N. D. WRIGHT & C. C. HILL.

Match-Safe.

No. 196,734. Patented Oct. 30, 1877.

Fig. 1.

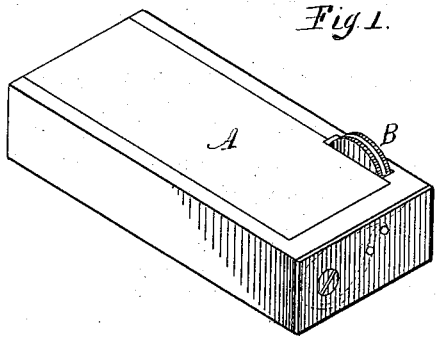


Fig. 2.

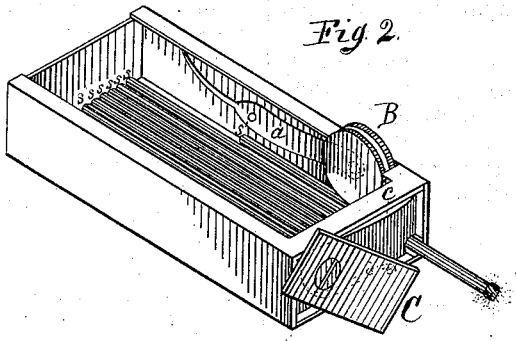


Fig. 3.

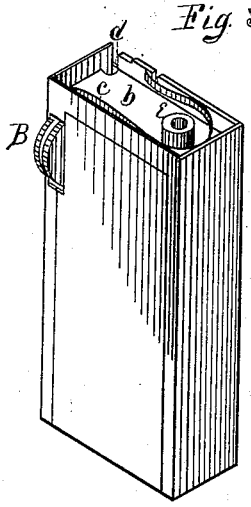
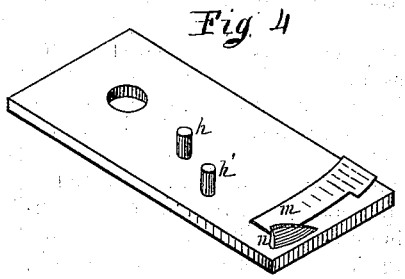


Fig. 4



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UNITED STATES PATENT OFFICE.

NEWTON D. WRIGHT AND CHRISTIAN C. HILL, OF ROCKFORD, ILLINOIS.

IMPROVEMENT IN MATCH-SAFES.

Specification forming part of Letters Patent No. **196,734**, dated October 30, 1877; application filed April 16, 1877.

To all whom it may concern:

Be it known that we, NEWTON D. WRIGHT and CHRISTIAN C. HILL, all of the city of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Match-Safes, which improvement is fully set forth in the following specification and the accompanying drawings, in which—

Figure 1 is an isometrical representation of a pocket match-safe embodying our invention. Fig. 2 is a similar view of the same safe, in which the sliding lid is omitted and the pivoted end lid is in open position. Fig. 3 represents the same safe in a vertical position, in which the pivoted lid is omitted; and Fig. 4 is an inside view of the pivoted lid enlarged.

The object of our invention is to produce a safe for the reception of matches ignited by friction or percussion in which is contained automatic arrangements for igniting the match as it is ejected from the safe, and which may be readily operated by one hand to open the lid, eject the match, ignite it, hold it in convenient position for use when lit, discharge the burned stub from the safe, and securely close the lid, all of which may be accomplished without changing the position of the safe in the hand.

To this end we have devised and constructed the safe represented in the accompanying drawing, which, in this instance, is of rectangular box form, and of a convenient size for pocket use, in which—

A represents a sliding lid, which may be removed for the purpose of filling the safe with matches, and is omitted in Fig. 2 for the purpose of showing the inside of the safe, in which *s s'* represent friction-matches of one of the usual forms as found in the trade. B is a double disk-wheel, with milled or serrated edges, and is fitted to revolve in bearings in the end of a spring bearing-bar, *a*, which enters between and receives the center journal-bearing of the wheel.

The spring bearing-bar *a*, with wheel B mounted thereon, and having its free end made in spring form, is pivoted in place in the safe, to the sides thereof, in such a manner that the spring end of the bar rests against the lid and holds the wheel B above the surface of the lid, in an opening cut to receive it, in such a manner as to permit a match, *s'*, to drop under the wheel.

The front end of the safe is recessed, having the end plate *b* set back from the extreme end of the safe, forming a chambered end, to receive a curved spring, *c*, within the recess, and to separate it from the match-receptacle. This recessed end plate at one corner is fitted with an opening, as at *d*, to freely permit a match to slide outward through it. A lid, C, is fitted to cover the recessed end of the safe, and is pivoted to a stud, *e*, on the end plate *b*, in such a manner as to swing freely. An inside view of this lid enlarged is represented at Fig. 4, in which *h h'* are studs rising from its inner face to receive the free end of the spring *c*, which passes between them and rests on stud *h*. A spring-detent, *m*, is secured to the inside of the lid, so that when in place its free end will rest on the bottom of the safe, in the recessed end, in front of the opening *d*, and serves to hold the lid in place, as at Fig. 1, in which instance the spring *c* will be in the position represented in the dotted lines. The lid C is also fitted with a knife-formed prominence, *n*, in such position that when the detent *m* is disengaged the action of the spring *c* will carry it about centrally past the opening *d*, in which instance the lid C will be in the position represented in Fig. 2, and the stud *h* will come in contact with the spring *c*, and serve as an elastic stop to limit the throw of the lid and lessen the concussion thereof.

In using our improved safe, it having been supplied with matches, and the parts in the position represented in Fig. 1, if taken in the right hand, then with the thumb press the serrated wheel inward in contact with the match under it; then, by drawing the thumb rearward, it will cause the serrated wheel to revolve, and by frictional contact will eject the match forward against the spring-detent, and disengage it from the safe. The lid will then be thrown, by the force of the spring *c*, into the position in Fig. 2, which will have carried the knife-formed prominence *n* through the end of the match, which will have caused it to ignite.

The continued movement of the serrated wheel will carry it forward and hold it for use, after which the burned stub may be carried

from the safe by the further movement of the wheel. The lid may be returned to its former closed position, as in Fig. 1, the whole operation being performed without changing the position of the safe in the hand.

We have represented our improved safe made in rectangular form, and of suitable size for pocket use, but do not wish to confine ourselves to this particular form or use, as our safe may be made of any proper known form; and our improvements are applicable to safes for other than pocket use, such as office, parlor, or other similar uses for which match-safes are employed; and as it is well known that matches now in common use may be ignited either by friction or percussion, therefore, instead of the knife-formed prominence *n*, which acts on both principles of friction and percussion, a frictional surface or a percussion device may be employed; and instead of the serrated wheel B a slide capable of lengthwise movement in the safe may be employed to eject the match from the safe; and instead of disengaging the spring-detent by means of the forward movement of the match to be ignited, it may be disengaged by other appliances, to be operated by the user. These and other well-known devices may be substituted for the devices we have employed in this instance without departing from the gist of our invention.

We claim as our invention—

1. The serrated wheel, in combination with the lid pivoted to the box, and having on its under side a spring and detent, as set forth.

2. The combination, in a match-box, of the spring-lid C and a device for ejecting the match, as and for the purpose described.

3. The combination, in a match-box, of the serrated wheel B and spring *a* with a lid, C, and spring *c*, substantially as described.

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