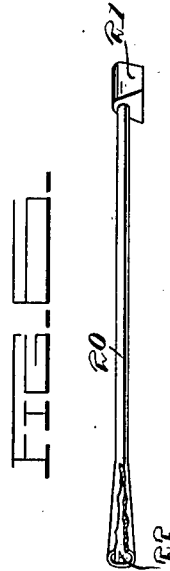
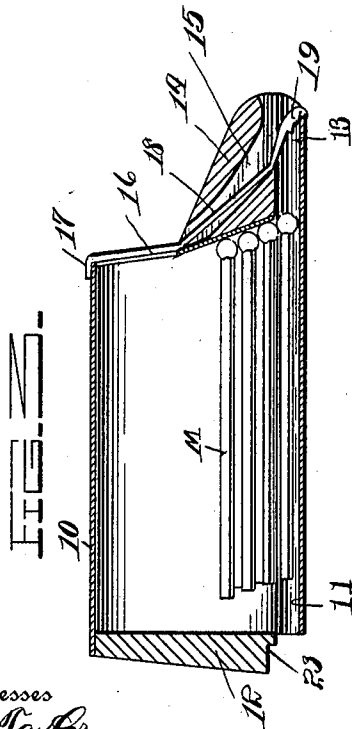
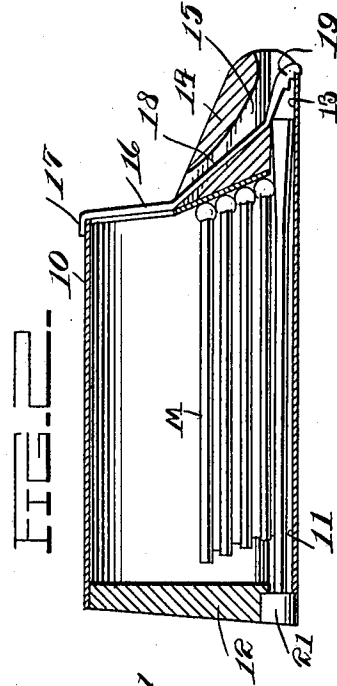
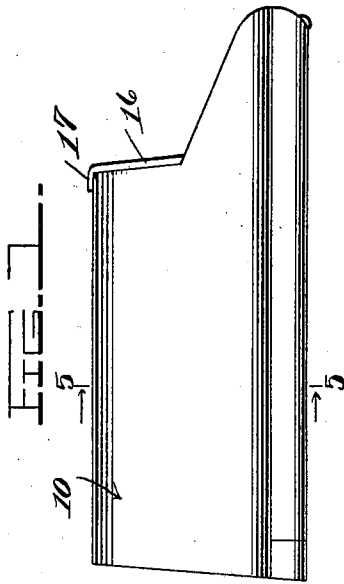


R. DINGWELL.
MATCH BOX.
APPLICATION FILED JULY 1, 1911.

1,026,976.

Patented May 21, 1912.

2 SHEETS—SHEET 1.



Witnesses
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Henry T. Bright

Inventor
R. Dingwell.

