Sept. 16, 1930. G. SOLMS, JR 1,775,974

ATTACHMENT FOR DOORS AND DOOR FRAMES

Filed Jan. 14, 1928

Fig. 1.

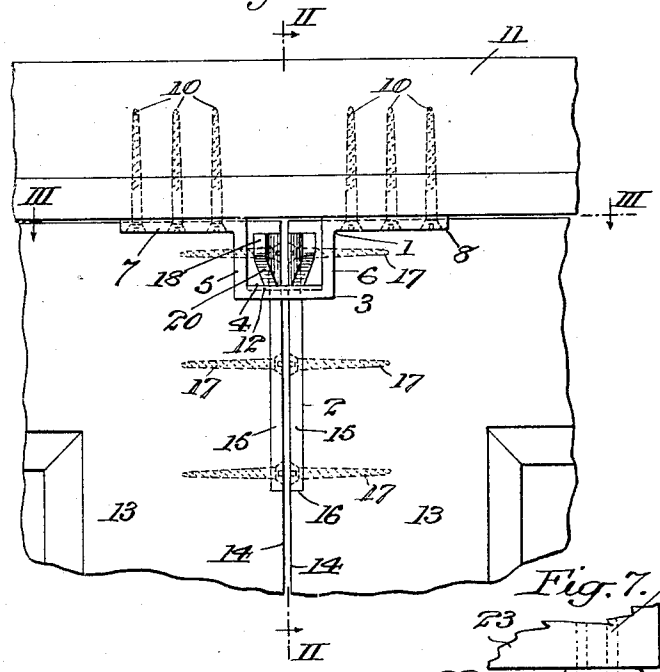


Fig. 2.

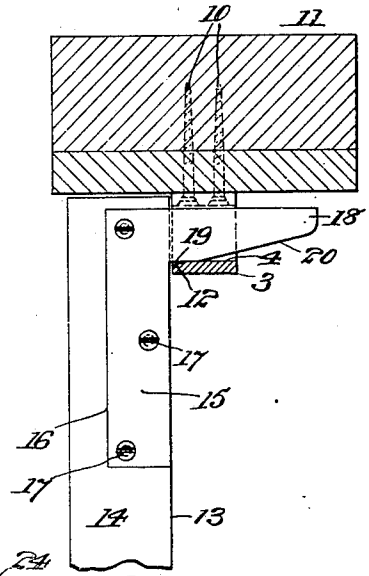


Fig. 7.

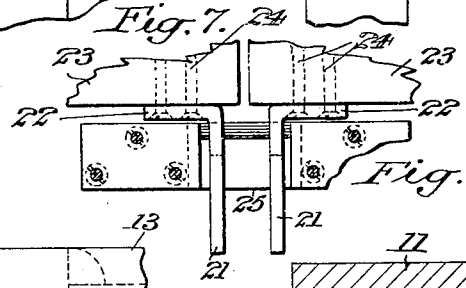


Fig. 3

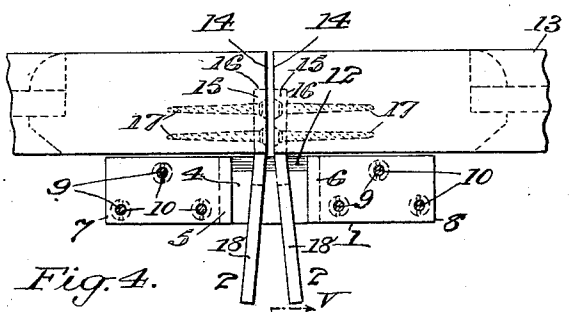


Fig. 4.

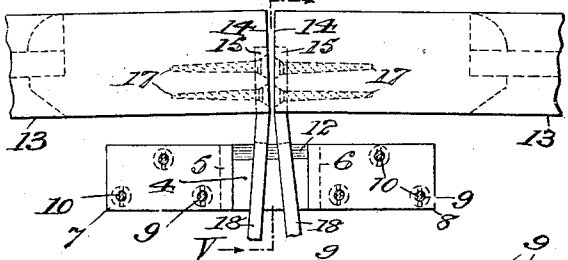


Fig. 6.

