

No. 649,072.

Patented May 8, 1900.

S. E. PFAHLER.
MATCH SAFE, IGNITER, AND CIGAR CUTTER.

(Application filed July 10, 1898.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

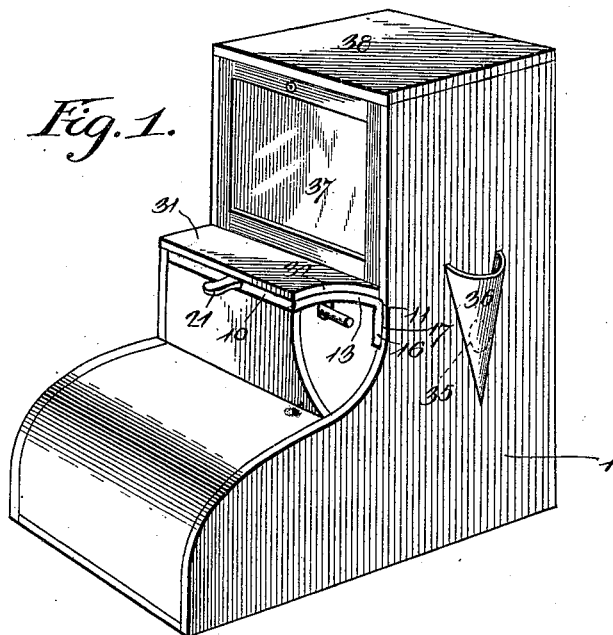


Fig. 6.

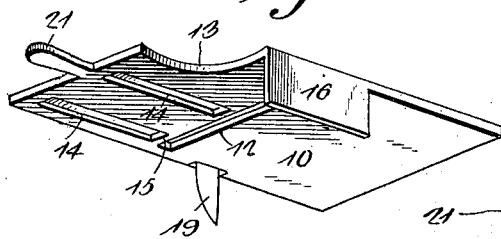
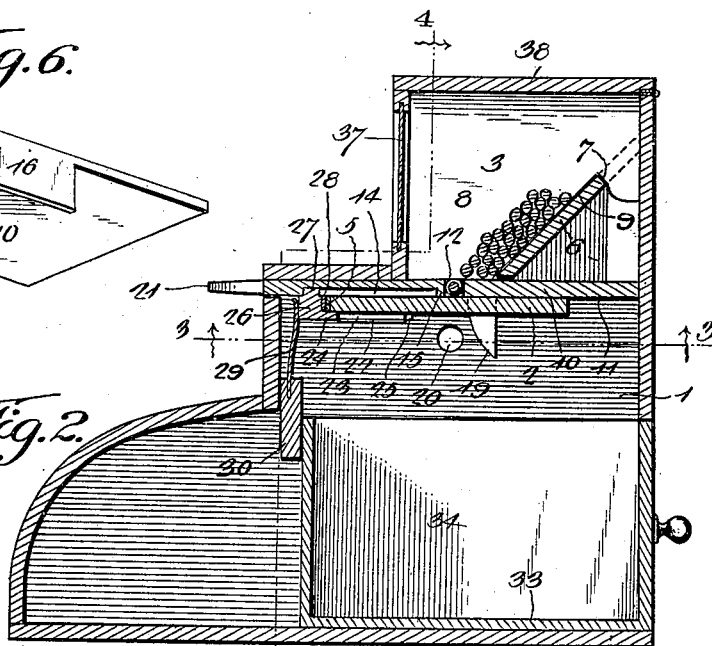


Fig. 2.



Witnesses

A. H. Appleton Jr.
Chas. S. Hoyer

By *his* Attorneys,

S. E. Pfahler, Inventor.

C. A. Snow & Co.

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2 Sheets—Sheet 2.

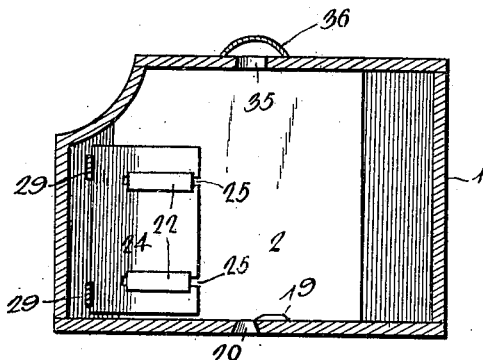


Fig. 3.

