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O. M. STIMSON.
SAFETY BRACKET FOR CAR DOORS.

APPLICATION FILED OCT. 12, 1905.

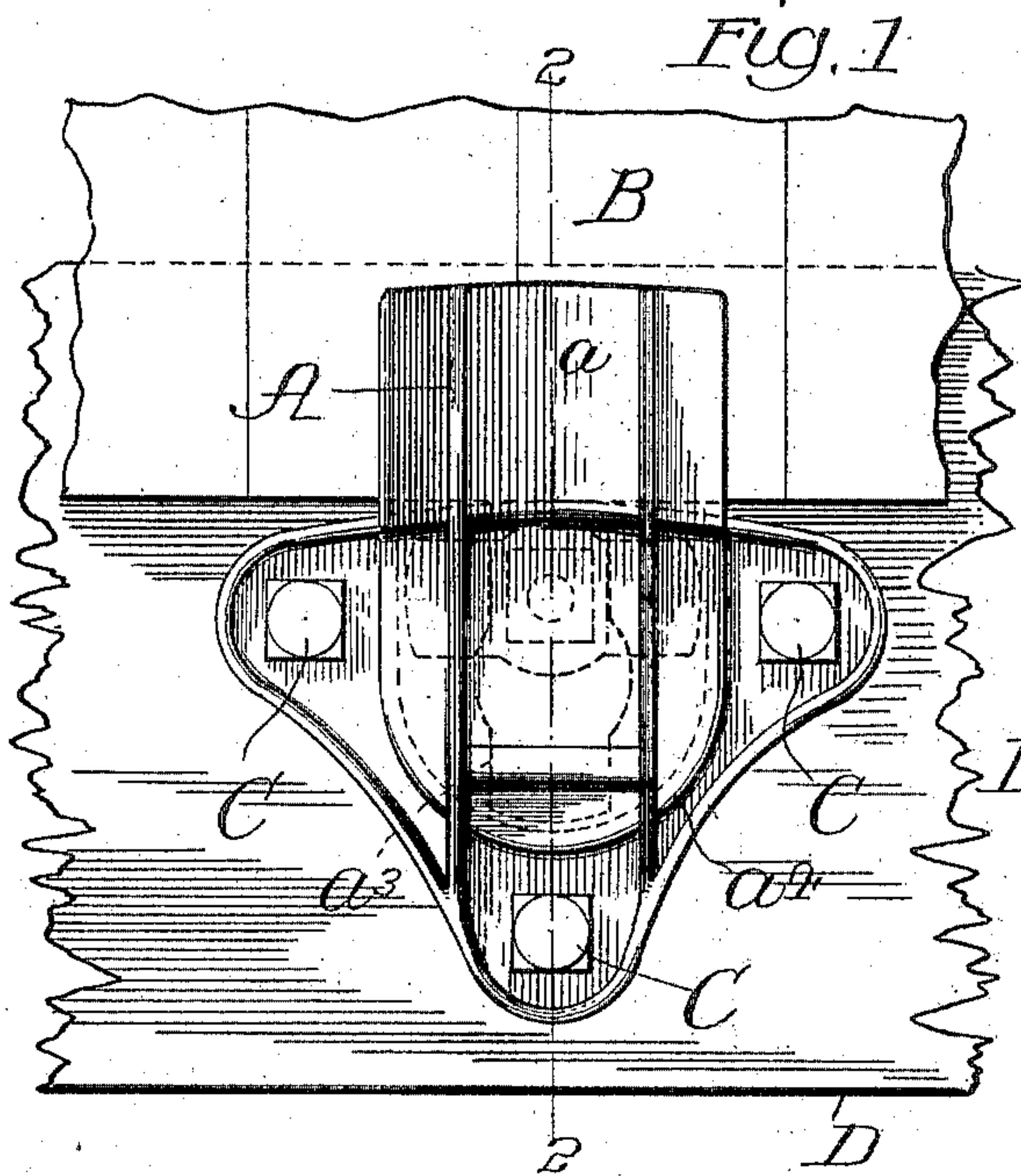


