

(No Model.)

J. H. SHAW & W. GILFILLAN.

DOOR CHECK.

No. 378,728.

Patented Feb. 28, 1888.

Fig. 1

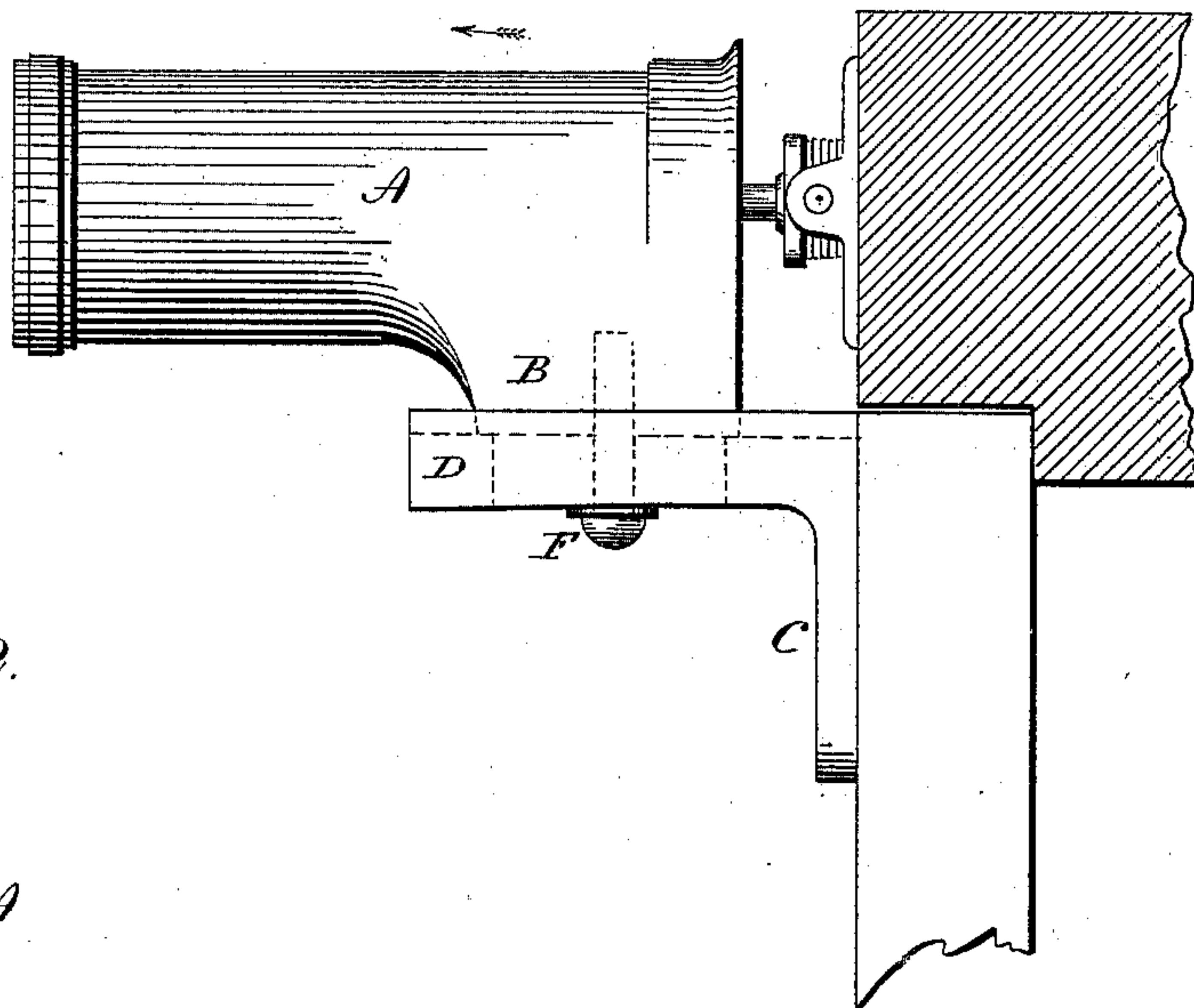


Fig. 2.

