

J. A. EVANS.

DOOR CHECK.

APPLICATION FILED SEPT. 18, 1909.

944,723.

Patented Dec. 28, 1909

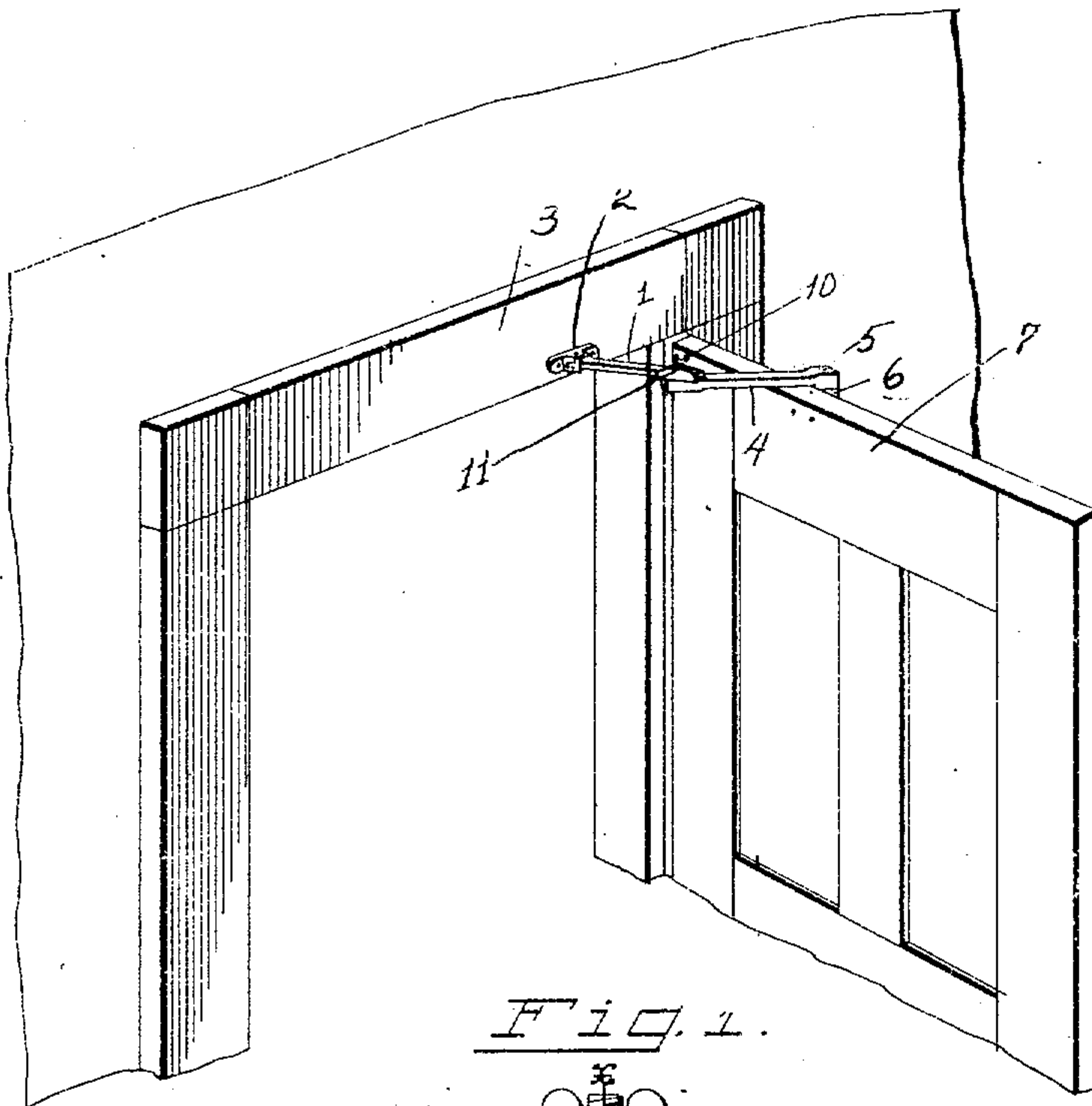


Fig. 1.

