C. B. BENNETT.

AUTOMOBILE DOOR HOLDING DEVICE.

APPLICATION FILED JULY 15, 1915.

1,192,733.

Patented July 25, 1916.

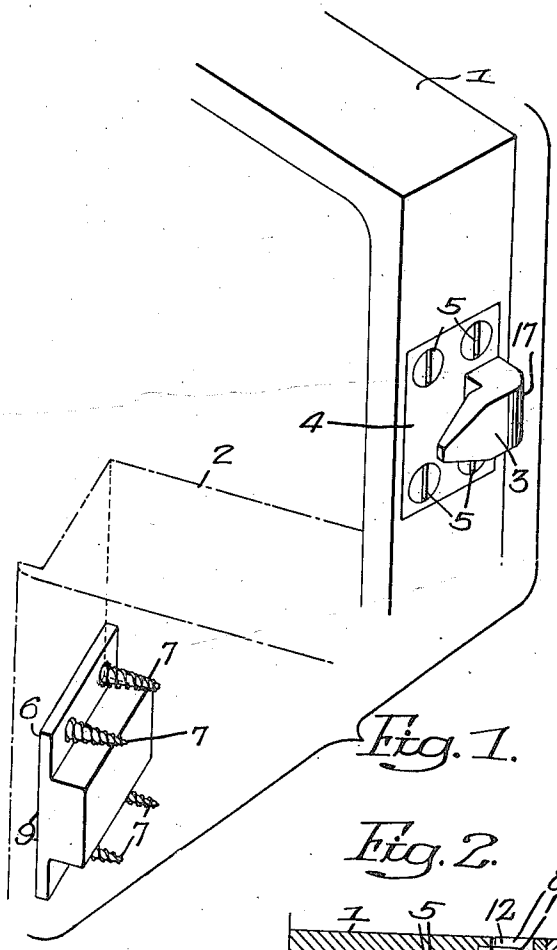


Fig. 1.

Fig. 3.

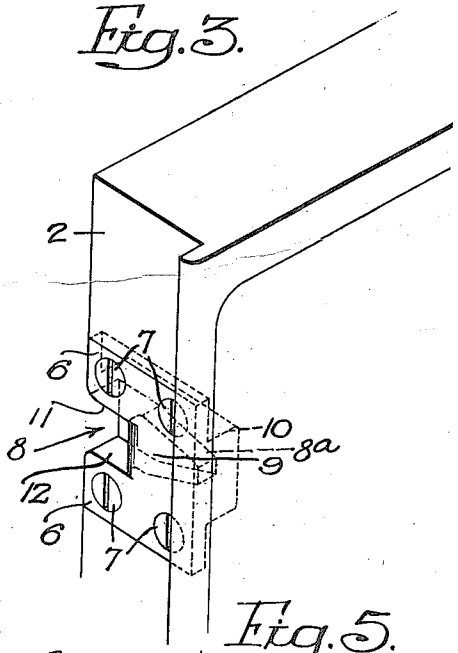


Fig. 2.

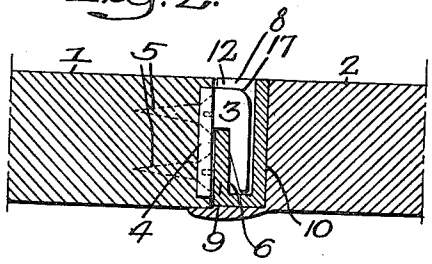


Fig. 5.

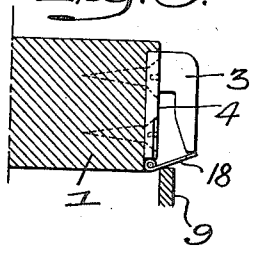


Fig. 4.

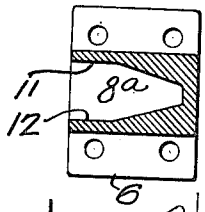
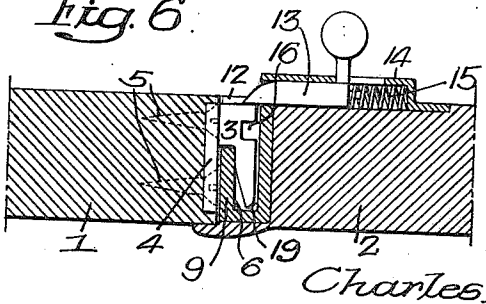


Fig. 6.