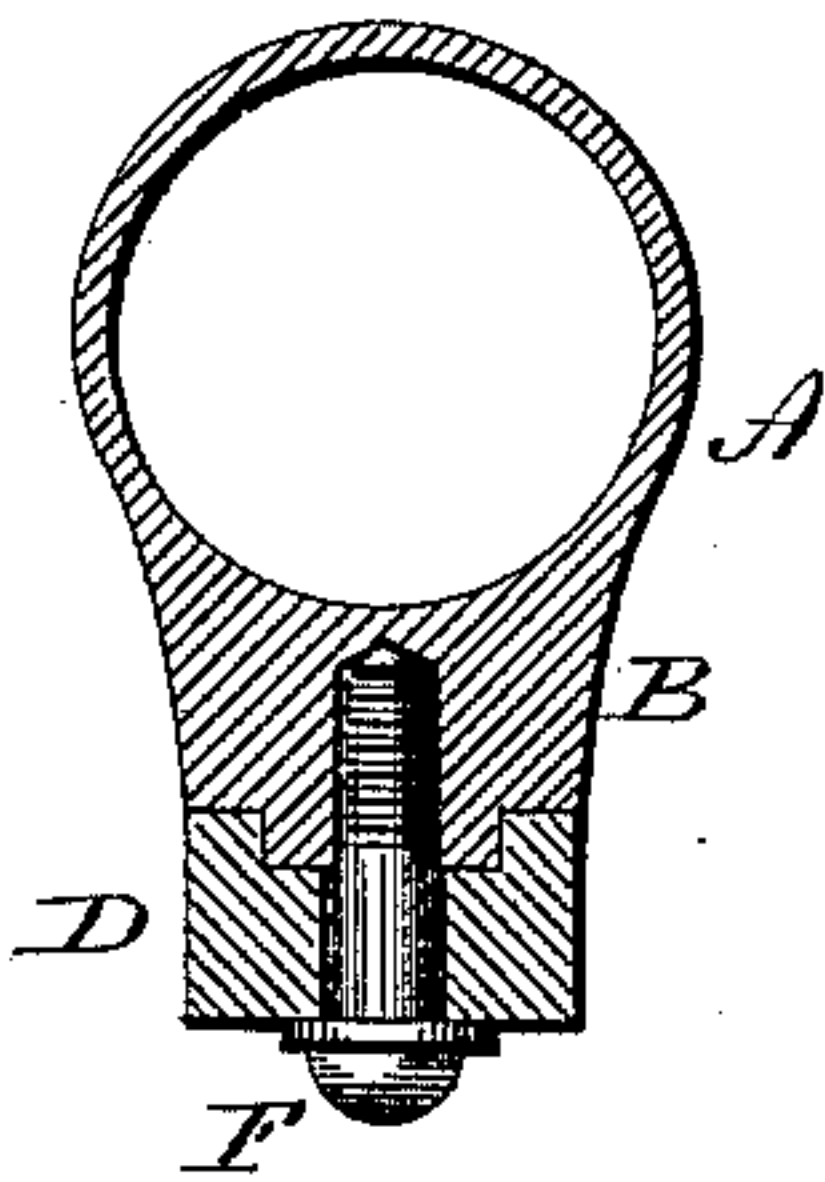


