No. 655,171. Patented July 31, 1900.

D. B. MOON.

COMBINED MATCH SAFE AND CIGAR TIP CUTTER.

(Application filed Sept. 25, 1899.)

(No Model.)

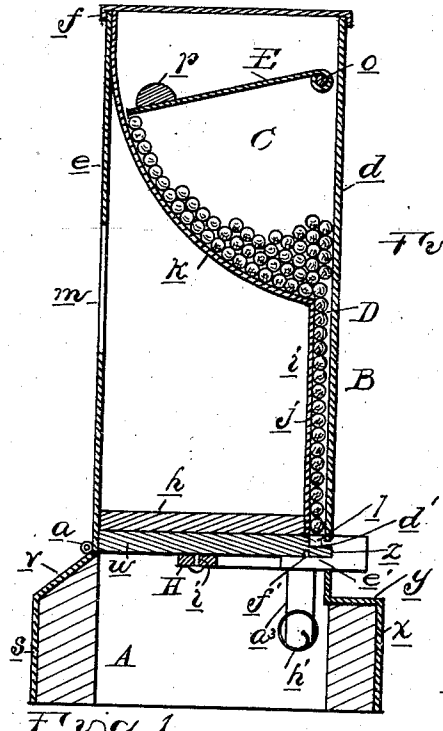


Fig. 1.

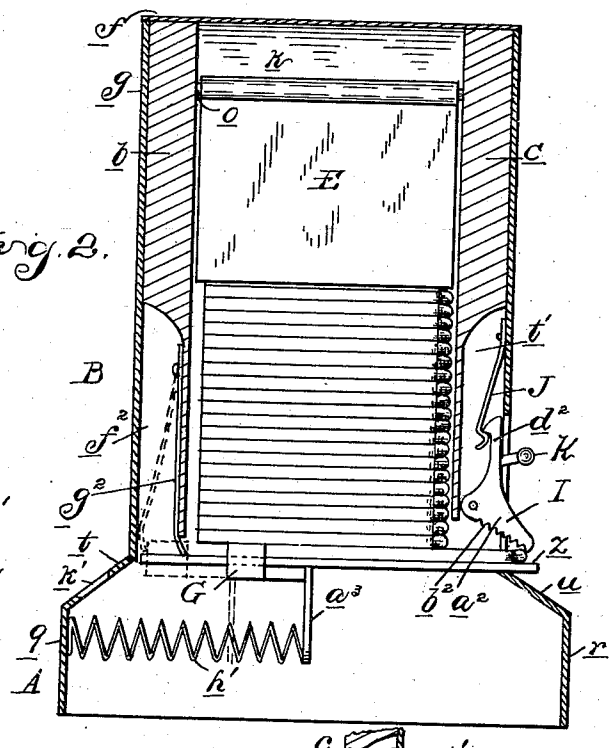


Fig. 2.

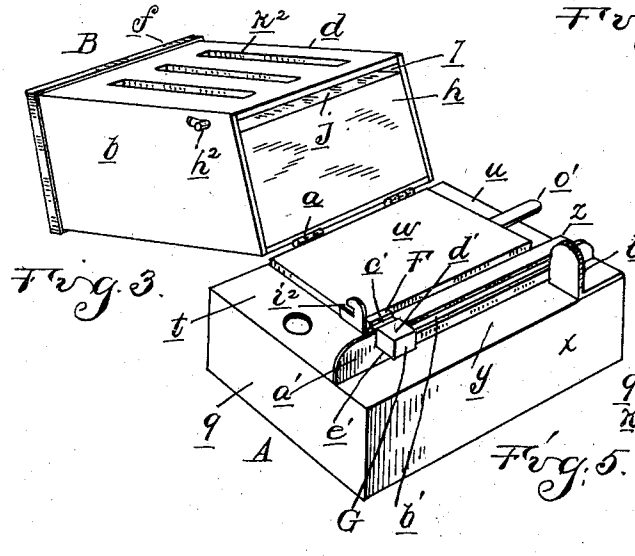


Fig. 3.

