

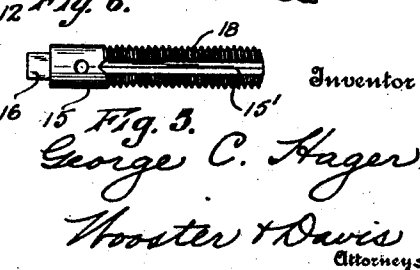
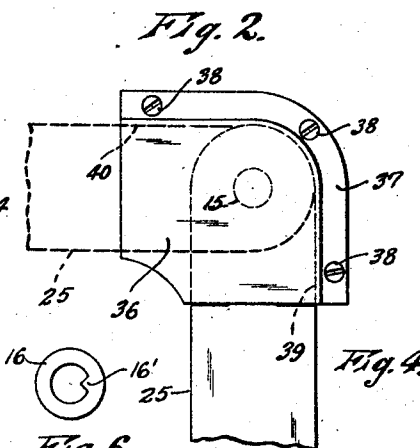
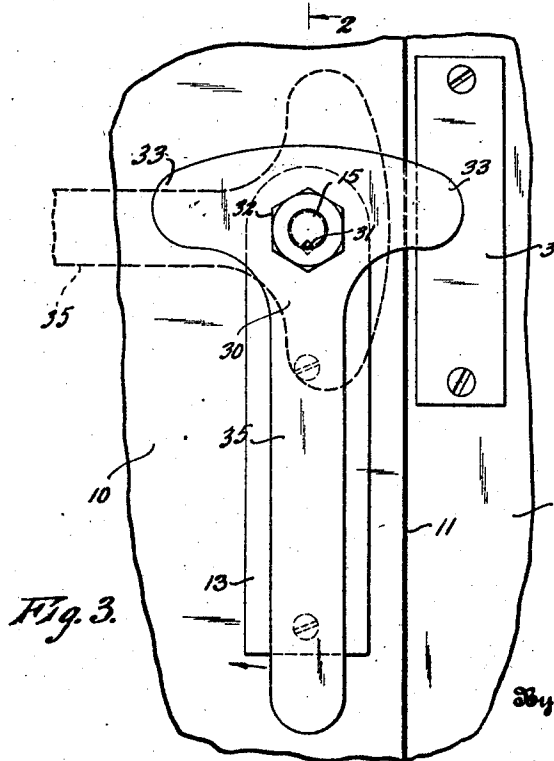
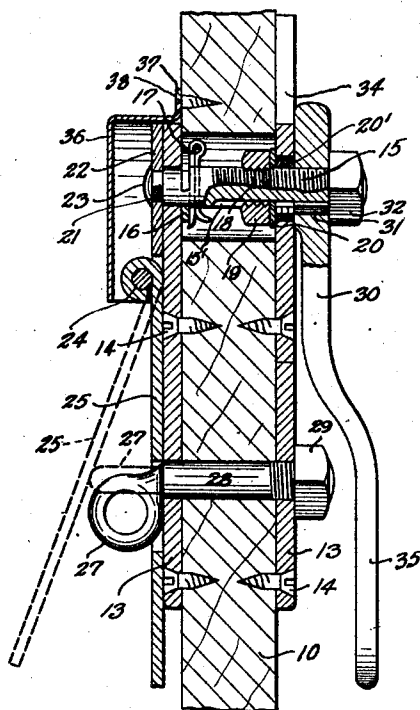
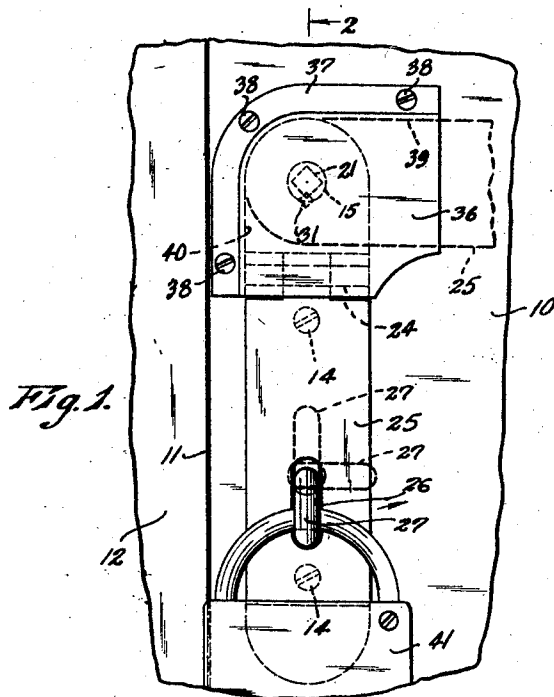
Feb. 23, 1926.

1,574,348

G. C. HAGER

DOOR HASP AND CATCH

Filed March 18, 1925



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UNITED STATES PATENT OFFICE.

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DOOR HASP AND CATCH.

Application filed March 18, 1925. Serial No. 16,349.

