

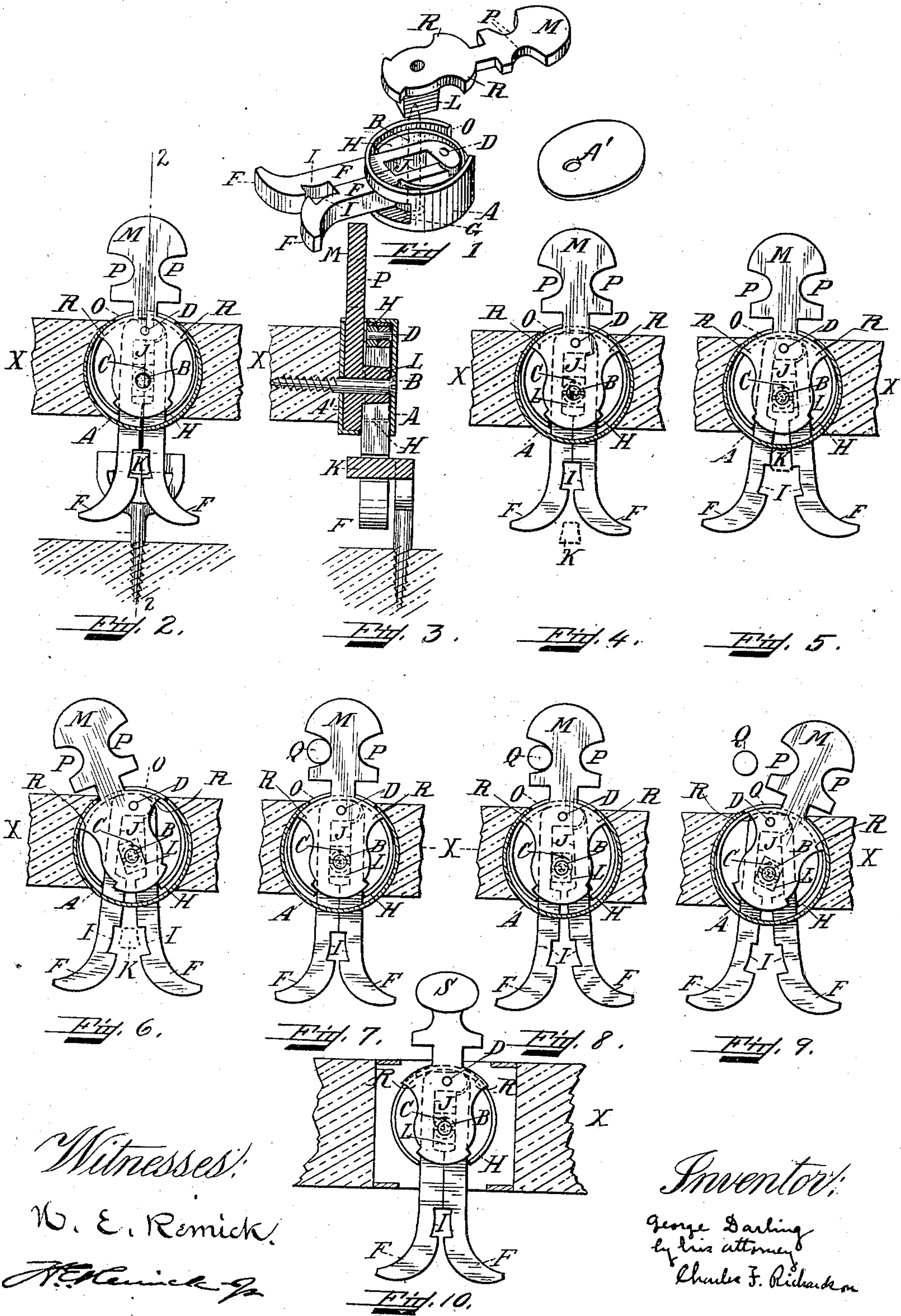
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G. DARLING.
FASTENER FOR BLINDS, SHUTTERS, DOORS, OR THE LIKE.

APPLICATION FILED MAY 1, 1903.

NO MODEL.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

GEORGE DARLING, OF FALL RIVER, MASSACHUSETTS.

FASTENER FOR BLINDS, SHUTTERS, DOORS, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 755,627, dated March 29, 1904.

Application filed May 1, 1903. Serial No. 155,112. (No model.)

To all whom it may concern:

Be it known that I, GEORGE DARLING, a citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Fasteners for Blinds, Shutters, Doors, or the Like, of which the following is a specification.