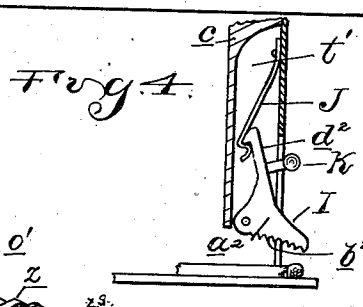


Fig. 4.

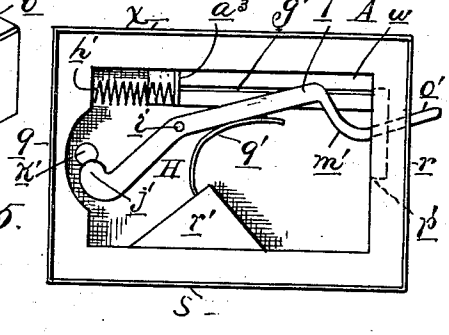


Fig. 5.

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UNITED STATES PATENT OFFICE.

DARIUS B. MOON, OF LANSING, MICHIGAN, ASSIGNOR OF ONE-HALF TO CYRIL BLATT, OF SAME PLACE.

COMBINED MATCH-SAFE AND CIGAR-TIP CUTTER.

SPECIFICATION forming part of Letters Patent No. 655,171, dated July 31, 1900.

Application filed September 25, 1899. Serial No. 731,634. (No model.)

To all whom it may concern:

Be it known that I, DARIUS B. MOON, a citizen of the United States, residing at Lansing, in the county of Ingham and State of Michigan, have invented certain new and useful Improvements in a Combined Match-Safe and Cigar-Tip Cutter, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the novel construction of a combined match-safe and cigar-tip cutter, and in the peculiar construction, arrangement, and combination of the various parts thereof, as will be more fully hereinafter described and shown in the drawings, in which—

Figure 1 is a vertical transverse section through the match-safe and cutter. Fig. 2 is a view in elevation with the front of the casing removed. Fig. 3 is a perspective view showing the top thrown back from the base. Fig. 4 is a detached view of the igniting mechanism, and Fig. 5 is a bottom plan view of the base-section.

In construction my invention comprises, essentially, a lower or base section A, in which are arranged the cutting mechanism and the means for extracting the matches, and an upper or top section B, containing the match receptacle or magazine and igniting device.

The upper section is preferably in the form of a rectangular casing, which is hinged, as at *a*, to the lower section and comprises, essentially, side walls *b* and *c*, the front *d*, back *e*, and a top or cover *f*. The parts of the section thus described, with the exception of the side walls, are preferably of metal, and in order to produce a more finished appearance to the casing I preferably cover the side walls thereof with metal sheets *g*, so that they will correspond in appearance with the front.

The reference-letter *h* designates the casing-bottom, and *i* is a partition within the casing, comprising a vertical portion *j*, extending from the bottom near the casing-front midway to the top, and a curved portion *k*, extending upwardly and rearwardly in the arc of a circle from the top of the vertical partition to the top of the rear casing-wall, as plainly shown in Fig. 1. The partition thus described divides the interior of the casing into the magazine C, of segmental configuration, and a vertical feed-slot or guideway D, leading from the magazine to the casing-bottom and through a longitudinal opening *l* in the latter to the lower section. The space within the casing beneath the curved portion of the partition constitutes a storage-chamber, which may be used, if desired, for storing small boxes of matches, and the rear wall *e* of said casing is provided with a door-controlled opening *m*, permitting access to be had to the said chamber.

The curved portion of the partition just described constitutes an inclined bottom for the magazine, which serves to automatically discharge the magazine contents into the feed-slot. To insure the discharge of the matches, however, I arrange within the magazine a follower-plate E, and pivotally support the plate at one edge upon a transverse shaft *o*, suitably journaled in the casing, near the front thereof. As thus mounted the follower-plate swings in the arc of a circle, with its free edge always in close proximity to the magazine-bottom, insuring a positive discharge of all the matches in the magazine. The follower-plate may be made of heavy metal, so as to properly perform its function, or it may and preferably is made of thin sheet metal and provided at its free edge, on the top thereof, with a weight *p*.