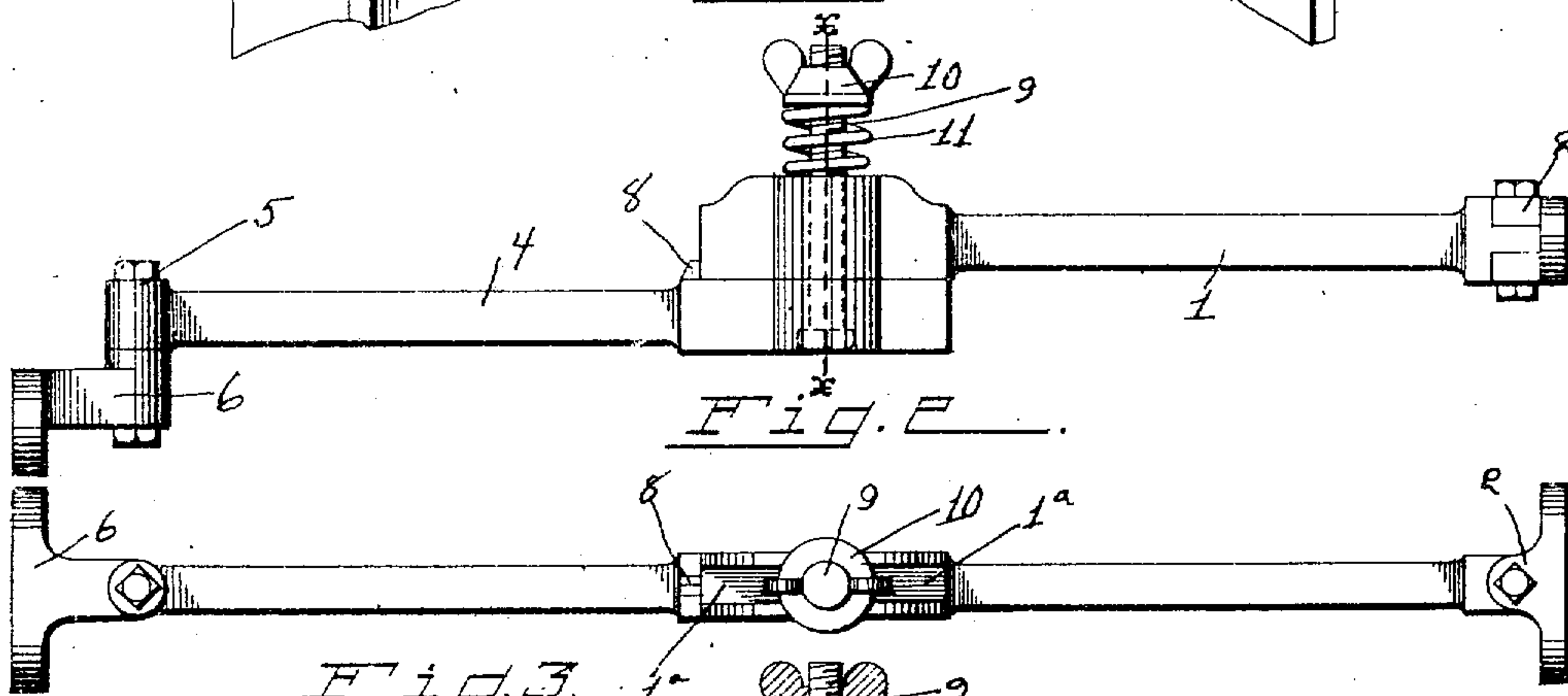


Fig. 2.

