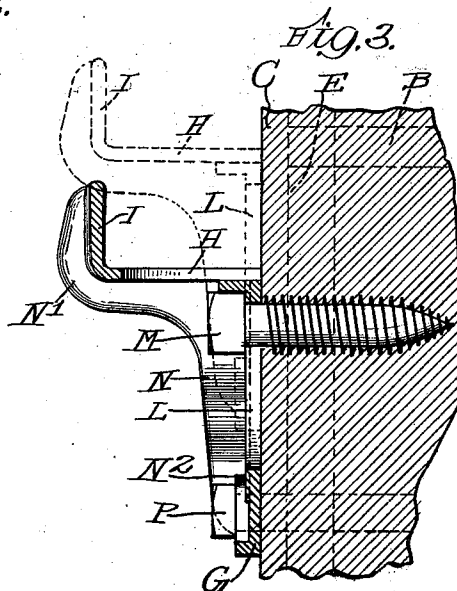
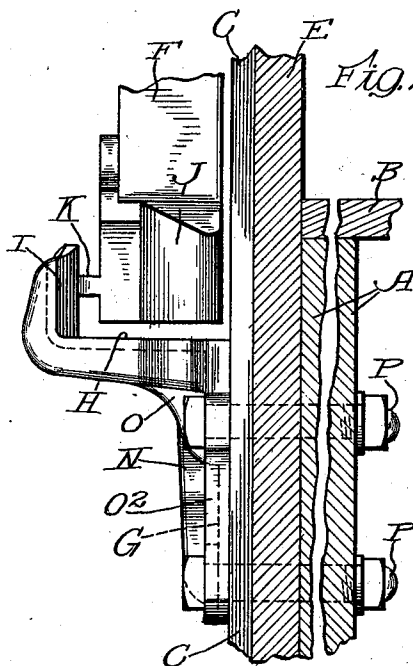
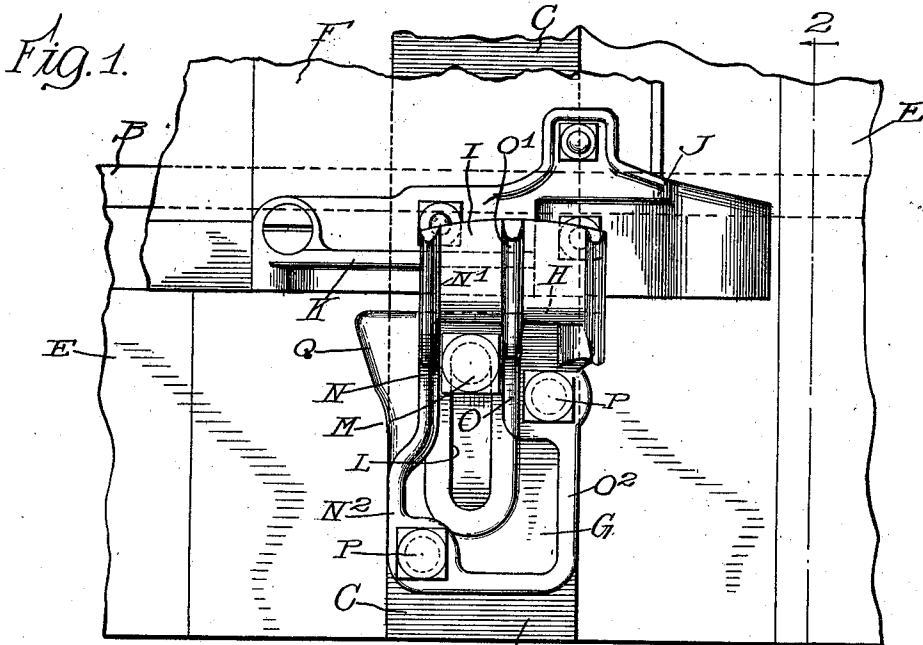


E. A. HILL.
SAFETY BRACKET FOR CAR DOORS.
APPLICATION FILED FEB. 20, 1911.

1,000,408.

Patented Aug. 15, 1911.



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UNITED STATES PATENT OFFICE.

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SAFETY-BRACKET FOR CAR-DOORS.

1,000,408.

Specification of Letters Patent. Patented Aug. 15, 1911.

Application filed February 20, 1911. Serial No. 609,816.

