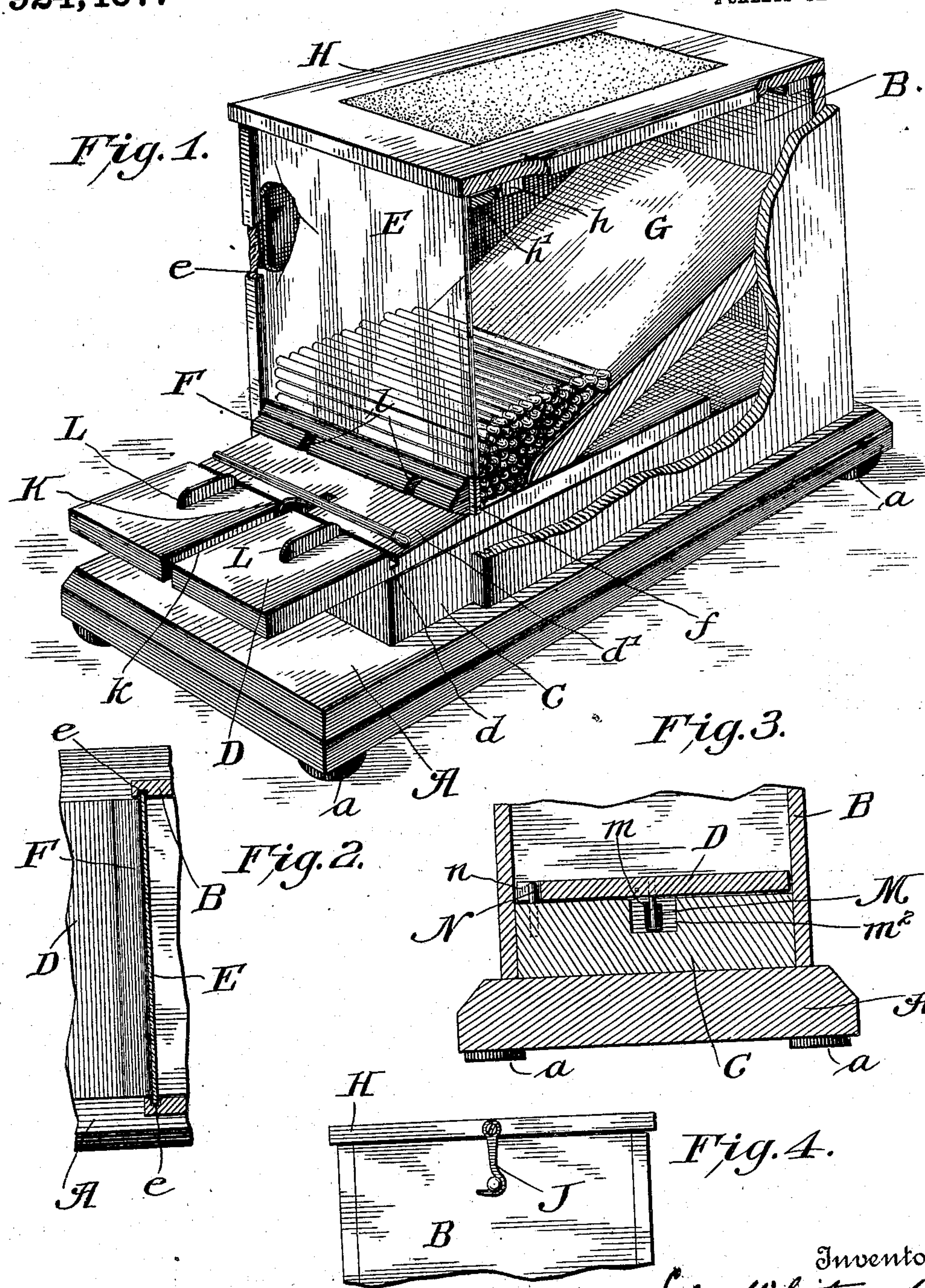


924,407.

S. WHITCOMB.
MATCH SAFE.
APPLICATION FILED OCT. 14, 1907.

Patented June 8, 1909.
2 SHEETS—SHEET 1.



