

Aug. 25, 1942.

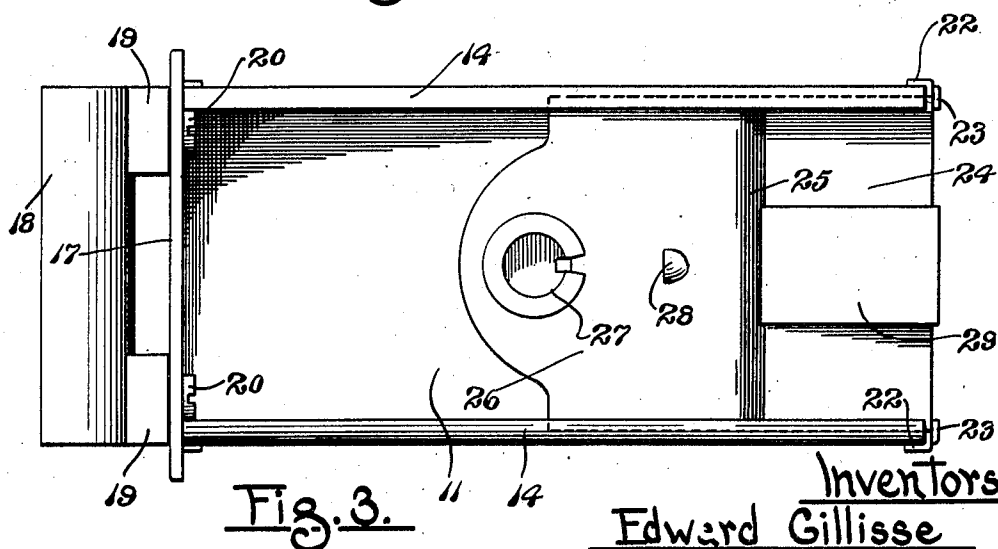
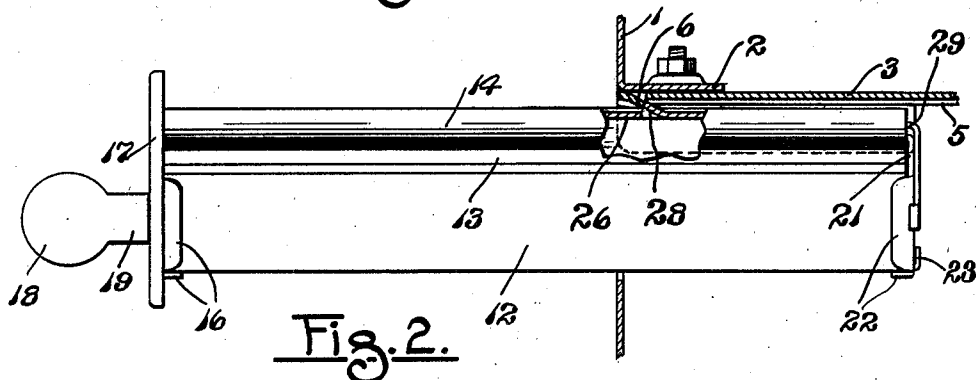
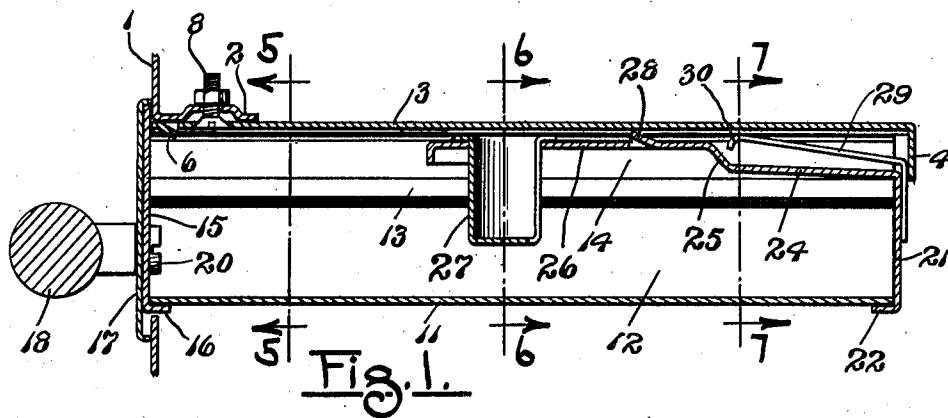
E. GILLISSE ET AL

