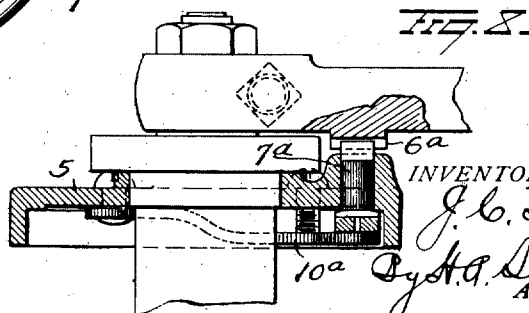
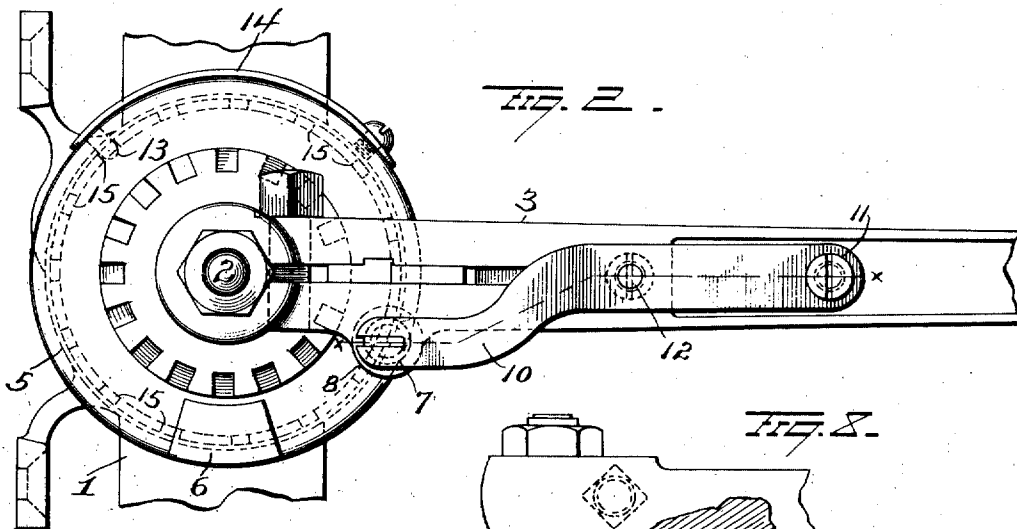
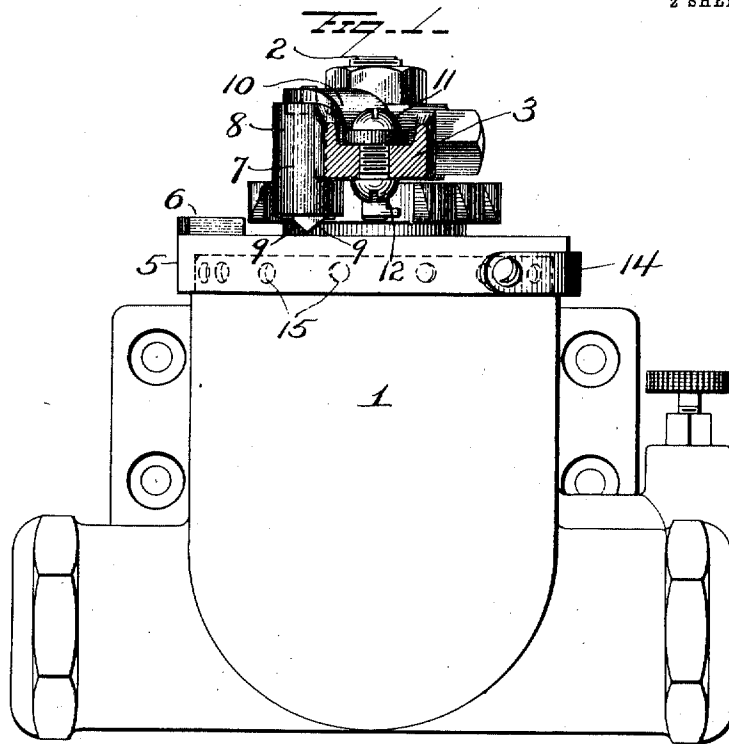


J. C. REGAN.
DOOR CHECK AND CLOSER.
APPLICATION FILED AUG. 24, 1909.

991,371.

Patented May 2, 1911.

