

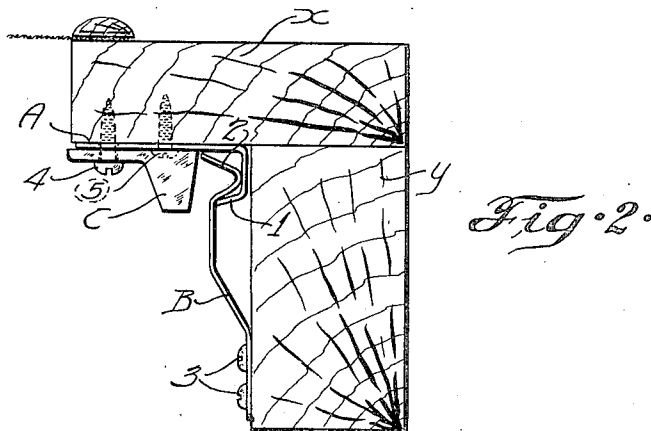
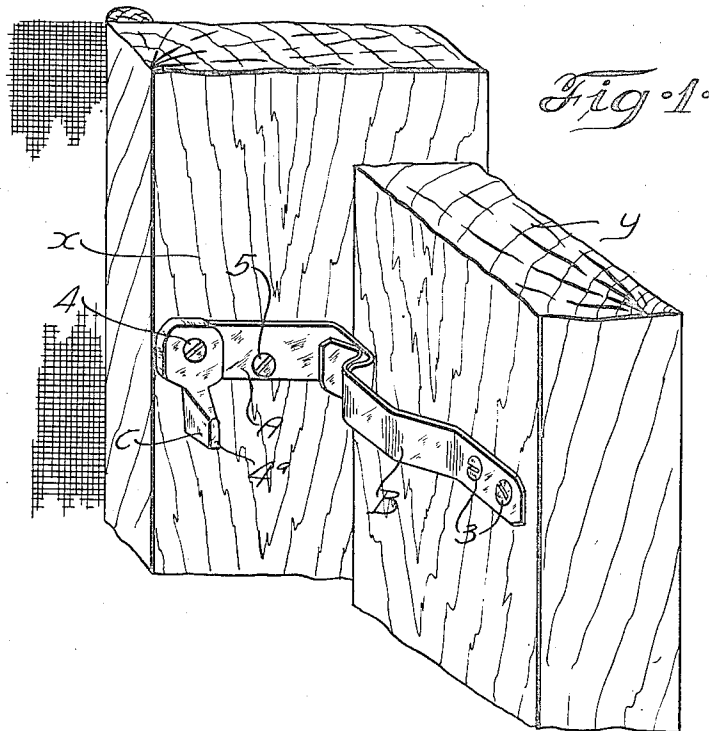
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DOOR FASTENER

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DOOR FASTENER.

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To all whom it may concern:

Be it known that I, FREDERICK ANDREAS, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Door Fasteners, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

10 This invention relates to door fasteners of the kind that are used principally on screen doors, and has for its object to provide a door fastener of simple design and inexpensive construction that can be applied easily without the services of a skilled mechanic, and which is equipped with an efficient locking device.

15 Figure 1 of the drawings is a perspective view, showing my improved fastener applied to a screen door, with the door partly open; and

Figure 2 is a horizontal sectional view, showing the door closed.

20 The fastener is composed of a rigid element A attached to the inner side of the portion *x* of the door that strikes against the jamb *y* of the door frame, and a resilient element B attached to the inner side of the door jamb *y* and arranged at substantially right angles to the rigid member A in such a way that when the door swings towards the door jamb into its closed position, a part on the rigid element A will strike against the front end of the resilient element B and move the free end of said resilient element laterally, thereby permitting it to snap into engagement with the element A on the door, and thus temporarily hold the door in its closed position. When the door is moved away from the door jamb *y* to open the door, the rigid element A on the door will exert pressure on the free end of the resilient element B on the door jamb in such a way as to cause said element B to yield, and thus move out of interlocking engagement with the element A on the door. In order to lock the door in its closed position, a locking device C is mounted on the rigid element A on the door in such a manner that when it is moved in one direction, it will engage the free end of the resilient element B on the door jamb, and thus prevent the co-operating interlocking portions on the elements A and B from being disengaged while said locking device is in this position.

