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ASH TRAY

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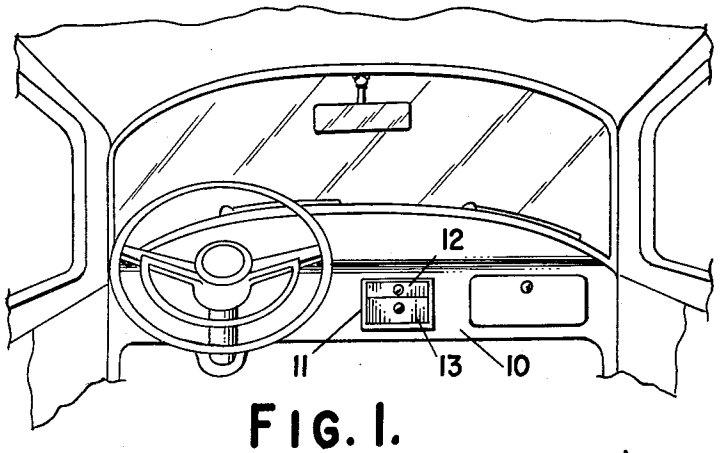


FIG. 1.

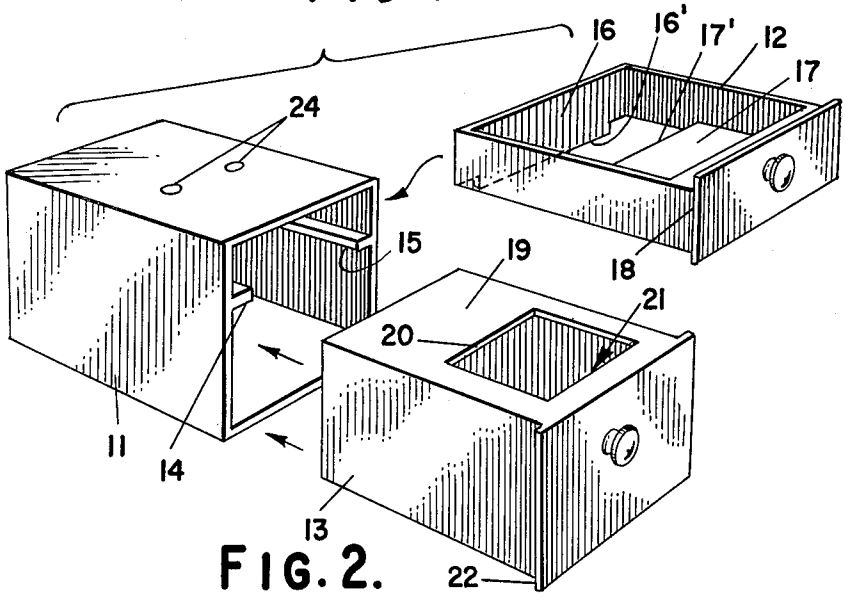


FIG. 2.

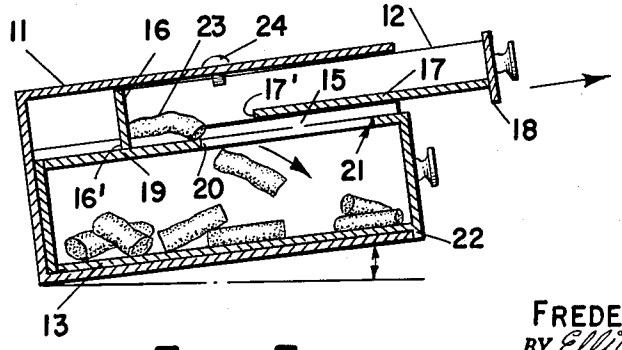


FIG. 3.

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ASH TRAY

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This invention relates generally to ash trays and more particularly to an ash tray designed for use in an automobile.

In most conventional automobile ash trays, there is a tendency for butts to accumulate in the ash tray itself so that snuffing out of subsequent butts is oftentimes difficult if not messy. Further, live ashes from the last butt placed in the ash tray may ignite the other butts previously extinguished with the result that annoying smoking of the various butts occurs.

