

(No Model.)

S. E. FOREMAN, E. M. LORD & A. M. FOREMAN.
DOOR CHECK.

No. 509,305.

Patented Nov. 21, 1893.

Fig. 1.

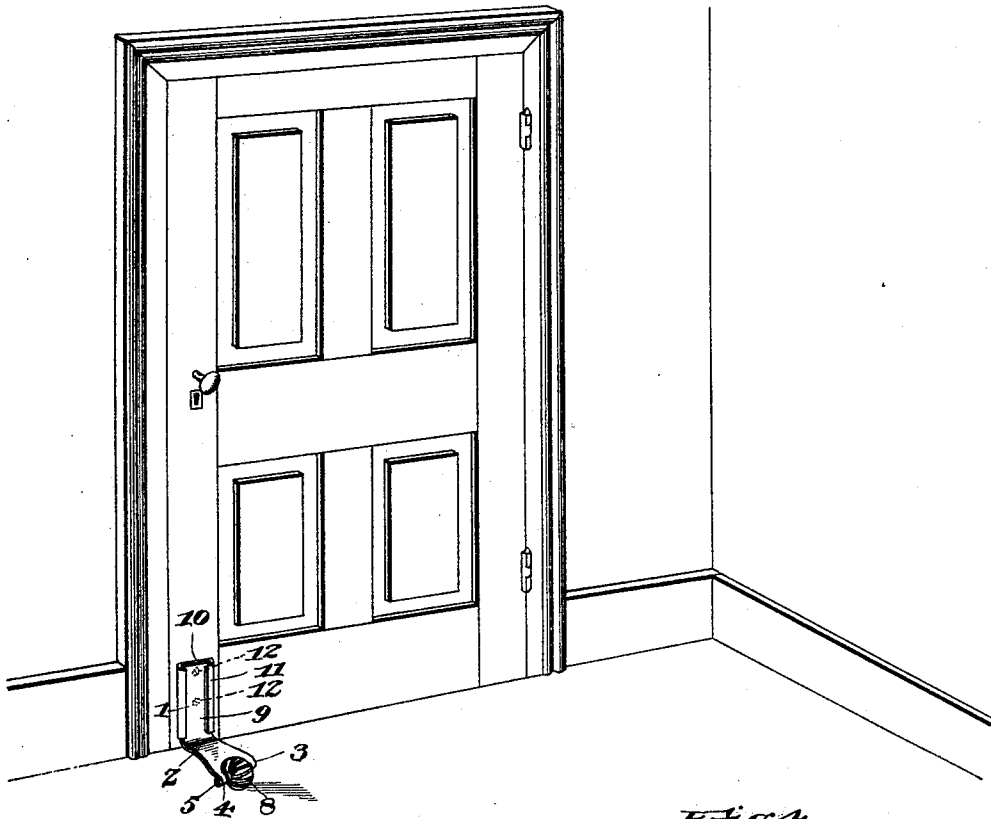


Fig. 2.

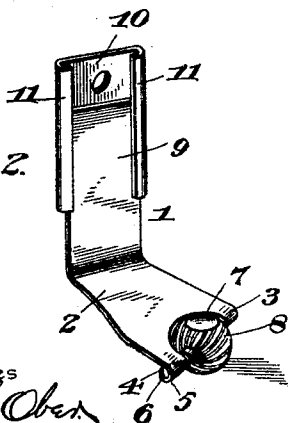


Fig. 3.

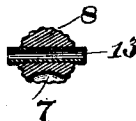
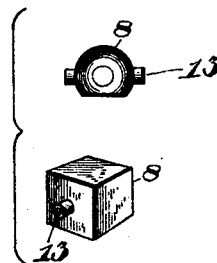


Fig. 4.



Witnesses

B. S. Ober
C. D. Wyle

By *their* Attorneys.

Samuel E. Foreman
Albert M. Foreman
Eduard M. Lord

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

SAMUEL E. FOREMAN, EDWARD M. LORD, AND ALBERT M. FOREMAN, OF
RANDOLPH, KANSAS.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 509,305, dated November 21, 1893.

Application filed June 10, 1893. Serial No. 477,217. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL E. FOREMAN, EDWARD M. LORD, and ALBERT M. FOREMAN, citizens of the United States, residing at Randolph, in the county of Riley and State of Kansas, have invented a new and useful Door-Check, of which the following is a specification.

