Sept. 13, 1932. J. ERL ET AL 1,877,568

MATCH SAFE

Filed Oct. 8, 1930

Fig. 1.

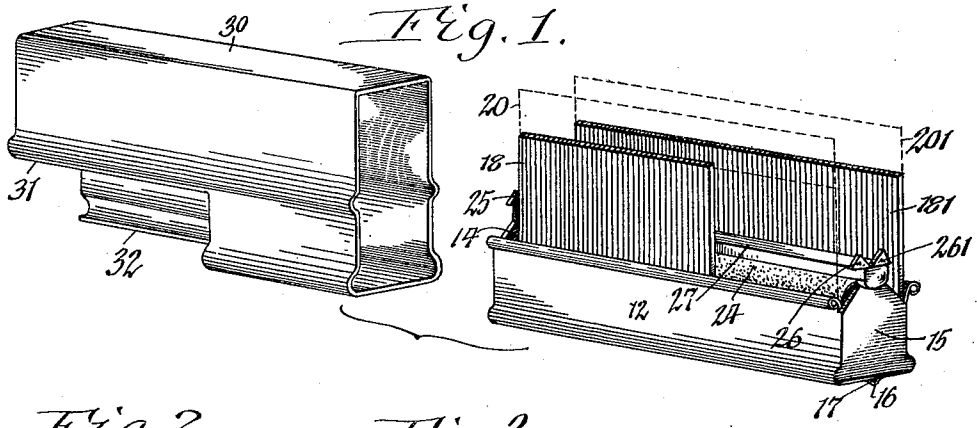


Fig. 2.

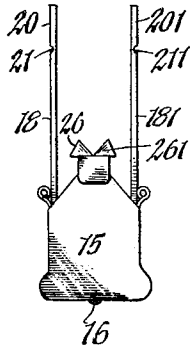


Fig. 3.

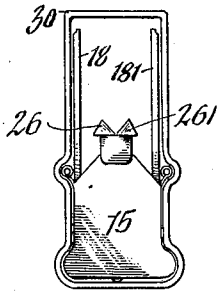
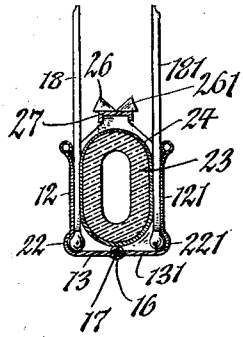


Fig. 4.



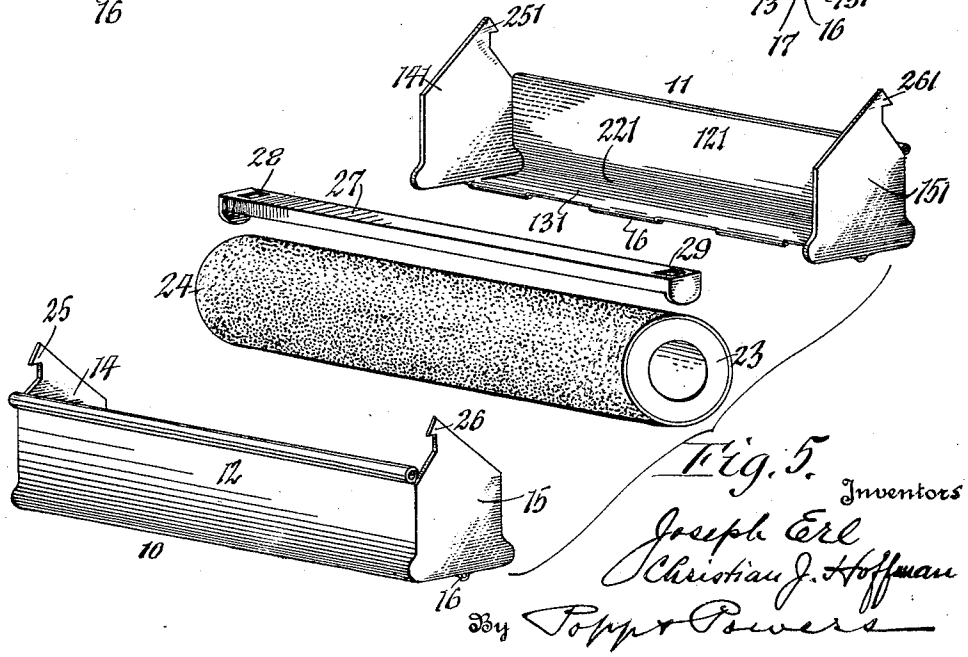


Fig. 5.

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UNITED STATES PATENT OFFICE

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MATCH SAFE

Application filed October 8, 1930. Serial No. 487,150.

This invention relates to a safe for holding matches and more particularly to a pocket match safe arranged to ignite the matches as they are withdrawn therefrom.

