(No Model.)

W. A. GAY.

DOOR CHECK.

No. 540,019. Patented May 28, 1895.

FIG:1.

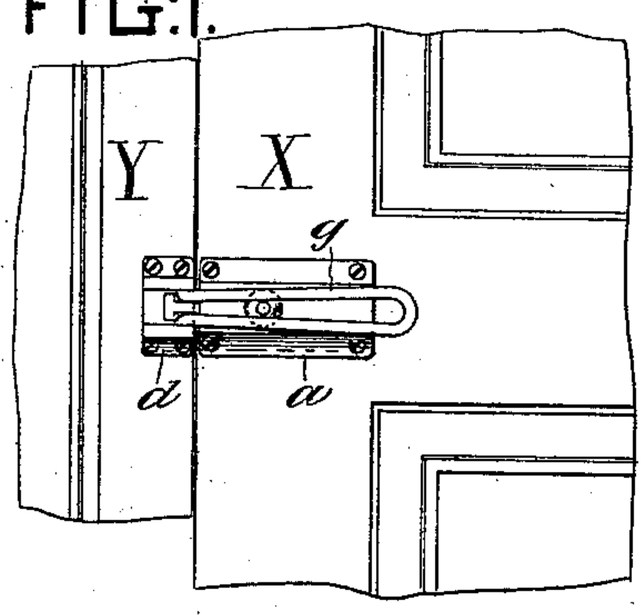


FIG:2.

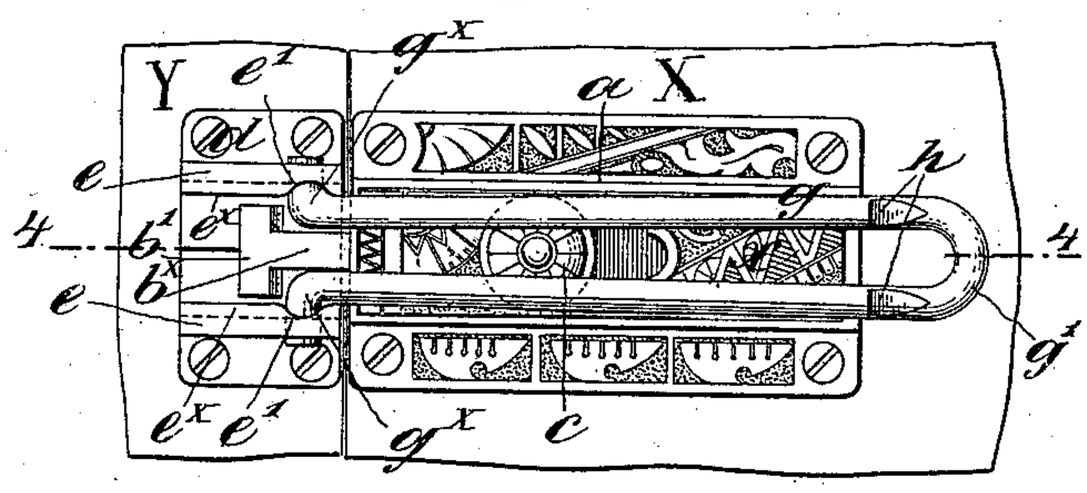


FIG:3.