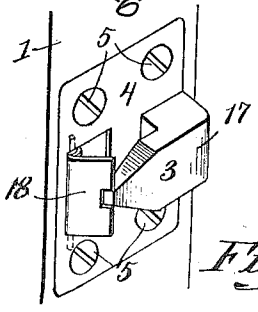


Fig. 5a.

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CHARLES B. BENNETT, OF PHILADELPHIA, PENNSYLVANIA.

AUTOMOBILE-DOOR-HOLDING DEVICE.

1,192,733. Specification of Letters Patent. Patented July 25, 1916.

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To all whom it may concern:

Be it known that I, CHARLES B. BENNETT, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Automobile-Door-Holding Devices, of which the following is a specification.

My invention relates to locks or securing means for the doors of vehicles, more particularly automobile bodies; and the object of my invention is to provide holding means that will serve to prevent longitudinal separation between the door or doors and the body.

It is more or less common at the present time to provide automobile doors with locking means in the form of latches; catches and the like for retaining them shut, and also with means for preventing rise of the door due to any stresses or strains produced upon the chassis, but these means do not prevent longitudinal movement of a portion of the body side and the door with respect to each other which tends to cause the meeting edge of the door to pull away from the body. In some instances this condition is so bad as to cause the rear portion of the body to rock or swing on a self-constituted fulcrum or axis adjacent its connection with the chassis.

My improved holding means comprises a catch or lug which serves the purpose of preventing vertical movement of the door with respect to the body, as well as longitudinal movement of the door or body side with respect to each other. If desired, a locking or retaining catch designed to hold the door closed may be combined with my improved structure, or such catch may be entirely independent of the same. These and other features of my invention are more fully described hereinafter, reference being had to the accompanying drawings, in which:

Figure 1, is a perspective view of the retaining means forming the subject of my invention showing the catch or retaining member mounted on the side of the car body, and a strike therefor carried by the door; Fig. 2, is a sectional plan view showing the door in the closed position; Fig. 3, is a perspective view of the edge of the door showing the strike in position; Fig. 4, is a sectional view of the strike; Fig. 5, is a sectional plan view illustrating a detail of my invention; Fig. 5ª, is a perspective view of the structure shown in Fig. 5, and Fig. 6, is a sectional plan showing a modified construction having a door retaining catch combined with my improved holding device.

In the drawings, 1 represents the side of the car body, and 2 the door; the latter being shown by broken lines. Carried by the body of the car, preferably adjacent the top of the same, is a hook or projection 3, preferably formed integral with a plate 4 whereby it may be secured in the end wall of the body at the door opening by means of screws 5.

The door 2 is provided with a strike 6, which may be secured in place by screws 7, which strike is notched at 8 and is provided with a socket 8ª with beveled walls to engage the projection 3 when the door is closed. The notched portion of the strike provides a wall 9 behind which the hook 3 will pass and enter the socket 8ª, as clearly shown in Fig. 2; the door being notched or recessed at 10 to receive the strike, and upper and lower walls or projections 11 and 12 which will engage the upper and under sides of said hook 3 and prevent vertical movement of the door or body with relation to each other in either direction. The engagement of the hook 3 behind the central wall portion 9 of the strike will prevent longitudinal movement of the door or body with respect to each other. The hook 3, it will be noted, has beveled upper and lower and inner faces to facilitate engagement with the strike.

To facilitate use of my improved holding means and to insure that the door will be raised to the proper level with respect to the body of the car when closed, the strike is preferably provided with a socket portion having beveled upper and lower walls to engage the beveled upper and lower portions of the hook, as shown in Fig. 4. These walls may be disposed on the inside of the strike without a connecting wall, or if desired a connecting wall may also be provided. In either event, their bevel corresponds to the bevel of the upper and lower faces of the hook, and in addition the upper and lower walls 11 and 12 have rounded front corners so as to assist the hook 3 to ride into place should wear and tear cause it to drop below or rise above its normal and proper position.

