

1,055,829.

Patented Mar. 11, 1913.

4 SHEETS—SHEET 1.

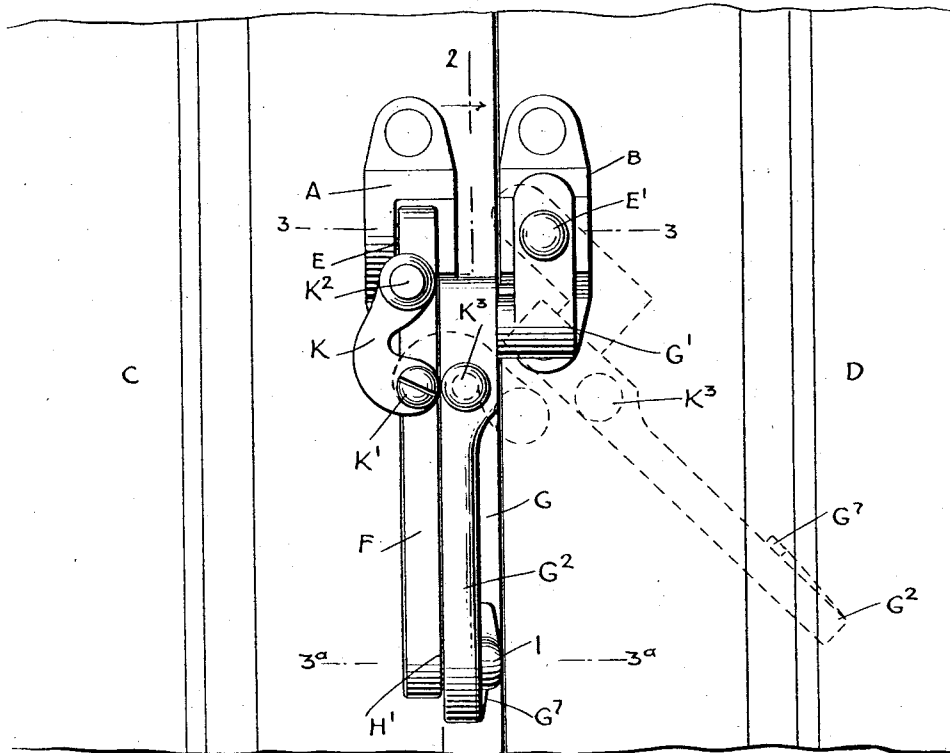
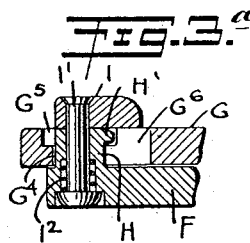


FIG. 1.



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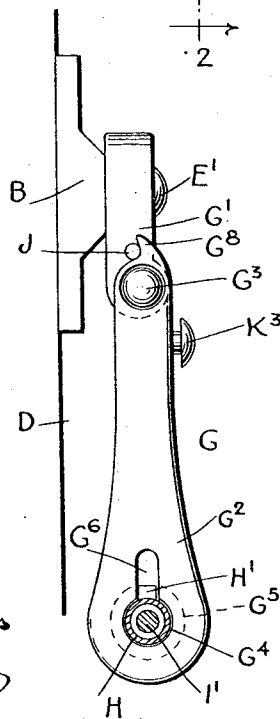


FIG. 2.

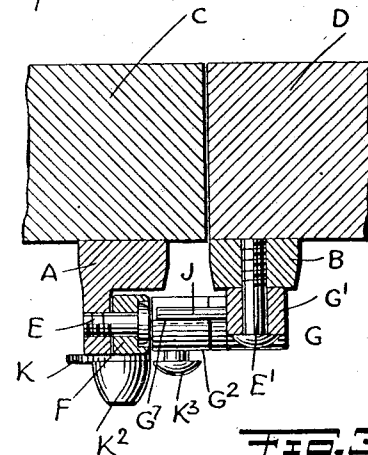


FIG. 3.