The lower section or base is rectangular in configuration, the sides *q* and *r* thereof and the rear wall *s* being provided with inclined faces *t*, *u*, and *v*, respectively, and *w* is a top plate mounted upon the upper edges of the inclined faces, which is similar in form and equal in size to the bottom of the upper section. The lower section is covered with metal sheets, conforming to the appearance of the upper section.

Upon the front of the base-section *x* is formed a ledge *y*, extending the entire length of the front, and above the ledge and at the rear thereof is arranged a shelf *z*, on which is slidingly secured a plunger-head F, provided with an operating-handle G.

a' designates a vertical partition extending from the ledge to and slightly above the shelf,

which is cut away at its upper edge to form a longitudinal slot b', leading into the interior of the base. The plunger-head referred to is preferably integral with the handle, and the device as an entirety consists of two complementary head members d' e', engaging upon opposite sides of the shelf and secured at their outer ends by means of rivets, the upper member being provided with a groove c', adapted to receive the lower edge of the upper section-front. The lower member e' is also provided with a spline f', which engages a groove g', formed in the under face of the shelf, constituting a guide for the plunger in its reciprocatory movement upon the shelf. The retracting-spring h', within the base, connects the plunger through an arm a^3 to the casing, holding the plunger normally in the position shown in Fig. 3.

H designates a lever pivoted within the base-section to the under face of the base-top at a point i'. At one of its ends the lever carries a knife-blade j', which is bent downwardly slightly, so that when moved by the operation of the lever it will pass across the cigar-tip aperture k', formed in the inclined face t of the base. The lever thus referred to is arranged in such manner that a portion l' thereof extends normally into the path of the plunger, and at this end the lever terminates in an L-shaped extension m', the free end o' of which projects without the casing through a longitudinal slot p'. (Shown in dotted lines in Fig. 5.) The projecting end o' referred to permits of the lever being actuated by the operator independently of the other parts of the device. A spring q', secured to a block r' within the base, bears normally against the lever to hold the portion l' thereof normally in the path of the plunger.

The igniting device of my improved match-safe and cutter consists, preferably, of a friction-dog I, pivoted within a recess l', formed in the side wall c. It is preferably in the form of a bell-crank lever, having an igniting-arm a^2, roughened on its under face to form an igniting-surface b^2. This arm is adapted to bear against the head of the match when the latter is ejected. A spring J, located within the recess t', bears against the arm d^2 of the bell-crank lever, holding the roughened surface normally in close proximity to the shelf.

K is a handle attached to the dog, permitting the latter to be moved some little distance from the shelf to permit of the match being extracted without its being ignited.

A recess f^2 is formed in the wall b of the upper section, and in this recess is located a spring g^2, which extends below the feed-slot and is adapted to bear against the matches to prevent their being moved by the plunger upon the return movement of the latter. This spring is arranged at some distance from the outer face of the side wall, so as to permit of the plunger passing behind the same.

h^2 is a spring-catch carried by the upper section, which is adapted to engage with a hook i^2 upon the lower section, the catch and hook forming together a spring-lock for holding the two sections together.

In operation the magazine is filled and the matches are discharged by means of the follower-plate and inclined bottom into the feed-slot or guideway, where they are delivered one at a time upon the shelf z in advance of the plunger-head. The plunger-head is then moved along the shelf until it strikes a stop b^3 and discharges a match from the safe. The latter is ignited by means of its frictional engagement with the friction-dog. During the discharge of the match the plunger-head likewise bears against the lever H, causing the knife-blade attached to said lever to pass across the cigar-tip aperture, whereby the match is ignited and the cigar cut simultaneously. The retracting-spring withdraws the plunger-head to its initial position, the head passing to the rear of the spring g^2, and the device is in readiness for the second operation.

