April 10, 1934. J. H. KOHLER 1,954,007

MATCH BOX CONSTRUCTION

Filed April 4, 1932

Fig. 1.

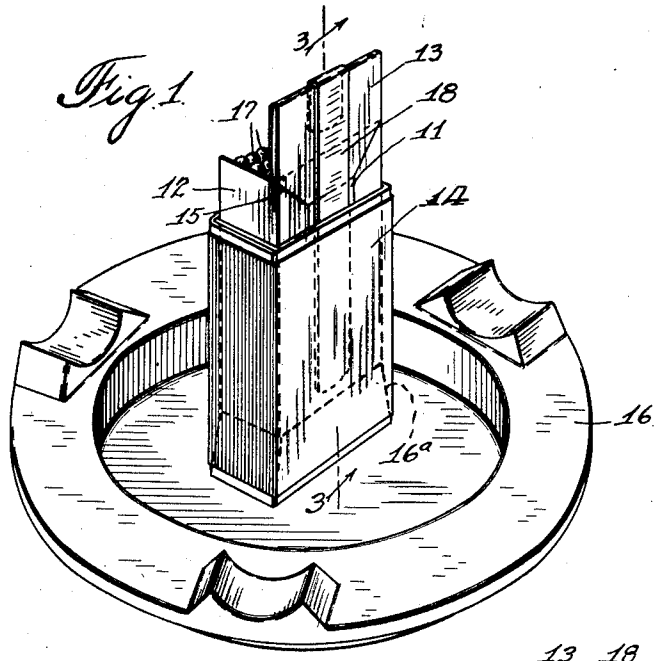


Fig. 2.

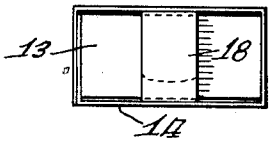


Fig. 4.

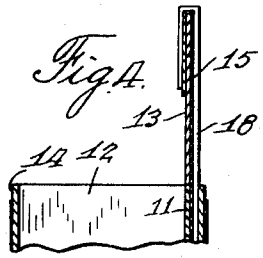


Fig. 3.

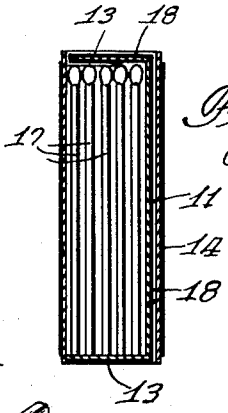


Fig. 6.

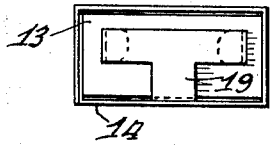


Fig. 5.

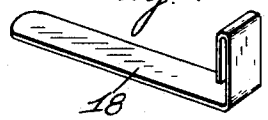


Fig. 8.

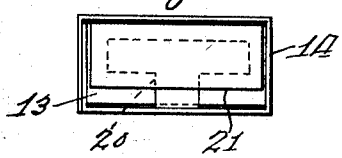
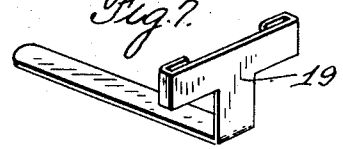


Fig. 7.



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MATCH BOX CONSTRUCTION

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Application April 4, 1932, Serial No. 602,893

6 Claims. (Cl. 206—31)

This invention relates to improvements in match box construction and has particular relation to a construction which may be embodied in the ordinary pocket size boxes for "safety" matches.

Boxes of matches of this type are commonly used both to be carried in the user's pocket and to be placed on supports on ash trays and the like. It is well known that when a box of this type, embodying an open-topped box and an open-ended cover sliding thereover, is placed on an ash tray support or the like, with the box portion projecting a short distance out of the cover, it is very difficult to remove the matches because they cannot be readily grasped within the small exposed opening at the top of the box. This difficulty is occasioned by reason of the fact that the wall of the box at the projecting end covers the space and makes the matches very inaccessible. In order to overcome this difficulty, the end wall of the box is often broken away, but this is rather difficult to do and requires a considerable amount of time when a large number of boxes are to be prepared for use, such as in hotels, restaurants, and other public places. Moreover, this operation renders the box unsuitable for pocket use thereafter.

The principal object of the present invention is to provide an improved match box construction in which the above mentioned difficulties are eliminated by rendering one end of the box free to be bent outwardly so that the matches may be readily removed when the box is placed upon a support, while permitting the end wall to be replaced and retained in its normal position for pocket use or the like thereafter, if desired.

