

April 22, 1952

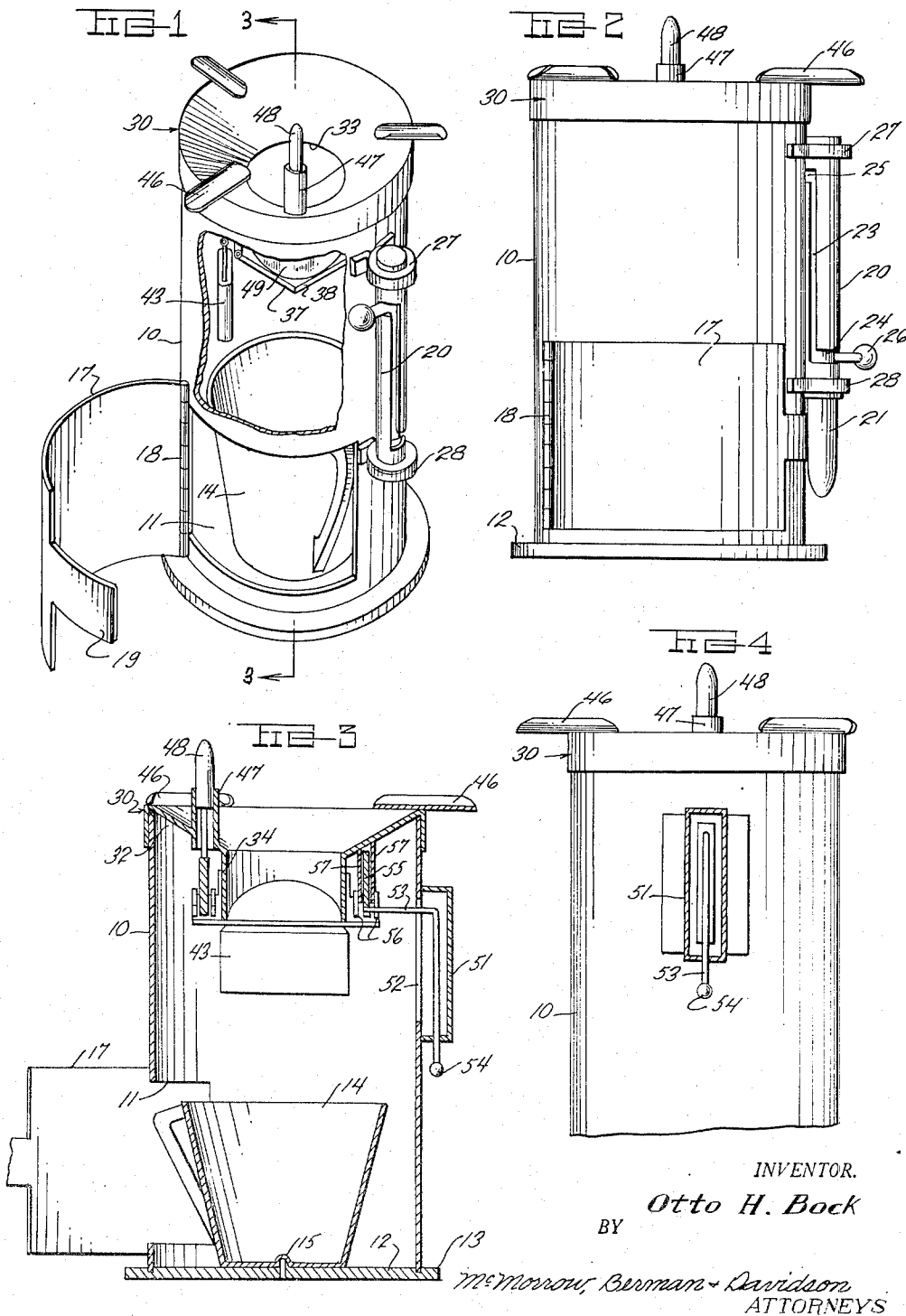
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CLOSED RECEPTACLE FOR CIGARETTE ASH TRAYS

