ANIMATED ASH TRAY

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4 Claims. (Cl. 131—535)

The present invention relates to improvements in animated ash trays and particularly to improved constructions and mechanisms for ash trays for the purpose of creating novel effects and increasing the safety of use of ash trays.

As is well known, one of the difficulties in the use of conventional ash trays having rimmed bowls on which cigarettes may be mounted is that, as a cigarette continues to burn after being placed on the ash tray, its center of gravity changes and it may topple off the ash tray outside the bowl and thereby damage the table or desk supporting the ash tray and raise the hazard of possible fire.

According to the present invention these hazards and disadvantages are prevented and a novel effect is achieved by a mechanism which responds to the heat of the burning of the cigarette beyond a predetermined point to initiate an action for extinguishing the cigarette. In a preferred form this action consists in producing a fine jet or spray of water directed at the burning tip of the cigarette which thereby extinguishes it.

Other objects and advantages of the present invention will become apparent from consideration of the following description of a preferred embodiment thereof taken in conjunction with the appended drawings, in which,

Figure 1 is an elevational view of the present invention partly in cross-section and showing a cigarette in place;

Figure 2 is a fragmentary plan view of the cigarette-supporting portion of the present invention;

Figure 3 is a bottom view showing the underside of the ash tray and the mechanism concealed in the base thereof;

Figure 4 shows a fragmentary perspective view of the heat-responsive release mechanism of the present invention; and

Figure 5 is a fragmentary perspective view of one end of the operating lever of the present mechanism.

Referring to the drawing, the present invention comprises an ash tray or bowl 11 having annular rim 12 and a depressed central bowl or tray portion 13 of conventional form. At one position around the periphery of the rim 12 is a cigarette-receiving groove or trough 14, diametrically opposite to which is a cylindrical pedestal 15. Secured to the rim 12 at the base of the trough 14 is a bi-metallic element 17 having a flat portion 18 secured to the trough 14 in any suitable manner, as by rivets or by crimping or the like. The bi-metallic element 17 also has an inverted double U or bow portion 21 followed by an actuating portion 22. As shown in Figure 4, the actuating portion 22 is provided with partial right-angle flanges 24 to increase the rigidity thereof, and it passes through a slot 25 in trough 14 to the hollow underside of bowl 11.

The end 23 of the operating portion 22 of the bi-metallic element 17 is engaged in a notch 26 of a latch lever 27 which is pivotally mounted at 28 on the underside of the bowl 11. The latch lever 27 is formed with a latching notch 25 which engages the end 23 of an operating lever 32 which is also pivotally mounted at 33 on the underside of the bowl 11. The operating lever 32 is formed as a channel with a U cross-section providing flanges 34 for added stiffness, as indicated in Figure 5, and has an enlarged actuator 35 at the end opposite the end 31. Operating lever 32 is normally urged in a counterclockwise sense as seen in Fig. 5 by a suitable spring 37. In the illustration shown this may be a scissors-type torsion spring 37 or it may be a suitable compression or tension spring to produce the same rotation or torsional bias.

Mounted on the pedestal 15 of the bowl 11 is a suitable figure 36, which in the illustrative embodiment is an elephant having its trunk 38 directed at the cigarette 41 lying in the trough 14. While the figure 36 is illustrated as being in this instance in the form of an elephant, it will be obvious that any other object or figure may be utilized suitable for appropriately producing a directed jet of fluid.

The figure 36 is formed with an inner tube or bore 43 extending through the trunk 38 and connected to a resilient rubber or plastic bulb 44. This bulb 44 is backed by an arcuate support 45 on the side opposite the actuator 35.

Assuming that the bulb 44 is filled with water and that the operating lever 32 has its latch end 31 engaging the notch 26 of the latch lever 27, the apparatus is now ready for use. Should a cigarette 41 be laid in the trough 14 and burn back until its hot tip is adjacent to the double fold 21 of the bi-metallic element 17, this element 17 will respond by moving the operating portion 22 of the bi-metallic element 17 to the left, as seen in Figures 1 and 2. This will pivot the lever 27 about pivot 23 and will release the operating lever 32 from the notch 23. The spring 37 will then rotate the lever 32 about the pivot 33 so that the actuator 35 at the end of lever 32 will compress the bulb 44 against the support
46. This applies pressure on the bulb 44 and produces a fine jet of water passing through tube 43 and trunk 39 and directed along the line 51 preferably aimed at the center of the trough 14. As the charge of water is expended, the stream will fall to the position 52 thereby traversing the burning end portion of the cigarette and extinguishing it before the cigarette has a chance to fall outwardly off the ash tray.

