(No Model.)

B. W. KARST.

MATCH BOX OR SAFE.

No. 589,835. Patented Sept. 14, 1897.

Fig. 1.

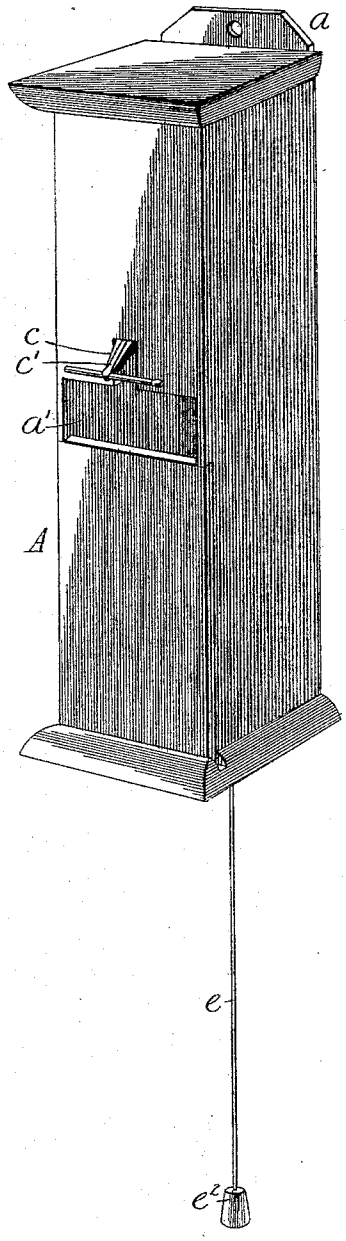


Fig. 2.

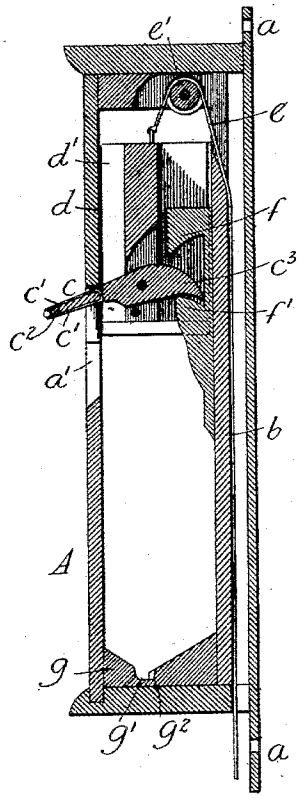
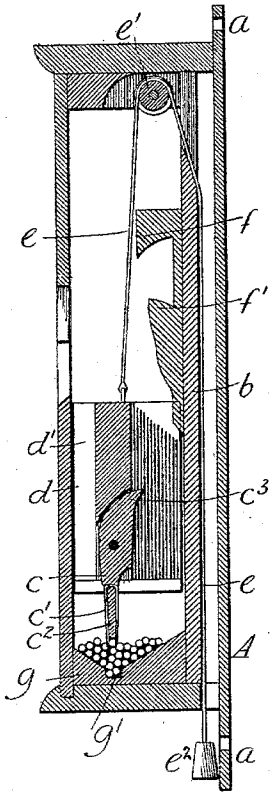


Fig. 3.





Witnesses

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UNITED STATES PATENT OFFICE.

BERNARD W. KARST, OF HARLANSBURG, INDIANA, ASSIGNOR OF ONE-HALF TO GEORGE E. MILLER, OF SAME PLACE.

MATCH BOX OR SAFE.

SPECIFICATION forming part of Letters Patent No. 589,835, dated September 14, 1897.

Application filed March 6, 1897. Serial No. 626,311. (No model.)

To all whom it may concern:

Be it known that I, BERNARD W. KARST, a citizen of the United States, residing at Harlansburg, in the county of Huntington and State of Indiana, have invented certain new and useful Improvements in Match Boxes or Safes; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to match boxes or safes, and has for its object the provision of improved means for effecting automatically the delivery of the articles singly to the user.

The nature of my invention will be fully apparent from a reading of the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is a perspective view of a match box or safe embodying my invention. Fig. 2 is a vertical central sectional view of the same with the parts in the position they assume when in the act of delivering a match. Fig. 3 is a vertical central sectional view of the same with the parts in the position of rest.

