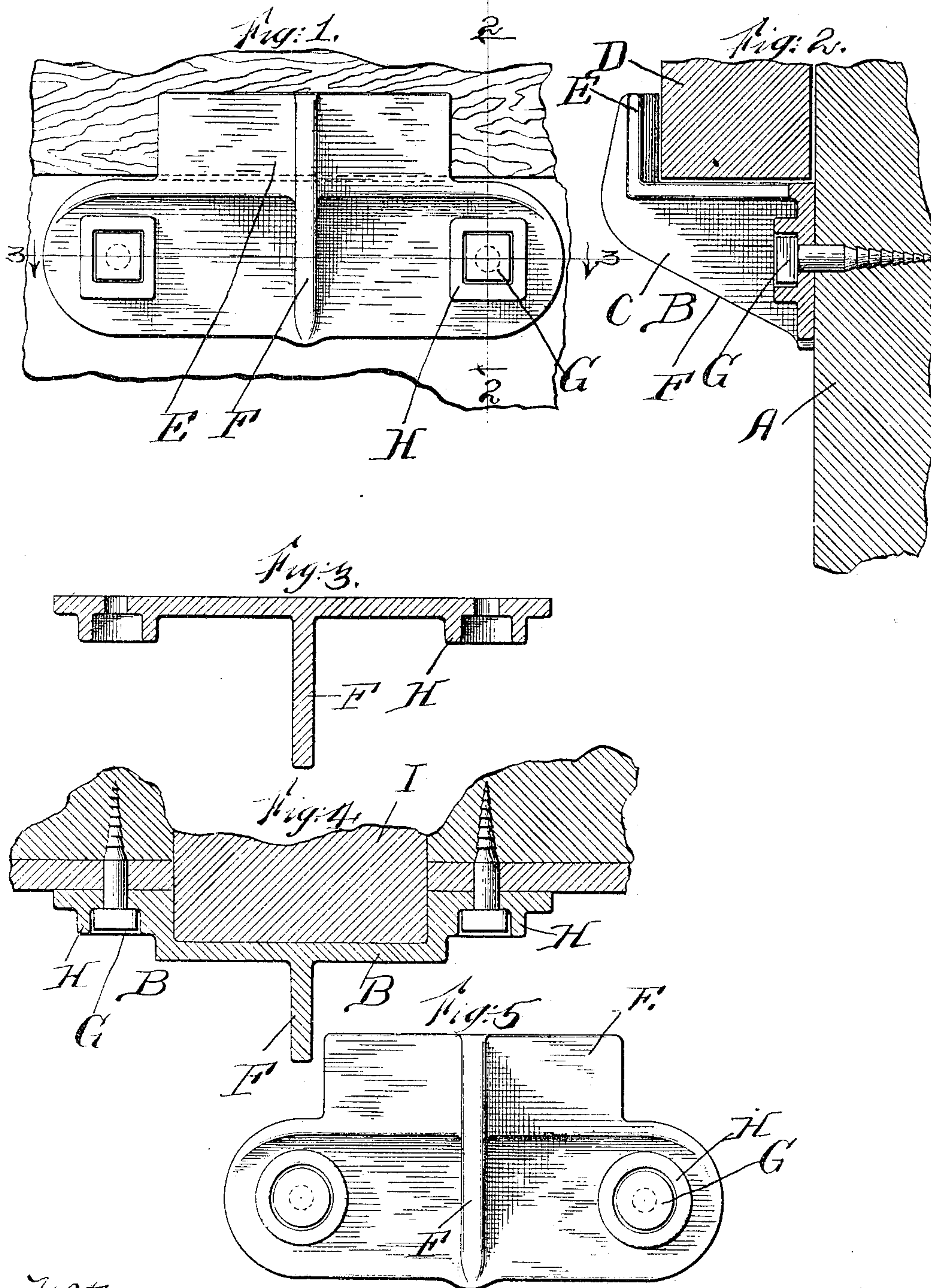


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J. L. MALLORY.
CAR DOOR BRACKET.

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CAR-DOOR BRACKET.

No. 819,151.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES L. MALLORY, a citizen of the United States, residing at Evanston, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Door Brackets, of which the following is a specification.

My invention relates to improvements in brackets for freight-car doors of the type which is commonly known as "safety-bracket."

The object of my invention is to provide a car-door bracket which may not be removed from a car without creating conspicuous damage and which, if desired, may be attached by a drive-bolt or like member. These and such other objects as may hereinafter appear are attained by my invention, certain convenient embodiments of which are shown in the accompanying drawings, in which—

Figure 1 is a front view of a car-door bracket and a portion of the adjacent car. Fig. 2 is a sectional view on the line 2 2 of Fig. 1 looking in the direction indicated by the arrows. Fig. 3 is a transverse sectional view on the line 3 3 of Fig. 1 looking in the direction indicated by the arrows. Fig. 4 is a horizontal sectional view of a modification, and Fig. 5 is an elevation of another modification. Like letters of reference indicate the same parts in the several figures of the drawings.

Referring by letter to the accompanying drawings, A indicates a car-sill to which is attached the bracket B, which is shown as adapted to metal underframe-cars, as well as other cars, and is provided with a horizontal flange C, adapted to extend beneath the lower edge of the door D, a vertical flange or lip E, adapted to engage the front face of the door, and a reinforced rib F.

In Fig. 1 the bracket is shown as attached to the car-sill by drive-bolts or lag-screws G, having polygonal heads, which when the bolts or screws are driven home are so seated within sockets formed therefor on the face of the bracket-plate by walls or ribs H that said heads are practically inaccessible to any tool which may be applied for the removal of the retaining members.