Figure 1 is a perspective view of the details of my invention, the top of the cylindrical case having been cut off and removed to one side, while the inside lever is in position to be slipped down into engagement with the outside jaws, the pivot for said inside lever being shown in dotted lines for the sake of clearness. Fig. 2 is a horizontal section showing my fastener fixed in the bottom of a movable body, such as a blind-rail, and in locking engagement with a house-pin. Fig. 3 is a longitudinal section on lines 2 2 of Fig. 2. Fig. 4 shows the jaws of my fastener about to engage a house-pin. Fig. 5 shows a possible position of the house-pin when the jaws are slammed into engagement therewith. Fig. 6 shows how by a movement of the inside lever the jaws and house-pin are disengaged. Fig. 7 shows the inside lever in engagement with a window-stool pin. Fig. 8 shows the impossibility of moving the inside lever out of engagement with said stool-pin by a movement of either one or both of the outside jaws. Fig. 9 shows the inside lever moved out of locking engagement with the stool-pin, and Fig. 10 shows a modified form of fastener.

My invention relates to fasteners for blinds, shutters, doors, and the like; and its principal object is to provide a fastener that when assembled, say, with a blind will when said blind is closed so lock it on the inside thereof that said fastener cannot be operated from the outside, and yet when the blind is swung open said fastener will lock it open with certainty. Other advantages will become apparent with a reading of the following description.

In the drawings illustrating the principle of my invention and the best mode now known to me of embodying that principle, A is a cylindrical case swaged up out of copper in the well-known manner. It is designed to be

mounted in an auger-hole in the bottom, say, of a blind-rail X, the diameter of said case exceeding the thickness of the blind-rail, for reasons that will appear later, and being slightly less than that of the auger-hole, so that the case can be forced into and retained in said hole. In order that the case may not be turned in said auger-hole, a screw B is passed up through the bottom and top of said case at a point to one side of this axis C of said case and in the diameter thereof transverse to said blind-rail. Located in this same diameter, but on the opposite side of said axis C of said case A, is pin D, on which are pivoted a pair of jaws F F, having outwardly-flaring end portions, which extend through an opening G therefor cut in the side of the case. A ring spring H, whose depth equals or exceeds the thickness of the jaws, lies in the same plane as the jaws, and its ends engage the outer sides of the jaws and tend to force the jaws toward each other. In each of the opposite faces of said jaws are two slots I I J J, corresponding in position, size, and shape. The opening formed by the two slots I I opposite each other and near the flaring end portions of the jaws F F corresponds in section to that of a house-pin K, which is designed to engage said opening. The opening formed by the other pair of slots J J next to the screw B is rectangular in shape and is designed to receive a rectangular block L, integral with a lever M, to be described later, the side movement of which causes the jaws F F to spread apart, but against the opposing pressure of the spring C. Lying upon the upper surfaces of these jaws and in a parallel plane is said lever M. It is provided with the above-mentioned rectangular block L, said lever being pivoted upon said screw B, which passes up through the middle portion of said block L. The outer portion of said lever M extends through an opening O therefor in the case and has two notches P P, either of which is adapted to engage a stool-pin Q.

It will be noticed that so much of the opening G in the case A for the jaws F F unoccupied by the latter is substantially closed by the end portions of the spring H, so that

flies and other insects which might otherwise crawl into the case and quite likely seriously interfere with the operation of the fastener are excluded. Such intrusion through the opening O for the lever M, operating the jaws F F, is prevented by the curved shoulders R R, always in close proximity to the sides of said opening O, whatever the position of the lever may be.

The operation of my fastener is as follows: Assuming the blind X is shut, as shown in Fig. 7, to open it the lever M is pressed to one side, and thus released from the pin Q. By giving said blind X an outward push it swings about and brings the flaring jaws F F into engagement with the house-pin K, which forces them apart against the pressure of the spring. (See Figs. 4 and 2.) If this movement of the blind is slow enough, the pin K is immediately caught in the pin-slots I I of the jaws F F and the blind becomes instantly and immovably locked. Should the movement of the blind be so rapid that said slots of the jaws pass by the pin and assume the relation thereto shown in Fig. 5, then by an outward movement of the blind the jaws will without fail grip the pin and securely lock the blind open, as shown in Fig. 2. To unlock the open blind, the lever M (see Fig. 6) is pressed either to the right or left, the opposite sides of the block L engaging the sides of the jaws F F and forcing the latter far enough apart to disengage themselves from the pin K. The blind to be shut is swung toward the pin Q and one of the notches P P of the lever M snaps into engagement with said pin Q, the lever M being held in its normal locking position by the ever-present inwardly-pressing jaws F F. To open the locked and closed blind from the inside, the lever M is pressed to one side, as above described. Now if the blind is closed and an attempt is made to open it from the outside what follows? If either one of said jaws, as F, (see Fig. 8,) is moved away from the pivot B, it no longer engages the block of the lever M and has no tendency to swing the lever into unlocking position; but this movement of the jaw by means of the spring H causes the outer jaw to engage said block, and thus to hold the lever in its locking position. Should the other jaw be moved, the first jaw will have the same operation and have the same effect on the lever in its locked position. The fastener, therefore, is one whose locking-lever on the inside of the blind cannot be operated by the jaws on the outside of the blind, notwithstanding the jaws may be operated by the lever from the inside.