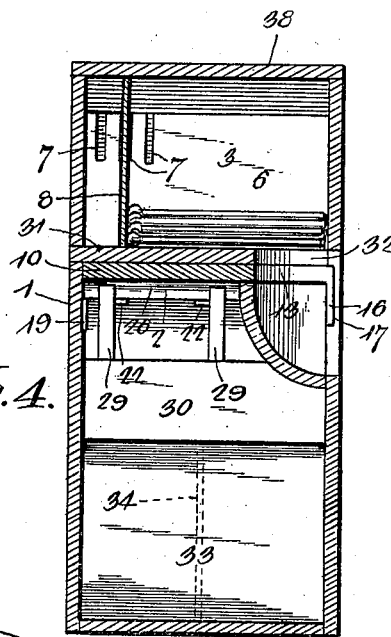


Fig. 4.

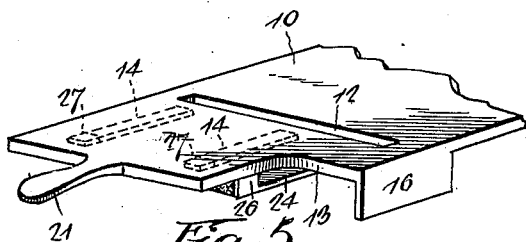


Fig. 5.

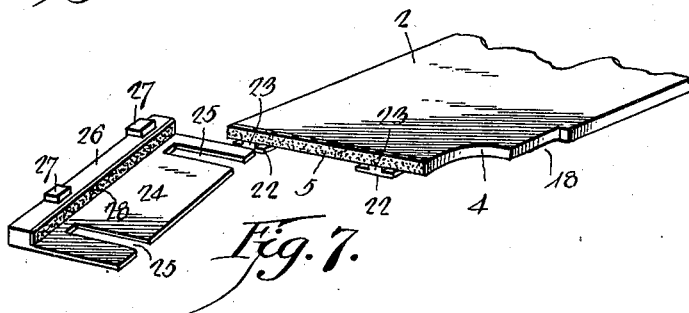


Fig. 7.

Witnesses

A. Roy Appleman

Chas. S. Hoyer

By His Attorneys,

Soame E. Pfahler, Inventor.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

SOAME ERNEST PFAHLER, OF MAY'S LANDING, NEW JERSEY.

MATCH-SAFE, IGNITER, AND CIGAR-CUTTER.

SPECIFICATION forming part of Letters Patent No. 649,072, dated May 8, 1900.

Application filed July 10, 1899. Serial No. 723,369. (No model.)

To all whom it may concern:

Be it known that I, SOAME ERNEST PFAHLER, a citizen of the United States, residing at May's Landing, in the county of Atlantic and State of New Jersey, have invented a new and useful Combined Match-Safe, Igniter, and Cigar-Cutter, of which the following is a specification.

This invention relates to a combined match-safe and cigar-cutter; and the primary object of the same is to provide a match-safe of simple construction and easily operated to remove the matches one at a time from a feeding-magazine, and thus insure economy in the use of matches, and also to force an ignition of each match as it is withdrawn from the safe; further, to provide against partial movement of the parts and an irregular delivery of the matches until a full operation of a match-delivering slide back into its normal position is completed.

A still further object of the invention is to provide a combined device of the character set forth having cigar-tip-cutting mechanism in connection with a match-delivering slide, so that when the slide is returned to its normal position a cigar-tip that may have been arranged in the path of movement of the cutting mechanism may be severed and at about the same time that a match is clearly projected for withdrawal from the igniter.

The invention consists, essentially, of an inclosing casing having an upper magazine with an inclined deflector at the rear leading to a stationary bottom board, the lower edge of the deflector being at an elevation above the said bottom board a distance equal to the space required for the shifting movement of a slide, the latter having a slot therein approximating the dimensions of a match, and the said deflector having slits to receive a special form of partition to change the dimensions of the magazine for the purpose of receiving matches of various lengths.

The invention further consists of a match-safe having a magazine provided with a slotted slide movable outward from and into the bottom portion thereof and relatively coacting with a transverse igniting-opening, which has its width controlled by the outward movement of the slide to thereby grip and hold a

match until said match has been withdrawn therefrom.