2,294,174

ASH RECEIVER

Filed Aug. 28, 1939

2 Sheets-Sheet 1



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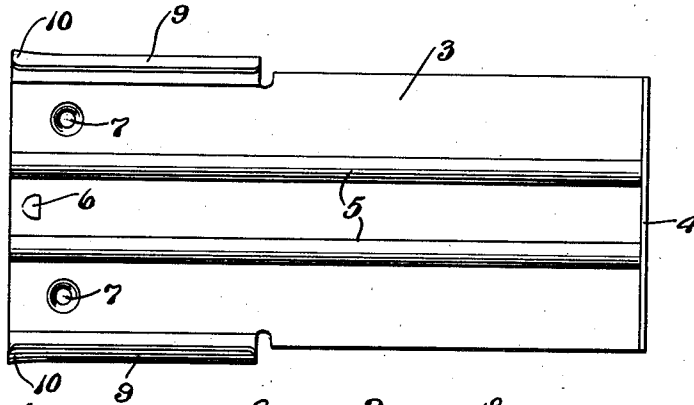


Fig. 4.

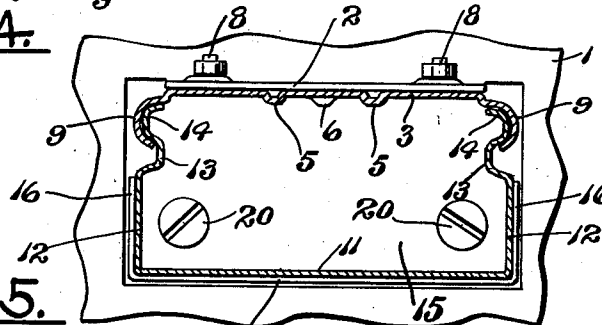


Fig. 5.

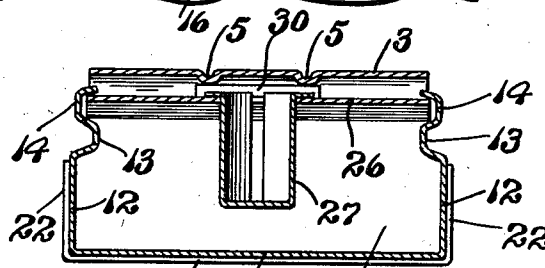


Fig. 6.

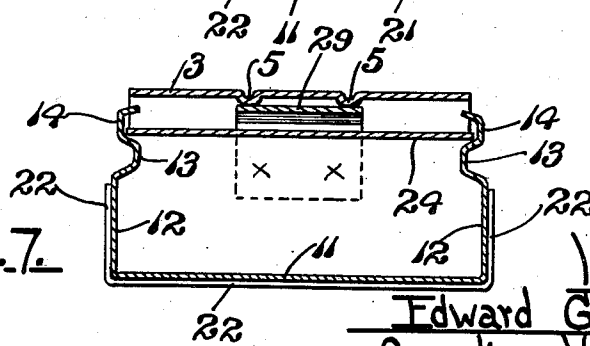


Fig. 7.

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UNITED STATES PATENT OFFICE

2,294,174

ASH RECEIVER

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Application August 28, 1939, Serial No. 292,251

5 Claims. (Cl. 206—19.5)

This invention relates to ash receivers, particularly of the sliding drawer type and which usually are mounted upon the instrument board or panel of the body of an automobile. The ash receiver is drawn outwardly when it is to receive ashes, cigarette or cigar stubs or other refuse, and is pushed back into place afterward.

In ash receivers of the type used on automobiles, it is requisite that they be very economically made at the lowest cost possible, that the outer end of the ash receiver be attractive and ornamental, that there be an avoidance of rattling noises from the vibration of the automobile body when driven over the road, and that the ash receiving drawer itself be readily removed when necessary to dump its contents, yet at the same time insure against any normal disconnection from its mounting when it is pulled out for the reception of ashes and the like. With our invention all of the above objects as well as many others are obtained in a particularly simple, practical and economical manner.

An understanding of the invention may be had from the following description, taken in connection with the accompanying drawings, in which:

Fig. 1 is a longitudinal vertical section through the ash receiver of our invention as it is mounted on the instrument board of an automobile body, the sliding drawer member being at its inner closed position.

Fig. 2 is a partial section and side elevation illustrating the drawer partly withdrawn and showing the way in which it is stopped from further outward movement after reaching a predetermined position.

Fig. 3 is a plan view of the ash receiving drawer element of the construction.

Fig. 4 is an under plan view of the overhead cover and supporting plate therefor, and

Figs. 5, 6 and 7 are transverse vertical sections on the planes, respectively, of lines 5—5, 6—6 and 7—7 of Fig. 1, looking in the directions indicated by the arrows.

Like reference characters refer to like parts in the different figures of the drawings.

