Nov. 4, 1930. B. IIZUKA 1,780,591

ASH TRAY STRUCTURE

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Fig. 1.

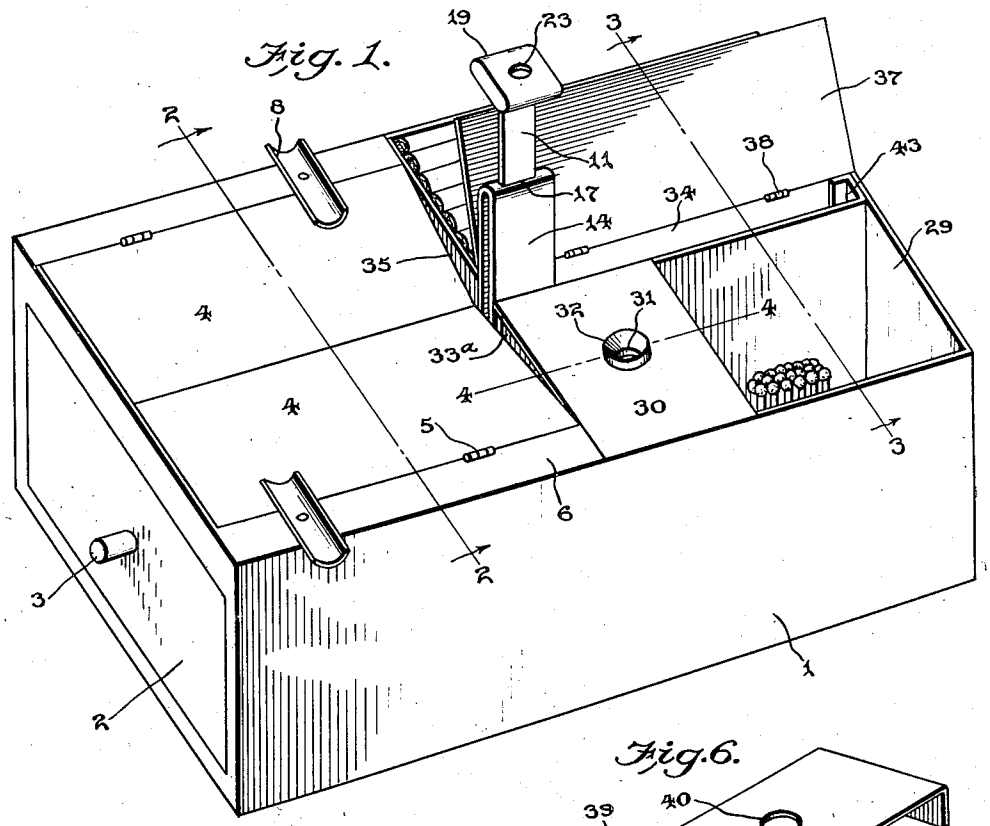


Fig. 6.

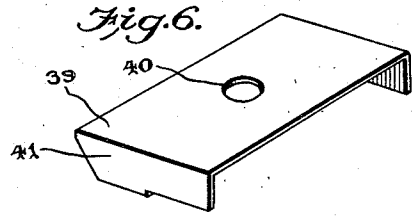
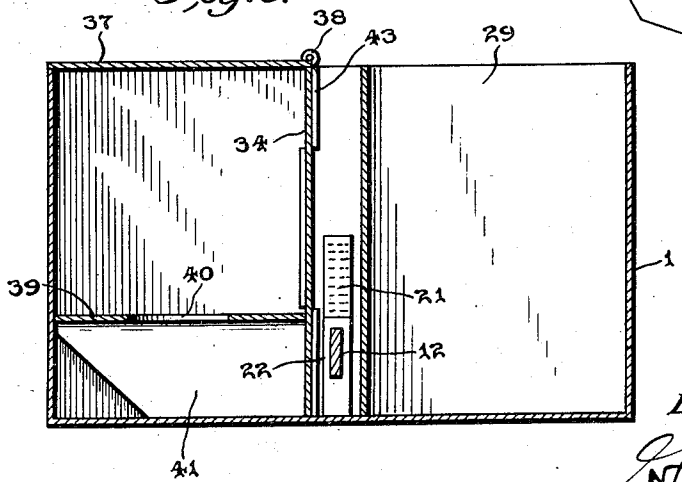


Fig. 3.



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ASH TRAY STRUCTURE

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Fig. 2.

