

No. 814,745.

PATENTED MAR. 13, 1906.

R. L. STORM.
SAFETY MATCH BOX.
APPLICATION FILED JUNE 30, 1905.

Fig. 1.

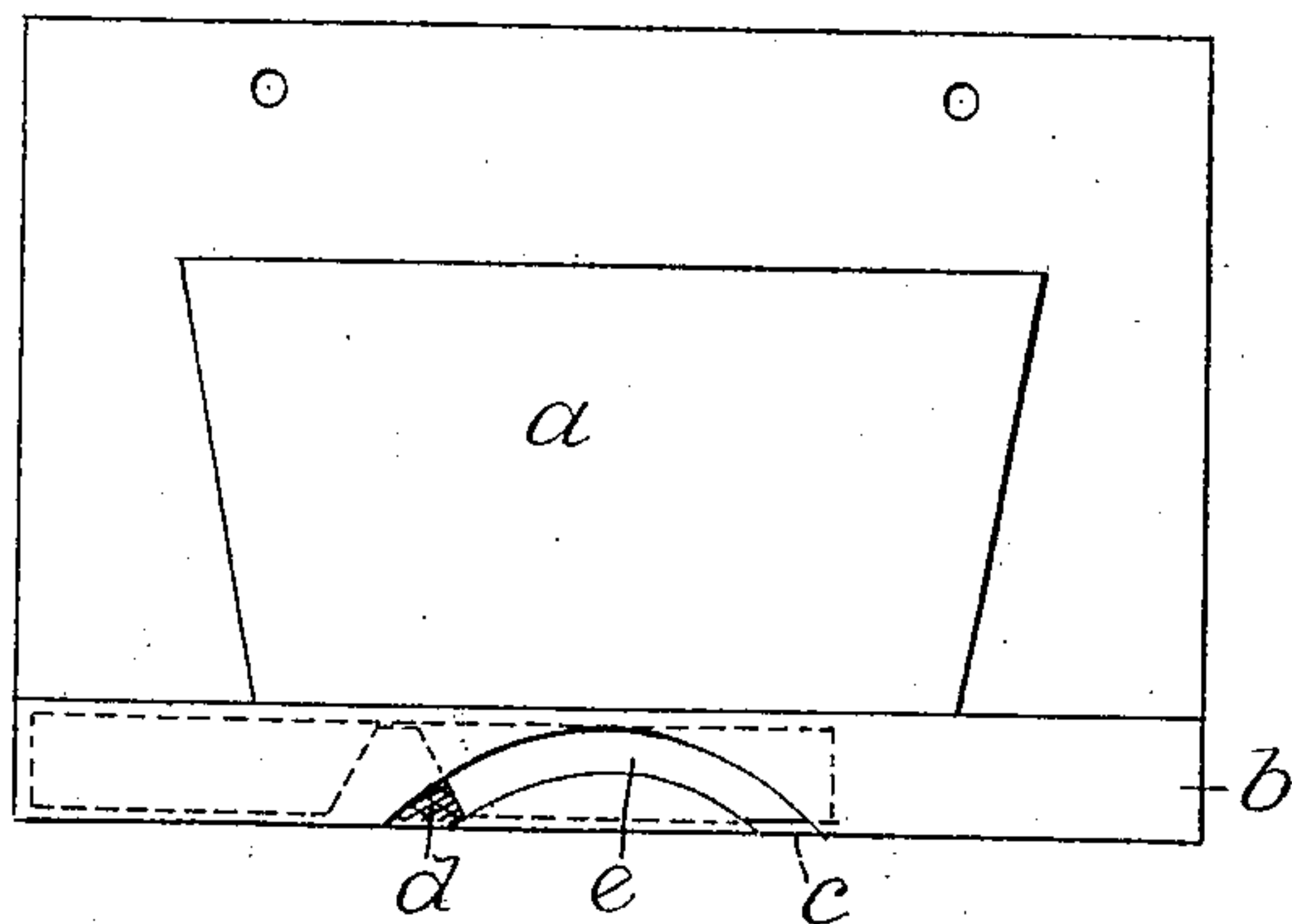


Fig. 2.

