

(No Model.)

2 Sheets—Sheet 1.

J. BOND.

COMBINED MATCH SAFE AND CIGAR CUTTER.

No. 587,781.

Patented Aug. 10, 1897.

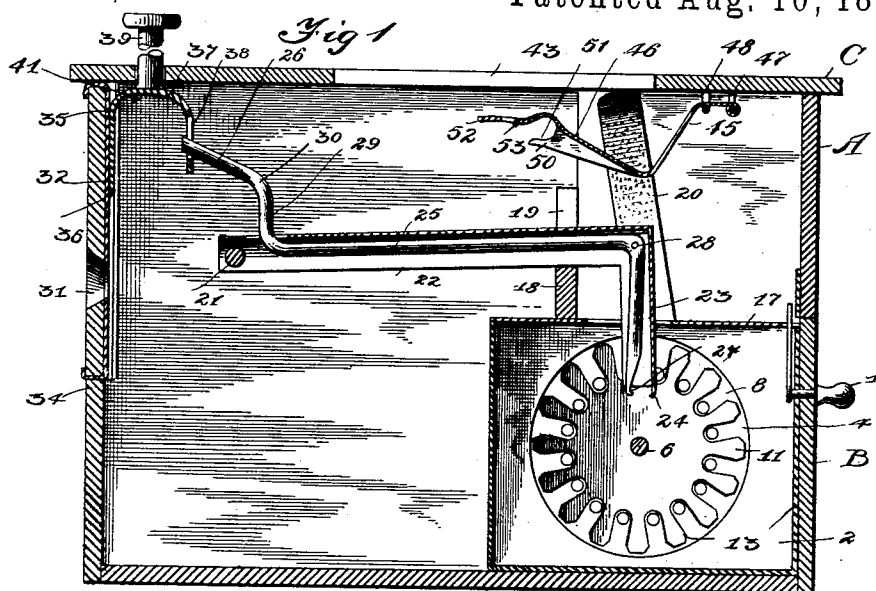


Fig 2

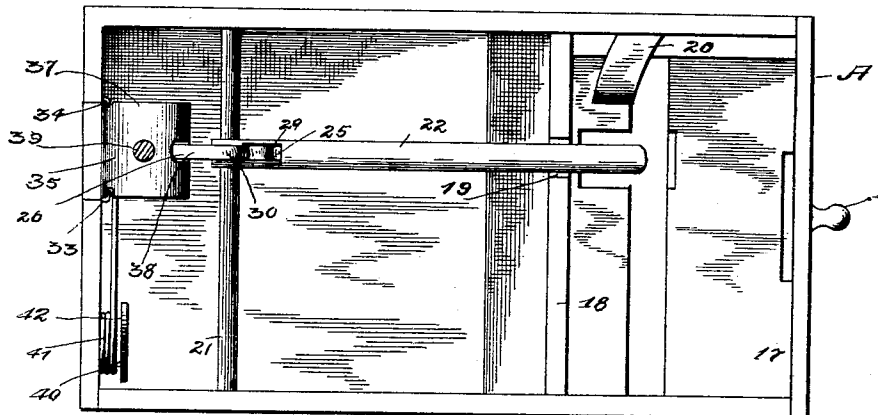
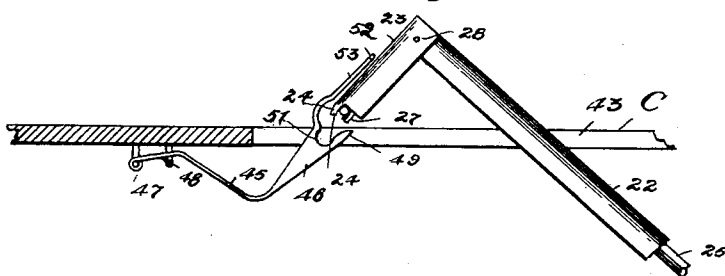


Fig. 3.