In addition to the foregoing, the appearance of several butts in an automobile ash tray is aesthetically unattractive and generally annoying to both driver and passengers.

With the above in mind, it is a primary object of this invention to provide a greatly improved ash tray particularly suitable for use in automobiles in which the foregoing problems are overcome.

More particularly, it is an object to provide an improved ash tray in which the portion of the tray for snuffing out of butts is always maintained free of previous butts and relatively clean in appearance.

Another important object is to provide an ash tray in which butts already extinguished are transferred to a portion of the ash tray structure wherin they will not be visible to persons in the car and wherein they will be properly extinguished by suffocation.

Other objects of the invention are to provide an improved ash tray for automobiles which is neat in appearance, simple to operate and which provides a relatively large capacity for snuffed out butts in a separated portion of the tray so that reignition of previously snuffed butts by a cigarette is avoided.

Briefly, these and other objects and advantages of this invention are attained by providing a casing structure adapted to be mounted in the dashboard of the automobile and arranged to receive upper and lower drawers. The lower drawer is preferably somewhat larger than the upper drawer and serves to receive butts transferred from the upper drawer after the same have been snuffed out. This transfer takes place upon opening and closing of the upper drawer. By this arrangement, the upper drawer is always maintained clear of butts and provides an adequate surface for snuffing out any one particular cigarette. Further, butts transferred from the upper drawer to the lower drawer are relatively quickly suffocated.

A better understanding of the invention will be had by now referring to a preferred embodiment thereof as illustrated in the accompanying drawings, in which:

FIGURE 1 is a fragmentary front elevational view of an automobile dashboard illustrating the improved ash tray of this invention mounted in position in the dashboard;

FIGURE 2 is an enlarged exploded perspective view of the various components making up the ash tray illustrated in FIGURE 1; and,

FIGURE 3 is a side cross-sectional view of the components of FIGURE 2 in assembled condition with one of the components in partially operated condition useful in explaining the manner in which the ash tray functions.

Referring first to FIGURE 1, there is shown an automobile dashboard **10** incorporating the improved ash tray of this invention. This ash tray includes a casing **11** incorporating upper and lower drawers **12** and **13** adapted to be pulled out towards the driver or passenger from the dashboard **10**.

Referring particularly to FIGURE 2, it will be noted that the casing **11** includes inner horizontally running side flanges **14** and **15** to serve as runner supports for the upper drawer **12**. The upper drawer **12** itself includes a rear wall **16** having an extending lower lip portion **16'** arranged to be received between the opposing edges of the flanges **14** and **15** when the upper drawer is received within the casing **11**. Thus, the flanges **14** and **15** will ride in the small notches defined at each end of the lip **16'**.

As shown in FIGURE 2, the upper drawer **12** includes a bottom **17** terminating short of the rear wall **16** as indicated by the numeral **17'**. There is thus defined a bottom opening adjacent the rear wall **16** in the upper drawer **12**. The upper drawer **12** also includes a front providing an overlapping flanged edge **18**, the purpose for which will become clear when the operation of the device is described.

The lower drawer **13** as illustrated in FIGURE 2 includes a top **19** terminating short of the front portion of the drawer as at **20** to define a top opening **21**. The opposite sides and lower edges of the front of the lower drawer **13** extend beyond the confines of the sides and bottom of the drawer to define flanges such as indicated at **22**.

Referring now to FIGURE 3, the upper and lower drawers **12** and **13** are shown secured within the casing **11** with the upper drawer **12** partially open. It will be evident from FIGURE 3 that when the upper drawer **12** is entirely closed, the bottom opening defined between the termination of the bottom **17** as at **17'** and the rear wall **16** is in registration with the top **19** of the lower drawer **13**. It will also be evident that the small lip portion **16'** on the rear wall **16** is in engagement with the top **19** of the lower drawer.

