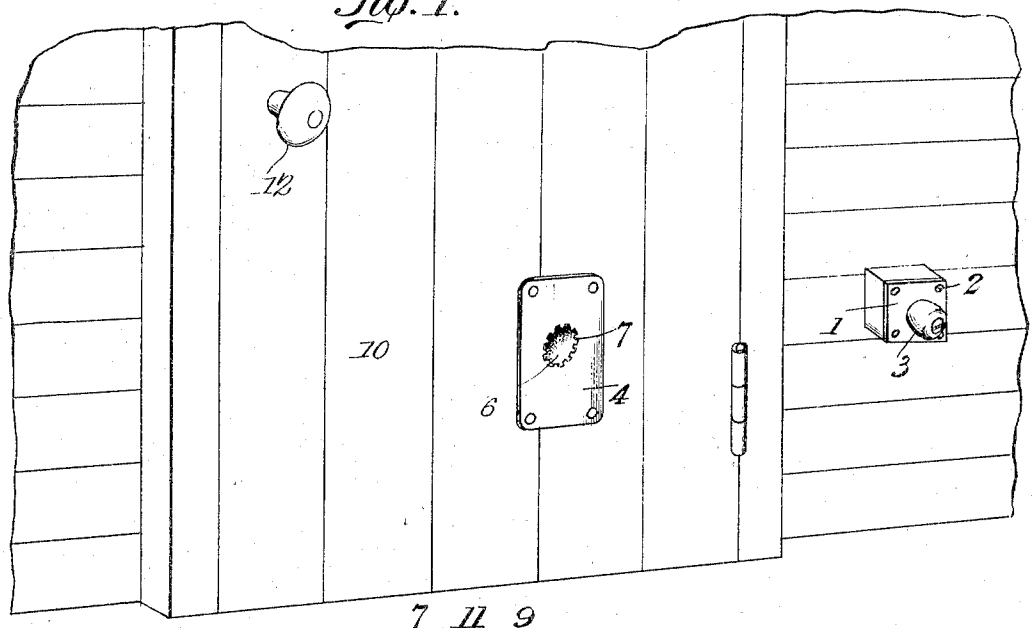
No. 783,649. PATENTED FEB. 28, 1905.

L. D. SMITH.

DOOR CATCH.

APPLICATION FILED APR. 21, 1904.

Fig. 1.



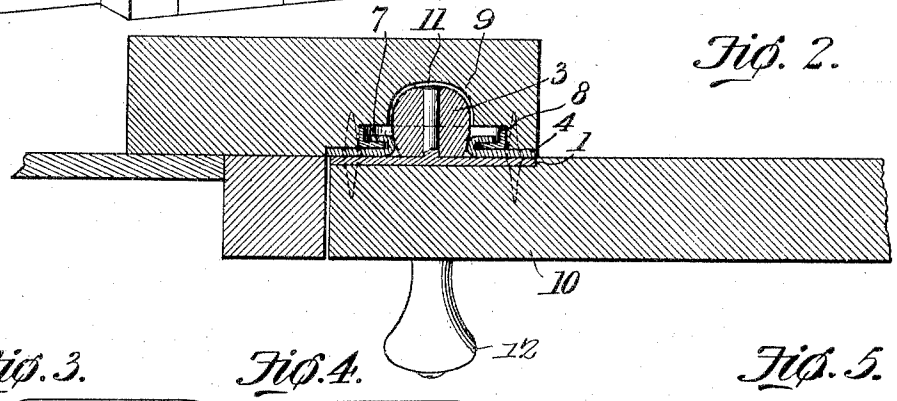


Fig. 2.

Fig. 3.

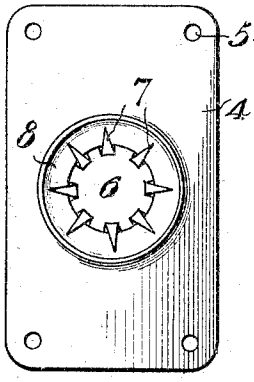


Fig. 4.

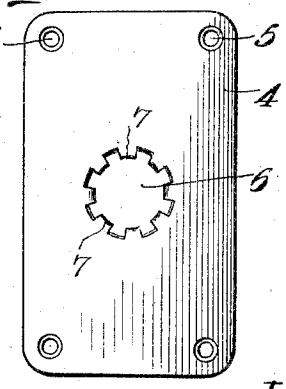
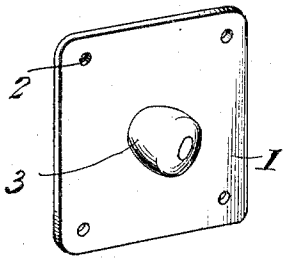


Fig. 5.



