Feb. 11, 1936. G. E. KNAUTH 2,030,797

MATCH BOX

Filed June 10, 1935

Fig. 1.

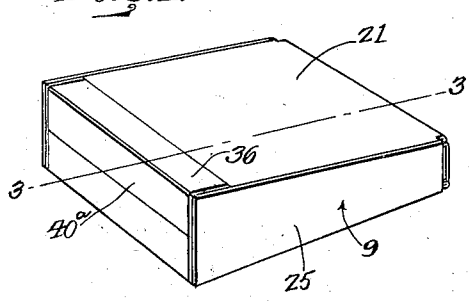


Fig. 2.

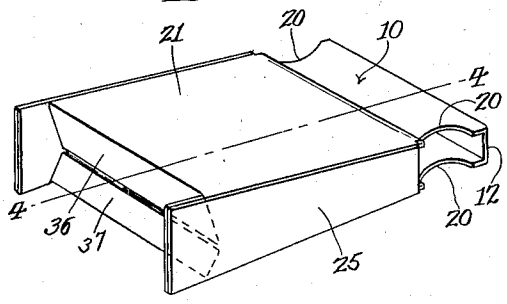


Fig. 3.

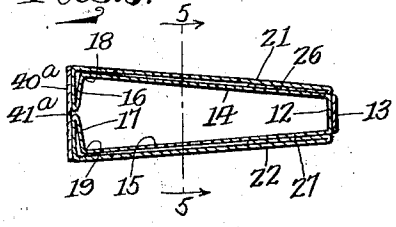


Fig. 4.

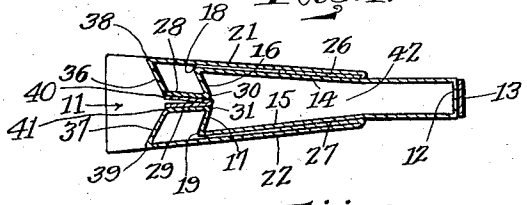


Fig. 5.

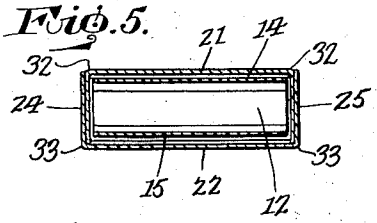


Fig. 6.

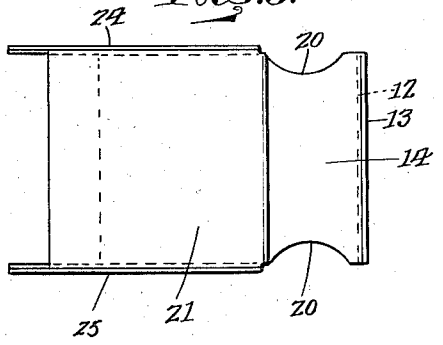


Fig. 7.

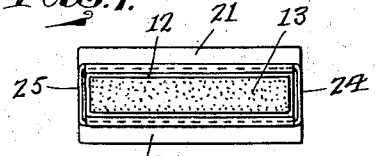
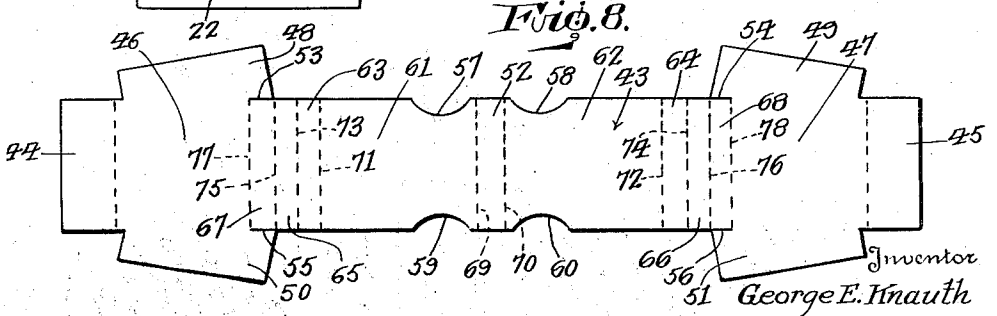


Fig. 8.



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Patented Feb. 11, 1936

2,030,797

UNITED STATES PATENT OFFICE

2,030,797

MATCH BOX

George E. Knauth, Reno, Nev.

Application June 10, 1935, Serial No. 25,903

6 Claims. (Cl. 206—33.4)

This invention relates to a match box, and has for its object to provide, in a manner as hereinafter set forth, a box of such class which will prevent possibility of accidentally spilling its contents regardless of the number of matches contained therein.

A further object of the invention is to provide, in a manner as hereinafter set forth, a box of the class referred to capable of being open to an extent to enable the extracting or removing therefrom of but a single match.

