Jan. 29, 1957 J. F. SMILLIE 2,779,341

ASH RECEIVER AND SNUFFER

Filed Jan. 30, 1953

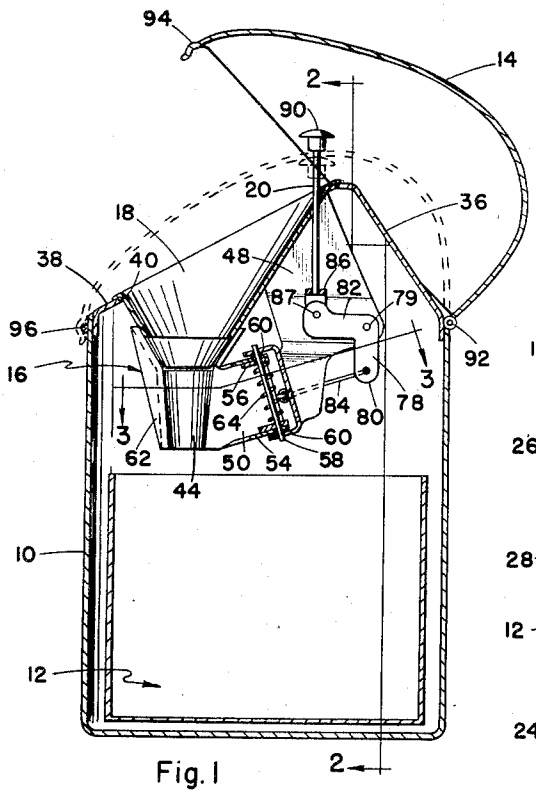


Fig. 1

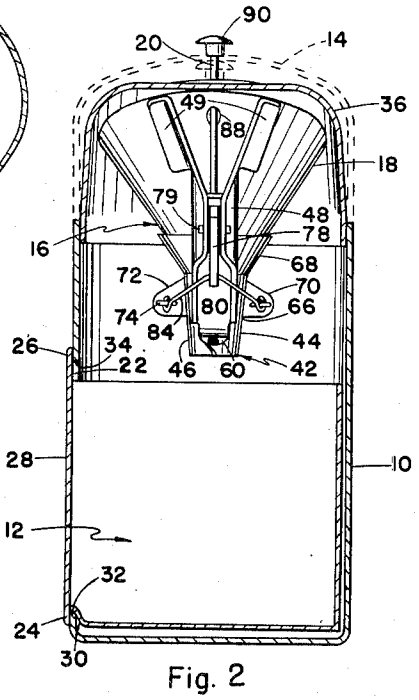


Fig. 2

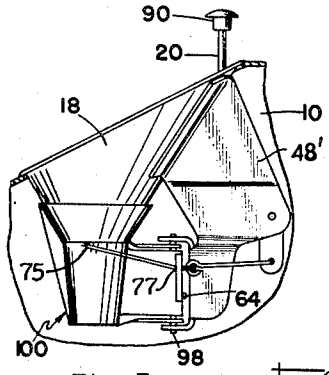


Fig. 5

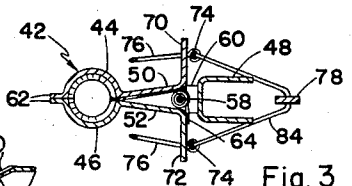
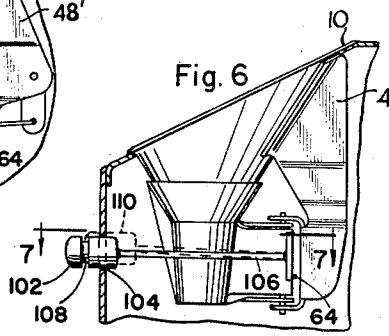


Fig. 3

Fig. 6



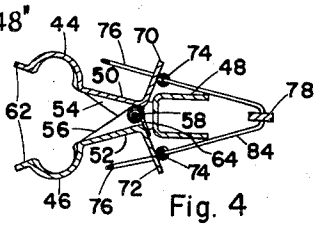


Fig. 4

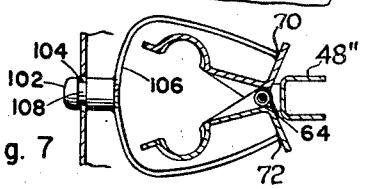


Fig. 7

INVENTOR.
JOHN F. SMILLIE

BY

AGENTS

United States Patent Office 2,779,341 Patented Jan. 29, 1957

2,779,341

ASH RECEIVER AND SNUFFER

John F. Smillie, San Diego, Calif.

Application January 30, 1953, Serial No. 334,282

1 Claim. (Cl. 131—235)

The present invention relates generally to a cigarette ash receiver and snuffer and more particularly to an ash receiver having a snuffer incorporated therewith and a cover or lid element which can be used to operate to evacuate the snuffer.

