March 5, 1929. E. J. D. BUCKNEY 1,704,164

FASTENING OF EMERGENCY EXIT DOORS OF VEHICLES

Filed Aug. 28, 1925 3 Sheets-Sheet 1

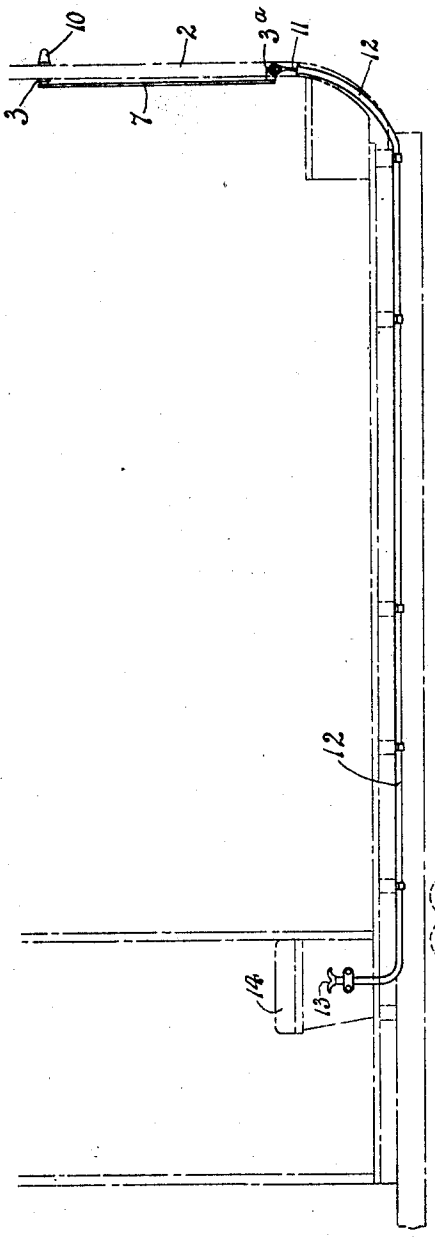


Fig: 1.

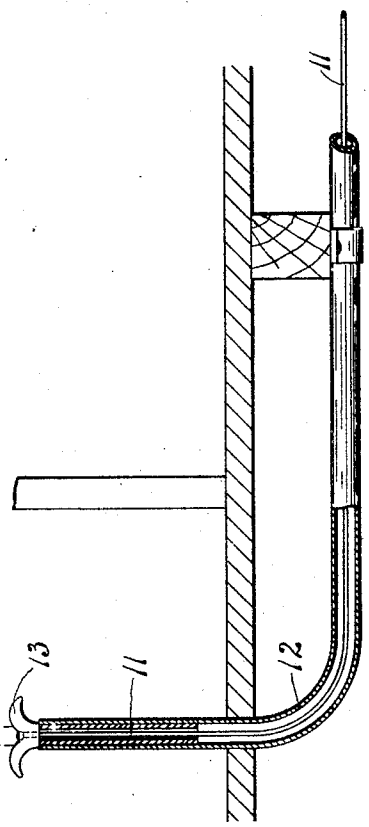


Fig: 2.

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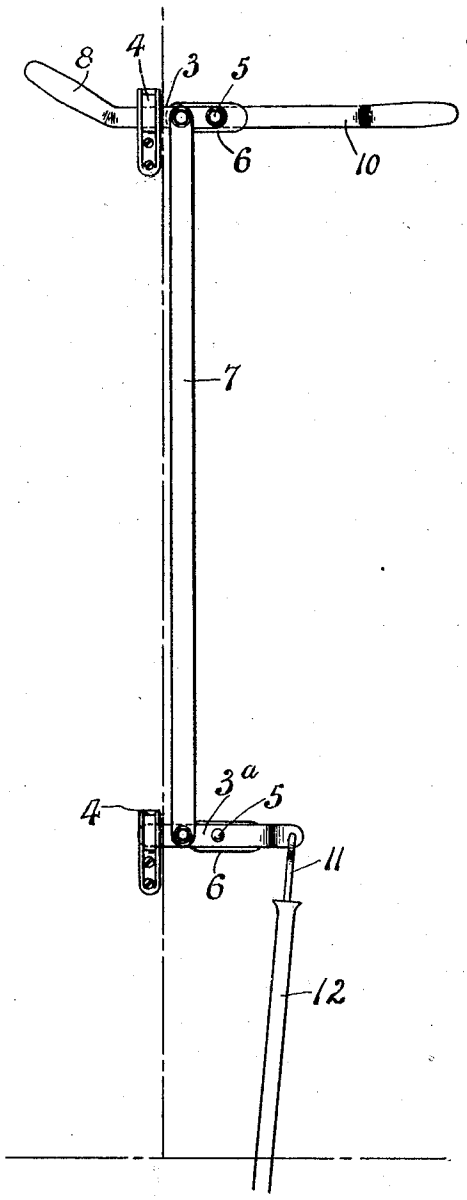


Fig: 3.