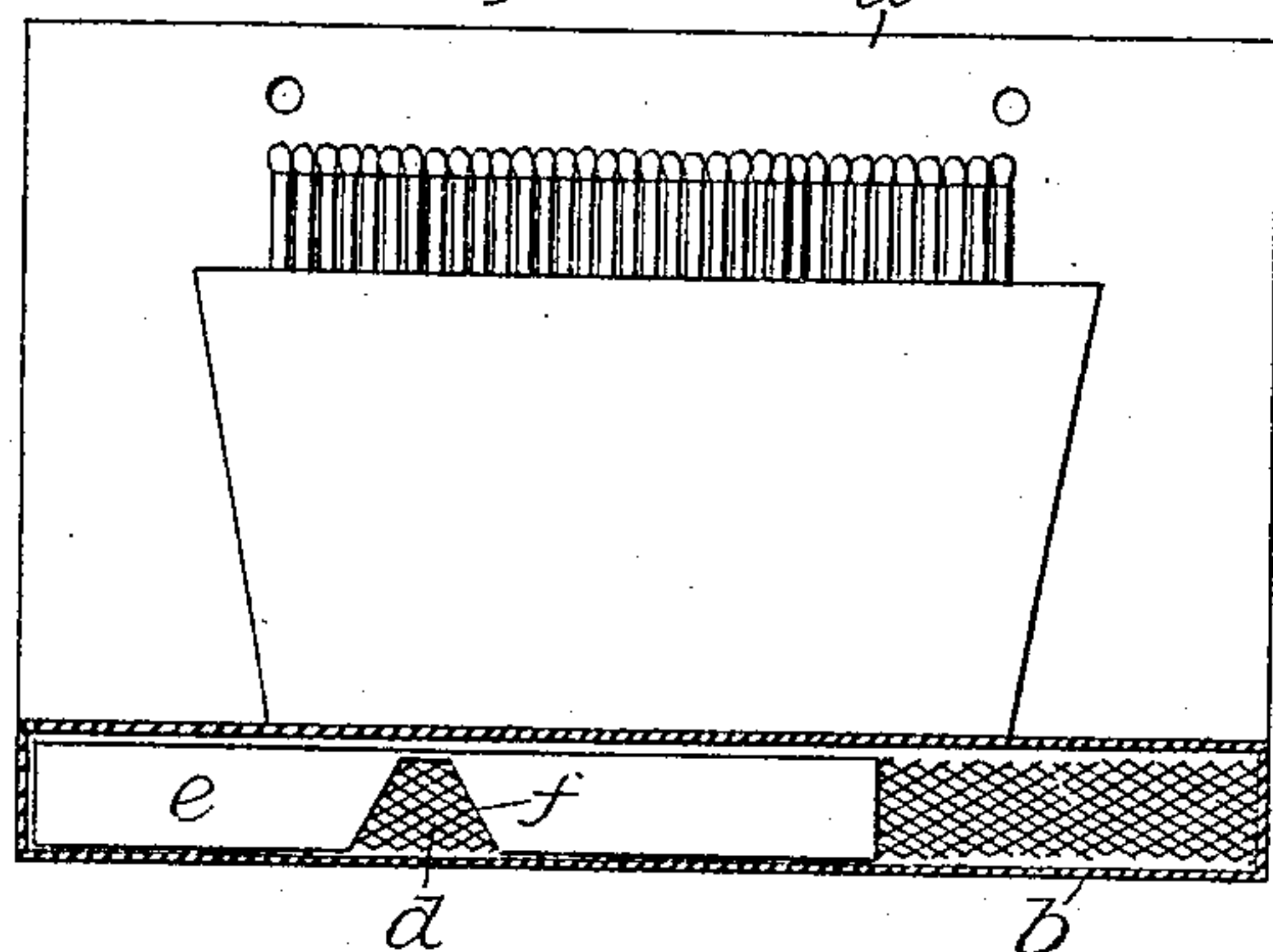
