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54 **Passenger-carrying vehicles.**

57 In a passenger-carrying vehicle, such as a taxi, provided with a door wide enough to take a wheelchair in its erected condition, the door (4) is provided with a recess or compartment (3) on its inside face to take a pair of folding ramps (1) which help in putting the wheelchair in the vehicle. The ramps may have means (8,9) for engaging the sill (10) of the door opening, and the compartment may be closed by a panel that can only be opened when the door itself is open.

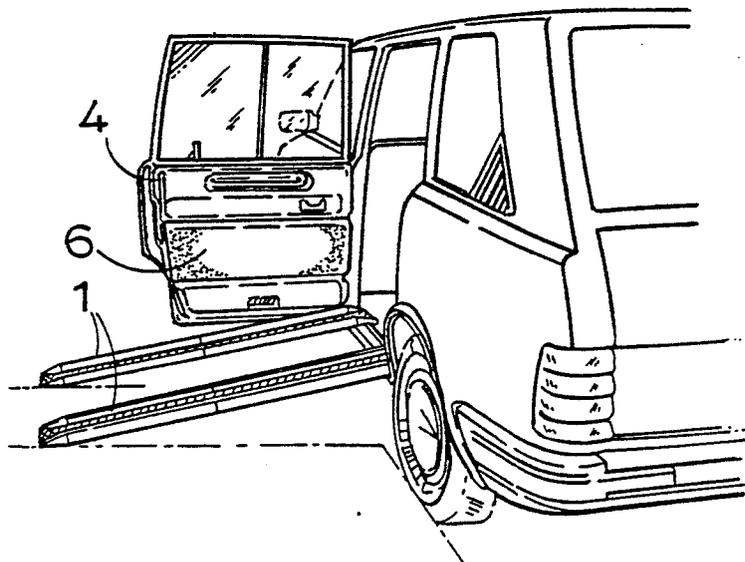


FIG. 2.

EP 0 252 655 A2

PASSENGER-CARRYING VEHICLES

This invention relates to passenger-carrying vehicles specially adapted for carrying disabled passengers in wheelchairs. It is primarily concerned with taxicabs with provisions for taking a wheelchair, but may also be found to be of value in light minibuses.

In our European patent application No.86306819 (Publication No.0214838) we have disclosed a layout for the passenger-carrying compartment of a taxicab in which there is provision for holding a wheelchair, in its erected condition, securely in place so that the taxi can carry a disabled passenger in his or her wheelchair, in contrast to the present situation, which involves the occupant having to leave the chair whilst the chair is folded and put in the luggage area and the disabled passenger is lifted bodily into one of the ordinary seats.

This still leaves the problem of getting the wheelchair, complete with occupant, into the taxi. Where there are not several able-bodied people able to lift it directly, one needs to provide ramps. The aim of the present invention is to make this possible in a convenient manner, and without incursion into the space available for normal use of the vehicle.

According to the invention a passenger-carrying vehicle, in particular a taxi, has at least one door opening of a standard lateral width sufficient to take an erected wheelchair and the door which closes that opening is provided on its inner face with a recess or compartment which receives, in folded or otherwise collapsed form, a pair of ramps which are capable of being extended and placed in position between the sill of the opening and the ground. Preferably the ends of the ramps and the sill have inter-engaging means, such as pegs and sockets, to locate those ends securely and eliminate any danger of the ramps being displaced as a wheelchair is pushed up them.

In one preferred arrangement the ramps are of channel section and are hinged at the midpoints of their lengths; this reduces them, when folded, to a length which allows them to be placed horizontally one above the other in the compartment which occupies the greater part of the inside of the door below the waist rail.

The ramps may be secured in their stowed position by a strap or straps, and the compartment is preferably closed by a panel which conceals them completely. According to the further feature of the invention a latch which holds the panel closed is released by a catch mounted in the free edge of the door, i.e. that opposite the hinge, and

so the panel cannot be opened except when the door has first been opened. This prevents the panel being opened by passengers while the vehicle is in motion.

An example of an arrangement according to the invention is illustrated in the accompanying sketches, of which figure 1 shows the inside of the door with the ramps stowed but the panel open, Figure 2 shows the ramps in a position ready for use, and Figure 3 shows a single ramp partly folded.

The ramps, shown at 1, are of extruded aluminium alloy channel section, lined with patterned rubber treads 2 and hinged in the middle of their lengths. They fold to fit in a compartment 3 in the inside lower face of a taxi door 4 and are held in place by a strap 5. A panel 6, hinged at its lower edge, closes the compartment and is held closed by a latch 7. It will be noted that the latch is in the edge of the door and so it cannot be released inadvertently or deliberately by the passengers when the door is closed.