If now the upper drawer **12** is partially pulled open as illustrated in FIGURE 3, it will be in a position to receive cigarette butts from a user in the automobile. As is evident from FIGURE 3, the entire casing structure is mounted at a slight angle with respect to the horizontal direction of motion of the automobile with the rear portions of the drawers lower than the front portions. Thus, after a butt has been snuffed out and the upper drawer **12** closed, the various butts lying on the bottom **17** will tend to migrate towards the rear wall **16** to lie on the surface of the top **19** of the lower drawer. It should be noted that even in the absence of any tilting of the casing structure, the butts will still tend to migrate towards he rear wall **16** because a car will generally decelerate faster than it will accelerate and therefore, the butts will be urged generally in a direction towards this rear wall.

If now the operator of the vehicle or a passenger opens the drawer **12** to snuff out another butt, this action will result in the lip **16'** of the rear wall **16** moving across the surface of the top **19** of the lower drawer **13** to urge the butts such as indicated at **23** through the top opening **21** of the lower drawer so that they will fall into this lower drawer. There will thus be presented a clean bottom surface **17** in the upper drawer for subsequent snuffing out of a butt.

In order to limit outward movement of the upper drawer to a position in which the bottom opening is in registration with the top opening and so that no portion of the bottom opening will be exposed beyond the front of the casing, there may be provided stops in the form of small screws **24** projecting downwardly through the top of the casing in a position to engage the upper edge of the rear wall **16** when the drawer is extended the necessary length to insure that the rear wall **16** will scrape all of the butts into a position to fall through the top opening **21**.

The purpose of the flanges **18** and **22** is to provide a substantially air tight seal when the drawers are closed with respect to the front edges of the casing. This seal-

ing will prevent air circulation and any butts either in the upper or lower drawers will be suffocated.

When it is desired to empty the ash tray, it is a simple matter to remove the bottom drawer and empty the same through the top opening **21**. The side flanges **14** and **15** as described in conjunction with FIGURE 2 will hold the top drawer in its upper position during this emptying process.

From the foregoing description, it will be evident that the present invention has provided a greatly improved automobile ash tray wherein the various disadvantages characterizing ash trays used in automobiles heretofore have been overcome. Not only is there provided a clean and aesthetically attractive surface for the snuffing out of butts each time the ash tray is used, but there is avoided the possibility of igniting previously snuffed butts and thus the annoyance of smoking of such previous butts. Further, as already stated, the butts themselves will be substantially suffocated as a consequence of their confinement to the lower drawer.

While only one particular embodiment of the invention has been set forth and described, various changes that fall clearly within the scope and spirit of this invention will occur to those skilled in the art. The improved ash tray is therefore not to be thought of as limited to the exact embodiment set forth merely for illustrative purposes.

What is claimed is:

1. An ash tray comprising: a casing; and upper and lower drawers in said casing, said drawers including means for transferring butts from said upper drawer to said lower drawer in response to partially opening said upper drawer while said lower drawer is closed, said means including a top wall on said lower drawer covering only a portion of said lower drawer to define a top opening, and a bottom opening in the rear of said upper drawer registering with said top wall when both said drawers are closed, opening of said upper drawer bringing its rear

bottom opening into registration with said top opening to drop said butts into said lower drawer.

2. An ash tray comprising, in combination: a casing; an upper drawer and a lower drawer receivable in said casing, said upper drawer having a bottom terminating short of the rear wall of said upper drawer to define a bottom opening; and said lower drawer having a top terminating short of the front wall of said top drawer to define a top opening so that when said drawers are received in said casing in closed condition, said bottom eclipses said top opening and said top eclipses said bottom opening, outward movement of said upper drawer bringing said bottom opening into registration with said top opening whereby butts snuffed out and disposed adjacent the rear wall of said upper drawer are urged by said rear wall towards said top opening to fall into said lower drawer.

3. An ash tray according to claim 2, including means limiting outward movement of said upper drawer to a position in which its bottom opening will not be exposed from the front exterior of said casing.

4. An ash tray according to claim 3, in which said casing is mounted in an automobile at an angle such that the rear portions of said drawers are lower than the front portions so that butts in said drawers tend to move and be accumulated in said rear portions while said automobile is in motion.

5. An ash tray according to claim 4, including means for providing a tight closure when said drawers are closed to prevent air circulation in said drawers and thereby cause suffocation of said butts in said drawers when said drawers are closed.

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