Witnesses
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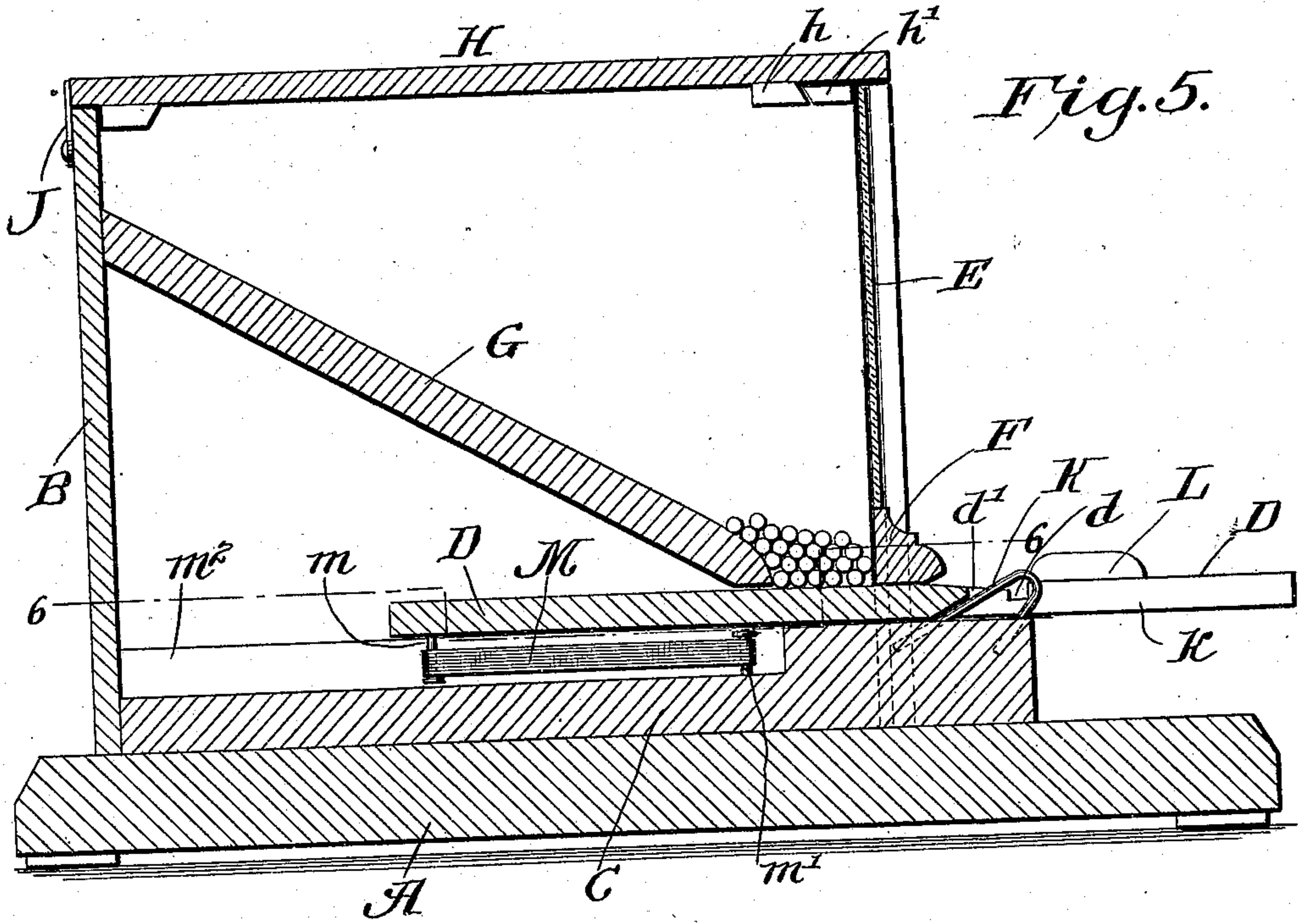


Fig. 5.

