Dec. 23, 1958 G. W. FERNANDEZ 2,865,379

ASH RECEIVER

Original Filed Feb. 17, 1956 2 Sheets-Sheet 1

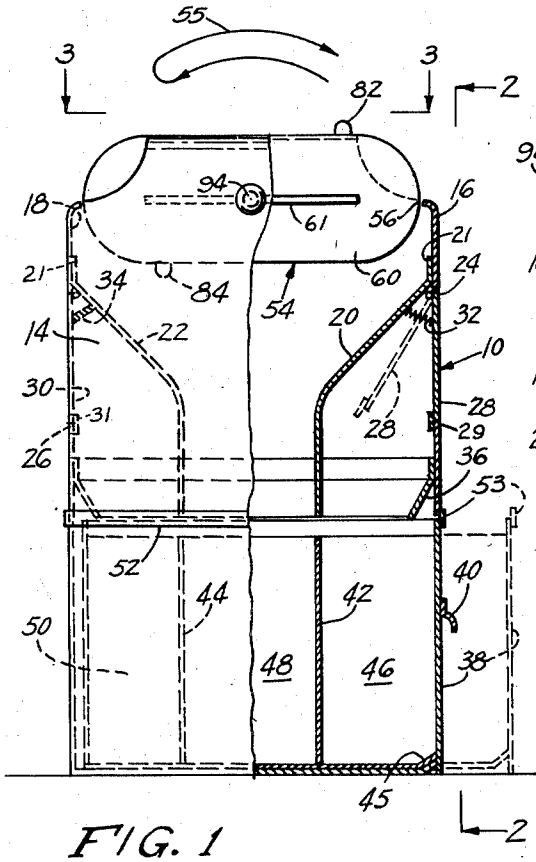


FIG. 1

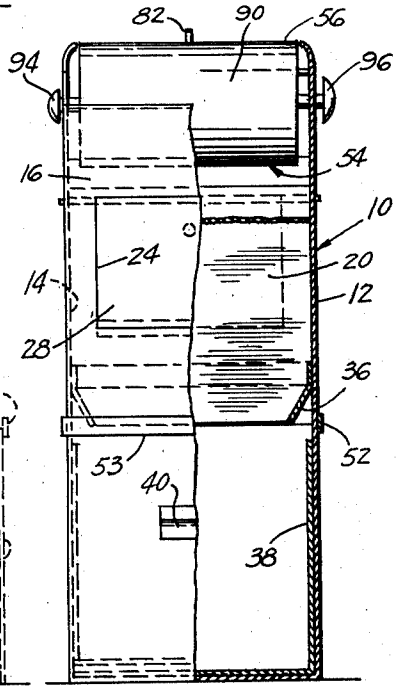


FIG. 2

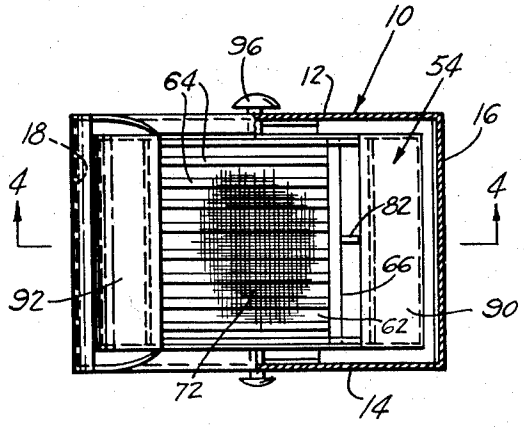


FIG. 3

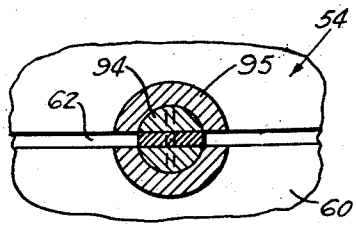


FIG. 8

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ASH RECEIVER

Original Filed Feb. 17, 1956 2 Sheets-Sheet 2

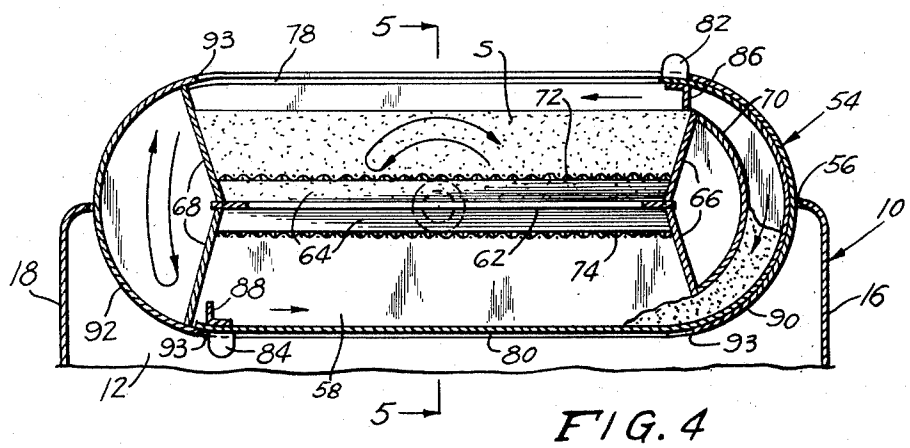


FIG. 4

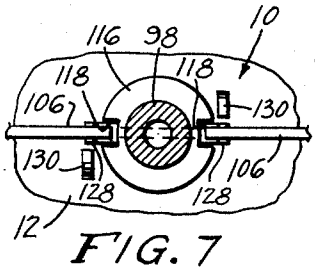


FIG. 7

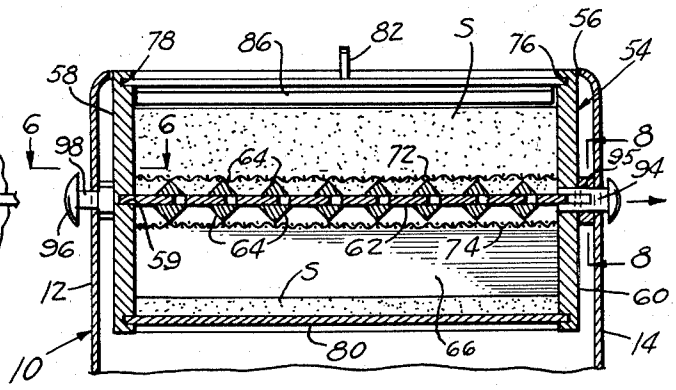


FIG. 5

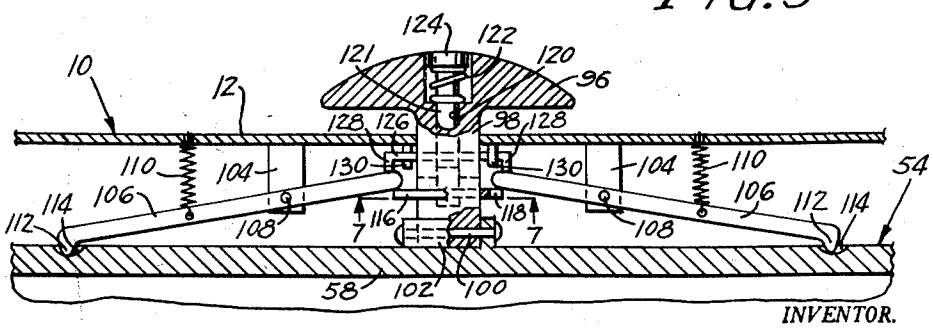


FIG. 6

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ASH RECEIVER

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Substituted for abandoned application Serial No. 566,243, February 17, 1956. This application January 27, 1958, Serial No. 711,531

7 Claims. (Cl. 131—235)

This invention relates to ash trays or receivers for cigars, cigarettes and pipe ashes. More particularly, the invention has reference to an ash receiver of the type utilizing sand as a snuffing means.

This application is a substitute of application Serial No. 566,243 filed February 17, 1956.

One important object of the present invention is to provide an ash receiver of the type referred to which will include means facilitating straining of the sand and inversion of the tray component of the device, to provide a fresh supply of strained sand simultaneously with disposal of extinguished cigarettes, cigars etc., that have been separated from the sand in the tray previously used.

Other objects will appear from the following description, the claims appended thereto, and from the annexed drawing, in which like reference characters designate like parts throughout the several views, and wherein:

Figure 1 is a view of an ash receiver formed according to the present invention, partly in side elevation and partly in longitudinal section;

Figure 2 is a view of the receiver as seen from the line 2—2 of Figure 1, a portion being shown in section;

Figure 3 is a top plan view of the device as seen from the line 3—3 of Figure 1;

Figure 4 is an enlarged sectional view through the upper end portion of the device taken on line 4—4 of Figure 3;

Figure 5 is a transverse sectional view through the upper portion of the device on line 5—5 of Figure 4;

Figure 6 is a horizontal section, still further enlarged, on line 6—6 of Figure 5, with parts broken away showing the means for rotating the tray assembly and for normally locking the same in each position to which it is rotated;

Figure 7 is a detail sectional view, on the same scale as Figure 6, taken on line 7—7 of Figure 6; and

Figure 8 is a detail sectional view, on an enlarged scale, taken on line 8—8 of Figure 5.

