

(No Model.)

C. F. SHORT
DOOR CHECK.

No. 514,735.

Patented Feb. 13, 1894.

Fig. 1.

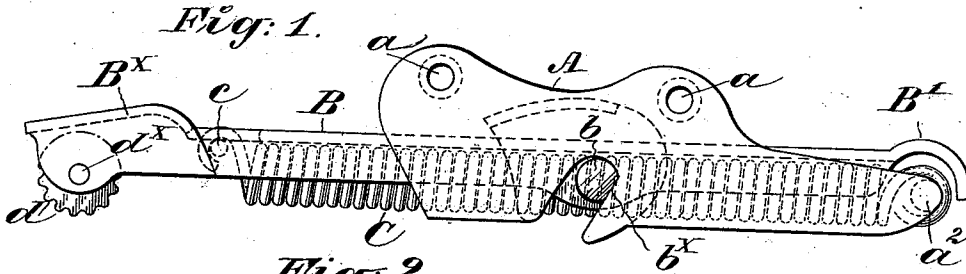


Fig. 2.

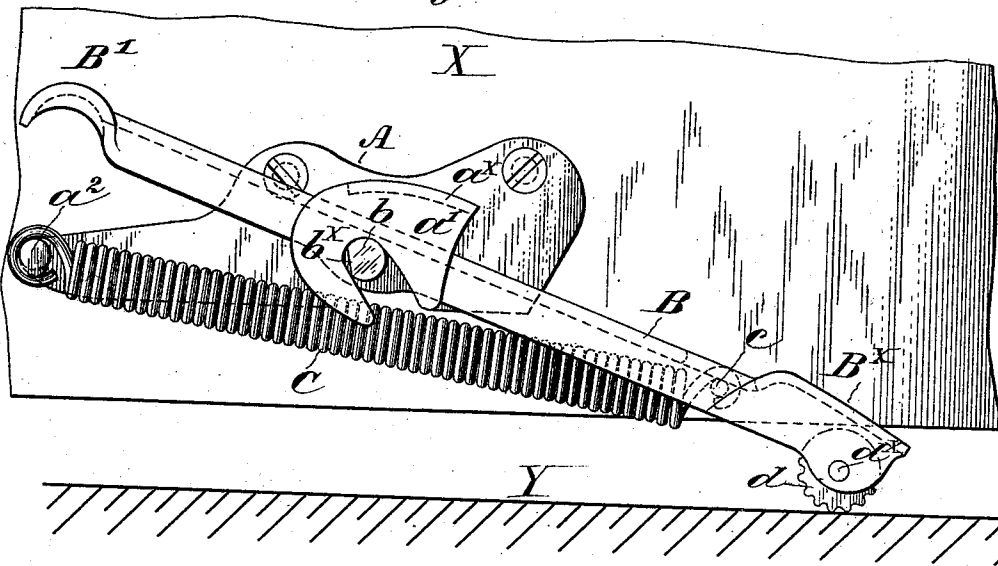
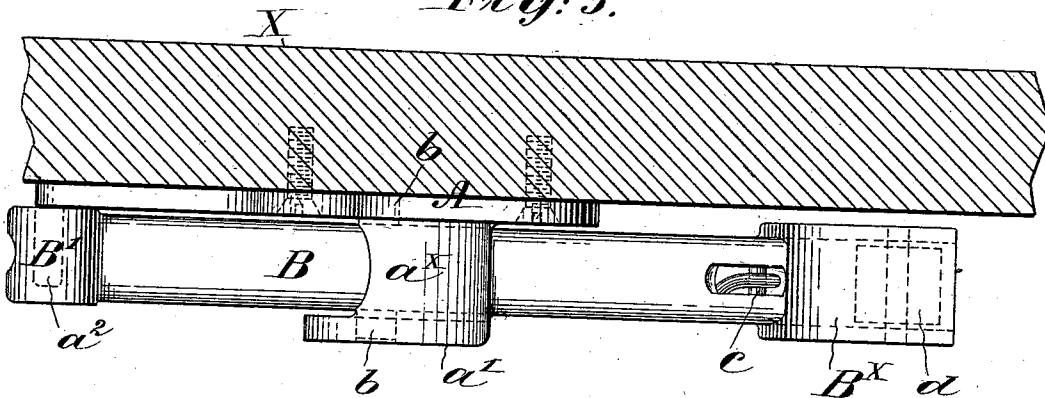


Fig. 3.



Witnesses:
J. M. Deliman
Peter A. Ross.

Inventor:
Charles F. Short.
by Henry Connors
his Attorney

UNITED STATES PATENT OFFICE.

CHARLES F. SHORT, OF NEW YORK, N. Y.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 514,735, dated February 13, 1894.