Fig. 3

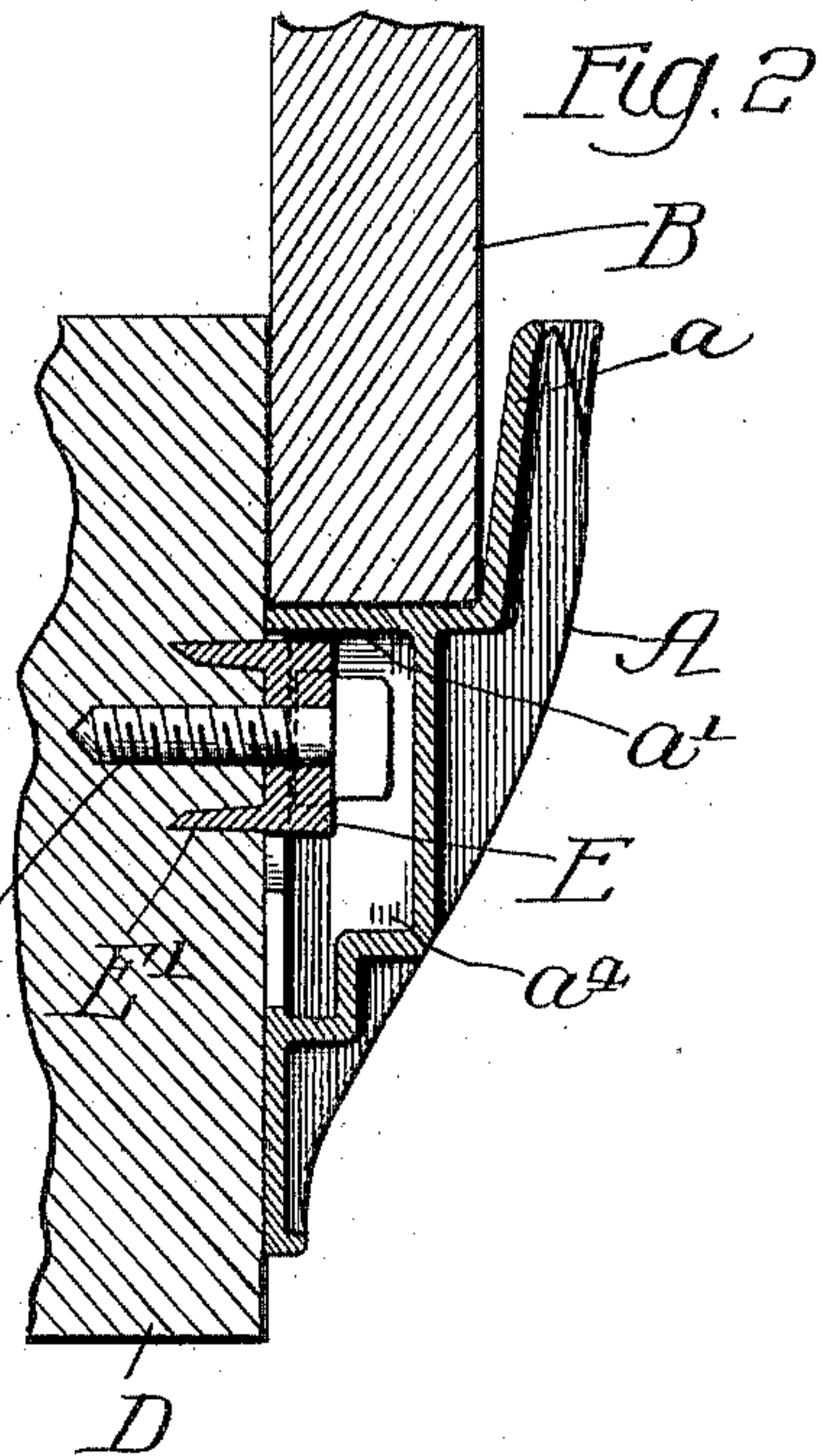


Fig. 4

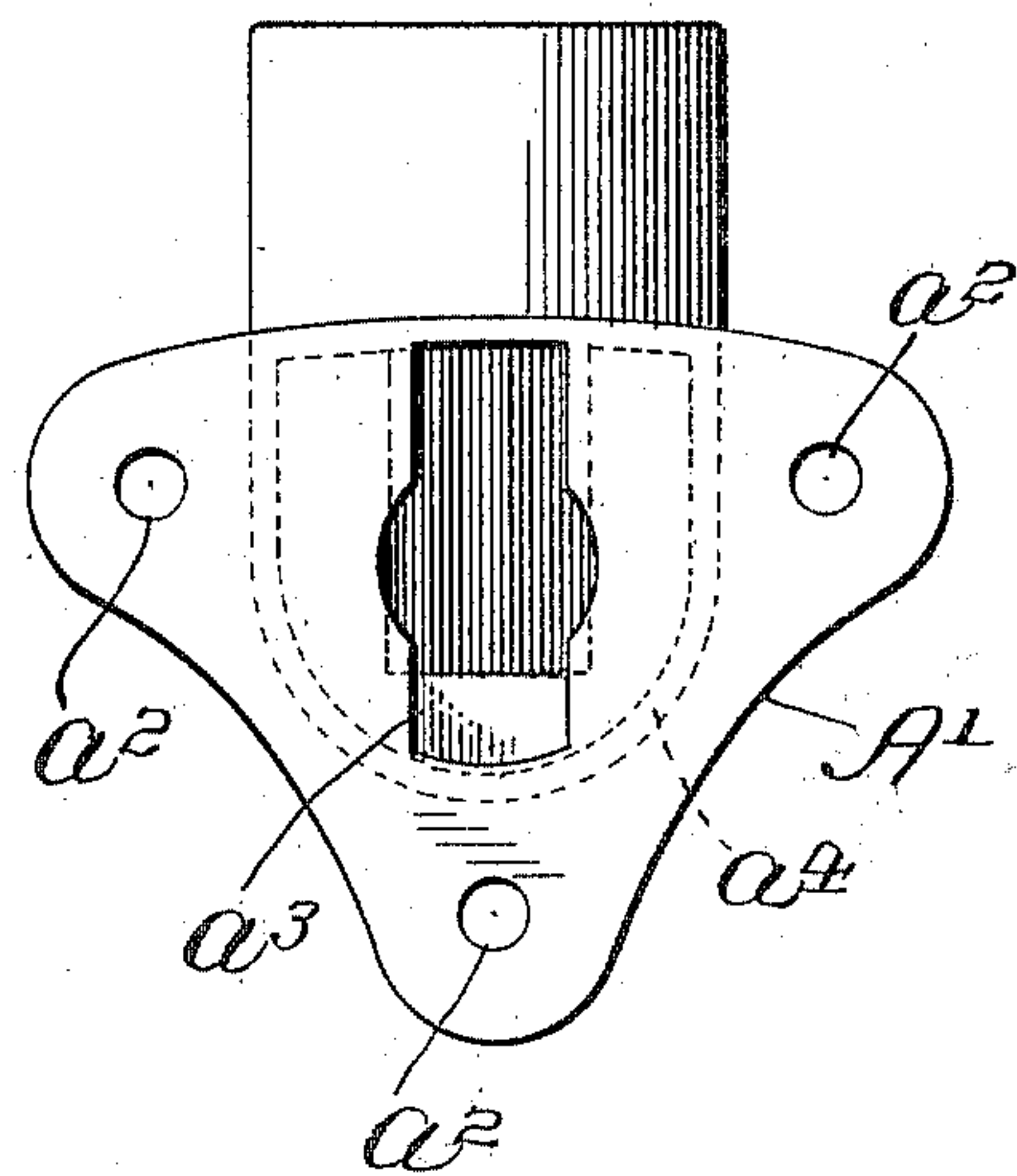
