May 24, 1955 P. R. MELLON 2,708,937

CIGARET SNUFFER

Filed Sept. 27, 1954

Fig. 1.

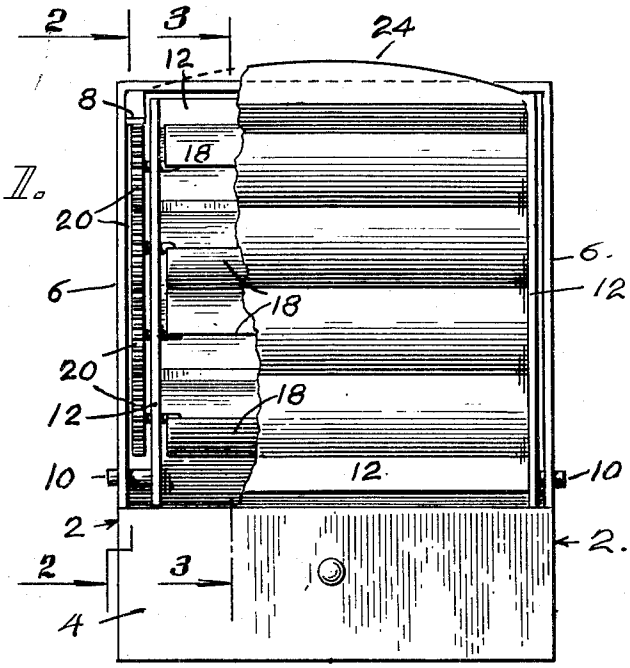


Fig. 2.

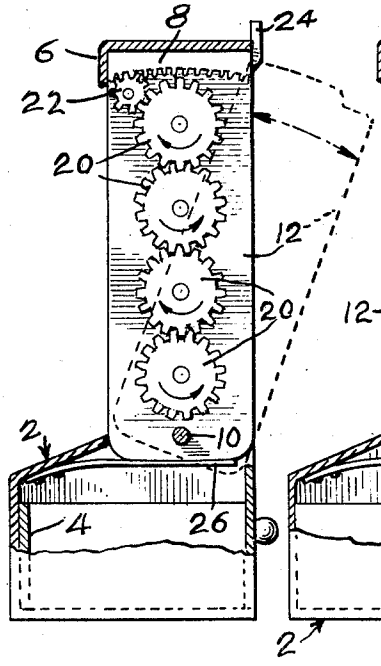


Fig. 3.

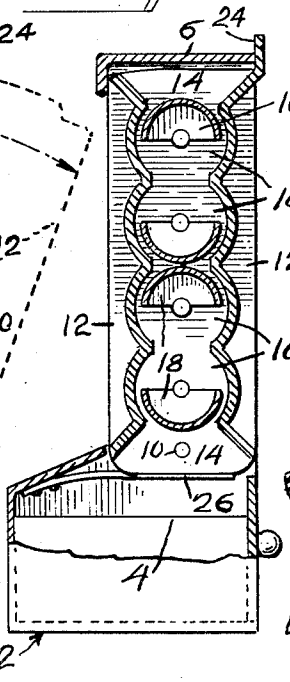
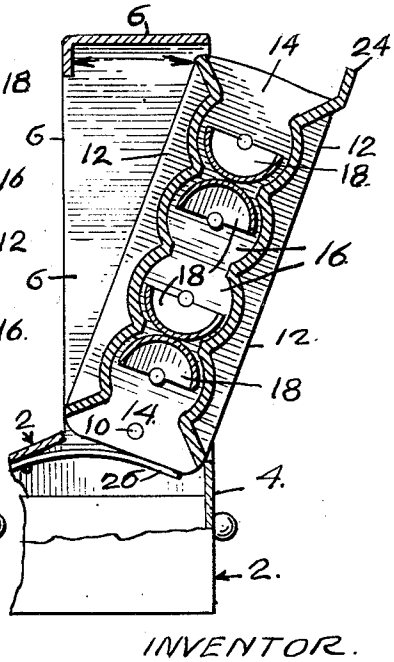


Fig. 4.



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CIGARET SNUFFER

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4 Claims. (Cl. 131—237)

The present invention relates to improvements in a cigaret snuffer, or extinguisher, wherein a vertically channeled case, pivotally mounted upon a tray and opening thereinto, operates in conjunction with horizontally disposed and alternately inverted and upright troughs pivotally mounted in proximate parallel chambers in said channel, and gears operatively connecting said troughs and tray, to automatically reverse said inverted and upright troughs to upright and inverted positions, respectively, when said case is moved outwardly from a housing on said tray, whereby a burning cigaret butt, deposited within the topmost trough, when the top of said case is moved outwardly from said housing, may be transferred into a lower successive trough or troughs, when said case is returned into said housing, and thereby isolate within separate successive chambers at intervals to virtually exclude oxygen and extinguish said cigaret butt, and finally deposit said butt into a closed tray.

The primary object of the present invention is to provide a new and improved cigaret snuffer or extinguisher having improved means adapted to virtually isolate and completely snuff or extinguish a burning cigaret deposited therein.

Another object is to provide a new and improved device of the character set forth having improved means adapted to isolate in successive stages and intervals a burning cigaret and extinguish the same.

A further object is to provide a new and improved device of the type described having improved means adapted normally to prevent access or egress to or from said snuffer.

A still further object is to provide a new and improved burning cigaret snuffer or extinguisher having a greatly simplified and economically produced construction, convenient operation, and also a maximum efficiency.