2 SHEETS-SHEET 1.



WITNESSES
E. Nottingham
G. J. Downing.

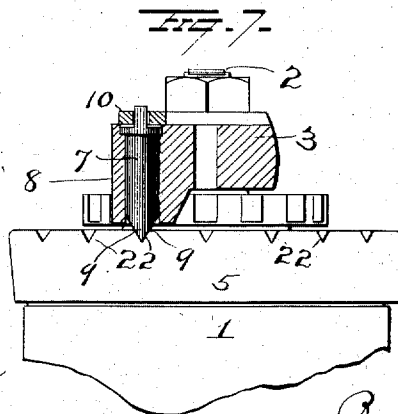
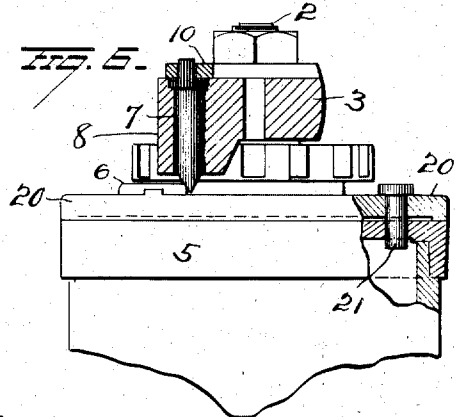
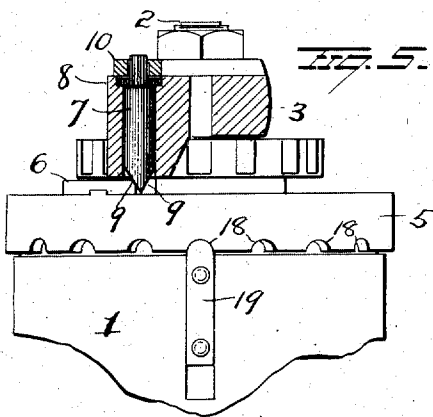
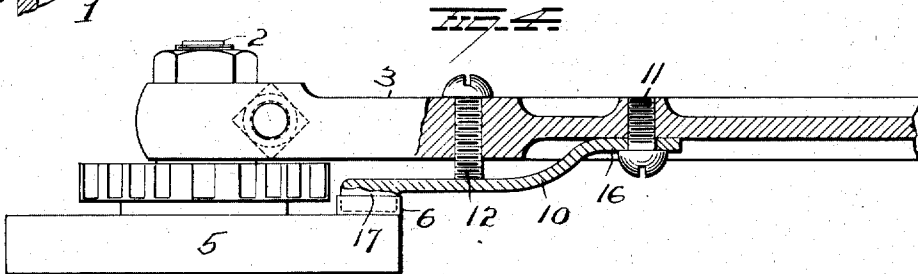
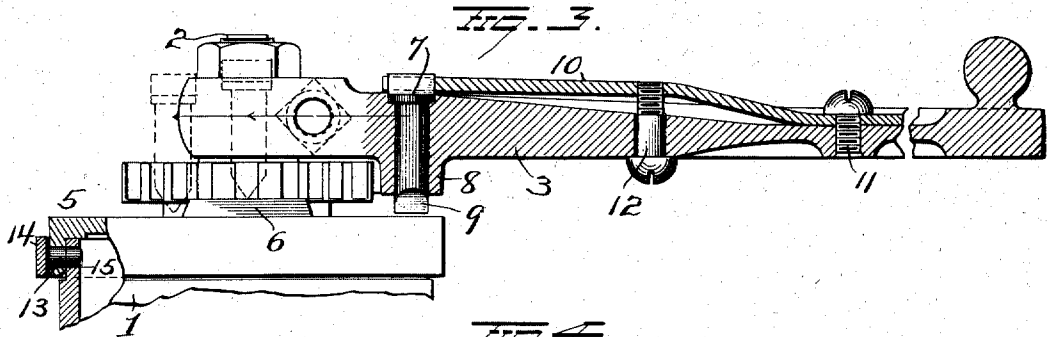
INVENTOR
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By H. A. Seymour
Attorney

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UNITED STATES PATENT OFFICE.

JOSEPH C. REGAN, OF STAMFORD, CONNECTICUT, ASSIGNOR TO THE YALE & TOWNE MANUFACTURING COMPANY, OF STAMFORD, CONNECTICUT.

