(No Model.)

H. W. JOHNSON & H. C. BROWN.

DOOR CHECK.

No. 373,984. Patented Nov. 29, 1887.

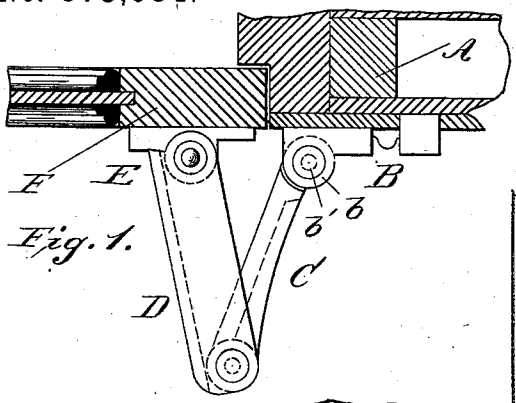


Fig. 1.

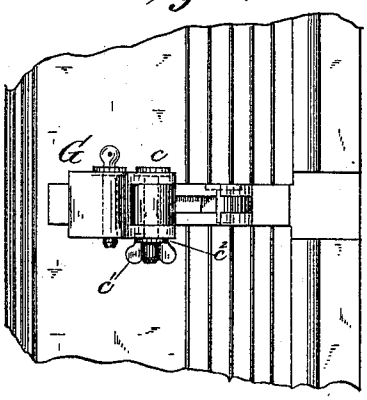


Fig. 2.

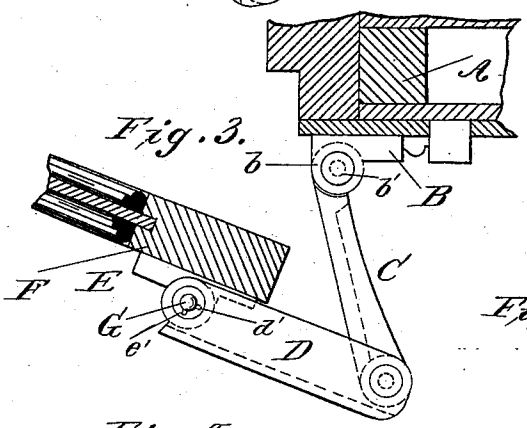


Fig. 3.

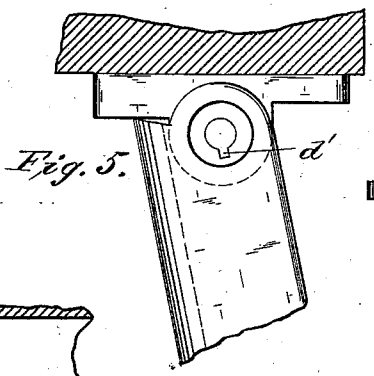


Fig. 5.

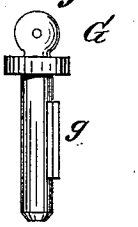


Fig. 6.

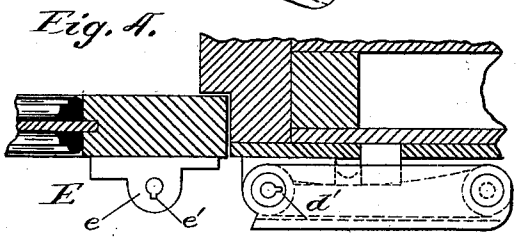


Fig. 4.



Fig. 7.

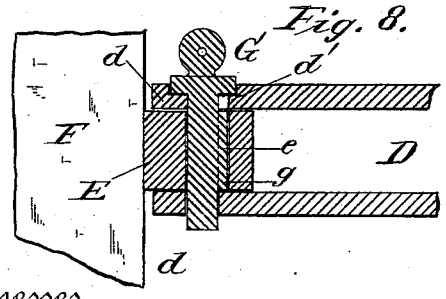


Fig. 8.

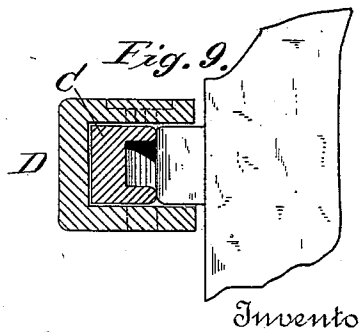


Fig. 9.

Witnesses
Robinson White
A. S. McCoy

Inventor
Joseph Westerfield Johnson
Henry Clay Brown
By their Attorneys
Whittlesey & Wright.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH WESTERFIELD JOHNSON AND HENRY CLAY BROWN, OF JERSEY CITY, NEW JERSEY.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 373,984, dated November 29, 1887.

Application filed June 28, 1887. Serial No. 242,746. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH WESTERFIELD JOHNSON and HENRY CLAY BROWN, citizens of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Safety Attachments for Doors; and we do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention relates to door-checks or devices for limiting the extent to which a door or transom can be opened, the usual form of which is a short chain secured to the door-post and provided with a flanged block which slides in a grooved plate attached to the door, the arrangement of the parts being such that the block can be removed from the grooved plate only when the door is closed. There are some objections to these safety-chains, among which may be mentioned the marring of the door frame and trimmings by the swinging chain and block, the liability of the chain to be caught in the door and so prevent its being closed, the ease with which the chain can be broken or cut, the fact that the door is not held from swinging back and forth or from slamming to, and the impossibility of holding the door only slightly ajar.