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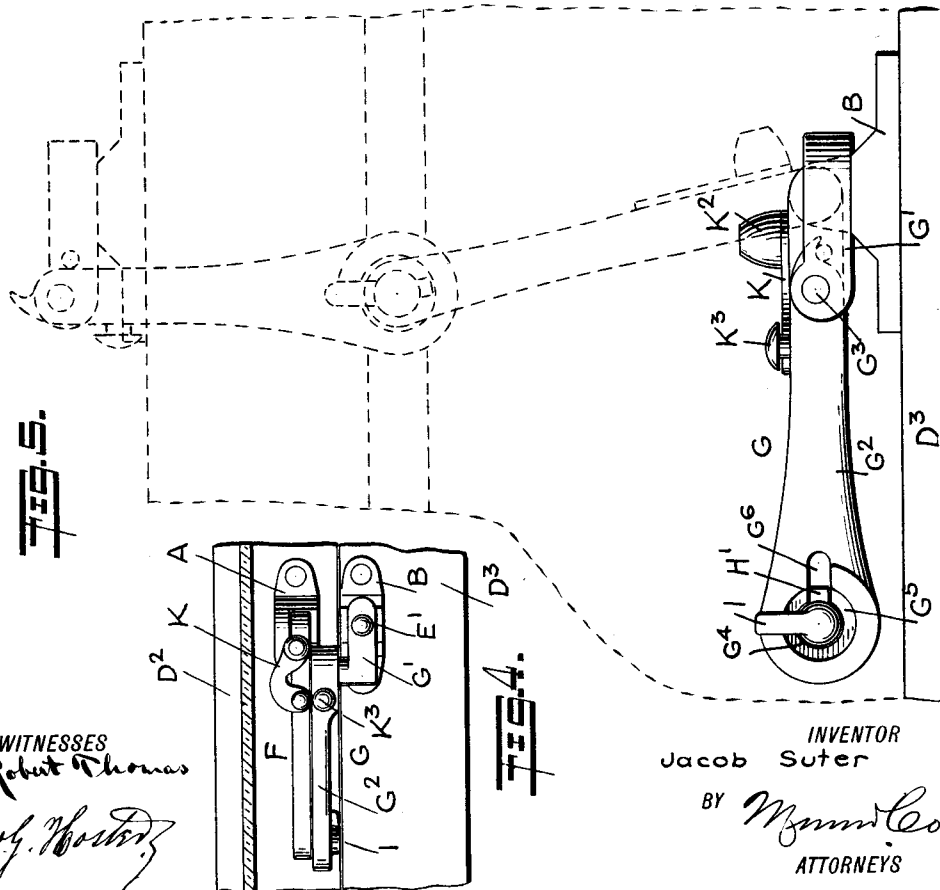
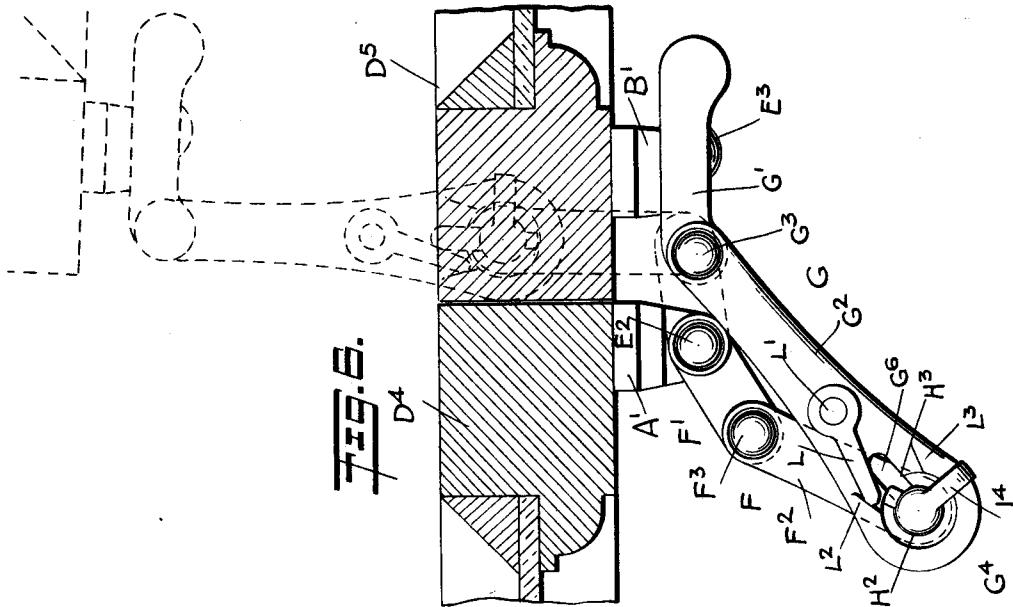
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J. SUTER.
DOOR AND WINDOW CHECK.
APPLICATION FILED MAY 29, 1912.