In the embodiment of my invention shown in Figs. 1 to 3 it will be seen that the bracket is held to the car as against surreptitious removal by two retaining members which are

adapted to be driven into the side of the car and which are provided with heads, said heads being so protected when the retaining members are driven home as to be operatively inaccessible to any tool which might otherwise be used for the removal of the retaining member.

While I have shown as the preferred form of retaining member what may be called a "lag-bolt" provided with a sharpened end and with a series of annular barbs so arranged as to be readily driven into the sill, but so as to afford a maximum resistance to prevent withdrawal, it is obvious that retaining members of other forms may be used and that the familiar lag-screw is available, for although the tendency of a screw will be to rotate as it is driven inwardly the head of the lag-screw may be set square to the socket or other device provided therefor just before being finally driven home and may then be driven home and squarely seated in the socket.

In Fig. 4 I have shown a modification of my invention, illustrating an embodiment thereof in which it is only necessary to have one retaining member protected, although preferably and with this construction I use a plurality of members so protected. In this modification the bracket B' is formed to fit over a door-post or like post I, which prevents lateral movement of the bracket around the retaining member as a center, or like manipulation of the bracket which might loosen the retaining member G. Obviously with this arrangement it is possible to utilize the bracket with only one retaining member so protected as to render it inaccessible to a removing-tool; but even with this construction I prefer to have a plurality of retaining members so protected, because in that event no retaining member may be separately removed, and consequently it becomes necessary either to destroy the bracket in order to remove it, in which event the attention of an inspector, train-hand, or the like would be immediately called to what had been done, or it becomes necessary to remove all of the retaining members at the same time by bodily prying the bracket out from the car-sill, a proceeding which not only becomes more difficult, but which also exposes the wrongdoer to detection.

In Fig. 5 I have shown another modification, the walls or flanges H' being circular and forming circular sockets for the round heads of retaining members G'. In this modification the retaining members are preferably provided with annular barbs, as shown in Fig. 4 and as specified in claim 12, because of the possibility of a slot being cut into the head of the retaining member, so as to permit its rotation. This possibility, however, is more theoretical than practical, because these devices are of such a size that ordinarily it requires a heavy wrench, affording considerable leverage, to rotate such retaining members, and obviously with the circular heads sunk in circular sockets a wrench cannot be operatively applied, while even if a slot were cut in the heads of the circular-headed retaining members it would ordinarily be extremely difficult to remove them with such an instrument as a screw-driver.

While I have shown and described certain convenient embodiments of my invention, it is obvious that with an understanding of the drawings and specification various departures therefrom in details of construction may be made without avoiding the spirit of my invention.

I claim—

1. The combination with a car, of a one-piece car-door bracket, retaining members passing through said bracket on each side thereof and secured to said car, the heads of said members engaging said bracket and being protected by said bracket against operative access by a removing instrument.

2. The combination with a car, of a one-piece car-door bracket secured thereto by a plurality of attaching members adapted to be passed through said bracket and driven into the side of said car, the heads of said retaining members engaging said bracket and being protected thereby against operative access by a removing instrument.

3. The combination with a car, of a car-door bracket and a plurality of attaching members passed through said bracket, said attaching members being pointed and provided with a plurality of annular barbs tapering toward the pointed end of said members, whereby said members are adapted to be driven into said car, the heads of said members engaging said bracket and being protected by said bracket against operative access by a removing-tool.

4. The combination with a car, of a bracket, a plurality of attaching members adapted to be driven into said car, said attaching members being provided with circular heads and said bracket being provided with a plurality of circular sockets adapted and proportioned to said circular heads, so as to receive the same and protect them against operative access by a removing-tool.

5. The combination with a car having a projecting post, of a car-door bracket secured to the side of said car and adapted to engage said post, whereby lateral movement of the bracket is prevented, and an attaching member adapted to secure said bracket in position, the head of said attaching member engaging said bracket and being protected thereby against operative access for the purpose of removal.

6. The combination with a car provided with a projecting post, of a car-door bracket secured to the side of said car and adapted to engage said post, so as to prevent lateral movement of said bracket, and an attaching member adapted to pass through said bracket at one side of said post and to be driven into said car, the head of said attaching member being protected by the bracket against operative access by any tool whereby said attaching member might otherwise be removed.

7. The combination with a car, of a bracket, a plurality of attaching members, said attaching members being provided with circular heads and said bracket being provided with a plurality of circular sockets adapted and proportioned to said circular heads, so as to receive the same and protect them against operative access by a removing-tool.

8. The combination with a car, of a one-piece car-door bracket, and a plurality of attaching members passed through said bracket and embedded in the side of said car, said attaching members being tapered toward their inner ends and being barbed, whereby said members are adapted to be driven into said car, the heads of said members engaging said bracket and being protected by said bracket against operative access by a removing-tool.

9. The combination with a car, of a one-piece bracket, a plurality of retaining members passing through said bracket and secured to said car, said retaining members having such engagement with said bracket as to prevent the turning of the retaining members so as to detach the same from the car.

10. The combination with a car, of a one-piece car-door bracket, retaining members passing through said bracket on each side thereof and embedded in said car, said retaining members having such engagement with said bracket as to prevent the turning of said retaining members.

11. The combination with a car having a projecting post, of a car-door bracket formed to fit over said post and to be secured to the side of said car, and an attaching member adapted to secure said bracket in position, the head of said attaching member engaging said bracket and being protected thereby against operative access by a removing-tool.

12. The combination with a car, of a car-door bracket and a plurality of attaching members passed through said bracket, a por-

tion of said attaching members being provided with a plurality of annular barbs and being adapted to be driven into the side of said car, said attaching members being provided with
5 circular heads and said bracket being provided with circular sockets adapted and proportioned to receive said circular heads so as to protect them against operative access by a removing-tool.

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