Filed May 10, 1949

2 SHEETS—SHEET 1



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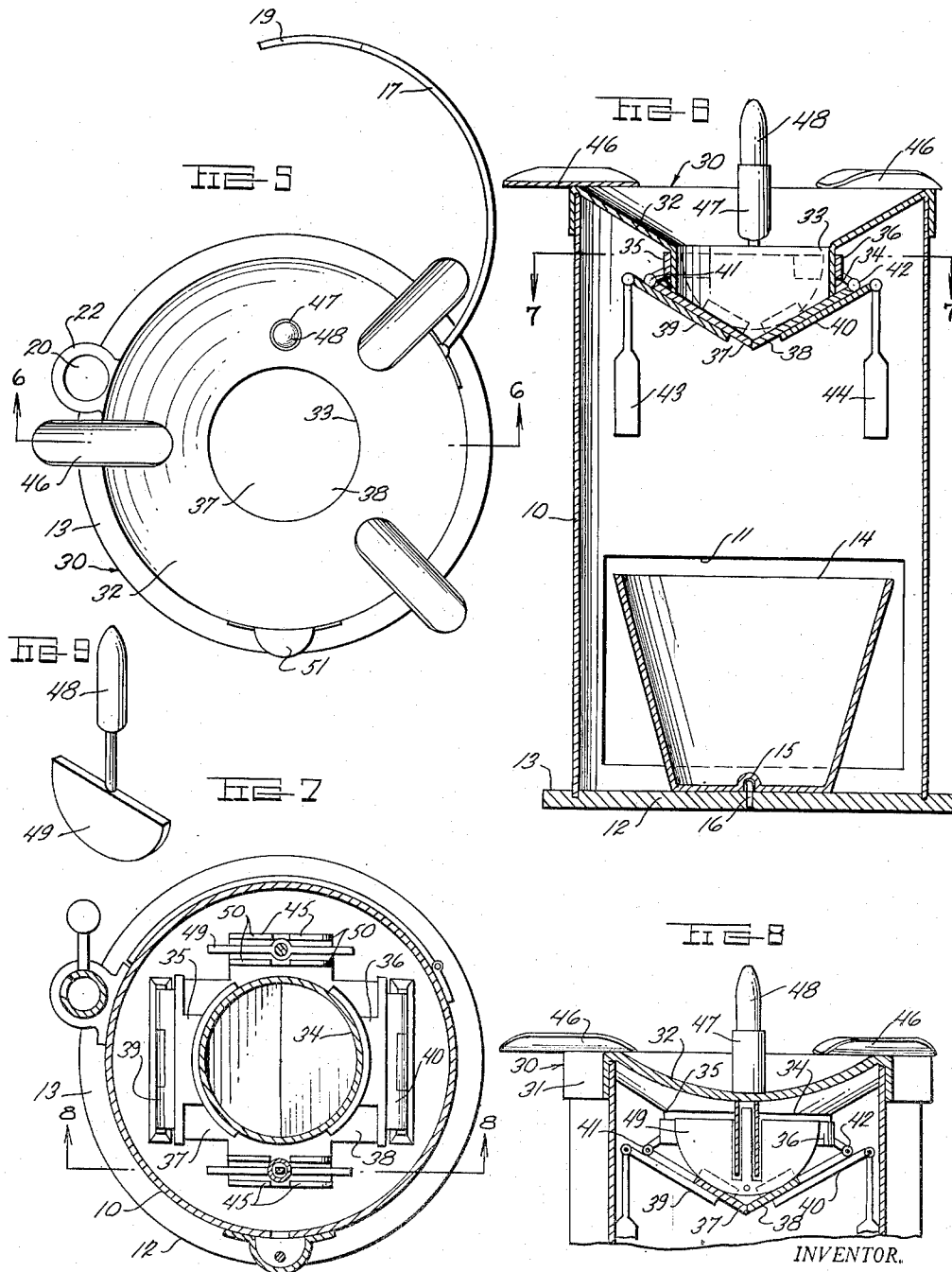
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2 SHEETS—SHEET 2



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CLOSED RECEPTACLE FOR CIGARETTE
ASH TRAYS

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2 Claims. (Cl. 232-43.2)

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This invention relates to ash receivers for cigarette and cigar ashes and similar material, and more particularly to a receiver including an ash tray, the contents of which may be dumped into a receptacle supported below the tray.

It is among the objects of the invention to provide an improved ash receiver having a tray for supporting cigarettes and cigars and receiving ashes therefrom and discarded portions thereof, and in which the tray is supported above a receptacle and provided with a hinged bottom structure so that contents of the tray can be dumped into the receptacle whenever desired, in which the receptacle is completely enclosed so that any fire dumped from the tray into the receptacle will be quickly extinguished, while, at the same time, the receptacle is easily removable from the ash receiver to be emptied or cleaned, in which manually operated means are provided at opposite sides of the receiver for opening the hinged bottom structure of the tray, and this bottom structure is closed and held closed by gravity without the use of springs or catches, and which ash receiver is simple and durable in construction, and neat and attractive in appearance.

