



# UNITED STATES PATENT OFFICE.

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## MATCH-BOX.

No. 812,047.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, ROBERT E. KING, a citizen of the United States of America, residing at Beaufort, in the county of Carteret and State of North Carolina, 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 magazine sliding-ejector type adapted to project a single match at a time.

The object of the invention is to provide a box of this type which is simple of construction, durable and efficient in use, and inexpensive of production, which will effectually prevent binding or clogging of the matches therein, and whereby the matches may be ignited when ejected or withdrawn without being ignited.

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

Figure 1 is a perspective view of the match-box as arranged when employed for ejecting a match. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a vertical transverse section of the box. Fig. 4 is a bottom plan view of the body of the box with the ejector removed. Figs. 5 and 6 are respectively a bottom and a top plan view of the ejector-slide. Fig. 7 is a plan view of the blank from which the body of the box is made.

Referring now more particularly to the drawings, the numeral 1 designates the body of the box, which is preferably formed on a suitable mandrel or shaper from an oblong rectangular blank of sheet metal constructed as shown in Fig. 7. This blank is cut out by means of a suitable die and is formed at its opposite side edges with outwardly-extending wings 2 and 3, which are adapted to be bent at right angles thereto to form the end portions of the box. The central portion of the blank is folded in the process of forming the box into nearly cylindrical form, as shown at 4, to form a magazine-chamber at the top of the completed box for the reception of the matches, while the end edges of the blank are bent in substantially parallel relation, as indicated at 5, to provide a narrow or restricted feed-channel 6, disposed below the magazine and extending therefrom to the bottom of the body of the box. The end walls 2 and 3 are

shaped to conform to the contour of the body of the box as thus produced and are soldered or otherwise secured at their free edges thereto. By this means the body of the box may be inexpensively manufactured of sheet metal, which may be nickel-plated or otherwise suitably finished or ornamented.

The front end wall 2 of the box is provided at its lower end with a notch or cut-away portion 7 to form an outlet-opening or passage for the ejection of the matches, and the bottom edges of the walls 5 are turned outwardly to form guide-flanges 8, extending the full length of the bottom of the body of the box. A short distance in advance of the rear end wall 3 the walls 5 are slitted to form portions 9, which are bent or deflected inwardly to contact the base of the channel 6 at that point to retain the match in position and prevent it from tilting upon the initial forward movement of the ejector-slide, as hereinafter described.

The ejector-slide 10 is formed of a single strip of sheet metal stamped or otherwise suitably bent into shape and has a tapered or reduced forward end 11, provided with an angularly-bent projection 12 to form a closure for the outlet-opening 7 and a stop to prevent the casual discharge of the fed-up match therethrough. In rear of the tapered end 11 the side edges of the ejector are turned inwardly to form guide-flanges 13, which slidably engage the flanges 8 of the box, said flanges having sufficient frictional engagement to hold the ejector from movement except when positively operated. The forward portion of the body of the ejector is punched to provide a series of inwardly and rearwardly projecting serrations 14, forming a match-igniting surface, while the rear portion of the body of the slide is punched to provide a series of serrations 15, which may project either forwardly or rearwardly and afford a finger or thumb engaging surface and an exterior match-igniting surface. A strip of emery cloth or paper may be substituted for the serrated surfaces 14, if desired. The rear end of the ejector has an in-struck projection 16 to engage the headed end of a match resting upon the ejector and force it forward when the ejector is actuated outwardly through the opening 7.

In filling the box with matches the box is inverted and the ejector removed, after which the matches are inserted through the bottom of the box into the magazine 4, after which

the ejector is again applied. When the box is restored to its normal position, the restricted channel 6 permits the bottom matches of the store to feed singly downward there-  
 5 through in a column or in superposed relation, the lowermost match of the column resting upon the slide and held in alinement with the outlet-opening 7 by the members 9. It should be stated that the matches are  
 10 placed in the box with their headed ends at the rear or facing the wall 3, so that the headed end of the lowermost match will be engaged by the projection 16.

To eject a match, the box is held in the po-  
 15 sition shown in Fig. 1 with the thumb or finger engaging the serrated surface 15 and the slide moved forward, thus projecting the handle end of the match-stem through the opening 7, so as to permit it to be grasped  
 20 and readily extracted without extending the slide to the full limit of its forward movement. This action will project the match without ignition, as it will feed in a direct  
 25 line through the opening 7 and will not bear against the igniting-surface 14 with sufficient force to ignite the head thereof. The match may then be ignited against the exterior igniting-surface 19, if desired. If it be desired  
 30 to ignite the match during its ejection, the handle end of the stem is grasped as it feeds outward through the opening 7 and tilted or pressed upward toward the upper wall of the  
 35 opening 7, which will permit the headed end of the match to forcibly bear against the serrated surface 14, whereby the head will be ignited as the match is drawn outward. The purpose of contracting the lower rear portion  
 40 of the channel 6 by the inwardly-projecting members 9 is to hold the headed end of the match into engagement with the projection 16, so that the match will not tilt out of alinement with the opening 7 upon the initial forward movement of the ejector-slide.

Having thus described the invention, what I claim is—

1. A match-box having a magazine, and a contracted feed-channel below the same and provided with an outlet at one end thereof, the lower edges of the walls of the channel forming guide-flanges and having inturned  
 50 portions adjacent to the rear end of the channel to constrict the same at that point, and a match-ejector having a scratch-surface and coacting guide-flanges and front and rear  
 55 projections to, respectively, normally close the outlet and engage the end of a match to be fed forward, the outlet being of such size as to permit tilting of the match as it is withdrawn to permit the headed end thereof to be manually pressed against said scratch-  
 60 surface and ignited.

2. A match-box having a magazine and a contracted feed-channel below the same and provided with an outlet, the lower edges of the walls of the channel forming guide-  
 65 flanges, and a match-ejector having coacting guide-flanges and front and rear projections to respectively normally close the outlet and engage the end of a match to be fed forward.

3. A match-box having a magazine and a contracted feed-channel below the same and provided with an outlet, the lower edges of the walls of the channel forming guide-  
 70 flanges and having inturned portions adjacent to the rear end of the channel to constrict the same at that point, and a match-ejector having coacting guide-flanges and front and rear projections to respectively  
 75 normally close the outlet and engage the end of a match to be fed forward.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT E. KING.

Witnesses:

L. A. GARNER,  
 W. S. MORTON.