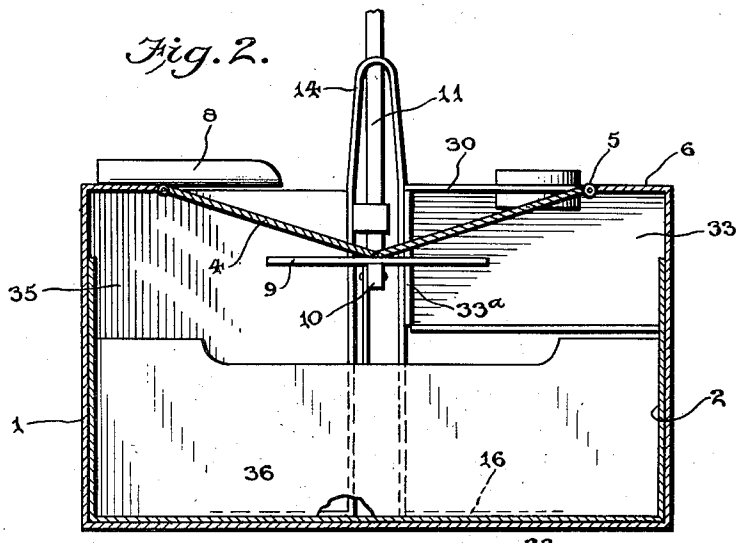


Fig. 4.

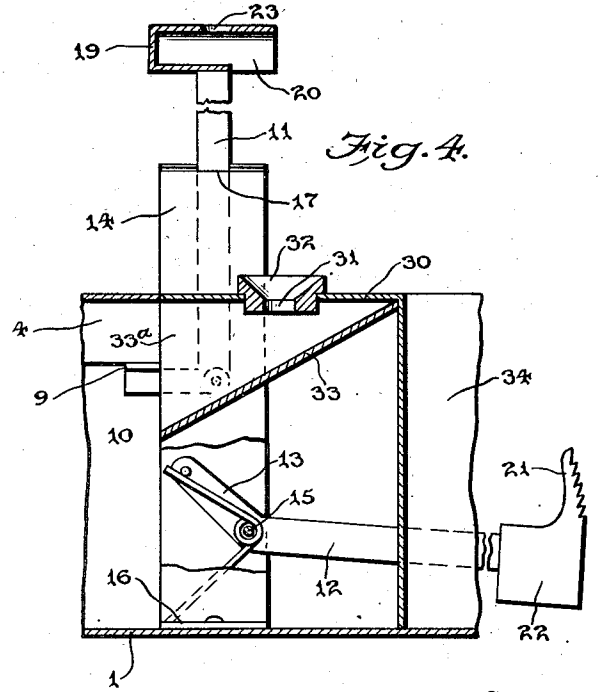
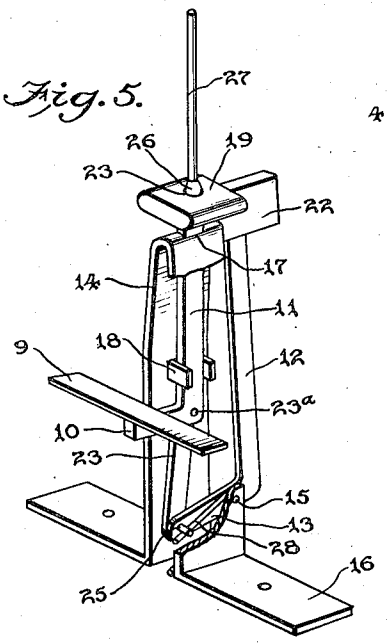


Fig. 5.



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UNITED STATES PATENT OFFICE

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ASH-TRAY STRUCTURE

Original application filed January 7, 1928, Serial No. 245,155. Divided and this application filed December 6, 1929. Serial No. 412,154.

The invention relates to an ash tray structure and is a division of an application filed by me on or about January 7, 1928, for a combination ash tray, match lighter, and cigar and cigarette extinguishing device, Serial Number 245,155.

The object of the present invention is to provide a simple, practical and efficient ash tray structure adapted to support cigars and cigarettes over an ash tray and capable of extinguishing a lighted cigar or cigarette and of conducting ashes from the same to a removable receptacle and adapted also to dump the contents of the ash tray into the removable receptacle simultaneously with the lighting of a match.

With these and other objects in view, the invention consists in the construction and novel combination and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and set forth in the claims hereto appended, it being understood that changes in form, size, and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit of the invention or sacrificing any of the advantages thereof.

In the drawings:—

Figure 1 is a perspective view of a combination match lighter, container and ash tray constructed in accordance with this invention.

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

Fig. 3 is a similar view taken substantially on the line 3—3 of Fig. 1.

