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ASH TRAYS

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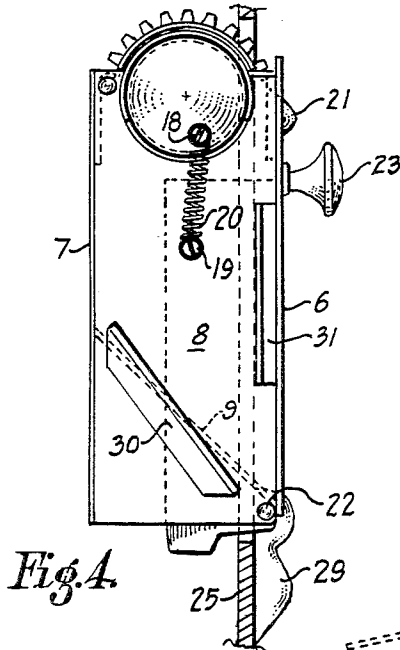


Fig. 4

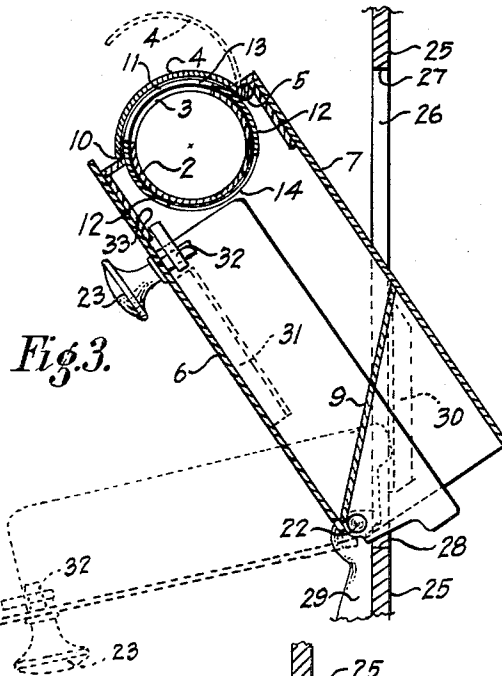


Fig. 3

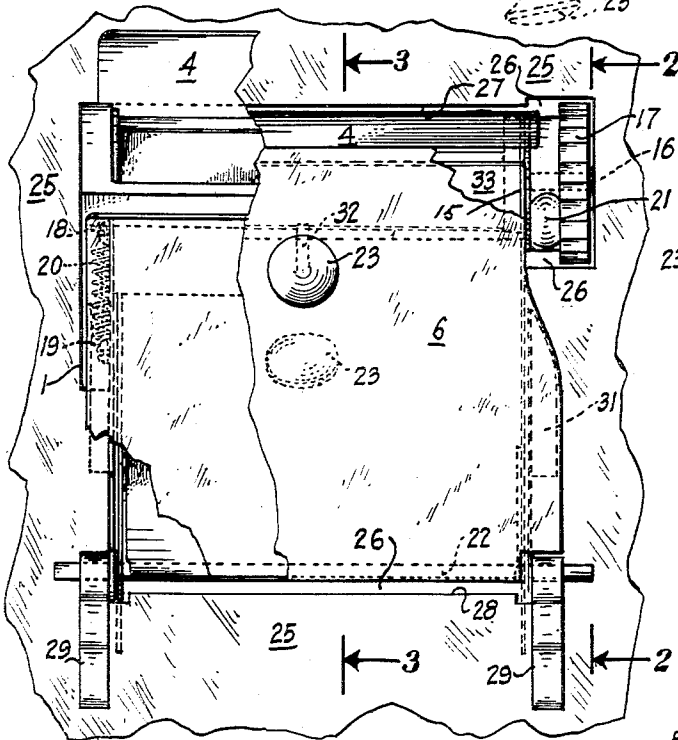


Fig. 1

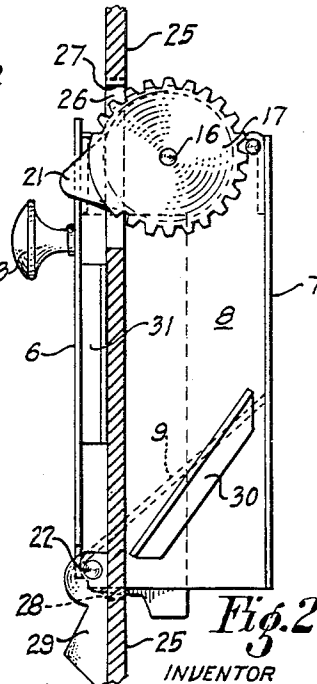


Fig. 2

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ASH TRAYS

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The present invention relates to improvements in an ash tray, and its principal object is to incorporate a cigarette extinguishing feature into an ash tray in such a manner that each individual cigarette or cigar is subjected to an extinguishing process before it is dumped into a general reservoir.

It is further proposed to provide an ash tray of the character described that is relatively simple in construction, attractive in appearance, usable as an individual unit and readily incorporated in an existing structure, such as the dashboard of a motor vehicle.

It is further proposed to provide an ash tray of the character described that consists principally of a receiving cabinet or container and a super-imposed drum which latter is revolvable and formed with an opening adapted to admit a cigarette to the drum when presented upwardly and to discharge the cigarette into the container when presented downwardly.

It is also contemplated to provide a lid for opening in the drum which bars entry of air into the drum when closed and thus helps to extinguish a burning cigarette deposited therein.

And finally, it is proposed to provide operating means for the movable parts whereby the simple turning of a handle opens the lid and turns the drum from a loading position through a dumping position and back to a loading position, so that each user in the natural sequence of operations first dumps a previously deposited cigarette before he deposits a new one, the intervals of time being usable to extinguish each cigarette deposited in the drum.

The preferred form of my invention is illustrated in the accompanying drawing, forming part of this application, in which:

Figure 1 shows a front view of my ash tray as applied to the dashboard of a motor vehicle, parts being broken away to disclose the interior;

Figure 2, an end view taken from the right-hand side of Figure 1 as seen from line 2—2 of Figure 1.

Figure 3, a vertical section taken along line 3—3 of Figure 1, with my ash tray swung into forward position; and

