the doors of barns, stables, corn-cribs, and other outbuildings, but is by no means limited to such use, for it may obviously be employed to secure blinds, shutters, or hinged doors wherever located, and hereinafter the term "door" will be used to cover generically any hinged structure desired to be held open. For an article of manufacture of this description to be of special utility in fitting up farm buildings where there are numerous doors which in the summer months especially are desired to be kept open it must be cheap, strong, and effective in its operation and should be automatic. These objects and others which will appear are attained by the mechanism described below and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of the improvement in its operative position and showing a fragment of a door held thereby. Fig. 2 is a perspective view of the device. Fig. 3 is a top plan, partly in section, corresponding to the view in Fig. 1, but on a reduced scale, and indicating by dotted lines, two doors being held simultaneously. Fig. 4 is a detail section on the line 4 4 of Fig. 3, but on a scale substantially the same as that of Fig. 1.

Similar reference-letters indicate similar parts throughout the several views.

The device consists of essentially only two parts, a supporting-stem A and a gravity-latch B. The supporting-stem A is provided at the inner end with a screw *a*, by means of which it is adapted to be secured at right angles to the wall and in close proximity to the lateral edge of the door when wide open. As a convenient means for turning the screw *a* into the wall the supporting-stem is provided with a polygonal portion A′ for the application of a common hand-wrench. While this portion A′ is illustrated as being square in cross-section, it may of course be hexagonal or octagonal, if preferred. At the outer end the supporting-stem A is provided with a pintle *a′* of malleable metal. The screw *a* and the pintle *a′* are cast in the longitudinal center of the body of the supporting-stem A and in alinement with each other.

The gravity-latch B is of peculiar form and consists of a flat triangular or dart-shaped head B′, having the two inclined front edges *b b* and the straight rear edge *b′* and the shank B″ cast integral with and perpendicular to one side of the head B′ and having at its upper end a hole *b″* corresponding to the pintle *a′*.

In assembling the end of the pintle *a′* is put through the hole *b″* and riveted, so that the two parts A and B are secured permanently together. The latch is thus incapable of longitudinal movement on the pintle, but is freely rotatable thereon in a plane parallel to the plane of the wall and is normally pendent, as is shown.

The operation is as follows: The door (indicated conventionally by D) in swinging on its hinges toward the latch strikes its lateral edge against the inclined front edge *b*. The latch being freely movable laterally on the pintle, as indicated by dotted lines in Fig. 1, offers no resistance to the door in this initial movement, and the moment the edge of the door passes between the latch and the wall the latch automatically swings to its normal position, and thus effectually prevents the reverse movement of the door. Since the rear edge *b′* of the latch is straight and is disposed in a plane perpendicular to the axis of rotation and also normally projects a sufficient distance to each side of the vertical plane passed through said axis, it is impossible for the door to release itself.

The head B′, provided with the two front edges *b*, as shown, is well balanced and symmetrical in appearance, and the device is thus

adapted for use with either a right or left swinging door. Furthermore, it is to be noted that two doors opening toward and near each other, as is frequently the case on farm buildings, may thus be held open simultaneously by a single device. The arrows x and x', Fig. 3, indicate diagrammatically the paths which the lateral edges of two doors thus held tend to take. The only precaution to be observed when the device is thus used is that the two doors should not in opening both strike the latch at the same time.

One advantage of the screw a over other securing means which may be employed is that by this means the latch may be adjusted relatively to the wall to accommodate various thicknesses of doors, and thus lessen the tendency of the doors to rattle.

When the device is used in connection with the shutters of dwelling-houses, a common form of elastic buffer may, if desired, be applied to the wall to keep the shutter in close contact with the latch B. Such feature, however, is not illustrated, as it forms no part of our invention and is seldom necessary, since our improved catch is made in different sizes to meet various requirements and is adjustable within reasonable limits, as stated. By applying the device at the lateral edge of the door instead of at the bottom, as is ordinarily the case with gravity-catches, the tendency to warp the door is practically obviated.

It will thus be seen that we have devised a door-catch, which, being simple in construction, is strong, convenient, and available at a low cost and which presents numerous advantages hereinbefore stated.

We claim—

1. In a door-catch, the combination, with the supporting-stem A having the screw a and provided with the polygonal portion A′, of the pendent latch B having the triangular head B′ pivoted to the outer end of the said stem and adapted to be rotated about the axis of the stem and screw by being struck by the lateral edge of the door, substantially as set forth.

2. A door-catch consisting of the supporting-stem A and the gravity-latch B permanently secured together; the said stem having the screw a at one end, the pintle a' at the other end and being provided with the polygonal portion A′, and the said latch B consisting of the shank B″ made integral with one side of the triangular or dart-shaped head B′ having the two inclined front edges b b and the straight rear edge b', substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES A. NORTON.
CHARLES J. HINKLEY.

Witnesses:
JOHN C. FOGERTY,
JAMES MCGRATH.