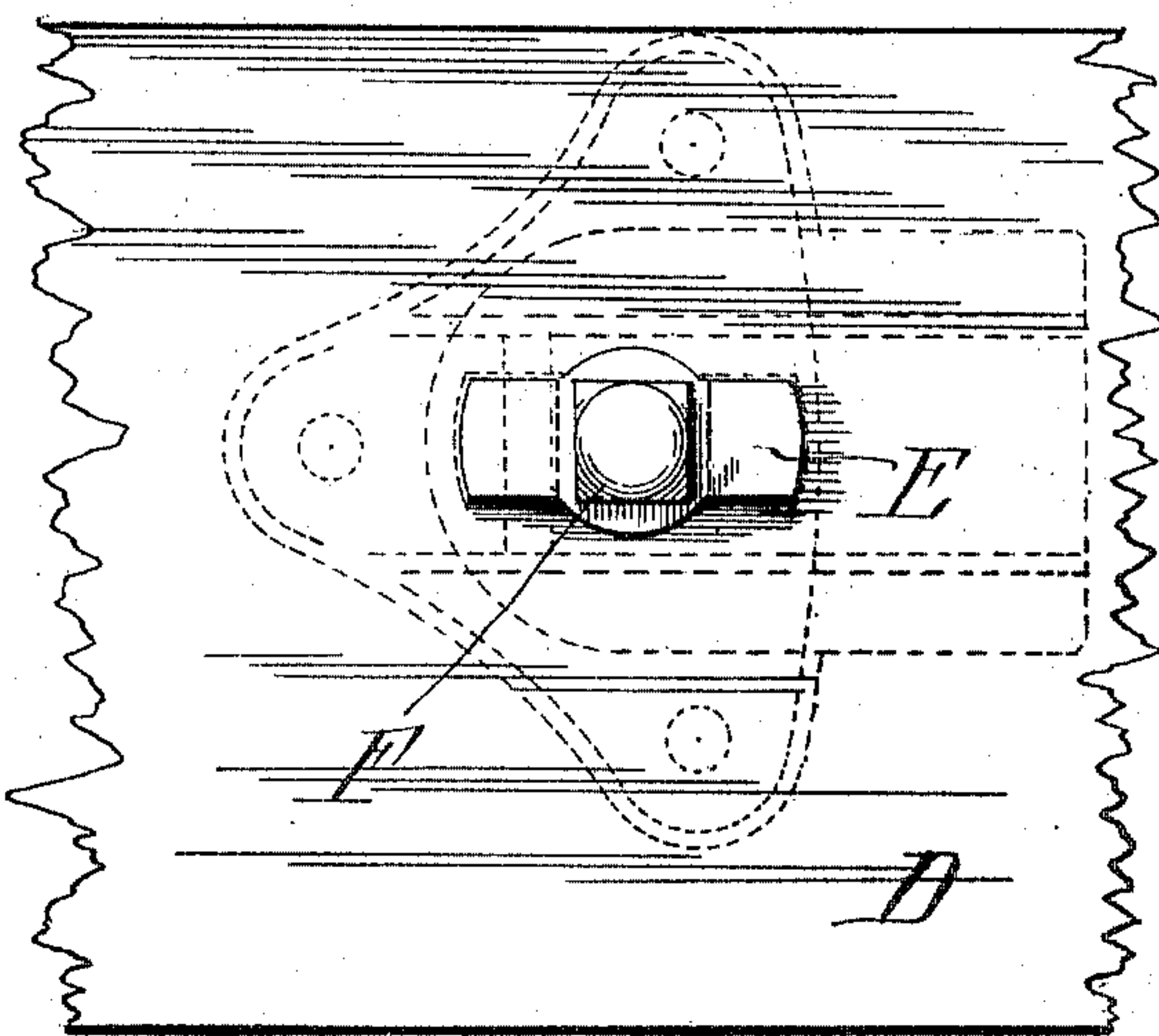
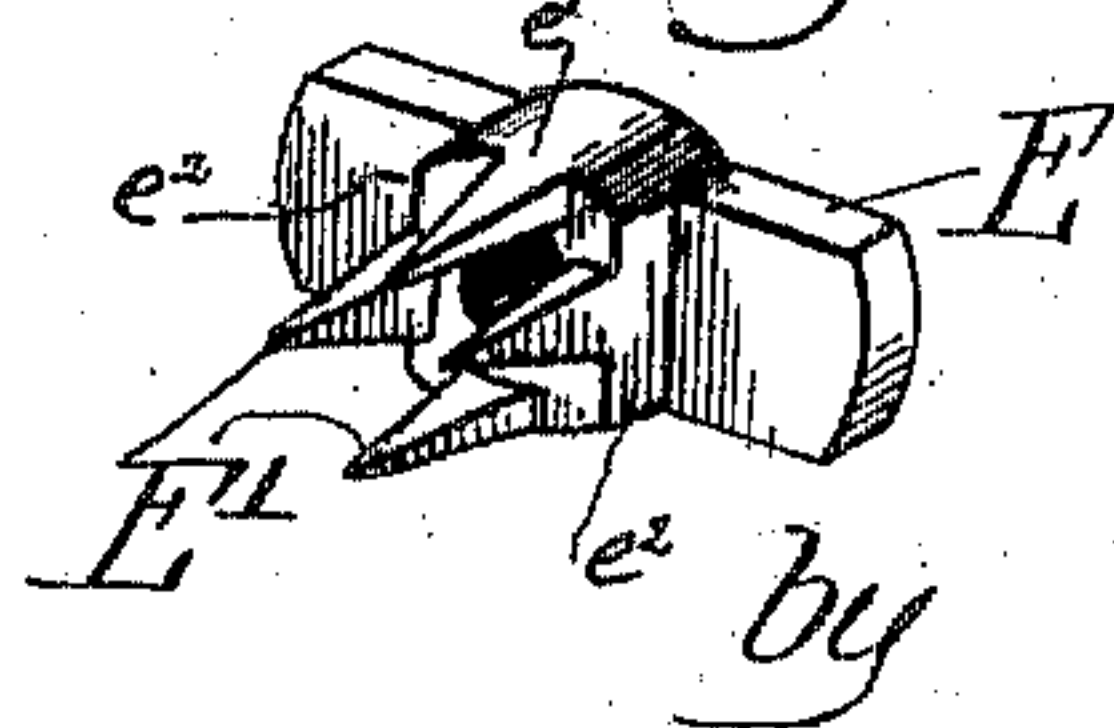