The invention further consists of the details of construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a combined match-safe and cigar-cutter embodying the invention. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a horizontal section on the line 3 3 of Fig. 2 looking in the direction of the arrows. Fig. 4 is a transverse vertical section taken on irregular line 4 4 of Fig. 2. Fig. 5 is a detail perspective view of the bottom of the magazine, the slide, and the igniting attachment disconnected from the other parts and showing the structural features in dotted lines. Fig. 6 is a detail perspective view of the match-delivering slide looking toward the bottom thereof. Fig. 7 is a detail perspective view of parts composing the igniting attachment.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates an inclosing casing or frame formed of any suitable material and preferably of the contour shown, as it best serves the desired location of the several operative parts and the magazine. The said frame or casing is cut away at its upper portion or a short distance above the base to provide a vertical extension of smaller dimension, which is separated in part by a horizontal partition 2 from the lower portion of the casing, said partition forming the bottom of a match receptacle or magazine 3. The partition 2 projects outwardly at the front and is cut away at one point, as at 4, the front edge of the extended portion of the said partition being roughened or supplied with a covering of sandpaper or analogous material to produce an igniting edge 5. The magazine 3 has a deflector 6 at the rear, which slopes toward the front and directs the matches in the magazine in such manner toward the slide, which will be presently set forth, as to facilitate a regular feed of all the matches that may be placed in the said magazine. The deflector 6 for a portion of its

length has a series of slits 7 formed therein, which are adapted to receive a removable vertical partition 8 to change the size of the magazine to suit various lengths of matches. 5 This partition 8 has the lower rear corner cut away to form a recess 9, which corresponds to the contour of the deflector when the partition is arranged in connection therewith. The contour of the recess 9 is such as to accommodate the angle of disposition of the deflector, and thereby provide for supporting the partition vertically and close to the adjacent parts. 10

The lower edge of the deflector 6 stands 15 above the horizontal partition 2 a short distance, and on said partition a match-delivering slide 10 is movably mounted and has its opposite edges extended into guide-grooves 11 in opposite sides of the casing in line with 20 the said horizontal partition. The said slide also freely moves under the lower edge of the deflector 6 and in such proximity to said edge as to prevent the matches from being pushed under the parts. The slide 10 has a 25 slot 12 cut through the forward portion thereof in a transverse direction and extending from one side of the magazine to the other. The width of this slot 12 corresponds to the diameter or cross-sectional extent of an ordinary match, and by making the said slot 30 extend the full width of the magazine matches of different lengths may be fed from the same magazine. The slide 10 is longer than the magazine 3 and projects at the front over the 35 horizontal partition 2, being cut away at the right-hand corner, as at 13, over the cut-away portion 4 of the said horizontal bottom. The under part of the slide at one side, in advance of the slot therein, has longitudinally- 40 disposed grooves 14, which terminate at the rear just in advance of the said slot, and at this latter point a cross-rib 15 is formed. On the right side of the slide a guard 16 depends and stands out far enough to shield the igniting 45 devices and prevent the withdrawal of a match until the slide has been pushed back completely in its normal position. The said guard 16 closes in the adjacent side of the frame or casing, a recess 17 being constructed 50 at this point for said purpose, and the adjacent edge of the horizontal bottom 2 is cut out, as at 18, to accommodate the thickness of the guard. At its opposite edge the slide has a cutter 19 fixed thereto and movable 55 closely against the inner side of the casing, sufficient space being left between the parts to allow this movement of the cutter. In the path of movement of the cutter 19 an opening 20 is formed in the side of the casing or 60 frame below the magazine and horizontal partition 2. The opening 20 is of such form as to snugly receive the tip end of a cigar and allow the latter to be projected inward far enough to be severed by the cutter 19. To 65 conveniently operate the slide, a knob or projection 21 is secured to the outer or front end thereof.

On the under side of the outwardly-projecting portion of the horizontal partition 2 a pair of guides 22 are longitudinally disposed 70 and spaced apart from each other and have upstanding ribs 23 secured to the said partition. The said guides 22 and ribs 23 could be made and applied in many ways; but a simple form would be that shown, which 75 serves efficiently to hold and control the regular movement of an igniting-slide 24, having slots 25 opening out through the rear edge, said slots being slightly larger in cross extent than the ribs 23. The slide 24 is held closely 80 against the under projecting portion of the partition 2, and the slots 25 receive the ribs 23, and by this means the movement of the said slide is regular and without lateral play. On the outer end of the upper portion of the 85 slide 24 a transverse rib 26 is located and provided with upstanding lugs 27, which are spaced apart a distance equal to the grooves 14 in the under side of the outer portion of the slide 10 and project into the latter. The 90 inner edge of the rib 26 is disposed opposite to the outer edge of the horizontal partition 2, and said edge of the rib is roughened or has applied thereto sandpaper or other analogous material to form an igniting edge 28, which 95 coacts with the roughened edge 5 of the partition 2 in holding or gripping a delivered match. The igniting-slide 24 is normally pressed back under the partition 2 by springs 29, supported by a cross-arm 30 below the 100 said igniting slide, the said springs having their free ends bearing against the front or outer edge of the rib 26.