Designated generally at **10** is a hollow casing which can be of rectangular cross section as seen in Figure 3, the casing being formed of sheet metal or similar material.

The casing includes vertically disposed side walls **12, 14** integral or otherwise made rigid with front and back walls **16, 18** respectively. Secured to the inner surfaces of the front and back walls, adjacent the upper extremities thereof, are flanges **21** which are on the upper ends of partitions **20, 22**. The partitions, immediately below the flanges, converge as shown in Figure 1, and the convergent portions of the partitions merge into vertically depending portions which terminate well above the lower end of the casing.

Formed in the front and back walls **16, 18**, immediately below the upper ends of the partitions, are rectangular openings **24, 26** respectively, and normally closing said openings are flaps **28, 30** spring biased to a

closed position by compression springs **32, 34** respectively, that are interposed between the flaps and the convergent portions of the partitions **20, 22** as shown in Figure 1. Stop flanges or lips **29** and **31** are provided on the lower ends of the flaps **28** and **30** respectively to limit the movement of the flaps to a closed position.

The purpose of the flaps is to permit one to insert used cigarette packages or the like in the form of empty wrappers, it being necessary merely that pressure be exerted upon a flap, to permit insertion of the cigarette wrappers, which then gravitate within the casing within side compartments defined by the partitions at opposite sides of a center compartment located between the partitions, in which center compartment ashes are adapted to gravitate in a manner to be described hereinafter.

To insure that the objects deposited through the flaps will not lodge between the casing wall and a drawer to be described hereinafter, it may be desirable that a deflector **36** be provided.

Formed in the front wall **16**, at the lower end thereof, is a large opening in which is engaged the front wall of a drawer **38** shown in closed position in full lines in Figure 1, and in open position in dotted lines in the same figure of the drawing. The drawer **38** is provided with a handle **40**, and extending transversely of the drawer are vertical partitions **42, 44** dividing the same into three compartments, aligned with the corresponding compartments of the casing. The drawer has its bottom wall adjacent the lower end of the front wall inclined as at **45**, with the bottom wall of the casing being correspondingly inclined so as to normally latch the drawer in closed position. By lifting up on the drawer to a slight extent, it is unlatched and may be moved to open position.

The compartments of the drawer have been designated at **46, 48, 50** with the center compartment **48** being adapted to receive extinguished cigarettes, cigars and ashes. The side compartments **46, 50** are adapted to receive cigarette wrappers deposited through the casing openings normally closed by the flaps **28, 30**.

As shown, a trim strip **52** of chrome metal or the like can be extended about the casing, at the upper edge of the drawer, with the front wall of the drawer having at its upper end a corresponding strip **53** coplanar with the strip **52**, thus to conceal or camouflage the existence of the drawer.

A tray assembly has been designated at **54**, and in side elevation is of oblong configuration as shown in Figure 1, with rounded ends. The tray assembly has been shown in Figures 4 and 5, and is partially inserted in a top opening **56** formed in the casing. The portion of the casing extending about the top opening is flanged inwardly at the sides, and also at the front and back of the device, to provide room for rotating the tray assembly and to provide room for other working parts associated with the tray assembly, such as those shown in Figure 6.

The tray assembly includes oblong, vertically disposed side walls **58, 60** (see Figure 5), disposed adjacent the walls **12, 14** of the casing. Medially between the top and bottom edges, the side walls **58** and **60** are horizontally slotted as at **59** to receive the opposite side edge portions of a strainer plate **62**, having a plurality of longitudinal slots.

In contact with the top and bottom faces of the strainer plate are strainer bars **64**, of triangular cross section. When the strainer plate is normally positioned, the slots are closed by the strainer bars, but when the plate is shifted laterally to the right in Figure 5 in a manner to be presently described, the slots of the strainer plate are exposed between the bars **64**, to permit sand S to filter through the strainer plate.

The strainer bars are fixedly connected at their opposite ends to end walls 66, 68 of a pair of opposed trays of the tray assembly. The trays are alternately usable, with one tray being disposed upwardly for use in the manner shown in Figure 4, and the other being disposed downwardly. The trays have a common bottom defined by the strainer plate and strainer bars, and also have common side walls defined by the side walls 58, 60. At opposite ends, the end walls 66, 68 extend in opposite directions from the strainer plate.

The end walls 66, 68 slidably support the strainer plate 62, and as previously noted the strainer bars are fixedly secured to the end walls. The strainer plate, as previously noted, also is slidably mounted for movement in a lateral direction for the purpose of exposing or closing the strainer slots thereof.

