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H. R. WORTHING

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CIGARETTE EXTINGUISHER AND ASH TRAY

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2 Sheets-Sheet 2

Fig. 4.

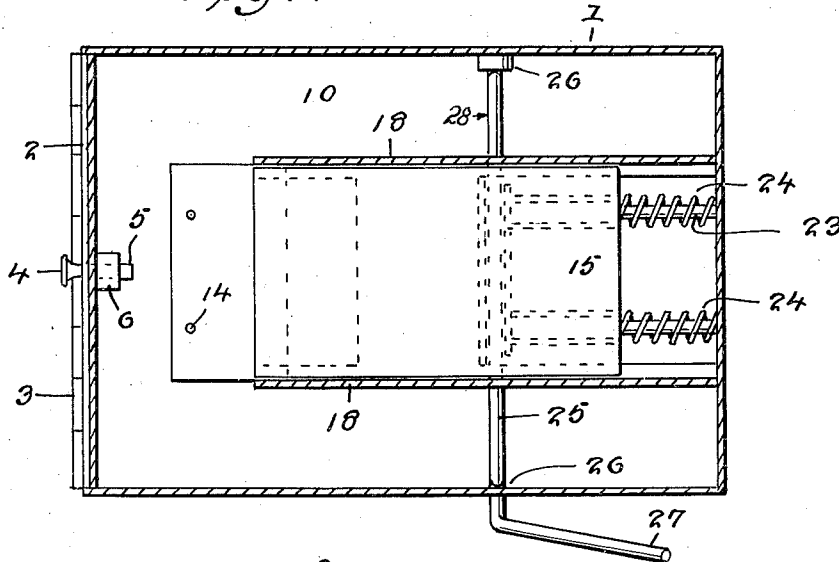


Fig. 5.

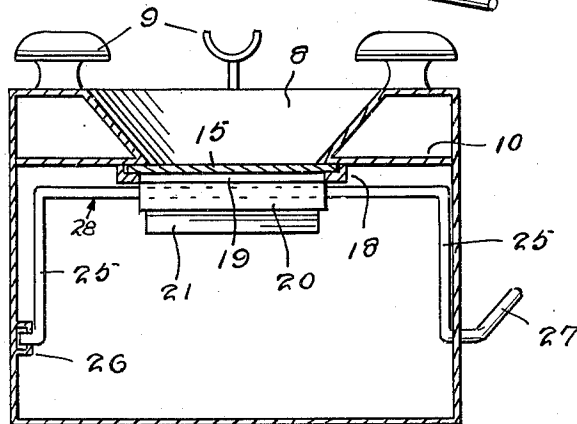


Fig. 6

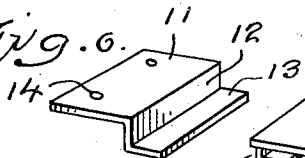
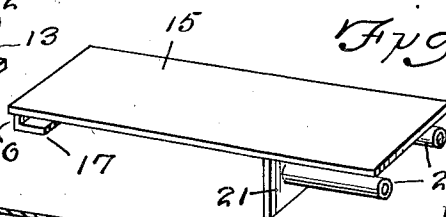
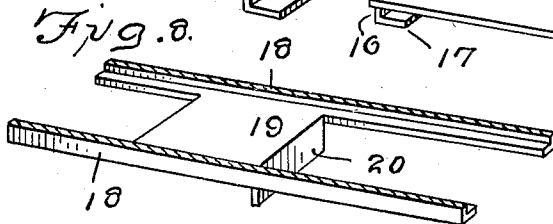


Fig. 7.



Frug. 8.



INVENTOR.
Harold R. Worthing
BY Victor J. Evans & Co.

ATTORNEYS

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CIGARETTE EXTINGUISHER AND
ASH TRAY

Harold R. Worthing, Janesville, Wis.

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4 Claims. (Cl. 131—237)

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The present invention relates generally to tobacco users' appliances of the ash-tray and extinguisher type for cigarettes and equipped with a movable extinguishing member, and more particularly to an improved cigarette extinguisher and ash tray having an air-tight receptacle and crushing jaws by means of which a lighted cigarette may be completely extinguished and then released to fall into the receptacle, thereby eliminating lighted embers and maintaining the receptacle in safe and sanitary condition. The cigarette extinguisher and ash tray of my invention may be manufactured at comparatively low cost for table or floor use, as well as for use in automotive vehicles, to insure an appliance that is simple in construction and operation, and which will extinguish lighted cigarette or cigar butts and dispose of the butts without objectionable and undesirable smoking of the butts after extinguishing.

The invention consists in certain novel features of construction and combinations and arrangements of parts as will hereinafter be described and more specifically set forth in the appended claims. In the accompanying drawings I have illustrated a complete example of a physical embodiment of my invention in which the parts are combined and arranged in accord with one mode I have devised for the practical application of the principles of my invention.

It will however, be understood that changes and alterations are contemplated and may be made in these exemplifying drawings and mechanical structures within the scope of my claims without departing from the principles of the invention.

Figure 1 is a top plan view of a cigarette extinguisher and ash tray shown in closed position and in which my invention is physically embodied.

Figure 2 is a vertical longitudinal sectional view of the closed appliance, as at line 2—2 of Fig. 1; and Figure 3 is a similar view, partially broken away, showing the appliance in open position.