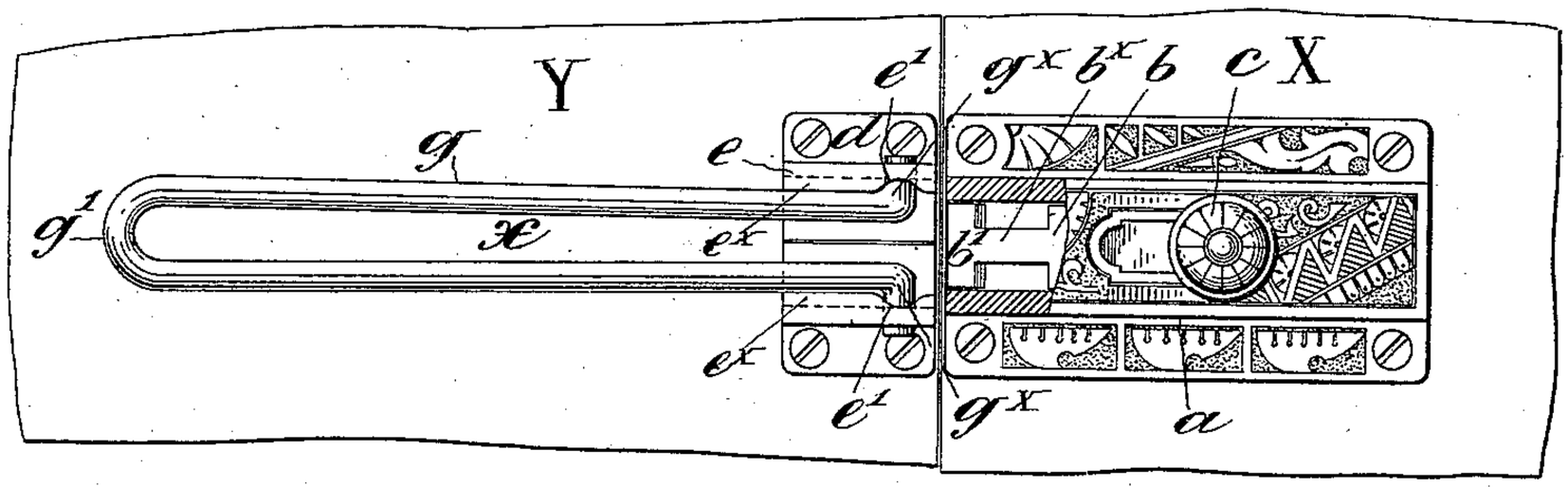
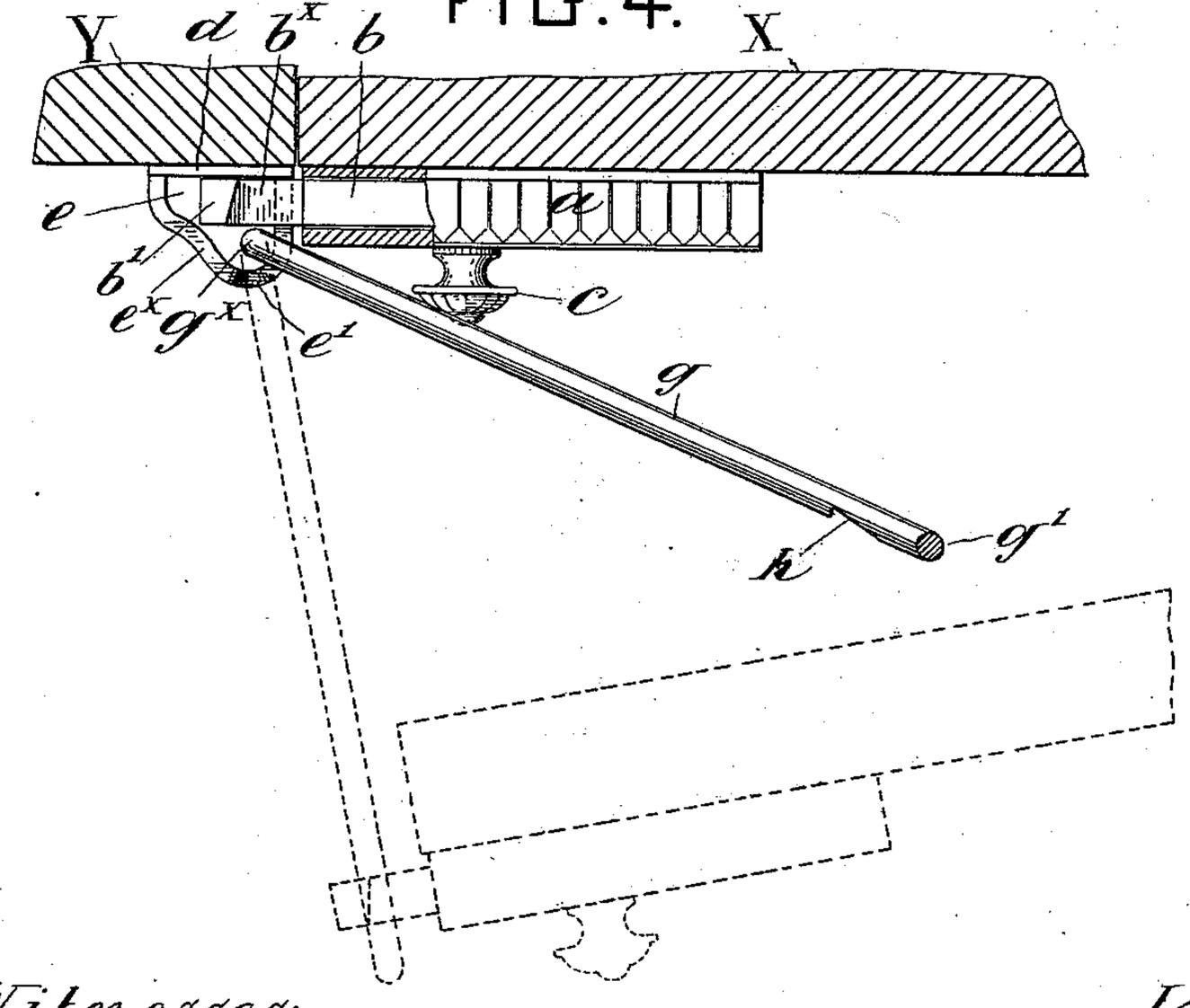