Figure 4, a side view taken from the left-hand side of the ash tray shown in Figure 1.

While I have shown only the preferred form of my invention, it should be understood that various changes or modifications may be made within the scope of the claims hereto attached, without departing from the spirit of the invention.

Referring to the drawing in detail, my improved ash tray comprises in its principal features, a rectangular container 1, a drum 2 revolvably mounted in the upper portion of the container and formed with a relatively wide peripheral opening 3, and a lid 4 for the opening pivoted to the container, as at 5.

The container is generally rectangular in form, with a substantially square front wall 6, a similar rear wall 7, elongated side walls 8, an inclined bottom 9 and an open top 10. The side walls terminate at their upper ends,

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in segmental annular bearing flanges 11, and the flanges are connected by a pair of fixed segments 12 giving bearing support to the body of the drum.

As seen in Fig. 3, the drum 2 is positioned within the flanges 11 and the segments 12 and is concentric therewith.

The two segments 12 are arranged along the sides of the drum and leave top and bottom openings 13—14 corresponding in size to the drum opening 3, so that when the drum opening is presented upwardly, it registers with the opening 13, and when presented downwardly, it registers with the opening 14.

The drum is closed at both ends, and at one end bears against a side wall extension 15 and has a central pin 16 revolvable in the extension, the pin terminating in a handle 17 which, in the present instance, is shown as formed with gear teeth for convenience in handling.

At the opposite end (left in Figure 1), the closed end of the drum is exposed and has a pin 18 projecting therefrom at a point below its center and slightly forwardly of its central vertical plane, when the drum is presented with its opening positioned upwardly.

A second pin or screw 19 is secured upon the corresponding side wall of the container, in the central vertical plane of the drum, as shown in Figure 4, and a coiled spring 20 connects the two pins.

The spring 20 is tensioned to allow the pin 18 to follow its rotary course when the drum is turned manually, by means of the handle 17, through substantially half a turn, and to then snap the drum onward to its initial position.

