F. W. DECKER.

MATCH BOX.

APPLICATION FILED JULY 25, 1916.

1,218,530.

Patented Mar. 6, 1917.

Fig. 1.

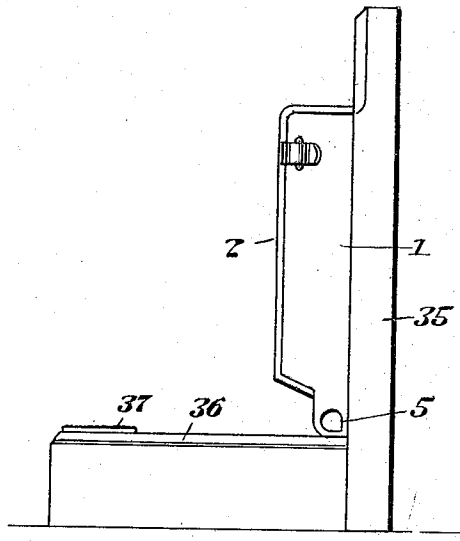


Fig. 2.

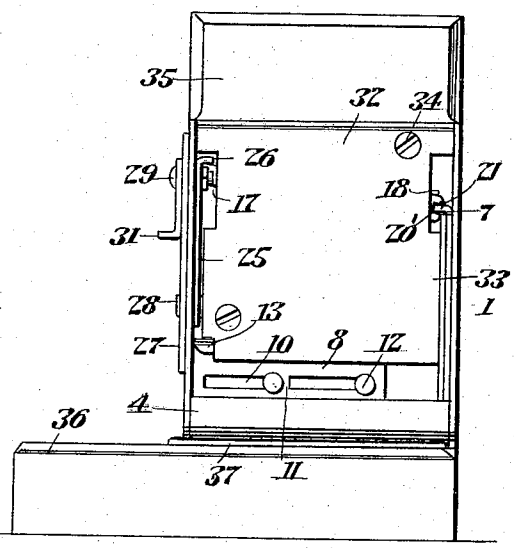


Fig. 4.

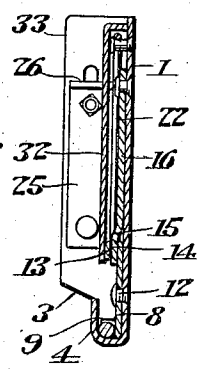
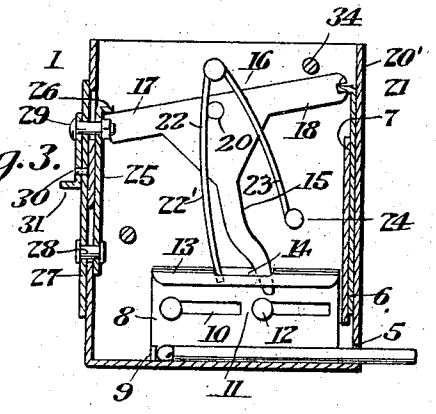


Fig. 3.



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MATCH-BOX.

1,218,530. Specification of Letters Patent. Patented Mar. 6, 1917.

Application filed July 25, 1916. Serial No. 111,256.

To all whom it may concern:

Be it known that I, FREDERICK W. DECKER, a citizen of the United States, residing at Brunswick, in the county of Glynn and State of Georgia, have invented new and useful Improvements in Match-Boxes, of which the following is a specification.

This invention relates to improvements in match boxes of the single delivery type, the main object of the invention being to provide a box which, upon being filled, need not be opened for the extraction of matches or for the purpose of replenishing the same with matches until the matches stored therein for dispensation are dispensed, the matches being ejected one at a time through the medium of an operating element upon the exterior of the box.

A further object of the invention is to provide a match box which is simple of construction, reliable and efficient in action, adapted to operate without liability of the matches being ignited by friction or otherwise, and which is susceptible to use either as a pocket match box or of being mounted upon a stand as a permanent fixture.

The invention consists of the features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawing in which:—

Figure 1 is a side elevation of the match box looking toward the discharge outlet and showing the box mounted upon a support as a permanent fixture.

Fig. 2 is a view in front elevation of the box with the cover removed.

Fig. 3 is a vertical transverse section through the box and showing the ejector in operation for the discharge of a match.

Fig. 4 is a vertical front to rear section through the center of the match box with the cover plate of the closure removed.

In carrying my invention into practice I provide a box or receptacle comprising a body 1 and a removable cover 2. As shown in the present instance the body 1 is preferably open at the front and top and the lower edges of the side walls of said body are cut away as indicated at 3 and the lower edge of the back wall of the body bent or turned up to form a gutter or channel 4 to receive a number of matches in superposed relation for discharge. The cover 2 is suitably formed to fit the body 1 and close the openings thereof with the exception of the match discharge outlet, and said cover is removably secured in position by fastening means of any suitable construction (not shown) to provide for the ready replenishment of the box with matches as occasion requires.

The box is provided in one of its side walls with a match discharge outlet 5 of just sufficient size to admit of the discharge of a single match at a time, and this outlet is adapted to be normally closed by a sliding cover member 6 mounted in a guideway 7 upon the said side wall of the body.

