



E. & D. C. POOLER.  
MATCH SAFE.  
APPLICATION FILED MAR. 23, 1909.

943,098.

Patented Dec. 14, 1909.

2 SHEETS—SHEET 2.

Fig. 3

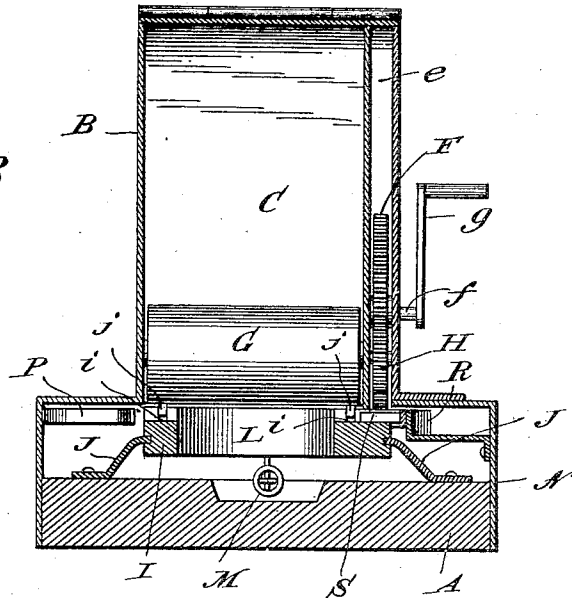


Fig. 4

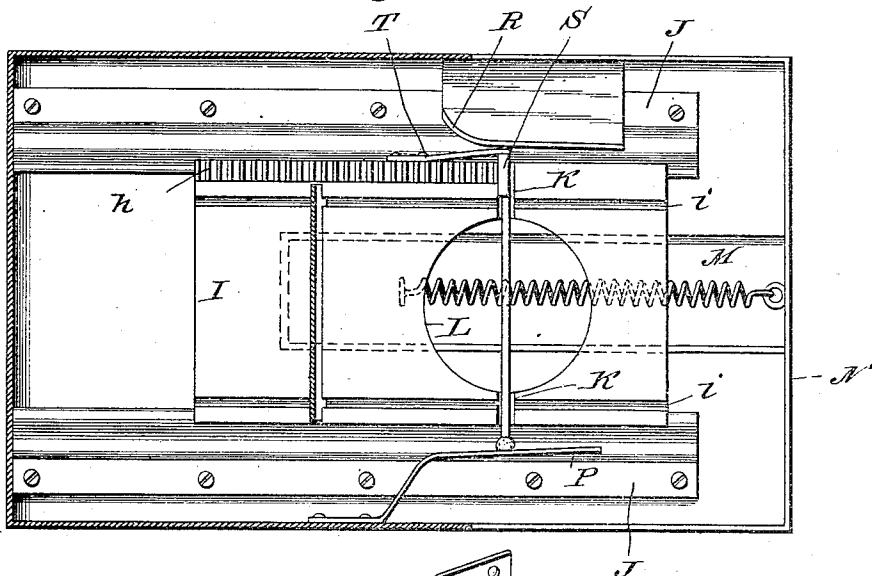
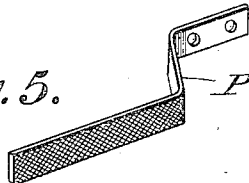


Fig. 5.



Witnesses

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# UNITED STATES PATENT OFFICE.

EARL POOLER AND DON CAMERON POOLER, OF SEATTLE, WASHINGTON.

MATCH-SAFE.

943,098.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Application filed March 23, 1909. Serial No. 485,173.

*To all whom it may concern:*

Be it known that we, EARL POOLER and DON CAMERON POOLER, citizens of the United States, residing at Seattle, in the county of King and State of Washington, have invented new and useful Improvements in Match-Safes, of which the following is a specification.

Our invention has relation to match safes; and it contemplates the provision of a simple, durable and otherwise advantageous safe embodying means for delivering matches one by one, this with a view of preventing waste of the matches, and also embodying means for igniting each match as delivered so that a person has but to pick up the match and use the same.

