July 21, 1953 B. VIOLA 2,646,302

EXTENSION KEEPER PLATE

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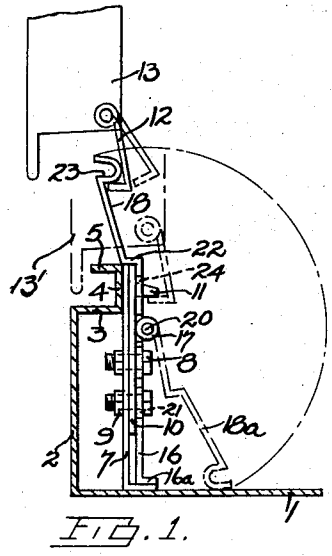


FIG. 1.

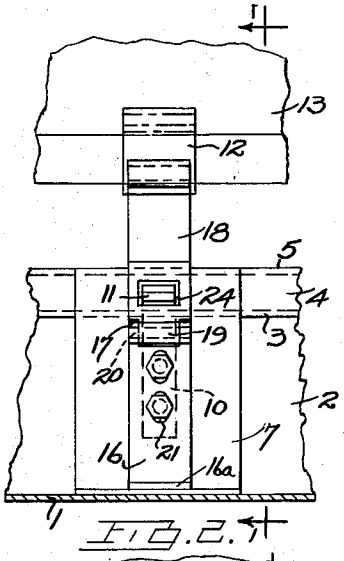


FIG. 2.

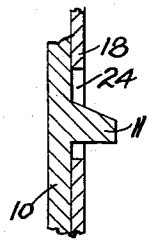


FIG. 3.

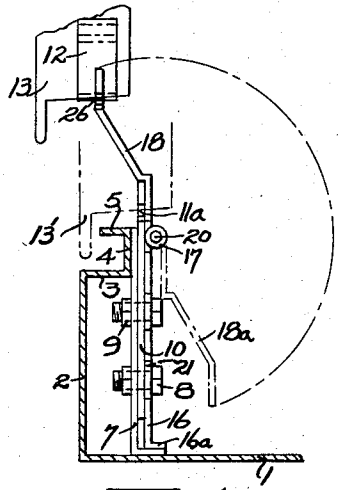


FIG. 4.

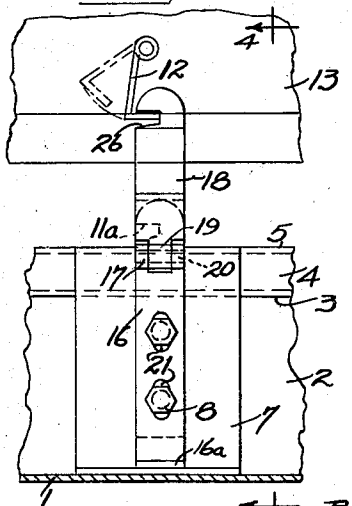


FIG. 5.

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EXTENSION KEEPER PLATE

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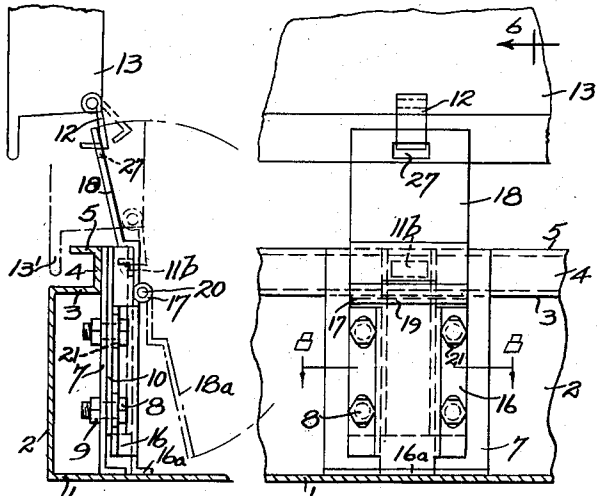


FIG. 6

FIG. 7

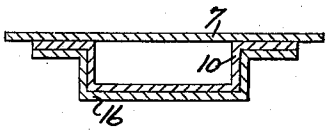


FIG. 8.