A further object of the invention is to provide, in a manner as hereinafter set forth, a box of the class referred to having means for positioning a single match for removal in correct position for striking.

A further object of the invention is to provide, in a manner as hereinafter set forth, a box of the class referred to capable of holding more or less number of matches as an ordinary match box and which is more compact for the number used.

A further object of the invention is to provide in a manner as hereinafter set forth, a box of the class referred to having its closure portion and its container portion formed from a single piece of material.

A further object of the invention is to provide in a manner as hereinafter set forth, a box of the class referred to including a closure portion and with the latter integral with and shiftable relatively to a container portion for opening the box to an extent to position a single match for extraction.

Further objects of the invention are to provide, in a manner as hereinafter set forth, a match box which is simple in its construction and arrangement, strong, durable, compact, formed of an integral structure, thoroughly efficient in its use, conveniently and expeditiously operated to position a match for extraction, and inexpensive to manufacture.

With the foregoing and other objects which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be specifically described, and as illustrated in the accompanying drawing, wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawing:

Figure 1 is a perspective view of the match box when closed,

Figure 2 is a like view of the box when open,

Figure 3 is a section on line 3—3, Figure 1,

Figure 4 is a section on line 4—4, Figure 2,

Figure 5 is a section on line 5—5, Figure 3,

Figure 6 is a top plan view of the box when extended,

Figure 7 is an elevation looking towards the outer end of the box, and

Figure 8 is a plan view of the blank from which the closure and container portions are formed.

Referring to the drawing the box, generally indicated at 9 includes a container portion 10 for the matches and a closure portion 11. The container portion 10 is housed within, connected to, closed by and shiftable in opposite directions relative to the closure portion 11. The container and closure portions are formed from a single length of paper stock to be referred to.

The container portion 10 includes an outer end wall 12 of oblong contour having its outer face provided throughout with a striking surface 13 for a match, a front wall 14, a back wall 15, and a rear end wall formed of a pair of oppositely disposed sections 16, 17 hinged, as at 18, 19 respectively to the rear ends of the walls 14, 15. The front and back walls 14, 15 merge into and have their side edges in proximity to the front end wall formed with aligning curved cutouts 20 to provide clearances for extracting a match when the forward part of the container portion is shifted beyond the forward end of the closure portion.

The closure portion 11 includes a front wall 21, a back wall 22, a pair of reinforced side walls 24, 25 gradually decreasing in width from their rear ends to their outer ends, combined bearing, compressing and spacing parts 26, 27 for the container portion 10 arranged against the forward portions of the inner faces of the walls 21, 22 respectively, and a rear end wall formed of a pair of oppositely disposed sections 28, 29 hinged as at 30, 31 to the sections 16, 17 respectively of the rear end wall of container portion 10. The side walls 24, 25 for the major portion of their length merge into the walls 21, 22 respectively as at 32, 33 respectively. The remaining portion of the length of the side walls 24, 25 are free of connection to the walls 21, 22 as at 34, 35 respectively. The parts 36, 37 of the walls 21, 22 respectively which are free of connection to the walls 24, 25 respectively are hinged to the connected portions of the walls 21, 22 as at 38, 39 respectively and also hinged as at 40, 41 to the sections 28, 29 respectively of the rear end wall of the closure portion 11. The combined bearing, compressing and spacing parts 26, 27

merge at their forward ends into the forward ends and are of less length than that of the walls 21, 22.

The sections 28, 29 are connected together by a bendable or foldable coupling member 40a secured to the outer faces of said sections and having a line of bend indicated at 41a. The container portion 10 is closed at its front, back and ends and open at its sides. The closure portion 11 is closed at its front, back, sides and rear end. The sides of the closure portion completely close the sides of container portion when the latter is completely housed in closure portion 11, but when the container portion 10 is partly extended from the closure portion 11 the forward portions of the sides thereof are not closed and permit of a match to be extracted from the box. The walls 14, 15 of the container portion 10 respectively have contact at all times with the combined bearing, compressing and spacing parts 26, 27. These latter constitute a frictional latch for container portion 10 which provides a chamber 42 for the matches.

When it is desired to position a match for extraction, the rear end portion of the box is crimped, and when crimped the sections 16, 17 of container portion 10 and the sections 28, 29 and the parts 36, 37 of the closure portion 11 coact to cause the container portion 10 to shift outwardly from closure portion 11 to an extent (Figures 2 and 4) to partly project beyond the outer end of closure portion 11 for the purpose of disposing a match to be extracted and in a correct position for striking. When container portion 10 is partly projected beyond the outer end of closure portion 11, the coupling member 40 folds upon itself, (Figure 4) and against the sections 28, 29 of the rear end wall of closure portion 11. When the container portion 10 is moved inwardly with respect to closure portion 11, for the purpose of completely closing it, the sections 16, 17, 28, 29 and parts 36, 37 will assume the position shown in Figures 1 and 3.

