F. E. RICHARDSON.

DOOR FASTENER.

APPLICATION FILED NOV. 21, 1907.

899,323. Patented Sept. 22, 1908.

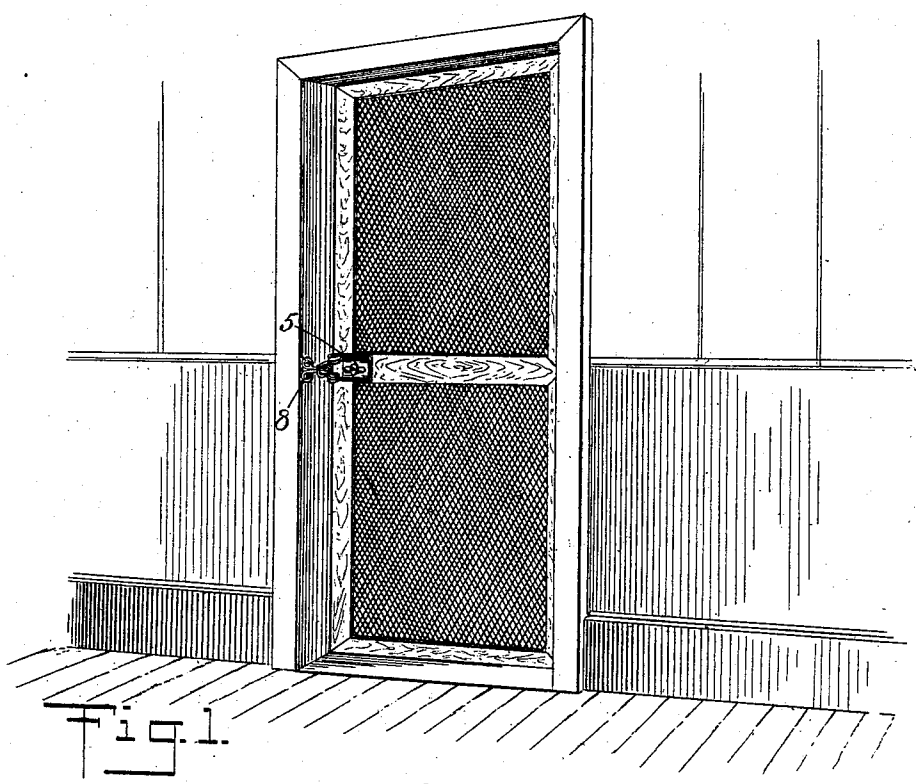


Fig. 1.

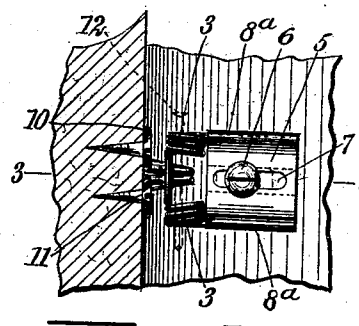


Fig. 2.

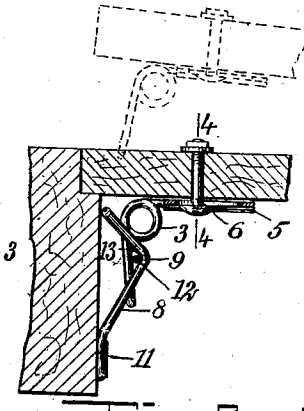


Fig. 3.

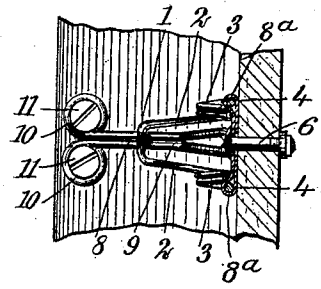


Fig. 4.

WITNESSES

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DOOR-FASTENER.

No. 899,323. Specification of Letters Patent. Patented Sept. 22, 1908.

Application filed November 21, 1907. Serial No. 403,150.

