July 27, 1926. 1,593,910

A. J. PATCH

ASH RECEPTACLE

Filed March 25, 1924

Fig. 1,

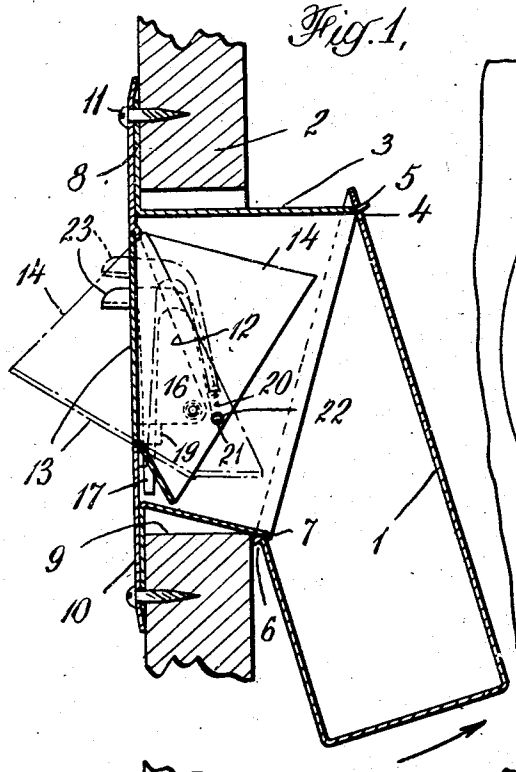


Fig. 2,

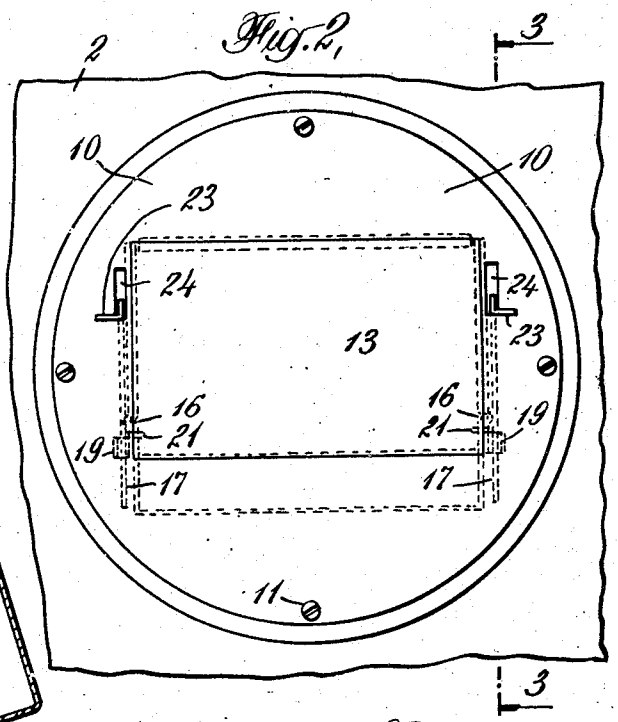


Fig. 3,

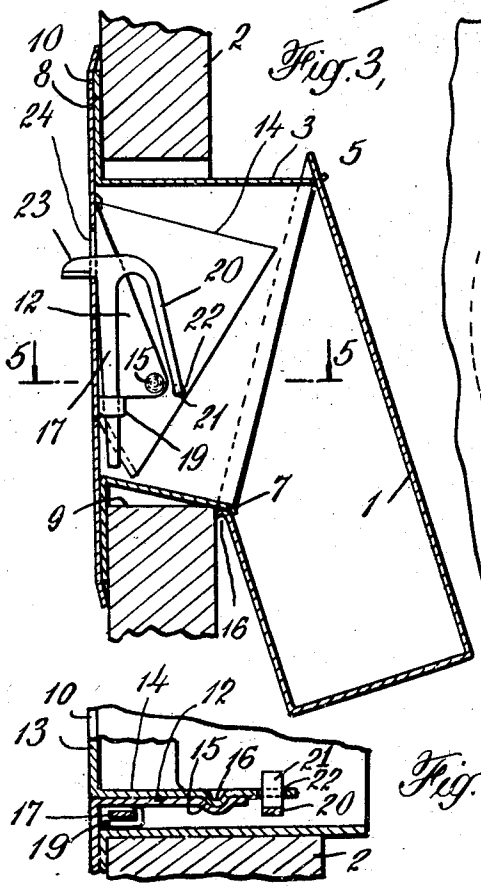


Fig. 4,

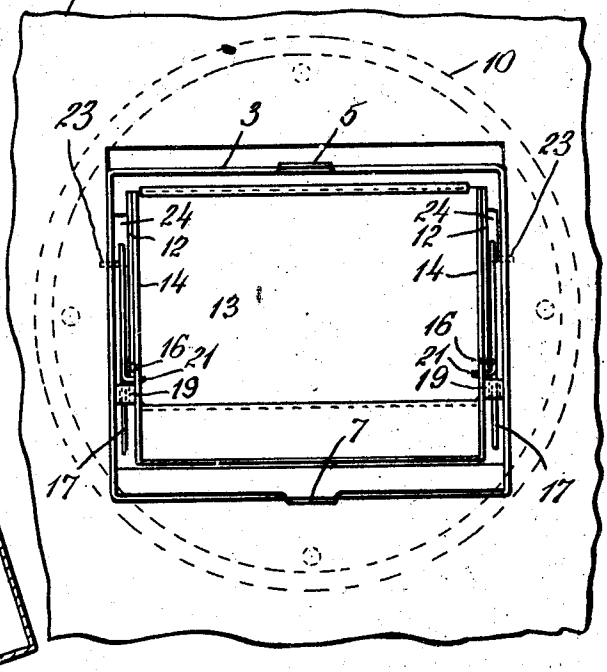


Fig. 5,

Allen J. Patch INVENTOR

BY

Prince, Cain, Marino & Edmonds,

ATTORNEYS

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UNITED STATES PATENT OFFICE.

ALLEN J. PATCH, OF RIPON, WISCONSIN.

ASH RECEPTACLE.

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This invention relates to ash receptacles, or so-called ash-receivers, of the type which have been proposed for use on automobiles. An ash-receiver for this purpose has been proposed which comprises a receptacle adapted to be mounted on the dash of the automobile for receiving cigar and cigarette ashes, burnt matches, etc. The receptacle proper is positioned back of the dash or instrument panel and a closure-equipped opening is provided in the panel through which ashes may be deposited in the receptacle to which they are conducted by means of a chute extending from the opening in the panel to the receptacle. It is to this general type of ash-receiver that the present invention particularly relates.

The principal object of the present invention is to provide an ash-receiver of the above mentioned type most or all of the parts of which may be stamped from sheet metal.

Another object is to provide an ash-receiver for the above-mentioned purpose which is so constructed that the necessity of using springs or similar biasing elements is eliminated.

A further object is to provide an ash-receiver, the construction of which is so simple that it may be inexpensively manufactured and assembled.

The invention is illustrated in the accompanying drawing, in which—

Fig. 1 is a vertical longitudinal section through the improved ash-receiver showing the same applied to the instrument panel or dash of an automobile,

Fig. 2 is a front elevation of the improved ash-receiver as it appears on the dash,

Fig. 3 is a vertical section taken on the line 3—3 of Fig. 2,

