W. ROSS.

MATCH BOX.

APPLICATION FILED JUNE 1, 1912.

1,043,628.

Patented Nov. 5, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

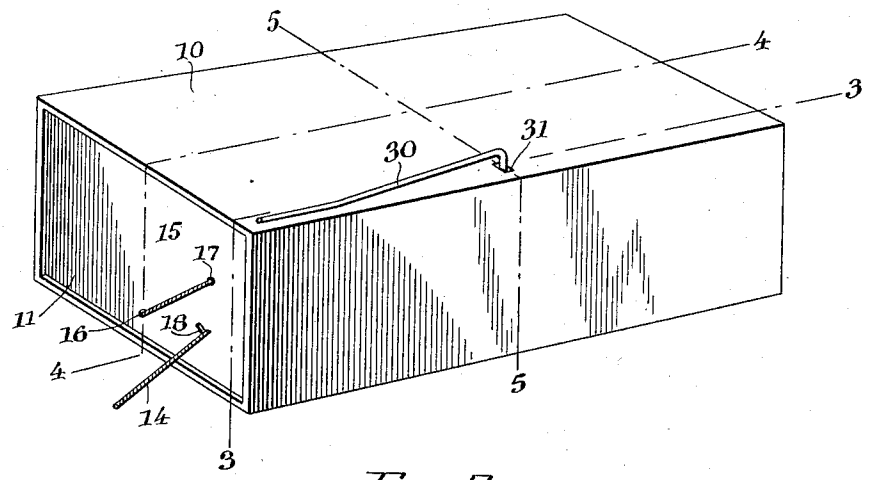
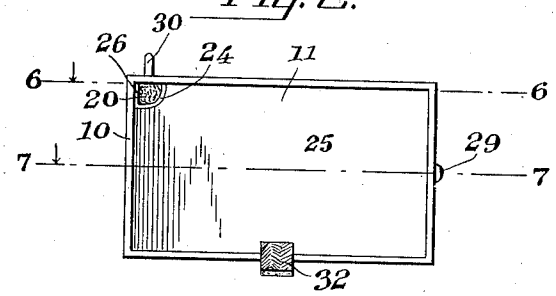


Fig. 2.



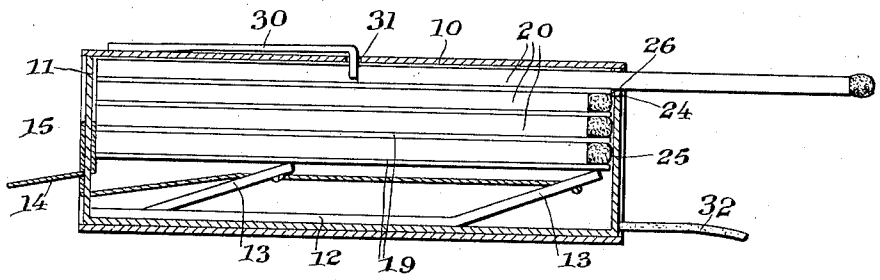


Fig. 3.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

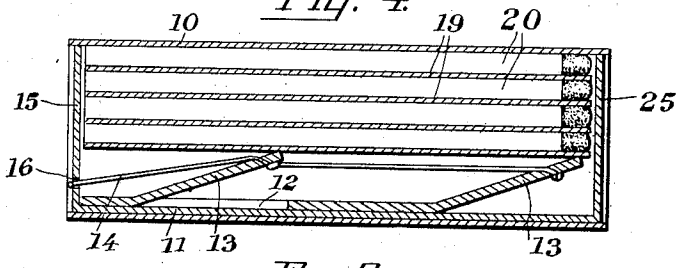


Fig. 5.

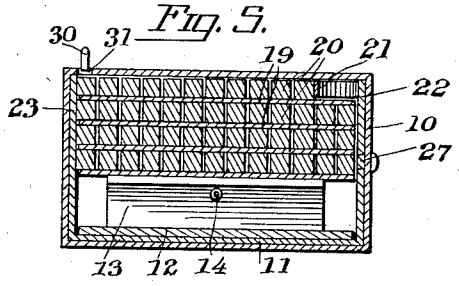


Fig. 6.

