

No. 685,306.

Patented Oct. 29, 1901.

P. STEWART & O. S. SNYDER.

DOOR CHECK.

(Application filed Apr. 2, 1901.)

(No Model.)

Fig. 1.

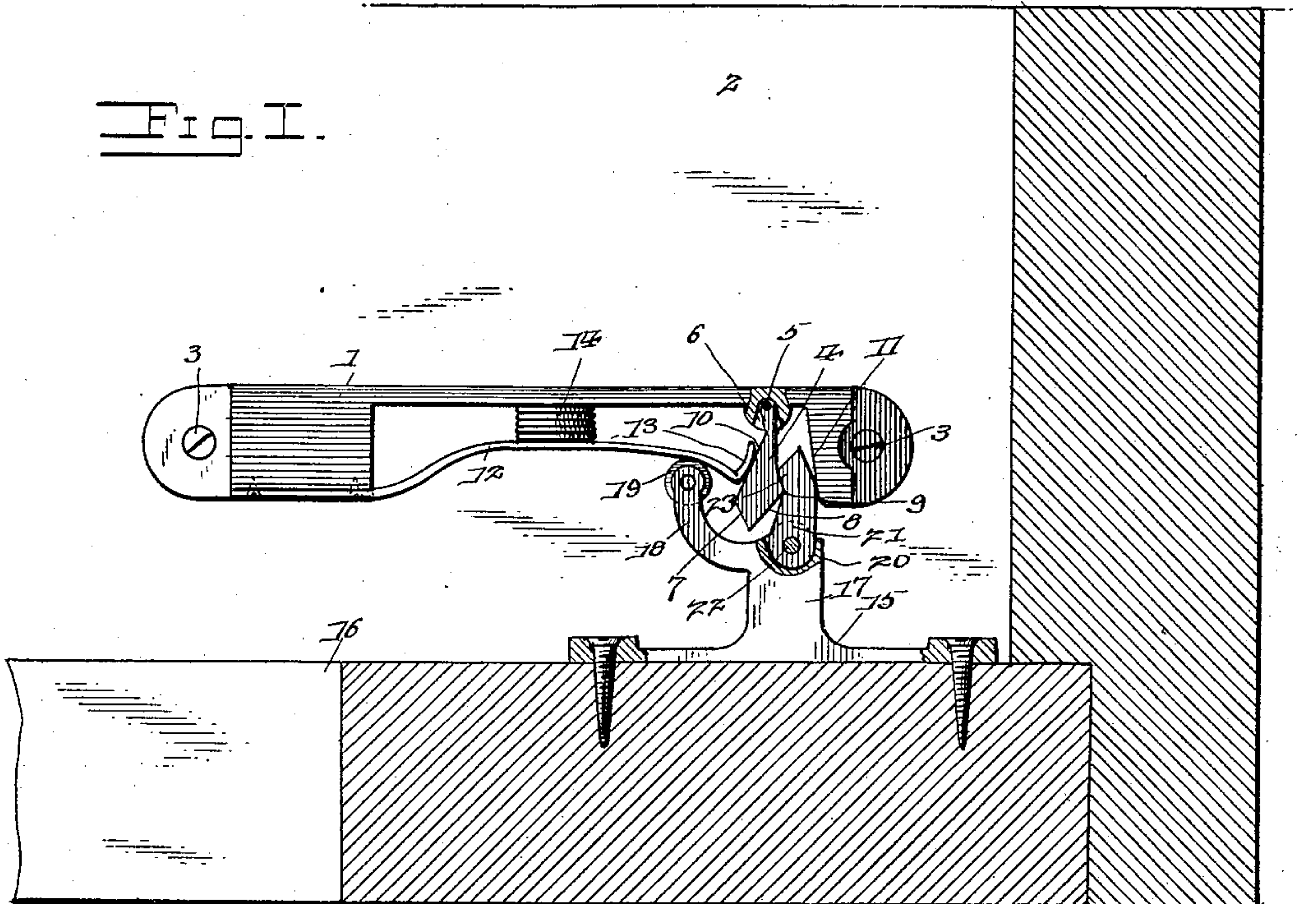
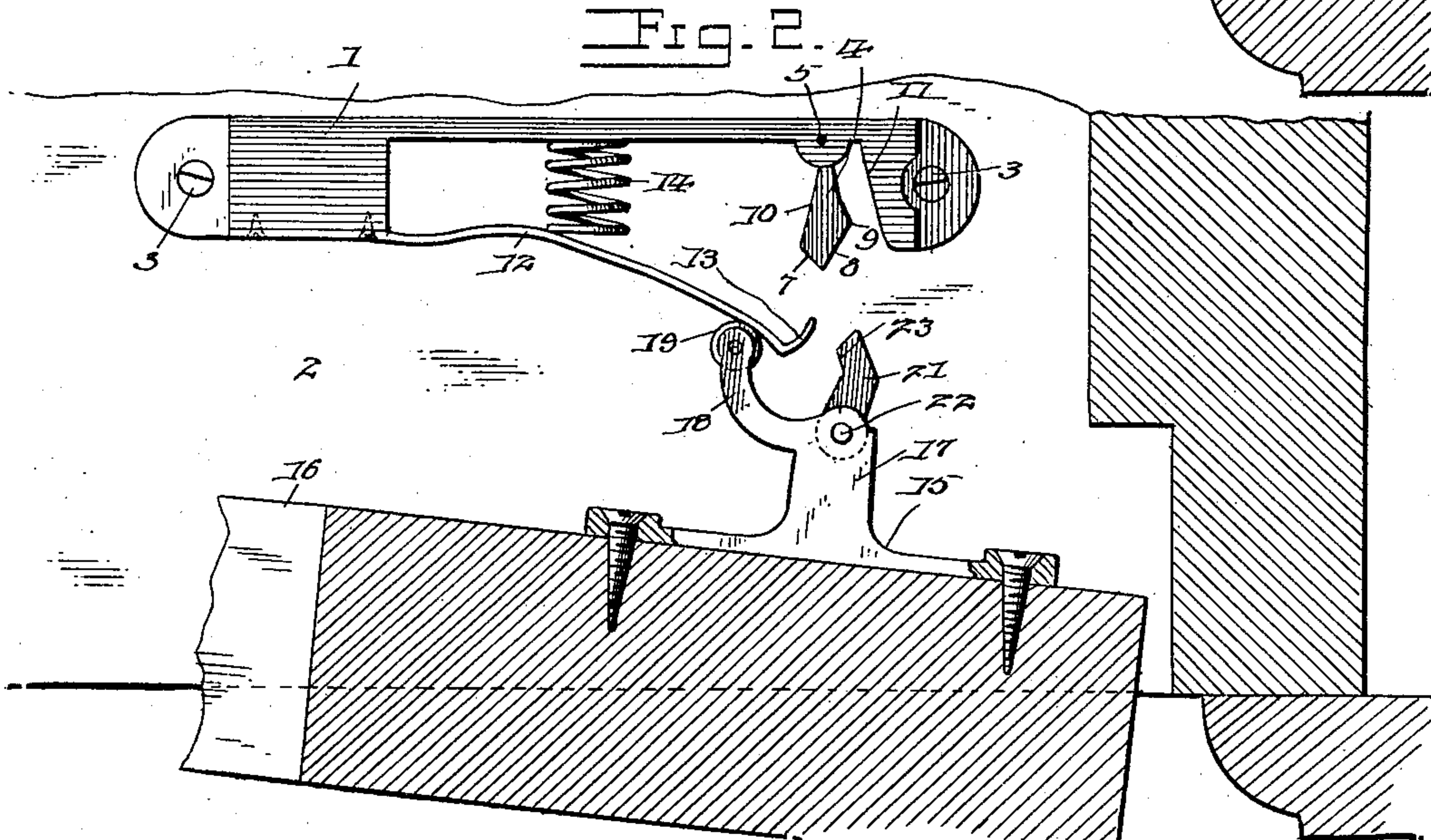