Fig. 5

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SAFETY-BRACKET FOR CAR-DOORS.

No. 817,015.

Specification of Letters Patent.

Patented April 3, 1906.

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To all whom it may concern:

Be it known that I, OSCAR M. STIMSON, 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 I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

The present invention relates more particularly to brackets designed for guiding and guarding the lower edges of the sliding doors of railway freight-cars; and the object of the invention is to provide an improved construction of burglar-proof bracket, whereby the unauthorized removal of the guide-bracket from the car-body is prevented, notwithstanding the fact that the main through-bolts of the bracket are withdrawn.

The invention consists in the features of improvement hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the claims at the end of this specification.

Figure 1 is a view in front elevation of a guide-bracket embodying my invention, the bracket being shown in position for use upon the side wall of the car. Fig. 2 is a view in vertical section on line 2 2 of Fig. 1, this section showing also a portion of the car-wall and the lower portion of the door within the bracket. Fig. 3 is a view in front elevation of that part of the car-wall adjacent the bottom of the door with the locking-bar for the bracket in position thereon, the bracket being shown in dotted lines. Fig. 4 is an inner face view of the bracket detached. Fig. 5 is a detail perspective view of the locking-bar.

The bracket A will be formed of cast metal with a guard-flange a extending upward from the top portion a' of the bracket, the flange a serving to guide and retain the lower edge of the car-door B in manner permitting the door to slide therethrough in usual manner. The bracket A is provided with a back plate A', having a plurality of holes a^2 formed therethrough to receive the through-bolts C, whereby the bracket will be bolted to the longitudinal beam that extends beneath the door of the car. In the back plate A' of the bracket is formed an oblong or non-circular hole a^3 , and on the outside of this hole a^3 is formed a pocket or chamber a^4 , the side walls

of which extend at a distance from the side walls of the holes a^3 , as indicated by dotted lines in Fig. 4 of the drawings.