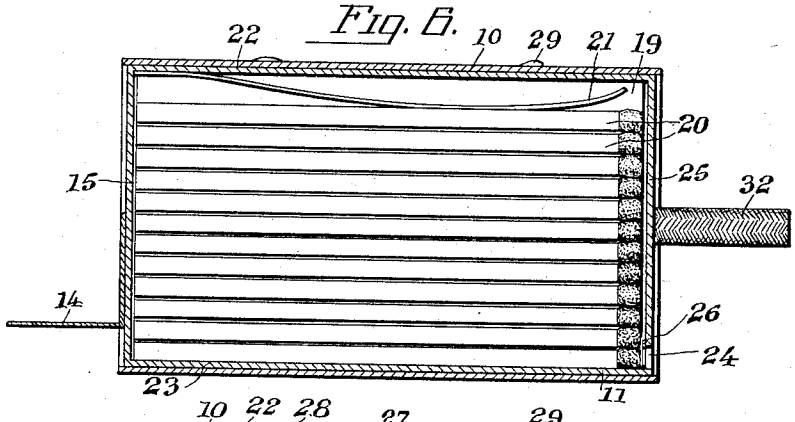
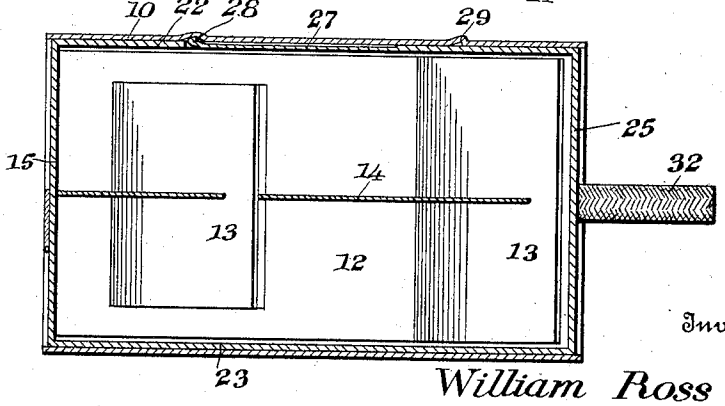


Fig. 7.



Witnesses

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MATCH-BOX.

1,043,628. Specification of Letters Patent. Patented Nov. 5, 1912.

Application filed June 1, 1912. Serial No. 700,944.

To all whom it may concern:

Be it known that I, WILLIAM ROSS, a subject of the King of Great Britain, residing at Woodstock, in the Province of New Brunswick and Dominion of Canada, have invented new and useful Improvements in Match-Boxes, of which the following is a specification.

An object of the invention is to provide a match box whereby, each time the box is operated, a single match will be delivered.

The invention embodies, among other features, a match box preferably made of a size similar to the usual boxes containing safety matches, and by means of which, when the box body is partially removed from the casing and then returned to the casing, a single match will be delivered to the user, the match being adapted to partially project from the casing so as to be easily grasped and removed entirely from the box body by the user.

In the further disclosure of the invention reference is to be had to the accompanying drawings constituting a part of this specification in which similar characters of reference designate corresponding parts in all the views, and in which:

Figure 1 is a perspective view of the device; Fig. 2 is an end view; Fig. 3 is a vertical longitudinal sectional view taken on the line 3—3 in Fig. 1 and showing a match in delivered position; Fig. 4 is a vertical longitudinal sectional view taken on the line 4—4 in Fig. 1; Fig. 5 is a vertical transverse sectional view of the device as disclosed in Fig. 1; Fig. 6 is a horizontal sectional view taken on the line 6—6 in Fig. 2; and Fig. 7 is a horizontal sectional view taken on the line 7—7 in Fig. 2.

Referring more particularly to the views, I employ a casing 10 in which is mounted to slide a box body 11, the casing 10 and box body 11 being similar in shape and arrangement to the casings and box bodies usually employed to contain safety matches, the casing and box body in my device, however, being preferably made of metal.

A bottom 12 is mounted in the bottom of the box body 11, the said bottom 12 being preferably made of cardboard or the like and having struck therefrom a plurality of plates 13, the plates being partially struck from the bottom 12 to swing thereon and having connected thereto a cord 14 extending through an end 15 of the box body 11, apertures 16, 17 being provided in the mentioned end 15 to receive the said cord therethrough, the cord being first drawn through the aperture 16 and then returned into the box body through the aperture 17, after which the free end of the cord is drawn through a slot 18 formed in the end 15, the slot being of a V-shape so that when a pull has been exerted on the free end of the cord to raise the plates 13 vertically in the box body 11, the cord can be moved to the smaller end of the slot 18, thus frictionally retaining the cord in engagement with the end 15 and holding the plates 13 in rigid position as will be readily understood by referring to the views.

Over the bottom 12 a series of partitions 19 are loosely mounted in the box body 11, layers of matches 20 being interposed between the partitions as shown in Figs. 3, 4 and 5, it being readily seen that when the plates 13 are swung upwardly the partitions 19 and layers of matches 20 will be moved upwardly in the box body 10, a leaf spring 21 being secured to a side 22 of the box body and inclined toward a side 23 of the box body, the free end of the said leaf spring being adapted to engage the last match in a layer of matches to force and hold the layer of matches toward the side 23 of the box body, thus at all times causing the first match in the box body of the uppermost layer of matches to register with an opening 24 formed in an end 25 of the box body 11, a piece of flexible material 26, constituting a binder, being mounted to encircle the opening 24 so that when a match is delivered through the opening 24 the edges of the binder will frictionally engage the match and retain the same in delivered position.

