Nov. 10, 1942. R. W. SPRINGER 2,301,715

ASH RECEPTACLE

Filed July 31, 1939

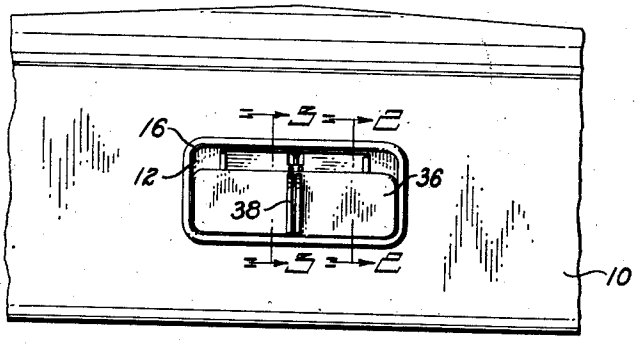


FIG. 1

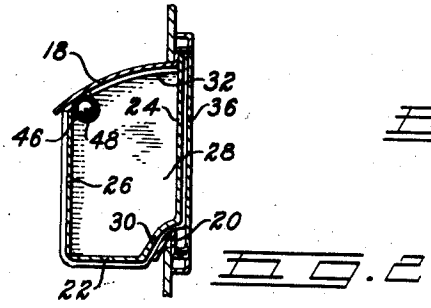


FIG. 2

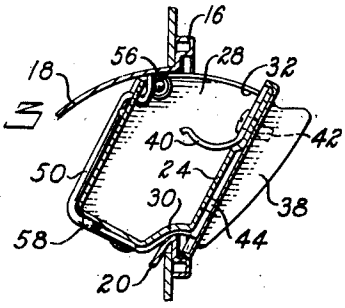


FIG. 3

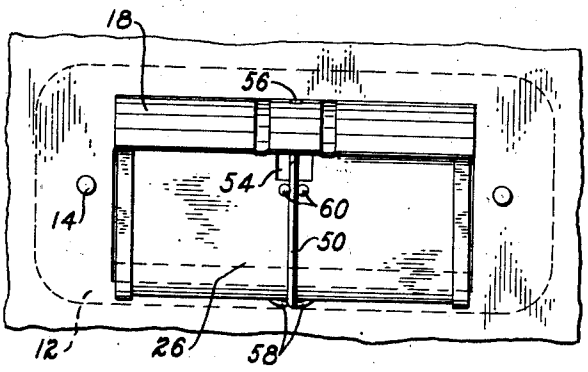


FIG. 4

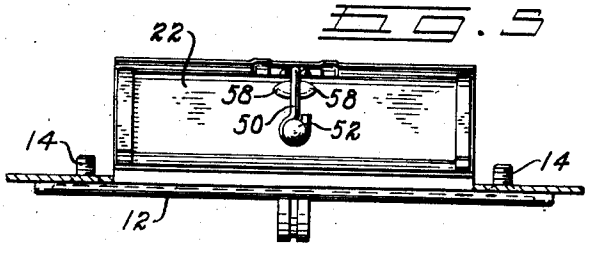


FIG. 5

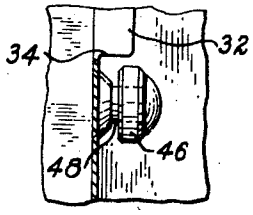


FIG. 6

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ASH RECEPTACLE

Ray W. Springer, Detroit, Mich.

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3 Claims. (Cl. 206—19.5)

This invention relates to receptacles and particularly to a receptacle unit for receiving ashes mounted for movement into and out of an opening in an automobile panel.

An important object of this invention is to provide an improved receptacle structure especially adaptable for use as an ash receiver and the like in an automobile.

Another object of this invention is to provide novel means for mounting the receptacle for movement from a closed position against a panel in an automobile to an open position capable of use as an ash receiver.

Another object of this invention is to provide novel means for stopping the receptacle in the desired open position for use as an ash receiver and for releasing the receptacle from the stop means in order to remove the receptacle from the panel.

Various other objects, advantages, and meritorious features of this invention will become more apparent from the following specification, appended claims, and accompanying drawing, wherein:

Figure 1 is a front plan view showing the ash receiving unit in open position in the dash panel of an automobile,

Fig. 2 is a cross-sectional view through the ash receiving unit along line 2—2 of Fig. 1, but showing the receptacle in closed position,

Fig. 3 is a cross-sectional view through the ash receiving unit along line 3—3 of Fig. 1, showing the receptacle in open position,

Fig. 4 is a back view of the ash receiving unit,

Fig. 5 is a bottom view of the ash receiving unit, and

Fig. 6 is a detailed view of one of the rollers and its mounting on the side wall receptacle.