As this fastener may be fitted to a blind whose rail closely fits against the window-stool, it will be plain that without some special instrument or tampering with the parts of the fastener the locking-lever cannot be swung to one side of the pin and the blind opened

from the outside. Such a fastener is of particular use on blinds of a sleeping-room, where privacy and also ventilation by open windows are of prime importance.

By the use of the jaws shown the house-pins may be of such small length that birds will not light upon them and soil the walls of the house, and the engagement of the jaws and house-pin is such that the wind cannot cause them to rattle. Further, the openings in the case are so closed that the inside of it is protected from the weather, insects, and the like. Still further, the fastener may be used upon either right or left handed blinds and upon a blind-rail that is either close to or at some distance from the window-stool, and, lastly, it is very easily and securely mounted.

Fig. 10 shows a modification of my fastener, the lever being provided with a knob S instead of the notched head. It is designed for use in connection with doors, as for cupboards, bookcases, and the like, and its jaws are operated in the manner above described.

It is to be understood that the cylindrical case is a most convenient form for mounting in a blind or door, but I do not wish to limit myself to such a case, for it may be angular. In fact, the jaws and lever could without departing from the spirit of my invention be mounted in a door or blind without any case, provided they were operatively disposed in relation to each other.

Having described my invention, which I desire to claim in the broadest manner legally possible, what I claim is—

1. A fastener, made up of a pair of pivoted jaws having outwardly-flaring end portions, and having in each of the opposite faces of said jaws, a slot to engage one side of a pin; a block centrally pivoted and lying between said jaws; a spring constantly pressing said jaws toward each other; a lever to move said block on its pivot and cause said jaws to open against the pressure of said spring, to disengage said jaws and said pin; and a notch in the outer portion of said lever to engage a second pin, said spring operating through said jaws and said block to force said lever with its notch back into its normal or locking position with said second pin.

2. In a fastener, a case; a pair of jaws, pivotally mounted in said case, and extending outwardly through an opening in the side of said case; means, in close proximity to said opening, engaging said jaws to close the same, and, with said jaws, practically closing said opening to incoming insects; and means to open said jaws.

3. In a fastener, a cylindrical case; a pair of jaws, pivotally mounted in said case, and extending outwardly through an opening in the side of said case; a flat spring lying on edge within said case, and having its ends engaging the outer side surface of said jaws, in close proximity to said opening for said jaws,

the height of said spring exceeding that of said opening for said jaws; said spring and said jaws thus practically closing said opening to incoming insects and means to operate said jaws.

4. In a fastener, a case; a pair of jaws, pivotally mounted in said case, and extending outwardly through an opening in the side of said case; means, in close proximity to said opening, engaging said jaws to close the same, and, with said jaws, practically closing said opening to the weather and incoming insects; a lever, pivoted within the case to open said jaws and extending outwardly through a second opening in said case, said lever having shoulders extending sidewise, just within said case, and far enough always, to close said second opening to the weather and incoming insects.

5. In a fastener, a cylindrical case; a pair of jaws pivotally mounted in said case, and extending outwardly through an opening in the side of said case; a flat spring lying on edge within said case and having its ends engaging the outer side surfaces of said jaws in close proximity to said opening for said jaws, the height of the spring exceeding the thickness of the jaws; said spring and said jaws thus practically closing said opening to the weather,

and incoming insects; a lever pivoted within the case, to operate said jaws, and extending outwardly through a second opening in said case, said lever having shoulders extending sidewise, just within said case, and far enough always to close said second opening to the weather, and incoming insects.

6. A cylindrical case for a fastener, mounted in a hole of corresponding diameter, in a movable body; a pair of jaws mounted on a pivot within said case; a lever, having an integral block lying between said jaws, and centrally pivoted upon a pin or screw, which passes through the bottom of said cylindrical case, between said jaws, and through said block, and then into said body, the axis of said pin or screw being different from that of the cylindrical case; the pin or screw thus preventing the case, with the fastener mounted therein, from turning in said hole in said body.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE DARLING.

Witnesses:

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RICHARD P. BORDEN.