The improvement comprises the device disclosed in the drawings forming a part of the present application, and in which—

Figure 1 is a partly broken front elevation of the device;

Figure 2 is a partly broken vertical sectional view, taken on line 2—2 of Figure 1, in the direction indicated, with the several parts shown in normal position;

Figure 3 is a partly broken vertical section of the device, as taken on line 3—3 of Figure 1, in the direction indicated, with the parts also shown in normal position; and

Figure 4 is a sectional view similar to Figure 3, but with the device moved to a receptive position.

Referring to the drawings:

The numeral 2 is used to designate in general a virtually closed tray preferably provided with a removable drawer 4, and an upright housing 6 mounted thereon, open at its front and back and closed at the sides thereof, and provided with an arcuate stationary toothed rack 8 in the upper portion thereof.

Pivotally mounted at its lower end within said housing 6, as at 10, is an upright case 12, having a vertically disposed channel 14 therethrough formed of a series of successive proximate and parallel chambers 16, within each of which

is a pivotally mounted horizontal trough 18, alternately, beginning at the top, normally inverted and upright, as in Fig. 3.

The troughs 18 are connected at their ends by means of gears 20 which in turn are operatively connected with an idler 22 on said case 12 and with said stationary toothed rack 8 in the upper portion of the housing 6, as disclosed in Fig. 2 of the drawings. A lip 24 on the top of the case 12 operates as a handle by means of which the top of said case may be moved outwardly from the housing 6 to the position disclosed in Fig. 4. Also, a suitable leaf spring 26 within the closed tray 2 has its free end exerting pressure upwardly against the bottom of the case 12 to normally retain the same within the housing 6 with the inlet or top of the channel 14 closed within the top of said housing.

In operation, the top of the case 12 is moved or swung outwardly on its pivot 10 against the pressure of the spring 26, by means of the lip 24. The idler 22, rolling on the rack 8, will rotate the gears 20 and rotate their respective troughs 18 from alternately inverted and upright positions to alternately upright and inverted positions, respectively, as disclosed in Fig. 4, which outward movement will expose the top or entrance of the channel 14 and the upright trough 18 therein.

When a cigaret butt is deposited within the top upright trough 18, the lip 24 is released and the pressure of the spring 26 will then tend to move the top of the case 12 inwardly into the housing 6, which action may be assisted by the user and will reverse the direction of rotation of the idler 22. The gears 20, and the troughs 18, will then be returned to their former positions of alternately inverted and upright positions, respectively, which action will dump the butt, not shown, from the top inverted trough 18 to the successive upright trough directly below, whereby said butt will be isolated from drafts or excess oxygen which might tend to propagate combustion.

From the foregoing, it is obvious that with each outward and return movement of the case 12 and reversal of the several troughs 18 therein, a deposited cigaret butt will be deposited within successively lower troughs, and thereby isolated at intervals, until said butt is deposited from the lowermost trough into the closed tray 2, by which time said butt will be totally extinguished and contained within the removable drawer 4 by means of which it may be removed and finally discarded.

Thus, the isolation of a burning butt through several cycles and at intervals, will materially reduce and more frequently prevent accidental fire hazard, since one or more butts may be confined and isolated, particularly through repeated intervals of isolation and confinement.

Having described my invention, I claim:

1. A cigaret snuffer comprising a tray having an upright housing thereon, an upright case pivotally mounted at its lower end within said housing and having a vertical channel therethrough, a plurality of horizontal alternately inverted and upright troughs pivotally mounted within said channel, and gears mounted upon said troughs and operatively connecting the same to said housing and adapted to reverse said inverted and upright troughs to upright and inverted positions when the top of said case is moved outwardly on its pivot from said housing.

2. A cigaret snuffer comprising a tray having an open housing mounted thereon, an upright case pivotally mounted at its lower end within said housing having a vertical channel therethrough open at its lower end and communicating with said tray, a plurality of horizontal alternately inverted and upright troughs pivotally mounted at their ends within said channel, and gears mounted upon the ends of said troughs and operatively connected to said housing and adapted to reverse said troughs from alternately inverted and upright to upright and inverted posi-

tions, when the top of said case is moved outwardly on its pivot from the top of said housing.

3. A cigaret snuffer comprising a tray having an open housing mounted thereon, an upright case pivotally mounted at its lower end within said housing and having a vertical channel therethrough open at its lower end and communicating with said tray, a plurality of horizontally disposed and alternately inverted and upright troughs pivotally mounted at their opposite ends within said channel, a toothed rack mounted upon said housing, and gears operatively connecting said troughs with said rack and adapted to reverse said alternately inverted and upright troughs to upright and inverted positions when the top of said casing is moved outwardly from said housing.

4. A cigaret snuffer comprising a closed tray having an upright open housing mounted thereon, an upright case pivotally mounted at its lower end within said housing, and having a channel therethrough formed of successive proximate parallel chambers, said channel opening at its lower end into said closed tray, a plurality of horizontally disposed and alternately inverted and upright troughs pivotally mounted at their opposite ends within said chambers, a toothed rack mounted within the upper portion of said housing, and gears connected to said troughs and operatively connected to said rack and adapted to reverse said alternately upright and inverted troughs to inverted and upright positions when said top of said case is moved outwardly from said housing, and means mounted on said tray and adapted to engage said case and normally hold the same within said housing.

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