Other objects and advantages of the invention will appear from a consideration of the description appearing hereinafter, taken in conjunction with the accompanying drawing illustrating certain embodiments of the invention, in which:

Figure 1 is a perspective view showing a match box constructed according to the present invention in place upon an ordinary ash tray support, the upper end wall of the box being bent outwardly to render the matches readily accessible;

Fig. 2 is an end view of the box shown in Fig. 1, with the movable end wall in position to close the end of the box;

Fig. 3 is a longitudinal sectional view of the box shown in Fig. 1, taken along the line 3—3 thereof, but with the movable end wall in closed position;

Fig. 4 is an enlarged fragmentary sectional view taken on a portion of the same line as Fig. 3, but showing the movable end wall of the box in open position, and showing certain other details of the construction;

Fig. 5 is a perspective view of one of the elements of the construction shown in the preceding figures;

Fig. 6 is an end view of a match box embodying a modified construction;

Fig. 7 is a perspective view of one of the elements of the construction shown in Fig. 6; and

Fig. 8 is an end view of a match box embodying another modification of the invention.

Referring first to Figs. 1 to 5 of the drawing, a match box of a type which is well known, except for the application of the present invention thereto, is illustrated. This box comprises a box proper of open-topped construction, comprising a bottom 11, side walls 12, and end walls 13. The box is adapted to be closed by the conventional open-ended sliding cover member 14. These boxes are commonly made of thin wood, the walls being held in place relative to each other by means of a covering of flexible material, such as paper, which is adhesively secured to the walls. Such a covering is illustrated in the construction herein disclosed, and is best seen in Figs. 1 and 4, said covering being designated by the reference character 15.

In Fig. 1 a match box of the type just described is shown in place on a support 16*a* of an ash tray 16 of conventional design. The sliding cover of the box is placed over the support 16*a*, which pushes the box proper up to such a position that its upper end projects a short distance above the upper end of the cover. The matches 17 are rendered accessible, according to this invention, by so constructing the box that its upper end wall 13 may be bent toward or into the plane of the bottom 11, as illustrated in Fig. 1. This operation may be accomplished, according to the preferred embodiment of the invention, by providing a pliable metal strip 18 having one end thereof doubled over the upper edge of the end wall 13 of the box and firmly pressed in this doubled relation to secure the strip firmly to said end wall.

The remaining portion of the strip 18 extends longitudinally along the bottom 11 of the box between the box and the sliding cover 14, which, therefore, serves to retain the strip in this position. The strip 18 is bent at right angles along the lower edge of the movable end wall 13 when said end wall is in its closed position, as illustrated in Fig. 3. The conventional covering 15 of paper or other thin, flexible material is preferably ap-

plied to the box in such a way that the corner between the movable end wall and the bottom of the box is covered by this material, whereas the corners between this end wall and the side walls are left uncovered so that the movable end wall remains unattached to the side walls.

With this arrangement it will be seen that the movable end wall 13 may be readily bent from its closed position, as shown in Figs. 2 and 3, to its open position, as shown in Figs. 1 and 4, and vice versa. During these bending operations the paper or other flexible covering 15 serves as a hinge along the juncture of the end wall 13 and the bottom 11 of the box, while the pliable member 18 serves as a stiffening member to retain the movable end wall 13 in any position in which it is placed.

The pliable member 18 may be of very thin, flexible, and inexpensive metal, and will readily bend along the corner of the box at which the movable end wall is hinged. If desired, of course, the paper covering may be omitted and the pliable member 18 may be used alone to connect the movable end wall with the bottom of the box. In this case the movable end wall may be more securely held in place by adhesively or otherwise securing the member 18 to the bottom of the box, instead of relying solely upon the cover 14 to maintain the member 18 in this position.

Cardboard boxes are ordinarily made from one piece of material which is creased and folded along the corners. This construction does not involve the use of a separate paper covering on the box, but the present invention is equally applicable thereto, two corners of the box being simply slitted to detach one of the end walls from the side walls, while leaving it hingedly connected to the bottom of the box. The pliable member would, of course, be secured to the end wall in any desired manner, as in the case of a wood box.

Fig. 5 illustrates the formation of the pliable member 18 in its condition corresponding to the closed position of the movable end wall of the match box.