Attached to the upper front portion of the frame or casing and standing closely over the 105 projecting end of the slide 10 below is a shield 31, which has the right corner cut away, as at 32. This shield 31 prevents the irregular removal of a match from the slot 12 of the slide 10 before full and regular withdrawal of the 110 slide and deposit of the match in the igniting attachment, thereby obstructing any attempt to obtain a number of matches from the magazine and insuring an individual delivery of the same. 115

In the lower portion of the frame or casing and movable outwardly through the back of the same is a drawer 33, having a partition 34, adapted to receive on one side the cut-off 120 or severed cigar-tips and at the opposite side burned matches, which are inserted through an opening 35 in the side of the frame or casing opposite to that in which the opening 20 is formed and covered by a conical guide 36, 125 having its reduced portion toward the bottom of the frame or casing. The opening 35 is directed at an angle to the side of the frame or casing in which it is formed and at an elevation above the bottom of the drawer 33 to permit the burned matches to pass through 130 without obstruction and fall clear into the said drawer.

The front of the frame or casing is covered up closely to the operating mechanism and

has a recess at the right side under the projecting portion of the partition 2 to allow the matches to be withdrawn from the igniting attachment, the said partition, slide 10, and shield 31 being cut away at their right corners to permit the delivered match to be easily grasped. The front of the magazine 3 is provided with a glass panel 37, so that the interior of the said magazine may be inspected and the necessary supply of matches maintained therein. A lid or cover 38 for the magazine is also provided and adapted to be fastened down and under the control of some one person to prevent general access to the magazine, and thus insure economy in the use of the matches and compel their withdrawal regularly by the slide 10.

In the operation of delivering the matches the slide 10 is drawn outwardly by means of the knob 21. In the outward movement of the slide the upstanding lugs 27 of the rib 26 are cleared through the medium of the grooves 14 and until the rib 15 is reached, when the igniting-slide will be forced out against the resistance of the springs 29, thereby drawing the rib 26 away from the front edge of the horizontal partition 2. This combined movement of the delivering-slide 10 and igniting-slide 24 continues until the slot 12 in the said delivering-slide comes over the opening formed between the inner edge of the rib 26 and the front edge 5 of the horizontal partition 2, when the match will drop down in the space thus formed between the rib and the front edge of the partition. The slide 10 is then moved inward in the magazine, and at the same time the springs 29 bring the inner edge of the rib 26 to bear easily against the match, and the latter is held firmly, with the fulminate end in contact with the opposite roughened edges, respectively, of the said rib and the outer or front edge of the horizontal partition 2. The match cannot, however, be as yet withdrawn, because the depending guard on the outside of the slide 10 covers the projecting end of said match and does not clear the same until the said slide is completely forced inward or returned to its normal position. After the slide 10 has been fully returned the delivered match can be withdrawn and at the same time ignited, the rib 26 yielding sufficiently for this purpose. As before indicated, when the slide 10 is moved backward in the magazine the tip of the cigar inserted in the opening 20 will be simultaneously severed, thus permitting the operations of preparing and lighting a cigar to be conveniently carried on in succession. The burned match can then be deposited through the opening 35 and guide 36 in the drawer 33.

The improved combined device is adapted for use in stores, or it can be employed domestically. In domestic use the cigar-cutting attachment need not be used; but the match-safe could be conveniently utilized to prevent children from obtaining a number of matches and obviate dangerous consequences.

The material of which the several parts of the device are made will be of that nature best adapted to serve the purpose, and the frame or casing may be embellished with suitable ornamental designs and also have advertising matter applied thereto, particularly on the glass panel 37. All the parts will be of strong and durable nature and capable of easy assemblage.

Variations in the form, proportions, size, and minor details can be resorted to without in the least departing from the spirit of the invention or sacrificing any of the advantages thereof.

Having thus described the invention, what is claimed as new is—

1. In a device of the character set forth, the combination of a magazine adapted to receive matches, adjustable means in the magazine for accommodating matches of different lengths, a slotted slide movable outward from and into the said magazine, an igniting-slide controlled in its outward movement by the withdrawal of the said slotted slide, and means for connecting said slides for conjoint operation.