The object of the invention is to produce a simple and inexpensive match safe of this character in which the filling thereof with fresh matches is rendered more convenient and rapid,—in which the chemically impregnated sandpaper or other igniting strip may be most readily replaced,—and in which the resilient means of pressing the successive matches aganst said igniting strip is of a standard and inexpensive form. Further objects of the invention are disclosed in detail in the following description, wherein:

In the accompanying drawing:—

Figure 1 is a perspective view of the cover and case of the match safe with a number of matches in place therein. Figure 2 is an end elevation of the case of the match safe showing the matches as they appear before tearing off their upper joining strips. Figure 3 is an end elevation of the match safe with the tearing strips removed from the matches and the cover in place. Figure 4 is a vertical transverse section through the match safe with its cover removed. Figure 5 is an exploded perspective view of the case of the match safe together with the resilient tube, tubular igniting strip and locking bar used therewith.

In the following description similar characters of reference indicate like parts in the several figures of the drawing.

My invention may be embodied in various forms and in match safes of different constructions, and the present application is therefore to be regarded merely as one organization which satisfactorily carries out the invention in practice. As here shown the same is constructed as follows:—

The main body or case of the match safe is principally made up of front and rear case sections 10 and 11 which are of substantially similar form as shown in Fig. 5. Said case sections comprise front and rear side walls 12 and 121,—semi-floors 13 and 131 preferably formed integrally with said front and rear walls,—and end walls 14, 141 and 15, 151 which are secured to the ends of their companion front and rear walls and semi-floors by soldering, electric welding or otherwise. The medial edges of the semi-floors 13 and 131 are curled in the usual and well known manner to form pivotal eyes 16 which, in co-operation with a pintle 17, form a hinge joint between the front and rear case sections 10 and 11 which thus move relatively to each other about the axis of said pintle 17 as a pivotal center.

Against the inner faces of the side walls 12 and 121 are adapted to be laid front and rear rows 18 and 181 of paper or other matches, which, when first inserted in place, are mutually and integrally joined together by joining strips 20 and 201 (see Figs. 1 and 2). The separating or tearing off of said joining strips from the individual matches of said front and rear match rows 18 and 181 is facilitated by means of front and rear scorings 21 and 211 which extend transversely of the axes of the individual matches and are formed adjacent the "butt" ends thereof. Preferably, the front and rear rows 18 and 181 of matches, together with their joining strips 20 and 201, are constructed of heavy paper or cardboard and are inserted into the match safe as collective units. After they are in proper place, said joining strips 20 and 201 are torn off along the lines of the scorings 21 and 211, whereupon each individual match is separated from its respective joining strip and from all of its fellows. The heads of the matches are necessarily somewhat larger than the match stems (see Fig. 4) and these match heads are suitably accommodated within clearance grooves 22 and 221 formed in the lower, outer corners of the front and rear casing sections 10 and 11.

Located in the main body or case of the match safe and adapted to be squeezed into position between the front and rear walls 12 and 121 of the case sections 10 and 11 is a resilient cylinder or tube 23 constructed of a short length or cut-off piece of ordinary, heavy-walled rubber hose or other flexible cylindrical material which may be of solid form if desired. Normally in its unstrained condition, this resilient tube is round in cross

section as shown in Fig. 5, but when squeezed together as in Fig. 4, it becomes approximately elliptical in cross section and is thereby caused to exert a lateral resilient force against the matches.

Detachably arranged around the resilient tube 23 is a tubular striking strip 24 constructed of sand paper, emery cloth, or a sheet of chemically treated abrasive or the like, which, when worn out, may easily be slipped off from said resilient tube 23 and replaced by a new tubular striking strip.

As best shown in Fig. 4, the heads of the matches 18 and 181 are normally out of contact with said striking strip 24, so that there is no danger of the same becoming accidentally ignited through inadvertent vibration or spontaneous chemical combustion. When a person wishes to use one of the matches, he merely grasps any one of the matches by its stem and pulls it out. This movement automatically ignites the head of said match, as it is being withdrawn, by reason of the fact that said match head is forced to pass through and is compressed between the inner face of the adjacent wall 12 or 121 of the match safe case and the adjacent peripheral portion of the abrasive striking strip 24. This compression or squeezing of each match head as it is withdrawn from the match safe is due to the resilient nature of the resilient tube 23 whose normal or unflexed diameter is greater than the width of the match case between whose walls it is squeezed.