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4 SHEETS—SHEET 2.



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4 SHEETS—SHEET 3.

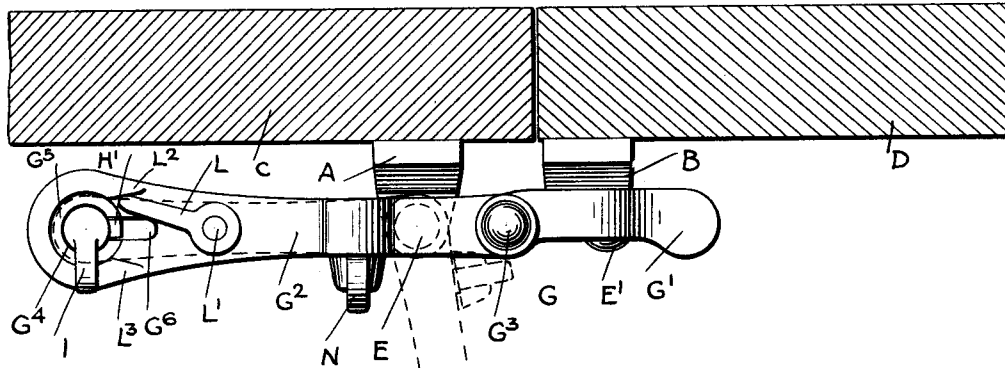


FIG. 7.

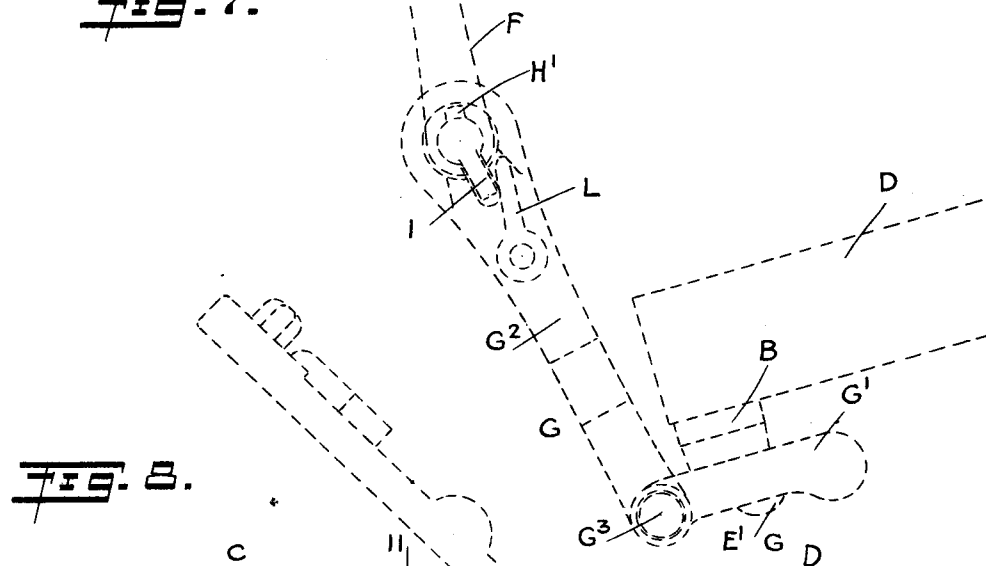
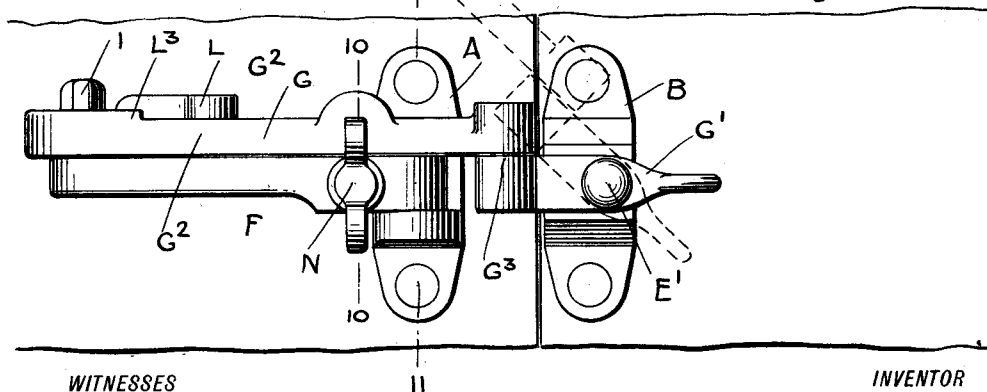


