

No. 749,472.

PATENTED JAN. 12, 1904.

W. F. CARLBERG.
SINGLE DELIVERY MATCH SAFE.

APPLICATION FILED JULY 10, 1903.

NO MODEL.

Fig. 1.

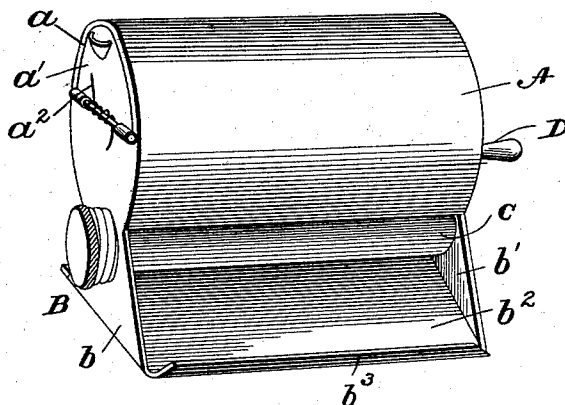


Fig. 2.

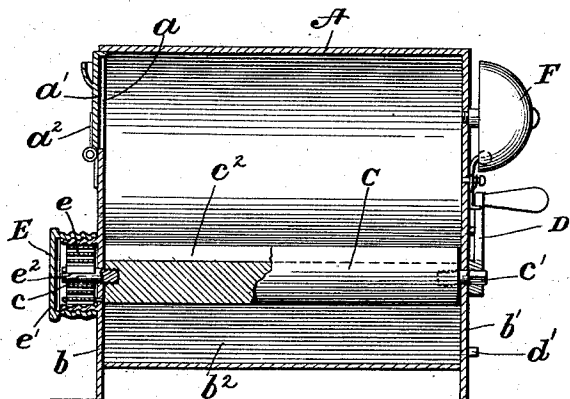
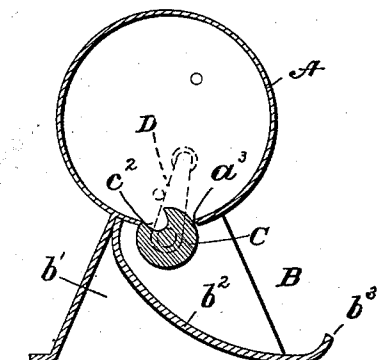
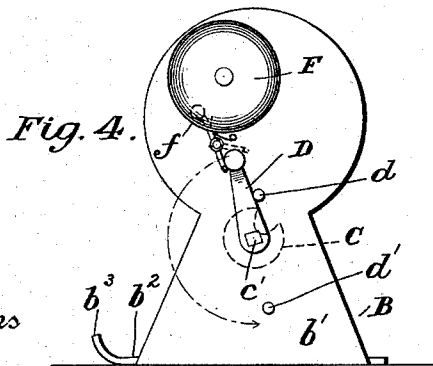


Fig. 3.



Witnesses

W. H. Austin,
W. B. Greig, Jr.

Walfred F. Carlberg.
Inventor

by *Edw. S. Duwall, Jr.*
Attorney

UNITED STATES PATENT OFFICE.

WALFRED F. CARLBERG, OF SISSETON, SOUTH DAKOTA.

SINGLE-DELIVERY MATCH-SAFE.

SPECIFICATION forming part of Letters Patent No. 749,472, dated January 12, 1904.

Application filed July 10, 1903. Serial No. 164,990. (No model.)

To all whom it may concern:

Be it known that I, WALFRED F. CARLBERG, a citizen of the United States, residing at Sisseton, in the county of Roberts and State of South Dakota, have invented certain new and useful Improvements in Single-Delivery Match-Safes, of which the following is a specification.

My invention relates to an improvement in match-safes of the single-delivery type; and the objects of the invention are to provide a simple and inexpensive article which has the parts that may require adjustment, replacement, or repair so located that the body may be made in one piece or permanently assembled and the movable or active parts may be disassembled without going into the body or the interior of the safe.

With these and other objects and advantages in view the invention consists in the novel construction and arrangement of parts disclosed in the following specification and drawings, and particularly pointed out in the claims at the end of the description of parts.

In the drawings, Figure 1 is a perspective view of the article. Fig. 2 is a longitudinal sectional view thereof. Fig. 3 is a transverse sectional view, and Fig. 4 is a side elevation.

In the drawings like letters of reference designate like parts in the several views.