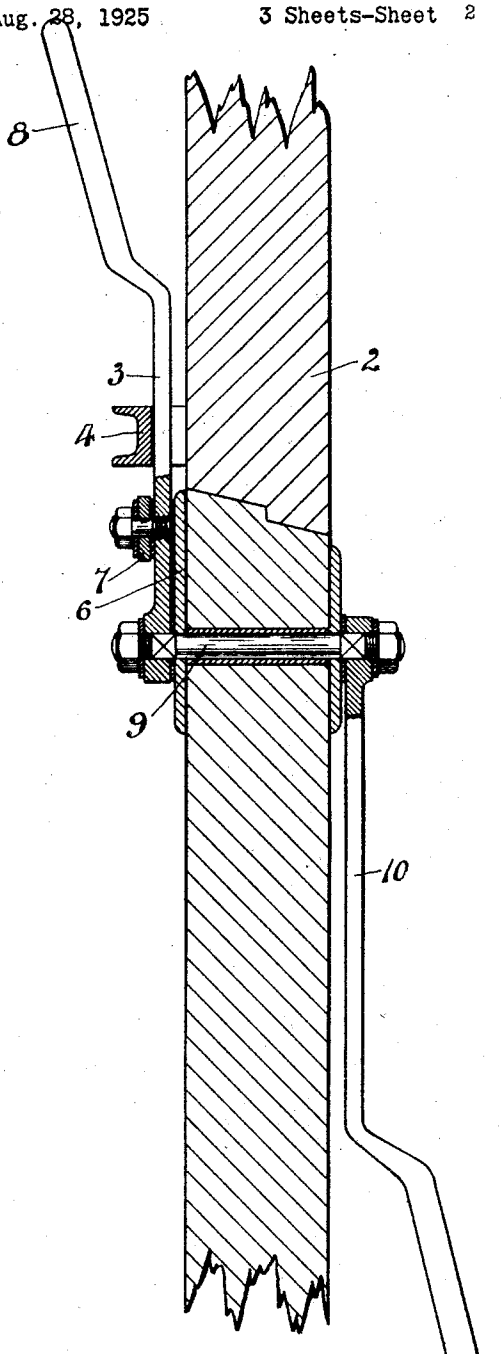


Fig: 5.

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FASTENING OF EMERGENCY EXIT DOORS OF VEHICLES

Filed Aug. 28, 1925 3 Sheets-Sheet 3

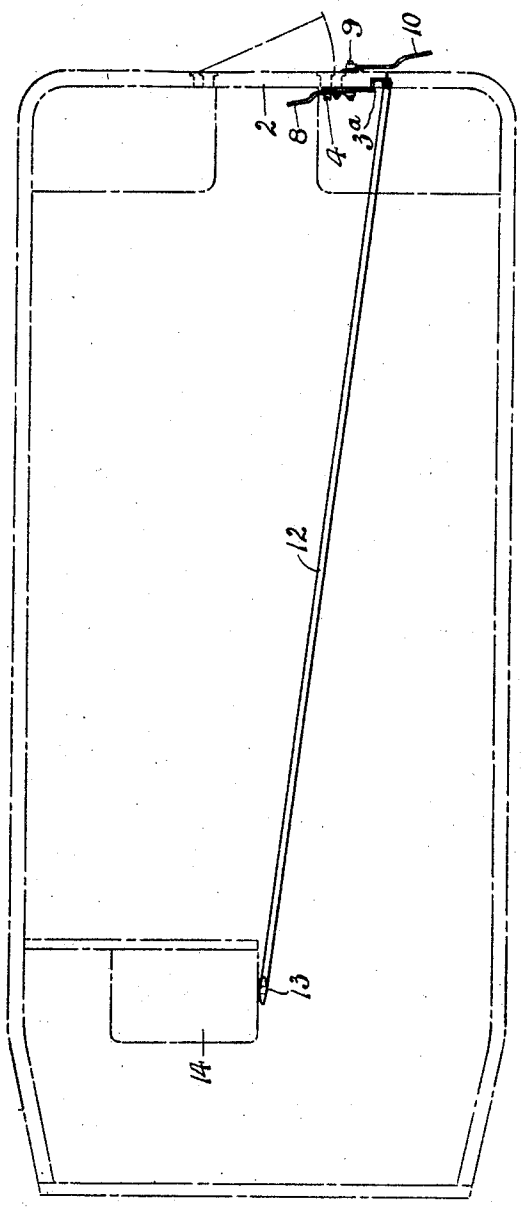


Fig: 4.

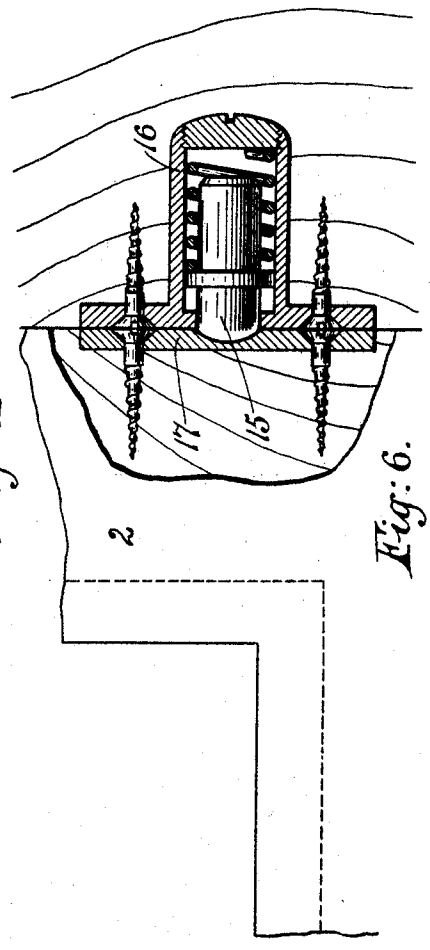


Fig: 6.