The lid 4 is pivoted to the upper end of the rear wall of the container, as at 5, and is concentric with the drum, so as to completely cover the drum opening, when in its closed position.

The lid may be operated manually between opening and closing positions, but is also operated by the handle 17 for opening when the handle is turned through the first half of its rotary movement. This is accomplished by means of a tongue 21 projecting from the handle and bearing against the underface of the lid.

The front wall of the container is hinged at the bottom on a rod 22, and may be operated by a knob 23 to give access to the interior of the container for removal of the accumulated cigarettes.

My ash tray is designed for mounting in an existing structure, such as the dashboard of an automobile, the dashboard being indicated at 25, and being formed with a hole 26 dimensioned to receive the ash tray therein. The hole is defined in part by an upper edge 27 and a lower edge 28.

The rod 22 previously referred to as supporting the front wall of the container, is mounted in two brackets 29 projecting forwardly from the dashboard immediately below the bottom edge 28, and the lower front edges of the side walls of the container are pivoted on the rod in such a manner that the entire ash tray may be swung into the dashboard to occupy a substantially vertical position, with the major portion hidden behind the dashboard and the front wall projecting only slightly forwardly of the dashboard, as shown in Figure 2.

The ash tray may also be pulled forwardly in a swinging movement, by use of the knob 23, into the inclined position indicated in Figure 3, the forward movement being limited by a pair of stops 30 projecting sidewise from the container and striking the back of the dashboard when the proper position is reached.

In the above position, the upper portion of the ash tray is positioned forwardly of the dashboard to give access to the working parts. It will be noted that when the ash tray is pushed back into the hole, the lid 4, if

open at that time, will be closed automatically by the upper edge defining the hole.

In operation, assuming that the drum contains a cigarette previously deposited, and the user desires to dispose of a burning cigarette, he pulls forward on the knob 23, thereby moving the ash tray from the concealed position of Figure 2 to the inclined forward position of Figure 3. Next he turns the handle 17 through substantially one-half of a revolution.

This has the following effects:

(1) The tongue 21 attached to the handle opens the lid 4 and swings it out of the way;

(2) The handle turns the drum to present the drum opening downwardly and to allow the previously deposited cigarette to drop into the container;

(3) The turning movement of the drum moves the pin 18 at the opposite end of the drum to an upper position just past dead center and tensions the spring 20; and

(4) The spring snaps across bottom dead center to its original position, as in Figure 4, and rotates the drum through the second half of the revolution, to present the opening of the now empty drum upwardly.

This entire operation is so quick that it is barely visible to the eye, and results in the opening of the lid, the discharge of the previously deposited cigarette, and the positing of the drum for admission of the new burning cigarette.

Upon depositing the new cigarette, the operator merely pushes the ash tray back into the dash board, and this backward push automatically closes the lid by impact with the upper edge of the dashboard hole. The closing of the lid bars access of air to the drum and causes the burning cigarette to extinguish itself in a few seconds.

It should be noted that the side walls of the container carry stops 31 limiting the rearward swing of the container to a position parallel with the dashboard.

The knob 23 is revolvable in the front door and carries a catch 32 adapted for engagement behind an overhang 33 for locking the door to the container.

For removing accumulated cigarettes, the operator merely turns the knob 23 to free the door for opening.

I claim:

1. In combination, a vertical board having a substantially rectangular opening therein, a rectangular container pivotally mounted in said opening with freedom of limited outward swinging movement on its lower front edge, a cylindrical drum rotatably mounted in the upper end of the container and having an opening in its face for the reception and dumping of a cigarette, an operating member for the drum for turning the same, an arcuate lid for the drum opening hinged to the rear edge of the container and having an extension projecting beyond one end of the drum, the operating member for the drum having means cooperating with the lid extension for opening the lid when the drum is turned with the container to a tilted position, and the board having an upper edge defining the opening and located to bear on the lid for closing the same when the container is swung back into the board.

2. The combination as defined in claim 1 in which the drum and the container have cooperative spring means normally holding the drum with the opening presented upwardly and operative to automatically snap the drum into said position upon manual initiation of a turning movement.

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