(No Model.)

C. H. SHAW.

DOOR CHECK.

No. 347,526. Patented Aug. 17, 1886.

Fig. 2.

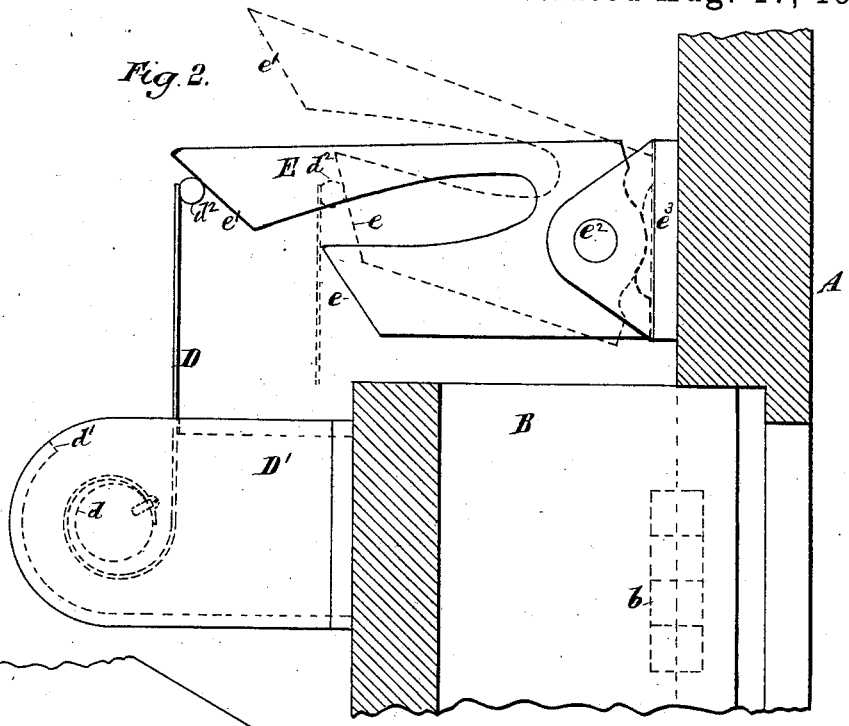


Fig. 3.

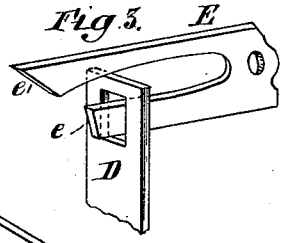
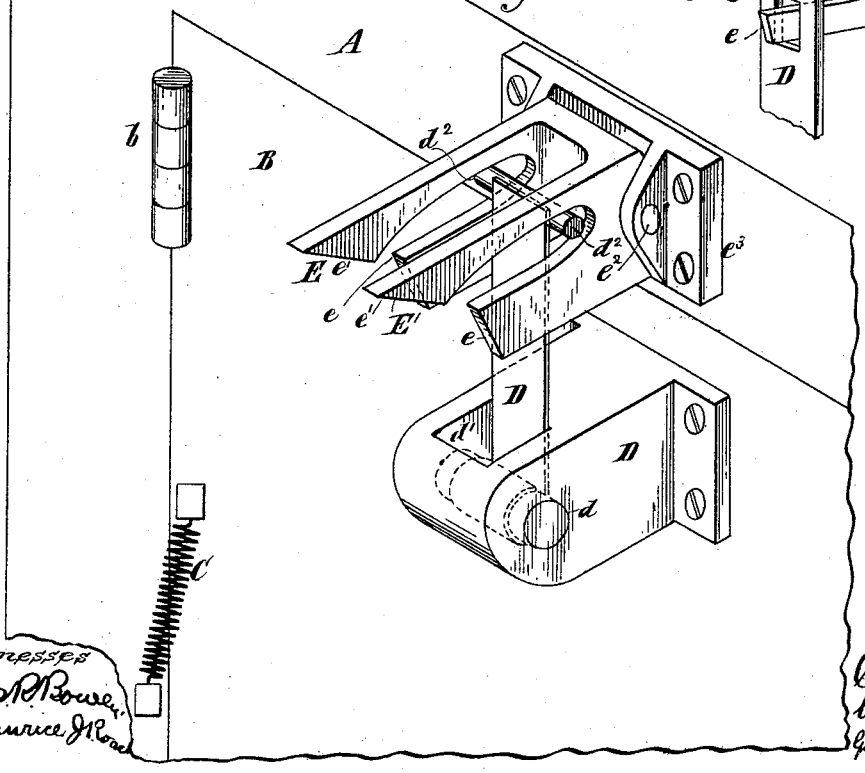


Fig. 1.