A tongue 27 is struck from the side 22 of the box body 11, the said tongue being of a spring-like nature and having formed on the end thereof a knob 28 adapted to engage the inner face of the side of the casing 10, adjacent the side 22 of the box body, an outwardly struck bead 29 being formed on the mentioned side of the casing 10 and adapted to receive therein the knob 28, when the box body 11 is moved into partially open position relatively to the casing 10, the mentioned knob 28, when extending into the bead 29, being adapted to limit the outward movement of the box body and prevent the same from being entirely removed from the casing 10.

An end of a spring-like finger 30 is rigidly secured to the upper face of the casing 10 and the free end of the finger is bent downwardly to extend through an opening 31 in the casing, the mentioned opening being provided in the casing to aline with the first match in the uppermost layer of matches in the box body 11, as shown in Fig. 3, the end of the laterally projecting portion of the finger 30 being adapted to normally lie outside of the plane of the box body and movable into the box body when a downward pressure is applied on the finger, as will be readily understood.

Now when it is desired to remove a match from the box body 11, a pull is exerted on a tab 32, secured to one end of the box body to aid in partially removing the same from the casing 10, the mentioned outward pull exerted on the tab 32 being adapted to partially remove the box body 11 from the casing 10, the knob 28 of the tongue 27, extending into the bead 29, being adapted to limit the outward movement of the box body, as mentioned heretofore. When the box body is in its outermost position the opening 31 in the casing 10 will be immediately above the rear end of the first match in the box body. A downward pressure is now applied to the finger 30, thus moving the laterally extending free end thereof into the box body so that the said end will engage the rear end of the first match, and, when the box body is returned to closed position, the first match in the uppermost layer of matches will be forced outwardly through the opening 24 in the end 25 of the box body 11, the rear end of the match being engaged by the binder 26 when the match has been partially forced out of the casing, to support the match in delivered position and prevent the same from dropping to the ground, a sufficient portion of the match being adapted to project exteriorly of the casing to permit of the operator grasping the same and entirely removing the match from the casing for the purpose of using the same. At the moment the first match has been delivered, the spring 21, exerting pressure on the rearmost match in the uppermost layer of matches, will move the second match into registration with the opening 24 so that when the above operation is repeated the second match will be moved into delivering position. When all of the matches in the uppermost layer of matches have been removed from the box body 11, the operator exerts a pull on the cord 14, thus pulling upwardly on the plates 13 to move the next layer of matches into the position formerly occupied by the uppermost layer of matches, the cord being secured in the manner described heretofore to retain the plates 13 in supporting position, it being readily understood that the leaf spring 21 can be held against the side of the box body to which it is secured while this operation is proceeded with in order that the leaf spring, when released, will engage the rearmost match in the new layer of matches to move the first match into registration with the opening 24. When the matches in a single layer of matches have been removed from the casing in the manner mentioned, the partition upon which the layer of matches reposed can be conveniently removed by partially opening an end of the casing and removing the mentioned partition therefrom, the said partitions being preferably made of paper or bristol board.

The outer faces of the sides of the casing 10 are preferably provided with a roughened surface or coated with a layer of material suitable to ignite the matches in the box body when the heads of the matches are brought into frictional contact therewith, the mentioned material being preferably placed on the outer faces of the sides of the casing in the same manner that the material is used in connection with the casings of safety match boxes now in commercial usage.

Although I have shown a particular form of device with a particular arrangement of the parts thereof, it will be understood that I do not limit myself to the exact disclosures herein, nor to the precise construction as disclosed in the drawings, the scope of the invention being defined in the appended claims.

Having thus described my invention, I claim:

1. In a match box, the combination with a casing, of a box body mounted to slide thereon and provided with an opening, means for limiting the outward sliding movement of the said box body, a plurality of movable plates mounted in the said box body, the said box body being adapted to contain layers of matches mounted over and above the said plates, means for swinging the said plates upwardly in the said box body to move the uppermost layer of matches upwardly and adjacent to the upper edges of the said box body, and means mounted on the said casing and movable into the said box body to engage the first match of the uppermost layer of matches and deliver the same through the opening in the said box body, when the said box body is moved into closed position within the said casing.

2. In a match box, the combination with a casing, of a box body mounted to slide thereon and provided with an opening, means for limiting the outward sliding movement of the said box body, a plurality of movable plates mounted in the said box body, the said box body being adapted to contain layers of matches mounted over and

above the said plates, means for swinging the said plates upwardly in the said box body to move the uppermost layer of matches upwardly and adjacent to the upper edges of the said box body, and a spring-like finger mounted on the said casing and movable into the said box body to engage the first match in the uppermost layer of matches and deliver the same through the opening in the said box body, when the said box body is moved into closed position within the said casing.

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

WILLIAM ROSS.

Witnesses:
EDITH J. FINNAMORE,
JENNIE M. HALEY.