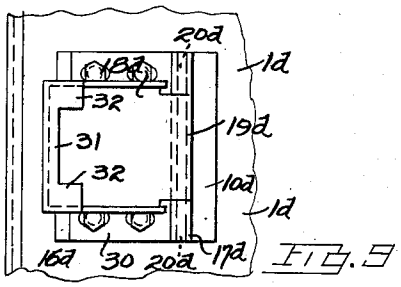


FIG. 9

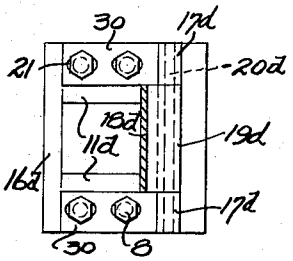


FIG. 10

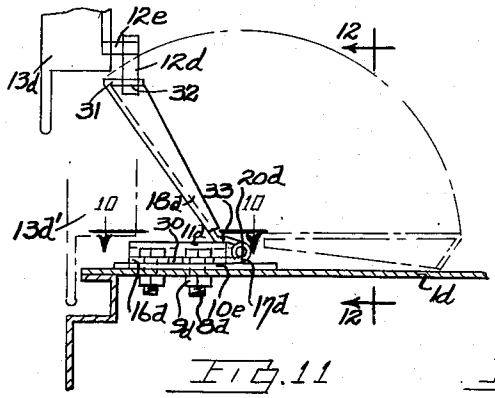


FIG. 11

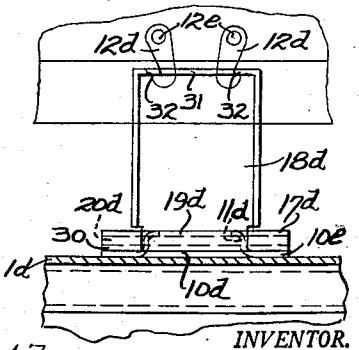


FIG. 12

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EXTENSION KEEPER PLATE

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Application March 27, 1951, Serial No. 217,779

4 Claims. (Cl. 292—340)

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This invention relates to an extension keeper plate for automobile trunk locks. When animals or perishable foods are to be transported in an automobile trunk it is very desirable that the trunk lid be held immovable in a slightly open position to provide necessary ventilation and also to prevent the escape of the animals, or the unauthorized removal of the perishable foods.

It is an object of this invention to provide an extension keeper plate for automobile trunk locks that may be quickly and easily mounted over the conventional keeper, provided in the trunk by the automobile manufacturer to engage the bolt of the lock on the trunk lid, for retaining the lid in slightly open position. Moreover my extension keeper plate is so constructed that it does not interfere with the use of the conventional keeper when the lid is closed.

Another object of the invention is to provide such an extension keeper plate having a pivot plate thereon adapted to be swung upwardly against a stop and into position to be engaged by the bolt of the lock on the trunk lid when the said lid is slightly open.

A further object of the invention is to provide such an extension keeper plate which, when its pivot plate is either in operative or inoperative position, only occupies a very small amount of space within the trunk.

Having thus briefly stated some of the objects and advantages of the invention I will now describe some preferred embodiments thereof with the aid of the accompanying drawings, in which:

Figure 1 is a section on the line 1—1 of Figure 2, and

Figure 2 is a view looking toward the rear of the trunk with the trunk floor in section and showing my extension keeper plate in operative position.

Figure 3 is an enlarged detail.

Figure 4 is a section on the line 4—4 of Figure 5, and

Figure 5 is a view similar to Figure 2 but showing a modified form of extension keeper plate mounted upon a slightly different keeper.

Figure 6 is a section on the line 6—6 of Figure 7, and

Figure 7 is another view similar to Figure 2 but showing another modified form of my extension keeper plate mounted upon another form of keeper.

Figure 8 is an enlarged section on the line 8—8 of Figure 7.

Figure 9 is a plan view of another modification of my extension keeper plate mounted on a striker secured to a trunk floor.

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Figure 10 is a section on the line 10—10 of Figure 11.

Figure 11 is a side view of the extension keeper plate shown in Figure 9 with the rear portion of the trunk floor in section, and

Figure 12 is a view on the line 12—12 of Figure 11.