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

PERRY STEWART AND OGDEN S. SNYDER, OF MEDFORD, OREGON.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 685,306, dated October 29, 1901.

Application filed April 2, 1901. Serial No. 54,073. (No model.)

To all whom it may concern:

Be it known that we, PERRY STEWART and OGDEN S. SNYDER, citizens of the United States, residing at Medford, in the county of Jackson and State of Oregon, have invented a new and useful Door-Check, of which the following is a specification.

This invention relates to door-checks, and has for its object to provide an improved combined check and latch which is especially designed for screen-doors, so as to prevent slamming thereof and at the same time latch the door against accidental opening thereof. It is furthermore designed to apply the device to the top of the door and the door-frame, so as to be out of the way, and also to arrange the parts so as to insure a positive lock and a quick separation of the interlocked parts when the door is forcibly opened.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is an inverted plan view of the improved door-check applied to a door and the frame in the closed position of the door. Fig. 2 is a similar view showing the door disengaged from the check.

Corresponding parts are designated by like characters of reference in both figures of the drawings.

Referring to the drawings, 1 designates the keeper-plate, which is secured to the under side of the top of the door-frame 2 by means of suitable terminal fastenings 3. The intermediate portion of the plate is cut away, and adjacent to one end thereof there is provided a swinging keeper 4, which is pivoted, as at 5, within a socket 6, formed in the back of the cut-away portion of the plate, the opposite ends of the recess forming stops for engagement with the shank of the keeper, so as to limit the swing thereof. The free end of the keeper is provided with the opposite beveled or inclined edges 7 and 8, the lat-

ter terminating substantially midway of the keeper in a lateral projection 9. From the rear extremity of the beveled portion 7 the remaining edge portion is inclined inwardly, as at 10, thereby forming a substantially diamond-shaped keeper. The shoulder 11, formed by the adjacent end of the attaching-plate, has its inner face inclined inwardly toward the pivotal end of the keeper. A bowed leaf-spring 12 has one end secured to the opposite end of the plate and extends across the intermediate cut-away portion thereof, the free extremity of the spring being bent inwardly, forming a beveled or rounded lateral shoulder 13. A suitable coiled spring 14 is interposed between the leaf-spring and the back of the cut-away portion of the plate, so as to reinforce the latter spring.

The latch-plate 15 is secured to the inner side of the door 16 at the free edge thereof and adjacent to the top and is provided with an intermediate lateral stud or projection 17, from the outer end of which extends a bowed arm 18, having a terminal antifriction-roller 19 for engagement with the free end of the leaf-spring, as will be hereinafter explained. The outer end of the stud is provided with a recess 20 for the reception of the inner end of a swinging latch 21, which is pivoted to the stud, as indicated at 22. The free end of the latch is provided with a laterally-inclined catch-head 23 for engagement with the swinging keeper.

When the door is closed, the outer end of the trip-arm 18 strikes the free portion of the leaf-spring and forces the latter inwardly toward the plate 1, while the free end of the latch strikes the inclined edge 8 of the keeper. As the movement of the door continues the free ends of the spring and the latch travel inwardly over the opposite edges of the keeper until the catch-head of the latch interlocks with the lateral projection 9 of the keeper, as indicated in Fig. 1 of the drawings. If the keeper is not in a position to be engaged by the latch, the latter will strike the inclined wall of the shoulder 11, and thereby be deflected into engagement with the keeper. The function of the leaf-spring is to yieldingly force the swinging keeper toward the shoulder 11, and thereby hold the latch between the keeper and the shoulder, so as to prevent

the door from being accidentally opened by a blast of wind or otherwise. During the opening of the door the trip-arm moves away from the spring and the keeper is forced laterally by the latch until the parts are free, and the door may then be completely opened. It will of course be understood that the spring is sufficiently strong to check and cushion the door, so as to prevent slamming thereof, but at the same time may be forced inwardly to permit of the latch interlocking with the keeper.

What is claimed is—

1. In a door-check, the combination of a swinging keeper, a spring-buffer in engagement with the keeper when the door is closed, and a latch for engagement with the keeper, and a trip for engagement with the spring.

2. In a combined door check and latch, the combination of a keeper-plate having a shoulder, a swinging keeper movable toward and away from the shoulder, a spring-buffer in engagement with the keeper and forcing the same toward the shoulder when the door is closed, a swinging latch, and a trip-arm for engagement with the spring-buffer.

3. In a combined door check and latch, the combination with a keeper-plate having a shoulder, of a pivotal keeper swinging toward and away from the shoulder, a bowed leaf-spring carried by the plate and bearing against

the outer side of the keeper in the closed position of the door, a latch-plate, having a trip-arm for engagement with the spring, and a laterally-swinging latch pivoted to the plate and held between the keeper and the shoulder in the closed position of the door.

4. In a combined door check and latch, the combination of a keeper-plate, having an intermediate cut-away portion forming opposite shoulders, a keeper pivoted within the cut-away portion, located adjacent to one of the shoulders and swinging toward and away from the same, the free end of the keeper having oppositely-beveled edges, and an intermediate catch projection extending toward said shoulder, a latch-plate, having a lateral stud, an offset outwardly-projecting arm carried by the stud, and having an antifriction-roller for engagement with the spring, and a swinging latch pivoted to the stud and normally held between the swinging keeper and the adjacent shoulder.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

PERRY STEWART.
OGDEN S. SNYDER.

Witnesses:

H. E. CHILDERS,
M. PURDIN.