Other objects and advantages will become apparent from a consideration of the following description and the appended claims in conjunction with the accompanying drawings, wherein:

Figure 1 is a perspective view of an ash receiver illustrative of the invention, the receptacle door of the ash receiver being shown in open position and a portion of the ash receiver housing being broken away to better illustrate the construction of the receiver;

Figure 2 is a side elevation of the ash receiver illustrated in Figure 1;

Figure 3 is a longitudinal cross section of the ash receiver taken substantially on the line 3-3 of Figure 1;

Figure 4 is a side elevation similar to Figure 2 with the ash receiver rotated approximately 180° from the position illustrated in Figure 2;

Figure 5 is a top plan view of the ash receiver illustrated in Figure 1;

Figure 6 is a longitudinal cross section taken substantially on the line 6-6 of Figure 5;

Figure 7 is a transverse cross section taken on the line 7-7 of Figure 6;

Figure 8 is a longitudinal cross section of a fragmentary upper portion of the ash tray taken on the line 8-8 of Figure 7;

Figure 9 is a perspective view of a manually operated, tray opening plunger constituting an operative component of the ash receiver.

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With continued reference to the drawings, the receiver has a hollow, cylindrical housing 10 provided in one side with a rectangular door opening 11. A flat bottom wall 12 closes the bottom 10 of the housing and extends marginally beyond the housing to provide an annular external flange 13. This bottom wall 12 is preferably thicker than the wall of the housing 10 and serves as a supporting base for the ash receiver. An ash receptacle 14 normally rests upon the bottom wall 12 within the housing 10 and is of a size to pass freely through the door opening 11. In order to maintain this receiver in proper position it may be provided in its bottom wall with a recess 15 which receives a detent 16 projecting upwardly from the bottom wall substantially at the center of the latter. A curved door 17 is hinged at one edge to the housing 10 along one side of the door opening 11 by a hinge connection 18 and is provided on its opposite edge with an outwardly extending tongue 19 which overlies the housing at the opposite side of the door opening. A tubular latch housing 20 is mounted on the outside of the housing at such other side of the door opening and contains a latch bolt 21 which is extendible downwardly from the bottom of the latch housing 20 to overlie the door tongue 19 and hold the door closed, as particularly illustrated in Figure 2.

The latch housing is provided with a longitudinally extending slot 23 having respective lateral offsets 24 and 25 at its opposite ends and a pin 26 projects from the latch bolt 21 through this slot and is retained in the lower lateral extension 24 to maintain the latch bolt in its downward, door locking position and is receivable in the upper lateral extension 25 to maintain the latch bolt in a raised, door releasing position.

The tubular latch housing 20 may be secured to the main housing 10 by any suitable means such as the clips 27 and 28 secured to the main housing and surrounding the latch housing at respectively opposite ends of the latter.

A circular tray, generally indicated at 30, is supported on the upper open end of the main housing 10. This tray has a marginal flange 31 which exteriorly surrounds the housing 10 at the upper end of the latter and within the flange has an annular, inclined or truncated conical wall 32 provided with a large central opening 33. An inner, cylindrical flange 34 surrounds the opening 33 and depends from the wall 32 in the same direction as the flange 31 so that the tray is substantially funnel shaped. The bottom end of the cylindrical inner flange 34, that is the end remote from the wall 32, is oppositely or double be-

veled from a diameter thereof in an upward and outward direction for a purpose which will presently appear.

A pair of ear structures 35 and 36 are secured to the inner flange 34 adjacent the wall 32 and at diametrically opposite sides of the flange and a pair of flaps 37 and 38 are hinged along their corresponding outer edges to these ear structures. The flaps 37 and 38 are metal plates of generally rectangular shape and are hinged at their opposite ends to the ear structures 35 and 36 respectively in position such that they underlie the bottom end of the inner flange 34 of the tray and incline downwardly and inwardly toward each other meeting along the flange diameter at the peak of the beveled bottom end of the flange. Respective plates 39 and 40 are secured to the under sides of the flaps 37 and 38 and project outwardly beyond the hinged connections 41 and 42 by which the flaps are connected to the ear structures 35 and 36. Respective weights 43 and 44 are pivotally connected to the plates 39 and 40 at the edges of these plates extending outwardly of the corresponding hinge connections 41 and 42 so that the weights tend to hold the flaps in their closed position against the bottom end of the cylindrical inner flange 34 of the ash tray, as particularly illustrated in Figure 6. The flaps 37, 38 are provided with extensions 45 projecting outwardly from respectively opposite ends of each flap at the free edges of the flaps for a purpose which will presently appear.