In some instances, it may be desirable to combine with the lug or projection 3 a re-

taining catch, and in Fig. 6, I have shown such arrangement, in which a catch bolt 13 is carried by the door, being adapted to slide in a suitable housing 14, and having a spring 15 for maintaining it in the forward operative position. In this arrangement the active end of the catch rests behind the lug or projection 3 when the door is closed. In such construction, it may also be desirable to provide a supplemental retaining wall for the catch to hold the door in case it is not entirely closed, and this may be formed by recessing the lug or projection, as shown at 16.

The lug or projection shown in Fig. 2 may have its rear corner rounded or beveled at 17 to avoid catching the garments of a passenger leaving the car, there being relatively less danger when entering the same due to the fact that most persons gather their clothing together before stepping into a vehicle.

To avoid all danger of the clothing catching the hook when entering the car, I may provide a guard in the shape of a hinged spring-supported plate 18 carried by the front edge of the plate 4, as shown in Figs. 5 and 5a, and so disposed as to lie directly adjacent to the end of the hook when the door is opened; a suitable stop being provided to hold it in this position. This plate may be maintained in position by suitable torsion springs at its hinge, or flat springs may be arranged to hold it in place, and if desired, the plate 4 may be recessed at the forward portion to accommodate the thickness of this guard plate. In operation, the said guard plate will be first engaged by the strike and pressed out of the way by the same as the door is closed.

In the structure shown in Fig. 6, the forward end of the projection or lug is preferably rounded or beveled at 19 so as to facilitate operation of the catch when the two parts are brought into contact with each other.

While I have shown the lug or projection carried by the side of the body of the car and the strike plate carried by the door, it will be understood that the position of these parts may be reversed.

My improved holding device is exceedingly simple in arrangement, application and operation, is cheaply manufactured, and admirably performs the function for which it has been designed.

I claim:

1. The combination of coacting members one of said members having a strike and the other a substantially right-angled projection which includes an inclined portion and a continuing base portion which extends substantially parallel with the face of the strike when said members are alined, said strike having an internal cavity and having a notch in its face at the inner edge thereof, said inclined portion of said projection adapted to enter the cavity of the strike and the base portion of said projection adapted to occupy the notch in said strike when said members are in closed abutting relation.

2. The combination with the side body and door of an automobile or other vehicle, of a lug or projection carried by one of said members having an inclined portion merging into a straight portion at the base thereof, a strike carried by the other member, said lug or projection being adapted to engage and be retained by the strike, the latter having walls for holding said lug or projection against vertical and longitudinal movement, and a guard for said hook movable to inoperative position by said strike.

3. The combination with the side body and door of an automobile or other vehicle, of a right-angled projection on one of said parts and a strike on the other part, said right-angled projection including an inclined portion and a base portion which extends substantially parallel with the face of the strike when the body and door are in abutting relation, said strike having an internal cavity and having a notch in its face at the inner edge thereof, said inclined portion adapted to enter the cavity of the strike and the base portion of the projection adapted to occupy the notch in said strike, when the door and body are in closed abutting relation.

4. The combination with an automobile or similar vehicle, of a door hinged to the body of the same and closing an opening in said body, a strike carried by said door, a plate carried by the body in line with the strike, a hook or lug carried by said body plate, and a guard for said hook carried by the body plate and movable out of the way by the engagement of the strike when the door is closed.

5. The combination with an automobile or similar vehicle, of a door hinged to the body of the same and closing an opening in said body, said parts having meeting edges, a strike carried by one of said meeting edges having an internal cavity which extends parallel with the face of the strike and the inner edge of said strike being notched substantially in line with the cavity, a plate carried by the other meeting edge in line with the strike, a hook or lug carried by said plate, said hook adapted to enter the cavity of the strike and the base of the hook adapted to enter the notch in the edge of said strike whereby vertical movement of the door in either direction and longitudinal movement of the door with respect to the body are prevented, and a spring catch mounted adjacent one of said meeting edges and coöperating with said hook or lug.

6. The combination with an automobile

or similar vehicle, of a door hinged to the body of the same and closing an opening in said body, said parts having meeting edges, a strike carried by one of said meeting edges, a plate carried by the other meeting edge in line with the strike, a hook or lug carried by said plate, said strike having portions for engagement with the hook, and a spring catch mounted adjacent one of said meeting edges and coöperating with said hook or lug, the latter having a recess forming a supplemental retaining wall for said spring catch.

CHAS. B. BENNETT.