Fig. 3

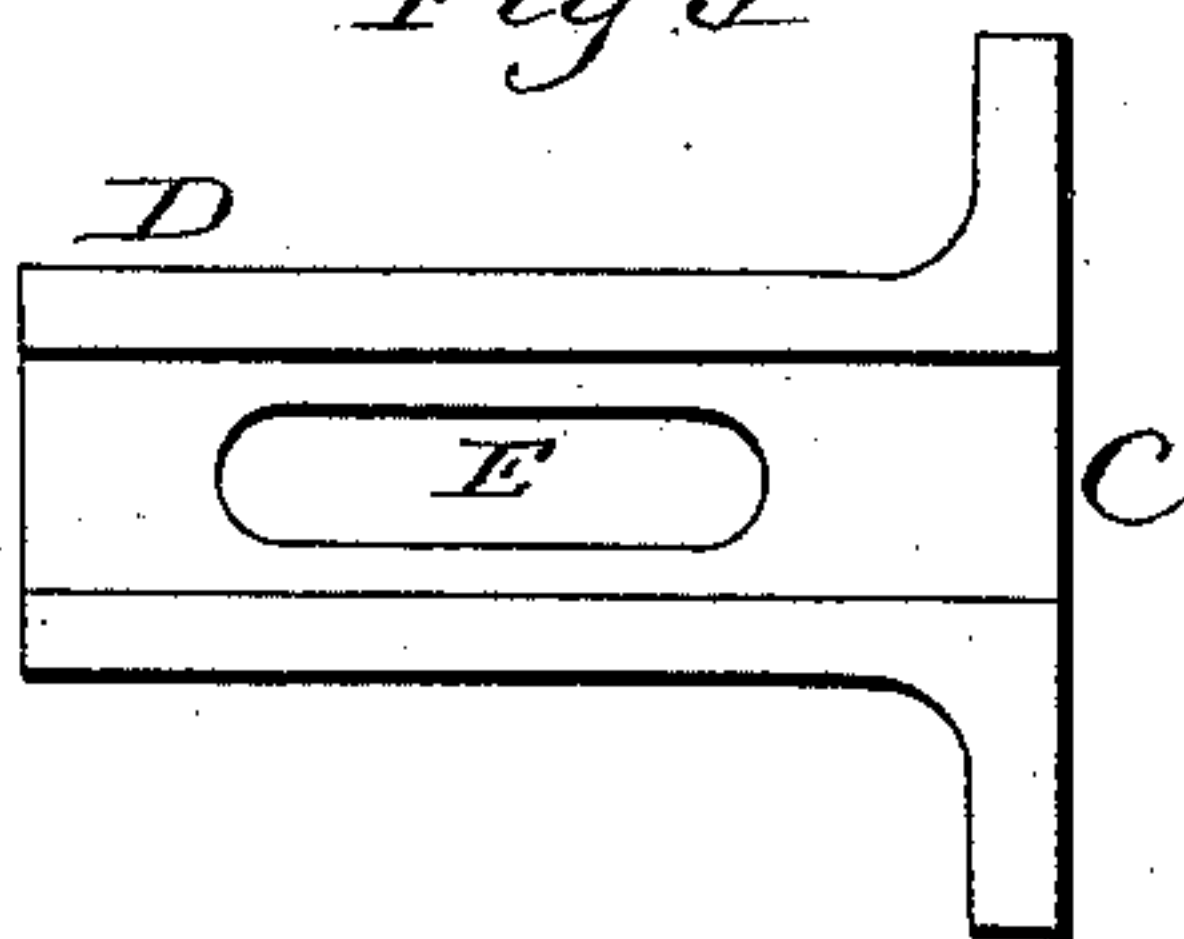
