A. B. CARLL.

FOOT OPERATED DOOR FASTENER.

APPLICATION FILED OCT. 27, 1917.

1,284,237. Patented Nov. 12, 1918.

Fig. 1.

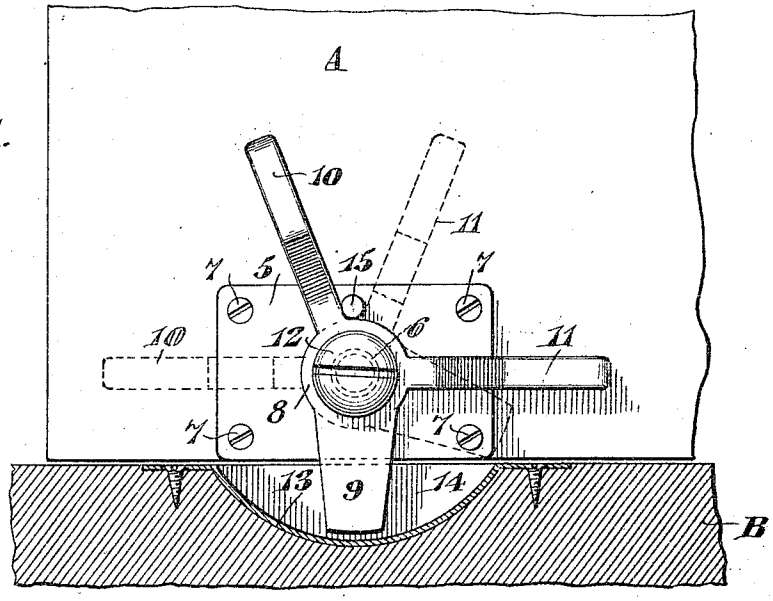


Fig. 2.

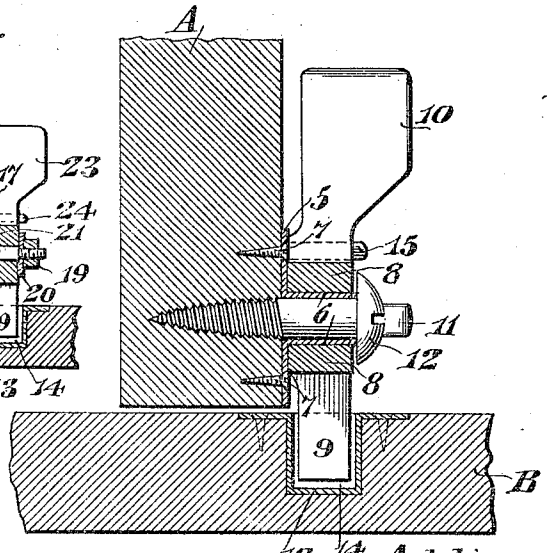


Fig. 3.

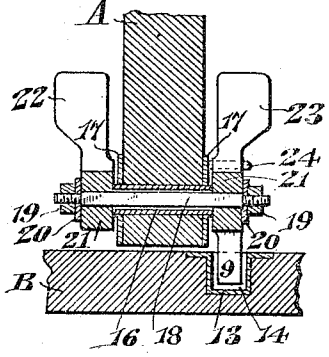
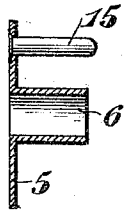


Fig. 4.



WITNESSES

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FOOT-OPERATED DOOR-FASTENER.

1,284,237. Specification of Letters Patent. Patented Nov. 12, 1918.

Application filed October 27, 1917. Serial No. 198,889.

To all whom it may concern:

Be it known that I, ADDISON B. CARLL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Foot-Operated Door-Fastener, of which the following is a specification.

The invention relates to a foot-operated fastener for doors, and has for its primary object to provide a device of this character which will enable the door to be fastened at its bottom without necessitating actuating the usual end bolt employed for this purpose, and, on the closing of the door, the same will be tightly drawn into the door frame or casement.

Another object of the invention is the provision of a fastener of this character which is particularly designed for use on garage doors, and may be operated from either side of the door for the latching or unlatching thereof, the fastener being of novel form so that when the door is unlatched, the fastener will be sustained in a position to eliminate the possibility of the fastener accidentally moving to a locking position.

A further object of the invention is the provision of a fastener of this character wherein the particular mounting thereof upon the door enables it to clean the socket or keeper recess from dirt, or other foreign matter, which would interfere with the latching of the door, and, in this manner, the secure fastening of the door is assured without inconvenience on the part of the operator of said fastener, the latter being weighted for the gravitation thereof when thrown to locking or unlocking position, so that the same will be sustained in such positions on passing a predetermined point in the pivotal movement thereof.

A still further object of the invention is the provision of a fastener of this character which is extremely simple in construction, thoroughly reliable and efficient in its operation, strong, durable and inexpensive to manufacture.

Other objects will be in part obvious, and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts, which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings—

Figure 1 is a fragmentary vertical sectional view through a door frame or casement base or sill, with a portion of a door in elevation, showing the fastener constructed in accordance with the invention applied, the fastener by full lines being shown in locking position, and by dotted lines in unlocking position.

