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SMOKER'S ASH TRAY

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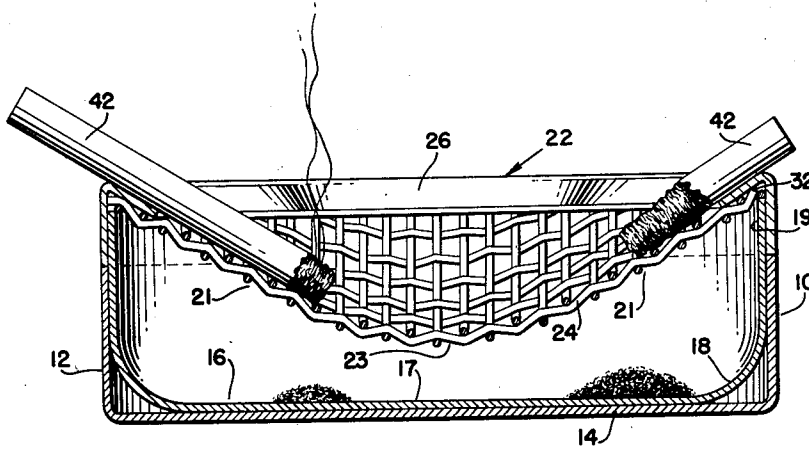


FIG. 1

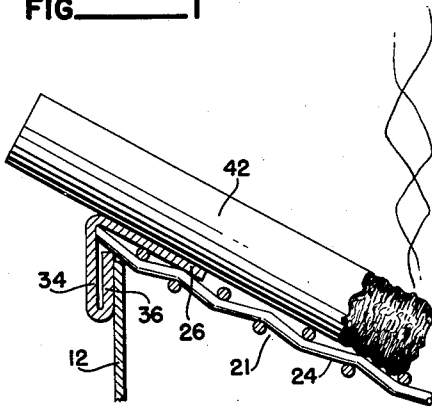


FIG. 2

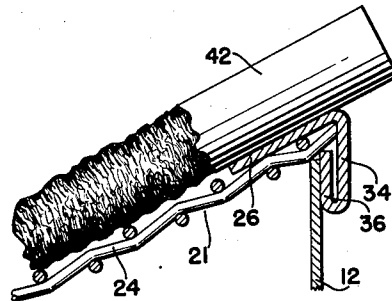


FIG. 3

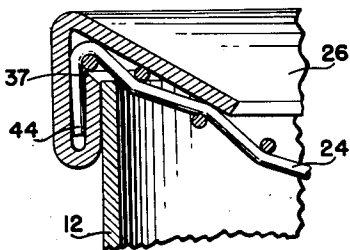


FIG. 4

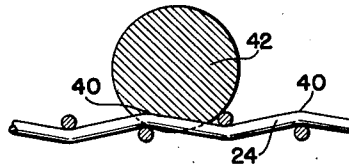


FIG. 5

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SMOKER'S ASH TRAY

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2 Claims. (Cl. 131-240)

This present invention relates to the general art of ash trays intended for the use of tobacco smokers. This ash tray is characterized by having a cylindrical base portion and by having resting upon and encircling the upper margin of the same, a bezel ring which is provided with a coarse mesh wire screen. The bezel has an interiorly directed and downwardly sloping annular surface arranged to support a portion of a cigarette. The screen which fills the interior open portion of the bezel is downwardly dished to provide a conical outer portion and terminates near the center of the wire screen in a spherical segmental central portion.

The wide prevalence of cigarette smoking has produced a demand for ash trays to serve as a temporary depository for a lighted cigarette, to provide means for the disposal of the cigarette, and to provide a depository for ashes. In the past a wide variety of ash trays has been offered to the public and each of these had its own special virtue as a rule. A large number of ash trays are provided which in effect are shallow saucers. Such ash trays may be a distinct fire hazard when a person lays a cigarette down in one of them and leaves it for an extended period because as the cigarette burns it loses weight at the lighted end so it may become unbalanced and tip off onto the supporting surface. Such ash trays are further subject to drafts and the ashes, which it is desired to confine, too often are merely deposited and then may be blown out of the shallow tray. On the other extreme, we have the mechanical type of ash trays where a cigarette is placed upon a segmental bowl which may be tipped to dispose of the ashes or the cigarette completely. This kind of ash tray provides an excellent disposal. However they are complicated in their structure, difficult to keep clean, and normally are expensive. Intermediate these two extremes is the large rather deep bowl-like ash tray. These provide an adequate depository for both ashes and cigarettes. They are however very unsightly and for this reason are not desirable for use in homes or offices, particularly among fastidious people. In this present ash tray, an earnest attempt has been made to solve many of the requirements such as convenience of parking a cigarette temporarily, of disposing of the ash, and of disposing of the cigarette itself, and finally, to insure a safe depository for cigarettes which may be laid aside momentarily, and then possibly be forgotten.