WITNESSES

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Fig. 4

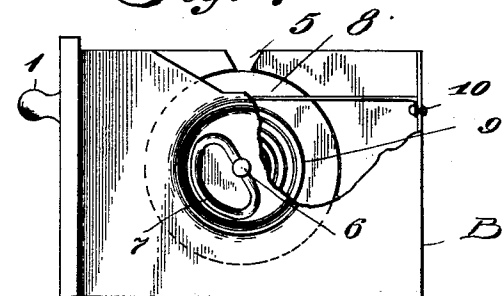


Fig. 5

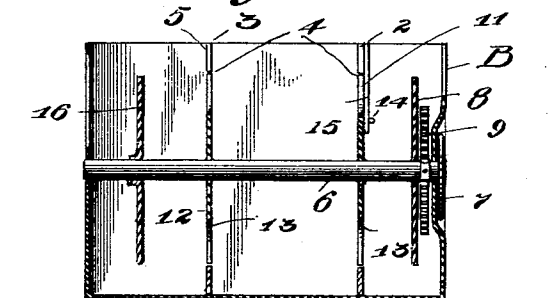
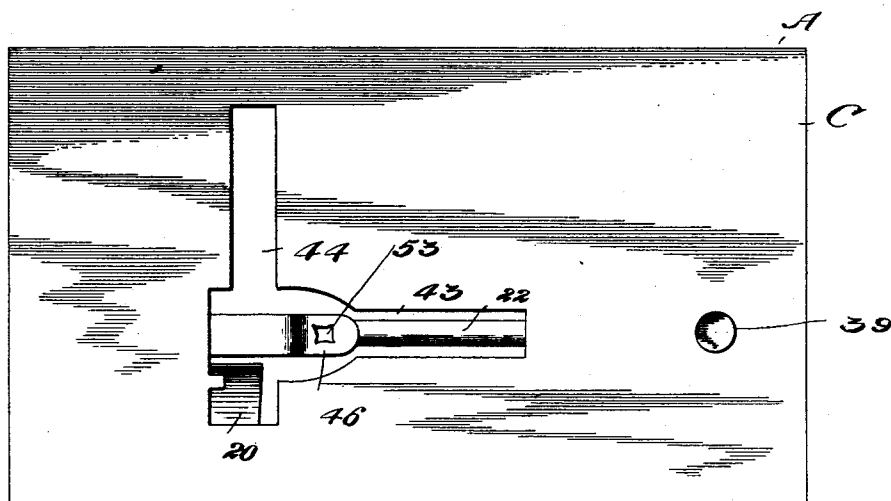


Fig. 6



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN BOND, OF LA GRANGE, CALIFORNIA.

COMBINED MATCH-SAFE AND CIGAR-CUTTER.

SPECIFICATION forming part of Letters Patent No. 587,781, dated August 10, 1897.

Application filed August 21, 1896. Serial No. 603,554. (No model.)

To all whom it may concern:

Be it known that I, JOHN BOND, a citizen of the United States, residing at La Grange, in the county of Stanislaus and State of California, have invented certain new and useful Improvements in a Combined Match-Safe and Cigar-Cutter; 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.

My invention relates to combined match-safes and cigar-cutters.

My object is to provide an improved device of the class described which will be adapted to hold a large number of matches and to automatically deliver them one at a time when suitably manipulated, thereby preventing waste and insuring a proper delivery of the matches.

A further object is to provide an improved match-safe adapted to contain a quantity of matches and to automatically light and deliver them one at a time when properly manipulated, thereby obviating the necessity of striking the match.

A still further object is to provide a combined cigar-cutter and match-safe which will be adapted to simultaneously cut a cigar and light and deliver a match.

Having these objects in view, my invention consists of certain novel mechanisms for holding a quantity of matches and for automatically lighting and delivering them one at a time.

It still further consists of novel mechanism for cutting off the cigar-tip, as will appear more fully hereinafter.

In the accompanying drawings, Figure 1 is a longitudinal sectional view. Fig. 2 is a plan view with the cover of the casing removed. Fig. 3 is a detail view showing the delivery mechanism in engagement with the match-catch and the match held in the latter. Fig. 4 is a side elevation of a portion of the drawer and the casing broken away to disclose the spring that rotates the match-holding mechanism. Fig. 5 is a cross-sectional view through the spindle of the match-holder, and Fig. 6 is a plan view of the complete device.

A designates the casing or housing of my improved match-safe.