To all whom it may concern:

Be it known that I, GEORGE C. HAGER, a citizen of the United States, residing at Danbury, county of Fairfield, State of Connecticut, have invented a new and useful Door Hasp and Catch, of which the following is a specification.

This invention relates to door hasps and catches, and has for an object to provide a hasp and catch which will be very simple in construction and may be manufactured and applied at low cost, but will be strong and durable in construction, and will not be easily gotten out of order when in use.

It is also an object of the invention to provide a catch of this type which will always be in alignment and properly secure the door regardless of up or down movement of the door under changing weather conditions or otherwise.

It is a further object of the invention to provide a catch which may be easily and quickly secured in the dark, and which may be so positioned that it cannot be accidentally locked from the outside to prevent manipulation from the inside of the door.

With the foregoing and other objects in view, I have devised the construction illustrated in the accompanying drawing forming a part of this specification, similar reference characters being employed throughout the various figures to indicate corresponding elements. In this drawing,

Fig. 1 is a front elevation of my improved securing device looking toward the outside of the door.

Fig. 2 is a vertical section through a door with my hasp and catch applied, the section being substantially on line 2—2 of Fig. 1.

Fig. 3 is an elevation looking toward the inside of the door.

Fig. 4 is a detailed elevation showing the mounting of the hasp for a left hand door.

Fig. 5 is a side elevation of the main or operating bolt, and

Fig. 6 is a side elevation of one of the washers.

In the drawing I have shown a door 10 mounted to swing in a vertical plane about hinges not shown, this door being so mounted that when closed its free or swinging edge 11 lies adjacent to another door or a stationary jamb 12, and my improved hasp and catch which is carried by the door 10

cooperates with the other door or jamb 12 to secure the door 10 closed depending on the installation. My improved hasp and catch comprises escutcheon plates 13 secured to opposite faces of the door by means of suitable screws 14 and these plates have aligned openings in which an operating bolt 15 is mounted to turn. This bolt extends through the door and the escutcheon plates, as shown in Fig. 2, and may be mounted by means of a washer 16 held against the inner surface of the outer escutcheon plate as by means of a cotter pin 17, and it is threaded at its other end as shown at 18, to receive a nut 19 to engage the other escutcheon plate or there may be a washer 20 between this nut and the plate. It is also preferred to place washers 20' about the bolt in the opening in the plate 13, the combined thickness of these washers being greater than the thickness of plate 13 to prevent binding of washer 16 and catch 30 on opposite sides of the plate when the nut 32 is tightened on the bolt. The outer end of the bolt 15 is non-circular preferably square as shown at 21 and enters a similarly shaped opening in a plate 22, the end of the bolt being riveted over as shown at 23, to secure this plate to the bolt. Hinged to the plate 22 as shown at 24, is a hasp 25 which is provided with an elongated opening 26 to receive an eye 27 of a staple 28 mounted on the door, the shank of this staple extending through the escutcheon plates and the door and is secured by a nut 29. This staple is, however, mounted to turn in the door so that the eye 27 may be either in alignment with the opening 26 in the hasp to enter the same as shown in full lines or turned at an angle thereto or given a half turn so that it cannot enter the opening as shown in dotted lines. This is to prevent accidental securing of the hasp by dropping over the eye and preventing operation of the catch from the inside of the door.

On the other or inner side of the door is mounted a catch 30 secured to the bolt 15 to turn therewith. A convenient means for securing them together is a key 31 entering aligned keyway slots 15' in the bolt and the catch, and the catch may then be secured on the bolt by nut 32. This catch is preferably substantially T-shape as shown in Fig. 3 with a head or cross bar forming oppositely extending projections 33 which may engage the inner surface of the jamb

of the door 12 or a protecting plate 34 secured thereon. The leg 35 of the catch provides a handle for operating the catch from the inner side of the door. The washer 16 is preferably provided with a projection 16' extending into the opening therein as shown in Fig. 6 to enter the keyway slot 15' in the bolt 15 to prevent turning of the washer on the bolt.

Over the outer end of the bolt 13, the plate 22 and the upper portion of the hasp is a cap 36 which has a flange 37 whereby it may be secured to the surface of the door by suitable screws 38. This cap is open on two sides, as shown in Fig. 1 on the bottom and the right hand sides, so that the hasp 25 may be swung to the right or counter-clockwise to the dotted line position, to swing the catch from engagement with the securing plate 34; as shown in dotted lines Fig. 3. The wall 39 forms a shoulder which is engaged by the hasp to limit this movement, and the opposite wall 40 forms a similar shoulder to limit the movement of the hasp in the opposite direction. The cap is so mounted that this latter shoulder will stop the movement of the hasp when the opening 26 therein is directly over or in alignment with the eye 27. Therefore, it is a simple matter to lock this catch in the dark, as all that is necessary is to swing the hasp in the plane of the door or about the axis of the bolt 15 downwardly or clockwise as far as it will go and then push its free end inwardly toward the door and over the eye 27. The catch may then be locked by inserting the loop of a padlock 31 through the eye outside the hasp.