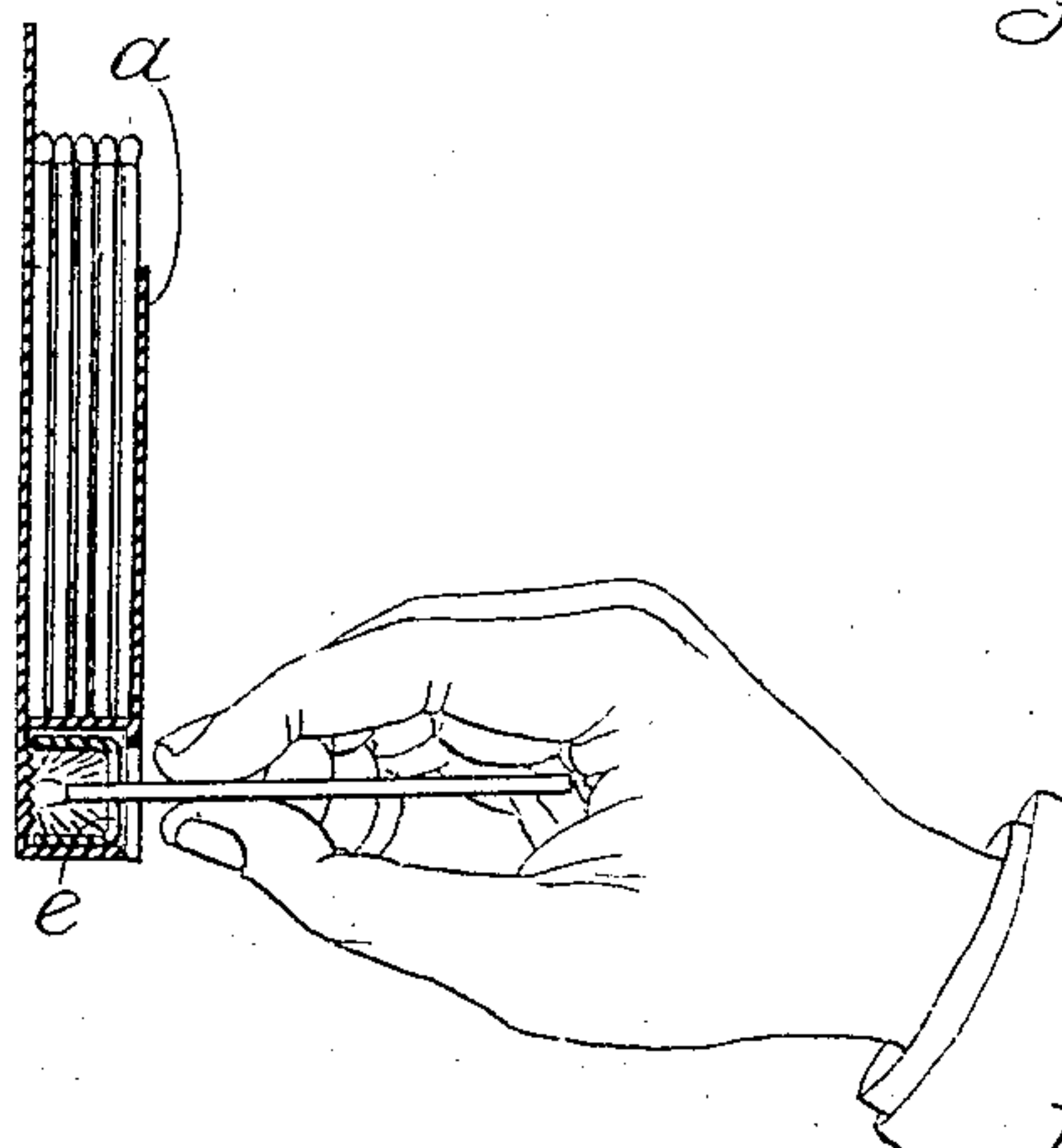