Fig. 2 is a fragmentary vertical transverse sectional view thereof.

Fig. 3 is a view similar to Fig. 2, showing a slight modification of the invention.

Fig. 4 is a detail transverse sectional view through the bearing for the fastener shown in Figs. 1 and 2 of the drawing.

Similar reference characters indicate corresponding parts throughout the several views of the drawing.

Referring to the drawing in detail, A designates a portion of a door, and B a portion of a sill or base of a door frame or casement, which are of the usual wellknown constructions, the same being fitted with the fastener hereinafter fully described.

The fastener comprises a bearing including a base plate 5 formed centrally thereof, with a hollow lug or boss 6 which projects outwardly from one side thereof, and this bearing is secured in any suitable manner to the inner face of the door A at or contiguous to the lower edge thereof, the bearing in this instance being fastened by the usual screws 7, and passed through the base plate 5 and engaged in the door.

Pivotally supported upon the bearing is the latching member, which comprises a hub 8, formed with a latch ear 9, and a pair of offset foot-engaging wings 10 and 11, respectively, on the ends of arms which are spaced from each other and extend radially from said hub 8 in angular relation to one another and also with respect to the latch ear 9, the hub 8 being journaled upon the boss or lug 6, and held thereon by means of a wood screw or other equivalent member 12, which is passed through the hollow boss or lug 6 and engaged in the door.

The boss is longer than the width of the hub and extends beyond the same at one side, so that the head of the bolt or screw 12 does not bear upon the latching member, and this serves to keep the latter free to rotate with no loosening tendency on the screw.

The boss also forms a stiff axle on which the latching member swings freely, taking

all bending tendency off the bolt or screw and permitting said bolt or screw to clamp the plate firmly to the door.

Countersunk within the base or sill B of the door frame or casement in juxtaposition to the bearing, is a keeper formed from a body 13 having an intermediate elongated substantially arcuate-shaped recess or socket 14 for receiving the latching ear 9 when moved to locking position, the keeper being fitted within the base or sill B so that the upper side thereof will be substantially flush with the top face of said base or sill, and is fastened in any suitable manner.

The recess or socket being formed in the keeper plate, is metal-lined. Moreover, the pivot of the latching member is located at a point above the transverse center of the recess or socket, which is of a length and width so that the sweep of the ear of the latching member reaches practically the entire area thereof, whereby the ear serves to keep the recess or socket clear and free from ice, snow and accumulations of dirt and trash.

Mounted in or integral with the base plate 5 of the bearing at the proper point thereon, is a stop projection 15, with which contact the foot-operated wings 10 and 11 in the movement of the latching member to its two positions, so that the same will be limited in such movements.

By attaching the stop pin or projection to the base plate, a better commercial article is provided, which is more readily applied to the door.

The foot-operated wings 10 and 11 are disposed in such a manner as to overbalance the member after reaching a predetermined point in its pivotal movement for the gravitation of said member either to locking position or unlocking position. On moving the latching member to locking position, the ear 9 thereof will enter the recess 14 in the keeper and a positive locking of the door will be had.

In Fig. 3 of the drawing, there is shown a slight modification of the invention, wherein the door has mounted transversely therein a tubular sleeve 16, the ends of which slightly project beyond the face of the door and are surrounded by facing or escutcheon plates 17. Passed through the sleeve 16 is a spindle 18, preferably square in cross section throughout a major portion of its length, while the ends are threaded to receive nuts 19, working against washers 20, mounted upon said ends, and, in this manner, the hubs 21 of a pair of foot-operated members 22 and 23, respectively, are fastened to the spindle 18. The member 23 is constructed identically to the latching member hereinbefore described, while the member 22 is similar thereto with the exception that the latching ear is eliminated or dispensed with, the member 23 being disposed at the inner side of the door, while the member 22 is located at the outer side of the door. It will be obvious that the fastener can be actuated from either side of the door for the locking of said door, or the unlocking thereof.

On the inner fastening or escutcheon plate 17, is a stop 24, which limits the movement of the fastener when moved to latching or unlatching position. The fastening or escutcheon plates 17 are secured to the door in any suitable manner.

It is to be understood that changes, variations and modifications may be made in the invention, such as come properly within the scope of the appended claim, without departing from the spirit of the invention, or sacrificing any of its advantages.

From the foregoing, it is thought that the construction and operation of the invention will be clearly understood, and therefore, a more extended explanation has been omitted.

What is claimed is—

A device of the character described, comprising a locking member having a latching ear, means for pivotally mounting the member upon a door so that the ear is movable in the arc of a circle below the bottom edge of the door, and a keeper placed directly below the locking member when the latter is in its locking position, and having an arcuate-shaped recess in the path of the latching ear and receiving the same, the portion of said ear operating within the recess having plane faces, and said recess having a curved bottom and straight side walls which are spaced apart greater than the thickness of the ear, so that the ear in its movement serves to keep the recess clean.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witneses.

ADDISON B. CARLL.

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