To obviate these and other practical difficulties we have invented a safety attachment or door-check, which consists of a toggle-lever, one end of which is pivoted to the door-frame, the other end being detachably pivoted to the door.

The specific novelty of our device will be particularly pointed out in the claims hereinafter set forth.

The same letters of reference refer to corresponding parts in the several figures of the accompanying drawings, in which—

Figure 1 is a plan view of our device applied to a closed door. Fig. 2 is a front elevation of the same. Fig. 3 shows the position of the parts when the door is opened. Fig. 4 shows the device detached from the door. Figs. 5, 6, 7, 8, and 9 are detail views.

To the door post A is fastened a block, B, having one or more perforated ears, *b*, to which is pivoted one end of a toggle-lever, composed in part of the arm C, pivotally united to the block B by means of a bolt or rivet, *b'*. The outer end of the arm C is pivoted to one end of a link, D, by means of a bolt, *c*, which has a flat head seated in a shallow recess in one of the parts C D, and is screw-threaded at the other end to receive a thumb-nut, *c'*, which may bear against a washer, c^2, seated in a recess similar to that which receives the head of the bolt.

By means of the bolt and thumb-nut, or any other suitable clamping device, the parts C D may be clamped tightly together after having been set at any desired angle, for a purpose hereinafter set forth.

The other end of the link D is detachably pivoted to a block, E, secured to the door F.

The best mode of constructing this joint is as follows: At the end of link D are formed two parallel ears, *d d*, which fit over the lug *e* on block E. Through each ear *d* and the lug *e* is a round hole of the same diameter, and at one side of this hole in the upper ear *d* and in the lug *e* are formed grooves, *d' e'*, as shown. A pin, G, provided with a short feather, *g*, is inserted through these holes. The length of the feather is substantially the same as the thickness of the lug *e*, and it is so located on the pin G as to be wholly received within the groove *e'* in said lug, as shown in Fig. 8. The feather thus prevents the pin G from turning in the lug *e*, but the link D is free to turn on the pin above and below the feather. The pin G is provided with a head by which it can be grasped, and it may be attached to the link D or to the block E by a short chain or cord to guard against loss. The grooves *d' e'* are in line with each other only when the door is closed, as shown in Figs. 1, 5, and 8. When the door is opened, even slightly, the grooves are thrown out of line, the upper end of the feather *g* being carried under the ear *d*, so that it is impossible to remove the pin G unless the door is closed. The words "detachably pivoted," as used in the specification and claims, are

therefore to be understood as limited to a construction substantially such as above described, by which the parts D and E are separable only when the door is closed.

The operation of our attachment is as follows: The parts being pivoted together as shown in Figs. 1, 2, and 3, the door can then be opened to the extent shown in Fig. 3, at which point the side of the link D strikes against the door. This leaves an opening large enough to allow the occupant of the house or room to inspect and interview any person seeking admittance, but not wide enough for said person to enter. Before the door can be opened any farther it must first be entirely closed, when the pin G can be removed and the arm C and link D folded back, as shown in Fig. 4, the link D being hollowed out on one side to enable it to shut over the arm C and block B, as shown in Fig. 9, and lie snugly against the door-frame.

In case it is desired to hold the door immovably at any point within the range of opening of the device, the thumb-nut c' can be tightened, clamping the parts C and D together, as heretofore explained. This feature is of value in regulating the amount of air to be admitted through an open door, or in preventing the door from slamming to and fro in a draft.

The several parts of our safety attachment may be easily and cheaply made of cast iron or steel, brass, or any suitable material. They are strong, and cannot be cut or broken without great difficulty. The fact that the pin G cannot be removed unless the door is closed prevents sneak-thieves and other intruders from reaching in and releasing the door when it is left ajar.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of block B, arm C, pivotally connected therewith, link D, pivoted to said arm and having two perforated ears, $d\,d$, one of which is provided with a groove, d', block E, having perforated lug e, provided with groove c', and a pin, G, having a short feather, g, substantially as described.

2. The combination, with the door-post A, having the block B secured thereto, of the door F, having the block E secured thereto, the arm C, pivoted to block B, and the link D, having one end pivoted to said arm, the other end of said link and the block E being provided with coacting parts which interlock only when the door is opened, substantially as set forth.

3. The combination, with the door-post A, having the block B secured thereto, of the door F, having the block E secured thereto, the arm C, pivoted to block B, and the link D, having one end pivoted to said arm and the other end pivoted to block E, said link being detachable from block E only when the door is closed, and hollowed on one side to shut over the block B and arm C when folded back against the wall, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH WESTERFIELD JOHNSON.
HENRY CLAY BROWN.

Witnesses:
NATHAN B. MCKINNEY,
FRANK BELTAIR.