Referring first to Figures 1 to 8, inclusive, of the drawings, 1 designates a portion of the floor of an automobile trunk, and 2 denotes a conventional rear wall thereof which projects upwardly from the rear extremity of the floor across the entire width of the latter. The rear wall is horizontally and forwardly stepped at 3 toward the top, and extending upwardly from the front of this step is a vertical extension 4 rearwardly from the upper margin of which a horizontal flange 5 projects. Extending upwardly from the floor 1 and forwardly spaced from the rear wall 2 is an angle plate 7 the foot of which rests upon and is welded or otherwise suitably secured to the said floor. The upper extremity of the angle plate 7 is welded or otherwise suitably secured to the inner face of the vertical extension 4 and terminates substantially flush with the top of the latter. Secured to the inner face of the angle plate 7 by screws 8 in threaded engagement with nuts 9 welded to the outer face of the said angle plate is a conventional keeper 10 provided with suitable means, such as a forward projection 11 shown in Figures 1, 2 and 3, a lateral notch 11*a* as shown in Figures 4 and 5, or a central slot 11*b* as shown in Figures 6 and 7, to receive a latch bolt 12 which forms part of a conventional lock (not shown) mounted on the trunk lid 13. When the said lid is shut the latch 12 is in locking engagement with the conventional keeper 10, and at that time the lower margin of the lid 13 rests beneath and contiguous to the flange 5 of the rear wall 2.

The extension keeper plate consists essentially of a mounting plate 16 terminating at one extremity in a hinge portion 17, and a pivot plate 18 having at one extremity a corresponding hinge portion 19 which is pivotally connected to the portion 17 by a pin 20. Means are provided for attachment of the mounting plate upon the keeper 10, and the pivot plate 18 is provided with means for engaging the latch 12.

Referring to Figures 1, 2 and 3, the screw 8 by which the keeper 10 is held in position also passes through elongated holes 21 formed through the mounting plate 16 to secure the latter upon the keeper. The upper extremity of

the mounting plate 16 and its hinge portion 17 are located beneath the projection 11 on the keeper 10, and when the said projection is in engagement with the latch 12 and the trunk lid shut, the pivot plate 18 is downturned to its inoperative position indicated at 18a. However when the trunk lid is to be held partially open the pivot plate 18, which is offset intermediately of its length as shown at 22, is swung upwardly and rearwardly until its movement is checked by the keeper 10 and the offset portion rests adjacent the top of the angle plate 7. Thus the pivot plate is firmly supported to bear the weight of the lid 13. The plate 18 is also apertured at 24 between the hinge portion 19 and the offset 22 to provide clearance for the projection 11 when the pivot plate is in its operative position; and formed across the pivot plate 18 toward its outer extremity is a transverse hook-shaped portion 23 the open side of which is rearwardly disposed when the said pivot plate is in its raised position so that a shoulder formed across the junction of the said portion 23 with the said pivot plate is adapted to be engaged by the latch 12 as shown in Figure 1.

In the modification shown in Figures 4 and 5, the arrangement is very largely the same as that above described except that the keeper 10 is provided with a lateral notch 11a to be engaged by the latch 12, and consequently no aperture corresponding to that shown at 24 in Figures 2, 3 and 4 is required in the pivot plate 18. In this case, however, the pivot plate is notched from one side as shown at 26 to correspond with the notch 11a. This notch 26 is engaged by the latch 12 when it is desired to hold the lid in partially open position, and when the pivot plate is in operative position it rests upon the keeper 10.

The difference in the modification shown in Figures 6, 7 and 8 lies in the fact that both the keeper 10 and the mounting plate 16 are substantially channel-shaped in cross section and have outwardly projecting ears through which the screws 8 extend. In this case the pivot plate 18 toward its outer extremity is slotted at 27 intermediately of its width to receive the latch 12 when the lid is held in partially open position.

It will also be noted that in all the embodiments above described that a forwardly projecting flange 16a is formed integral with the lower extremity of the mounting plate 16 for attachment, preferably by welding, either upon the foot of the angle plate 7, or upon the floor 1.