The primary object of this invention is to provide an ash receiver and snuffer which will effectively extinguish and dispose of burning cigarette stubs.

Another object of this invention is to provide an ash receiver and snuffer in which all cigarettes deposited therein must first pass through the snuffer, thus ensuring the snuffing of all burning portions thereof.

Another object of this invention is to provide an ash receiver and snuffer having a hinged lid, the lid being operatively mounted with respect to the snuffer so that cigarettes held in the snuffer will be automatically dumped into the ash receiver as the lid is closed or partially closed.

Another object of this invention is to provide an ash receiver and snuffer in which the ashes and cigarette stubs are completely enclosed to prevent spilling, but are easily emptied when required.

With these and other objects definitely in view, this invention consists in the novel construction, combination and arrangement of elements and portions, as will be hereinafter fully described in the specification, particularly pointed out in the claim, and illustrated in the drawing which forms a material part of this disclosure and wherein simlar characters of reference indicate identical elements throughout the specification and throughout the views of the drawing, and in which:

Fig. 1 is a vertical sectional view of the ash receiver and snuffer.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a fragmentary sectional view taken on the line 3—3 of Fig. 1.

Fig. 4 is a fragmentary sectional view similar to Fig. 3 but showing the snuffer in the open position.

Fg. 5 is a side elevation view of a modified form of snuffer, the casing being shown fragmentarily.

Fig. 6 is a fragmentary vertical sectional view of an additional modified snuffer actuating mechanism.

Fig. 7 is a sectional view taken on the line 7—7 of Fig. 6, but showing the snuffer in the open position.

Referring first to Figures 1–4, the device comprises a case 10 having a removable tray 12 and a hinged lid 14, the upper portion of said case having a raised structure supproting the snuffer 16 which includes a downwardly tapering receiving mouth 18. Beneath the mouth 18 is the snuffer mechanism, which is operated by a plunger 20 extending upwardly through the raised structure beneath the lid 14.

The case 10 may be of any suitable shape, a simple rectangular box being illustrated as an example. One side of the case 10 is provided with an opening 22 through which the tray 12 is inserted or removed, said tray having a downwardly extended flange 24 and an upwardly extending flange 26, both on the side panel 28 which

constitutes the outer panel of said tray and which covers the opening 22. The bottom panel of the tray is upwardly bent adjacent to the flange 24 to form an inverted V-shaped channel 30 which fits over the lower edge 32 of the opening 22. When the tray 12 is in the position illustrated in Fig. 2, the weight of the tray holds it in place with the flange 26 firmly against the upper edge 34 of the opening 22 so that said tray is completely enclosed within the case 10.

The snuffer 16 is supported by a raised dome 36 which is secured around a portion of the upper edge of the case 10, said dome having a substantially flat inclined face 38 in which is an aperture 40. The upper portion of the mouth 18 has an outwardly extending peripheral flat flange which is adapted to rest on that portion of the flat inclined face 38 which abuts the aperture 40 so that said mouth extends downwardly into the case 10.

The snuffer mechanism includes a split tube assembly which will be referred to hereinafter simply as the split tube 42 which is substantially funnel shaped and comprises two complementary tube sections 44 and 46 which are pivotally mounted, as described below, on a support bracket 48, said bracket being secured to the mouth 18 by means of flanges 49 and extending downwardly therefrom. The bracket 48 is a channel member of irregular outline as shown in Figs. 1 and 2, with both wing portions of the channel marginally secured to the mouth 18 by means of the flanges 49 which may be welded or brazed to the mouth 18. The bracket serves as a support for other elements mentioned hereinafter. The lower portion of the bracket 48 has a pair of vertically spaced support lugs 60 secured thereto, as shown in Fig. 1. The tube sections 44 and 46 are provided with extended tabs 50 and 52, respectively, the tab 50 having inwardly disposed flanges 54, and the tab 52 having corresponding inwardly disposed inclined flanges 56, as shown in Fig. 4. The tube sections 44 and 46 are pivoted on a hinge pin 58 which passes through the flanges 54 and 56 and is secured at both ends in the support lugs 60 of the bracket 48, said hinge pin being angularly disposed to the axis of the split tube 42. To conduct heat away from a burning cigarette as will later be explained, it is desirable to make the tube of metal having a very high thermal conductivty, such as copper or the like. When copper is used the tube sections 44 and 46 are reinforced at their free edges by the webs 62.

The split tube 42 includes a slightly tapered lower portion 66 and an outwardly flared upper portion 68, said flared portion fitting around the lower edge of the mouth 18 which is downwardly tapered as illustrated in Fig. 1.