FIG. 8.



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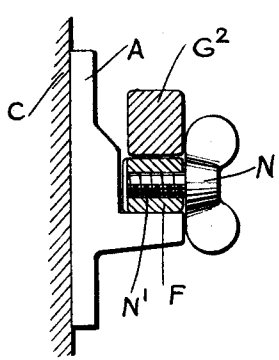
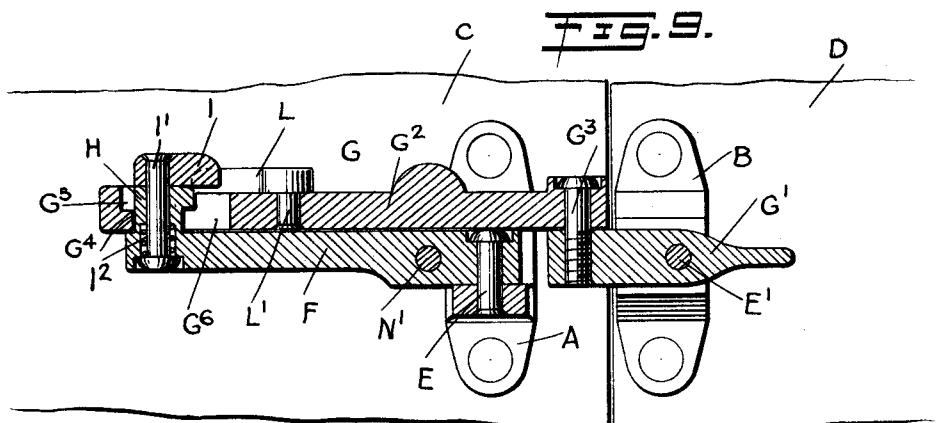


FIG. 10.

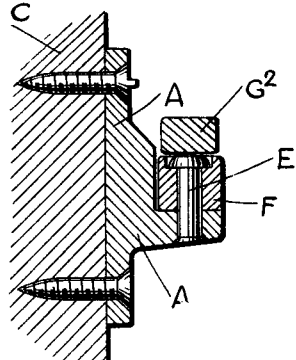


FIG. 11.

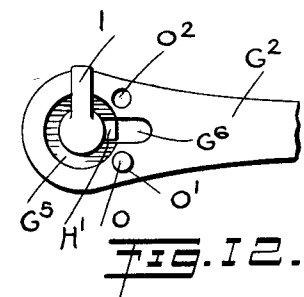


FIG. 12.

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DOOR AND WINDOW CHECK.

1,055,829.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed May 29, 1912. Serial No. 700,548.

To all whom it may concern:

Be it known that I, JACOB SUTER, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Door and Window Check, of which the following is a full, clear, and exact description.

The invention relates to door checks, such as shown and described in the Letters Patent of the United States, No. 975,805, granted to me November 15, 1910.

The object of the present invention is to provide a new and improved door and window check arranged to permit of securely locking the door or window against opening from the outside by unauthorized persons, and to allow of partly opening the door or either window sash for ventilating or other purposes.