Fig. 4 is a rear view of the ash-receiver with the receptacle proper removed, and

Fig. 5 is a detail section taken on the line 5—5 of Fig. 3.

The receptacle proper is shown at 1. It may be of any desired shape and may be of such size that it may be conveniently accommodated in back of the instrument panel of an automobile which is represented at 2. In the present instance, the receptacle 1 is substantially rectangular in cross section. To simplify the construction as much as possible, the upper end of the receptacle is formed as if it were obliquely truncated as shown in the drawing, so that it may be attached to a corresponding obliquely truncated end of a chute portion 3. The upper rear edge of the receptacle 1 is provided with an opening 4 adapted to slip over a projecting lip 5 formed on the chute portion 3 and the front upper edge of the receptacle 1 is slightly turned over as shown at 6 so that it may snap under a projecting lip 7 formed on the lower edge of the chute portion 3. It will therefore be seen that the receptacle 1 may be readily detached from the chute portion 3 by lifting the receptacle upwardly in the direction of the arrow in Fig. 1. To replace the receptacle, the lip 5 is first inserted in the opening 4 and then the receptacle is forced downwardly until the curved portion 6 snaps under the projecting lip 7.

The chute portion 3 is provided with a flange 8 adapted to overlie the edge of an opening 9 cut in the dash or instrument panel 2 to receive the chute portion 3.

The closure for the device is mounted on a face-plate 10 which in the present instance is shown as being circular in outline, as shown in Fig. 2. This face-plate is adapted to be secured to the instrument panel 2 by means of screws or the like 11, and its edge portion overlies the flange 8 on the chute 3. The screws 11 may also hold the chute 3 in place by passing through holes in the flange 8 or the flange 8 may be otherwise held in place either by being separately attached to the instrument panel 2 or by being directly attached to the face-plate 10.