Suitable rests 46 are secured on the tray 30 at the upper edge of the outer, annular flange 31 to support objects such as cigarettes and cigars. Each of these rests may conveniently comprise a cylindrically curved metal plate having tapered ends, such plates being secured on the tray in position to extend substantially radially of the latter.

A tubular guide 47 is secured on the tray 30 adjacent the central opening 33 in the tray wall and projects upwardly from the latter. A manually operated plunger 48 is slidably mounted in the guide 47 and has on its lower end a disc 49 of substantially semi-circular shape, the curved edge of which rests upon two of the flap extensions 45.

When the plunger 48 is manually depressed the two flaps 37 and 38 will be simultaneously forced downward and away from the bottom end of the inner flange 34 of the tray to open the bottom of the tray and permit any contents of the tray, such as ashes and discarded portions of cigarettes and cigars, to fall downwardly into the receptacle 14. This movement of the flaps raises the weights 43 and 44, and as soon as the manual pressure on the plunger 48 is released the weights return the flaps to their tray-closing position. Suitable upstanding ears 50 are provided on the flap extensions 45 and disposed at respectively opposite sides of the disc 49 to hold the disc against rotation about the axis of plunger 48.

An elongated, semi-cylindrical socket 51 is secured on the side of the housing 10 and the housing is provided within this socket with an elongated slot 52. An L-shaped plunger 53 is received in the socket 51 and projects at its lower end through an aperture in the bottom end of the socket. A suitable knob 54 is secured on the lower end of the plunger and the angular leg of the plunger extends through the slot 52 in the housing and engages at its end within the housing a semi-circular disc 55, the curved edge of which rests upon the flap extensions 45 at the

opposite ends of the flaps from the extensions cooperating with the semi-circular disc 49 carried by the plunger 48. Suitable ears 56 are provided on the extensions 45 cooperating with the disc 55 and an elongated guide 57 is secured at its upper end to the under side of the wall 32 of the tray and slidably receives the disc 55 so that the disc is properly guided for up and down movement occasioned by manual operation of the plunger 53.

When the plunger 53 is pulled downwardly by the knob 54 the disc 55 bears upon the corresponding extensions 45 to move the flaps 37 and 38 away from the bottom end of the flange 34 and open the bottom of the ash tray in the same manner as is occasioned upon movement of the disc 49 by the plunger 48. The bottom structure of the tray can thus be opened by manual operation from either of two opposite sides of the ash receiver and from the top of the receiver and from a position below the top. The flaps will always be restored to their tray closing position by the weights 43 and 44 and no springs or catches are required to close the flaps and retain them in closed position.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description and all changes which come within the meaning and range of equivalency of the claims are, therefore, intended to be embraced therein.

What is claimed as new is:

1. An ash receiver comprising a hollow, cylindrical housing, an ash tray supported on the upper end of said housing and having a substantially central opening therein, means carried by said tray closing said opening, manually operated means carried by said tray and engaging said means to move the latter away from said opening for dumping said tray, said ash tray comprising an outer annular flange of a size to surround said housing, a downwardly and inwardly inclined wall between said flange and said opening, and an inner cylindrical flange depending from said wall surrounding said opening, said inner flange having its end remote from said wall double beveled from a diameter of such inner flange outwardly and toward said wall, said means closing said opening comprising a pair of substantially rectangular flaps underlying the beveled end of said inner flange with their inner edges abutting along said flange diameter and hinged at their outer edges to said flange, and weights connected to said flaps outwardly of the hinge connections between said flaps and said inner flange.

2. An ash receiver comprising a hollow, cylindrical housing, an ash tray supported on the upper end of said housing and having a substantially central opening therein, means carried by said tray closing said opening, manually operated means carried by said tray and engaging said means to move the latter away from said opening for dumping said tray, said ash tray comprising an outer annular flange of a size to surround said housing, a downwardly and inwardly inclined wall between said flange and said opening, and an inner cylindrical flange depending from said wall surrounding said opening, said inner flange having its end remote from said wall double beveled from a diameter of such inner

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flange outwardly and toward said wall, said means closing said opening comprising a pair of substantially rectangular flaps underlying the beveled end of said inner flange with their inner edges abutting along said flange diameter and 5 hinged at their outer edges to said flange, and weights connected to said flaps outwardly of the hinge connections between said flaps and said inner flange, said manually operated means comprising a substantially semi-circular disc bearing 10 at its curved edge on said flaps at corresponding ends of the latter, a plunger connected to said disc and extending through said tray wall,

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and a tubular guide carried by said wall and slidably receiving said plunger.

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