In order to accomplish the desired result use is made of two arms pivotally connected with the parts of the door or window, and pivotal means for pivotally and detachably connecting the said arms with each other at their free ends to allow of detaching the arms one from the other whenever it is desired to fully open the door or window, or to permit of pivotally connecting the arms with each other to limit the opening of the door or window or for locking the same in closed position.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a face view of the check as applied to a door, the parts being in position to allow of partly opening the door; Fig. 2 is a cross section of the same on the line 2—2 of Fig. 1; Fig. 3 is a sectional plan view of the same on the line 3—3 of Fig. 1; Fig. 3^a is a similar view of the same on the line 3^a—3^a of Fig. 1; Fig. 4 is a reduced plan view of the check as applied to the meeting rails of upper and lower sashes, the parts being in position with the sashes closed and ready for partly opening either of the sashes or both; Fig. 5 is a face view of the same and showing in dotted lines the lower sash partly raised; Fig. 6 is a plan view of the check as applied to a French window, the sashes being shown in section; Fig. 7 is a plan view of the check applied to a door casing and door and showing the

arms in horizontal position instead of in vertical position as disclosed in Fig. 1; Fig. 8 is a front elevation of the same; Fig. 9 is a sectional front elevation of the same; Fig. 10 is a cross section of the same on the line 10—10 of Fig. 8; Fig. 11 is a similar view of the same on the line 11—11 of Fig. 8; and Fig. 12 is a plan view of the arms at their pivotal connection and showing a modified form of switch.

The door check shown in Figs. 1, 2, 3 and 3^a is mounted on hinge plates A and B secured to the jamb C and the door D, respectively, and the hinge plate A is provided with a longitudinally-extending pivot E on which is mounted to swing up or down an arm F, and on the hinge plate B is arranged a transversely-extending pivot E' on which is mounted to swing sidewise an arm G made in two sections G¹ and G² pivotally connected with each other by a pivot G³ extending longitudinally, the section G¹ being mounted to swing on the pivot E'. On the free end of the arm F is arranged a longitudinally-extending pivot H adapted to be engaged by a bearing G⁴ formed on the free end of the arm section G² so as to pivotally connect the arm F with the arm section G² to allow of swinging the door D into a partly open position. When it is desired to swing the door D fully open then the arm G is swung to the right into the position shown in dotted lines in Fig. 1, to detach the arm G from the arm F by moving the bearing G⁴ out of engagement with the pivot H. It is understood that when the door D is partly opened, as above mentioned, and at the time the parts of the door check are in the position shown in Figs. 1, 2, 3 and 3^a then the arm F swings upward on its pivot E and the arm section G² swings upward onto the pivot G³, but when the door D is to be opened to its full extent the arm G is swung to the right, turning at the time on the pivot E'. In order to prevent the arm F and the arm section G² from becoming accidentally detached when the door D is partly opened, as above described, use is made of a lug H' extending from the peripheral face of the pivot H and adapted to travel in an annular recess G⁵ formed in the free end of the arm section G² concentric with the bearing G⁴. A notch G⁶ is formed in the arm section G² and intersects the bearing G⁴ and the recess G⁵ for the passage of the lug

H' at the time the arms F and G are in vertical position, and the door D is closed to permit of disconnecting the arm G from the arm F as above explained.

5 When the arm G is pivotally connected with the arm F and the door D is swung open, as above explained, then the lug H' moves out of register with the notch G⁶ and engages the recess G⁵ so that the arm section

10 G² cannot be disengaged from the pivot H during the time the door is in partly open position. The arm section G² can also be held against disconnection from the arm F at the time the arms F and G are in vertical position with the door D closed, and

15 for this purpose use is made of a retaining arm I provided with a shaft I' mounted to turn centrally in the pivot H, and the said shaft I' is pressed on by a spring I² so as

20 to hold the retaining arm I in sufficient frictional contact with the end of the pivot pin H to prevent accidental turning of the said retaining arm I. The operator, however, can turn the retaining arm I to register with the notch G⁶ at the time the arms

25 F and G are in vertical position so that the arm G can be swung out of engagement with the arm F, as previously explained, but when the arm I is turned out of register with the notch G⁶ at the time the arms

