

J. G. CROSSKILL.
 COMBINED SAFETY CATCH OR DOOR CHECK.
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990,114.

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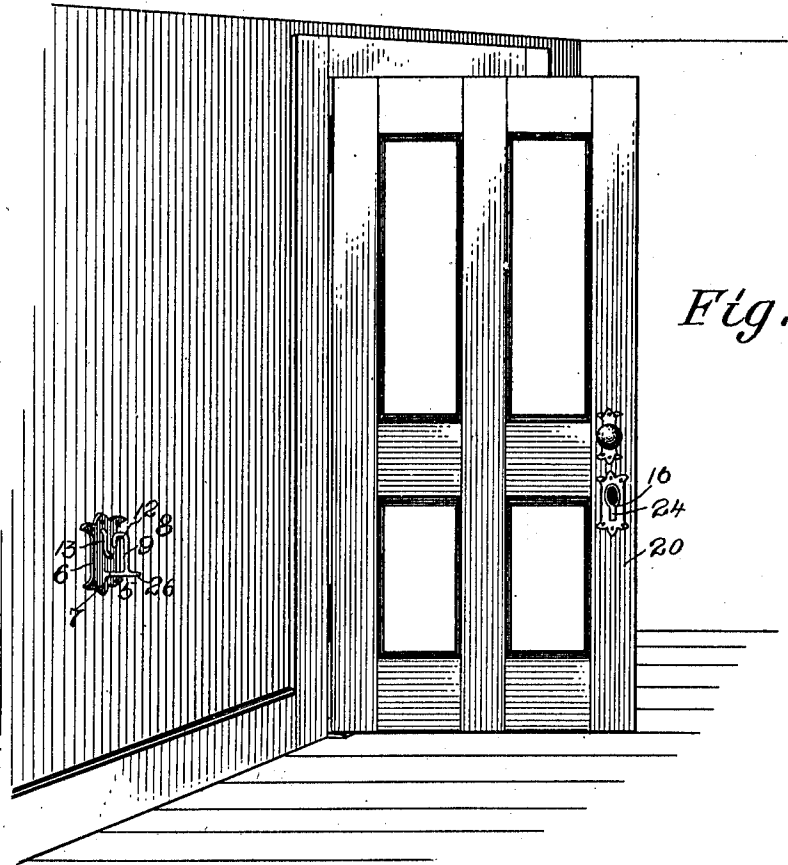


Fig. 1.

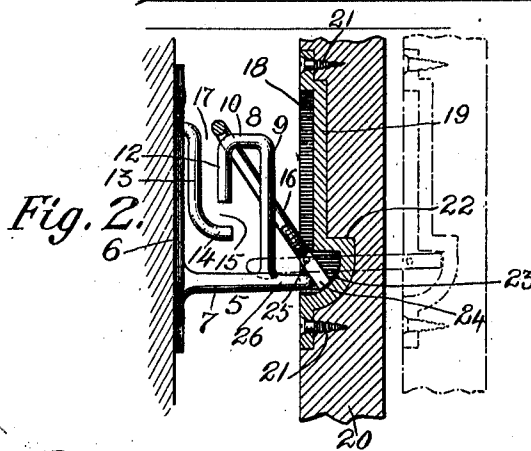


Fig. 2.

Witnesses:

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COMBINED SAFETY-CATCH OR DOOR-CHECK.

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To all whom it may concern:

Be it known that I, JOSEPH G. CROSSKILL, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Combined Safety-Catches or Door-Checks; and I 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 figures of reference marked thereon, which form a part of this specification.

My invention relates to combined safety catch or door checks.

As a safety catch it is employed for automatically catching and retaining doors in the open position. It is equally well adapted for performing this function in connection with doors whether they swing upon hinges having vertically disposed axes or whether they are of the construction and arrangement ordinarily known as trap doors and having the axes of their hinges horizontally or otherwise disposed. Where used in connection with a door, the latter is equipped with a plate having a ring provided with a projection through which the pivot pin passes, the said projection extending beyond the pin and adapted to be engaged beyond the pin by a lip or projection carried by the catch whereby the engagement of the lip with the projection of the ring causes the ring to engage the catch, which is constructed to prevent the escape of the ring except by design. The catch is so formed that it also serves for retaining the ring of a horse hitching strap when the same is placed thereon.