Fig. 3.



WITNESSES:

Wm. Kennedy,
J. F. Albrecht.

INVENTOR.
Ralph L. Storm,
BY *G. C. Kennedy,*
ATTORNEY.

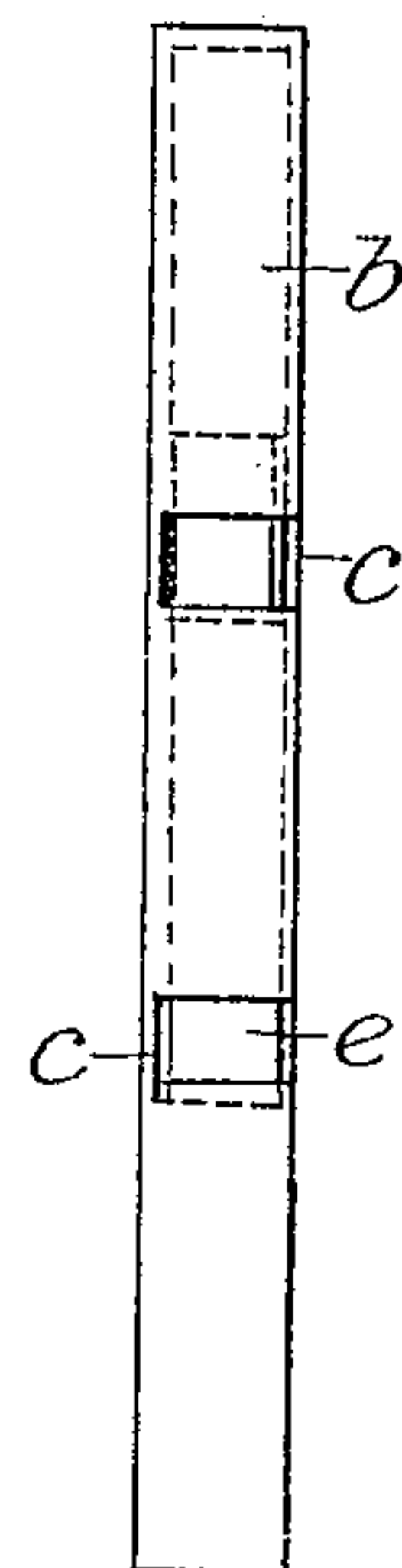


Fig. 4.

UNITED STATES PATENT OFFICE.

RALPH L. STORM, OF WATERLOO, IOWA.

SAFETY MATCH-BOX.

No. 814,745.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed June 30, 1905. Serial No. 267,697.

To all whom it may concern:

Be it known that I, RALPH L. STORM, a citizen of the United States of America, and a resident of Waterloo, Blackhawk county, Iowa, have invented certain new and useful Improvements in Safety Match - Boxes, of which the following is a specification.

My invention relates to match-boxes; and the object of my invention is to provide a separate compartment in a match-box arranged for the ignition of a match and having suitable means for preventing the egress of sparks or flying ignited particles at the moment of ignition. This object I have effected by the means which are hereinafter described and claimed and which are illustrated in the drawings hereto annexed, in which—

Figure 1 is a front elevation of my improved match-box. Fig. 2 is another front elevation with the front cover of the ignition-compartment removed. Fig. 3 is a vertical transverse section illustrating the method of igniting a match in the ignition-compartment so as to prevent the egress of flying ignited particles, and Fig. 4 is an under plan view of the said match-box.

Similar letters refer to similar parts throughout the several views.

I am well aware that match-boxes having attached thereto means for igniting a match have been made in various patterns; but my express purpose is to combine with the ignition-compartment such means as will prevent effectually the egress of ignited particles, such as often fly from the so-called "parlor-matches," at the moment of ignition, endangering the safety of the manipulator or liable to set fire to hangings or inflammable fabrics near by. I have accomplished this object in the construction herewith illustrated, which consists of a match-box *a* of an ordinary type, which is provided with a compartment *b* below, closed on all sides except for a curved slot *c* in its front plate. The inner surface of the back plate is roughened to provide an igniting-plane *d*. Within the compartment *b* is placed a three-sided slide-piece *e*, having a slotted opening *f*. The slide-piece is arranged so as to have its open side adjacent to the roughened igniting-plate.

The slot *f* is placed medially in the slide-piece *e*, and when the slide-piece is moved from one end of the compartment to the other said slot *f* successively passes under and coincides with all parts of the curved slot *c*.

To ignite a match, it is introduced into the compartment *b*, the inflammable head being in contact with the igniting-plane *d*, as shown in Fig. 3. The match-head is then moved horizontally along said igniting-plane in the usual manner, causing the inflammable material to ignite wholly within the compartment *b*. As the match passes along said space it carries along with it the slide-piece *e*, the curved slot *c* being closed by said slide-piece, except a small space immediately about the match, until the match in its progress arrives at the place of exit, where it passes out of the compartment alight.

It is well known that most of the matches in common use, popularly termed "parlor-matches," have inflammable heads of such a chemical composition that when violently abraded they are instantly inflamed, in the process sparks often being projected to a considerable distance, endangering gauzy fabrics near. It is obvious that all such sparks must be wholly intercepted by the walls of the safety-compartment, the match being withdrawn alight and past the detonating stage.

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

An ignition device, comprising in combination with a match-box, a slotted compartment attached thereto, an igniting-surface therein, a slide-piece movable over said surface within said compartment and having a suitable opening for a match to pass through and contact with said igniting-surface, said slide-piece having its opening so arranged as to progressively partially uncover the slot in said compartment when moved therein.

Signed at Waterloo, Iowa, this 27th day of June, 1905.

RALPH L. STORM.

Witnesses:

G. C. KENNEDY,
M. E. KENNEDY.