Arranged within the lower portion of the casing is an ejector 8 comprising a rectangular plate having at its lower rear part a match engaging projection 9, said ejector plate being provided with longitudinally extending slots 10 separated by a stop piece 11, which slots receive headed guide studs or projections 12 mounted upon the back wall of the box, whereby the ejector is slidably supported upon said wall limited in its reverse movements.

The upper edge of the ejector plate is provided with a down-turned flange 13 which is formed with a longitudinal slot 14 receiving the lower end of the vertical arm 15 of an actuating lever 16, having laterally extending arms 17 and 18, said lever being pivotally mounted upon the back wall at the angle of intersection of its arms, as indicated at 20. The arm 15 of the lever is adapted to transmit sliding motion to the ejector, while the arm 18 thereof is formed with a notch 20′ receiving a flange or projection 21 on the sliding cover or cut-off plate, whereby said arm is slidably and pivotally connected with said plate, so that when the slide is moved forward on its ejecting motion the cut-off will be raised vertically to uncover the match discharge outlet, while upon the backward or return motion of the slide the cut-off will be returned to normal cut-off position. A V-shaped wire spring 22 is suitably mounted at its vertex within the casing and the free ends of its arms 22′ and 23 are respectively fitted within the slot 14 and arranged to bear against a pin or stud 24, so that the arm 22′ will be tensioned on the forward movement of the slide to retract said slide, the cut-off and the coacting movable parts of the match discharge mechanism.

The arm 17 of the actuating lever is pivotally connected with a slide 25 mounted upon the side of the box opposite the cut-off, the pivotal connection being in the form

of a flange 26 upon the slide which overhangs and engages the free end of the lever arm 17, whereby when the slide is depressed the lever will be operated on its slide projecting and cut-off opening motions, while upon the reverse movement of the parts under the action of the spring the slide and other elements referred to will be returned to normal position.

The slide 25 is in the form of a plate which is connected with a guide plate 27 on the exterior of the casing, said plates being connected by a screw or rivet 28 and a bolt 29. Attached to the bolt 29 and also secured to the plate 27 by a pin 30 is a flanged finger piece 31 whereby the actuating lever may be operated in an obvious manner. A shield plate 32 is disposed within the casing so as to cover the working parts above described and form the rear wall of the match receiving space or chamber 33, said plate being secured to the back wall of the box by screws or other suitable fastenings 34. A smooth surface is thus provided for the downward travel of the matches by gravity to the gutter or channel 4 and the matches are prevented from hanging or binding in the operating mechanism.

In the operation of the device, it will be understood that the box is filled with matches after which the cover 2 is applied and secured, and that the matches gravitate into a gutter or channel 4, the lowermost match having its rear end arranged in line with the ejector projection 9, so that when the ejector is operated said match will be pushed, endwise, out of the discharge opening so that it may be readily and conveniently grasped and removed, the match being held in position from recession by the closure member under the action of the spring if the finger piece is released, and said closure member operating immediately to close the outlet against the discharge of any other matches until the actuating mechanism is again positively operated. It will thus be understood that the matches will feed by gravity into feeding position and may be successively discharged one by one until the supply is exhausted. It will be evident that the headed end of the match is projected sufficiently to enable the match to be grasped under any and all conditions, the convenience of which will be obvious.

In practice, the box may be easily and conveniently carried in the pocket, or, as shown in the present instance, it may be secured to the upright 35 of a stand having a base 36 provided with a match scratch surface 37, so that the device may be supported upon a mantel, wall or other surface for convenience as an ordinary article of utility in the house-hold or elsewhere.

I claim:—

1. A match box comprising a casing having back, side and bottom walls, the bottom wall being bent upwardly to form a gutter and one of the said side walls being provided with a discharge outlet in line with said gutter, a cover for closing the top and front of the casing, a reciprocating cut-off governing the discharge of matches from the gutter through said outlet, a reciprocating ejector for discharging the matches from the gutter through the cutlet, a spring for retracting said ejector, a T-shaped lever having one of its arms pivotally connected with the ejector and a second arm pivotally connected with the cut-off for operating the same in unison, and means connected with the third arm of the lever for imparting actuating motion thereto.

2. A single delivery match box comprising a casing having a lateral discharge outlet, a sliding ejector for discharging the matches through said outlet, a sliding cut-off controlling the outlet, a T-shaped lever having one of its arms engaging the ejector for operating the same, and another of its arms connected with the cut-off for actuating the same, an operating device connected with the third arm of the lever, and a spring arranged within the casing and operatively connected to hold the parts in normal position.

3. A single delivery match box comprising a casing having a lateral discharge outlet and a portion bent to form a gutter disposed in line with said outlet, said gutter being adapted to receive a series of single matches in superposed order, a sliding cut-off at one side of the box controlling the outlet, a sliding ejector having a projection disposed within the gutter to engage the lowermost match, a T-shaped lever having one of its arms connected with the ejector and another of its arms connected with the cut-off for operating the same in unison, a spring connected with the ejector for holding the parts in normal position, and an operating device connected with the third arm of the lever.

In testimony whereof I affix my signature

FREDERICK W. DECKER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."