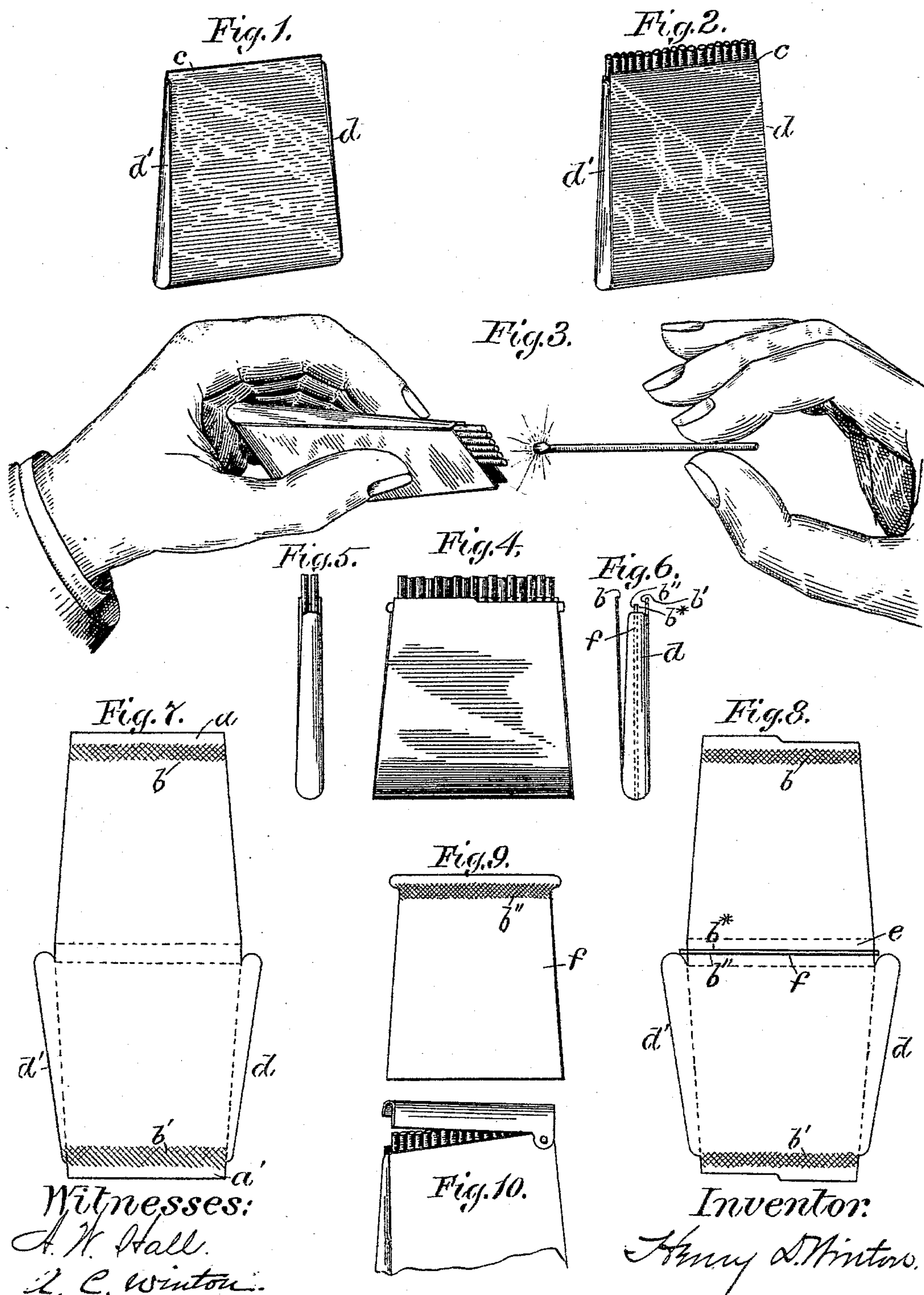


(No Model.)

H. D. WINTON.
MATCH SAFE.

No. 414,467.

Patented Nov. 5, 1889.



UNITED STATES PATENT OFFICE.

HENRY D. WINTON, OF WELLESLEY HILLS, MASSACHUSETTS.

MATCH-SAFE.

SPECIFICATION forming part of Letters Patent No. 414,467, dated November 5, 1889.

Application filed December 14, 1888. Serial No. 293,576. (No model.)

To all whom it may concern:

Be it known that I, HENRY D. WINTON, a citizen of the United States, residing at Wellesley Hills, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Match-Safes, of which the following is a specification.

My invention relates to improvements in pocket match-safes, which consists in constructing the same so that when matches are withdrawn therefrom they will be automatically ignited; and, further, in the peculiar construction whereby pressure is brought to bear upon the match at the proper point to cause its ignition, and in the further novel construction whereby the safe may be easily loaded. These objects I attain in the construction set forth in the following specification and fully illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the match-safe. Fig. 2 is a perspective view of the same loaded with matches. Fig. 3 represents the method of operating or withdrawing a match from the safe. Fig. 4 represents a modified construction whereby increased capacity is attained. Fig. 5 and 6 are side views of the same. Fig. 7 represents the form of blank from which the safe illustrated in Figs. 1, 2, and 3 is constructed. Fig. 8 represents the form of blank from which the safe illustrated in Fig. 4 is constructed. Fig. 9 represents the form of blank used in conjunction with the blank, Fig. 8, to construct the safe illustrated in Fig. 4. Fig. 10 represents a modified construction, whereby a shield or cover is obtained.