Our invention relates to door checks and contemplates the provision of a simple, inexpensive, and effective device which can be applied with facility to a door, and which is so constructed as to enable the latter to be checked at any desired point; furthermore, the provision of a door check capable of fulfilling the functions of a stop to prevent the contact of the door-knob with the wall; furthermore, the provision of means whereby the free end of the door is supported and prevented from sagging, and, furthermore, to provide a rolling or friction member of such construction as to cause it to remain in a set position when in contact with either a smooth or a roughened surface.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings: Figure 1 is a perspective view of a door check embodying our invention, applied in the operative position to a door. Fig. 2 is a detail view in perspective of the check detached. Fig. 3 is a preferred form of rolling or friction member. Fig. 4 shows slightly modified forms of the rolling or friction members.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates an actuating and attaching spring, which in the construction shown in the drawings is illustrated as a plate spring bent outwardly at its lower end to form a horizontal arm 2. This arm is provided with a bifurcated terminal to form the parallel ears 3 and 4, of different lengths; the ear 3, which is upon the side of the spring toward the hinged edge of the door, is shorter than the ear 4. These ears are provided with terminal bearings or eyes 5, in which are fixed the ends of a spindle 6, which, owing to the different

lengths of the ears, is held in alignment with the hinged edge of the door, and hence perpendicular to the direction of movement of any given point of the door, or perpendicular to the chord of any arc described by such point of the door. Upon this spindle, between the ears, is mounted a rotatable friction member, which is preferably provided with a flattened and concaved side 7, and a corrugated or roughened surface 8. The concaved side of the member is designed especially for use in connection with smooth surfaces, such as polished floors, &c., with which such part of the member forms a close frictional contact, assisted by the exclusion from the cavity of the air.

Other forms of rotary member are illustrated in Fig. 4; one being provided with a simple flat side and another being made in the shape of a cube. Other modifications may also be adopted.

The rotary or friction member is preferably of elastic or compressible material, such as rubber, but may be constructed of cork or other material which possesses qualities insuring a sufficiently tenacious frictional contact with the surface over which the member travels.

Various other changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

The arrangement of the axis of the rolling member in alignment with the hinged edge of the door, or perpendicular to the chord of an arc described by a given point of the door, enables the same to follow the path of such arc, and hence avoids twisting and sliding upon the surface of the floor. The horizontal arm of the spring is of such a length as to hold the rotary member beyond the vertical line of the outer surface of the door-knob, hence causing such member to contact with the washboard and thus prevent the knob from striking the wall. Furthermore, the downward pressure of the spring supports the free edge of the door and prevents sagging thereof. The upper portion or vertical shank 9 of the actuating spring is slidably fitted to a securing plate 10, provided with parallel

side-guides 11, which receive the edges of said spring. The securing-screws 12 extend through the base-plate and are concealed by the shank of the spring. A further advantage of this construction is that the spring is capable of vertical adjustment to compensate for shrinkage of the door, removal of the carpet, or allows for the accurate adjustment of the pressure-roll after the device has been secured to the door.

As above described, the spindle 6 is fixed or non-rotatable in the eyes 5, at the terminal of the horizontal arm of the spring, and the friction roll or rotatable member is provided with an axially-disposed metallic sleeve or boxing 13 to receive said spindle to enable the part to rotate freely thereupon.

Having thus described the invention, what we claim is—

1. In a door check, the combination of a horizontal supporting spring projecting perpendicularly from the plane of the door, a spindle carried by the extremity of such spring in alignment with the axis of rotation of the door, and a rotary member mounted upon such spindle, substantially as specified.

2. In a door check, the combination of a pressure spring provided with a horizontal arm having a bifurcated terminal, the ears formed by such bifurcation being of unequal lengths, the spindle fixed to the terminals of

said ears and held in alignment with the axis of rotation of the door, and a rotary member mounted upon such spindle, substantially as specified.

3. In a door check, the combination with a pressure spring, of a rotary member carried by said spring and provided with a concaved surface, substantially as specified.

4. In a door check, the combination with a pressure spring, of a rotary member of irregular form having a flattened and concaved side 7, and a corrugated or roughened surface, 8, substantially as specified.

5. In a door check, the combination of a securing-plate provided with guides and adapted to be attached to the door, and a spring carrying a rotary member and provided with a shank fitting in said guides and adapted to conceal the means of attachment of the securing-plate to the door, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

SAMUEL E. FOREMAN.
EDWARD M. LORD.
ALBERT M. FOREMAN.

Witnesses:

JOHN PARSONS,
LLOYD C. ASPINWALL.