Fig. 4 is a central fragmentary vertical longitudinal sectional view illustrating the construction of the extinguishing device.

Fig. 5 is a detail perspective view of the match striking mechanism, the standard being partly broken away to illustrate the connection between the match striking lever and the actuating slide or plunger.

Fig. 6 is a detail perspective view of the removable false bottom of the container.

Referring particularly to Figs. 1 to 6, in which is illustrated one embodiment of the invention, the combination device comprises an oblong casing 1 designed to be constructed of sheet metal or other suitable material and composed of a horizontal bottom and vertical side and end walls. The casing is provided at the front with an opening through which is passed a removable receptacle 2 having a suitable handle or knob 3 and constituting a removable drawer for enabling ashes and burnt matches to be readily removed from the device. The removable drawer or receptacle occupies the front portion of the oblong casing, which is provided above the removable drawer with plates 4 hinged at their outer edges at 5 to top flanges 6 of the casing and extending downwardly and inwardly at a slight inclination and having meeting inner edges. The inclined plates form sections of an ash tray and are adapted to receive burnt matches and ashes, and the hinges 5 permit the ash tray sections to swing downwardly for dumping the contents of the ash tray to deposit such contents in the removable drawer, which is located beneath the ash tray sections. The top flanges 6, which are located at opposite sides of the front portion of the casing, are narrow, horizontal, and extend longitudinally of the front portion of the casing. These flanges are equipped with transversely disposed supports 8 consisting of curved pieces of sheet metal or other suitable material and adapted to receive cigars or cigarettes for supporting the lighted ends thereof over the ash tray so that any ashes falling from the cigars or cigarettes will be received upon the sections of the ash tray.

The hinged ash tray sections are normally supported in inclined position by means of a transversely disposed horizontally arranged supporting member 9 consisting of a narrow strip of metal or other suitable material secured to and carried by a horizontally disposed arm 10 of a vertically movable slide or plunger 11 of a match striking mechanism. The supporting member 9 extends across the inner edges of the ash tray sections and is arranged at the inner ends of the same and when the vertically movable slide or plunger 11 is depressed, the supporting member 9 will be lowered and will permit the ash tray sections to swing downwardly by gravity to an open position for

discharging their contents into the removable drawer. When the slide or plunger is moved upwardly by the means hereinafter described, the ash tray sections are returned to their closed position, in which they are normally supported by the said member 9.

The match lighting mechanism comprises the said vertically movable slide or plunger 11 and a match striking lever 12 having an angularly related arm 13 and pivoted adjacent to its angle in a vertical standard 14 by a suitable pin or rivet 15. The standard 14 is composed of spaced sides connected at the top and provided at the bottom with oppositely extending portions 16 forming a base and riveted or otherwise secured to the bottom of the casing. The standard may be conveniently constructed of a single piece of metal bent at the center to form the said sides and at the terminals to form the base portions 16. The base portions are preferably disposed transversely of the casing, and the standard is arranged centrally thereof in rear of the removable drawer.

The vertically movable slide extends through a slot 17 in the top of the standard, and it is guided intermediate of the ends of the standard by spaced vertical lugs 18 cut from one of the sides of the standard and bent inwardly towards the other side of the standard. The vertically movable slide is provided at its upper end with a hollow horizontally disposed head 19 closed at the front end and open at the rear end and cut away at the bottom at 20 to permit a projecting serrated portion 21 of a head 22 of the match striking lever to enter the hollow head of the slide and frictionally engage and ignite a friction or parlor match of the type adapted to strike on any suitable surface. The hollow head of the slide is provided at the center of the top with a hole 23 to permit the head of a match to be inserted in it in position to be engaged by the head of the striking lever. The head 22 of the striking lever has a rearwardly projecting portion, and is adapted to afford sufficient weight to the outer end of the striking lever to render the striking operation effective. Instead of providing a serrated surface, the striking lever may be equipped with a suitable surface for igniting a safety match. The striking lever 12 is preferably composed of spaced sides and the arm 13 extends beneath the lower end of the vertically movable slide and is connected with the same by a link 23 extending upwardly from the arm to the slide and pivoted at its upper end to the said slide by a pin or rivet 23^a, and at its lower to the arm 13 by a pin or rivet 25. The head 26 of a match 27 is placed in the hole of the hollow head of the vertically movable slide and the latter is moved downward quickly to cause the striking lever to swing upward with a snap and frictionally engage the head of the match and ignite the same.

The parts of the match striking mechanism are returned to their initial or normal position by a spring 28 having a coiled portion disposed on the pivot 15 and having arms bearing against the pivot 25 and the bottom of the casing. The spring is compressed by the downward movement of the slide and will operate to raise the slide when the latter is released by the operator.