To all whom it may concern:

Be it known that I, FREDERICK ELIJAH RICHARDSON, a citizen of the United States, and a resident of Manchester, in the county of Delaware and State of Iowa, have invented a new and Improved Door-Fastener, of which the following is a full, clear, and exact description.

This invention relates to fasteners, and is especially useful in connection with screens, screen doors, shutters and the like.

An object of this invention is to provide a simple, strong, inexpensive fastener for securing a door or the like, in a closed position.

A further object of the invention is to provide a fastener which acts automatically when the door is closed, to hold the same in a closed position and which tends resiliently to retain the door in a closed position.

A still further object of the invention is to provide a fastener comprising a catch, and a retainer for the catch, the latter resiliently engaging the retainer to resist disengagement therefrom and being adjustable so that its resistance to disengagement from the retainer can be regulated.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification in which similar characters of reference indicate corresponding parts in all the figures, in which

Figure 1 is a perspective view of the device as applied to a screen door; Fig. 2 is an elevation of the invention showing the method of attaching it to the door and door frame; Fig. 3 is a transverse section on the line 3—3 of Fig. 2 and showing parts in different positions in dotted outline; and Fig. 4 is a sectional view on the line 4—4 of Fig. 3.

Before proceeding to a more detailed description of my invention, it should be understood that the door fastener is entirely automatic in operation; that is, that the closing of the door itself, without further manipulation, secures it firmly to the door frame until an opening pressure against the door is exerted, when the fastener becomes released and permits the door to open. This construction is particularly useful in connection with screen doors, shutters and the like, as it entirely obviates the necessity of having manually operated catches, as are commonly used in these devices.

Referring more particularly to the drawings, 1 represents a substantially U-shaped catch, fashioned from any suitable resilient material, such as wire or the like. Each of the sides 2 of the catch has a portion formed into a helical spring 3, and has the ends 4 disposed laterally beyond the spring. An adjustable plate 5 is secured to the door by means of a screw or bolt 6 mounted in a slot 7 of the plate. The edges 8^a of the plate are turned down upon themselves to form sleeves in which the ends 4 of the springs are mounted. It will be understood that the slot 7 permits the adjustment of the plate and the catch, and that by means of the bolt 6 the same can be firmly secured upon the door in a plurality of positions.

Secured to the door frame is a retainer 8, fashioned from any suitable material, such as wire, cast metal or the like, and presenting a portion 9, bent away from the door frame. In the preferred form, as shown in the drawings, the retainer is fashioned from a wire member folded upon itself and having the ends formed into eyes 10. Suitable securing means, such as screws 11, may be employed to mount the retainer on the door frame, coacting with the eyes 10 for this purpose. In closing the door, the catch which engages the slanting surface of the bent portion 9 of the retainer, rides beyond the same to a locked position. The pressure of the resilient catch upon the further surface of the bent portion 9, serves securely to hold the parts together. It will be understood that the springs 3 tend to resist the riding of the catch over the retainer and hold the catch in position upon the retainer, as is shown most clearly in Fig. 3. A locking member 12 of any convenient shape or size and adapted to be mounted in the space 13 between the retainer and the catch, can be employed to hold the door in a closed position, as is shown most clearly in Figs. 2 and 3.

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

1. In a device of the class described, a member adjustably mounted upon a door and having at the edges sleeves, a resilient catch having the ends thereof arranged within said sleeves, and a retainer mounted upon a door frame and having an outer pro-

jection for engaging said catch, said catch being displaced to permit it to pass beyond said projection when said door is being closed.

2. In a device of the class described, a plate adjustably mounted upon a door, said plate having the edges thereof suitably bent to form sleeves, a resilient catch, said catch having the ends thereof secured within the sleeves of said plate, and a retainer mounted upon a door frame and presenting a portion bent outwardly for engaging said catch, said bent portion serving to displace said catch when the door is being closed.

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

FREDERICK ELIJAH RICHARDSON.

Witnesses:
GEO. A. NEWMAN,
EDITH E. PEMBLE.