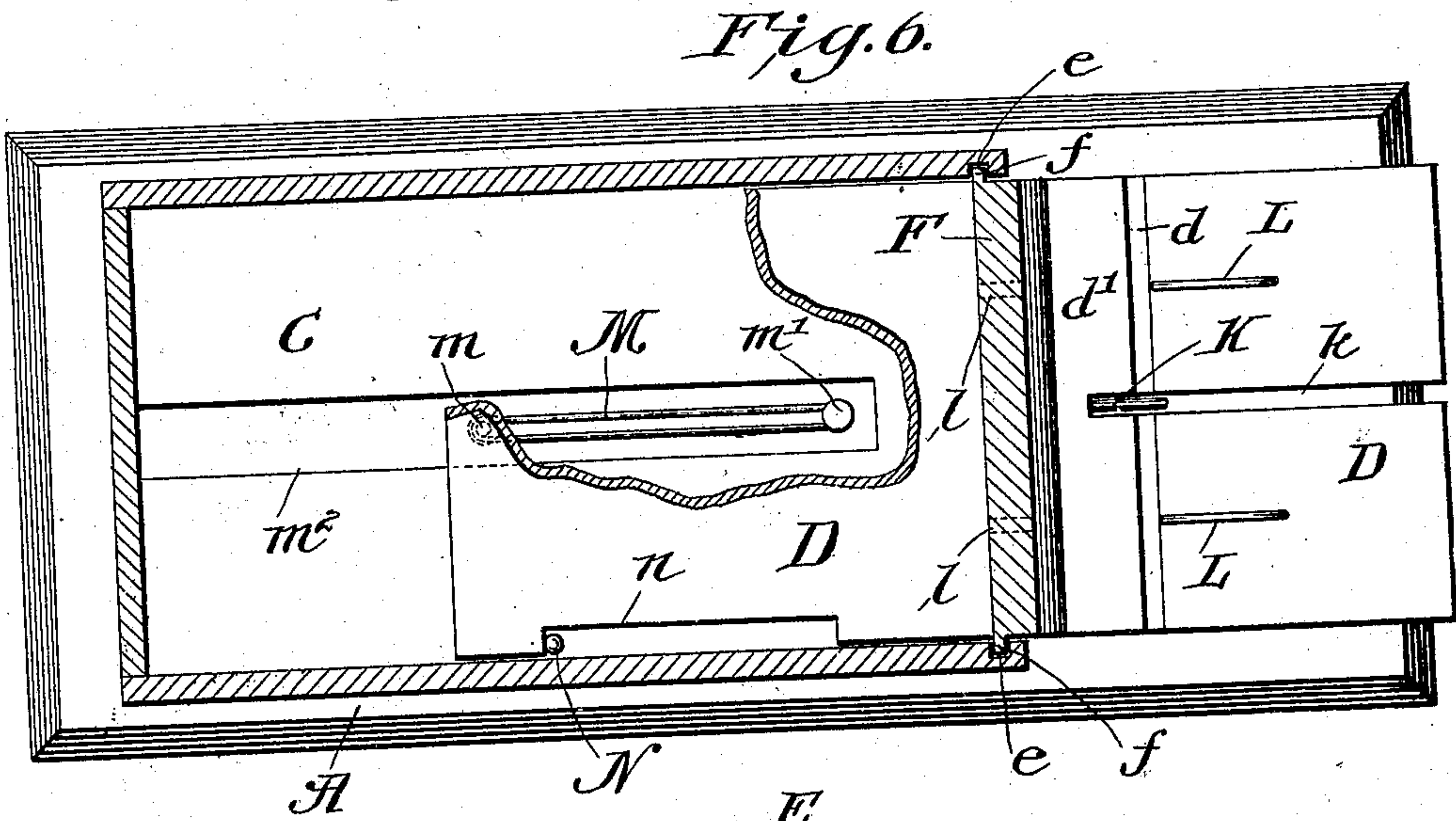


Fig. 6.