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DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 347,526, dated August 17, 1886.

Application filed June 10, 1886. Serial No. 204,728. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SHAW, of Brooklyn, in Kings county, and the State of New York, have invented a certain new and useful Improvement in Door-Checks, of which the following is a specification.

I will describe a door-check embodying my improvement, and then point out the various novel features in a claim.

In the accompanying drawings, Figure 1 is a perspective view of a door-check embodying my improvement. Fig. 2 is a side view of the same, showing certain parts in one position in bold outline, and in another position in dotted outline. I have shown a door and door-casing in these figures. Fig. 3 is a perspective view illustrating a modification.

Similar letters of reference designate corresponding parts in all the figures.

A designates a door-casing. B designates a swinging door, connected thereto at one of the side edges by hinges *b*. A spring, C, connected to the door and door-casing, closes the door after it has been opened.

D D′ E E′ designate my door-check. One part is to be fastened to the door and the other part is to be secured to the door-casing. I have shown the part D D′ arranged on the door and the part E E′ arranged on the door-casing in such position that it will operate with the part D D′.

The part D D′ of the door-check consists of a tappet and spring, D, and a support, D′, therefor. (Shown as made in the form of a case.) The spring may be made of a strip of flat steel fastened at one end to a non-rotary shaft, *d*, coiled around the same and having the outer end extended tangentially. The support D′ has the ends of the shaft fitted in its sides, so as to prevent it from turning. The tangential end of the spring extends through a slot, *d′*, in the support or case D′. At the extremity of this end of the spring are laterally-extending lugs d^2. (Shown as formed by securing a cross-pin thereto.) The spring may of course yield, owing to its resilience. The support or case may advantageously be made of malleable iron. It may be made in sections, so as to facilitate the introduction of the shaft and spring. It may be secured to the part on which it is to be used by means of screws.

The part E E′ has two duplicate portions, E and E′, each consisting of an abutment, *e*, and a cam or incline, *e′*, arranged above it. Each of the abutments *e* has a cam or incline, *e′*, cast integral with it. The pairs of abutments and cams may all be cast together. The pairs of abutments and cams are pivoted by a pin, e^2, to a plate, e^3. The lugs on the extremity of the tangential end of the tappet are intended to come in contact with the cams or inclines and raise them and the abutments into an elevated position. If the door having the tappet and spring applied to it is closing with a rapid movement, the lugs on the extremity of the tangential end of the spring will strike the ends of the abutments. The movement of the door will then be checked, not suddenly, however, but gradually, because the spring will yield and undergo deflection. While the door has thus been arrested, the tappet, by resuming its normal condition, will swing the door slightly farther open. As soon as the tension of the spring has by this action become relaxed, the cams and abutments will descend, whereupon the lugs on the extremity of the tappet will enter the space between the abutments and inclines, and the door will close. Whenever a door is closing slowly, the tappet will simply raise the cams and abutments and pass between them without acting against the abutments. The cams and abutments will descend by gravity after being shifted by the tappet, the bearing which their ends have against the plate e^3 keeping them in their normal position. When the door opens, the tappet will pass from between the cams and abutments.

The plate e^3 of the cams and abutments may be secured in its place by screws.

It is not absolutely necessary to use the cams and abutments in duplicate; but if only one cam and one abutment should be used the end of the spring should be perforated, so that it can embrace and travel over the abutment, as may be understood by reference to Fig. 3.

Instead of having a spring of a flat form shown, one made of wire can be used.

What I claim as my invention, and desire to secure by Letters Patent, is—

A door-check consisting of an abutment and a cam connected together, and pivotally connected to a support, and a tappet and spring, the said parts being adapted for use in combination on a door and door-casing, arranged in such relative positions that the tappet will act on the cam, and, when the door needs checking, rock the abutment into position to resist the closing of the door, substantially as specified.

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