The tube sections 44 and 46 are provided with actuating arms 70 and 72 respectively, and these arms extend in mutually opposite relation and are fitted with loops 74 as seen in Fig. 3. The loops 74 are formed in the projected ends of the bracing wires 76 which extend from said arms to the sides of the tube sections. The bracing wires 76 provide additional strength for the structure, especially desirable if the tube sections are made of copper and are secured as indicated at 75 and 77 in Fig. 5 to the respective tube sections and to the actuating arms.

The tube sections are held in the closed position by the spring 64 which is wound around the hinge pin 58, the ends of said spring being operatively engaged with the actuating arms 70 and 72.

The split tube 42 is actuated by a bellcrank 78 which is pivotally attached to the bracket 48 by a pin 79 and has a lower arm 80 and an upper substantially horizontal arm 82. The lower arm 80 is connected to the loops 74 by means of a yoke 84, while the horizontal arm 82

is attached to the plunger 20 by a clip 86 and a pin 87. The plunger 20 projects upwardly through a hole 88 in the mouth 18 and is fitted with a knob 90.

It will be seen that, as the plunger 20 is depressed, the bellcrank 78 will pivot and cause the actuating arm 70 and 72 to be drawn back, thus separating the tube sections 44 and 46 as illustrated in Figure 4.

The lid 14 is pivotally attached to the case 10 by a hinge 92, the other side of said lid having a resilient catch 94 which engages a protruding rib 96 on said case to hold said lid firmly in the closed position. The contour of the lid 14 is such that the inner surface of said lid strikes the knob 90 when the lid is partially closed. When the lid 14 is completely closed, the plunger 20 will be forced down to the position shown dotted in Fig. 1.

In this way, the split tube 42 will be opened automatically each time the lid 14 is substantially fully closed, causing any snuffed cigarettes contained therein to be dumped into the tray 12. It is an important feature that the lid need not be closed completely in order to dump the snuffed cigarettes, a mere depression of the lid being sufficient to clear the snuffer.

The hinge pin 58 being angularly disposed to the axis of the split tube 42, it will be seen that the lower end of said split tube will open wider than the upper end, so that the snuffed cigarettes may be released. However, a modified form of the device is illustrated in Fig. 5 in which the hinge pin 98 is parallel to the axis of the split tube 100 and is mounted in the bracket 48', the remainder of the structure being similar to that described above. This particular form of the invention may be desired for ease of manufacture although the functioning of the device remains substantially unchanged. When a burning cigarette is placed in the split tube, the heat of the burning portion is conducted away by the metallic tube causing the cigarette to be snuffed quickly and efficiently.

A further modification of the device is illustrated in Figs. 6 and 7 in which the snuffer is mounted by means of the bracket 48'' and actuated by a push button 102 protruding through an opening 104 in the case 10. The push button 102 is operatively connected to the actuating arms 70 and 72 by means of a resilient yoke 106, said push button being provided with an annular groove 108. When the push button 102 is displaced, the split tube will be opened until the annular groove 108 is aligned

with the opening 104. The yoke 106 is self-biasing so that the push button 102 is forced outwardly, thus the annular groove 108 can engage the edge of the opening 104 and lock said push button in the position indicated at 110 in Fig. 6, so retaining the split tube open. When it is desired to close the split tube to receive another cigarette it is only necessary to force the push button 102 inwardly so that the annular groove 108 becomes disengaged from the opening 104, at which point, the spring 64 will close the split tube and return said push button to its original position.

Further description would appear to be unnecessary.

It is understood that minor variations from the forms of the invention disclosed herein may be made without departure from the spirit and scope of the invention, and that the specification and drawing are to be considered as merely illustrative rather than limiting.

I claim:

An ash receiver and cigarette snuffer comprising a case having a closed lower end, the upper end of said case having a receiving mouth therein, said snuffer being supported by said upper end and comprising a split tube disposed below and in alignment with said mouth, said split tube including complementary hinged sections biased toward a closed position, a plunger operatively connected to said hinged sections, said plunger extending upwardly from said case, a hinged lid attached to said case and enclosing the upper end thereof, said lid being shaped to strike and depress said plunger when the lid is moved toward a closed position.

References Cited in the file of this patent

UNITED STATES PATENTS

113,786	Mumler	Apr. 18, 1871
1,532,262	Pike	Apr. 7, 1925
1,759,925	Van Gelderen	May 27, 1930
1,806,782	Brach	May 26, 1931
1,912,598	Snadden	June 6, 1933
1,999,289	Glomb	Apr. 30, 1935
2,004,537	Parkinson	June 11, 1935
2,207,040	Amen	July 9, 1940
2,573,776	Shockey	Nov. 6, 1951
2,619,092	Ayers	Nov. 25, 1952

FOREIGN PATENTS

489,446	Great Britain	July 27, 1938