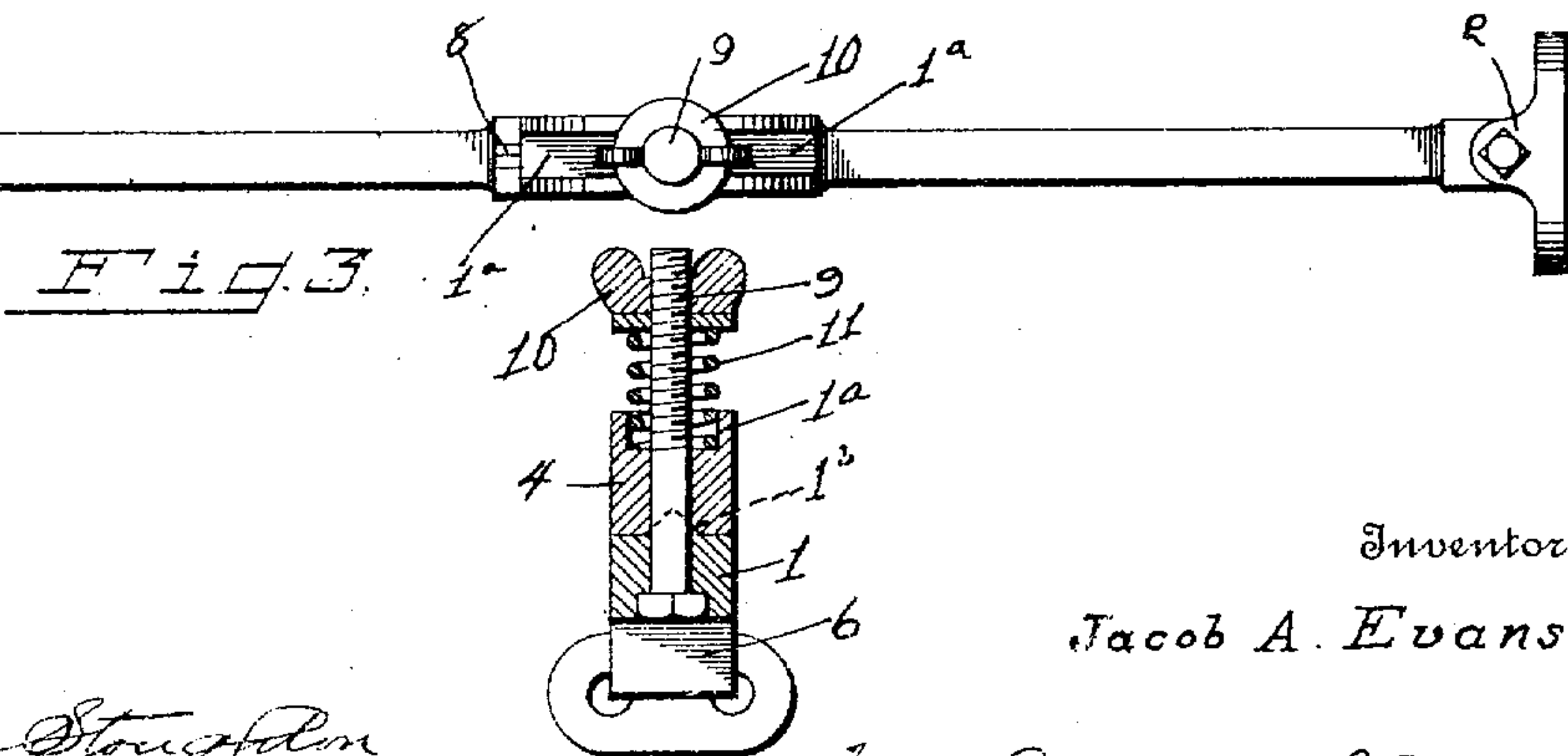


Fig. 3.