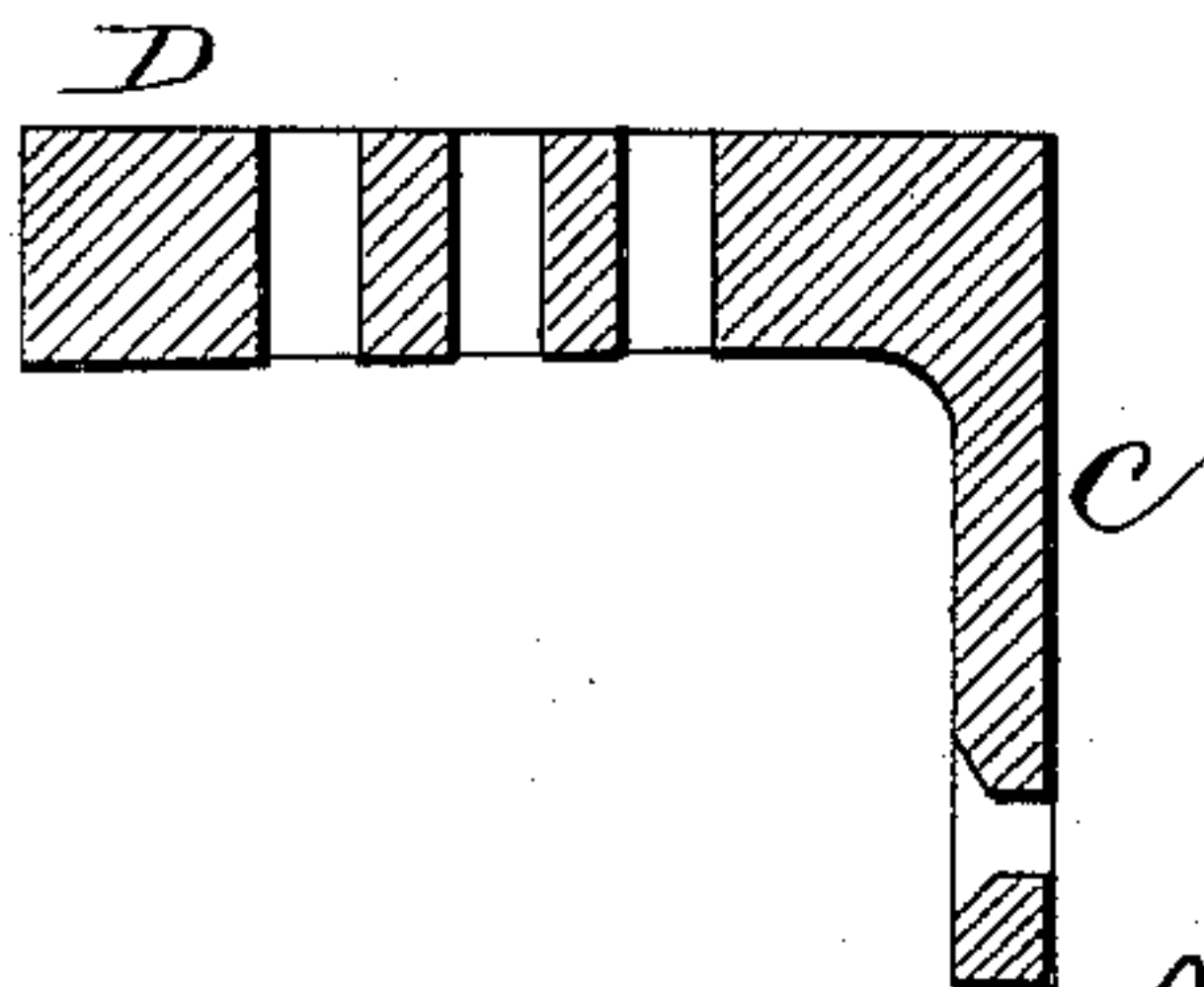