Figure 4 is a horizontal sectional view at line 4—4 of Fig. 2; and Figure 5 is a transverse vertical sectional view at line 5—5 of Fig. 1.

Figure 6 is a perspective view showing the fixed jaw or vise member of the extinguisher.

Figure 7 is a perspective view of the movable jaw or vise member of the extinguisher; and

Figure 8 is a perspective view of the guide for the movable vise member or jaw.

In the form of the invention shown in the drawings I employ a container 1 fashioned of suitable material that will adapt the appliance

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for various uses, and preferably of oblong shape, one end wall of which is open and provided with a clean out-door 2 having a bottom hinge 3, and the door fits neatly within its opening to provide a substantially air-tight closure. For clean-out purposes the door is provided with an exterior knob or handle 4 for opening the door, and in closed position the door is firmly secured by means of a spring catch 5 on its free edge that co-acts with a spring keeper or hasp 6 attached on the inner side of an end wall of the container.

The oblong container is closed by a cover or flat top 7 that forms a tray, and the tray is equipped with an interior funnel shaped well or hopper 8, with a number of holders 9, for cigars or cigarettes, arranged around the upper open end of the hopper.

Near the top of the container an interior horizontal partition 10 is fixed to form a lower substantially air-tight receptacle, and the lower or inner end of the hopper, which is open to the receptacle, is rigidly mounted on the partition, while the upper open end of the hopper is rigid with the cover plate or top tray 7 of the container.

Within the receptacle an extinguisher is mounted for crushing the lighted end of a cigarette or cigar butt, as indicated at C by dotted lines in Fig. 3, and the extinguished butt is then dropped into the closed receptacle. The extinguisher is in the nature of a vise or holder in which the lighted butt is retained and its fire completely extinguished before the butt is dropped into the receptacle. For this purpose a fixed member of the vise is attached to the underside of the partition to extend across a portion of the lower end of the hopper, and a complementary movable crushing and retaining member is mounted on the partition for co-action therewith.

The fixed jaw includes a flat plate 11 having a right-angular jaw including a vertical wall 12 and a horizontal wall or flange 13, and the plate is attached, as by rivets 14 to the partition.

The movable jaw is of the slidable, spring retracted type and it includes a slide plate 15 having at its inner end a vertical wall 16 and a horizontal wall 17; and this right-angular jaw co-acts with the complementary fixed jaw 12—13 not only to crush the lighted butt, but also to retain the extinguished butt until the lighted embers are completely eliminated, before the butt is released for dropping into the receptacle.

The spring retracted reciprocable slide and jaw are mounted to slide in two parallel angle rails or guides 18, 18 depending from the underside of

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the partition and these rails are united by a flat plate 19 having an integral cross flange 20 forming a stop for the lever that operates the movable jaw.

The slide plate 15 is also equipped with a cross flange 21 for co-action with the operating lever, and this flange is provided with a pair of spaced sleeves 22 that are slidably mounted over a pair of complementary pins 23 fixed by soldering, or the like at the inner side of an end wall of the receptacle or container.

For forwardly plunging the movable crushing jaw toward closed position and retaining the jaw against the lighted butt, a pair of springs 24, 24, are mounted upon the sleeves and pins and interposed between the flange 21 and an end wall of the container; and of course the springs hold the empty jaws in closed position to seal the opening to the interior of the air tight receptacle.

For opening the jaws, a crank-lever 28 having a crank arm 25 is journaled at 26, 26, near the bottom of the container and in its side walls, and an exterior handle 27 may be turned causing co-action of the crank arm 25 with the two flanges 20 and 21 as the movable jaw is reciprocated.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a safety ash and butt tray including a container having an interior partition interior of the container and a funnel shaped hopper open to the interior of the container, the combination with a fixed angular crushing jaw mounted at the underside of the partition, of a slide mounted under the partition and a crushing jaw rigid therewith, and means for reciprocating the slide.

2. In a safety ash and butt tray including a container, a horizontal partition interior of the container, and a funnel shaped hopper open to the interior of the container, the combination with an angular jaw fixed on the partition, of a slidable jaw angular in cross section, guiding

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means for the slidable jaw mounted on the partition, a crank arm journaled in the container for reciprocating the slidable jaw, and a handle for the crank arm exterior of the container.

3. The combination with a container having a partition interior of the container, a hopper mounted on the partition and open to the interior of the container, and a fixed right-angular jaw mounted on the partition beneath the hopper, of a spring-pressed slide plate, and guides therefor on the partition, a right angular crushing jaw rigid with the slide plate, a crank arm journaled in the container for actuating the slide plate, and a handle for the crank arm exterior of the container.

4. The combination with a container having a partition interior of the container, a hopper mounted on the partition and open to the interior of the container, and a fixed right-angular jaw mounted on the partition beneath the hopper, of a slide plate, and guides therefor on the partition, a right-angular crushing jaw rigid with the slide plate, a pair of sleeves rigid with the plate and supporting pins for said sleeves rigid with the container wall, springs surrounding said sleeves and pins and interposed between the container wall and said slide plate, a crank arm journaled in the container and a handle on the arm, a stop-flange on the guides for the crank arm, and a push-flange on the slide plate for co-action with the crank arm exterior of the container.

HAROLD R. WORTHING.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,751,535	Terberg	Mar. 25, 1930
1,838,090	Caldwell et al.	Dec. 29, 1931
2,410,410	Garubo	Nov. 5, 1946