FIG:4.



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UNITED STATES PATENT OFFICE.

WILLIAM A. GAY, OF NEWARK, NEW JERSEY.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 540,019, dated May 28, 1895.

Application filed May 24, 1894. Serial No. 512,324. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. GAY, a citizen of the United States, residing in Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Door-Checks, of which the following is a specification.

My invention relates to the class of door-checks designed to replace the ordinary chain which permits a door to stand ajar but will not allow it to be opened wide enough for a person to enter; and the object of the invention is to provide a simple and inexpensive device which, when not in use, will present no projecting parts on either the door or door-casing to tear the clothing or injure the person.

In the accompanying drawings I have illustrated an embodiment of my invention.

Figure 1 is a view on a small scale, showing the check mounted, the door being represented as closed and the check set to allow the door to open to a limited extent. The other figures are on a larger scale. Fig. 2 is a face view of the check set as in Fig. 1. Fig. 3 is a similar view to Fig. 2, but showing the check set for ordinary use of the door. Fig. 4 is a sectional view on line 4 4 in Fig. 2 and illustrating in dotted lines also the operation of the check. Part of the bolt-casing is broken away in Figs. 3 and 4.

X indicates a part of a door and Y a part of the door-casing. Sufficient of each of these parts is shown to illustrate the manner of mounting the elements of the check thereon.

On the door is mounted a bolt-casing, *a*, containing a sliding bolt, *b*. The bolt is operated by a knob, *c*, the shank of which plays in a slot in the casing. The bolt has a neck, $b^{\times}$, formed, as herein shown, by cutting recesses in its opposite sides. When the casing *a* is secured to the door and the bolt is drawn in, the latter may be completely housed in the casing and no part of the bolt or casing will project beyond the edge of the door.