With the foregoing in mind, the invention will be fully understood from the following description and claims when the same are read in connection with the drawings, accompanying and forming part of this specification, in which:

Figure 1 is a perspective view of a match safe constructed in accordance with our invention. Fig. 2 is a vertical, longitudinal central section of the same. Fig. 3 is a transverse section taken on the line 3—3 of Fig. 2. Fig. 4 is a horizontal section, taken in a plane immediately above the match-delivering slide of the safe. Fig. 5 is a detail perspective view of the igniter comprised in the safe.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is the base of the safe constituting the best practical embodiment of our invention that we have as yet devised. The said base is preferably, though not necessarily, of wood, and from the same rises a casing B, of metal or other suitable material. This casing B contains a receptacle C for matches, normally closed by a door D which, in practice, will be secured by a lock (not shown). It will also be understood by reference to Figs. 2 and 4 that the rear wall *a* of receptacle C is inclined downwardly and forwardly, and that the forward wall *b* thereof is curved forwardly at *c* and terminates in forwardly extending, horizontally-disposed spring strips *d*, the office of which is to hold a match down in the groove of the delivery slide hereinafter described. When deemed desirable, the casing B may be provided with a receptacle E for burned matches. This

receptacle is shown at the back of the casing, but it might obviously be disposed at either side of the casing or might be altogether dispensed with, without affecting our invention.

F, Figs. 2 and 3, is a spur gear, disposed in a sub-chamber *e* of casing B, and fixed on a transverse shaft *f*, provided outside the casing with a crank *g*.

G is a roller suitably mounted in the lower forward position of the receptacle C and having a spur gear H, intermeshed with the spur gear F, and I is the before mentioned delivery slide which is designed to be reciprocated immediately below the wall *c* and the roller G, and is provided with a longitudinal rack *h*, intermeshed with the spur gear F, and is also provided with longitudinal grooves *i*, the latter to receive tongues *j* on the lower end of the inclined wall *a*, as best shown in Fig. 3. The function of the roller G is to assist in depositing one match in the cross-wise groove, presently described, of the slide I and to check the remainder of the matches and prevent the same catching against the slide incidental to the outward movement thereof, and the purpose in disposing the tongues *j* of wall *a* in the longitudinal grooves *i* of the slide is to prevent catching of matches between the wall and slide and to also assist in the proper deposit of one match in the cross-wise groove of the slide.

As best shown in Figs. 3 and 4, the longitudinal edges of the slide I are grooved to receive longitudinal guide strips J, fixed on the base A, and in addition to the cross-wise groove, which is lettered K, the slide is provided with an aperture L. This latter is interposed between the portions of the groove K and is designed to receive the thumb and fore finger of a person and render convenient the act of picking a match from the groove K.

M is a tractile spring connected at one end to the rear portion of the slide I and at its opposite end to a forward stop wall N, fixed to the base A.

P is a match igniter connected to a portion of the casing B and disposed at one side of the path of movement of the slide I.

R is a cam shoe fixed to a portion of the casing and disposed at the opposite side of the slide, with reference to the igniter P, and S is a follower, movable endwise in the groove K, and carried by a spring strip T, connected

at its rear end to the longitudinal edge of slide I adjacent the shoe R. From this it will be manifest that when the slide I is moved forwardly, the shoe R will operate to force the follower S inwardly, against the action of the spring T, and the follower, in turn, will press the match in the groove K of the slide against the igniter P, with the result that ignition of the match is assured before the same reaches the forward end of the igniter P. It will also be noticed that when the lighted match passes beyond the forward end of the igniter P, which is resilient, the said igniter will serve, in the event of an attempt to move the slide backward, to engage the side of the match stem and in that way preclude the possibility of a lighted match being carried back among the mass of matches in the receptacle or hopper C. Attention is further directed to the fact that when the slide I is moved backwardly sufficiently far to carry the spring strip T out of engagement with the shoe R, the said spring strip will operate to move the follower S outwardly so that said follower will not interfere with the proper deposit of a match in the groove K.