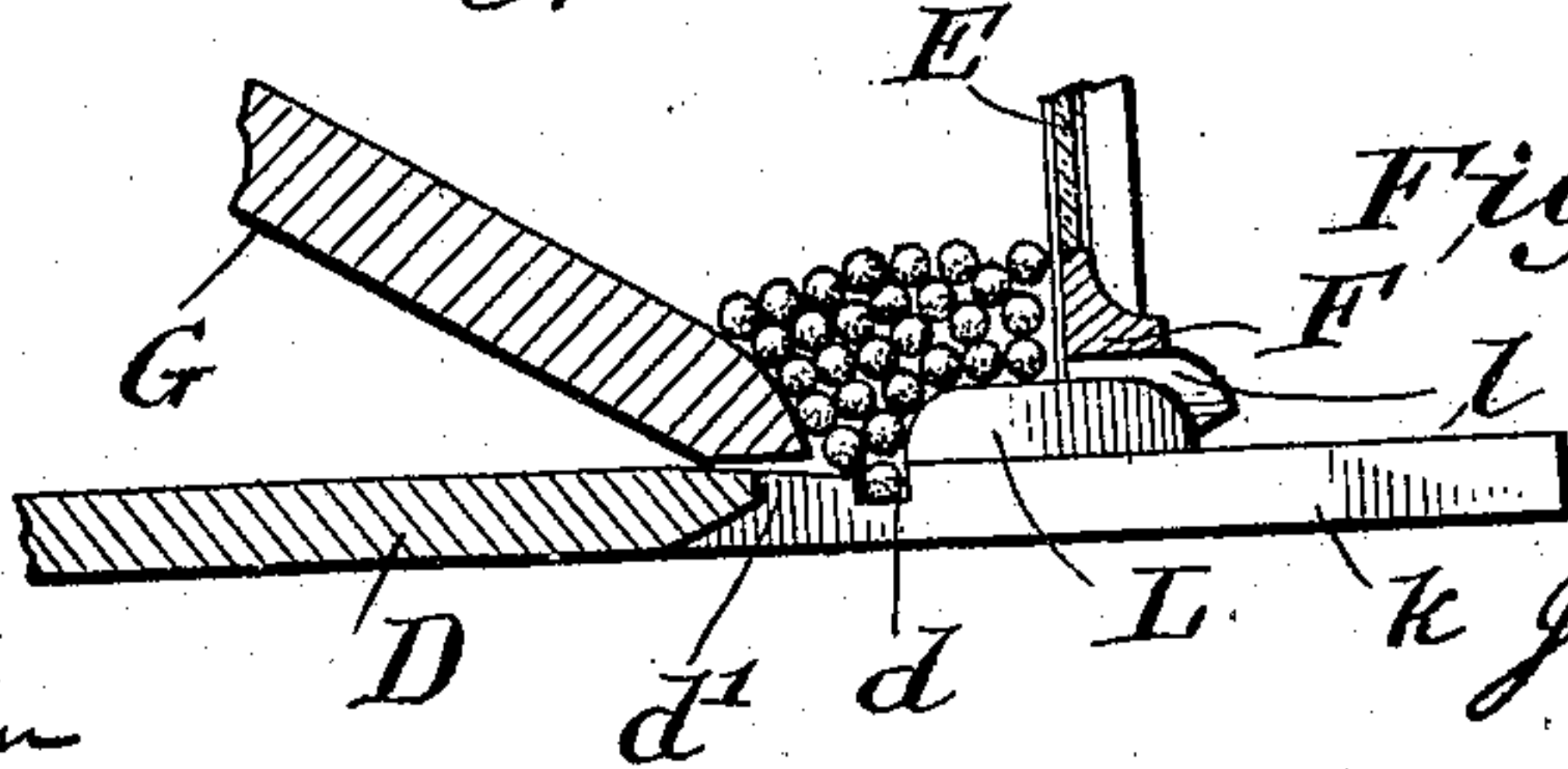


Fig. 7.

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UNITED STATES PATENT OFFICE.

SELA WHITCOMB, OF DAYTON, OHIO, ASSIGNOR OF ONE-HALF TO JOHN E. BRELSFORD, OF DAYTON, OHIO.

MATCH-SAFE.

No. 924,407.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed October 14, 1907. Serial No. 397,405.

To all whom it may concern:

Be it known that I, SELA WHITCOMB, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Match-Safes; 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.

The object of this invention is to provide certain improvements in match-safes of that kind wherein the matches are withdrawn from a closed box or receptacle by means of a delivery-slide, the purpose of which is to permit only one match to be obtained at a time, so as to avoid waste and prevent loose matches from lying around.

The invention will hereinafter be first fully described by reference to the accompanying drawings, which form a part of this specification, and then more particularly pointed out in the claims at the end of this description.