30 F and G are in vertical position then the arm G cannot be disconnected from the arm F, until the retaining arm I is swung back by the operator into register with the notch G⁶ and the lug H'. The face of the

35 arm section G² at the retaining arm I is preferably provided with an incline G' for engagement by the said arm I, to permit of locking the arm section G² firmly to the arm F at the time the arms F and G are

40 in vertical position. In order to prevent the arm section G² from swinging in the wrong direction on the arm section G', use is made of a stop pin J secured to the arm section

45 G' and adapted to be engaged by a shoulder G⁸ formed on the arm section G² adjacent the pivot G³, as plainly indicated in Fig. 2. In order to securely lock the arms

50 F and G together to prevent movement of either of them at the time the door D is closed, use is made of a locking catch K pivoted at K' to the front face of the arm F and provided at its free end with a knob K²

55 adapted to be taken hold of by the operator to enable the latter to swing the catch K into or out of engagement with a stud K³ held on the front face of the arm section G², as plainly indicated in the drawings. Normally the catch K is in the position shown

60 in full lines in Fig. 1, to permit of partly or wholly opening the door D, as above explained, but when it is desired to lock the door D against opening the catch K is swung into engagement with the stud K³,

65 as indicated in dotted lines in Fig. 1, to pre-

vent movement of the arms F and G. As illustrated in Figs. 4 and 5, the check is applied to the meeting rails of the upper and lower sashes D² and D³ of a window, that is, the hinge plate A is secured to the meeting rail of the upper sash D² and the hinge plate B is attached to the meeting rail of the lower sash D³, and the arms F and G are pivoted on the hinge plates A and B to permit of swinging the said arms

70 when it is desired to partly raise either or both sashes D² or D³. When it is desired to disconnect the arm G from the arm F the arm G is swung forward away from the meeting rail of the upper sash D² so as to overlie the meeting rail of the lower sash D³ and thus permit full opening and closing of the sashes D² and D³ whenever it is desired to do so. It is understood that the check itself is exactly the same as the one described above in relation to the door casing C and the door D, and further description of the same is not deemed necessary.

In the modified form shown in Fig. 6, the hinge plates A' and B' are secured to the adjacent stiles of the window sashes D⁴ and D⁵ of a French window, and in this case the arm F is made in two sections F' and F², of which the section F' is pivotally connected with the hinge plate A' by a vertical pivot E², and the sections F' and F² are pivotally connected with each other by a vertical pivot F³. The arm G is the same as above described in reference to Figs. 1 to 5, that is, is formed of two sections G' and G² pivotally connected with each other by a vertical pivot G³, the section G' being pivotally connected by a transverse pivot E³ with the plate B'. The section F² of the arm F carries a pivot H² engaging the bearing G⁴ in the arm section G², the same as above described in reference to the check shown in Figs. 1 to 5, and the pivot H² is provided with a lug H³ adapted to pass through the notch G⁶ in the arm section G².

100 A retaining arm I⁴ is also mounted on the pivot H² the same as the arm I, and this retaining arm is adapted to be engaged by a switch L pivoted at L' on the arm section G² and adapted to abut with its free end on shoulders L², L³ formed on the free end of the arm section G² on opposite sides of the notch G⁶. When the parts are in the position shown in Fig. 6, the sash D⁵ can be swung into a partly open position to the extent of the range of the arms F and G, it being understood that in this case the arm F is made in sections F' and F² to allow the section F² to pass inside of the sash D⁴ when swinging the sash D⁵ into partly open position, as indicated in dotted lines in Fig. 6. By the use of the switch L the check can be used on either side of the window, that is, when it is desired to use the check on the window in which the sash D⁴ is swung open,

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it is only necessary to reverse the switch L. It is understood that when the retaining arm I⁴ is moved into register with the notch G⁶ then the operator can disconnect the arm G from the arm F in the same manner as above described, but when the arm I⁴ is in this position and the window sash D⁵ is opened then the arm I⁴ comes in contact with the switch L and is then turned automatically into angular relation relative to the lug H³ to prevent the arms F and G from being disconnected.

