Nov. 27, 1956 W. G. WALKER 2,771,885

ASH TRAY

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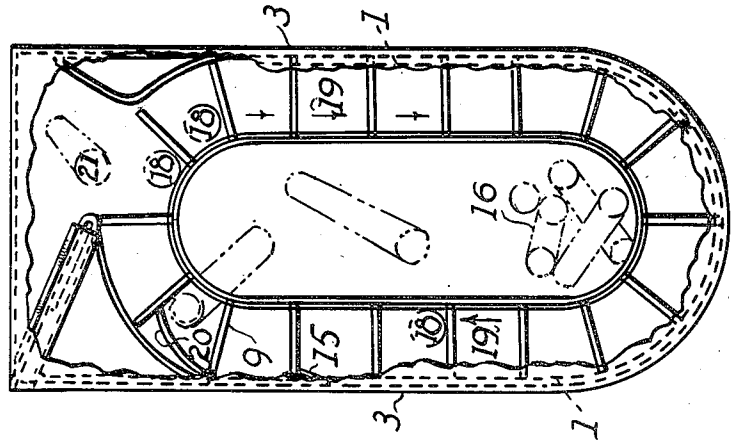


Fig. 2

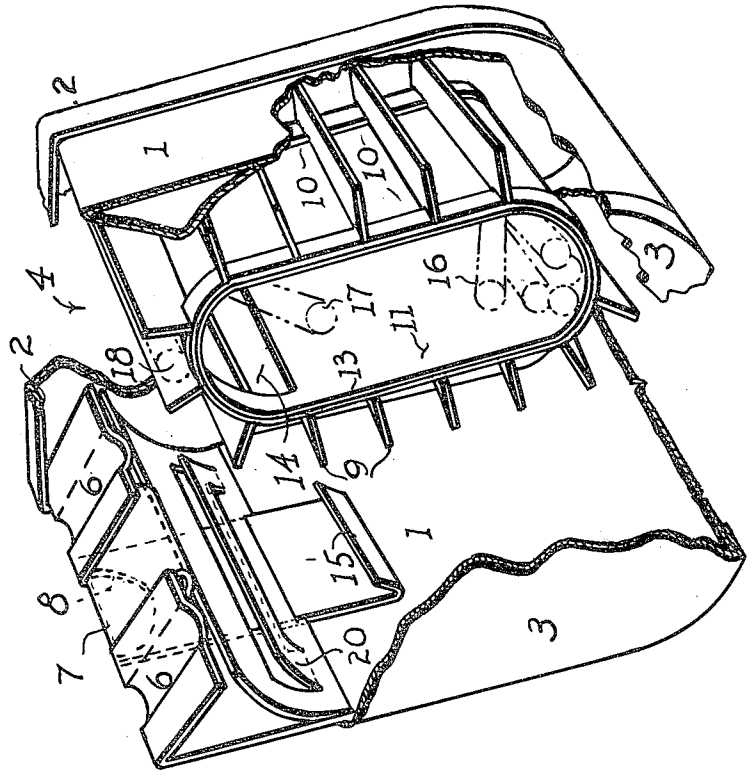


Fig. 1

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ASH TRAY

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The present device relates generally to receptacles and more particularly to an ash tray for receiving and disposing of lighted cigarette butts and the like.

A large variety of types and sizes of ash trays will be found on the market at the present time. Of these the majority are of standard dish shape construction in which it is necessary to press the lighted end of the cigarette, cigar or the like in order to extinguish the glowing end thereof. It is quite common for the glowing end of the cigarette, cigar or the like to not be extinguished completely and therefore to burn other cigarettes or cigar butts in the tray with the consequent offensive odor of burning stale tobacco and paper.

It is therefore the principal object of this device to provide an ash tray wherein it is not necessary to butt the glowing end of a cigarette, cigar or the like when depositing same therein.

An additional object is to provide an ash tray wherein the possibility of the glowing cigarette, cigar or the like burning other cigarettes is eliminated.

A further object is to provide an ash tray that may be installed in the dashboard of an automobile and into which a cigarette or the like may be deposited by the driver of the automobile without the driver taking his eyes off the road to make sure he is butting the cigarette properly in the ash tray.

A still further object is to provide an ash tray having a simple means of actuation that moves the deposited cigarettes to the interior of the tray and at the same time acts to shut off the air supply to the cigarette.

An additional object is to provide an ash tray wherein the lighted cigarettes are kept away from other dead cigarettes within the tray until the lighted cigarettes have been extinguished completely.

Various other advantages of my device will become obvious to those skilled in the art on reading the following specification in the light of the attached drawings. It must be understood that the information disclosed therein is by way of illustration and example only and is not to be construed as a limitation. The invention herein is to be limited only by the terms of the appended claims and by the prior art.

In the drawings illustrating one preferred embodiment of the inventive idea:

Figure 1 is an exploded isometric view of my device broken away in parts to better illustrate the internal construction thereof.

Figure 2 is a side elevational view of my device partly in section and partly broken away to illustrate the construction thereof.