Each ramp has a pair of studs 8 in its underside at one end and these engage in sockets 9 at appropriate spacings in the sill 10 of the door opening to locate the ramps securely in use. As indicated in Figure 3, the studs 8 may also engage sockets in the other end of the ramp itself in the folded condition, helping to keep it folded.

It will be appreciated that we have provided a facility which allows a passenger-carrying vehicle, such as a taxi, to be used by disabled people confined to a wheelchair, yet without requiring external assistance or equipment, as the driver on his own can place the wheelchair in the vehicle, yet the equipment is stowed away neatly when not in use and detracts in no way from the normal use of the vehicle.

Claims

1. A passenger-carrying vehicle having a door opening of a standard lateral width sufficient to take an erected wheelchair, characterised in that the door (4) which closes that opening is provided on its inner face with a recess or compartment (3) which receives, in folded or otherwise collapsed form, a pair of ramps (1) which are capable of being extended and placed in position between the sill (10) of the opening and the ground.

2. A wheel according to claim 1 characterised in that the door sill (10) and one end of each ramp are provided with inter-engaging means (8,9) to locate those ends of the ramps securely in relation to the sill (10).

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3. A vehicle according to claim 1 or claim 2 characterised in that each ramp (1) is of channel section and is hinged in the middle.

4. A vehicle according to any one of claims 1 to 3 characterised in that the recess or compartment (3) is closed by a panel (6) which, when closed, conceals the ramps (1) within, and the panel is releasable by a latch (7) which is only operable when the door (4) is open.

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5. A vehicle according to claim 4 characterised in that the latch (7) is in the free edge of the door (4).

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6. A vehicle according to any one of claims 1 to 5 in the form of a taxicab.

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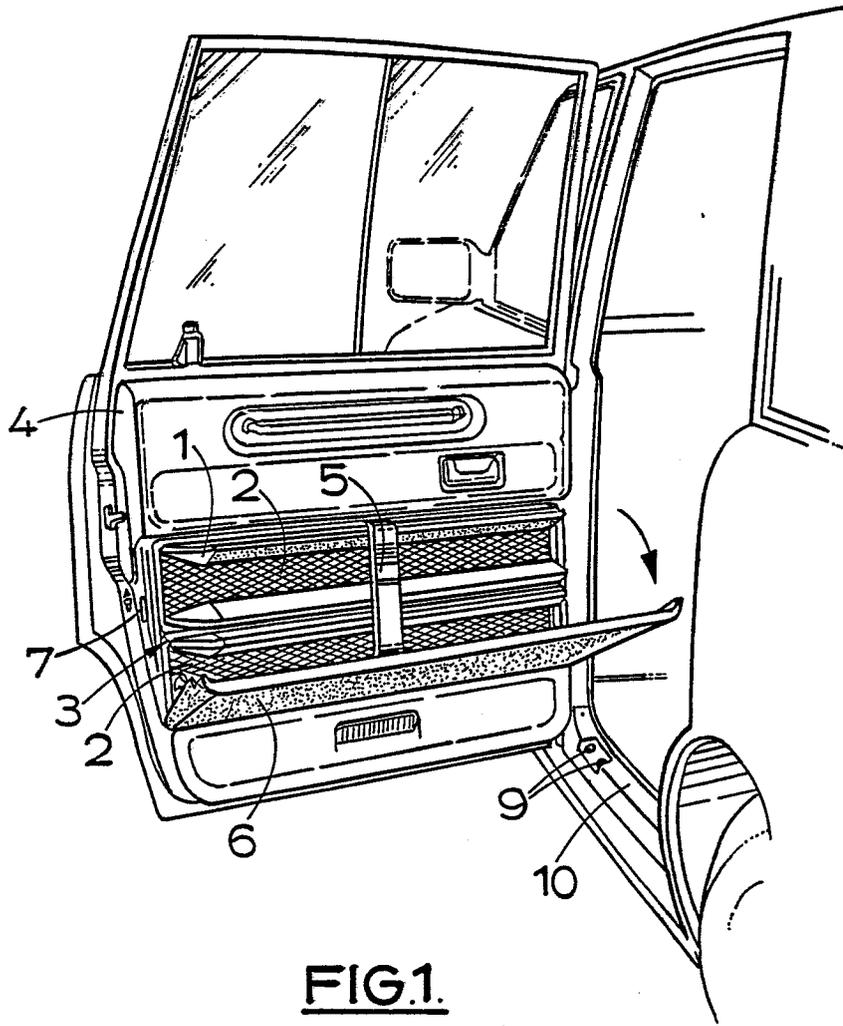


FIG. 1.

