July 7, 1925. 1,544,657

H. LANGER

GARAGE DOOR FASTENER

Filed April 9, 1923

Fig. 1

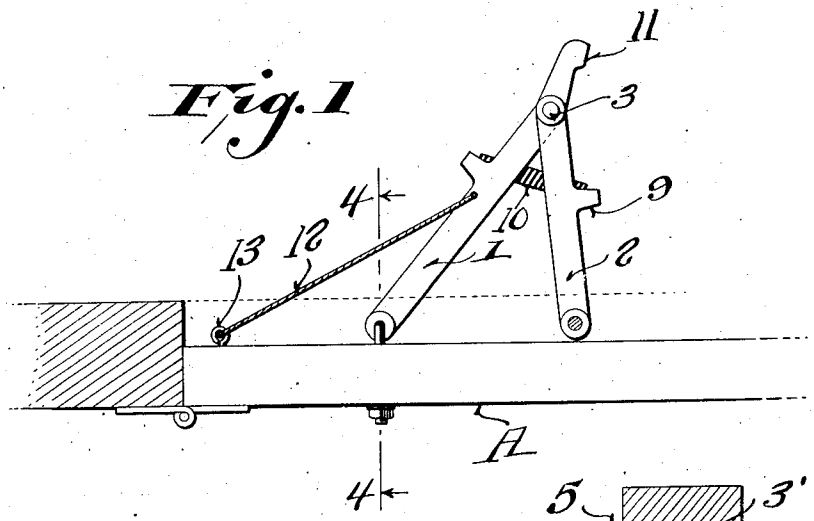


Fig. 2

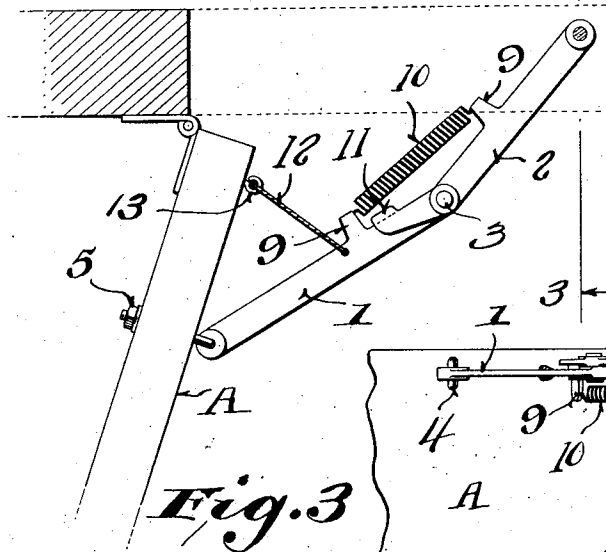


Fig. 3

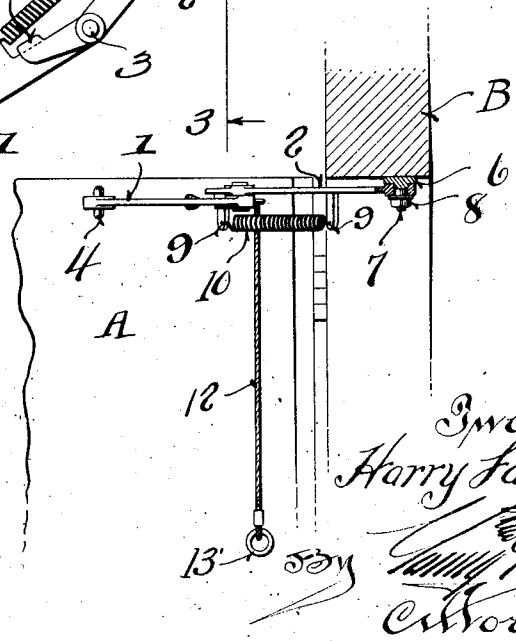
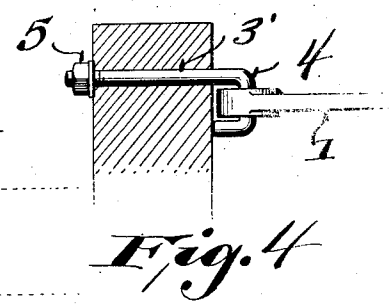


Fig. 4



Witness:
R. E. Weber

Inventor:
Harry Langer

Attorneys

Patented July 7, 1925. 1,544,657

UNITED STATES PATENT OFFICE.

HARRY LANGER, OF MILWAUKEE, WISCONSIN.

GARAGE-DOOR FASTENER.

Application filed April 9, 1923. Serial No. 630,768.

To all whom it may concern:

Be it known that I, HARRY LANGER, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Garage-Door Fasteners; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention pertains to door fixtures, and more particularly to a fixture designed for use in connection with swinging doors such as those employed on garages and the like.

The main object of the invention resides in the provision of a simple and efficient device of the above character designed to hold the door against swinging when in its open position, thus eliminating possible damage to the door and lights as a result of wind slamming the latter against the building.