To reset the mechanism for a subsequent operation, the trunk 39 or other jet outlet is immersed in water and a reset button 53 on the outside of the tray bowl 11 is depressed. This button 53 is secured to the end of a push rod 54 whose inner end 55 is suitably secured to the operating lever 32, preferably loosely or pivotally. For example, a reduced end of the push rod 54 may be inserted through an aperture in the lever 32 and the end peened over or enlarged in any suitable manner. If desirable, rod 54 and button 53 may be of plastic material conveniently secured to the operating lever 32. The rod 54 passes through a suitable bore 57 in the wall of the tray bowl 11. Upon depressing reset button 53, lever 32 is rotated until its end 31 is latched into notch 20. Thus actuator 35 is moved away from bulb 44, which resiliently expands and sucks a charge of water or other fluid into the tube 42 and bulb 44, ready for the next actuation.

It will be understood that the bi-metallic element 17 may be secured to the bowl 11 in the trough 14 in any desired manner. For example, this may be done by riveting, by pressed fit, or through any other end or means as illustrated in Fig. 1 may be bent downwardly through a slot in the upper surface of the rim 12 and may be bent over to retain the element in place. If desired, element 17 may be placed on the rim 12, and trough 14 may be omitted.

It will also be understood that the various operating elements may have different configurations than as shown; for example, the operating lever 32 need not be a channel-shaped member so long as suitable stiffness is obtained, but may be of any shape. The bulb actuator 36 is preferably formed integral with the operating lever 32, although this also is not an essential feature. It is preferably of extended dimension so as to compress a major portion of the bulb 44 in one stroke. Also, the flanges 24 on the bi-metallic element 17 need not be used if sufficient rigidity is otherwise available.

While a bulb 44 and tube 43 are shown in this instance as being an especially convenient and inexpensive construction, it will be understood that in place thereof other suitable arrangements can be used to produce a jet of water upon each operating stroke of lever 32, so that many operations may be effected with one filling. Mechanism of this sort is well known and need not be defined in detail here.

Accordingly, it will be seen that there has been provided a novel and improved animated ash tray apparatus, which offers not only improved safety by avoiding the possibility of lighted cigarettes falling to the outside of the ash tray upon burning back, but also provides novelty and amusement by virtue of the use of an automatically actuated water extinguishing jet. It will be understood that the above description is intended to be illustrative of the use of an automatically actuated water extinguishing jet. It will be understood that the above description is intended to be illustrative of the use of an automatically actuated water extinguishing jet. It will be understood that the above description is intended to be illustrative of the use of an automatically actuated water extinguishing jet. It will be understood that the above description is intended to be illustrative of the use of an automatically actuated water extinguishing jet. It will be understood that the above description is intended to be illustrative of the use of an automatically actuated water extinguishing jet. It will be understood that the above description is intended to be illustrative of the use of an automatically actuated water extinguishing jet.

What is claimed is:

1. An animated ash tray comprising an ash-receiving bowl having a rim, a cigarette-receiving trough formed in said rim, a bi-metallic element having a portion positioned in said trough having a double bow and adapted upon juxtaposition of the lighted end of a cigarette to said double bow to be displaced thereby, a lever pivotally mounted on the underside of said bowl and operatively coupled to said bi-metallic element to be displaced thereby, an operating lever also pivotally mounted on the underside of said bowl and having one end normally latched to said lever and releasable therefrom upon movement of said said lever, spring means normally urging said operating lever away from said said lever, a receptacle for fire-extinguishing fluid formed by a resilient bulb, and a figure mounted on said bowl rim and having a fluid-conducting tube therewithin coupled at one end to said bulb and with its other end directed toward said trough for ejecting fluid from said receptacle through said tube toward said trough to extinguish a lighted cigarette lying therein.

2. An animated ash tray comprising an ash-receiving bowl having a rim, a cigarette-receiving trough formed in said rim, a bi-metallic element having a portion positioned in said trough and adapted upon juxtaposition of the lighted end of a cigarette to said double bow to be displaced thereby, a lever pivotally mounted on the underside of said bowl and pivotally coupled to said bi-metallic element to be displaced thereby, an operating lever also pivotally mounted on the underside of said bowl and having one end normally latched to said lever and releasable therefrom upon movement of said said lever, spring means normally urging said operating lever away from said said lever, a receptacle for fire-extinguishing fluid formed by a resilient bulb, and a figure mounted on said bowl rim and having a fluid-conducting tube therewithin coupled at one end to said bulb and with its other end directed toward said trough for ejecting fluid from said receptacle through said tube toward said trough to extinguish a lighted cigarette lying therein.
4. An animated ash tray comprising an ash-receiving bowl, a temperature-sensitive element positioned on said bowl, a fluid-conducting tube mounted on said bowl and having one end directed toward said element, a source of fluid coupled to said tube at the other end thereof, and means responsive to heating of said temperature-sensitive element for causing said fluid to be ejected from said first end of said tube toward said element.

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