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ASH TRAY

Filed March 30, 1960

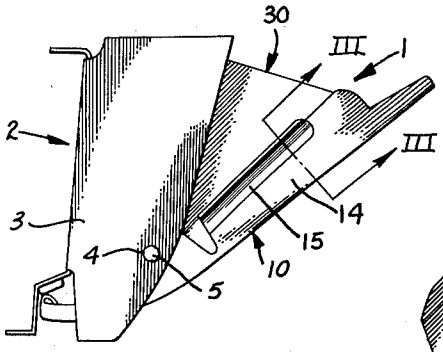


FIG. 1

FIG. 2

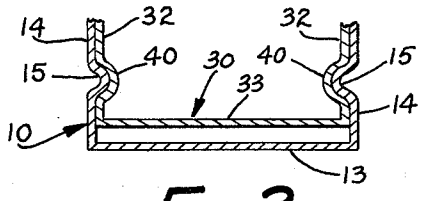


FIG. 3

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ASH TRAY

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This invention relates to an ash tray. More particularly, this invention relates to an ash tray having a removable ash box for use in automobiles and the like.

Ash trays have, of course, been included in automobiles for almost as long as automobiles have been in existence. Because of this, the manufacturing of ash trays for automobiles has become very competitive so that any simplification in the structure thereof constitutes an extremely important development in the art. However, such a simplification must not lessen the durability or the efficiency of the ash tray. The present invention relates to such a simplified ash tray which is actually more durable than any automobile ash tray now in existence and much more efficient in use.

Many ash trays presently in existence include removable ash boxes. An example of such a construction includes a panel member pivotally secured to the front panel of an automobile. This panel member includes some sort of spring means which works to bias the panel member flush with the surface of the automobile panel in one position or to hold it away from the dash when the ash tray is in use. A removable ash box is mounted to this movable panel member. The present invention relates to a simplified structure for removably mounting the ash box to the panel member.

Present construction for removably mounting the ash box to this panel member include an attachment member welded to the back of the ash box. This attachment member is usually in the form of a plate which is approximately the same size as the back of the ash box. This plate includes a pair of raised portions near the edges of the ash box, thereby forming a groove between the flanges and the back edges of the ash box. A separate unit is also mounted to the inside surface of the panel member. This second unit is a rather complex structure, including inwardly turned flanges which extend between the ash box and the plate welded thereto, and a spring means adapted to bear against the back of the plate and thus assure that the ash box will be properly positioned and held in place with respect to the panel member. Such a structure is both cumbersome and expensive to manufacture. Further, due to its complexity, the apparatus often functions improperly and it becomes extremely difficult to remove the ash box from the panel member to empty the contents thereof, and to replace it.

It is an object of the present invention to provide an ash tray having a removable ash box, the overall structure being greatly simplified.

Another object of this invention is to provide such an ash tray which utilizes an ash box of a construction such that the necessity for welding additional parts thereto is eliminated.

Another object of this invention is to provide such an ash tray which eliminates the necessity for securing additional complex structure to the movable panel member in order to achieve the removability of the ash box.

Another object of this invention is to provide such an ash tray which is more durable because of its simplicity.

Still another object of this invention is to provide an ash tray having an ash box which may be simply and quickly removed and returned to its position.

A still further object of this invention is to provide such an ash tray having a removable ash box wherein the

difficulty often experienced in returning the ash box to its position after emptying the contents therefrom is greatly simplified.

These and other objects of this invention will become obvious to those skilled in the art of ash trays upon reading the following specification in conjunction with the accompanying drawings, wherein:

FIG. 1 is a side view of the ash tray comprising this invention with the removable ash box secured therein;

FIG. 2 is an exploded, perspective view showing the panel member and the removable ash box comprising this invention; and

FIG. 3 is a cross sectional view taken along the plane III—III of FIG. 1.

Briefly, this invention relates to an ash tray, including a removable ash box, for use in automobiles and the like. This ash tray includes a panel member movably secured to a panel within the automobile. The panel member includes flanges extending therefrom toward the dash of the automobile, the panel member being of one piece construction. A sliding connector means is formed in these flanges. An ash box is provided, sliding connector means also being formed in the side thereof. The sliding connector means formed in the flanges of the panel member and the sliding connector means formed in the sides of the ash box frictionally engage and mate with one another, whereby the ash box may be quickly and simply removed from the panel member.