Referring to the drawing, numeral 10 indicates a panel of an automobile such as the dash panel in the front compartment. This panel is provided with an opening through which the receptacle of this invention is movable.

The ash receiving unit of which the receptacle forms a part comprises a rectangular frame or supporting plate 12 extending around the opening in the panel on the front side thereof. It is secured to the panel by screws 14 or other fastening means. This frame is provided with a decorative marginal bead 16.

The frame or plate 12 is provided with an opening corresponding in size and shape to that in the panel. The opening in the frame is preferably formed under die pressure in such a manner as to leave a rearwardly extending flange or member 18 forming an integral part of the frame and curved corresponding to the arcuate path of movement of the receptacle. This rearwardly extending flange is flexible and will resiliently yield to pressure applied perpendicularly thereagainst.

The frame 12 is also provided with a flange 20 along the bottom edge of the opening and having generally the form of an inverted V. This flange as shown overlaps upon the bottom edge of the opening of the panel and forms an inclined and rounded surface over which the bottom of the receptacle can pivot.

The receptacle proper comprises a bottom 22, a front wall 24, a rear wall 26 and spaced side walls 28—28. The bottom is indented at 30 to form a transverse groove for riding over the flange 20 and imparting swinging movement to the receptacle. The top edges of the side walls 28—28 are curved corresponding to the flange or member 18. The side walls are preferably shaped with inturned marginal portions on all sides so as to partially enclose the front, bottom and back walls therebetween. The top edges of the side walls are likewise turned inwardly as indicated at 32 and are cut away at 34 to provide an opening through which rollers may extend as will be described hereinafter.

The front wall 24 of the receptacle carries an ornamental panel or face plate 36 which is oversize the front wall 24 so that it abuts the dash panel 10 when the receptacle is swung to closed position. The face plate is preferably of a size to exactly fit within the area of the frame 12 encircled by the bead 16. As shown a handle 38 is secured to the central part of the face plate for pulling out the receptacle. A snuffer 40 is secured to the inside of the front wall 24 of the receptacle opposite the handle. A single screw 42 extends through a portion of the snuffer, the front wall, face plate and handle and secures all these parts together. The handle is relatively long and carries a small inwardly extending projection 44 which passes through a hole in the face plate and enters a hole provided in the front wall 24 of the receptacle. This projection cooperates with the screw 42 in holding the parts on the front wall against movement relative to one another.

In order to provide frictionless movement of the receptacle, novel rollers are provided on the receptacle which engage the underside of the flange 18. These rollers are mounted in an improved manner on the side walls of the receptacle and as a result are spaced apart a considerable distance thus balancing the action of

the receptacle in its movement into and out of the opening in the panel. The rollers are shown at 46. Each roller is mounted on an inwardly projecting stub shaft 48 adjacent to the top edge of the side wall with which it is associated. In order to allow the rollers to bear against the underside of the flange 18 the inturned margin 32 of the side walls are cut away as shown in Figs. 2 and 6. The mounting of the rollers is such that they bear against the flange 18 in any position into which the receptacle is adjusted with a pressure to hold the receptacle in such adjusted position.

Carried by the receptacle in the central portion thereof between the rollers 46—46 is a novel member which is adapted to abut a stop carried by the frame when the receptacle is opened to the desired position for use as an ash receiver. This novel member is deflectable by finger pressure laterally or sidewise to avoid the stop and permit removal of the receptacle from the dash panel. The member is preferably so constructed and related to the stop against which it abuts that in the desired open position of the receptacle the part which receives the finger pressure is disposed rearwardly of the plane of the panel. This removes any obstruction which the member might provide to the deposit of ashes in the receptacle. The lateral or sidewise deflecting movement of this member is an important factor contributing to this desirable result. A vertically deflectable member operating in this manner would have to project forwardly beyond the plane of the panel in order that finger pressure may be applied thereagainst.