Preferably formed integrally with the end walls 14, 141 and 15, 151 are locking ears 25, 251 and 26, 261 respectively as best shown in Fig. 5. A locking bar 27 is detachably disposed medially of the match case proper and above the resilient tube 23, the same being channel shaped in cross section as shown in Fig. 4 and provided at its opposite ends with locking holes 28 and 29. The latter are adapted to receive the companion pair of locking ears of the two match case sections 10 and 11, locking hole 28 being adapted to engage with locking ears or hooks 25 and 251 while locking hole 29 is adapted to engage with locking ears 26 and 261. Inasmuch, however, as the locking bar 27 is symmetrical about both its longitudinal and transverse medial "vertical" axes, it naturally follows that the same may be turned end for end and for this reason requires no particular care in its placement. In placing said locking bar in position, the two case sections 10 and 11 are manually squeezed together against the elastic resistance of the resilient tube 23. This causes the companion locking ears 25, 251 and 26, 261 to lie close together and overlap each other and thus permit the same to pass through their companion locking holes 28 and 29 respectively. As soon as said ears have passed above the upper flat surface of said locking bar 27, the manual pressure upon the front and rear, outer faces of the case sections is released whereupon the elastic pressure of said resilient tube 23 is enabled to move said case sections 10 and 11 a small distance away from each other and to enable the outwardly projecting locking ears thereof to engage with the flat upper surface of the locking bar 27. This locks both case sections together and to said locking bar and also locks the resilient tube 23 and the two rows 18 and 181 of matches in place. Said locking bar 27 when locked in place also serves to limit upward movement of the resilient tube 23 with its encircling tubular striking strip 24. This arrangement ensures that, when a person withdraws a match from between the inner face of one of the case sections 10 or 11 and the peripheral face of the striking strip 24 the tendency to pull said striking strip (together with the resilient tube 23) bodily upward out of the match case is frustrated by the position and anchorage of the locking bar 27 which is located medially just above said striking strip and tube.

When the match safe is not in use it is desirable that the projecting stems of the matches be protected against fracture and also that dirt be prevented from entering the case of the match safe. This result is accomplished by the use of a cover 30 which has approximately the same length as the main body or case of the match safe and encloses the same completely on its top and rear sides and also encloses the same on its front and bottom sides with the exception of cut-away portions 31 and 32 respectively. Said cut-away portions are employed merely to permit a person to grasp the case of the match safe with his fingers and to move longitudinally relatively thereto said cover 30 so as to uncover at the one end or other of the match case a number of unused matches. In ordinary practice, said cover 30 is slipped or moved to the left as per Fig. 1 until somewhat more than half of both rows 18 and 181 of matches have been removed from the match case. The preferable procedure to facilitate the removal of the remaining unused matches at the extreme left end of said match case is to slide the cover 30 completely off from said case and to reverse its position and to then slide it back onto said case until all the remaining unused matches have been removed and the match safe is completely emptied. This of course necessitates the complete removal of said cover 30 as well as the locking bar 27 and the tubular striking strip 24 together with its enclosed resilient tube 23, and the insertion of a pair of new and complete sheet or row of matches 18 and 181, the joining strips 20 and 201 of which are thereupon removed before again sliding the cover 30 into place.

It will be apparent from the foregoing disclosure that the herein invention is inexpen-

sive and practical and that it is convenient and safe in use.

We claim as our invention:

1. A match safe comprising a case; a row of matches arranged against one of its inner faces; a straight cylindrical resilient tube disposed within said case between the heads and the tails of said matches; and a striking strip also disposed between the heads and tails of said matches and pressed thereagainst by said tube.

2. A match safe comprising a case; a row of matches arranged against one of its inner faces; a straight cylindrical resilient tube disposed within said case between the heads and the tails of said matches; and a striking strip of tubular form detachably encircling said resilient tube and also disposed between the heads and the tails of said matches and pressed thereagainst by said tube.

3. A match safe comprising a case of rectangular form; a row of matches arranged against one of its inner faces with their heads disposed in the corners thereof; a straight cylindrical resilient tube disposed within said case between the heads and the tails of said matches and out of contact with the heads of said matches; and a striking strip also disposed between the heads and the tails of said matches and pressed thereagainst by said tube.

4. A match safe comprising a case of rectangular shape composed of sections connected by a medial hinged joint; a row of matches arranged against its opposite longitudinal inner faces with their heads disposed in the corners thereof; a straight cylindrical resilient tube disposed within said case and having a normal diameter greater than the width of said case; and a striking strip also disposed between the heads and the tails of said matches and pressed thereagainst by said tube.

5. A match safe comprising a case made up of a pair of relatively movable case sections which are adapted to be opened up so as to receive a row of matches against their inner faces; outwardly projecting locking ears arranged upon said case sections; a locking bar adapted to engage with said locking ears; a striking strip; and resilient means for both pressing said striking strip against said matches and also resiliently holding the locking ears of said case sections in engagement with said locking bar.

In testimony whereof we hereby affix our signatures.

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CHRISTIAN J. HOFFMAN.