2. In a device of the character set forth, the combination of a match-receiving magazine, a slide movable outward from and into the said magazine and provided with a slot and grooves with a rear rib in the under portion of the same, a partition over which the slide moves, having an outer igniting edge, an igniting-slide movable against the said partition and provided with an outer rib having upstanding projections to engage the grooves of the first-mentioned slide, the inner edge of the said rib of the igniting-slide being roughened, and means for holding the igniting-slide pressed rearwardly.

3. In a device of the character set forth, the combination of a magazine adapted to receive matches, a slotted slide movable into and outward from the said magazine, a horizontal partition on which the said slide rests, an igniting-slide movably held against the said partition, parts of said partition and igniting-slide being provided with roughened surfaces adjacently located, and yielding devices for holding the said igniting-slide in normal position.

4. In a device of the character set forth, the combination of a magazine adapted to receive matches, a horizontal partition forming the bottom of said magazine, a slotted slide movable outwardly and inwardly on the said bottom and provided with a guard on one edge, and an igniting-slide operable by the said slotted slide, portions of the slide and partition being cut away to leave a part of the delivered match projected, which is covered by the guard on the slotted slide until the latter is fully returned to normal position.

5. In a device of the character set forth, the combination of a magazine adapted to receive matches, a slotted slide movable inward and outward from the said magazine, and pro-

vided with a guard at one edge, an igniting-slide operable by the said slotted slide, and means for forcing the said igniting-slide back into normal position, the said guard on the
5 slotted slide covering a projected portion of a delivered match until the latter slide has been completely restored to its normal position.

6. In a device of the character set forth, the combination of a frame or casing having
10 a magazine in the upper portion thereof adapted to receive matches, a horizontal partition forming a bottom for said magazine and provided with a front projecting end, a slide movably mounted on the horizontal partition
15 and provided with a slot extending transversely of the same, said slide having a guard on one side and a cutter on the opposite side, both simultaneously movable with the slide, an igniting-slide below the said partition, a
20 horizontal shield extending outwardly from the frame or casing above the first-mentioned slide, and means for connecting the two slides for conjoint operation, the cutter on the first-mentioned slide being adapted to move across
25 an opening in one side of the casing.

7. In a device of the character set forth, the combination of a frame or casing having a magazine therein adapted to receive matches, a delivering-slide movable into and
30 outwardly from the said magazine, a rear deflector in the magazine, under the lower edge of which the said slide has movement, the said deflector having slits in one side thereof, and a partition adjustably mounted in said
35 slits to vary the dimension of the magazine and adapt the same for matches of different lengths.

8. In a device of the character set forth, the combination of a frame or casing having
40 openings in opposite sides thereof, a drawer mounted in the lower portion of the said frame or casing, a magazine in the upper portion of the frame or casing adapted to receive matches, a conical guide over and leading to
45 the opening in the one side of the frame or

casing, and a slide for delivering the matches from the magazine and provided with a cutter on one side adapted to move over the opposite opening in the other side of the frame or casing, whereby a cigar-tip may be cut off
50 and deposited in one side of the drawer and burned matches inserted in the opposite side.

9. In a device of the character set forth, the combination of a magazine adapted to receive matches, a slotted slide movable out-
55 ward from and into the said magazine, and a shield in a plane parallel with the slide and adapted to prevent an irregular removal of a match from said slide before the full and regular withdrawal of the latter from the
60 magazine.

10. In a device of the character set forth, the combination of a magazine adapted to receive matches, a slotted slide having a normally-projected end and movable outward
65 from and into the magazine, a shield positioned over the normally-projected end of the slide and adapted to prevent an irregular removal of a match from said slide before the full and regular withdrawal of the latter, and
70 an igniting-slide under and controlled in its operation by the movement of the match-delivering slide.

11. In a device of the character set forth, the combination of a magazine adapted to receive matches, a linearly-reciprocable slide
75 having a match-slot therein and movable outward from and into the magazine, the match-slot in said slide being drawn out from the confines of the magazine in delivering the
80 match, and an igniting-slide controlled in its outward movement by the withdrawal of the said linearly-reciprocable slide.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in
85 the presence of two witnesses.

SOAME ERNEST PFAHLER.

Witnesses:

LOUIS J. SHELLEY,
FRANK W. MAYO.