By *Charles A. Chapman*

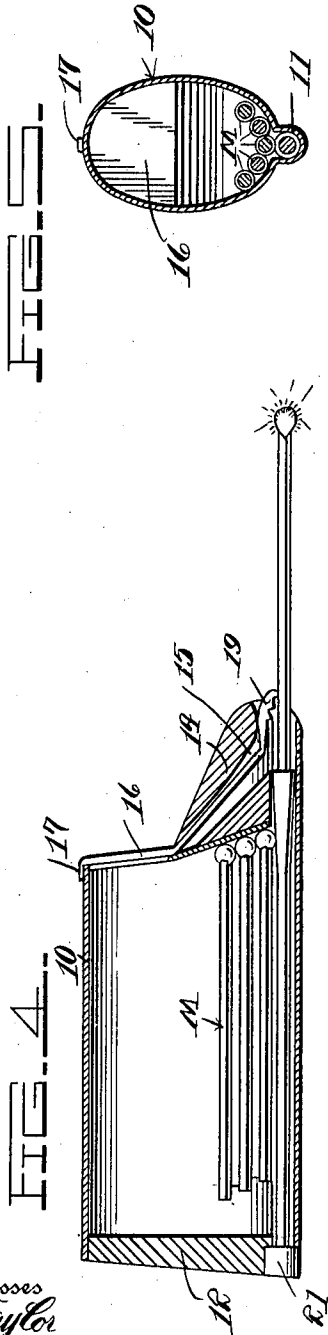
Attorneys

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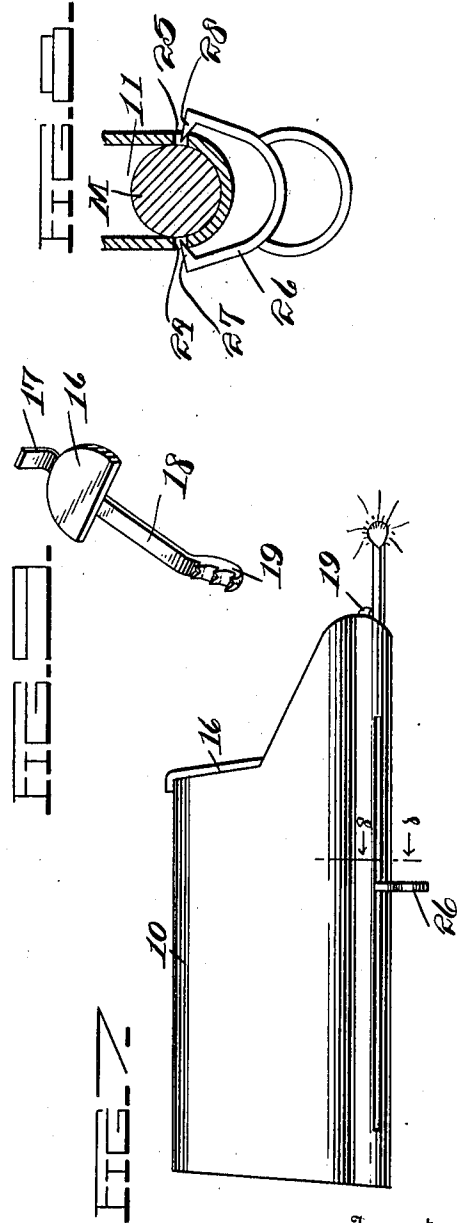
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2 SHEETS-SHEET 2.



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By *Handwritten Signature*

Attorneys

UNITED STATES PATENT OFFICE.

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MATCH-BOX.

1,026,976.

Specification of Letters Patent.

Patented May 21, 1912.

Application filed July 1, 1911. Serial No. 636,356.

To all whom it may concern:

Be it known that I, RUEL DINGWELL, a citizen of the United States, residing at Boston, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Match-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to match boxes.

The object of the invention resides in the provision of a match box which includes means whereby the delivery of matches therefrom is effected singly.

A further object of the invention resides in the provision of a match box of the single delivery type in which pressure is brought to bear upon the head of the match during its delivery to effect the ignition thereof and which will hold the match after the delivery of the latter to a point exterior of the box until said match is manually withdrawn.

With the above and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings, wherein like characters of reference denote corresponding parts in the several views, and in which—

Figure 1 is a side elevation of a match box embodying the invention, Fig. 2, a longitudinal section of what is shown in Fig. 1 with the match ejecting plunger shown in the position it would occupy before removal from the box, and a quantity of matches being further shown disposed within the box above said plunger, Fig. 3, a view similar to Fig. 2 with the ejecting plunger removed and one of the matches within the box disposed in position to be engaged by the ejecting plunger when the latter is reinserted, Fig. 4, a view similar to Fig. 3 with the ejecting plunger inserted and one of the matches ignited and forced exteriorly of the box by said plunger, Fig. 5, a section on the line 5—5 of Fig. 1, Fig. 6, a detail perspective view of the ejecting plunger partly in section, Fig. 7, a side elevation of a match

box showing a modified form of the invention, and with a match ignited and partially ejected, Fig. 8, an enlarged section on the line 8—8 of Fig. 7, and Fig. 9, a detail perspective view of the cover plate.