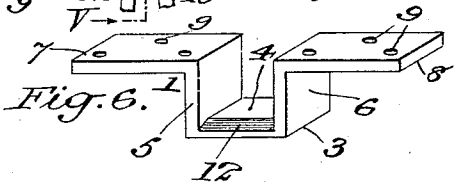
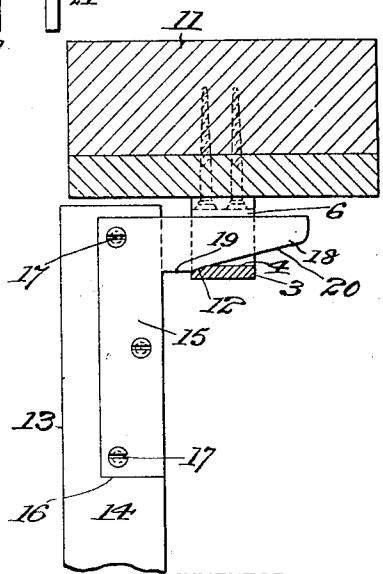


Fig. 5.



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UNITED STATES PATENT OFFICE

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ATTACHMENT FOR DOORS AND DOOR FRAMES

Application filed January 14, 1928. Serial No. 246,881.

This invention relates to attachments for doors and door frames and has for an object to provide a device which will compensate for or lift a sagged door or doors into position and also prevent the door or doors from sagging or binding on the door sill or frame when in a closed position.

Another object consists in providing an attachment which is simple, efficient in operation and economical to manufacture.

A further object consists in providing certain improvements in the form, construction and arrangement of the several parts whereby the above named and other objects may effectively be attained.

A practical embodiment of my invention is represented in the accompanying drawing, in which

Fig. 1 represents a detail elevation of a portion of the upper outer corners of each of two coacting doors in their closed position, together with a portion of the header of the door frame, which doors and frame have my improved attachment applied thereto;

Fig. 2 represents a vertical section of the same taken in the plane of the line II—II of Fig. 1, looking in the direction of the arrows;

Fig. 3 represents a horizontal section of the same taken in the plane of the line III—III of Fig. 1, looking in the direction of the arrows;

Fig. 4 represents a similar view with the doors in a nearly closed position;

Fig. 5 represents a vertical section taken in the plane of the line V—V of Fig. 4, looking in the direction of the arrows;

Fig. 6 represents a perspective view of the portion of the attachment carried by the header of the door frame; and

Fig. 7 represents a horizontal section similar to that shown in Fig. 3 of a modified form of movable members secured to the face of the doors.

It is a well known fact that doors in use will sag and bind in the door frame, particularly large heavy doors, such as those used in wide door frames common to garages, and the like.

The present invention sets forth to obviate this disadvantageous feature by automatically raising the outer edge of each sagged door as it is being closed, and when closed supports the door in its raised position until it is again opened. If, on the other hand, the door is not sagged, the attachments will serve to support it in its closed position, thereby preventing any tendency for the door to sag or bind in the door frame. This attachment may be easily and readily applied to doors and door frames, without resorting to the skill of the expert mechanic.

The device comprises a fixed member denoted by 1, and a movable member denoted by 2. The fixed and movable members are composed of metal capable of resisting certain wear by friction. The fixed member 1 is formed by a yoke 3 having a horizontally disposed platform 4 and vertically arranged walls 5, 6, which terminate in oppositely disposed branches 7, 8 provided with holes 9 for the reception of screws 10 which secure it in position on the header 11 of the door frame. The horizontal platform 4 is inclined downwardly at one end, as shown at 12, the purpose of which will be hereinafter explained.

Each door 13 is provided near the top of its meeting edge 14 with an inverted L-shaped member of which the vertical leg 15 is inset in a recess 16 so as to be flush with the meeting edge 14 and secured in position therein by screws 17. The horizontal leg 18 of each L-shaped member projects laterally from the door 13 and is formed on its lower edge with a flat portion 19, which terminates in an upwardly inclined portion 20. This inclined portion 20, is arranged to coact with the downwardly inclined portion 12 of the horizontal platform 4 of the yoke 3 when the door is sagged and brought to the position shown in Figs. 4 and 5. In this position the door is almost closed and by forcing the door to its closed position, as shown in Figs. 1 to 3 inclusive, the inclined surface 20 on the leg 18 will ride upwardly on the inclined portion 12 of the platform 4 until the flat portion 19 of the leg 18 rests upon the platform 4, in which position the door will have been raised and will be sus-

pended from the yoke until released therefrom.

