Sept. 13, 1927. 1,642,167

G. A. MOON

DOOR CATCH

Filed April 1, 1926

Fig. 1

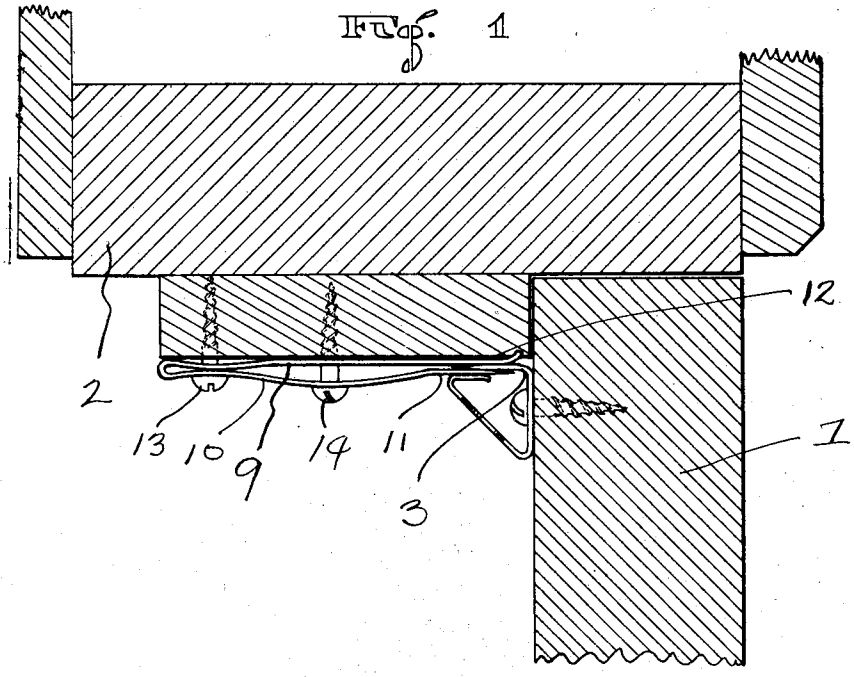


Fig. 3

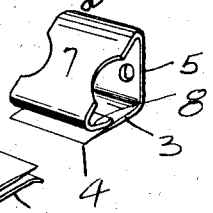


Fig. 4

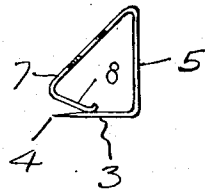
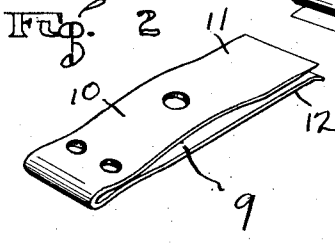


Fig. 2



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UNITED STATES PATENT OFFICE.

GEORGE A. MOON, OF SAN FRANCISCO, CALIFORNIA.

DOOR CATCH.

Application filed April 1, 1926. Serial No. 98,966.

This invention relates particularly to a friction device for holding a door closed against ordinary wind pressure and the like.

An object of the invention is to provide a door catch for holding a door closed within a door opening and to also function as a check that will eliminate the slam or noise that accompanies the uncontrolled closing of a door.

A further object of the invention is to provide a combined door check and catch, of the friction type, having means thereon to regulate the degree of friction and to provide a door catch that will be superior in point of simplicity, inexpensiveness of construction, positiveness of operation, and facility and convenience in use and general efficiency.

In this specification and the annexed drawings, the invention is illustrated in the form considered to be the best, but it is to be understood that the invention is not limited to such form, because it may be embodied in other forms, and it is also to be understood that in and by the claims following the description, it is desired to cover the invention in whatsoever form it may be embodied.

In the accompanying one sheet of drawings

Fig. 1 represents a door catch constructed in accordance with my invention, applied in operative position between a door and door jamb.

Fig. 2 is a perspective view of one of the friction elements that is adapted to be positioned on either the door or door jamb.

Fig. 3 is a perspective view of the complementary part of the door catch to engage the friction member that is adapted to be positioned on either the door or door jamb.

Fig. 4 is a side elevation of Fig. 3.