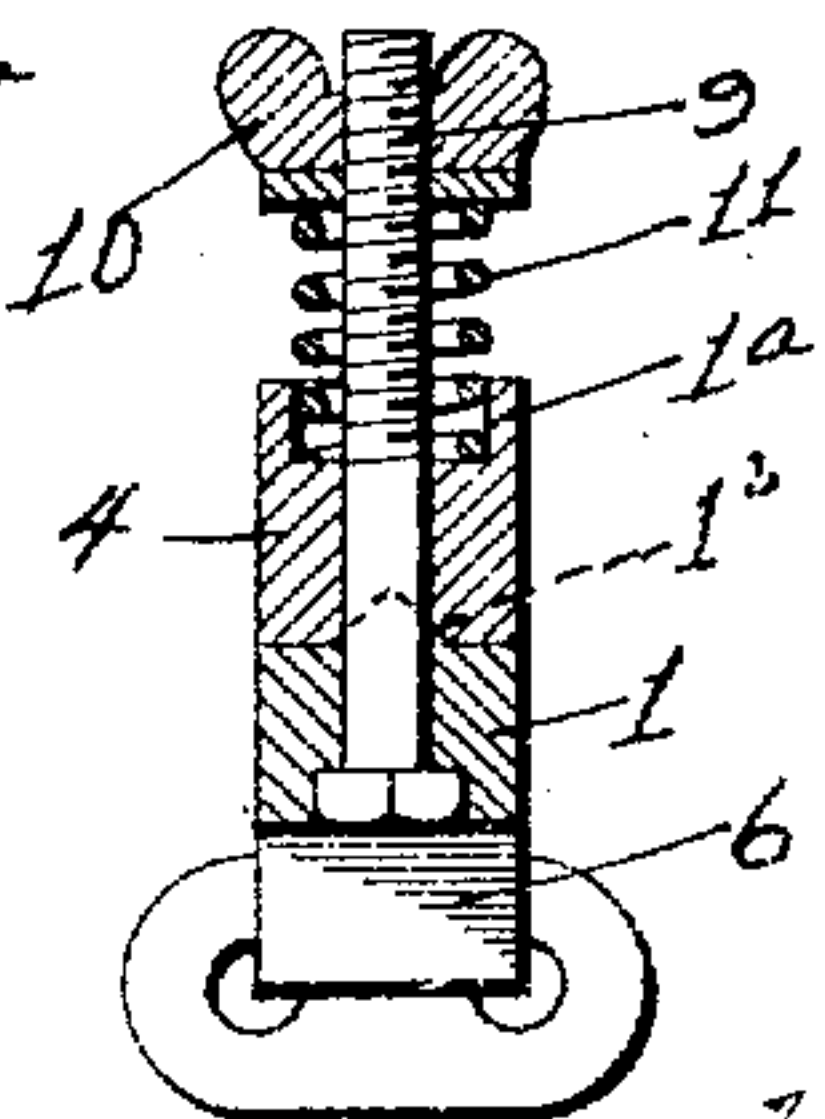


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

JACOB A. EVANS, OF COLUMBUS, OHIO, ASSIGNOR TO ALPHONSE ROESCH, OF COLUMBUS, OHIO.

DOOR-CHECK.

944,723.

Specification of Letters Patent.

Patented Dec. 28, 1909.

Application filed September 18, 1909. Serial No. 518,375.

To all whom it may concern:

Be it known that I, JACOB A. EVANS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Door-Checks, of which the following is a specification.

My invention relates to the improvement of door checks, and the objects of my invention are to provide an improved construction of door check or door stop, by means of which a hinged door will be checked and held against voluntary movement when the door has been opened to a predetermined degree and to produce certain improvements in details of construction and arrangement of parts which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawing, in which:

Figure 1 is a view in perspective of a portion of a door and door frame, showing my improved door check in use thereon, Fig. 2 is a side elevation of the door check, Fig. 3 is a plan view of the same, and, Fig. 4 is a central vertical section on line $x-x$ of Fig. 2.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention, I employ a bar 1 of suitable length, said bar having one end pivotally connected with a suitable form of bracket 2, which bracket is adapted, as shown in Fig. 1 of the drawing, to be rigidly connected with the face of the upper horizontal member 3 of a door frame. The bar or arm 1 is so supported in connection with said bracket as to extend horizontally outward from said door frame and the outer end portion of said bar or arm has its upper side enlarged or elevated, said elevated portion being formed, as shown, with a longitudinal channel 1^a. As shown in the drawing, the underside of the enlarged head or terminal member of the arm 1 is formed with a V-shaped groove or recess 1^b, which recess is in the direction of the length of the bar 1.

