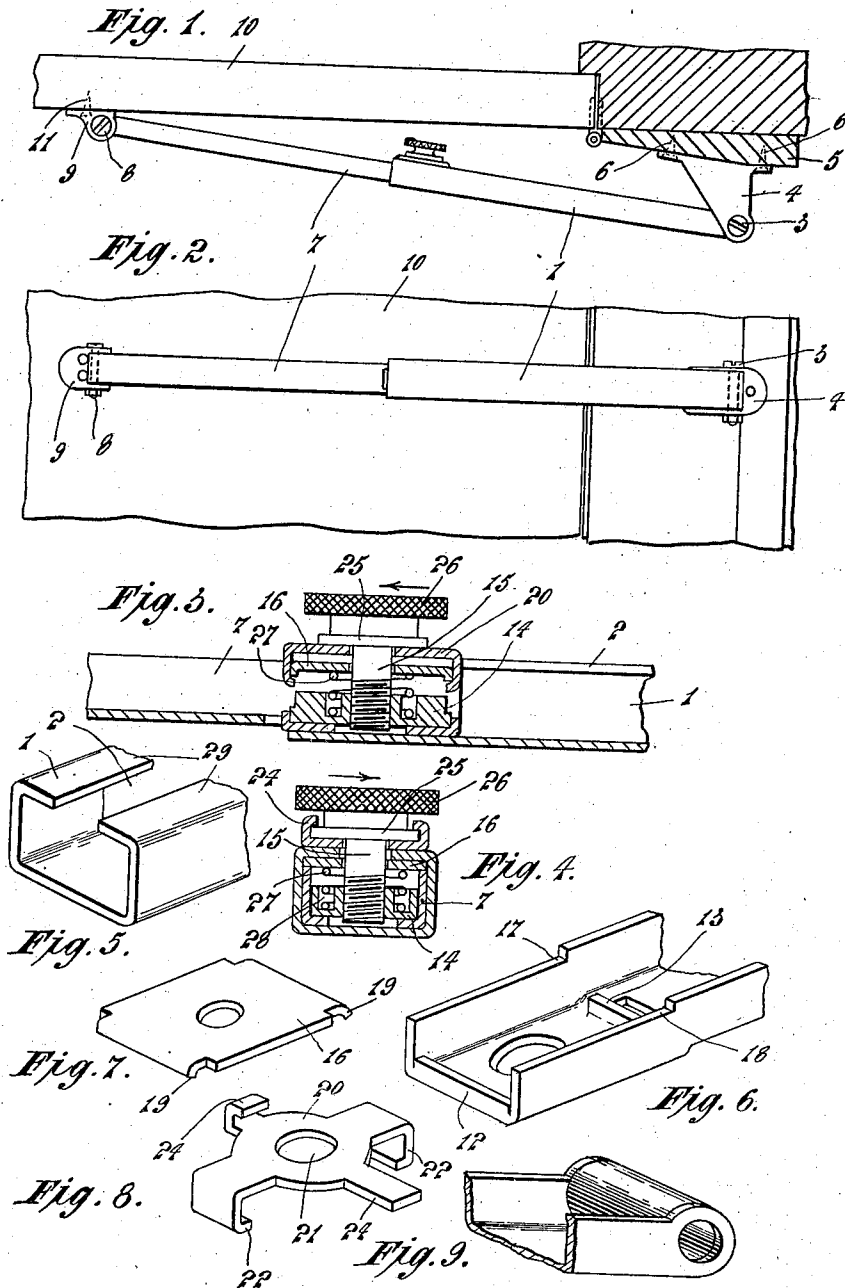


T. P. EUSTEGE.
DOOR RETAINER.
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1,353,523.

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UNITED STATES PATENT OFFICE.

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DOOR-RETAINER.

1,353,523.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS PETER EUSTEGE, of Hohiria Road, Hataitai, Wellington, New Zealand, a subject of the King of Great Britain and Ireland, residing in Hataitai, Wellington, New Zealand, have invented a new and useful Improvement in Door-Retainers; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to retainers for doors windows and similar hinged articles of the class where the retainer is made in two parts, one of which is slidable within or on the other part.

The object of the invention is to provide a retainer that will enable a braking effect to be placed with varying degrees upon a door or the like, and also to enable the door to be retained rigidly in the desired position.

The invention will be illustrated in the drawings forming a part of this specification and wherein:—

Figure 1, is a plan showing the retainer in position upon a door.

Fig. 2, is an elevation of the retainer as shown in Fig. 1.

Fig. 3, is a longitudinal section through the adjusting portion of the retainer.

Fig. 4, is a central cross section through the same part.

Fig. 5, is a perspective view of one of the stay members.

Fig. 6, is a perspective view of the end of one of the members.

Fig. 7, is a perspective view of the washer.

Fig. 8, is a perspective view of the plate.

Fig. 9, is a perspective view showing the construction of the hinge connection.