To construct the match-safe, I punch from a piece of thin spring metal (preferably of brass) a blank of the form shown in Fig. 7. At the extreme ends of this blank, at $a a'$, I form a rough surface $b b'$. This blank is then bent at the points indicated by the dotted lines, so that it assumes the shape shown in Fig. 1, the wings or projections $d d'$ on the blank forming the sides of the safe, which prevent the matches from falling out. The blank when bent into form is somewhat larger at the bottom, and the two upper surfaces are brought together. A pressure is given to these edges by means of the spring metal, so that

when the edges are forced open they will return to their first condition when released. One edge of the safe, at c , Fig. 1, is a little longer than the other, to facilitate the opening of the edges.

To load the safe with matches, it is held between the forefinger and thumb of the left hand—that is, the edges $d d'$ are held between the fingers—and with the thumb of the right hand the edges at c are forced open until the ends of the forefinger and thumb of the left hand drop in between the sides and front, thus holding it open while the matches are placed in the safe with the right hand. They should be placed in a single row, as shown in Fig. 2. When the fingers are withdrawn from between the front and sides, the spring-pressure of the front will hold the matches firmly in place. Now, if a match is withdrawn, as shown in Fig. 3, the pressure of the spring front and back of the box will cause the match to scrape between the two roughened surfaces on the interior upper edges of the safe, (shown at $b b'$, Fig. 7,) and the match will be lighted thereby.

I prefer to construct the safe tapering—that is, a little greater in width at the bottom than at the top—to allow for increased size of match-heads over the body or sticks. I also construct the safe thicker at the bottom than at the top, so that the heads of the matches will have plenty of room, and so that pressure will not be brought to bear upon the head of the match until it has been brought near the top or has been nearly withdrawn, and thus prevent it from being lighted until it is nearly out of the safe.

In the modified construction shown in Figs. 4, 5, and 6 I am enabled to use two rows of matches. In this construction I form the blank, as shown in Fig. 8, with the roughened edges $b b'$ and the wings, as indicated at $d d'$, similar to the form just described; but I place in the center of the blank at e a partition f , of which Fig. 9 is a view, the same being provided with rough edges $b'' b''$. This partition is soldered or otherwise secured to the main blank, so that when the blank is bent into form at the points indicated by the dotted lines a division is made in the safe, as shown in Figs. 5 and 6, which admits of the recep-

tion of two rows of matches. It will be readily understood that in this construction the same spring-pressure is brought into play to cause the match to be scraped between the spring-front on the one side and the partition on the other, which, being provided with roughened surfaces, cause the match to light. It will be easily understood that if the pressure of the spring is not quite enough to cause the match to light by its own pressure a slight pressure of the forefinger and thumb, when it is held as shown in Fig. 3, will cause the match to light. If, for instance, the "snap-match," or what is known as the "parlor-match," is used, the natural pressure of the spring will cause it to light without hesitancy, whereas the "sulphur-match," with small head, will require a little more pressure, which can be given to any degree, as described.

Having thus described the construction and operation of my invention, it will be seen that the same forms a most simple compact article for the vest-pocket, and when tastily decorated and finished makes a most novel and useful article.

The precise form and material herein described can be departed from and still contain the spirit of my invention. For instance, the capacity for holding matches can be increased by forming metal leaves of an unlimited number, so that instead of one or two rows of matches, as described, three, four, or more may be placed in one safe. These safes may be provided with a shield or cover to protect the ends of the matches, as shown in Fig. 10.

In lieu of the spring metal, as described, a spiral spring could be brought to bear to produce the same effect. Other material—such as hard rubber—may be used, molded or formed into shape to produce the same results, as above described.

Having thus clearly set forth my invention, what I desire to secure by Letters Patent is—

1. The combination, in a pocket match-safe, of a back and front formed so that their top edges are brought in contact by spring-pressure, said edges being formed so that they can be separated or held apart for the reception of matches and upon release of which they will hold the matches firmly in place, and sides forming part of said back and front, arranged to lap over the open spaces in the sides to guard the matches from falling out, said safe having its upper interior edges roughened, so that when a match is withdrawn it will be automatically ignited, substantially as and in the manner specified.

2. The combination, in a pocket match-safe, of a back and front formed so that their top edges are brought together by spring-pressure, said edges being formed so that they can be separated or held apart for the reception of matches and upon release of which they will hold the matches firmly in place, and sides forming part of said back or front, arranged to lap over the open spaces in the sides to guard the matches from falling out, said safe being formed wider and thicker at its bottom edge than at the top, and having its interior upper edges roughened, so that when a match is withdrawn it will be automatically ignited, substantially as and in the manner specified.

3. The combination, in a pocket match-safe, of a back and front formed so that their top edges are brought together by spring-pressure to hold the matches firmly in place, one of said edges being constructed to project slightly beyond the other to facilitate opening for the reception of matches, and sides forming part of said back or front, arranged to lap over the open spaces in the sides to guard the matches from falling out, said safe having its bottom edge made wider and thicker to receive the enlarged ends of the matches, and having its interior upper edges roughened, so that when a match is withdrawn it will be automatically ignited, substantially as and in the manner specified.

4. The combination, in a pocket match-safe, of a back, front, and central partition formed so that their edges are brought in contact by the spring-pressure of said back and front, said edges being formed so that they can be separated or held apart from the central partition for the reception of matches, and upon the release of which the back and front will hold the matches firmly in place, and sides forming part of said back or front, arranged to lap over the open spaces in the sides to guard the matches from falling out, said safe being formed wider and thicker at its bottom edge than at the top, and having its interior upper edges roughened, so that when a match is withdrawn it will be automatically ignited, substantially as and in the manner specified.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 12th day of December, A. D. 1888.

HENRY D. WINTON.

Witnesses:

C. D. WINTON,
C. E. BARKER.