Referring to the said drawings by letter, A denotes the casing of the box or safe, which is provided with the rear extensions *a a*, by which the device may be securely fixed to a wall or other upright. In the front of the casing is a delivery-opening *a'*. Within the casing is a vertical partition *b*, dividing the same into two compartments, in the forward one of which is arranged the means for effecting the delivery of the articles. Said means consist of a picker *c*, pivotally secured to a vertically-movable follower *d*, which follower and picker are lowered by gravity and raised by hand through any suitable device, preferably in the nature of a cord *e*, which is secured at one end to the follower and is passed over a sheave *e'*, mounted in bearings on the under side of the top of the casing, and is thence passed downward through the rear compartment and out through the base of the casing, where it is provided with a handhold e^2. The follower *d* is provided with guide-flanges *d'*, which coöperate with the walls of the casing and the partition to insure its proper movement.

The picker *c* carries at its lower end two spring-fingers *c' c'*, which are separated to an extent slightly less than the diameter of a match. The fingers are preferably constructed of a single strip of metal, the ends of which are flattened, said strip being passed through a perforation in the picker, as shown, and bent downward at each side of the lower reduced end c^2 of the picker. Said end c^2 terminates short of the finger ends and forms with the latter a recess of a size sufficient only to receive a single article. The picker, as before stated, is pivotally secured to the follower *d*, and its upper end c^3, which is beyond the pivotal point, is cam-shaped, for a purpose to be presently explained.

Secured to the partition *b* is a trip *f*, which projects in the upward path of the cam-shaped end c^3 of the picker, and below said trip *f* is a second trip *f'*, which is without the upward path of said end c^3, but within the downward path of the latter, the picker in its travel assuming different positions, as will presently appear.

The bottom *g* of the forward compartment is hopper-shaped, and at the base of the hopper is a depression *g'*, into which the matches which are contained in said compartment find their way. In the inner side of the recess *g'* and in the path of the lower end of the picker is a recess g^2.

The operation is as follows: The forward compartment is supplied with matches, which rest therein in a horizontal position. The follower and picker are elevated to the position shown in Fig. 2 by pulling on the cord *e*, which latter is then released and the follower, actuated by gravity, falls to the bottom of the casing. In falling the picker-fingers are caused to engage a match, the impact due to the weight of the follower causing the article to wedge between the fingers, and upon pulling the cord the follower and the picker with the contained match are elevated. The picker normally assumes a vertical position with its cam-shaped end c^3 projecting inwardly to a slight extent. When near the upward limit of its movement, said end c^3 comes into en-

gagement with the trip f and is moved downward by the latter, the other match-holding end of the picker being elevated and brought without the casing through its opening a', as shown in Fig. 2. The match is then withdrawn from the picker by hand, and on releasing the cord the follower and picker are allowed to descend to engage another article. At the beginning of the downward movement of the picker the trip f' comes into contact with the end c^3 and restores the picker to its normal or vertical position. The hopper-shaped bottom of the compartment, together with the employment of the depression and recess, insures the delivery of a match regardless of the number contained in the box or safe, as a match is thus always in proper position until the box or safe is exhausted.

The cord attached to the follower when the follower delivers a match may be drawn to one side into a narrow slot and will hold the follower until the match is fully delivered, and may then be drawn back, so as to allow the follower and the picker to descend for another match, as above described.

I claim as my invention—

1. A match box or safe comprising a casing having a compartment for the articles to be delivered, a gravity-follower vertically movable in said compartment and carrying a picker adapted to engage the articles singly, means for tripping the picker at the limit of its upward movement to project the match from the casing, and means operated by hand for imparting said upward movement, substantially as described.

2. A match box or safe comprising a casing having a compartment for the articles to be delivered, a gravity-follower vertically movable therein, a picker pivoted to said follower, having spring picker-fingers at one end and a cam-shaped opposite end, trips in the paths of said latter end for tilting and restoring the picker, and means for elevating the follower and picker, operated by hand, substantially as described.

3. A match box or safe comprising a casing having a delivery-slot, a compartment for the articles to be delivered having a hopper-bottom provided with the depression and recess described, a gravity-follower within the compartment, a picker pivotally secured to said follower having spring picker-fingers at one end and a cam-shaped opposite end, trips for tilting and restoring the picker, and a hand-operated cord for elevating the follower and picker, substantially as described.

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

BERNARD W. KARST.

Witnesses:
HENRY B. SAYLER,
JOHN M. SAYLER.