Referring more particularly to the drawing, the reference numeral **1** designates the ash tray comprising this invention (FIG. 1). The ash tray **1** includes the panel member **10** and the removable ash box **30**. The panel member **10** may be shaped to fit configuration of the particular automobile panel or dash to which it is to be secured, and includes the ears **11** having openings **12** therein (FIG. 2). The ears **11** constitute one means by which the panel member **10** may be secured within the automobile. For example, as shown in FIG. 1, a bracket **2** with flanges **3** may be recessed in the dash of an automobile (not shown). The flanges **3** of bracket **2** include an opening **4**, whereby a pin **5** may be inserted therethrough and through the corresponding opening **12** in ears **11** of the panel member **10**. Such pins **5** pivotally secure the panel member **10** to the bracket **2**. It will be noted that the ash tray **1** may then be moved to a position flush with the dash of the automobile or be moved to a position for use as shown in FIG. 1. This structure is old and well-known to the art, only the structure of the panel member **10** and the ash box **30** comprising this invention being new, and this structure will now be described in detail.

The panel member **10** includes the front surface **13** (FIG. 3) which is adapted to lie flush with the dash of the automobile. Extending from the edges of the panel member **10** are a pair of flanges **14**, extending in a direction opposite from the front surface **13** and lying generally normal thereto (FIG. 2). The top of the panel member **10** is bent reversely upon itself and terminates to form a guide member **20** extending in the same direction as the flanges **14** and lying therebetween. The purpose and function of this guide member **20** will be more fully explained hereinafter. It will be noted that the panel member **10** is of one-piece construction, all of the parts which have been described being formed from a single piece of material.

A sliding connector means **15** is formed within each of the flanges **14**. The sliding connector means **15** preferably constitute elongated beads lying generally parallel to the front surface **13** of the panel member **10**. The sliding connector means **15** are adapted to receive the ash box **30**, the structure of which will now be described.

The ash box **30** is of two-piece construction, the front wall **31** and side walls **32** formed from one piece of material and the back **33** and bottom **34** formed from a second piece of material. A lip **35** is formed at the top of the back wall **33**. This ash box construction is old and well-known to the art. Formed in each side wall **32** is a sliding connector means **40**, this sliding connector means **40** preferably comprising an elongated bead formed in the side wall lying generally parallel to the back wall **33** of the ash box. These sliding connector means **40** are adapted to frictionally engage and slidably mate with the sliding connector means **15** in the flanges **14** of the panel member **10**.

The panel member **10** is pivotally secured to the bracket **2** as described hereinbefore. The ash box **30** is slidably mounted on the panel member **10** by merely positioning the ash box between the flanges **14**, the sliding connector means **15** frictionally engaging and slidably mating with the connector means **40** formed in the side walls **32** of the ash box **30**. It will be noted that the guide member **20** is positioned such that the mere placing of the ash box **30** between the flanges **14** of panel member **10** assures that the respective sliding connector means will engage each other. As is the case with slot and tongue arrangements, such sliding connector means will always function properly and align themselves. Thus, the difficulty often experienced in removing and replacing ash boxes is virtually eliminated. By merely positioning the ash box **30** between the flanges **14** and against the guide member **20**, the ash box automatically is aligned for positive connection to the panel member **10**.

This invention has completely eliminated the necessity for the welding of a separate connection member to the ash box. Further, this invention has entirely eliminated the necessity of affixing complicated attachment and spring means to the panel member. This simplicity of design produces a longer lasting ash tray, although it is

less expensive to manufacture. The ask box may be removed and replaced much more quickly and simply. The structure is such that there is no need to fumble around attempting to replace the ash box since the connector means automatically align themselves.

While only one embodiment of this invention has been shown and described, it may be possible to practice this invention through the use of certain other embodiments without departing from the spirit and scope of this invention. Such other embodiments are to be included as a part of this invention in accordance with the following claim.

I claim:

An ash tray, including a removable ash box, for use in automobiles and the like, comprising: a metal panel member mounted within the automobile; flanges extending from said panel member in a direction opposite from the outer surface thereof and lying generally in parallel planes normal thereto; said flanges having elongated beads formed therein lying generally parallel to said surface and lying inwardly of said planes of their respective flanges; an ash box; said ash box having an inwardly indented elongated and downwardly opening channel formed on each side thereof, extending from the bottom thereof a substantial distance upwardly and slidably receiving said beads whereby said ash box may be slidably removed from said panel member; and means at the lower end of said metal panel for pivotally mounting said panel in an automobile.

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