The principal object of this present invention therefore is to provide an ash tray particularly suitable for cigarettes which holds a cigarette for a reasonable period while still burning, and then if not recovered by its owner, will extinguish the cigarette.

A further object of this invention is to provide an ash tray with a dished screen surface wherein the ash will be directed downwardly through the screen into a suitable base portion where it will be retained, at the same time the cigarette will be retained on the upper surface of the screen until it is removed.

A further object of this present invention is to provide

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an ash tray with a pervious upper resting surface so arranged that a cigarette may be dropped on this surface at any point around the periphery and will come to a resting point in a radial position.

Further objects, advantages and capabilities will be apparent from the description and disclosure in the drawings, or may be comprehended or are inherent in the device.

In the drawings:

Figure 1 is a vertical sectional view through an ash tray made after the teachings of this present invention;

Figure 2 is an enlarged fragmentary vertical sectional view taken through the periphery of the upper margin of the ash tray and illustrating the manner in which the cigarette contacts the bezel and the screen and also showing a modification of the manner in which the bezel ring is mounted on the base;

Figure 3 is a view similar to Figure 2 but illustrating the approximate location at which the cigarette is extinguished;

Figure 4 is a fragmentary vertical sectional view of an alternate manner of securing the tray screen in place; and

Figure 5 is a fragmentary cross sectional view showing a cigarette supported on a portion of the screen.

Referring more particularly to the disclosure in the drawings, the numeral 10 designates generally the base portion of this ash tray preferably formed with a cylindrical wall portion 12 and a flat base or floor portion 14. Base 10 may be made of any suitable material, i. e., metal, the non-inflammable plastics, and glass or ceramics. The ash tray also includes a lightweight metal liner 16, having a flat bottom 17 resting on the bottom 14 of the base, the liner including an annular rounded portion 18 for easy cleaning and a vertical cylindrical wall 19 which is in snug engagement with the inner surface of the wall 12. Referring to Figure 1, it will be noted that the upper portions of wall 19 extend up above the upper edge of wall 12 of the base 10 so as to provide a centering means for the side wall of bezel 22.

As shown in Figure 1, the inner surface of the depending cylindrical wall of the ring is in frictional engagement with the outer surface of the liner wall 19 at the upper portion thereof. Downward movement of the ring is limited by the engagement of the meeting edges of the wall of the ring and the wall 12 of the base 10 and the engagement of the upper edge of the liner wall 19 with the lower surface of the outer peripheral portion of the screen 24.

It will be noted in Figure 1 that the screen 24 which is fixedly secured to the bezel assembly has a wide annular conical outer portion 21 which extends inwardly toward the center of the screen at which point a substantial spherical segmental central portion 23 is employed so as to give a rather broad upwardly concave base as is desirable when tapping out the ashes from a pipe, or to snuff out a cigar for instance.

A study of Figures 2 and 3 will assist in an understanding of the need for having the intermediate portion 21 of the screen in the form of a segment of a cone. It is to be noted that screen 24 underlies the sloping, conical, annular wall 26 of bezel 22 so that a cigarette which lies tangent to the solid metal of the solid metal of the bezel ring will rest rather lightly on the screen due to the fact that the screen does not present a flat surface. By the very nature of the rather heavy wire employed, cigarettes will normally bear on the screen.

On an assumed bowl having a diameter of five inches, the sloping annular wall 26 of bezel 22 should be at least one-half inch wide and the wire forming the screen correspond to a Brown & Sharp wire gauge size of 20 to 24. If a screen is made of such a gauge wire, on a mesh size of three-sixteenths of an inch, the screen will

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in effect present a re-occurring series of bent peaks which will be disposed in rows disposed at right angles to each other. With this arrangement the cigarette is held up off the major surface of the body of the screen. Consequently there is very little heat transfer from the burning or coal end of the cigarette to the wire screen. It therefore follows that an individual can lay his cigarette on the screen surface and it will continue to burn with adequate progress so that there will be no stale tobacco odor emitted.

