Nov. 11, 1924. 1,514,845

E. FISCHER

DOOR OR WINDOW CATCH OR HOLDING DEVICE

Filed May 2, 1923

Fig. 2.

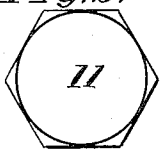


Fig. 1.

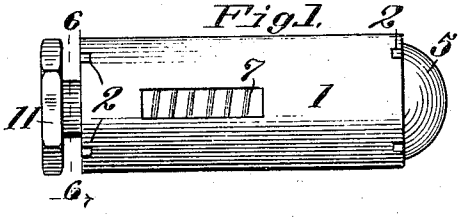


Fig. 3.

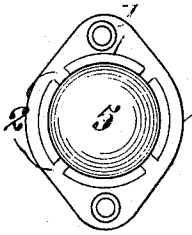


Fig. 4.

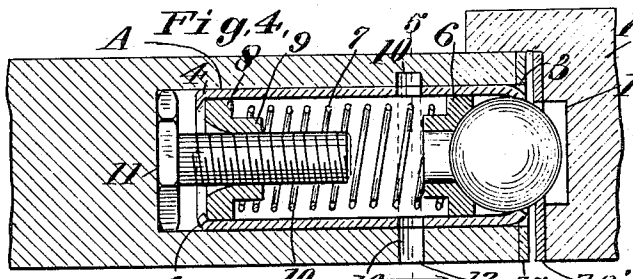


Fig. 5.

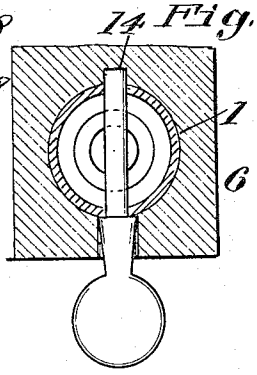


Fig. 6.

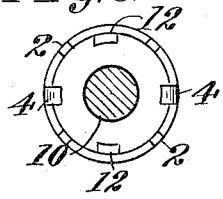


Fig. 7.

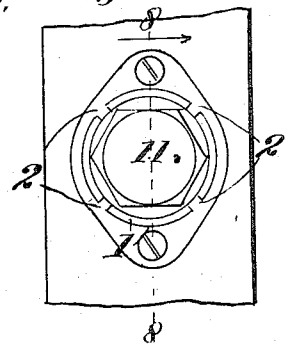
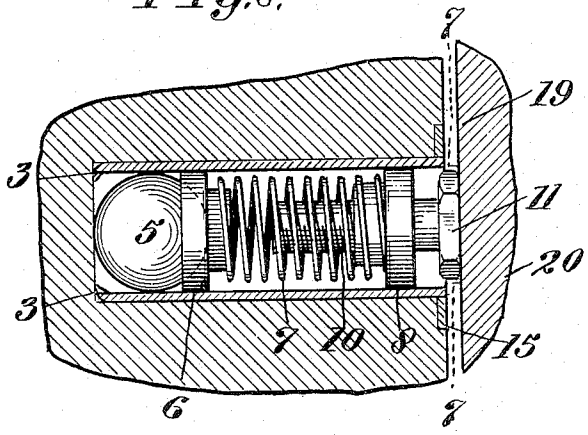


Fig. 8.



INVENTOR.
Ernest Fischer
BY Acker & Totten
ATTORNEYS.

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UNITED STATES PATENT OFFICE.

ERNEST FISCHER, OF TERRA BELLA, CALIFORNIA.

DOOR OR WINDOW CATCH OR HOLDING DEVICE.

Application filed May 2, 1923. Serial No. 636,069.

To all whom it may concern:

Be it known that I, ERNEST FISCHER, a citizen of the United States, residing at Terra Bella, in the county of Tulare and State of California, have invented certain new and useful Improvements in Door or Window Catches or Holding Devices, of which the following is a specification.

My invention relates to checks for doo. windows and the like, and consists principally in providing a construction adapted for securely holding doors against casual opening and adapted for use as a means whereby a door or closure can be fastened in shut position and held closed until the catch is released, the catch holding means and the entire construction being simple and compact and adapted for application at little expense to an ordinary screen door or the like.

A further object is the provision of a check which because of its construction is adapted for reversal from its check use and to be used to advantage in combination with sliding window sashes to afford a flat frictional surface to adjustably hold the sash and for use in other applications.

With the above mentioned and other objects in view, the invention consists in the novel construction and combination of parts hereinafter described, illustrated in the accompanying drawings, and set forth in the claims hereto appended, it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

To more fully comprehend the invention, reference is directed to the accompanying drawings, wherein:—

Fig. 1 is a view in side elevation of the preferred embodiment of my invention.

Fig. 2 is a view in end elevation illustrating the head of the adjusting screw.

Fig. 3 is a view in elevation of my invention illustrated as held in position by a keeper plate, the cylindrical check being disclosed.