Referring to the drawings, the device is shown as comprising a casing 10 which is substantially elliptical in cross section as shown in Fig. 5, the lower side of said casing being so shaped as to form a channel 11 extending from end to end of the casing. One end of the casing 10 is closed as at 12 while the other end thereof is provided with a reduced extension 13 between the walls of which above the channel 11 is a solid portion 14 provided with a curved passage 15 one end of which is directed into the channel 11 while the other end opens through the upper side of said solid portion at the inner end thereof. The end of the casing 10 above the solid portion 14 is closed by a detachable cover plate 16 having its upper side provided with an angular arm 17 which overlies the top of the match box while its lower side is provided with a spring stem 18 which passes through the passage 15, when the cover plate is in closing position, and has its free end terminating in an enlarged toothed portion 19 extending across the channel 11. By this construction it will be apparent that the cover plate 16 and the parts associated therewith may be disengaged from the match box by a movement of the cover plate transversely of the box as will be apparent.

The matches M are adapted to be ejected by means of a plunger 20 movable in the channel 11 and having one end thereof provided with an enlarged head 21 while the other end is provided with a longitudinally directed recess 22. When the plunger is in the position shown in Fig. 2 the head 21 is disposed in a cutaway portion 23 in the casing so as to afford a substantially uninterrupted end to the match box at that point.

In use the cover plate 16 and associated parts are disengaged from the box and matches M supplied to the interior of the latter. The cover plate is then reapplied which will of course position the toothed enlargement 19 across the delivery end of the channel 11. The plunger 20 is then withdrawn from the box and one of the matches will drop under the influence of gravity into the channel 11. The plunger 20 is then in-

serted into the channel 11 and the stem of the match in the channel will seat in the recess 22. Further movement of the plunger 20 will force the head of the match against the toothed enlargement 19 and lift said enlargement to allow the passage of the match head exteriorly of the box. During the lifting of the toothed enlargement 19 to permit the passage of the match sufficient friction will be created to ignite the head of the latter. The plunger 20 is then fully inserted in the box as shown in Fig. 4 and the match ejected thereby will remain seated in the recess 22 until manually removed. This operation is repeated whenever it is desired to withdraw a match from the box. In the modified form of construction illustrated in Figs. 7 and 8 the plunger 20 is dispensed with and the side walls of the channel 11 provided with corresponding longitudinal slots 24 and 25. Disposed exteriorly of the box and embracing the walls of the channel 11 is a U-shaped spring member 26 the free ends of the arms of which terminate in inwardly bent prongs 27 and 28 which project respectively into the slots 24 and 25. In order to eject a match from the box constructed in accordance with Figs. 7 and 8 the arms of the spring 26 are compressed so that the prongs 27 and 28 engage the match disposed within the channel 11.

A movement of the spring 26 in the proper direction longitudinally of the box will then effect the ejection and ignition of the match engaged thereby as will be apparent.

What is claimed is:

In a match box, a casing having one side thereof provided with a longitudinal channel to receive a single match from the interior of the casing, and being further provided with a relatively thick wall closing the intermediate portion of one end of the casing, said wall being provided with a passage extending from side to side thereof, a resilient barrier comprising an intermediate stem portion disposed in said passage and enlarged end portions one of which is roughened and disposed across the channel on one side of the wall for frictioning against the match head and the other serving to close the end of the casing on the other side of the thickened wall, and means for forcing a match longitudinally of the channel so as to lift the roughened end of the barrier and eject the match exteriorly of the casing.

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

RUEL DINGWELL.

Witnesses:

JOHN McDONALD,
B. G. RICHARDS.