A slightly modified construction is illustrated in Fig. 6, in which a substantially T-shaped member 19 is used instead of the strip 18 of the first described construction. In this modification the cross portion of the T-shaped member 19 is placed to extend transversely of the movable end wall of the box and the ends of this cross portion are passed through suitable openings in this wall and doubled over to secure the member 19 firmly to said wall. The perspective view of Fig. 7 illustrates the shape of the member 19 when it is bent into position to secure it to the end wall of the box, and when the latter is in position to close the end of the box.

A further modification is illustrated in Fig. 8, in which a substantially T-shaped member 20 of pliable material is used. This member is similar to the member 19 of Figs. 6 and 7, but its cross portion is held in position on the movable end wall of the box by means of a member 21 which may be adhesively secured to the end wall over said cross portion. This member 21 may be of paper or other suitable material, and, if desired, may be constituted by a part of the usual paper covering which is often used to hold the walls of the box together, such as the covering 15 hereinbefore referred to.

In other respects the modifications shown in Figs. 6, 7, and 8 are similar in construction and identical in operation with the embodiment illustrated in Figs. 1 to 5.

It will be seen that the movable end wall of the box, in each of the modifications disclosed herein, may be bent at will between the position in which the end of the box is closed and the position in which it is open. In the former position the box is entirely suitable for pocket use and the matches will be prevented from falling out of the box as well as if a permanently closed box were used. In the open position of the end wall, the matches are readily accessible.

It may sometimes be desirable to use a box, one end of which is adapted to be opened but not to be returned to its closed position. For example, the proprietor of a public place may not wish to provide match boxes which are adaptable for pocket use after having been placed on ash tray supports and the like. In this case the present invention is still of great advantage because it facilitates the removal of one of the end walls of each box. Instead of simply bending the end wall up to the position illustrated in Figs. 1 and 4 of the drawing, the wall, together with the pliable member attached thereto, may be entirely removed. The provision of the pliable member greatly facilitates this removal, since the end wall is left unattached to the side walls of the box and it is not necessary to tear the paper or other covering along these corners. With the ordinary box, the removal of one of the end walls is a rather difficult task, particularly when the box is full of matches.

While only certain specific embodiments of the invention have been shown and described herein, it will be readily understood by those skilled in the art that various changes and modifications in the details of construction may be made without departing from the spirit and scope of the invention, as set forth in the appended claims. For example, the pliable member may be secured to the inside of the box instead of the outside, and various means, other than those specifically disclosed herein, may be employed for attaching the pliable member either to the end wall or to the bottom of the box, or both.

What is claimed as new and is desired to secure by Letters Patent, therefore, is:

1. A pocket-size match box device, comprising an open-topped box provided with an open-ended slidable cover and having a bottom and side and end walls, and a pliable metal strip doubled over the top edge of one of said end walls to secure the strip thereto and bent around the juncture of said end wall and the bottom of the box and having a portion held in place against the bottom of the box, said strip being bendable at said juncture whereby said end wall may be bent outwardly toward the plane of the bottom and retained in the position to which it is bent.

2. A device of the character described, comprising a box having a bottom and side and end walls, an open-ended cover slidable over the box in a direction perpendicular to the end walls thereof, and a pliable metal strip secured to one of the end walls of the box and bent at the bottom edge of said end wall to extend along the bottom of the box and to be held in such position by the cover of the box.

3. A pocket-size match box device, comprising a box provided with an open-ended slidable cover and having a bottom and side and end walls, a substantially T-shaped pliable metal member having its cross portion extending transversely of one end wall of the box and secured thereto; and having its leg portion bent at the bottom edge of

said end wall to extend along the bottom of the box.

4. A pocket-size match box device, comprising an open-topped box having a bottom and side and end walls, and an open-ended cover slidable over the box in a direction perpendicular to the end walls thereof, one of the end walls of said box having a semi-rigid hinged connection with the bottom whereby said end wall may be bent outwardly toward the plane of the bottom and retained in the position to which it is bent.

5. A pocket-size match box device, comprising an open-topped box having a bottom and side and end walls, an open-ended cover slidable over the box in a direction perpendicular to the end walls thereof, one of the end walls of said box being mounted for pivotal movement out of and back into closing relation to the corresponding end of the box, and a pliable member for so restraining the movements of said end wall as to cause the same to remain in the position to which it is moved.

6. A pocket-size match box device, comprising an open-topped box having a bottom and side and end walls, an open-ended cover slidable over the box in a direction perpendicular to the end walls thereof, and means forming a pivotal connection between one of said end walls and other parts of the box whereby said end wall may be moved out of and back into closing relation to the corresponding end of the box, said connection including pliable metal means for retaining said wall in either closed or open position.

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