The article comprises the hopper A, which may be cylindrical, as illustrated, and the base B, consisting of the sides *b b'*, between which is located a tray *b''*. This tray may be in the form of an inclined chute, as shown, with the front upturned flange *b'''*.

The hopper is provided with a suitable opening *a* in one side, through which the safe is loaded. A hinged flap or door *a'* closes this opening, and it is provided with a spring *a''* to hold the door normally closed. This spring may be dispensed with. The bottom of the hopper is provided with a longitudinal discharge-opening *a'''*, extending the length of the hopper and of suitable length to permit a match to pass through to the ejector.

A match-ejector C is located adjacent to the discharge-opening and closes the same, the feed-opening being wide enough to partially

admit the ejector within the hopper to the extent of the diameter of a match, and said ejector is rotatably mounted in the sides *b b'*. This construction, with the edges of the match-receiving recess or seat projecting into the match-supply, insures a positive feed to the ejector when rotated. This ejector may be in the form shown—a roll or cylinder having the end spuds or journals *c c'*, which rotate in the sides *b b'*. These journals are separable from the ejector by being threaded into the ends of the same. This permits the roll to be taken out. The roll is constructed with a match-receiving recess or seat *c''*, arranged longitudinally thereof, and this recess receives a single individual match from the feed-opening of the hopper and drops it onto the tray when the ejector is rotated by the arm D, which is secured to the projecting end of the journal *c'*. The opposite journal *c* is extended beyond the side *b* and has secured thereto a spiral spring *e*, which is incased in the holder E on the outer face of side *b*. This holder is closed by a removable cap *e'*, here shown threaded thereon. One end of the spring is secured in a notch *e''* in the end of the journal, or said spring may be secured thereto in any other suitable manner. The other end of the spring may be secured to the wall of the holder in any suitable manner. The body of this article—that is, the hopper, the base, sides, and the tray—may be cast in one piece or otherwise permanently assembled, and by reason of the construction and arrangement of the ejector and the spring which returns it to position after each delivery repairs or replacement of parts may be easily accomplished. The advantages of this, taken in conjunction with its consequent saving in cost of manufacture, will be obvious.

Stop-pins *d* and *d'* project from the side *b'* and are employed to limit the arc of movement of the arm D. A bell F is attached to the device and is sounded by a striker *f*, which is actuated by the arm D. The striker-arm is made in two sections and is pivoted at an elbow-joint, connecting the two sections. This permits the arm D to pass the end of the striker-arm. A spring is employed to give positive

action to the striker. The device with bell attached is devised more particularly to give warning if a child take a match.

Having thus fully described my invention,
5 what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a match-safe, the combination of a hopper, a discharge-opening in said hopper and a match-ejector arranged to return to its
10 normal position after the delivery of a match, said match-ejector lying partially within the discharge-opening and provided with a match-receiving recess or seat the front edge of which projects into the hopper to the extent of the
15 diameter of a match and the rear edge coincides with the rear edge of the discharge-opening with the rear side or wall of the recess slanting downward, when the ejector is in its normal position, so that the said recess
20 forms a pocket at this side of the discharge-opening.

2. In a match-safe, the combination of a hopper, an open match-tray, a discharge-opening in said hopper, a match-ejector comprising
25 a roll provided with a longitudinal recess or seat for the reception of a match, said roll located between the hopper and the open tray and lying partially within the discharge-opening with the front edge of the match-receiving
30 recess or seat projecting into the hopper to

the extent of the diameter of a match and the rear edge coinciding with the rear edge of the discharge-opening and the rear side or wall of the recess slanting downward when the ejector-roll is in its normal position, so that the said
35 recess forms a pocket at this side of the discharge-opening; and a spring connected to said ejector and arranged to return the ejector to its normal position after the delivery of a match to the tray.

3. In a match-safe, the combination of a hopper provided with a discharge-slot, an open match-tray, a rotatable match-ejector comprising a roll located under the discharge-opening and having a longitudinal match seat or recess
45 therein, and provided with removable journals, screw-threaded into the ends of the roll and projecting through the sides of the safe, in which they are journaled, a coiled spring located outside of the safe and attached to one
50 of said journals to return it to a normal position, and an ejector-operating arm secured to the other journal and outside of said safe.

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

WALFRED F. CARLBERG.

Witnesses:

WARREN D. LANE,
J. W. BAIRINGTON.