With reference now to the drawings my device comprises the casing 1 which in the preferred embodiment illustrated is of U-shaped construction and is provided with end pieces 2 and 3 which are fitted slidably onto the casing 1 and which may be removed when it is desired to clean out the casing. At its upper end the casing is formed on one side into the cigarette rests 6—6 and the actuating mechanism 7, whose action will be described later in the specification. Between the cigarette rests 6—6 and the opposite side of the casing 5 there is the space 4 through which lighted cigarettes are dropped onto the operating mechanism of the device.

The operating mechanism comprises a plurality of vanes 9 fixed rigidly to the endless belts 10—10 which are in turn adapted to operate slidably around the hollow central cigarette receptacle 11. In the preferred embodiment described and illustrated the receptacle 11 is fixed along one edge to the cover 2 and is free along its edge 13 so that removal of the cover 3 will permit emptying of the material from the container 11.

Movement of the endless belts 10—10 and the vanes around the receptacle 11 is accomplished by means of the springy actuator 7 which is provided with the vane engaging lip 15. The actuator 7 is fixed at its forward end between the cigarette rests 6—6 and is adapted to be depressed at its rearward edge, preferably by the forefinger of the user, within the limits of the depression 8 in the wall of the casing 1. Obviously, depression of the rearward edge of the actuator 7 will move the vane engaging lip downwardly to force it below one of the vanes 9 and, when the forefinger of the user is removed from the actuator the actuator will spring back into its original position and at the same time will move the vanes 9 and the endless belts 10 around the receptacle 11. Obviously, successive depressions and releases of the actuator 7 will cause the vanes 9 and endless belts 10—10 to move completely around the receptacle 11, and, if there are any cigarette butts or the like in the vanes 9, these will be carried around until the opening 14 is reached at which time they will fall through the opening into the receptacle 11. In the embodiment illustrated in the drawings there is illustrated a quantity of cigarette butts designated by the numeral 16 in the bottom of the receptacle 11 and cigarettes 17 falling through the opening 14 into the receptacle. Further cigarettes designated by the numeral 18 are shown positioned in the vanes 9 and a cigarette designated by the numeral 21 is shown falling through the space 4. The direction of movement of the vanes 9 around the receptacle 11 is indicated by the arrows 19.

To ensure the positive removal of any cigarettes from the vanes 9 through the opening 14 into the receptacle 11 there is provided the automatic ejector 20. This ejector 20 will be seen in Figure 2 in the drawings, forcing one of the cigarettes 17 through the opening 14 into the receptacle 11. Obviously as the vanes 9 rotate about the receptacle 11 they will force the ejector 20 backwardly until the vane has passed. At that time the ejector 20 will spring forwardly and will force any cigarette butts adhered to the vane 9, through the opening 14 into the receptacle 11.

It will now be obvious to those skilled in the art that I have provided an ash tray that may be used to dispose of lighted cigarettes and the like with complete safety and with the utmost convenience. It is not necessary for the user to butt out his lighted cigarette since the dropping of the cigarette on to the metal vanes will ensure that it is extinguished very quickly. The metal construction of the vanes and the holder permits the rapid absorption of heat from the lighted cigarette and ensures it being extinguished quickly. The obvious advantage of this device will be seen when used in an automotive vehicle since it will now be unnecessary for the driver of the vehicle to remove his eyes from the road when he wishes to dispose of his cigarette. In addition, it will be seen that the cigarette will be carried completely around the receptacle 11 before it is deposited therein and this will always ensure that there is no lighted cigarette within the receptacle 11.

While in the preferred embodiment described and illustrated I have shown an upright model such as would be

used in an automotive vehicle, it will be obvious that the device could be modified into a table top or office desk model without departing from the inventive spirit herein. Obviously various modifications will be made to the construction as it is adapted for various uses and it is intended that the inventive scope herein embrace such modifications.

What I claim as my invention is:

1. In an ash tray, a casing open at one end, a receptacle within the casing, an opening in the receptacle leading to the interior thereof, a conveyor within the casing encircling the receptacle and adapted to receive material deposited in the open end of the casing, means for selectively moving the conveyor around the receptacle to deposit material on the conveyor into the opening in the receptacle.

2. An ash tray as claimed in claim 1 wherein the casing is provided with a movable panel to permit the emptying of material from the receptacle.

3. An ash tray as claimed in claim 1 wherein the means for selectively moving the conveyor comprises an actuator arranged to be manipulated manually to engage with the conveyor and automatically move the conveyor around the receptacle.

4. An ash tray as claimed in claim 3 wherein the casing is provided with a removable panel to permit the emptying of material from the receptacle.

5. An ash tray as claimed in claim 1 wherein the conveyor comprises endless belts operating slideably around the receptacle and a plurality of vanes fixed in spaced relationship to the endless belts.

6. An ash tray as claimed in claim 5 wherein the casing is provided with a removable panel to permit the emptying of material from the receptacle.

7. An ash tray as claimed in claim 5 wherein the means for selectively moving the conveyor comprises an actuator arranged to be manipulated manually to engage with the conveyor and automatically move the conveyor around the receptacle.

8. An ash tray as claimed in claim 7 wherein the casing is provided with a removable panel to allow the emptying of material from the receptacle.

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