In the check shown in Figs. 7, 8, 9, 10 and 11, the arms F and G are arranged horizontally and are pivoted on the pivots E and E' held on the hinge plates A and B secured to the door jamb C and the door D, the pivot E in this case being arranged vertically while the pivot E' is disposed transversely. The detail construction of the check is practically the same as above described, with the exception that the locking device for the arms F and G, that is, the locking device in this case is in the form of a wing nut N held on a threaded shank N' screwing in the arm F (see Fig. 10), so that the wing nut N can be turned so as to stand with the wings in alinement with the arm F or crosswise thereof to extend over the arm section G² of the arm G to hold the arm G against opening. It is evident that this locking device N may be used on the check shown in Fig. 1 instead of the locking catch K, or the latter may be used instead of the wing nut N on the device shown in Figs. 7 and 8.

Instead of the pivoted switch L use may be made of a pin O engaging apertures O', O² arranged on opposite sides of the notch G⁶ in the arm section G², as indicated in Fig. 12 to allow the use of the check on doors swinging in either direction, it being only necessary for the operator to change the pin O from the aperture O' to the aperture O² or vice versa, according to the position in which the door is hung at the time.

As shown in Fig. 9, the pivot G³ screws in the section G to permit of using the check on doors swinging either from one side or the other. In this case the check can be used on either side as it is only necessary to screw the pivot G³ into the section G' from the other side of the screw hole.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A check for doors or windows, comprising two arms pivotally connected at one end with the parts of the door or window, pivotal means at the other or free ends of said arms for pivotally and detachably connecting the said arms with each other to allow of detaching the arms one from the other whenever it is desired to fully open the door or window, or to permit of piv-

otally connecting the arms with each other for limiting opening of the door or window, a movable retaining member on one of said arms and adapted to engage the other arm to retain the arms in pivotal relation with each other, and a movable locking member on one of the arms adapted to engage the other arm at the time the arms are in folded position to hold the arms and consequently the door or window against opening.

2. A check for doors or windows, comprising two arms pivotally connected at one end with the parts of the door or window, one of the arms being made in sections pivotally connected with each other, pivotal means at the other or free ends of said arms for pivotally and detachably connecting the said arms with each other at said free ends to allow of detaching the arms one from the other whenever it is desired to fully open the door or window, or to permit of pivotally connecting the arms with each other for limiting opening of the door or window, and a pivoted retaining member on one of said arms and adapted to engage the other arm to retain the arms in pivotal relation with each other.

3. A check for doors or windows, comprising two arms pivotally connected at one end with the parts of the door or window, one of the arms being made in sections pivotally connected with each other, the pivot connecting the sections with each other being at a right angle to the pivot connecting the sectional arm to the corresponding part of the door or window, pivotal means at the free ends of said arms for pivotally and detachably connecting the said arms with each other at said free ends to allow of detaching the arms one from the other whenever it is desired to fully open the door or window, or to permit of pivotally connecting the arms with each other for limiting opening of the door or window, and a pivoted retaining member on one of said arms and adapted to engage the other arm to retain the arms in pivotal relation with each other.

4. A check for doors or windows, comprising two arms each pivotally connected at one end with the corresponding part of the door or window, one of the pivoted arms being provided at its other or free end with a pivot pin having a sidewise-extending lug and the other pivoted arm being provided at its free end with a bearing for receiving the said pivot pin, the bearing having a notch for the passage of the said lug, a retaining member adapted to register with the said notch, and means adapted to be engaged by the said retaining member to move the latter out of register with said notch.