At one end of the tray assembly, there is provided an arcuate end plate 70, the opposite edges of which are connected to the outer edges of the end walls 66 as shown in Figure 4. This end plate 70 taken with the arcuate end wall 90 of the tray assembly forms a passage connecting one end of the tray facing the open end 56 of the casing 10, Figure 4, with the adjacent end of the tray facing away from the open end 56 of the casing.

Formed in the inner surfaces of the side walls 58, 60 are peripherally extending guide slots 76, 78, and slidably mounted in said guide slots is a flexible slide or closure 80. Secured to opposite ends of said closure are outwardly projecting lips or handles 82, 84.

Leveling elements or flanges 86 and 88 of right angled cross section extend transversely of the tray assembly, and are secured to the inner surface of the closure 80 at opposite ends thereof.

Closing the tray assembly at its opposite ends are curved end walls 90, 92, said end walls defining large, cigarette receiving openings 93 of the tray assembly with one of said openings 93 being registered with the respective trays.

The tray assembly is adapted to be rotated about a transverse axis disposed centrally thereof in opposite directions through arcs of 180°, as indicated by the arrow designation 55 in Figure 1, and to this end there is provided a stub shaft or trunnion 94 which is slidably engaged in a central opening in the side wall 60 (see Figure 5). Surrounding the stub shaft is a spacer sleeve 95, shown in Figure 8, disposed between the side wall 60 of the tray assembly and the side wall 14 of the casing.

At the opposite side of the tray assembly there is provided a turning knob 96 integral with a shaft 98 journalled in an opening of the side wall 12 of the casing (see Figure 6). At its inner end, the shaft or stem 98 is pinned at 100 within a recess provided in a boss 102 of the side wall 58 of the tray assembly, so that on turning of the knob 96 the tray assembly can be inverted. The thus described structure constitutes the means for effecting the inverted movement of the tray assembly.

At opposite sides of the stem 98 there are mounted on the casing wall 12 inwardly projecting brackets 104, and elongated latch bars 106 are pivotally connected intermediate their ends as at 108 to said bracket, and are maintained under spring bias by compression springs 110, which cause fingers 112 provided on the outer ends of the bars to be normally engaged in recesses 114 formed in the side wall 58 of the tray assembly. The thus described structure constitutes the means operatively connected to the means for effecting reciprocal rotary movement of the tray assembly and releasably engageable with means on the tray assembly for holding the tray assembly in a position in which either tray opens upwardly while the other tray opens downwardly.

A washer 116 is fixedly secured to the stem 98, and at diametrically opposite locations (see Figures 6 and 7) has notches 118. Formed in the stem 98 is an axial bore 120. Counterbored within the turning knob 96, and axially shiftable within the bore is a plunger 121, about which is circumposed a coil spring 122. The spring at one end bears against a button 124 formed upon the outer end of the plunger, and at its other end bears against the end wall of the counterbore.

Slidably mounted within the stem 98, and extending diametrically through the stem and plunger so as to be shiftable longitudinally of the stem responsive to depression of the button 124, is a cross bar 126 having inwardly projecting fingers 128 at its opposite ends adapted to bear against the inner ends of the bars 106. As shown in Figure 7, secured to the inner surface of the casing side wall 12 are stops 130, which hold the tray assembly against rotation through af ull 360 degree cycle, by engaging the end portions of the cross bar 126 when the knob 96 is returned.

In use of the device, a quantity of sand S is deposited in the tray assembly in the manner shown in Figure 4. When cigarettes are to be extinguished, they are pushed into the sand of the upwardly facing tray of the assembly. Ultimately, it may be desired to strain the sand in the upper tray and dispose of the cigarette and cigar butts. Under these circumstances, one first pulls outwardly on the knob 94, and since this knob is in engagement with the adjacent side of the strainer plate 62, it shifts the strainer plate to the right in Figure 5, so as to expose the slots of the strainer plate. As a result, the sand in the upper tray filters downwardly through the strainer plate, coming to rest upon the closure 80 which closes the lower opening 93 of the tray assembly.

When the sand has been completely filtered out of the upwardly opening tray of the assembly 54, the cigarette butts will remain in the tray, and as a next step one presses inwardly on the button 124 to disengage the latch bars 106 from the tray assembly. With the button 124 pressed inwardly, the tray assembly will now be turned through 180 degrees, as a result of which that tray which opens downwardly in Figure 4 will now open upwardly. Since there is a quantity of clean sand in the bottom tray, this sand will now be carried with the bottom tray to the upper position, and will be ready to receive additional cigarette butts.

