

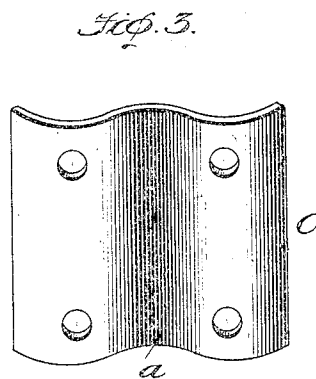
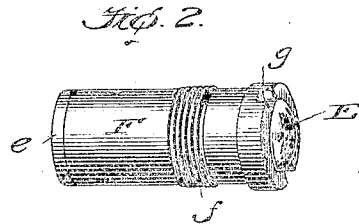
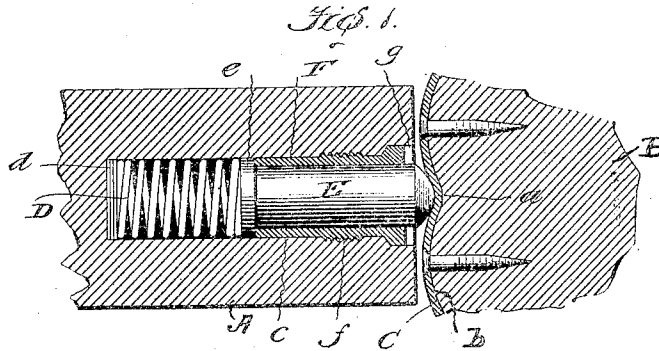
R. W. HUBBARD.

DOOR CHECK.

APPLICATION FILED MAR. 19, 1909.

941,782.

Patented Nov. 30, 1909.



Witnesses
[Signature]
 J. J. Sheehy Jr.

534

Inventor
 R. W. Hubbard.
[Signature]
 Attorney

UNITED STATES PATENT OFFICE.

RICHARD W. HUBBARD, OF ASHTABULA, OHIO.

DOOR-CHECK.

941,782.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed March 19, 1909. Serial No. 484,443.

To all whom it may concern:

Be it known that I, RICHARD W. HUBBARD, citizen of the United States, residing at Ashtabula, in the county of Ashtabula and State of Ohio, have invented new and useful Improvements in Door-Checks, of which the following is a specification.

My invention has to do with means for yieldingly holding doors in a closed position; and it contemplates the provision of simple, compact and efficient means calculated to retain a door in a closed position against wind pressure, and yet adapted to release the door when the same is pushed or pulled, this with a view of meeting laws and municipal regulations inhibiting the locking of the doors of schools and other public places when persons are gathered in the same.

With the foregoing in view, the invention will be fully understood from the following description and claim when the same are read in connection with the drawings, accompanying and forming part of this specification, in which:

Figure 1 is a horizontal section taken through a door and its casing and illustrating my improved door-holding means as properly arranged relative to the same.

Fig. 2 is a detail perspective view illustrating the plunger of the holding means in its sleeve or cylindrical casing. Fig. 3 is a similar view of the keeper, showing the preferred proportional height of the same.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is a portion of a swinging door.

B is a portion of the casing of the door.

C is the keeper comprised in my improvements, and D, E and F are the spring, the plunger, and the sleeve, respectively, of the member adapted to cooperate with the keeper, for the purpose stated.

The keeper C is provided with a seat *a* which is preferably in the form of a groove, of a greater length than the diameter of the plunger E in about the proportion shown, so as to assure engagement between the plunger and the keeper when one is not accurately positioned relative to the other.

In the preferred application of my invention the keeper C is carried by the door casing, and is suitably fixed in a recess *b* in the inner side of one upright of the cas-

ing so that the seat groove *a* of the keeper stands upright, as shown.

To prepare the door A for the member that cooperates with the keeper C, a socket *c* is formed in the outer vertical edge of the door, and in said socket is placed the coiled spring D, this arrangement being advantageous inasmuch as when it is desired to increase the tension of the spring the same may be accomplished by removing the spring and placing one or more washers *d* in the bottom of the socket *c*. After the spring is placed in the socket, the plunger E is arranged with its enlarged inner end *e* against the outer end of the spring, and then the sleeve F is suitably fixed in the socket so as to guide the plunger in its movements and prevent undue outward movement of the plunger under the action of the spring. I prefer to exteriorly thread the sleeve, as indicated by *f*, and to secure it in the socket through the medium of said thread, and I also prefer to kerf the outer end of the sleeve, as indicated by *g*, so that it may be turned through the medium of a screw-driver into the socket until its outer end is flush with the edge of the door.

With the keeper C and the member that cooperates therewith relatively arranged as shown, it will be seen that when the door A is swung to its closed position, the plunger E, which normally protrudes slightly beyond the outer end of the sleeve F, will ride into the seat *a* of the keeper, and when in said position will prevent casual opening of the door even when the same is subjected to wind pressure, and yet will give inwardly and permit the door to open when the same is pulled or pushed.

I would have it understood that the arrangement described is the preferred one when my improvements are applied to a single door, but that when desired the improvements may be arranged at either the upper end of the door and door casing; also, that the latter arrangement is resorted to when my improvements are applied to double doors and the casing thereof. I would further have it understood that without involving departure from the scope of my invention, the arrangement may be reversed—i. e., the keeper C may be carried at the outer vertical edge or one of the horizontal edges of the door and the member that cooperates with the keeper may be carried by one of

the upright portions or by one of the horizontal portions of the door casing.

In addition to the advantages hereinbefore ascribed to my improvements, it will be
5 noted that the same are simple and compact in construction and reliable in operation, and are calculated to enhance rather than detract from the finished appearance of a door and its casing.

10 Having described my invention, what I claim and desire to secure by Letters-Patent, is:

In means for the purpose described, the combination with a door and its casing, of
15 a keeper carried by the one and having a seat, and a member for cooperating with the keeper, carried by the other; the said mem-

ber comprising a coiled spring arranged in a socket in such other, an exteriorly-threaded sleeve secured by its thread in the socket and
20 having a kerf in its outer end, and a plunger disposed in the sleeve and normally protruding beyond the outer end thereof and having an enlargement interposed between the outer end of the spring and the inner end of the
25 sleeve.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

RICHARD W. HUBBARD.

Witnesses:

EUGENE HENRY,
L. M. HENRY.