The face-plate 10 is provided with a rectangular opening at each end of which there is formed a lug 12 extending rearwardly from the face-plate and at right angles to the plane of the face-plate. These lugs may be an integral part of the face-plate bent backwardly to constitute right-angle projections as just described. These lugs constitute the support for the closure of the device. The closure comprises a hopper-shaped member having a front portion 13 and side portions 14 bent at right angles to the plane of the front portion 13. Each end portion 14 is pivoted to the adjacent lug 12. Any type of pivotal connection may be employed but for the sake of simplicity in construction, I prefer to provide each lug 12 with a depression 15 adapted to receive a corresponding projection 16 formed on the adjacent end portion 14 of the hopper as best shown in Fig. 5. This constitutes a pivotal connection which permits the hop-

per-shaped closure to swing from the closed position to the open position represented by dotted lines in Fig. 1. When the hopper-shaped closure is opened, the front face 13 and the side portions 14 constitute a chute or hopper which receives the ashes and deflects them into the chute portion 3 and the receptacle 1. When the hopper-shaped closure is in its closed position, the front face 13 exactly fits within the rectangular opening within the face plate 10 and constitutes a closure for this opening.

In order to open the hopper-shaped door or closure, there is provided a sliding member comprising an arm 17 mounted to slide vertically in a guide formed on the outer face of the adjacent lug 12. This guide may be formed by bending a strip 19 cut or stamped from the lug 12 until it forms a substantially circular or rectangular guide as best shown in Fig. 5. A second arm 20 carried by the sliding member has its lower end bent inwardly, as shown at 21, to engage in an opening 22 provided in the adjacent side portion 14 of the hopper. The upper end of the sliding member has a portion 23 which projects through an opening 24 formed in the face-plate 10. In order to open the hopper, the projecting portion 23 is pushed upwardly and this causes the hopper to swing to the dotted line position, shown in Fig. 1, due to the engagement between the part 21 of the sliding member and the hopper itself. The location of the point of engagement between the part 21 of the sliding member and the hopper should be such with respect to the pivot axis to cause the hopper to tilt outwardly when the sliding member is moved upwardly, as just described. It will be noted that this point of engagement is so located with respect to the pivotal axis of the hopper that when the hopper is opened and closed the point of engagement moves on opposite sides of the pivotal axis of the hopper. This arrangement, combined with the fact that when the parts are assembled the arm 20 is placed under tension so that it tends to move toward the arm 17, causes the hopper to tend to remain in either its open or closed position. The hopper may be closed either by pushing the projecting portion 23 of the sliding member downwardly or by directly closing the hopper with the hand. The latter method will probably be a more natural and quicker one. If desired, the sliding member comprising the arms 17, 20 and the projection 23, may be duplicated at the other side of the closure, as shown in the drawing. Two of these sliding members or opening devices may thus be provided for convenience but the operation of either one of them will open the hopper and therefore only one of them is really needed.

In order to install the device on an automobile, it is only necessary to cut an opening in the instrument panel or dash large enough to receive the chute portion 3 but not large enough to permit the face-plate 10 to pass through it. The device is then mounted on the instrument panel by means of the screws 11 as described above. The receptacle 1 will then be located at the back of the instrument panel where it will not be visible. The only visible parts of the device are the face-plate 10 and the front face 13 of the hopper which lie in the same plane with each other and in the plane of the instrument panel when the device is closed.

When it is desired to use the ash receiver, the opening device 23 is manipulated as described above to open the hopper and the ashes are deposited in the hopper. The ashes then pass directly into the receptacle 1. The hopper is then closed either by manipulating the projection 23 or by applying a closing pressure directly to the hopper with the hand. When the receptacle 1 is full, it may be readily detached and its contents emptied.

It will be noted that the hopper, together with the chute portion 3 and the receptacle 1, constitute in effect an inclined passage for the ashes as they move to the bottom of the receptacle 1. For this reason, the portion 3 has been referred to above as a chute portion but it is obvious that it need not actually perform the function of a chute as one of its main purposes is to support the receptacle 1, and to provide a continuous passage from the opening in the hopper to the receptacle. The various parts of the device may be stamped from sheet metal thus simplifying and cheapening its manufacture. It has a minimum number of parts and the use of springs which are costly and objectionable are eliminated. Furthermore, the device is neat and attractive in its appearance, in spite of its inexpensive manufacture and its extreme simplicity.

I claim:—

1. An ash-receiver comprising a receptacle, means for supporting the same from the dash of an automobile said means provided with an opening permitting access to the receptacle, a pivotally mounted closure for said opening and a one piece sliding member engaging the closure for actuating the same, said member serving in one position to bias the closure to its closed condition and in another position to bias the closure to its open condition.

2. An ash-receiver comprising a receptacle, means adapted to be secured to the dash of an automobile for supporting the receptacle, a closure-equipped opening permitting access to the receptacle, the closure of said opening being pivotally mounted and a one piece sliding member connected to the

closure adjacent to its pivotal axis for actuating the closure, said member serving in one position to bias the closure to its closed condition and in another position to bias the closure to its open condition.