Fig. 4 is a transverse sectional view taken longitudinally through the invention when the same is used as a door check.

Fig. 5 is a sectional view on line 5—5 of Fig. 4.

Fig. 6 is a sectional view on line 6—6 of Fig. 1.

Fig. 7 is a sectional view on line 7— of Fig. 8.

Fig. 8 is a sectional view on line 8—8 of Fig. 7.

Referring more particularly to the several views of the drawings wherein like characters of reference designate corresponding parts, 1 indicates an open ended tubular shell, the opposite ends of which are provided with inwardly extending slots 2, and one end of the shell is reduced in area by inwardly bending the same as at 3.

The opposite end A of the shell is provided with integral inwardly extending engaging fingers 4, Fig. 6. Inserted in the shell through the end A is a spherical check or ball member 5 of a diameter less than the interior diameter of the shell but greater than the contracted end 3 thereof and bearing against the same, and slightly within the shell is a tubular follower 6 against which engages one end of a coiled spring 7 also inserted into the shell through the end A. Another follower 8 is then inserted into the shell and bears against the other end of the spring 7, the central tubular opening 9 of said follower 8 being threaded to receive the threaded stem 10 of a headed adjusting and tension screw 11. The periphery of each of the followers 6 and 8 is formed with the notches 12 for the reception of fingers 4 when it is desired to position the followers within or remove the same from the shell 1. After the follower 8 has been positioned in the shell an axial rotation is imparted thereto to remove the notches 12 from in alignment with the fingers 4, which enables the fingers to engage the periphery of the follower and retain the same within the shell. The shell is provided transversely, adjacent its contracted end 3, with the aligned key receiving openings 13 into which is adapted for insertion a key or pin 14 which in position displaces one or more coils of the spring 7 and lies immediately in rear of the follower 6 preventing the retraction or forcing inwardly of the check 5.

In positioning the construction for use as a check, a hole corresponding to the diameter of the shell is drilled in the door edge and the shell is inserted therein, and is retained in position by the positioning of a keeper plate 15 at the outer end of the shell,

the plate being provided with engaging fingers adapted for reception within the recess 2 in the end wall of the shell, thus enabling the end of the shell to lie flush with the outer surface of the plate. A keyhole 16 is then formed in the door in line with the apertures 13 and the threaded stem of member 11 is adjusted to place on the spring 7 the required tension. An apertured catch plate 16′ is positioned over countersunk opening 17 in the door casing 18 to receive the spherical check 5 when the door is in closed position.

It will be observed that when the door is in closed position, the insertion of the key 14 will preclude the opening of the door.

To utilize this construction as a retainer for a sliding sash, providing a broad friction contact surface between the sash and consequently overcoming the necessity of using weights and pulleys, the tubular shell 1 is reversed from its position when used as a check, which latter position will be observed in Fig. 8. When used as a sash holder, the headed end of the adjusting screw 11 is adapted to contact with the surface 19 of the casing 20 and affords, dependent on its adjustment within the threaded opening in the follower 8, greater or less tension for retaining the sash in its adjusted position. It will be observed that when the construction is used in connection with sashes that the same cover plate is employed, it being capable of co-operating with either notched end of the shell, and that when in use as a sash holder the spherical check 5 bears against the inner end of the shell receiving opening, and that the longitudinal adjustment of the stem of the adjusting screw controls the tension placed on the spring and thus enables the head of the tension screw to project a greater or lesser distance beyond the edge of the sash.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is:—

1. In a device of the class described the combination of a tubular open ended shell contracted at one end, a cylindrical check within the said shell and projecting beyond its contracted end, a pair of freely movable followers within said shell adapted one for bearing on said spherical check, a spring within the shell between the followers for separating the same, means for maintaining the other follower within the shell, said latter follower provided with a threaded bore and a headed tension screw adjustably received within said bore for extending beyond the end of the shell.

2. In a device of the class described, the combination of a tubular open ended shell, a pair of spring pressed freely movable followers therein, a spring between the followers for normally separating the same, a member within the shell and normally projected beyond the end thereof by one of said followers, and a tension screw adjustably connected with the other follower and extending beyond the other end of the shell, said member and tension screw adapted for independent sliding movement within the shell.

3. In a device for the described purpose, the combination of an open ended tubular shell, a ball catch slidable therein and projecting outwardly from one end thereof, means for holding the same from complete withdrawal from the end of said shell through which it projects, a spring within the shell acting on the catch for normally maintaining the same projected, a follower freely slidable within the other end of the shell, means for holding the follower from complete withdrawal through its associated end of the shell, and a headed screw threaded member having screw threaded connection with the follower, said member adapted for adjustable extension beyond the end of said shell, said catch and screw holding follower adapted for independent movement within the shell.

In testimony whereof I have signed my name to this specification.

ERNEST FISCHER.