The casing is provided at one corner of its rear portion with a match receptacle 29 formed by longitudinal and transverse partitions and spaced from the ash tray to provide an intervening space for a cigar and cigarette extinguisher comprising a top plate 30 having a central opening 31 surrounded by an inwardly beveled ridge or flange 32 and arranged over an inclined chute 33 extending downwardly and forwardly from the rear edge of the top plate 30 over the rear end of the drawer and adapted to discharge ashes and fire into the same. The inclined chute is provided at its inner side with a triangular flange or wall 33^a, and the adjacent side of the casing constitutes the opposite wall of the chute, so that ashes and fire will be confined in the chute until discharged from the lower end thereof into the drawer. To extinguish a lighted cigar or cigarette, the lighted end is placed in the tapering recess formed by the annular beveled flange 32 surrounding the opening 31 in the plate 30, and pressure and slight rotary movement is applied to the cigar or cigarette to extinguish the same.

The match receptacle and cigar and cigarette extinguisher, which may be varied in size, are preferably located at one side of the match striking mechanism, and the space at the opposite side of the match striking mechanism is formed into a receptacle for cigars or cigarettes by longitudinal and transverse partitions 34 and 35 preferably constructed of a single piece of sheet metal and recessed at the bottom at 36 to clear the adjacent portion of the base of the standard 14. A lid 37 is hinged at 38 to the longitudinal partition 34 at the upper edge thereof to cover the cigar or cigarette container, and a false bottom 39 is arranged in the cigar or cigarette compartment to reduce the depth thereof. The false bottom 39, which is provided with a finger opening 40 to enable it to be readily removed, consists of an oblong plate having its terminal portions bent downwardly to form supporting end flanges 41 located at the front and rear ends of the false bottom, and the flange at the front end of the false bottom is cut away at 42 to clear the adjacent portion 16 of the base of the standard. The opening 40 is adapted to receive a finger to enable the false bottom to be readily removed, and the front and rear

flanges 41 are cut away at their outer ends to facilitate the insertion and removal of the false bottom. The vertical longitudinal partition 34, which is located at the inner side of the cigar and cigarette compartment, fits against the standard 14 at its front portion, and at its rear portion against the vertical flange 43 projecting from the inner face of the rear end wall of the casing.

In the operation of the device, the lid or cover of the cigar or cigarette compartment is opened to obtain a cigar or cigarette, and a match is then obtained from the match compartment. The head of the match is then placed in the hole in the head of the slide or plunger, and the latter is moved downward quickly to operate the match striking mechanism. This ignites the match and simultaneously lowers the supporting member 9 and dumps the ash tray, discharging the contents thereof into the removable drawer. As soon as the vertically movable slide is relieved of pressure, it returns to its normal position. The curved supports or rests 8, which are located at opposite sides of the ash tray, are conveniently located for holding a cigar or cigarette at intervals between smoking. The drawer may be readily removed from the casing for emptying its contents. The longitudinal and transverse partitions 34 and 35 and the false bottom may be readily removed to obtain access to the mechanism should it become necessary to repair the same. In practice, it is preferable to provide the lower face of the bottom of the casing with a covering of fabric or other suitable material to prevent scratching or otherwise marring the surface upon which the device is placed.

What is claimed is:—

1. A device of the class described, including a casing provided with an ash tray composed of swinging sections hinged at their outer side edges, a vertically movable operating member normally arranged in an elevated position, and means carried by the said member for supporting the ash tray sections in closed position, said member when moved downwardly permitting the ash tray sections to open and discharge the contents of the ash tray.

2. A device of the class described, including a casing provided with an ash tray composed of swinging sections hinged at their outer side edges, a vertically movable operating member normally arranged in an elevated position, means carried by the said member for supporting the ash tray sections in closed position, said member when moved downwardly permitting the ash tray sections to open and discharge the contents of the ash tray, and a removable drawer mounted in the casing and arranged below the ash tray and adapted to receive the contents thereof.

3. A device of the class described, including a casing having an ash tray and provided below the same with a removable drawer to receive the contents of the ash tray, means for dumping the ash tray, a cigar and cigarette extinguishing device located beyond the ash tray and provided with an opening to receive the fire and ashes of a cigar or cigarette, and an inclined chute extending from the opening of the cigar and cigarette extinguishing device to a point beneath the ash tray for discharging ashes into the said drawer.

In testimony whereof I have hereunto set my hand.

BUNPACHI IIZUKA.