If a party unlocks the door and enters and secures it from the inside, when the eye 27 is in the full line position there is danger of the hasp dropping downwardly over this eye which would, of course, prevent manipulation of the catch by means of the handle 35 on the inside of the door. To prevent this happening the staple 28 carrying the eye 27 is mounted so that it can be turned to bring this eye at an angle to the opening 26 or above the opening as shown in dotted lines in Figs. 1 and 2. When in either of these positions the hasp cannot drop over the eye but is held in the dotted line position (Fig. 2). The eye may be held or locked in these positions by inserting the loop of the padlock through the eye.

In Figs. 1, 2 and 3 my improved securing device is shown as applied to what we would call a right hand door, that is, a door swinging to the right. If, however, it is desired to apply it to a left hand door or a door swinging to the left, all that is necessary is to mount it adjacent the opposite edge of the door in the same manner, but the cap 36 should be turned through an angle of ninety degrees as shown in Fig. 4, so that the shoulder

39 will be in the upright position and the shoulder 40 in a horizontal position to the left. When mounted in this manner the hasp will be swung clockwise to the dotted line position to release the catch as in this arrangement the opposite or left hand projection 33 will engage the plate 44. The operation is exactly the same as in the first arrangement, the shoulder 39 limiting the movement of the hasp toward closing position and stopping this movement when the opening 26 is in alignment with the eye 27. This hasp and catch is, therefore, equally adapted for use on a right or left hand door and will operate exactly the same on either one.

This catch is especially well adapted for use on garage or similar doors as any rising or falling movement of the door or the jamb will not bring the catch out of alignment or to a position out of alignment with the striking or securing plate 34, or to a position where it does not catch.

Having thus set forth the nature of my invention, what I claim is:

1. In a door securing device, a bolt extending through the door, a plate secured to said bolt on one side of the door, a hasp having an opening therethrough and pivoted to the plate to move toward and from the door, a catch secured to turn with the bolt on the other side of the door, said catch having oppositely extending projections to engage a jamb and also having an operating handle, and an eye secured to the door and adapted to pass through the opening in the hasp.

2. In a door securing device, a bolt extending through the door, a plate secured to said bolt on one side of the door, a hasp having an opening therethrough and pivoted to the plate to move toward and from the door, a catch secured to turn with the bolt on the other side of the door and having an operating handle, a staple having an eye secured to the door and adapted to pass through said opening, said staple being mounted so that said eye may be turned relative to the hasp, and a stop to limit the movement of the hasp in one direction when the opening therein is in alignment with said eye.

3. In a door securing device, a bolt extending through the door, a hasp pivotally secured to the bolt on one side of the door, means cooperating with the hasp to secure it in a given position, and a catch secured to turn with the bolt on the opposite side of the door, said catch being substantially T-shaped with the cross bar forming oppositely extending projections to engage a jamb and the leg forming an operating handle.

4. In a door securing device, a bolt extending through the door, means secured to

the bolt on one side of the door for operating the same, a catch secured to the bolt to turn therewith on the opposite side of the door, said catch being substantially T-shaped with the cross bar forming oppositely extending projections to engage a jamb and the leg forming an operating handle, and means for locking the bolt against movement.

5. In a door securing device, escutcheon plates secured to opposite sides of the door, a bolt passing through said plates, a plate secured to one end of said bolt, a hasp hinged to said plate and movable toward and from the door, said hasp being provided with an opening, a staple having an eye to pass through said opening and mounted to be turned at an angle thereto, and a substantially T-shaped catch secured to the bolt on the other side of the door, the cross bar of the catch forming projections to engage a jamb and the leg forming an operating handle.

6. In a door securing device, a bolt passing through the door, a plate secured to one end of the bolt, a hasp hinged to the plate and provided with an opening, an eye secured to the door and arranged to pass through the opening, a cap secured to the door over the plate and provided with a shoulder to engage the plate to limit the movement of the hasp in one direction when

the opening therein is in alignment with said eye, and a catch secured to the bolt and operable therewith.

7. In a door securing device, a bolt passing through the door, a plate secured to one end of the bolt, a hasp hinged to the plate and provided with an opening, an eye secured to the door and arranged to pass through the opening, a cap secured to the door over the plate and provided with shoulders on opposite sides of the plate to engage the plate to limit the movements of the hasp in opposite directions, and a catch secured to the bolt and operable therewith.

8. In a door securing device, a bolt extending through the door, a plate secured to said bolt on one side of the door, a hasp having an opening therethrough and pivoted to the plate to move toward and from the door, a catch secured to turn with the bolt on the other side of the door, said catch having oppositely extending projections to engage a jamb, an eye secured to the door and adapted to pass through the opening in the hasp, and a cap secured to the door over the plate and provided with shoulders on opposite sides of the plate to engage the plate to limit the movements of the hasp in opposite directions.

In testimony whereof I affix my signature.

GEORGE C. HAGER