In Figure 1 there is shown a wire screen secured at 32 on the tray. In Figure 1 the screen is soldered or preferably brazed to bezel 22. In the form shown in Figures 2 and 3 the bezel extends upwardly in the sloping conical wall 26, then downwardly, and finally is bent back on itself to provide the outer side wall 34 and the screen locking short wall 36. It is to be noted that when the edge portion of the screen is pressed in to the space between bezel ring 26 and upstanding locking portion 36, it will tend to move the upwardly directed edge of locking wall portion 36 outwardly against portion 34 and, when the pressure is released, the natural resiliency of the metal and its further tendency to avoid being forced out of its cylindrical shape, provides a very effective gripping action in conjunction with the sloping annular wall surface 26. Throughout the drawings, the sheet metal thickness is somewhat exaggerated. The gripping action of locking wall 36 is further accentuated by having the upper edge of locking wall 36 as illustrated at 37 in Fig. 4, provided with an acute angled margin so that a relatively sharp edge is provided on the upper end of the locking wall portion 36 forming a substantial angle with the slope of sloping annular wall 26 of the bezel.

In Figures 2, 3 and 5 it will be noted that as the cigarette is laid on the screen with one end resting upon the conical annular top wall 26, because of the peaks 40 provided by the mesh, the end of the cigarette 42 will normally find lodgment against one of the cross wires and will find longitudinal guiding and positioning by the wires which meet the arresting wire at right angles or are parallel to it. This action provides a unique functioning of the ash tray which is particularly noted when a cigarette is just dropped on the surface from a height of two to six inches. As the cigarette lands, it will tend to roll until it reaches that portion of the screen where the wires are substantially radially disposed. This action, which does not occur when a fine-wired surface screen is employed, has the effect of enabling a person to drop his cigarette at any point upon the periphery of the ash tray and it will finally come to rest in a substantially radial position. During the time it is rolling to its final position, the tendency is to work down into the tray rather than to fall off the edge of the tray. When the cigarette burns, the ashes will slump slightly

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according to the showing of Figure 3 tending to hold the cigarette in place and then when the coals reach the margin of the bezel conical wall 26, it will, according to the showing of Figure 3, arrest the burning at the margin of the bezel due to the rapid conduction of heat away from the cigarette. Figure 4 illustrates a variant form of the bezel and screen assembly. In Figure 4 the screen has a turned down marginal rim portion 44.

Having thus disclosed the invention, I claim:

1. An ash tray, comprising: an annular hollow base with an open top and a bezel ring resting on the top of said base, said bezel ring having a conical annular top wall of substantial width inwardly and downwardly directed at a suboctantal angle with the horizontal; and a screen formed of heavy gauge wire woven with a broad mesh and positioned on the under side of said bezel ring and enclosing the space between the inner edges of said annular wall, said screen having a wide outer conical portion broader than said annular wall and inwardly and downwardly directed at a suboctantal angle relative to the horizontal, said bezel ring having side walls downwardly extending and then inwardly and upwardly folding presenting an upwardly directed edge below said annular wall and the edge portions of said screen being spring gripped between said upwardly directed edge and the under surface of said annular wall.

2. An ash tray, comprising: an annular hollow base with an open top and a bezel ring resting on the top of said base, said bezel ring having a conical annular top wall of substantial width inwardly and downwardly directed at a suboctantal angle with the horizontal; and a screen formed of heavy gauge wire woven with a broad mesh and positioned on the under side of said bezel ring and enclosing the space between the inner edges of said annular wall, said screen having a wide outer conical portion broader than said annular wall and inwardly and downwardly directed at a suboctantal angle relative to the horizontal, said bezel ring having side walls downwardly extending and the inwardly and upwardly folding presenting an upwardly directed edge below said annular wall and the edge portions of said screen being spring-gripped between said upwardly directed edge and the under surface of said annular wall and, said upwardly directed edge being sharpened to an acute angle to bite into said screen.

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