In the practical use of the safe, and while the parts are in their normal positions, Figs. 1 and 2, the receptacle C is charged with a number of matches, arranged with their heads adjacent the igniter P. Then when a person desires to obtain a match from the safe it is simply necessary for such person to turn the crank *g* in the direction indicated by arrow, Fig. 1, through a part of a revolution, and then release the crank. The turning of the crank in the direction of the arrow will obviously be accompanied by backward movement of the slide I, and rotation of the roller G in the direction indicated by arrow in Fig. 2, and when the groove K passes the roller, a single match will drop into the said groove. It is at this time that the crank *g* is released, and thereupon the spring M, put under tension by the backward movement of the slide, will contract and draw the slide forwardly and rotate the roller H in the direction opposite to that indicated by arrow in Fig. 2 so as to enable said roller to serve the purpose hereinbefore ascribed to it. During the said forward movement of the slide, the match will be ignited in the manner before described, and may then be conveniently taken from the slide and used.

In addition to the practical advantages hereinbefore ascribed to our novel match safe, it will be noted that the safe is simple and inexpensive in construction and is well adapted to withstand the rough usage to which devices of corresponding character are ordinarily subjected by careless persons.

As before stated, the construction herein illustrated and described constitutes the best

practical embodiment of our invention of which we are cognizant, but it is obvious that in the future practice of the invention such changes or modifications may be made as fairly fall within the scope of our invention as defined in the claims appended.

Having described our invention, what we claim and desire to secure by Letters-Patent, is:

1. In a match safe, the combination of a slide adapted to receive and carry a match, an igniter disposed at one side of the path of the slide, a cam shoe disposed at the opposite side of said path, and a follower carried by the slide and adapted on movement thereof to be pressed inwardly by the shoe and to press a match against the igniter.

2. In a match safe, the combination of a slide having a crosswise groove for the reception of a match, an igniter disposed at one side of the path of the slide, a cam shoe disposed at the opposite side of said path, a spring strip connected to the slide and a follower connected to said spring strip and disposed in the crosswise groove of the slide; said spring strip and follower being adapted on movement of the slide to be pressed inwardly by the shoe, and the follower being adapted to press a match against the igniter.

3. In a match safe, the combination of a slide having crosswise groove portions and also having an aperture arranged between the groove portions, a resilient igniter disposed at one side of the path of the slide and adapted after the passage and ignition of a match to spring inwardly into a position in which it is adapted to prevent retrograde movement of the match, a cam shoe disposed at the opposite side of said path, with reference to the igniter, a spring strip connected to the slide, and a follower connected to said spring strip and disposed in one crosswise groove portion of the slide; said spring strip and follower being adapted on movement of the slide to be pressed inwardly by the shoe, and the follower being adapted to press a match against the igniter.

4. In a match safe, the combination of a receptacle having an inclined back wall on the lower end of which are tongues, a slide adapted to receive and carry a match and having longitudinal grooves receiving said tongues, a roller disposed in the receptacle and adjacent the slide, and means for synchronously moving the slide and rotating the roller.

5. In a match safe, the combination of a receptacle, a slide having a crosswise groove to receive and carry a match and also having a longitudinal rack, a roller arranged in the receptacle and adjacent the slide and having a gear, and a suitably supported gear wheel intermeshed with the rack of the slide and the gear of the roller.

6. A match safe comprising a receptacle,

a reciprocatory slide having a crosswise groove to receive and carry a match and also having a longitudinal rack, a roller arranged in the receptacle, adjacent the slide, 5 and having a gear, a drive gear intermeshed with the rack and the gear of the roller and adapted to move the slide and turn the roller in one direction, a tractile spring for moving the slide and turning the roller in 10 the opposite direction, a resilient igniter disposed at one side of the path of movement of the slide, a cam shoe disposed at the

opposite side of said path, and a follower carried by the slide and adapted on movement thereof to be pressed inwardly by the shoe and to press a match against the igniter. 15

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

EARL POOLER.

DON CAMERON POOLER.

Witnesses:

W. H. THOMPSON,

EMORY E. HESS.