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Patented Mar. 5, 1929. 1,704,164

UNITED STATES PATENT OFFICE.

EDWARD JOHN DENT BUCKNEY, OF WOLVERHAMPTON, ENGLAND, ASSIGNOR TO GUY MOTORS LIMITED, OF WOLVERHAMPTON, ENGLAND, A BRITISH COMPANY, AND SYDNEY SLATER GUY, OF WOLVERHAMPTON, ENGLAND.

FASTENING OF EMERGENCY EXIT DOORS OF VEHICLES.

Application filed August 28, 1925, Serial No. 53,053, and in Great Britain September 15, 1924.

This invention relates to vehicles and more especially to those of the passenger carrying classes both road and rail.

The primary object of the invention is to provide an improved arrangement whereby in the event of accident or of vehicles catching fire ample provision is made for releasing one or more emergency doors.

The present invention comprehends an arrangement of connections whereby a plurality of simultaneously releasable latches for the emergency door or doors may be operated from a number of different points inside and outside of the vehicle.

In the accompanying drawings,

Figure 1 is a diagrammatic side view illustrating the application of the invention to a motor omnibus.

Figures 2 and 3 are detail views on a larger scale of the front and rear controls.

Figure 4 is a plan of the arrangement shewn in Figure 1.

Figure 5 is a sectional detail on a larger scale of the rear door and the inside and outside controls adjacent thereto.

Figure 6 is a detail, also on a larger scale than Figures 1 and 2, of a device for facilitating the opening of the emergency door when released.

Throughout the drawings like parts are designated by similar reference characters.

Referring to the drawings, the invention is shewn as applied, by way of example, to a motor omnibus of the type in which an emergency exit is provided at the rear, the entrance to the vehicle being at or near the front. It will of course be appreciated that the application of the invention is not limited to any one type of vehicle.

According to one practical embodiment of the invention the emergency door 2, which is placed at the rear of the vehicle and opens outwardly, see Figure 4, can be released from three different positions, two of which are inside the vehicle and the third at the outside.

The door is secured by two latches each of which, as shewn, may consist of a pivoted bar or latch 3, 3^a adapted for engagement with a plate or catch 4 on the door. The top and bottom latches 3, 3^a are each pivoted at 5 to a plate 6 fastened to the body of the vehicle and are connected up with each other by a bar 7. The top latch is formed in one piece with or carries an inside handle 8 and its pivot pin 9 passes through a bushed hole in the rear wall of the vehicle and carries the outside handle 10 as seen more clearly in Figure 5. The two handles are fixed to the squared end of the pivot pin so that the two latches may be simultaneously operated by turning either of the two handles, that is to say, the door can be released from either the inside or the outside of the vehicle. The outside handle 10 is preferably arranged sufficiently high from the ground as to render it necessary for a person of average height to have to jump in order to reach it.

In addition to these two handles provision is also made for releasing the door from the front part of the vehicle and for this purpose the bottom latch 3^a is extended outwardly beyond its pivot 5 and connected with one end of a wire or cable 11 which runs through a tube 12 fixed beneath the vehicle and has its other end secured to an operating handle 13 arranged along side the driver's seat 14, Figure 2. In this way the driver without relinquishing full control of the vehicle can, when required, release the emergency door.

In order to facilitate the opening movement of the door when released it is proposed to fit one or more spring plungers 15 at the door hinge, said plungers being housed in sockets 16 let into the door post and acting by their free outer ends on plates 17 secured to the hinged edge of the door as represented in Figure 6.

There may be another outside control disposed near to the front entrance to the vehicle for use more especially by the conductor or driver from the outside of the vehicle, its position and function being intended to be known only to authorized persons.

I claim:

1. Latch for emergency exit doors of vehicles comprising a pair of connected latch levers each having a pivotal movement in the wall of the vehicle adjacent the door and adapted for engagement with a catch on the door, and means for releasing the same comprising inside and outside handles each directly connected with one of said latch levers and a releasing device arranged for manipulation by the driver of the vehicle and operatively connected with the other latch lever.

2. Latch for emergency exit doors of vehi

cles comprising a plurality of latch levers, each pivoted in the wall of the vehicle adjacent the door and adapted for engagement with a catch on the door, a bar connecting the several latch levers so that they all move together in the same direction, means for releasing said latch levers comprising inside and outside handles each directly connected with one of said latches, and a releasing device arranged for manipulation by the driver of the vehicle and operatively connected with the other latch lever.

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