The instrument board or panel of the automobile where the ash receiver is to be mounted is a substantially vertical plate 1 of sheet metal having a suitable rectangular opening through which the ash receiving member may be inserted. The metal of the panel 1 at the upper side of the opening is bent backwardly at right angles to make a horizontal attaching flange 2, connected with which is a cover and supporting

plate 3 of sheet metal which at its inner end, farthest away from the instrument panel, has a downturned stop flange 4. For reinforcement purposes the cover plate 3 is provided with longitudinal downwardly pressed parallel ribs 5 spaced from each other as shown. Near the front end of the plate 3 a stop tang or lug 6 is pressed downwardly substantially midway between the sides of the plate as shown in Fig. 4, and there are also provided two counter-sunk openings 7 for the passage of attaching screws or bolts 8 for connecting the plate 3 adjacent its forward end to and at the under side of the flange 2 previously described as extending rearwardly from the upper side of the opening through the instrument panel 1.

At each side of the cover plate 3 and at its forward end portion, guide channels 9 are formed having a generally concave formation at their inner sides and convex at their outer sides, as best shown in Fig. 5. Said channels at their forward ends are outwardly flared as indicated at 10. These guide channels extend from the front end of the cover plate rearwardly less than one-half the length of the plate and slightly more than one-third of the length, though of course such length may be varied.

The immediate ash receiving member is a drawer made of sheet metal. The body portion has a horizontal flat bottom 11 from which sides 12 are turned upwardly at right angles, said sides at their upper portions being bent inwardly and formed into substantially channel-like ribs 13, the upper sides of which are reversely bent into second channels 14 having convex outer sides. The two parts 14 are adapted to fit in the side guides 9 on the plate 3 and have a slideable movement therein.

The front of the drawer is closed by a vertical plate 15 having a bottom and side flanges 16 which embrace the bottom and sides 11 and 12 of the body of the drawer. The front is permanently secured to the body in any suitable manner, for example, tangs may project from the front ends of the bottom and sides, pass through suitable openings in the front plate 15 and be bent over thereagainst, the same as hereafter described in the connection of the rear end to said body. An ornamental cover plate 17 of thin sheet metal is located over the outer side of the front plate 15, as shown in Fig. 1, having its edges flanged inwardly. A handle 18 which may be of substantially cylindrical form, has integral spacing projections 19 adjacent each end which come against the plate 17. Securing screws 20 pass

from inside the ash receiving receptacle through the front plate 15, the ornamental cover 17 and thread into the projections 19, thereby securing the parts in firm connection with each other.

The back of the drawer is provided by a vertical plate 21 likewise having bottom and side flanges 22 which embrace the bottom and sides of the drawer body. The back or rear end member of the drawer is connected by tangs 23 extending from the bottom 11 and sides 12 through openings in the end 21 and bent over as shown in Figs. 2 and 3.

At the upper edge of the vertical back 21 the metal is continued forward nearly at right angles in a section 24, which is bent upwardly and forwardly at its front at an angle to make the inclined section 25 and is thereafter continued in a forward direction in a horizontal section 26, which at its front end is a short distance ahead of the middle portion of the drawer. A snuffer 27 of sheet metal and formed into a substantially cylindrical cup is connected to and carried at the front end portion of the section 26; and back of the snuffer a tang 28 is struck upwardly from the section 26, being located in the same vertical plane longitudinally of the ash receiver as is the tang 6 previously described. On outward movement of the drawer the tang 28 will come against the tang 6, as in Fig. 2, to limit the forward outward movement of the drawer, the two tangs 6 and 28 providing normally a stop against outward movement of the drawer beyond a predetermined position.

It will be noted that the sections 24, 25 and 26 lie between the upper and lower flanges of the channel portions 14 at the sides of the drawer so that there is permitted only a limited bending movement either in an upward or downward direction of the flat metal material from which said sections are made. The section 26 is adapted to be pressed downwardly when the drawer is withdrawn to the position shown in Fig. 2 to depress the stop tang 28 below the stop at 6, so that the drawer may be completely removed as required at times to dump its contents. But in no case is it possible to depress the free end of the front section 28 below a certain predetermined position as its lower edges will be stopped by coming against the lower flanges of the channel portions 14. Likewise any upward bending movement cannot be given to the section 26 as the upper flanges of the channel portions 14 prevent such upward movement. With this construction there is provided an absolute insurance against any possible bending of the metal from which the back 21 and the sections 24, 25 and 26 are made, beyond its elastic limit. The metal is not of tempered steel but is of ordinary mild rolled steel. The construction described permits the use of such material, both for the rear end of the drawer and in its continuation thereof to provide the sections 24, 25, and 26 to carry the snuffer and the rear stop, and eliminates any necessity of using a separate piece of spring steel material to carry the snuffer and stop, and to secure it to the back of the drawer.