4 represents a door arm which is preferably in the form of a bar, one end of which is pivotally connected by means of a vertical pivot bolt 5 with the outer and vertical portion of a door bracket 6, the latter being secured to the outer face of a door such as is indicated by 7 and projecting therefrom adjacent to the upper side of the door. As

shown in Fig. 1 of the drawing, the bar 4 extends inwardly over the door 7 and has its remaining end, which is slightly enlarged laterally, formed on its upper side with a horizontal rib or tongue 8, which tongue is of such form as to fit within the angular recess 1^b of the arm 1. The ends of the bars 1 and 4 which thus overlap each other, are pivotally connected through the medium of a vertical pivot bolt 9 which passes downward through the head or end of the arm 1, thence through the outer end of the arm 4. Upon the upper threaded end of the pivot bolt 9, is carried a suitable form of thumb nut 10 and between the latter and the upper side of the bar 1 is interposed a coiled spring 11, which serves to exert a downward pressure on the head of the bar 1 and tends to hold said bars 1 and 4 in desirable frictional engagement.

It is obvious that the rib or tongue 8 may extend in the direction of the length of the arm 4 or that the same may extend diagonally across the outer end or head of said bar or at any desired angle therewith. When the door is in a closed position, the lower surface of the outer end portion of the arm 1, bears upon the upper side of the tongue 8, the groove or recess 1^b thus being at an angle with and crossing said tongue. It is obvious, however, that when the door is pushed or pulled open to a sufficient degree to bring the groove 1^b into alignment with the tongue 8, the spring 11 will act to move the bar end downward to insure a latching engagement of the groove 1^b and the tongue 8, thereby latching the door in the open position, from which position it can only be moved in a closing direction by imparting sufficient force to the door to overcome the pressure of the spring 11 and move the tongue out of engagement with its receiving groove. It will be understood that the degree of outward movement of the door before latching or checking by the above described engagement of the tongue and groove, will depend upon the relative positions of said tongues and grooves in the parts with which they are formed.

From the construction shown and described, it will be seen that a comparatively simple and effective door check is provided, by means of which a door may be latched or checked against voluntary movement in either direction beyond a predetermined

point, and while my improved door check may be employed in connection with the doors and door frames of buildings of various kinds, said device has been found particularly useful in connection with car doors and frames.

From the foregoing description, it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention, but while the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claim.

What I claim, is:

In a device of the character described, the combination with a bar, of means for pivotally connecting one end of said bar to a

door frame, a second bar, means for pivotally connecting said second bar to a door, enlarged heads formed upon each of said bars, the head of the first named bar having a longitudinal channel formed therein and said head having a V-shaped longitudinal channel formed in its under face, a V-shaped rib carried by the upper face of the last named bar, a threaded bolt extending upwardly through both of said heads, a thumb nut threaded upon the upper end of said bolt, and a spring bearing between the under side of said thumb nut and the head of the first named bar, the lower end of said spring resting in the channel of said head.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB A. EVANS.

Witnesses:

A. L. PHELPS,
L. CARL STOUGHTON.

Correction in Letters Patent No. 944,723.

It is hereby certified that Letters Patent No. 944,723, granted December 28, 1909, upon the application of Jacob A. Evans, of Columbus, Ohio, for an improvement in "Door-Checks," was erroneously issued to Alphonse Roesch as owner of the entire interest in said invention, whereas said Letters Patent should have been issued to the inventor, *Jacob A. Evans and Alphonse Roesch, jointly*, said Roesch being owner of *one-half* interest only, in said invention, as shown by the record of assignments in this office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 29th day of March, A. D., 1910.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.

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