At the same time, turning of the tray assembly through 180 degrees will cause the cigarette butts which were previously in the top portion of the tray assembly to now be free for gravitation into the center compartment of the casing. The cigarette butts will fall through said center compartment, sliding to the center compartment on the convergent portions of the partitions 20, 22 and will drop into the center compartment 48 of the drawer 38.

When the tray has been turned 180 degrees in the manner previously described, the user grasps the handle 84 and shifts the slidable closure 80 toward the passage defined by the end plate 70 and end wall 90 and causes the leveling element or flange 88 opposite the passage to move across the tray and level off and feed the excess sand through said passage into the tray beneath.

Before the tray assembly is inverted, the strainer plate would be shifted to the left in Figure 5 back to its Figure 5 position for the purpose of closing the tray bottoms by pushing inwardly on the knob 94.

It is believed apparent that the invention is not necessarily confined to the specific use or uses thereof described above, since it may be utilized for any purpose to which it may be suited. Nor is the invention to be necessarily limited to the specific construction illustrated and described, since such construction is only intended to be illustrative of the principles of operation and the means presently devised to carry out said principles, it being considered that the invention comprehends any minor change in construction that may be permitted within the scope of the appended claims.

I claim:

1. An ash receiver comprising: a casing; upper and lower trays rotatably mounted in said casing in back to back relationship; a common strainer between said trays;

strainer closure means associated with said strainer for selectably retaining sand on the upper of said trays or straining sand into the lower of said trays; an opening in said casing below said trays; and tray closure means movable to close the downwardly facing tray when not in use and to open said tray when rotated to face upwardly for use.

2. An ash receiver comprising: a casing; upper and lower trays rotatably mounted in said casing in back to back relationship; a common strainer between said trays; strainer closure means associated with said strainer for selectably retaining sand on the upper of said trays or straining sand into the lower of said trays; an opening in said casing below said trays; and tray closure means common to both said trays movable to close the downwardly facing tray when not in use and to open said tray when rotated to face upwardly for use.

3. An ash receiver comprising: a casing; upper and lower trays rotatably mounted in said casing in back to back relationship; a common strainer between said trays; strainer closure means associated with said strainer for selectably retaining sand on the upper of said trays or straining sand into the lower of said trays; an opening in said casing below said trays; and flexible tray closure means common to both said trays movable to close the downwardly facing tray when not in use and to open said tray when rotated to face upwardly for use.

4. An ash receiver comprising: a casing; upper and lower trays rotatably mounted in said casing in back to back relationship; a common strainer between said trays; strainer closure means associated with said strainer for selectably retaining sand on the upper of said trays or straining sand into the lower of said trays; an opening in said casing below said trays; tray closure means movable to close the downwardly facing tray when not in use and to open said tray when rotated to face upwardly for use; and sand leveling means operable to level sand in the tray disposed for use upon opening of said tray closure means.

5. An ash receiver comprising: a casing; upper and lower trays rotatably mounted in said casing in back to back relationship; a common strainer between said trays; strainer closure means associated with said strainer for selectably retaining sand on the upper of said trays or straining sand into the lower of said trays; an opening in said casing below said trays; flexible tray closure means common to both said trays movable to close the downwardly facing tray when not in use and to open said tray when rotated to face upwardly for use; and sand leveling means operable to level sand in the tray disposed for use upon opening of said tray closure means.

6. In an ash receiver, an upstanding casing open at its upper end, a tray assembly including a pair of oppositely facing trays with a common bottom therebetween positioned within said casing so that the bottom is horizontally disposed and below the open end of the casing with one of the trays facing upwardly and the other of the trays being within the casing and facing downwardly and connected to said casing for movement to a position in which said one tray faces downwardly and said other tray faces the open upper end, there being a passage extending from one end of said one tray to the adjacent end of said other tray, a flexible closure extending over and normally closing the open end of said other tray and connected to said casing for sliding movement from the position closing the open end of said other tray to a position closing the open end of said one tray, the said other tray with the closure closing the open end thereof being adapted to contain a supply of sand, sand leveling elements adjacent each end of said closure, said elements facing toward said tray assembly bottom, means connected to said tray assembly for effecting movement of said tray assembly from said first named position to said second named position, said closure being adapted to be moved from the position closing the open end of said other tray to the position closing the open end of said one tray after said tray assembly has been moved from said first named position to said second named position and to cause the leveling element opposite said passage to be moved across said other tray to level off and feed the excess sand through said passage into said one tray.

7. The ash receiver according to claim 6 which includes in addition a means operatively connected to said movement effecting means and releasably engageable with means on said tray assembly for holding said tray assembly in said second named position.

No references cited.