Fig. 4



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UNITED STATES PATENT OFFICE.

JOHN H. SHAW AND WILLIAM GILFILLAN, OF NEW HAVEN, CONNECTICUT,
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DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 378,728, dated February 28, 1888.

Application filed June 27, 1887. Serial No. 242,593. (No model.)

To all whom it may concern:

Be it known that we, JOHN H. SHAW and WILLIAM GILFILLAN, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Door-Checks; and we do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of the check as secured to a door; Fig. 2, a transverse section through the cylinder and bracket-arm; Fig. 3, a top view of the bracket-arm; Fig. 4, a modification.

This invention relates to an improvement in that class of devices for checking the closing of a door which consist of a cylinder and a piston, the one fixed to the door, so as to swing with it, and the other stationary, as upon the lintel, so that as the door closes the piston will enter the cylinder, form an air-cushion to slightly resist the action of the spring in closing the door, the cushion giving way under the pressure of the spring, so that the door gradually closes, and such as seen in the patent of William Gilfillan, No. 311,742, dated February 3, 1885, and upon which this invention is an improvement. In the construction of this class of devices the cylinder is usually attached to the door, and it has been provided with a flange for such attachment. In practice the casing around doors in different rooms varies to a considerable extent. In some cases the door is substantially flush with the surrounding casing. In other places the door is recessed, so that the casing projects a considerable distance beyond the surface of the door. The result of this is that if the bracket or flange by which the cylinder is secured is in a position to suit the flush door, and so that the cylinder will, in the closed position, stand close up to the casing, then this cylinder is not adapted for the recessed door, and, on the contrary, if the flange or bracket be made of sufficient projection from the cylinder to adapt it to the recessed door, then the cylinder will stand too far from the casing on a flush door.

The object of this invention is to adapt the cylinder to doors having various positions with relation to their respective casings; and it consists in a bracket adapted to be secured to the door, having an arm extending therefrom at substantially right angles, with a slot vertically through the arm of the bracket, combined with the cylinder of the check having a downwardly-extending bolt or screw through the said bracket, whereby the cylinder may be secured upon the bracket at any desired position with relation to the surface of the door, as more fully hereinafter described.

A represents the cylinder, which is in the usual form, and such as shown in the Gilfillan patent before referred to. Upon the under side of the cylinder is a downward projection, B.

C represents the flange of the bracket by which the cylinder is to be secured to the door. From this bracket is an outwardly-projecting arm, D, upon which the projection B from the cylinder is adapted to rest. The adjacent surfaces of the bracket and cylinder are, preferably, one grooved and the other constructed with a tongue, so as to form a guide for the movement of the cylinder longitudinally on the bracket. Through the arm D is a vertical longitudinal slot, E, (see Fig. 3,) through which a screw or bolt, F, is introduced in engagement with the cylinder A, as indicated in Fig. 1, and by means of which the cylinder may be clamped firmly to the arm at any point within the range of the slot E, so that, supposing the face of the flange C to be the surface of the door to which the cylinder is to be attached, the cylinder may be moved toward or from that surface, as occasion may require, to adapt it to the varying positions of the casing, and when the proper position is attained it may be securely clamped in that position by means of the bolt or screw F.

The force which the cylinder is required to resist in closing the door is from the door, or in the direction of the arrow in Fig. 1. This force would tend naturally to slide the cylinder outward upon the bracket. To avoid the possibility of such sliding or its tendency, we make the arm gradually increasing in thickness toward its outer end, as indicated in Fig.

1, so that any tendency to force the cylinder outward away from the door will be met with the wedge-like action of the arm D between the cylinder and the head of the bolt or screw.

5 The adjustment may be made by several holes vertically through the arm, as indicated in Fig. 4, through either of which the bolt may be set, and so as to adjustably secure the cylinder to the arm; but we prefer the slot, as
10 giving a greater range of adjustment.

We claim—

15 1. In a door-check substantially such as described, the combination of the bracket consisting of the attaching-flange C and the outwardly-projecting arm D with the cylinder A, having the projection B therefrom, adapted to set upon the arm D, and a bolt through said arm adapted to adjustably secure

the cylinder to the arm, substantially as described. 20

2. In a door-check substantially such as described, the combination of a bracket by which the cylinder is secured, the said bracket constructed with an arm extending outwardly therefrom increasing in thickness vertically 25 toward its outer end, the bracket constructed with a longitudinal vertical slot, the cylinder of the check adapted to slide upon the upper surface of said arm, and a bolt through the said slot in the arm to engage the cylinder 30 with the arm, substantially as described.

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