In the modification shown in Figures 9 to 12, inclusive, the trunk has no vertical wall extending upwardly across the rear of the floor 1d, but when the lid 13d is closed laterally movable members 12d which constitute the latch swing outward toward opposite sides of the trunk about pins 12e and pass beneath raised ears 11d formed on opposite sides of the keeper 10d.

Mounted on flanges 10e which form part of the keeper 10d outwardly beyond the ears 11d are spaced arms 30 integral with and extending forwardly from a mounting plate 16d, and formed across the front extremities of the arms 30 and integral with the latter are aligned hinge portions 17d. A coacting hinge portion 19d extending between the hinge portions 17d is formed integral with the pivot plate 18d, and a hinge pin 20d extends through the hinge portions 17d and 19d. The pivot plate 18d is offset at 33 adjacent its hinge portion 19d to seat across the front extremities of the raised ears 11d when the said plate is in its lid engaging position.

At its outer extremity the pivot plate 18d is folded to form an extension 31 which projects substantially horizontally in a forward direction when the pivot plate is in its operative position. The extension 31 is slotted intermediately of its width from its outer margin to form opposed ears 32 spaced the same distance apart as the ears 11d. Thus the ears 32 form engaging means beneath which the pivot latch members 12d are adapted to swing to hold the lid 13 relative to the pivot plate in its partially open position. The screws 8d in engagement with the nuts 9d, by which the keeper 10d is secured to the floor 1d, also extend through the arms 30 to hold the mounting plate 16d in place; and the nuts 9d are usually welded to the underside of the floor 1d.

In the drawings, the trunk lid 13, or 13d, is shown locked in partially open position, and the location of the lid in shut position is also indicated at 13' and 13d'.

While in the foregoing some of the preferred embodiments of the invention have been described and shown, it is understood that further modifications may be made thereto provided they fall within the scope of the appended claims.

What I claim is:

1. An extension keeper arrangement for automobile trunk locks, including a mounting plate adapted to be secured in a trunk and having a hinge portion thereon, a pivot plate having a corresponding hinge portion thereon, means pivotally connecting the two hinge portions, said pivot plate being offset intermediately of its length and adapted to bear against a keeper and to project upwardly thereover, and means on the pivot plate for engaging a latching means on the lid of the trunk for locking said lid in a partially open position.

2. An extension keeper arrangement for automobile trunk locks, including a mounting plate for attachment to a conventional keeper in a trunk and having a hinge portion formed across one extremity, a pivot plate having a corresponding hinge portion formed across one extremity and means adjacent its opposite extremity adapted to be engaged by a latching means on the lid of a trunk to lock said lid in partially open position, a pin extending through both the hinge portions, and said pivot plate being offset intermediately of its length to rest against said keeper when said pivot plate is in position to be engaged by said latching means.

3. An extension keeper arrangement for automobile trunk locks including the combination with a trunk having a hinged lid thereon, of a mounting plate secured to the trunk, said plate having a hinge portion thereon, a pivot plate having a corresponding hinge portion thereon, said hinge portions being in horizontal alignment, a pin extending through said hinge portions to permit pivotal movement of the pivot plate, said pivot plate being offset intermediately of its length, said offset portion being adapted to be supported by the trunk at its upturned limit of travel, and means on the pivot plate adapted to be engaged by a locking member on the lid to lock the latter in partially open position when said pivot plate is moved to its upturned limit.

4. An extension keeper arrangement for automobile trunk locks including the combination of a trunk having a hinged lid thereon, of a mounting plate secured to the trunk, a pivot plate, horizontally disposed hinge portions on both said plates, a pin extending through said hinge por-

tions whereby said pivot plate is mounted for swinging movement about the axis of the pin, means limiting the upswing of the pivot plate, said pivot plate having its outer extremity folded to form a laterally projecting flange, said flange being slotted intermediately of its width from its outer extremity to form opposed ears adapted to be engaged by locking means on the trunk lid when said lid is partially open and said pivot plate has been swung upwardly to its limit of travel.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
769,209	DeLan	Sept. 6, 1904
1,186,322	Lyons	June 6, 1916
2,257,214	Wise	Sept. 30, 1941
2,267,397	Dall	Dec. 23, 1941