On the door-casing Y, is mounted a base-plate, *d*, on which are two checks, *e;* in which are holes that form bearings for journals, $g^{\times}$, on an elongated bail, *g*. This bail is formed of a piece of stout spring-wire bent at *g'*, to form an expanding spring at this point and so as to bring its branches into position nearly parallel with each other. The ends of the rod are bent outward at right-angles to the body to form the journals $g^{\times}$. When the bail is mounted in its bearings the space *x*, between its branches, will be wide enough to snugly embrace the neck $b^{\times}$, of the bolt but allow it to play freely between the branches, but it will not be wide enough to allow the head, *b'*, thereof to pass between the branches. The space between the cheeks *e*, will suffice, however, to allow the head of the bolt to play between them.

On the inner face of each cheek *e*, is formed an inturned flange, $e^{\times}$, (see Fig. 4) which has a recess or notch, *e'*, cut in it, and when the bail is turned from either of its folded positions to its perpendicular position the branches thereof will spring outwardly into said notches; that is, the inclined sides of the recesses, as the bail is turned from its folded positions, tend to throw it into the perpendicular position and to hold it there, as being the position where there is the least tension on the expanding spring *g'*.

When the check is not in use, the bail *g*, may, if there is room, be turned back over the door-casing to a nearly horizontal position, as represented in Fig. 3, and the bolt be drawn into its casing. The door is then free to be opened and closed at will. If there is not room to turn back the bail fully, owing to the door opening, being set close to a wall or partition, or because of the casing having a heavily molded trim, the bail need only be turned far enough to be out of the way.

Fig. 2 shows the position of the parts when the check is in use and the door closed. The bail is folded down over the door to the inclined position seen in Fig. 4, and the bolt protruded. Now if the door be opened the neck of the bolt will engage the bail and the outward swing of the door will raise the bail to the position seen in dotted lines in Fig. 4. The length of the bail limits the opening movement of the door and the bolt and bail cannot be disengaged except by first closing the door.

In order to hold the door ajar and prevent it from being closed by the wind, or, if on shipboard, by the rolling and pitching of the ship, I provide the bail with notches or shoulders, *h*, which engage the head of the bolt

when the parts are in the position seen in dotted lines in Fig. 4. It will be noted that the tendency of the bail, under the influence of its expanding spring and the beveled notches, e', tends to assume a perpendicular position when at an angle of about fifty to sixty degrees, and this tendency causes the bail to keep the shoulders h in engagement with the head of the bolt. This device is well adapted for the stateroom doors of vessels, and wherever it may be found desirable to hold the door slightly ajar, but locked against entry from the outside.

By protruding the bolt only so far as to bring its head under the shoulders, at the journals $g^{\times}$, of the bail, the door will be bolted and cannot be opened, as the space between the cheeks e, under the journals of the bail, serves as a bolt-socket.

The bail g, will, as stated, be made of round wire, by preference, but other forms of spring metal will serve. The base-plate d may be in two sections, each bearing a cheek e, for convenience in mounting the journals of the bail therein, but this is not material to my invention.

My stop device may be applied to the sashes of a window in lieu of the ordinary sash-lock to prevent the window from being opened or to permit it to be opened only to a limited extent.

Having thus described my invention, I claim—

1. In a door-check, the combination with a bolt-casing and a sliding bolt therein provided with a head and neck as described, of the base-plate d, having flanged cheeks to provide bearings for the bail, of the said bail having its pivotal axis arranged at right-angles to the axis of the bolt and a distance from the base-plate greater than the thickness of the bolt-head, whereby the space between the said base-plate and shoulders serves as a socket to receive the head of the bolt, substantially as set forth.

2. In a door-check, the combination with a bolt-casing and the sliding bolt having a head and neck, of the base-plate d, having flanged and recessed cheeks e, the bail g, mounted in said cheeks and provided with an expanding spring, and shoulders h, the neck of the bolt being adapted to fit snugly between the branches of the bail and the head of the bolt to engage the shoulders h on the bail, substantially as and for the purposes set forth.

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

WILLIAM A. GAY.

Witnesses:
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JAS. KING DUFFY.