To the side wall or beam D of the car beneath the door-opening is attached the locking-bar E, the preferred construction of which is that illustrated in the accompanying drawings. As shown, this bar E is formed with a hole e , through which will pass the lag-screw F, whereby the locking-bar is attached to the car wall or beam D, and from the inner face of the locking-bar F project the teeth or spurs E', that will be embedded in the wall or beam D when the locking-bar is in position for use. The spurs E' extend, as shown, from the hub e' , that surrounds the opening e , and this hub serves to hold the locking-bar E at a slight distance from the face of the car wall or beam D, such distance being equal at least to the thickness of that part of the back plate A' of the bracket that surrounds the non-circular hole a^3 . The locking-bar E is oblong and corresponds in general outline with the holes a^3 of the bracket; but the locking-bar is held in such position upon the side wall or beam D of the car that it will be at an angle, preferably at right angles, to the non-circular hole a^3 of the bracket when the bracket is in position for use. Hence it will be seen that in order to place the bracket upon the car it must first be turned to the position shown by dotted lines in Fig. 3, when the back plate A' may be set over the locking-bar E, that will pass through the hole a^3 . The bracket will then be turned upward, so that the flange a will be in position to guide and guard the lower edge of the car-door B. After the bracket has thus been placed in position the bolts C will be passed through the back plate A' and through the previously-formed holes in the car wall or beam D. When the bracket is thus in position for use, its flange a will securely guard and guide the lower edge of the car-door B, and it will be seen that even if the bolts C should thereafter be removed it will still be impossible to remove the bracket A, because such removal of the bracket cannot be effected so long as the door B is in place, as with the door in place the bracket cannot be turned to the horizontal position necessary to permit the bracket to be withdrawn from the locking-bar E.

Preferably the hub e' between the spurs E' and the offset arms of the locking-bar has flat-

tened side portions e^2 , the thickness of the hub between these side portions being approximately equal the width of the narrow portions of the hole a^3 , formed in the back plate A' of the bracket. Hence it will be seen that when the bracket is turned from position shown by dotted lines in Fig. 3 to the position shown by full lines in Fig. 1 and is then moved downward the arms or offset portions of the locking-bar E will rest within the upper portion of the pocket a^4 of the bracket, and at such time the flattened walls e^2 of the hub e' of the locking-bar will be opposite the edges of the narrow upper portion of the hole a^3 . Hence it will be seen that while the bracket is in such position the flattened surfaces e^2 of the locking-bar hub will serve to prevent the turning of the bracket toward the horizontal position necessary to secure its disengagement from the locking-bar. On the other hand, if there be sufficient distance between the bracket and the lower edge of the car-door to allow the bracket to be raised until the hub e' of the locking-bar is opposite the central portion of the hole a^3 the turning of the bracket will then be prevented by the engagement of the upper surface a' of the bracket with the lower edge of the door. It will thus be seen that under no circumstances will it be possible to disengage the bracket a so long as the door B is within the bracket.

It is manifest that the precise details of construction above set forth may be varied without departure from the scope of the invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A device of the character described, comprising a locking-bar adapted to be secured to the car-wall, and a bracket having a back plate formed with a non-circular hole therein to admit the locking-bar and to enable the back plate to revolubly engage therewith, said hole extending at an angle to the length of the locking-bar when the bracket is turned to position for use.

2. A device of the character described, comprising a locking-bar adapted to be secured to the car-wall, said locking-bar having a hub from which a portion is offset, and a bracket having a back plate provided with a non-circular hole therein to admit the locking-bar and to permit the offset portion of the locking-bar to engage with said back plate, said hole extending at an angle to the length of the locking-bar when the bracket is turned to position for use.

3. A device of the character described, comprising a locking-bar having one or more spurs to hold it against revolution, a screw for uniting said bar to the car-wall and a bracket having a back plate provided with a non-circular hole therein to admit the locking-bar and to enable the back plate to revolubly engage therewith, said bracket being provided with a portion on the outer face of the back plate extending over said hole.

4. A device of the character described, comprising a locking-bar provided with means whereby it may be attached to the car-wall, an offset to engage the bracket, in combination with the bracket having a back plate provided with a hole adapted to receive the offset portion of the locking-bar, when the bracket is turned away from position for use, the portions of the back plate adjacent said hole being adapted to interlock with the locking-bar when the bracket is turned into position for use.

5. A device of the character described, comprising a bracket having a back plate formed with a hole therein having a contracted upper portion, in combination with a locking-bar having an offset part adapted to engage said back plate when the bracket is turned to position for use, said locking-bar being provided with a hub having flattened portions adapted to enter the contracted upper portion of the hole in the back plate of the bracket.

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Witnesses:

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