Figure 1 of said drawings is a perspective view of a match-safe embodying my invention, shown with parts broken away to reveal the interior construction. Fig. 2 is a detail horizontal section taken through the glass front of the match-box. Fig. 3 is a detail vertical section through the lower portion of the match-box behind the match-hopper, showing in cross-section the spring-actuating means for pushing out the delivery-slide. Fig. 4 is a detail view of the upper portion of the rear end of the box. Fig. 5 is a longitudinal vertical section taken centrally through the match-box. Fig. 6 is a horizontal section on line 6—6 of Fig. 5, showing the delivery-slide, which appears in plan view, partly broken away to reveal the spring-actuated means for pushing said slide outward. Fig. 7 is a fragment of a longitudinal vertical section showing the match-delivery slide pushed back to receive a match in its groove or pocket.

In the drawings, A denotes a beveled-edge base-plate or block, preferably resting at its corners on rubber tips or feet *a*, and upon which is mounted the rectangular match-box B of suitable interior width to accommodate a supply of ordinary parlor matches. Said match-box has therein a bottom-block C, projecting slightly beyond the

front of the box, and on said block C rests a slide-plate D, provided with a transverse groove *d*, the function of which is to withdraw a match from the supply-chamber or hopper within the box when the slide is reciprocated. The front of the box consists preferably of a glass-plate E, whereby the quantity or supply of matches can be observed; and said glass-plate E, being loosely or slidably fitted in vertical grooves *e* in the opposite sides of the box, rests upon a bar F, which latter rests upon the slide-plate D, the ends of said bar F being provided with ribs or flanges *f* which are also loosely or slidably fitted in the aforesaid grooves *e*. Within the box, an inclined block or partition G forms the bottom of the match-receptacle or hopper, whereby the supply of matches are fed into the lower front of the box and upon that relatively short portion of the slide-plate D which is exposed in said hopper between the inclined block G and the front of the box. The box is closed by a lid H, which however is detachably secured in place by means of a cleat *h* on the under side of the lid engaging under a cleat *h*¹ in the front of the box, and further by means of a hook J at the back. Access to the box for filling it with matches may be had by releasing the hook J at the back and lifting the rear end of the lid, whereby the cleat *h* is disengaged from the cleat *h*¹. The upper surface of the lid H is or may be covered with emery or other suitable substance or otherwise roughened for the purpose of striking the matches thereon.

By spring-actuated means, the slide-plate D is normally projected with its match-groove or pocket *d* beyond the front of the box, as shown in Fig. 5. To extract a match, the slide-plate is of course shoved back to carry its said groove *d* into the box and under the supply of matches in the hopper, as in Fig. 7, and said slide-plate is then released and allowed to return to its forward position, thereby withdrawing the match which has fallen into said groove. By the forward or return movement of the slide-plate, the match lying in the groove *d* is lifted by coming in contact with and riding up an incline or inclined wire finger K as represented in Fig. 1. Said finger K is mounted on the bottom-block B and rises through a central slot *k* in the forward part of the slide-plate. The effect of this is to raise the match out of a

groove d and deliver it upon the upper surface of the slide-plate where it can be readily picked up, as well understood.

The depth of the groove d is just sufficient to hold one match, but at the rear side of the groove the surface of the slide-plate is slightly beveled or inclined clear across, as at d^1 , thus relatively lessening the depth of the groove d at its rear side, so that when a match falls into said groove it will project somewhat above the inclined surface d^1 while the said match will lie below or no higher than the front flat surface of the slide-plate. The purpose of this inclined surface d^1 is to obviate any sharp corner or abutment at the rear side of the groove and thus avoid possibly catching or engaging other matches when the slide-plate, after having been pushed back to receive a match in its groove, is released by the operator and allowed to return to deliver such match. As the slide-plate moves back and forth, the bar F resting thereon will rise and fall on the incline d^1 , thus preserving a close contact with the upper surface of the slide-plate; for the weight of the glass front E bearing on said bar F holds it continually but yieldingly down upon the slide-plate, thereby providing a self-adjusting front conformable to the surface of the slide-plate. Hence also, if the matches should not be of uniform sizes, said adjusting front of the box would rise slightly to allow the passage of any unusual obstruction (as where a more than ordinarily large match might be received in the groove d), but at the same time would close up the opening against the remaining matches in the box.