To all whom it may concern:

Be it known that I, EDWARD A. HILL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Safety-Brackets for Car-Doors, of which the following is a specification.

My invention relates to a safety bracket for car doors of the type in which the attaching or base plate is provided with a flange or other abutment which, in the normal position of the bracket, lies close to the head of one of the attaching devices, a lag screw for example, so as to prevent the removal of the same and of the bracket while the door is in closed position above the bracket; and the invention has for its object to provide an improved form of bracket of this type whereby the operation of attaching the bracket to the car is facilitated and whereby also the cost of manufacture is cheapened due to the fact that the casting can be made narrower than the safety brackets of this sort heretofore used.

The invention is illustrated in the accompanying drawing, wherein—

Figure 1 is a fragmentary side elevation of a freight car door and adjacent portions of the car; Fig. 2, a sectional view taken on line 2—2 of Fig. 1, looking in the direction of the arrows, and Fig. 3, a vertical sectional view taken on a line through the protected attaching lag screw, the door not being shown in this figure.

Like characters of reference indicate like parts in the several figures of the drawing.

Referring to the drawing, A designates the sill of the car, B the flooring, C one of the door posts, E the sheathing, and F the sliding door.

It will be understood that the particular construction of freight car shown is taken simply for the purpose of illustration. The improved form of bracket which constitutes my invention might be used upon freight cars of different construction. The bracket consists of a base or attaching plate G and a bracket member H formed with the usual lip I which stands in front of the door. I have shown the forward lower corner of the door provided with a nose piece J of the sort shown in my pending application Serial No. 591,467, filed November 9, 1910, the nose piece being formed with a wedge K

which engages with the lip I of the bracket. No claim is laid herein to the nose piece as this device is claimed in the application above referred to.

The base plate G is formed with a slot L which extends close up to the bracket member H. At one side, preferably at each side, of the upper end of the slot L is a rib which is intended to stand so close to the head of the attaching lag screw M as to prevent the latter from being withdrawn without rotation of the bracket with the screw, this latter being prevented by the presence of the door above the bracket. These ribs are designated N, O and are preferably continuations of the strengthening ribs N', O', respectively, of the bracket member. The ribs N, O diverge from the slot at its lower end as indicated at N², O², giving a space for the application of a wrench to the head of the lag screw. It will be understood that in applying the bracket it first takes the position shown in the dotted lines in Fig. 3. That is, after screwing down the lag screw M part way the bracket is lifted and the screw driven down the last few turns. The bracket is then forced down on the screw until its head comes between the ribs N, O. If desired, other attaching devices may be used, for example, the bracket may be formed with holes for the bolts P, P.

It will be noted that the slot L extends close to the floor or horizontal ledge of the bracket member H. This makes it possible to have a comparatively narrow bracket and still provide for a clearance between the door and the bracket because by this design the center of rotation of the bracket is brought very close to the lower edge of the door. This feature cheapens the cost of manufacture by economizing metal in the casting. Preferably the bracket is formed with the wing Q, the purpose of which is to equalize the effective width of the bracket on opposite sides of the screw M. It is more essential that the bracket have a certain width to the left of the screw M as it is the upper left hand corner of the bracket which provides the obstruction to unscrewing the screw M. It might be possible to give the bracket a quarter turn in the opposite direction, hence the provision of wing Q.

While I have shown and described a preferred form of my invention it will be clear that there might be some modification made

without departure from the principle thereof. Therefore I do not limit myself to the precise forms, arrangements and constructions shown except so far as the same are made limitations on certain of the claims herein.

I claim:

1. A safety bracket for car doors comprising a base plate, and a bracket member, said base plate being formed with a slot and with a rib standing sufficiently near a part of said slot so as to engage with the head of an attaching screw, the rib being formed so as to permit the turning of the screw when the latter is in a different part of the slot, substantially as described.

2. A safety bracket for car doors com-

prising a base plate, and a bracket member projecting from the upper end of said base plate; said base plate being formed with a slot extending close up to said bracket member and said bracket member being formed with strengthening ribs which extend down upon the base plate, lie close to the upper end of said slot and are adapted to engage with the head of an attaching screw, said ribs diverging from the slot at the lower end thereof so as to permit the turning of the screw, substantially as described.

EDWARD A. HILL.

Witnesses:

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L. A. FALKENBERG.

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