A more specific object resides in the provision of a fixture of the above character which will urge the door closed upon release from its open position.

A further object is to provide a fixture pivotally secured to the door and door casing whereby the opening movement of the door is limited and causes the hinged members of the fixtures to pass over center thus locking the door in its open position.

A still further object resides in the novel means for releasing the fixture to permit closing of the door.

With the above and other objects in view which will appear as the description proceeds, my invention resides in the novel construction, combination and arrangement of parts, substantially as hereinafter described and more particularly pointed out and defined by the appended claims, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claims.

In the accompanying drawing is illustrated one complete example of the physical embodiment of the present invention constructed according to the best mode so far devised, or the practical application of the principles thereof, and in which:—

Figure 1 is a plan view illustrating the method of attaching the present invention to a door and door casing, the door being shown in its closed position.

Figure 2 is a similar view illustrating the relative position of the parts when the door is in its open position.

Figure 3 is a view taken on the line 3—3 of Figure 2.

Figure 4 is an enlarged detailed view illustrating the connection between the fixture and the door.

Referring more particularly to the accompanying drawing, the present invention comprises a pair of links 1 and 2 hinged together at 3, the opposite end of the link 1 being pivotally connected to the door "A" by means of the bolt 3' provided with the hooked end 4 and secured to the door by means of a nut 5 threaded to its opposite end. The link 2 is pivotally connected to the top of the door casing "B" by means of the bracket 6 provided with a depending stud 7 on which is threaded a nut 8 adapted to retain the link.

The links 1 and 2 are further provided with a pair of lateral extensions 9 with which are connected a contractile spring 10 which normally tends to draw the links together.

As illustrated in Figure 2, the link 2 is extended past its hinge connection with the link 1 and is provided with a downwardly projecting stop 11 adapted to engage the link 1 and limit the relative movement of the links in one direction.

From the foregoing description taken in connection with the drawings, it is obvious that in the operation of the invention, the links 1 and 2, when in the position illustrated in Figure 1 are urged together by the spring 10 thus having a tendency to retain the door "A" in the closed position illustrated. As the door is swung outwardly, the links 1 and 2 will be extended until their pivoted ends are approximately aligned, at which position the spring 10 will cause the hinge 3 to pass over center to that position illustrated in Figure 2 at which point the stop 11 engages the link 1 and limits its further movement. The door is then securely locked in its open position until it is desired to release the same, which is accomplished by means of the cord 12 secured to the link 1 and passing through the screw eye 13 carried by the door. To facilitate release of the door from its open position, the cord 12 extends downwardly to a point within convenient reach, and is provided with a ring or other suitable grip 13. It will be readily seen that as the cord

12 is pulled downwardly, the hinge 3 will be returned over center at which point the spring 10 will tend to retract the links 1 and 2, thus causing the door to swing to its closed position.

From the foregoing description, it will be seen that a very simple and efficient door fixture has been provided which limits the outward movement of the door, thus preventing it from slamming against the building causing damage to the door or lights contained therein, and by means of the spring which carries the hinged connection, between the links comprising the fixture, over center, the locking of the door in its open position is automatically obtained, and by a simple operation, the fixture is released from its locked position, and, without further assistance, will close the door and retain the same in its closed position.

I claim:

1. The combination of a door casing, a door hinged thereto, and door locking mechanism comprising a pair of links hingedly joined adjacent their ends, the free end of one of said links being pivoted to said casing and the free end of the other of said links being pivoted to said door, said links assuming a folded position when said door is closed and having projections extending laterally therefrom in opposite directions when said links are folded, a spring joining said projections and located upon the outer side of the pivot point when said door is closed and adapted to move to the inner side of said pivot points when said door is open, one of said links having an arm projecting from its pivoted end, and a stop carried by said projecting arm and adapted to engage the other of said links when said spring has moved to the inner side of said pivot.

2. The combination of a door casing, a door hinged thereto, and door locking mechanism comprising a pair of links hingedly joined adjacent their ends, the free end of one of said links being pivoted to said casing and the free end of the other of said links being pivoted to said door, said links assuming a folded position when said door is closed and having projections extending laterally therefrom in opposite directions when said links are folded, a spring joining said projections and located upon the outer side of the pivot point when said door is closed and adapted to move to the inner side of said pivot points when said door is open, one of said links having an arm projecting from its pivot end, and a flexible member attached to the other of said links and passing through a guide carried by said door, whereby said links may be moved towards folded position when said flexible member is pulled.

3. A door fixture comprising a pair of hinged links connected respectively to a door and a door casing, a stop carried by one of the links for limiting their relative movement in one direction, a spring connected to said links at points offset laterally of their longitudinal axes whereby opening movement of the door will cause said spring to travel across the hinged connection of said links and cause one of said links to engage the stop on the other of said links, and means connected with one of the links for drawing such link in the opposite direction.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

HARRY LANGER.