5. A check for doors or windows, comprising two arms each pivotally connected

- at one end with the corresponding part of the door or window, one of the pivoted arms being provided at its other or free end with a pivot pin having a central bore and a sidewise-extending lug and the other arm being provided at its free end with a bearing for receiving the said pivot pin, the bearing having a notch for the passage of the said lug, and the bearing having an annular recess for the lug to move in, a spring pressed shaft mounted to turn in the bore of the pivot pin, and a retaining member carried by said shaft and adapted to be moved into and out of register with the said notch.
6. A check for doors or windows, comprising two arms pivotally connected with the parts of the door or window, one of the arms being provided at its free end with a pivot pin having a sidewise-extending lug and the other arm being provided at its free end with a bearing for receiving the said pivot pin, the bearing having a notch for the passage of the said lug, and a retaining member mounted to swing on the end of the said pivot pin and adapted to engage the face of the said bearing and to register with the said notch.
7. A check for doors or windows, comprising two arms pivotally connected with the parts of the door or window, one of the arms being provided at its free end with a pivot pin having a sidewise-extending lug and the other arm being provided at its free end with a bearing for receiving the said pivot pin, the bearing having a notch for the passage of the said lug, a retaining member mounted to swing on the end of the said pivot and adapted to engage the face of the said bearing and to register with the said notch, and a switch pivoted on the arm having the bearing, the switch being adapted to extend into the path of the said retaining member.
8. A check for doors or windows, comprising two arms pivotally connected with the parts of the door or window, one of the arms being provided at its free end with a pivot pin having a sidewise-extending lug, and the other arm being provided at its free end with a bearing for receiving the said pivot pin, the bearing having a notch for the passage of the said lug, and a spring-pressed retaining arm pivoted on the said pivot and adapted to engage the face of the said bearing and to register with the said notch.
9. A check for doors or windows, comprising two arms pivotally connected with the parts of the door or window, one of the arms being made in sections pivotally connected with each other, one of the arm sections being provided with a stop pin and the other arm section being provided with a shoulder adapted to engage the said stop pin, pivotal means for pivotally and detachably connecting the said arms with each other at their free ends to allow of detaching the arms one from the other whenever it is desired to fully open the door or window, or to permit of pivotally connecting the arms with each other for limiting opening of the door or window, and a spring-pressed and pivoted retaining member at the free end of one of said arms and adapted to engage the other arm to retain the arms in pivotal relation with each other.
10. A check for doors or windows, comprising two arms pivotally connected with the parts of the door or window, a longitudinally extending pivot on the free end of one of said arms, the said pivot having a sidewise-extending lug, the other arm being provided at its free end with a bearing adapted to engage the said pivot, the said arm having an annular recess concentric with the bearing and in which the said lug is adapted to travel, the said arm being also provided with a notch intersecting the bearing and the said recess for the passage of the said lug, a retaining arm provided with a shaft mounted to turn centrally in said pivot, the said retaining arm being adapted to engage the face of the said bearing and to register with the said notch, and a spring pressing on said shaft to hold the retaining arms in frictional engagement with the end of the said pivot.
11. A check for doors or windows, comprising two arms pivotally connected at one end with the parts of the door or window, pivotal means at the free ends of said arms for pivotally and detachably connecting the arms with each other at said free ends, and a movable retaining member for retaining the arms in pivotal relation with each other.
12. A check for doors or windows, comprising two arms each pivotally connected at one end with the corresponding part of the door or window, one of the arms being provided at its free end with a pivot pin, and the other arm being provided at its free end with a bearing adapted to receive the said pivot pin to pivotally and detachably connect the arms with each other, and a retaining member for holding the said pivot pin in the said bearing, one of the said arms being made in sections pivotally connected with each other.
13. A check for doors or windows, comprising two arms pivotally connected at one end with the parts of the door or window, one of the arms being mounted to swing up and down and provided at its free end with a pivot pin projecting from one face thereof, and having a central bore and a lug extending from one side of the pin at the peripheral face thereof, the other arm being formed in sections pivotally connected together and mounted to swing sidewise to-

ward and from the other arm, the outer section of said arm being provided at its free end with a bearing for receiving the said pivot pin, the said section having an annular recess formed in its face concentric with the bearing and in which the said lug is adapted to travel, the said arm section also having a notch formed therein and intersecting the said recess for the passage of the lug when the arms are in vertical position to permit of disconnecting the arms, a shaft mounted to turn in the bore of the pivot pin, and means carried by said shaft for preventing disconnection of the arms at the time the arms are in vertical position.

14. A check for doors or windows, com-

prising two arms pivotally connected with the parts of the door or window, pivotal means for pivotally and detachably connecting the said arms with each other at their free ends, a movable retaining member for retaining the arms in pivotal relation with each other, and means adapted to be engaged by the said retaining member to move the latter.

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

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."