The slide-plate D is further provided with two match-guides L, consisting of short ribs or flanges rising from the top surface of the slide-plate at opposite sides of the central slot k . Said ribs L are placed immediately in front of the groove d , at right angles thereto, and have rounded or beveled ends. When the slide-plate is pushed back into the box, the ribs L pass through slots or notches l in the bottom of the bar F and pass under the pile of matches in the hopper, as shown in Fig. 7. The purpose of said ribs or match-guides is to lift and straighten the matches, in conjunction with the straightening effect afforded by the inclined block G, thus insuring the falling of one match into the slot d . The effect of the ribs L is not only to straighten the matches, but to push one of the matches immediately behind said ribs into the slot d . It will thus be observed that one match is with certainty delivered by each operation of the slide-plate, but without interfering with the other matches in the box; the correct delivery of the matches being insured by the said ribs L, the inclined surface d^1 behind the groove d , and the adjustable front consisting of the glass-plate E and bar F resting on the slide-plate.

A very simple means is provided for forcing and holding out the slide-plate, consisting of a rubber or other elastic band M stretched between and engaging two tacks, nails or other suitable projections m and m^1 , one of which depends from the under side of the slide-plate while the other rises from the bottom-block C. The said rubber or elastic band M is arranged in a longitudinal slot or groove m^2 in the block C, the aforesaid tacks or nails m and m^1 projecting into said slot or groove. When the slide-plate D is pushed back to receive a match from the hopper, the said rubber or elastic band M is stretched, and when the slide-plate is released the tension of the band returns or forces the slide-plate forward, thereby withdrawing the match from the box and bringing it in contact with the inclined lifter K which throws the match out of the groove d . The tension of the rubber or elastic band M is such as to effect the immediate return or forward movement of the slide-plate as soon as it is released by the operator. The forward and back movements of the slide-plate are limited by a suitable stop N, which may consist of a nail, pin or other projection on the block C extending into a groove or slot n in the slide-plate, the length of said slot or groove n limiting the reciprocation of said slide-plate by abutment of the opposite ends of said slot or groove against the stop N. I do not limit myself to the foregoing specific means for operating the slide. A wire spring or other suitable means may be used.

It will thus be seen that I provide a very simple and efficient device of the character stated. The box may rest upon a table, counter or other suitable support, being held from slipping by its rubber tips or feet under the corners of the base-plate, and is always ready for conveniently extracting the matches one at a time.

I claim:

1. In a match-safe, the combination of a closed box having a hopper or chamber therein for holding a supply of transversely-arranged matches, a match-extracting slide having a transverse match-pocket or groove and working through the front of the box and under the match-hopper or chamber, and the front of said hopper or chamber being liftable and resting on the surface of said slide, said movable front normally maintaining a close contact with the slide but adapted to yield or rise to allow the passage thereunder of the match-groove when occupied by a match of such thickness as to project above the surface of the slide.

2. In a match-safe, a closed match-box for holding a supply of transversely-arranged matches, a match-extracting slide working through the front of the box and under the supply of matches therein, a glass front-plate loosely fitted in vertically-disposed

guides therefor in the sides of the box, and a transverse bar under said glass front-plate having its ends also made to fit loosely in said guides, whereby the weight of said glass plate bears upon said bar and holds the latter down upon but in yielding contact with said slide.

3. In a match-safe, a box having a match-supply hopper or chamber therein, a match-extracting slide working under said hopper, said slide having a transverse match-receiving pocket or groove, the slide being of a width to support and carry a match, and a plurality of match-guides or straighteners carried by and arranged at opposite sides of the center of the slide and consisting of short ribs or flanges rising from said slide immediately in front of said groove, the bottom of the front of the box or hopper having slots therein to permit the passage of said ribs or flanges.

4. In a match-safe, a closed box for holding a supply of transversely - arranged matches, a match-extracting slide working through the front of the box and under the supply of matches, said slide having a transverse match-groove, the surface of the slide

being beveled or inclined behind said groove, spaced ribs or flanges rising from said slide immediately in front of said groove, and a vertically-adjustable or movable front resting upon said slide, the bottom of said front having slots therein to permit the passage of said ribs or flanges.

5. In a match-safe, a match-box having a hopper therein for holding a supply of transversely-arranged matches, a match-extracting slide working under said hopper, the bottom of said box below said slide having a longitudinal slot therein, an elastic band in said slot engaging and stretched between connections on the under side of the slide and bottom respectively, and means for limiting the motion of said slide comprising a stop projecting from one of the relatively-movable parts working in a longitudinal groove or slot in the other part.

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

SELA WHITCOMB.

Witnesses:

FRANK M. TURNER,
H. A. REDFIELD.