B designates a drawer which contains the match-holding mechanism. A button 1 is provided for holding this drawer in position in the casing or housing. This drawer is provided with two partitions 2 and 3, which divide the whole drawer into three compartments. Each partition is provided with a circular opening 4, and 5 designates a cut which leads into the circular opening from the upper edge of the partition.

The numeral 6 designates a shaft which is journaled in the sides of the drawer and is provided with a pivoted loop-handle 7 at one end, which is used for the purpose of turning the shaft. A disk 8 is securely connected to the shaft near the end which is provided with a loop-handle.

The numeral 9 designates a spring which has one end connected to the shaft and the other end connected to the side of the drawer, as at 10, this spring being located between the disk and the side of the drawer.

There are two match-holding wheels 11 and 12, which are securely connected to the shaft and are adapted to lie in the same planes with the respective partitions, so that they will be in the openings therein. Each wheel is provided with a series of radially-extending match-holding slots, which are cut inward from its periphery, as shown at 13. As the edges of the partitions defining the openings of the same are located close to the peripheries of the match-holding wheels, these partitions prevent the matches from dropping out of said wheels. The match-holding wheel 11 is provided with a pin 14, while 15 designates an arm which is connected to the adjacent partition and against which the pin is adapted to abut. An adjustment-disk 16 is located on the shaft and is adapted for sliding movement thereon, being held thereto by frictional contact. A match lies in the slots of the match-holding wheels with its head resting against disk 8 and its end against disk 16. The disk 16 can be moved to accommodate matches of different lengths. As the matches are successively placed in the match-holding wheels the spindle or shaft is turned until the wheels have been filled, whereupon the pin on the wheel 11 will be in engagement with the arm of the partition, thereby indicating that the wheels are filled. The

match last placed in position abuts on the arm 15 and prevents the spring from unwinding, and the pin 14 lies on the opposite side of the arm from the match. As the matches
5 are taken out of the wheels one after another the latter rotate by the action of the spring and the match next the one removed abuts on the arm and prevents further rotation of the wheels.

10 The numeral 17 designates a removable cover for the drawer, and this cover is provided with suitable slots, so that the button can be manipulated and the match removed from the match-holding wheels.

15 The numeral 18 designates a cross-piece which connects the sides of the casing and is immediately above the cover of the drawer, and this cross-piece is provided with a notch 19.

20 The numeral 20 designates a scratch-plate which consists of a curved ribbon of steel having its lower end connected to the side of the casing and its upper end free. The shaft or spindle 21 extends across the casing near
25 the front end thereof and is journaled in its sides. A long arm 22 is securely connected to this shaft and is provided at its end with a downwardly-extending finger 23. The arm and finger are both of substantial U shape
30 in cross-section. When down, the arm lies in the notch of the cross-piece and the finger projects down through the cover of the drawer, so that it will lie immediately adjacent to one of the match-holding disks. It will be observed that the end of the finger is cut away
35 to provide a small jaw 24. The numeral 25 designates a grip-lever which has the greater portion of its length lying in the U-shaped arm. The front end of this lever is bent to provide a gripping-arm 26, which is provided
40 at its lower end with a jaw 27, adapted to act in conjunction with the jaw 24. This lever is pivoted to arm 22 at 28. The rear end of the lever extends up through a slot in arm
45 22, as at 29, and then is again bent, as at 30.

The cigar-tip opening is designated by the numeral 31. A vertically-extending plate 32 is suitably connected to the casing and is provided with an opening, so that the cigar can
50 be passed through it. This plate has two guide-lips 33 and 34.

The numeral 35 designates my improved cutting knife or plate, which is provided with a V-shaped cutting edge 36. Portions of this
55 plate slide in between the lips and the plate, so that it is guided in movement, and the blade is formed integral with a curved head 37, which has a somewhat elongated slot 38, and in this slot portion the bent portion 30 of
60 the lever is loosely received.

The numeral 39 designates a push-rod which is connected to the head and provided with a suitable button on its upper end. A small
65 drum 40 is connected to the case, and a wire spring 41, coiled several times about this drum, has one of its ends connected to the casing,

as at 42, and its other end projecting up under the curved head of the cutting-knife, so as to keep the latter normally raised.