The elements A and B and the locking de-

vice C can be formed in various ways without departing from the spirit of my invention, but I prefer to provide the element A on the door with an inwardly-projecting, hook-shaped portion 1 and provide the free end of the resilient element B with a co-operating hook-shaped portion 2 that snaps into interlocking engagement with the hook-shaped portion 1 of the rigid element when the door is moved into its closed position. The locking device C is formed preferably by a cam or eccentrically-mounted part on the rigid element A that is adapted to be turned forwardly into engagement with the hook-shaped portion 2 so as to hold same in interlocking engagement with the hook-shaped portion 1, and turned rearwardly so as to permit the free end of the resilient element B to flex or move away from the door jamb *y* when the door is subjected to pressure in a direction tending to move it away from the door jamb.

The rigid element A on the door can be formed conveniently from a flat metal strip bent to form a connecting portion that is adapted to be arranged flatwise on the inner side of the part *x* of the door and secured to same by fastening devices, and a right-angularly-disposed part projecting inwardly from said connecting portion and provided at its inner end with a reversely bent lip or flange that is disposed vertically, at substantially right angles to the door jamb *y* when the door is closed. The resilient element B is preferably formed from a flat strip of spring material equipped with holes through which fastening devices 3 can be inserted to connect it to the inner side of the door jamb and having its front end or free end bent in such a way as to form a V-shaped portion 2 that co-operates with the hooked-shaped portion on the rigid element A on the door. The locking device C is formed preferably from a small casting, forging or stamping pivotally connected at 4 to the element A on the door and equipped with a finger piece 4^a that is used to move said locking device into and out of its locking position, the element A having a stop 5, formed by a screw that secures the element A to the door, against which the locking device C strikes when said locking device is moved into engagement with the resilient element B.

A door fastener of the construction above described is inexpensive to manufacture, it

can be applied without the services of a skilled mechanic by simply arranging the elements A and B on the inner side of the door and on the inner side of the door jamb and securing them in position by inserting a few wood screws in the door and the jamb, and such a fastener is highly efficient, as the locking device C is of such design that it is only necessary to swing it in one direction so as to securely hold the elements A and B of the fastener in interlocking engagement with each other. In addition to the desirable features above pointed out, my improved door fastener is of such design that there is little liability of the parts of same breaking or becoming bent in such a way as to render the fastener inoperative, as so often occurs with many of the various types of screen door fasteners now in general use.

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

1. A door fastener, comprising a rigid element arranged on the inner side of the part of the door that strikes against the edge of the door jamb and provided with an inwardly-projecting, hook-shaped portion that extends along the side face of the jamb when the door is closed, a resilient element arranged on the side face of the door jamb and provided at its free end with a V-shaped portion on which the hook-shaped portion on said rigid element exerts pressure in such a direction during the closing movement of the door as to cause the resilient element to flex and thus permit the V-shaped portion of same to snap into locking engagement with the rigid element on the door, and a pivotally-mounted locking device on the door that is adapted to be moved into locking engagement with

the V-shaped portion of said resilient element.

2. A door fastener, comprising a resilient element adapted to be arranged flat-wise on the inner side face of a door jamb in a substantially horizontal position and formed from a strip of spring material bent so as to produce a V-shaped portion on the free end of said resilient element whose apex is presented towards the side face of the jamb, and a rigid element adapted to be connected to the inner side of the part of the door that strikes against the edge of the door jamb and formed from a rigid metal strip that is bent to produce an inwardly-projecting portion that extends along the side face of the jamb when the door is closed and a reversely bent part which snaps into interlocking engagement with the V-shaped portion on said resilient element when the door moves into its closed position.

3. A door fastener, comprising a rigid element arranged on the inner side of the part of the door that strikes against the door jamb and provided with an inwardly-projecting part that has a reversely-bent terminal portion, a resilient element arranged on the inner side face of the door jamb at right angles to said rigid element and provided with a V-shaped terminal portion that snaps into interlocking engagement with the terminal portion on said rigid element when the door moves into its closed position, and a pivotally-mounted cam on said rigid element provided with a finger piece by which said cam can be moved into and out of engagement with the V-shaped portion of said resilient element to lock and release the door.

FREDERICK ANDREAS.