Having briefly outlined my improved construction I will proceed to describe the same in detail, reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing: Figure 1 illustrates my improved device showing the wall equipped with my improved safety catch and the adjacent door provided with the cooperating and automatically engaging ring. Fig. 2 is a section taken through the door and the wall showing my improvement in position where the ring is about to enter the catch, the ring, however, being shown by dotted lines in the position where it is interlocked with the

catch, the door in this event being drawn outwardly from the wall a short distance as also indicated by dotted lines.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate my improved safety catch considered in its entirety. This catch consists of a base plate 6 adapted to be secured to the wall or other suitable support by fastening devices as nails or screws. This plate is provided with a pin 7 projecting forwardly from the lower part thereof. This pin is equipped near its outer extremity with an upright hook 8 consisting of a vertical shank 9, bent at the top as shown at 10 to form a hook 12, which projects downwardly toward a tongue 13 which is mounted on the plate and extends downwardly from the upper part thereof and forwardly as shown at 14, its outer extremity terminating a short distance below the hook 12, a space 15, however, being left between the hook and the outer extremity of the tongue, to allow the ring 16 carried by the door to enter, there being a vertical space 17 between the tongue and the hook, through which the ring 16 passes before reaching the space 15. The forward extremity 14 of the tongue, extends a sufficient distance above the pin 7 to allow the ring after entering the catch, to move back and forth below the tongue which, however, taken in connection with the hook prevents the escape of the ring from the catch except by design.

As illustrated in the drawing the ring 16 when in its normal position, occupies a shallow chamber 18 formed in the face of a plate 19 secured to the door 20 by means of screws 21 or other suitable fastening devices. The lower part of the plate 16 is offset into the door as shown at 22, forming a bottom recess 23 which is relatively deep, for the purpose of receiving a depending projection 24 formed integral with the ring 16 and extending below the pivot 25 of the ring. This projection 24 is so located that when the door is swung open to the required distance, a forward projection or lip 26, engages the projection 24 of the ring and causes the latter to swing rearwardly over the hook 8, after which it falls by gravity downwardly to engagement with the pin 7 forward of the upright shank of the hook.

From the foregoing description it will be understood that in order that the door may be automatically caught and retained in the

open position, it is only necessary to open it far enough to allow the forwardly projecting lip 26 of the catch to strike the depending member 24 of the pivoted ring 16, in order to cause the said ring to automatically pass over the hook 8 and assume the interlocking relation with the catch.

Having thus described my invention, what I claim is:

10 1. The combination with a door and a wall adjacent the door, of a ring pivotally connected with the door and having a part extending below the pivot, the door having a recess to allow the depending part of the
15 ring to enter, and a catch mounted on the wall and consisting of an outwardly projecting pin and a vertical hook mounted on the pin in the rear of its outer extremity, the latter being adapted to engage the projection of the ring, whereby the latter is
20 caused to engage the hook, substantially as described.

2. The combination with a door and a wall adjacent the door, of a door plate having a ring pivotally mounted thereon, and
25 having a projection extending below the pivot, the said plate having a shallow chamber adapted to receive the body portion of the ring and a relatively deep recess adapted to receive the projection of the ring, and
30 a catch mounted on the wall and comprising a plate having a forwardly projecting pin provided with an upwardly projecting hook mounted thereon, the pin having a
35 portion projecting forward from the hook and adapted to engage the projection of the ring, and a cooperating tongue projecting outwardly from the wall plate and cooperating with the hook for safety purposes,
40 substantially as described.

3. The combination with a part mounted

to swing on an axis, and a stationary part adjacent thereto, of a ring member pivotally connected with the part mounted to swing on an axis, and having a member extending below the pivot, a catch mounted
45 on the stationary part, consisting of a pin, and a hook mounted on the pin intermediate its extremities, the pin being adapted to engage the part of the locking member extending below the pivot, whereby the locking member is caused to engage the hook.
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4. The combination with a door and a wall adjacent the door, of a ring pivotally mounted on the door and having a projection extending below the pivot, a catch
55 mounted on the wall comprising a forwardly projecting pin, provided with an upwardly projecting hooked member, the pin having a portion projecting forward from the hook
60 and adapted to engage the projection of the ring when the door is swung to the open position, whereby the ring is tilted outwardly into engagement with the hook.

5. The combination of a part mounted to swing on an axis and a stationary part adjacent thereto, of a ring member pivotally connected with the part mounted to swing
65 on an axis, and having a member extending below the pivot, and means mounted on the stationary part adapted to come into engagement with the part of the ring member extending below the pivot for actuating
70 the ring member, when the part mounted to swing is swung to engagement therewith, and means also mounted on the stationary part and adapted to interlock with the said ring member, substantially as described.
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Witnesses:

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