

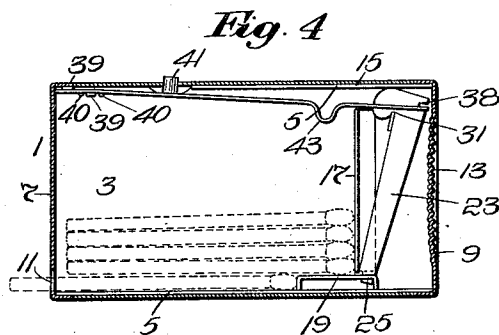
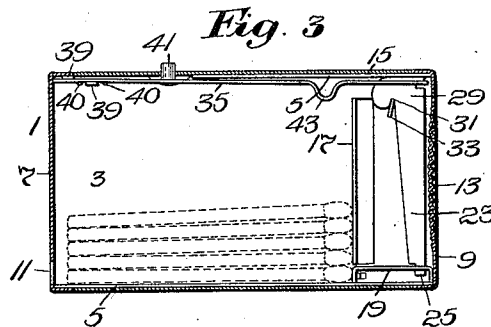
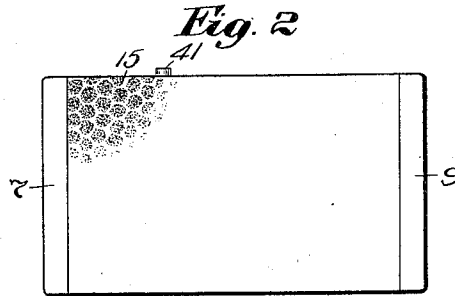
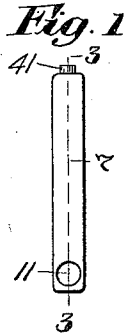
G. F. DUNN.

MATCH BOX.

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1,036,198.

Patented Aug. 20, 1912.



Witnesses:

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UNITED STATES PATENT OFFICE.

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MATCH-BOX.

1,036,198.

Specification of Letters Patent.

Patented Aug. 20, 1912.

Application filed October 1, 1909. Serial No. 520,507.

To all whom it may concern:

Be it known that I, GEORGE F. DUNN, a citizen of the United States, and a resident of Brockton, in the county of Plymouth and Commonwealth of Massachusetts, have invented an Improvement in Match-Boxes, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention relates to pocket match-boxes and aims to provide among other things a match-box having a simple match ejecting mechanism whereby a match may be obtained without opening the box.

My invention may be readily understood by reference to the following description of an illustrative embodiment thereof shown in the accompanying drawing, wherein:

Figure 1 is an end elevation of the illustrative match-box embodying my invention; Fig. 2 is a side elevation of Fig. 1; Fig. 3 is a section taken on line 3—3 of Fig. 1 disclosing the ejecting mechanism; and Fig. 4 is a similar view showing the mechanism in a different position.

Referring to the drawing, the illustrative match-box herein shown as embodying my invention comprises a two-part casing 1, each part (see Fig. 3) consisting of a plate 3 having side flanges 5, said parts being held together by end caps 7 and 9 and a covering of leatherette or other suitable material which may be retained on said casing by an adhesive. Adjacent one end of the cap 7 is a hole 11 (Figs. 1 and 4) through which a match may be projected as more fully hereinafter described. The other cap 9 may be provided with a rough surface 13 (Figs. 3 and 4) on which the matches may be scratched for lighting.

The casing is provided with a partition 17 herein incised and bent out of one part of the casing, said partition dividing the latter into a match magazine and a chamber containing parts of the match ejecting mechanism. This mechanism comprises a sliding ejector 19 herein of U-shaped sheet material adapted to be projected into said magazine through a guide opening between the partition 17 and the adjacent side of the casing by a lever 23 of the first class, having a reduced end 25 loosely received by a slot in the back of said ejector 19. The lever 23 widens toward its opposite end to form an

enlarged head 29 forming a notch 31 and is fulcrumed on a lug 33 projecting from one of the plates 3. The lever 23 may be rocked on its fulcrum lug by a lever 35 of the third class, said lever being of spring material and having a slot of sufficient extent loosely to receive said lever head 29, the latter having a notch 38 in its edge opposite said fulcrum lug to prevent the lever 35 from slipping off of said head. This lever passes through an opening between the end of the partition 17 and the adjacent side of the casing, said opening being sufficient to permit the free oscillation of the lever 35 as more fully hereinafter described. The opposite end of the lever may be secured to the casing by springing said end between suitable offset lugs 39 projecting from the casing. The lever is prevented from slipping out of said lugs by knobs 40 on said lever on opposite sides of one of said lugs. The lever may be provided with an actuating button 41 projecting through registering openings in the casing and covering. To prevent the matches in the magazine from entering or clogging the ejecting mechanism chamber, the spring lever 35 may be curved or humped as at 43. The magazine may be filled through the cap hole 11 or by removing the cap as desired.

In operation the match-safe is grasped in the hand with the thumb extending along the upper edge (see Fig. 3). A slight pressure by the thumb on the button 41 will bend or swing the spring lever 35 against its inherent resistance causing its free end to engage the lower side of the notch 39, thereby rocking the lever 23 about the fulcrum lug 33 into the position shown in Fig. 4. It will be apparent that a very slight movement of the short arm between the fulcrum lug 33 and the notch 39 will transmit a greatly increased movement to the end of the long arm of the lever 35, the increased movement being further enhanced by the position of the button 41. As a result the ejector operated from the end of said long arm is given a considerable sliding movement sufficient to send it a substantial distance into said magazine in response to a very slight pressure on the button 41. The ejector is of less width than the thickness of a match and when slid forward from its chamber into the match magazine impinges against the end of the match in front of it and projects the match

through the hole 11. The match may be entirely expelled from the magazine or may be merely projected sufficiently from the casing to permit it to be withdrawn by the other hand, depending on the force and suddenness of the pressure on the button. As soon as said button is released the spring 35 will engage the opposite side of the notch 39 and return the ejector to its normal position within the ejecting mechanism chamber as shown in Fig. 3.

The parts of the ejecting mechanism and the casing may be stamped out of sheet material and none of the parts are permanently connected but may be readily assembled by simply inserting them in place where they will be operatively held by one another and the casing.

By my invention is provided a compact and effective match-box having an ejector mechanism of a minimum number of parts of extremely simple construction and operation throughout.

It will be understood that my invention is not limited to the particular embodiment shown herein but that various modifications may be made without departing from the spirit and scope of my invention.

Claims.

1. A pocket match-box comprising, in combination, a casing 1 and means for ejecting matches therefrom including an ejector 19, a lever 23 and a combination spring and actuating lever 35 having one end secured

to the casing and operable from the exterior of the casing for rocking said lever and ejecting a match from the casing.

2. A match box comprising, in combination, a match magazine and a mechanism containing chamber and means to project a match from said magazine comprising a lever fulcrumed in said chamber, an ejector connected to one end of said lever and a combination spring and actuating lever having a fixed end and one end connected to said fulcrumed lever and tending to maintain the latter in a position to hold said ejector in said chamber, said actuating lever having provision for operating the same from the exterior of the chamber.

3. A match-box comprising, in combination, a casing, a partition dividing the latter into a match magazine and a mechanism containing chamber, a match ejector, a lever coöperating therewith, an operating lever coöperating with the latter and projecting from said chamber through an opening in said partition into said magazine and a projection on said last named lever for preventing the matches from clogging said opening.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

GEORGE F. DUNN.

Witnesses:

HENRY T. WILLIAMS,
IRVING U. TOWNSEND.