Witnesses

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Linley D. Smith Inventor

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Attorneys

No. 783,649. Patented February 28, 1905.

UNITED STATES PATENT OFFICE.

LINLEY D. SMITH, OF CLINTON, IOWA.

DOOR-CATCH.

SPECIFICATION forming part of Letters Patent No. 783,649, dated February 28, 1905.

Application filed April 21, 1904. Serial No. 204,281.

To all whom it may concern:

Be it known that I, LINLEY D. SMITH, a citizen of the United States, residing at Clinton, in the county of Clinton and State of Iowa, have invented a new and useful Door-Catch, of which the following is a specification.

This invention relates to fastenings for doors, and has for its object to provide an improved catch device to hold the door against accidental movement and rattling, while at the same time permitting of the convenient opening and closing of the door without first manipulating the catch to release or latch the door.

Another object of the invention is to embody the same in a form for convenient application to a door and the frame thereof and to have the same housed by the door and its frame when the door is closed.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and more particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details of the structure may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a barn-door equipped with the device of the present invention. Fig. 2 is an enlarged detail sectional view taken through the catch in the locked position thereof. Fig. 3 is a rear elevation of the keeper member. Fig. 4 is a similar view of the keeper. Fig. 5 is a detail perspective view of the latch member.

Referring at first more particularly to Fig. 5 of the drawings, 1 designates an attaching-plate having suitable openings 2 for the reception of screws or other fastenings. At the center of the plate is a base or projection 3, which is substantially cylindrical in shape, with its outer end rounded or convexed and its sides lightly converged inwardly toward the plate in order that its outer end may be slightly greater in diameter than its inner end. The other member of the device consists of a plate 4, having perforations 5 for the reception of fastening devices and a central opening 6, the edge of which is provided with a peripheral series of integral fingers or projections 7, which are bent or hooked rearwardly through the opening and across the back of the plate, whereby said fingers or projections slightly reduce the size of the opening and are elastic, so as to yield when the boss 3 is forced into the opening. A ring or band 8 embraces the hooked or rebent portions of the fingers or projections, so as to prevent undue spreading of the latter and breaking thereof.

The keeper member 4 is secured to the door-frame 9 adjacent the free edge of the door 10, and said frame is provided with a recess or socket 11 in alinement with the opening 6 of the plate 4, while the plate 1 is secured to the inner face of the door, adjacent the free edge thereof, and disposed to have the boss or latch 3 snap into the yieldable socket formed by the opening 6 in the keeper-plate 4 when the door is closed, whereby the door will be held against rattling movement by reason of the fact that the spring fingers or projections 7 snugly grip the boss 3. It will here be noted that the boss 3 will enter the socket or keeper merely by closing the door without requiring any previous manipulation or setting of the boss, and the door may be readily opened by pushing the same from the inner side or pulling outwardly from the outer side upon the knob or handle 12, provided upon the outer face of the door. When the door is closed, the fastening device is entirely housed between the frame and the door, and therefore inaccessible to animals. In addition to latching the door in its closed position it may be held in its open position by providing one of the keepers 4 upon the outer face of the door and mounting a latch member 1 upon the side of the barn or adjacent wall of any building and locating said members so that the boss or latch will enter the socket or opening of the keeper when the door is thrown open.

From the foregoing description it will be understood that the device of the present invention is complete in itself and may be applied to a door without materially altering the same in any manner whatsoever beyond cut-

ting a socket or recess therein to accommodate the latch or boss when engaged with the opening in the keeper member.

Having thus described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A door-catch of the class described, comprising a latch member including a boss, and a keeper-plate having an opening to receive the boss, the edge of the opening having a circumferential series of spring-fingers bent rearwardly through the opening and radially outward across the back of the plate, the bends of the fingers being projected into the opening to reduce the size of the latter and to snugly grip the boss when engaged with the opening.

2. A door-catch of the class described comprising a latch member including a boss, and a keeper having an opening to receive the boss, the edge of the opening having a circumferential series of spring-fingers bent rearwardly through the opening to reduce the size thereof and snugly grip the boss when entered into the opening, and a band embracing the spring-fingers to prevent undue displacement thereof.

3. A door-catch of the class described comprising a latch member including a boss, and a keeper member having an opening to receive the boss, the edge of the opening having a circumferential series of spring-fingers bent therefrom to form a yieldable peripheral wall, and a band separate from the keeper and embracing the spring-fingers to prevent undue displacement thereof.

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

LINLEY D. SMITH.

Witnesses:
L. HARRISON,
EMMA SMITH.