C designates the cover of the casing, which
70 is provided with a longitudinally-extending slot 43, in which the arm 22 rests, and a transversely-extending slot 44, through which the match is carried, and which also receives the ends of the curved scratch-plate, and an im-
75 proved match-catch, which will now be described. This match-catch consists of a piece of thin spring metal bent into right-angular shape, forming two arms 45 and 46.

The numeral 47 designates a staple which
80 is connected to the under side of the cover and on which the arm 45 is hinged. A second staple 48 straddles the arm 45 and limits the downward movement of the match-catch. Arm 46 is provided with two inclined paral-
85 leled guide-flanges 49 and 50, between which the finger of the arm 22 passes when said arm is raised. It will be observed that the upper portions of these guides are notched, as at 51,
90 and it is here that the match is deposited after being lighted and raised. This arm 46 is also provided with an inclined finger 52, which is cut away and provided with a small lip 53,
95 said lip being adapted for engagement with the jaw of the finger of arm 22 after said arm has been raised.

The operation is as follows: After the match-wheels have been filled, as before described, when it is desirable that a match be
100 obtained the push-rod is depressed. This causes the cutting-blade and the head to be forced downward, so that the gripping-lever is operated and the jaw of the arm thereof gripped against the match, so that it is held
105 between it and the jaw of the finger of arm 22. As the push-rod is depressed the match is raised out of the match-holding wheels, whereupon the latter turn to bring another match into position for removal, and said lat-
110 ter match abuts on the arm and prevents further rotation of the wheels, and the match-head rubs against the scratch-plate. After the match has been scratched the upward
115 movement of arm 22 causes the finger thereof to ride against the match-catch and between the guides thereof until the jaw of the finger of the U-shaped arm comes in engagement
120 with the lip of the finger of the match-catch, whereupon the match will be deposited. When the match is pressed against the match-catch the arm is released, whereupon the parts
125 will assume normal position. The match can then be removed. It will be observed that the cutting-knife has also been operated during these movements, so that a cigar can be
cut simultaneously with the lighting of the match.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a match-safe, the combination with a spindle, of match-holding wheels connected

thereto, disks on the spindle which are adapted to prevent longitudinal displacement of the matches, a spring for rotating the spindle, and mechanism for taking a match from the wheels.

2. In a match-safe, the combination with a spindle, of match-holding wheels connected thereto, a fixed disk on the spindle, an adjustable disk on the spindle, a spring for rotating said spindle, and mechanism for taking a match from the wheels and delivering it.

3. In a match-safe, the combination with a spindle, of plates having circular openings placed concentrically in relation to the spindle, match-holding wheels connected to the spindle and provided with pockets to hold the matches, said wheels being located in the openings of the plates, a fixed disk on the spindle, an adjustable disk on the spindle, the matches being prevented from longitudinal displacement by said disks, a spring for rotating said spindle, and stop mechanism for limiting the rotation of the spindle.

4. In a match-safe, the combination with a match-holder, of a pivoted arm provided with a finger, a gripping-lever pivoted to the arm and also provided with a finger adapted to cooperate with the first-named finger, said gripping-lever and arm being so related that the fingers are normally separated, and a movable member connected to the gripping-lever whereby the movement of said member causes the fingers of the arm and lever to grasp a

match and afterward move both arm and lever and deliver the match.

5. In a match-safe, the combination with a match-holder, of pivoted jaws mounted to turn together and adapted to grasp a match from the holder, mechanism for operating said jaws, and a pivoted match-catch moved by the pivoted arms and provided with rests which receive the match.

6. In a match-safe, the combination with a match-holder, of pivoted delivering-jaws mounted to turn together, mechanism for operating said jaws, and a pivoted match-catch provided with rests which receive the match, and having a catch adapted for engagement with the pivoted jaws.

7. In a combined match-safe and cigar-cutter, the combination with a pivoted arm having a finger, of a gripping-lever also having a finger and pivoted to the arm, a slidable cutting-knife connected to the gripping-lever and means for moving said knife, said parts being so disposed and related that a match can be grasped and delivered simultaneously with the cutting of a cigar.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN BOND.

Witnesses:

P. J. ROGUET,
AUGUSTUS OLSON.