Referring particularly to the drawing, the member is shown at 50 and is preferably formed of spring wire material. The member it secured to the bottom of the receptacle at one end by a headed stud 52. It then extends to the rear edge of the bottom and thence vertically up the back wall until near the top edge thereof. As shown in Fig. 4 the back wall of the receptacle is cut away to form a square shaped opening 54. The member 50 extends through this opening into the interior of the receptacle and is bent to form a slight loop as Fig. 3 indicates. The opposite end of the member is free and extends toward the flange 18 until it contacts the underside thereof or barely clears the surface. The stop against which this member abuts when the receptable is swung to open position depends downwardly from the top edge of the opening in the frame. It is preferably formed as shown by deforming a part of the flange 18 downwardly into the path of the member 50 as indicated at 56. This deformed portion 56 is hardly any wider than the thickness of the member 50 and it is readily apparent that on slight lateral movement of the member it will escape past the stop and allow the receptacle to be removed completely from the frame and panel.

It is desirable to form on certain portions of the receptacle guides for holding the member 50 against extensive movement so that in normal position it will abut the stop 56. One such provision is shown in Fig. 5 at 58 wherein the bottom of the receptacle is bumped out at two spaced points on opposite sides of the member 50 and close enough to the latter so that the member 50 is held against free swinging movement. A similar provision may be made on the back wall as indicated at 60. The bumped out portions 60, however, is not as extensive as it is on the bottom of the receptacle and when the member 50 is deflected sidewise it will easily ride up these projections in order to allow the member 50 to escape past the stop element 56.

What is claimed:

1. In an ash receiver, a frame having an opening, an ash receptacle mounted on said frame for movement into and out of the opening therein from the front side of the frame, said receptacle including a bottom, front and back and spaced side walls, a stub shaft projecting inwardly from each side wall of the receptacle adjacent the top edge thereof, a roller journalled on each stub shaft projecting above the top edge of the side wall with which it is associated, and a flexible yielding shield member projecting from the rear side of the frame adjacent to the top edge of the opening and adapted to overlie the receptacle when the latter is moved to closed position and bearing yieldingly against the rollers to hold the receptacle at adjusted positions, a stop depending from the shield adjacent the opening, a stop engaging member mounted on the receptacle having a free end disposed between said rollers forwardly of and adjacent to the back wall of the receptacle and in line with said stop and adapted to engage the stop and prevent withdrawal of the receptacle from the opening, said free end of the member shiftable sideways of the receptacle to clear said stop.

2. An ash receptacle unit comprising, in combination, a supporting plate having a front and back side and an opening therein, a receptacle having a bottom, front and back walls and side walls, said receptacle mounted for movement into and out of said supporting plate through the opening and from the front side thereof, rollers supported upon the two side walls and projecting thereabove, a flexible shielding member extending rearwardly from the back side of said plate at the top of the opening and adapted to overlie the receptacle when the latter is in closed position, and bearing against said rollers holding the receptacle in any adjusted position, a stop element depending from said shielding member adjacent the forward end thereof, a flexible stop engaging member secured at one end to the bottom of said receptacle and extending up the outside of the back wall and therethrough and terminating in a free end within the receptacle adjacent the back wall and in line to abut said stop element and hold the receptacle from complete withdrawal from the opening in said plate, said flexible member being deflectable sideways to avoid said stop element to permit withdrawal of the receptacle.

3. An ash receptacle comprising, in combination, a supporting plate having an opening therein, a receptacle having a bottom and front wall, a back wall and side walls, said receptacle pivotally supported upon the lower edge of the opening for movement through the opening in the supporting plate, a pair of rollers supported upon the two side walls of the receptacle adjacent to the back wall, said rollers supported upon the inner sides of the side walls and projecting thereabove, said supporting plate having an arcuate flexible element extending rearwardly from the upper edge of the opening overlying the receptacle when the receptacle is supported within the opening and disposed rearwardly of the plate and bearing resiliently against said rollers holding the receptacle in adjusted positions, said arcuate element provided with a depending stop adjacent to the supporting plate, a flexible stop engaging arm secured at one end to the receptacle and hav-

ing its opposite and free end disposed between said rollers adjacent to the back wall of the receptacle and arranged in line with the stop to engage the stop to prevent outward withdrawal of the receptacle, said stop engaging member adapted to be deflected sidewise of the receptacle to release the same from the stop and permit withdrawal of the receptacle from the opening, said receptacle having abutments spaced apart and disposed upon opposite sides of said stop-engaging member to normally limit its sideways deflection but over which said member is adapted to be resistingly moved sufficiently to clear the stop.

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