Referring to the drawings, the retainer consists of a hollow stay member 1 rectangular in section having a slot 2 running throughout its length and facing the door. The member 1 is pivoted on a bolt 3 in a bracket 4 fixed to the door casing 5 by screws 6. Another stay member 7 is pivoted on a bolt 8 in brackets 9 fixed to the door 10 by screws 11. The stay member 7 is made of channel section as clearly shown in Fig. 6 and adapted to slide within the member 1. The end of the stay 7 has a flange 12 and also another flange 13 at a suitable distance from the flange 12. Between these flanges and within the channel a block 14 forming a nut for a pin 15 is seated. A plate 16

through which the pin 15 passes has its lateral edges resting upon the cut-away portions 17 and 18 in the walls of the stay 7 as indicated in Fig. 6. The ends 19 of the plate 16 are slightly turned down as shown in Fig. 7, and fit between the inner sides of the walls of the channel of the stay 7 in order that lateral movement of the plate will be prevented. A washer 20 having a hole 21 through which the pin 15 passes is located above the slot 2 in the member 1. This washer 20 has claws 22 to engage beneath the ends 19 of the plate 16 as is indicated in Fig. 3, and claws 24 bent in an upward direction engage over a circular collar 25 integral with the knob 26 of the pin 15. A coil spring 27 is in compression between the underside of the plate 16 and the bottom of an annular recess 28 in the nut 14. Upon the pin 15 being rotated in the direction of the arrow in Fig. 3, the nut 14 will be drawn toward the plate 16 thereby compressing the coil spring 27, which compression causes tension to be exerted between the plate 16 and the underside of the flanges 29 upon either side of the slot 2 of the member 1.

By adjusting the pin different degrees of spring tension will be obtained between the plate 16 and the member 1 for the purpose of controlling the door.

By turning the pin in the direction of the arrow in Fig. 4, the nut 14 and the plate 16 will be moved away from one another, and since the washer 20 retains the pin 14 and the plate 16 together, the plate 16 will bear against the underside of the flanges 29 on either side of the slot, while the bottom wall of the stay 7 will be caused to press by the intervention of the nut 14 against the bottom of the member 1, thereby locking the member 1 and the stay 7 rigidly together. The portion of the stay 7 between the flanges 12 and 13 extends beyond the remainder of the stay in order to provide a limited bearing surface within the member 1 and also to prevent the exterior surface of the stay becoming scratched or damaged when sliding within the member 1.

In Fig. 8, one of the claws 24 is shown in its finished form while the other is shown as a lug as it would appear before it is bent to its ultimate shape. This lug would be bent over the flange 25 after the pin has been passed through the washer 20.

It is obvious that in place of the pin 15

screwing into the nut 14 such nut can have an integral pin and the knob 26 can be threaded upon the outer end of such pin. The majority of the parts of the stay shown in the drawings are made of sheet metal stampings, the flanges 12 and 13 being simply formed from the metal forming the bottom of the channel section of the stay 7. The ends of the stay articulated to the brackets 4 and 9 are made as indicated in Fig. 9 where the ends are formed from the bottom of the sections and turned over to form a passage for the bolt which also passes through the walls of such channel sections.

What I claim is:—

1. In a device of the kind described, a member pivoted to the door casing, another member pivoted to the door, one member slidable within the other, means within one member to retain an operating pin in position therein and means co-acting with said pin and said members whereby upon the pin being operated in one direction varying degrees of spring tension will be exerted between the two members, but when the pin is turned in the opposite direction the two members will be locked together at any desired position, substantially as described.
2. In a device of the kind described, a member pivoted in a bracket secured to the door casing, another member pivoted to a bracket fixed to the door, a longitudinal slot in one member, one of said members slidable within said slotted member, stops formed in the end of the sliding member, an operating pin passing through the slot in the slotted member, a block acting as a nut for head for the operating pin, and means whereby upon the pin being operated in one direction varying degrees of spring tension will be exerted between the two members, but when the pin is turned in the opposite direction the two members will be

locked together at any desired position, substantially as described.

3. In a device of the kind described, a stay member pivoted to the door casing, another stay member pivoted to the door, one member slidable within the other, means upon one end of one member to retain an operating pin in position, a spring in compression between the part of the pin retained within the one member and between a plate bearing upon the other member whereby varying degrees of spring tension may be exerted between such plate and the member and means whereby the pin will bring the two members into rigid contact, substantially as described.

4. In a device of the kind described, a member pivoted in a bracket secured to the door casing, a longitudinal slot in said member, a sliding member of channel section pivoted to a bracket fixed to the door and slidable within said slotted member, stops at one end of said channel stay, a block located between said stops, a pin passing through said slot and integral with or threaded into said block, a plate between the walls of the said members and retained within the walls of the channel stay, a coil spring in compression between said block and said plate, a washer upon the exterior of the slotted member, an operating knob upon said pin either integral therewith or threaded thereon, and means for retaining the knob, the washer and the plate together, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOS. PETER EUSTEGE.

Witnesses:

EDMOND PATRICK O'DONNELL,
SYDNEY HAMLET HIGGS.