A flat metal spring 29 at its rear end portion is bent downwardly to lie against the rear side of the back 21 of the drawer and to which it is spot-welded, said spring 29 extending upwardly and forwardly and nearly to the inclined section 25 and being then curved in a downward direction as at 30. This spring member rides against the ribs 5 and has a tendency to tilt the rear portion of the drawer downwardly and cause a slight pinch-

ing of the channel portions 14 with the guides 9 in which they are located. It prevents rattling at all times and holds the drawer snugly against aimless movement which would be productive of undesired noise. Because of the downwardly rounded front end 30 of the spring when it comes to the front stop 6 it rides readily thereunder.

The drawer is easily inserted in place by merely entering it into the slightly flared outer ends 10 of the guides 9, the spring member 30 riding underneath the stop 6 and also the stop 28 riding thereunder. Normally on outward movement of the drawer it is stopped when stop 28 engages the stop 6. In this position the front open upper side of the drawer is presented to receive ashes or other refuse and the snuffer is exposed for the snuffing of cigarettes or the like. To disengage the drawer completely it is necessary merely to press downwardly on the free front end of the section 26 to depress the back stop 28 to a level below the stop 6. When the drawer is carried to its innermost position the rear end thereof will come against the down-turned flange 4 on the cover plate 3, with an insurance that the edges of the ornamental front 17 will not strike against and mar the finish of the instrument panel surrounding the opening which receives the drawer.

The construction described is economical to produce. Its fabrication and assembly is simple and easy. The structure has proved very practical and useful in commercial use.

The invention is defined in the appended claims and is to be considered comprehensive of all forms of structure coming within their scope.

We claim:

1. In a construction of the class described, a panel having an opening therein, a cover plate secured to and back of said panel at the upper part of said opening and extending rearwardly therefrom, said plate at each side thereof having a longitudinal guide of substantially channel shaped form which extends from near the front end of the plate rearwardly for a distance not to exceed one-half the length of the cover plate, a stop near the front end portion of said cover plate, a receptacle having spaced sides provided at their upper edge portions with longitudinal channel ribs, said ribs being received in the guides of said cover plate whereby the receptacle may be moved inward and outward with respect to said cover plate and panel, said receptacle having an end of flat metal continued at its upper edge over the upper part of the receptacle, the edges thereof being received in the grooves of said ribs whereby said continuation of the end of the receptacle at its free end portion has a limited up and down movement, and a stop on said continuation of the end of the receptacle, adapted to engage against the first mentioned stop when the receptacle is moved outwardly a predetermined distance.

2. A construction containing the elements in combination defined in claim 1, combined with a spring secured to the receptacle and having a portion extending upwardly near the rear end thereof to bear against the under side of the cover plate, normally acting to tend to press the rear end of the receptacle in a downward direction and away from the rear portion of said cover plate.

3. In a construction of the character described, a panel having an opening therein, an elongated cover plate attached at its front end portion to said panel at the upper side of said opening and extending inwardly, said cover plate at each side

edge for a portion of its length being bent downwardly and formed into a substantially channel shaped guide, said guides extending from near the front end of the cover plate for a part of its length less than one-half thereof, a drawer having bottom, sides and front and rear ends and open at its upper side, of a size adapted to be inserted through said opening, the upper edge portions of said drawer being formed into channel shaped ribs adapted to traverse said guides, one end of said drawer comprising a plate of metal from which at its upper end a section extends over the upper portion of the drawer, with its edge portions extending into the grooves of said ribs whereby the free end of said section has a limited upward or downward movement, and cooperating stops, one near the front end portion of the cover plate, and one on said section projecting upwardly therefrom, adapted to come together and normally limit the outward movement of the drawer beyond a predetermined position, a depression of the end of said section freeing the stop thereon from the stop on said cover plate whereby the drawer may be removed from the cover plate guides, as specified.

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4. A device of the class described comprising, a mounting member, guide means on said mounting member, a receptacle, guide means on said receptacle traversing the guide means on said mounting member for sliding movement, a yieldable stop member of untempered steel connected to an end of said receptacle and having an up and down movement, means on a side of said receptacle cooperating with said yieldable stop member to limit the movement of said stop member, and stationary stop means engageable with said yieldable stop member.

5. A device of the class described comprising, a mounting member, guide means on said mounting member, a receptacle, guide means on said receptacle traversing the guide means on said mounting member for sliding movement, a yieldable stop member integral with a side of said receptacle, means to limit the flexing movement thereof and stationary stop means engageable with said yieldable stop member.

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