3. An ash-receiver comprising a receptacle, a hopper-shaped closure for said receptacle, means for pivotally mounting said closure and means for actuating the closure comprising a one piece sliding member connected to the closure adjacent to the pivotal axis thereof, said member serving in one position to bias the closure to its closed condition and in another position to bias the closure to its open condition.

4. An ash-receiver for use on automobiles comprising a face plate adapted to be secured to the dash of the automobile, a receptacle, means for supporting the receptacle behind the dash, the face-plate having an opening through which ashes may be deposited in the receptacle, a pivotally supported hopper-shaped closure for said opening and a one piece movable lever connected to said closure for actuating the same, said lever serving in one position to bias the closure to its closed condition and in another position to bias the closure to its open condition.

5. An ash-receiver comprising a face-plate adapted to be secured to the dash of an automobile adjacent to an opening cut therein, a receptacle, means extending rearwardly from the face-plate into said opening for supporting the receptacle, said face-plate having an opening therein through which ashes may be deposited in the receptacle, a hopper-shaped pivotally supported closure for said opening and means for actuating said closure comprising a one piece sliding member and a connection between said member and the closure whereby manipulation of the sliding member will positively actuate the closure, said member serving in one position to bias the closure to its closed condition and in another position to bias the closure to its open condition.

6. An ash-receiver comprising a receptacle, means for supporting the receptacle from the dash of an automobile, a face-plate having an opening therein through which ashes may be deposited in the receptacle, said face-plate being further provided with a lug adjacent each side of the opening, a hopper-shaped closure having its side walls pivoted to said lugs and means for opening said closure comprising a member slidingly mounted at the rear of the face-plate, and a connection between said member and the side wall of the hopper-shaped closure, the face-plate being provided with an opening through which a portion of said sliding member projects whereby manipulation of said projecting portion of the sliding member will actuate said sliding member and cause the closure to move to its open position.

7. An ash receptacle for use on automobiles comprising a face-plate associated with the receptacle and adapted to be secured to the dash of the automobile, said face-plate having an opening through which ashes may be deposited in the receptacle and being further provided with a lug adjacent each side of said opening, a hopper-shaped closure having its side walls pivoted to said lugs, a member mounted for vertical sliding movement on the rear of the face-plate and provided with a forwardly projecting portion, the face plate having an opening through which said forwardly projecting portion extends and a connection between said vertically sliding member and one wall of said hopper-shaped closure whereby the closure will be opened when said projecting portion on the vertical sliding member is lifted.

8. An ash receiver comprising a receptacle, means for supporting the same from the dash of an automobile, said means provided with an opening permitting access to the receptacle, a pivotally mounted closure for said opening, and a sliding member having an integral portion for actuating the closure, said integral portion being resilient and tensioned so as to bias the closure to its open condition in one position of the sliding member and to bias the closure to its closed condition in another position of the sliding member.

9. An ash receiver comprising a receptacle, means for supporting the same from the dash of an automobile, said means provided with an opening permitting access to the receptacle, a pivotally mounted closure for said opening, and a sliding member for actuating the closure, said member having a resilient and tensioned extension engaging with a part of said closure at a point adjacent to the pivotal axis of the closure, said point of engagement being so located as to move on opposite sides of the pivotal axis of the closure when said sliding member is actuated and as the closure moves to or from its open position whereby in one position of said member the tension of said extension biases the closure toward its closed condition and in another position of said member biases the closure toward its open condition.

10. An ash receiver comprising a receptacle, means for supporting the same from the dash of an automobile, said means provided with an opening permitting access to the receptacle, a closure for said opening having portions located at substantially right angles to the plane of the closure, said portions being pivotally mounted to cause the closure to swing about an axis substantially parallel with the plane of the closure, and a sliding member for actuating said closure

having a resilient and tensioned extension engaging with one of said portions at a point adjacent said pivotal axis, said point of engagement being so located as to move on opposite sides of the pivotal axis of the closure when said sliding member is actuated and as the closure moves to or from its open position whereby in one position of said member the tension of said extension biases the closure toward its closed condition and in another position of said member biases the closure toward its open condition.

11. An ash receiver comprising a receptacle and a cover plate adapted to be disposed on opposite sides of an aperture in a substantially vertical support of appreciable thickness, said cover plate having an opening equipped with a hopper shaped closure pivotally mounted to swing about a horizontal axis located out of the plane of said cover plate and at a distance above the lower edge of the closure that will cause the lower part of the closure to swing inwardly toward the receptacle to substantially span the thickness of the support as the upper part of the closure swings outwardly.

In testimony whereof I affix my signature.

ALLEN J. PATCH.