In order to maintain the vertical meeting edges of the door and frame or two doors, as close as possible, the horizontal leg 18 of the L-shaped member may be slightly bent rearwardly, as shown in Figs. 1, 3 and 4 to allow for clearance as the door swings toward and away from its closed position.

In the form shown in Fig. 7, each movable member has a horizontally disposed leg 21 and a vertical leg 22 bent at right angles to the leg 21, which leg 22 is secured to the face of the door 23 by screws or bolts 24.

In this form the fixed member 25, which coacts with the horizontal legs 21, and carried by the door frame (not shown), is spaced a slight distance from the doors, when in their closed position, to allow clearance for the vertical legs 22. The leg 21 of each movable member and the fixed member 25 are designed to function in the same manner as the form shown and described in Figs. 1 to 6 inclusive.

It will be understood that various changes may be resorted to in the form, construction and arrangement of the parts without departing from the spirit and scope of my invention; and hence, I do not intend to be limited to the details herein shown and described except as they may be included in the claims.

What I claim is:

1. An attachment for doors and door frames comprising, a member fixed on the door frame and provided with a horizontally disposed element spaced from the door frame, and a member secured to and near the top outer edge of the door in position to project laterally from one face thereof, the lower portion of said last named member having an inclined surface terminating in a flat portion arranged to be brought into contact with said horizontally disposed element as the door is closed for lifting and supporting the outer edge of the door.

2. An attachment for doors and door frames comprising, a member fixed on the door frame, said member being provided with a horizontally disposed platform spaced from the door frame, and a member secured to and near the top edge of the door in position to project laterally from one face thereof, the lower portion of said last named member having an inclined surface arranged to be brought into coaction with the platform as the door is closed for lifting the outer edge of the door.

3. An attachment for doors and door frames comprising, a member fixed on the door frame, said member being provided with a horizontally disposed platform spaced from the door frame, and a member secured to and near the top edge of the door in position to project laterally from one face thereof, the lower portion of said last named member having an inclined surface terminating in a flat portion arranged to be brought into coaction with said platform as the door is closed for lifting and supporting the outer edge of the door.

4. An attachment for doors and door frames comprising, a member fixed on the door frame, said member being provided with a horizontally disposed platform inclined at its outer edge and spaced from the door frame, and a member secured to and near the top outer edge of the door in position to project laterally from the face thereof, the lower portion of said last named member having an inclined surface arranged to be brought into coaction with said inclined edge of the platform as the door is closed for lifting the outer edge of the door.

5. An attachment for doors and door frames comprising, a member fixed on the door frame, said member being provided with a horizontally disposed platform inclined at its outer edge and spaced from the door frame, and a member secured to and near the top outer edge of the door in position to project laterally from the face thereof, the lower portion of said last named member having an inclined surface terminating in a flat portion arranged respectively to be brought into coaction with said inclined edge and horizontally disposed platform as the door is closed for lifting and supporting the outer edge of the door.

6. An attachment for doors and door frames comprising, a member fixed to extend downwardly from the top of the door frame, and a second member secured to and adjacent the top of the door, said last named member being disposed to project laterally from the face of the door in position to be brought into coaction with said frame member for supporting the outer edge of the door when closed.

7. An attachment for doors and door frames comprising, a member fixed to extend downwardly from the top of the door frame, and a second member secured to and adjacent the top of the door, said last named member being disposed to project laterally from the face of the door and having its lower edge provided with an outer inclined surface terminating in a flat inner surface adjacent the door, said surfaces being arranged to be brought into coaction with said frame member for lifting and supporting the door when closed.

8. An attachment for doors and door frames comprising, a member fixed to extend downwardly from the top of the door frame and provided with a horizontally disposed element spaced from the door frame, and a second member secured to and adjacent the top of the door, said last named member being disposed to project laterally from the face of the door in position to be brought into coac-

tion with said horizontally disposed element on the frame member for supporting the outer edge of the door when closed.

9. An attachment for doors and door frames comprising, a member fixed to extend downwardly from the top of the door frame and provided with a horizontally disposed element spaced from the door frame, and a second member secured to and adjacent the top of the door, said last named member being disposed to project laterally from the face of the door and having its lower edge provided with an inclined surface in position to be brought into coaction with said horizontally disposed element on the frame member for lifting the outer edge of the door when closed.

In testimony, that I claim the foregoing as my invention I have signed my name this 12th day of January, 1928.

GEORGE SOLMS, JR.