The present invention is particularly adapted for use on screen doors or that type of door that is provided with a spring or other means thereon to maintain the door in a closed position. Door closing devices of this character have a tendency to close the door with unnecessary noise accompanied by jar and vibration which in time tends to shake the door to pieces. My invention relates to a combined door check and door catch that is adapted to be utilized in connection with doors having mechanical closing means thereon, for the purpose of absorbing the shock that accompanies the uncontrolled slamming of the door, and also to hold the door in the closed position.

In detail, the construction illustrated in the drawings comprises the door 1 and a door jamb or casing 2 on which I have secured a knife member 3 and clamping plate 9. The knife member 3 consists of a flat piece of metal provided with a sharpened edge 4 and with a base 5 struck out at right angles to the bottom thereof. The base 5 is provided with openings through which screws may pass for the purpose of positioning the knife member securely in place. The end 7 of the base 5 is re-bent at an acute angle thereto so as to approximate frictional contact with the sharpened edge of the knife member 3. The bent end 8, as shown in Fig. 4, engages one side of the knife member 3 so as to create a friction thereon to assist in holding the clamping plate, to be hereinafter described. The bent end 8 adjacent the knife member 3 also forms a protective cover for the sharpened edge to eliminate the possibility of said member cutting or bruising anything that might come in contact therewith.

The friction clamping plate 9 is formed of a strip of metal bent back upon itself to form a pair of complementary halves. The bent strip 10 is spaced away from the plate 9 and the end 11 of the bent strip 10 is re-bent to approximate frictional contact with the end 12 of the plate 9. A screw 13 is passed through the clamping plate 9 to hold the same in fixed position on a door jamb, and a screw 14 is passed through the bowed part of the bent strip 10 for the purpose of exerting a squeezing pressure thereon and controlling the frictional contact between the ends 11 and 12 of the bent strip 10 and plate 9. The plate 9 is preferably adapted to be secured on the door jamb, although it would be clearly within the purview of the invention to secure the same on the door and to position the knife member on the door jamb. The contacting ends of the plate 9 and bent member 10 are flared to permit the free entry or withdrawal therefrom of the knife member 3. The length of contact between the contacting ends 11 and 12 of the plates 9 and 10, together with the thickness and length of the knife member 3, determines the efficiency in which the cooperating parts will function as a check to eliminate the slam or noise that accompanies

the uncontrolled closing of the door. To further increase the checking efficiency of the cooperating parts, I have arranged that the end 12 of the bent part 10 will enter between the knife 3 and bent end 8 thereof, which will afford an additional checking friction. A spring actuated door with the knife member 3 thereon that is swung closed strikes either of the flared ends of the friction plates 9 and 10 and by reason of the closing momentum is forced to enter between the parallel faces thereof, thereby spending its force in entering. Thus the receiving members act as a shock absorbing medium for the knife 3, permitting the door to be swung closed in a quiet manner.

Having thus described this invention, what I now claim and desire to secure by Letters Patent is:

1. A door catch comprising a strip of metal bent upon itself to form a clamping member, said bent portion being spaced away from the first mentioned strip and rebent to approximate contact therewith, a screw passing through the clamping member, to adjust the space between the bent portion and the strip, a second screw passing through the rebent portion of said clamping member to adjust the pressure of said rebent portion adjacent to the closed end of the clamp, and a knife member adapted to enter the clamping member, having an end thereof bent upwardly to approximate contact with the edge of said knife member.

2. A door catch comprising in combination a strip of metal bent upon itself to form a clamping member, said bent portion being spaced away from said first mentioned strip and the end thereof rebent adjacent to the closed end of the clamping member to approximate frictional contact with said first mentioned strip; a screw passed through the clamping member to regulate the space between the bent portion and the strip, a second screw passing through the clamping member adjacent to the closed end of the clamp to regulate the contact between the rebent portions thereof; and a knife member, adapted to pass between the clamping member, having an end thereof bent upwardly into approximate contact with the edge of said knife member to form a protecting shield therefor.

In testimony whereof, I have hereunto set my hand at San Francisco, California, this 16th day of March, 1926.

GEORGE A. MOON.