DOOR CHECK AND CLOSER.

991,371.

Specification of Letters Patent.

Patented May 2, 1911.

Application filed August 24, 1908. Serial No. 514,401.

To all whom it may concern:

Be it known that I, JOSEPH C. REGAN, of Stamford, in the county of Fairfield and State of Connecticut, have invented certain
5 new and useful Improvements in Door Checks and Closers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it
10 appertains to make and use the same.

This invention relates to improvements in door checks and closers,—the object of the invention being to provide simple means which will enable a door to be held open to
15 any desired extent and to so construct said means that the same will operate automatically to temporarily hold the door in open position but which will yield upon the application of comparatively moderate pressure against the door to permit the closing
20 of the latter.

A further object is to provide means on a door check for holding the door open and to so construct said means that the same can
25 be readily adjusted according to the extent it may be desired to temporarily hold the door open.

A further object is to provide means on a door check for temporarily holding a door
30 open to any desired extent, said means being so constructed and arranged that they can be thrown out of action and the device permitted to operate in the usual manner to close the door.

35 With these objects in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

40 In the accompanying drawings, Figure 1 is an elevation of a door check and closer showing the application of my improvements thereto. Fig. 2 is a plan view. Fig. 3 is a view partly in elevation and partly
45 in section on the line $x-x$ of Fig. 2. Figs. 4, 5, 6, 7 and 8 are views illustrating modifications.

1 represents the casing of a door check and closer and 2 the spindle of the same,
50 to which the lever arm 3 is secured,—said lever arm being adapted for coöperation with the mechanism of the device and for connection with a door in the usual manner.

For the purpose of holding the lever arm
55 3 at any desired position and thus retain-

ing the door temporarily open, the devices now to be described will be employed: The cap or cover 5 of the casing 1 is provided with a lug 6 which may be secured thereto or made integral therewith and serve as a stop with which a spring-pressed dog 7
60 carried by the lever arm coöperates. The dog 7, in the form of the invention shown in Fig. 3, consists of a vertically movable plunger mounted in a boss or enlargement
65 8 on the lever arm and provided at its lower end with two beveled faces 9, 9. A spring 10 is secured at one end to the lever arm by means of a screw 11 and at its other end
70 said spring is connected with the upper end of the dog or plunger 7 so as to normally press the latter downwardly so that its lower beveled end will move in a plane below the top surface of the lug or stop 6. A
75 screw 12 passes freely through a hole in the lever arm and engages the spring 10 intermediate the ends of the latter and the head of this screw serves as a stop to limit the upward movement of the spring.

From the construction and arrangement
80 of parts above described, it will be seen that when the door with which the lever arm is connected is opened, the lower end of the dog or plunger 7 will engage one end of the lug or stop 6 and will be forced upwardly
85 and then ride over the top face of said dog or stop. When the lever arm has moved sufficiently to permit the dog or plunger to pass the lug or stop, said dog or plunger will be pressed downwardly and become dis-
90 posed behind the rear end of the lug or stop and thus the door will be held in open position. By applying comparatively moderate pressure to the door, the engagement
95 of the beveled face of the dog or plunger 7 with the lug or stop 6, the said dog or plunger will be caused to rise against the resistance of the spring 10 and to ride over the lug or stop. The device is now free to
100 operate to close the door in the usual manner.

In order that the door can be temporarily stopped at any desired position, it is necessary that provision shall be made to adjust
105 the lug or stop 6. Such adjustment can be readily effected by turning the cap or cover of the casing and for the purpose of retaining the cap or cover in any position to which it may be adjusted, I provide a dog
110 13 carried by one end of a spring 14 secured

to the rim of the cap or cover,—said dog passing freely through a hole in the rim of the cap or cover and adapted to enter any one of a series of perforations 15 around the upper end of the casing 1.

When it is desired that the door check and closer shall be operated in the usual manner without being temporarily held open, the dog or plunger 7 may be thrown out of action so as not to cooperate with the lug or stop 6 on the cap, by loosening the screw 11 which connects the spring 10 with the lever arm.

Instead of making the locking dog in the form of a plunger as above described and locating the spring which operates the dog, on top of the lever arm,—said spring may be secured to the under face of the lever arm, as shown at 16 Fig. 4 and the free end of this spring provided with a dog 17 to cooperate with the lug or stop on the cover of the casing.