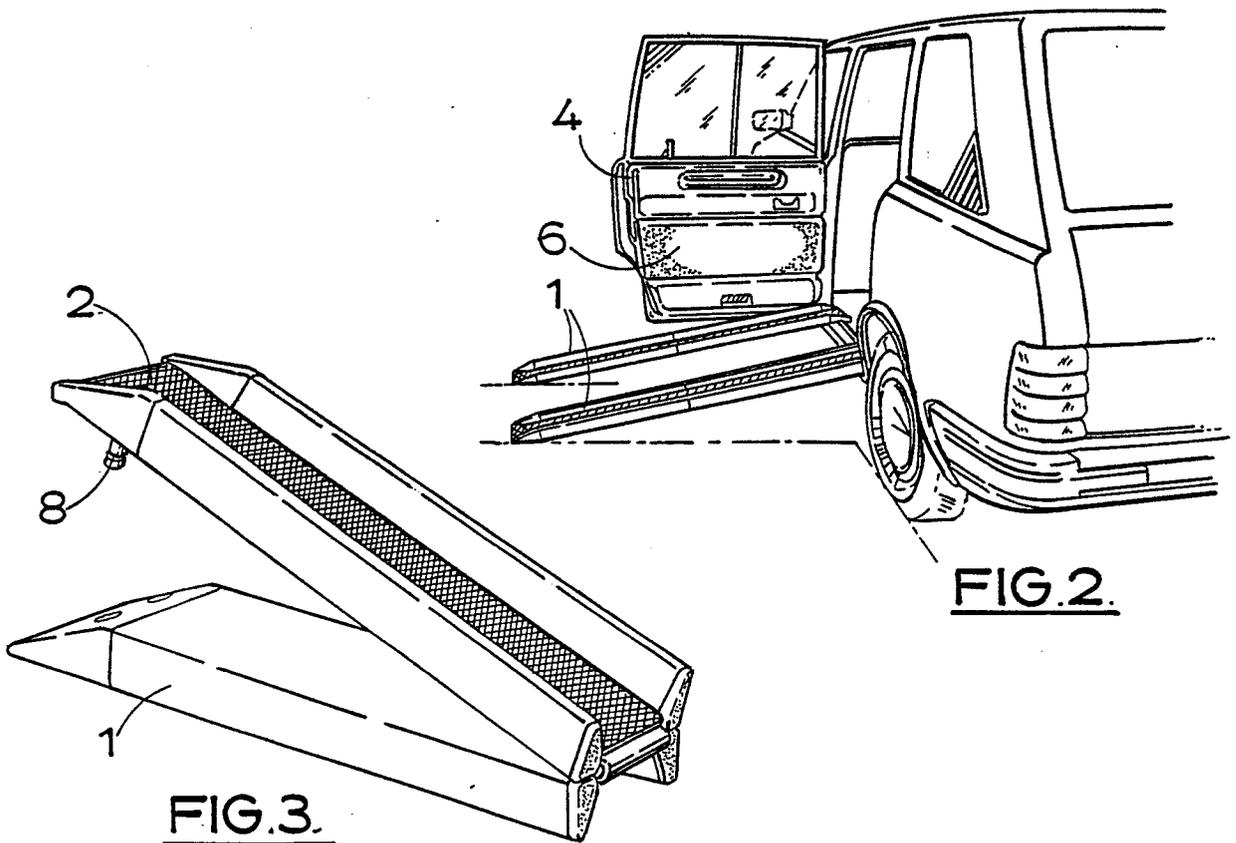


FIG. 2.

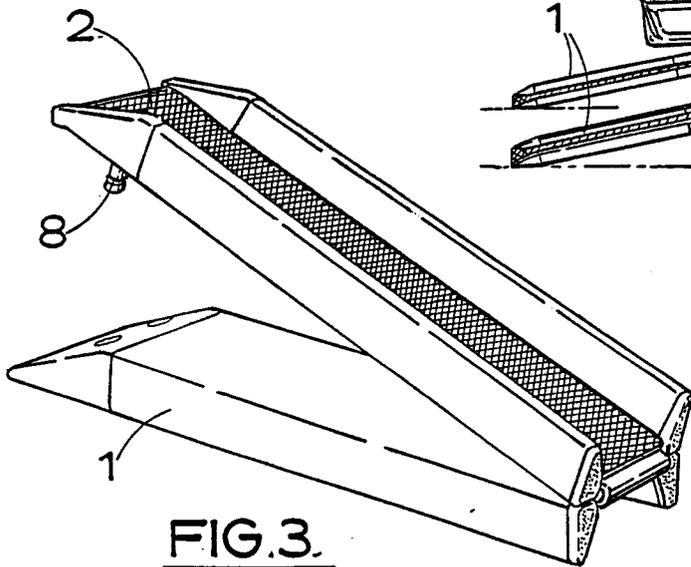


FIG. 3.