From the description of my invention it will be readily apparent that on account of the peculiar construction of the device the upper section or top may be thrown back at any time to permit of the part being cleaned or to permit of the adjustment of the matches in case the latter become choked in the feed-slot. Vertical slots k^2 are also formed in the front of the upper section for the same purpose. It is also to be noticed that on account of the peculiar formation of the igniting device the operator is enabled at any time to obtain a match from the receptacle without igniting the same, which is sometimes quite desirable.

What I claim as my invention is—

1. In a combined match-safe and cigar-tip cutter, the combination of a base-section, an inclosing casing thereon comprising a front and back wall and vertical side walls, one of said latter walls having a recess formed in its outer face in proximity to the front wall and immediately adjacent to the base-section, a match-delivery device for discharging the match from said casing, a magazine within the casing adapted to feed the match to the delivery device, and an igniting device comprising a bell-crank lever pivoted at its center within the recess in the side wall, said lever having a downwardly-depending arm provided with an igniting-face projecting into the path of the match to be discharged, and a vertical arm entirely concealed within the casing side, a spring within the said recess bearing against the vertical arm, and a lug or handle upon said latter arm projecting without the recess, substantially as described.

2. In a combined match-safe and cigar-tip cutter, the combination of a casing, a match-delivery device for discharging the matches from the casing, the match-magazine within said casing, adapted to feed the matches to

the delivery device, said magazine being provided with an inclined and curved bottom plate and a discharge-opening at the lower end of said plate, and a follower-plate within the magazine pivoted to swing in an arc of a circle in close proximity to the magazine-bottom.

3. In a combined match-safe and cigar-tip cutter, the combination of a sectional casing, a match-magazine within the upper member of the casing having a match-discharge opening formed therein, and a vertical guideway leading downwardly from the magazine to the lower casing member, a horizontal shelf upon the lower member arranged beneath the guideway, a reciprocating plunger-head slidingly engaging the shelf and adapted to discharge the matches therefrom, and an igniting device carried by the upper casing member extending downwardly into operative relation to the shelf.

4. In a combined match-safe and cigar-tip cutter, the combination of a sectional casing, comprising a lower or base member, a match-delivery device and a cutting mechanism arranged therein, an upper or top member hinged to the lower member having formed therein a match-magazine, and an igniting device within the upper member, substantially as described.

5. In a match-safe and cigar-tip cutter, the combination of an inclosing casing having a cigar-tip aperture formed therein, a horizontally-reciprocating plunger for discharging the matches from the casing, a magazine for feeding the matches in advance of the plunger, a lever independent of the plunger pivoted within the casing, a spring for holding the lever normally in the path of the plunger, a cutter-blade carried by the lever arranged normally adjacent to the cigar-tip aperture, and means for reciprocating the plunger.

6. In a match-safe and cigar-tip cutter, the combination of an inclosing casing having a cigar-tip aperture formed therein, a horizontally-reciprocating plunger for discharging the matches from the casing, a magazine for feeding the matches in advance of the plunger, a lever independent of the plunger-head pivoted within the casing for movement in a horizontal plane, having one end extending outwardly through a slot within the casing, a spring bearing against said lever and acting normally to hold the latter in the path of the plunger, a cutter-blade carried by one lever-arm, said cutter being arranged normally adjacent to the cigar-tip aperture, and means for reciprocating the plunger to actuate the cutter-blade and discharge the match.

7. In a combined match-safe and cigar-tip cutter, the combination of a casing, a match-delivery device for discharging the matches from the casing, the match-magazine within said casing having an inclined bottom plate extending in the arc of a circle from the upper portion of one of the magazine sides to the lower end of the opposite side and provided with a discharge-opening at the lower end of said plate, and a follower-plate pivoted at one end within the magazine opposite to the upper portion of the bottom plate to permit its free end to swing in close proximity to the inclined bottom plate for the purpose described.

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

DARIUS B. MOON.

Witnesses:
J. W. BAILEY,
FLORIAN STRASEL.