Other means than those above described for effecting adjustment of the stop or lug 6 may be employed. Thus in Fig. 5 the cap or cover is provided in its flanged portion with a series of notches 18 with any one of which a locking dog 19 attached to the casing 1 may be made to engage.

In Fig. 6 the lug or stop is located on a plate 20 which is mounted upon the cap or cover of the casing and adjustably secured thereto by means of a pin 21.

In the form of the invention shown in Fig. 7 the cap or cover of the casing is provided with a number of notches 22, into any one of which the dog or plunger carried by the lever arm may engage and thus hold the door at any desired open position, and in Fig. 8 I have reversed the construction shown in the other figures, that is to say I have secured the spring arm 10^a to the underside of cap 5, with the spring pressed dog 7^a carried on the free end of the spring and projecting upwardly through a hole in the cap to engage a lug or stop 6^a fixed to or cast integral with the underside of the lever arm.

It is evident that changes in the construction and relative arrangement of the several parts might be made without avoiding my invention and hence I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but,—

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is,—

1. In a door closer, the combination with a casing, and a lever arm, of a yielding device including a dog carried by one of said parts and engaging a shoulder on the other part whereby the door may be yieldingly held in its open position, and means for adjusting the tension of said yielding device

whereby the pressure required to close the door may be adjusted and regulated.

2. In a door closer the combination with a casing and a lever arm, of a yielding device including a dog carried by one of said parts and engaging a shoulder on the other part for yieldingly holding the door open, and means for changing or adjusting the position of the shoulder with relation to the yielding device, the construction of the shoulder and yielding device being such that a sufficient pressure applied to the door will cause the yielding device to ride over the shoulder and thus permit the door to be closed.

3. In a door closer, the combination with a casing having a stop, a rotatable device and a lever arm connected with said rotatable device, of a spring arm secured at one end to said lever arm, with its free end adjacent the casing, and a stop carried by the free end of said spring arm and cooperating with the stop on the casing for yieldingly holding the door in open position.

4. The combination with the casing and lever arm of a door check, of a lug or stop carried by the cover of the casing, means for adjusting said cover to adjust the lug or stop, a spring pressed dog carried by the lever arm and cooperating with said lug or stop to temporarily lock the lever arm and hold the door open.

5. The combination with the casing and lever arm of a door check, said casing having a movable cover and the casing having a series of perforations within the flange of said cover, of a lug or stop on the cover, a spring pressed dog carried by the flange of the cover and adapted to engage any one of the perforations in the casing, and a spring pressed dog carried by the lever arm and cooperating with said lug or stop to temporarily lock the lever arm and hold the door open.

6. In a door closer, the combination with the casing and a lever arm, of a yielding stop device carried by one of said parts and engaging a shoulder on the other whereby the door may be yieldingly held in open position, but may be closed by pressure applied to the door, and means for rendering the yielding locking device inoperative.

7. In a combined door closer and stop, a closer case, a spindle rotatable therein, a lever arm carried thereby, a stop adjustably mounted on said case and arranged to be shifted to different positions angularly around the axis of said spindle, means for holding said stop in various positions of adjustment, and a cooperating stop-engaging member carried by said lever arm, one of said parts being yielding.

8. In a door closer, in combination, a case having a cap portion, a rotatable spindle passing centrally through said cap portion,

5 a lever arm mounted to swing concentrically
with the axis of the spindle, a stop adjust-
ably mounted on the casing and arranged
to be shifted to different positions angu-
larly around the axis of said spindle, means
for holding the stop in various positions
of adjustment, and a cooperating stop en-
gaging member carried by the lever arm,
one of said stop elements being spring
10 pressed and yielding.

15 9. In a door closer, in combination, a
case having a cap portion, a rotatable spindle
passing centrally through said cap portion,
a lever arm mounted to swing concentrically
with the axis of the spindle, a stop adjust-
ably mounted on the casing and arranged

to be shifted to different positions angularly
around the axis of said spindle, means for
holding the stop in various positions of
adjustment, and a cooperating stop-engag- 20
ing member carried by the lever arm, a
spring carried by the lever arm for im-
pelling the stop engaging member also car-
ried thereby.

In testimony whereof, I have signed this 25
specification in the presence of two subscrib-
ing witnesses.

JOSEPH C. REGAN.

Witnesses:

S. C. WHITNEY,
SCHUYLER MERRITT.