Application filed July 20, 1893. Serial No. 480,997. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. SHORT, a citizen of the United States, residing in the city, county, and State of New York, have
5 invented certain new and useful Improvements in Door-Checks, of which the following is a specification.

My invention relates to improvements in the class of door-checks which employ a lever fulcrumed on a plate secured to the door,
10 and a strong spiral spring to throw down the operative end of the lever when said end is depressed by the foot sufficiently to allow the spring to act. When the lever is elevated
15 and inactive the axis of the spring is so nearly aligned with that of the lever that the latter stands in somewhat unstable equilibrium. As heretofore made, so far as I am
20 aware, the lever in this class of door-checks stands, when elevated, in such unstable equilibrium that the jarring of the door or the brushing against it of a dress, is liable to set
25 the lever on the floor, and the lever is so insecurely mounted on the plate that it is liable to fly off in operating or handling the check.

The object of my invention is to improve the device in respect of the defects above noted, as will be hereinafter described.

In the accompanying drawings which serve
30 to illustrate an embodiment of my invention, Figure 1 is an inner side view of the door-check, detached from the door. This view shows the lever in its normal, inoperative position. Fig. 2 is an outer side view of the
35 door-check, showing it secured to the door and the lever in operative position. Fig. 3 is a plan of the device with the parts in the position seen in Fig. 2.

X represents a door and Y the floor over
40 which the door swings.

A is the attaching plate provided with holes to receive attaching screws, a , for securing the plate to the door. On the front of this plate is formed a projecting bracket,
45 a^x , having a pendent flange, a' . In this flange a' , is formed an inclined slot, opening downward, and in the plate A (see Fig. 1,) is formed a like slot, which registers with the slot in the flange a' . These slots form bear-
50 ings for two fulcrum trunnions, b , b , on the

lever, B, which is mounted on the plate as clearly shown. This lever is formed with a hollow in its under side which gives it a nearly semi-tubular form.

C is the spring, which is attached at one
55 end to a pin, c , in the operative end of the lever B, and to a stud, a^2 , on the plate A, at its other end. When the lever is in its inoperative position, as in Fig. 1, the spring C occupies the hollow of the lever and the strain exerted by the spring is substantially along the
60 axis of the lever; but when the operative end of the lever is slightly depressed, the line of strain is displaced downward and the spring draws the operative end or head, B^x , of the
65 lever down forcibly to the floor, as seen in Fig. 2.

In order to impart sufficient stability to the lever B when in its normal position seen in Fig. 1, whereby it will require a moderate
70 pressure with the foot on its operative end or head, in order to start it down, I form on each of the trunnions b a flat face, b^x , which bears on the flat rear margin of the bearing-slot, as clearly shown in Fig. 1, when the lever is at
75 rest. This flattened face serves to put the lever in more stable equilibrium and it also serves to some extent to relieve the tension on the spring, as the cutting away of a part of the trunnion lessens the distance between
80 the pin c and stud a^2 , to which the respective ends of the spring C are attached. It is not desirable that the spring shall be under undue strain when the lever is at rest.

The bracket a^x and flange a' enable me to
85 provide a bearing at each side of the lever, which eliminates the element of side-draft and prevents thereby the flying out of the lever when the stop is not carefully handled. This construction also imparts strength and
90 durability, which is very desirable in a structure where the parts are always under strain from a spring.

To return the lever to the position seen in Fig. 1 from that seen in Fig. 2, it is only necessary to depress the tail B' , of the lever with
95 the foot.

The bracket a^x forms a convenient rest for the foot while operating the lever.

Ordinarily a door-check of this class has a
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rubber block secured to the operative head or end of the lever by a wrapping of wire, the block forming a cushion to bear on the floor and prevent the metal of the lever from striking the same. I find this construction objectionable mainly on account of the wire of the wrapping, and in lieu thereof I employ a rubber roller, *d*, preferably corrugated, mounted on a pin, *d'*, which passes through the cheeks or flanges on the head of the lever. Having thus described my invention, I claim—

1. In a door-check, the combination with the attaching plate provided with a bracket and with slotted bearings for the lever, of the said lever provided with trunnions to engage said slotted bearings, said trunnions having each a flattened face which bears on the margin of the slot when the lever is in its normal position, and the spring C, secured at

one end to the lever and at the other end to the attaching plate, as set forth.

2. In a door-check, the combination with the attaching plate A, provided with a projecting bracket *a'*, a flange *a'* on said bracket, and two inclined bearing slots in the respective plate and flange, of the lever B, having two trunnions, *b*, to bear in said slots, said trunnions having each a flattened face *b'*, and the spring C, secured at one end to the lever and at the other end to the plate A, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CHARLES F. SHORT.

Witnesses:

HENRY CONNETT,
JAMES K. DUFFY.