Figure 8 illustrates a length of paper stock 43 having portions 44, 45 which provide the combined bearing, compressing and spacing parts 26, 27 respectively; portions 46, 47 forming the walls 21, 22 respectively; oppositely disposed portions 48, 49 which are adapted to be secured together in opposed relation to form the side wall 24; oppositely disposed portions 50, 51 which are adapted to be secured together in opposed relation to form the side wall 25; a portion 52 which provides the wall 12; slits 53, 54, 55 and 56 for separating parts of side walls 24, 25 from walls 21, 22; cutouts 57, 58, 59 and 60 which form the clearances at the sides of the walls 14, 15; portions 61, 62 forming the walls 14, 15 respectively; portions 63, 64 providing the end wall sections 16, 17 respectively; portions 65, 66 forming the end wall sections 28, 29 respectively; portions 67, 68 providing the parts 36, 37 respectively of the walls 21, 22 free of connection to the side walls; scores 69, 70 forming the bends between wall 12 and walls 14, 15; scores 71, 72 forming the hinges 18, 19 respectively; scores 73, 74 providing the hinges 30, 31 respectively; scores 75, 76 forming the hinges 40, 41 respectively; and scores 77, 78 providing the hinges 38, 39. The portions 44, 45, 52, 63, 64, 65, 66, 67, 68 are oblong. The portions 46, 47, 61, 62 are rectangular. The portions 48, 49, 50 and 51 are tapered.

What I claim is:

1. A match box comprising a container portion for the matches open at its sides and having an outer end wall, a closure portion encompassing said container portion formed with closed sides open at its outer end, compressible and extendible hinged means at the inner ends of said portions for coupling them together and providing when compressed for the partly extending of the container portion from the outer end of the closure portion for disposing a match in position to be extracted, said hinge means forming the inner end walls of said portions and when extended retaining the container portion closed, and a foldable coupling member secured to said means exteriorly of the closure portion and bodily moving with said means.

2. A match box comprising a container portion for the matches open at its sides and having an outer end wall, a closure portion encompassing said container portion formed with closed sides open at its outer end, compressible and extendible hinged means at the inner ends of said portions for coupling them together and providing when compressed for the partly extending of the container portion from the outer end of the closure portion for disposing a match in position to be extracted, said hinge means forming the inner end walls of said portions and when extended retaining the container portion closed, and a foldable coupling member secured to said means exteriorly of the closure portion and bodily moving with said means, the side walls of said closure portion gradually decreasing in width from rear to front.

3. A match box comprising a container portion for the matches open at its sides and having an outer end wall, a closure portion encompassing said container portion formed with closed sides open at its outer end, compressible and extendible hinged means at the inner ends of said portions for coupling them together and providing when compressed for the partly extending of the container portion from the outer end of the closure portion for disposing a match in position to be extracted, said hinge means forming the inner end walls of said portions and when extended retaining the container portion closed, a foldable coupling member secured to said means exteriorly of the closure portion and bodily moving with said means, and combined bearing, compressing and spacing means within said closure portion for said container portion and constituting a frictional latch for the latter.

4. A match box comprising a container portion for the matches open at its sides and having an outer end wall, a closure portion encompassing said container portion formed with closed sides open at its outer end, compressible and extendible hinged means at the inner ends of said portions for coupling them together and providing when compressed for the partly extending of the container portion from the outer end of the closure portion for disposing a match in position to be extracted, said hinge means forming the inner end walls of said portions and when extended retaining the container portion closed, and a foldable coupling member secured to said means exteriorly of the closure portion and bodily moving with said means, the side walls of said closure portion gradually decreasing in width from rear to front, and combined bearing, compressing and spacing means within said closure portion for said container portion and constituting a frictional latch for the latter.

5. A match box comprising a container portion for the matches open at its sides and having an outer end wall, a closure portion encompassing said container portion formed with closed sides

open at its outer end, compressible and extendible hinged means at the inner ends of said portions for coupling them together and providing when compressed for the partly extending of the container portion from the outer end of the closure portion for disposing a match in position to be extracted, said hinge means forming the inner end walls of said portions and when extended retaining the container portion closed, and a foldable coupling member secured to said means exteriorly of the closure portion and bodily moving with said means, said means including a pair of oppositely disposed spaced end wall forming sections hinged to the container portion and a pair of oppositely disposed spaced end wall forming sections hinged to said other sections and to said closure portion.

6. A match box comprising a container portion for the matches open at its sides and having an outer end wall, a closure portion encompassing said container portion formed with closed sides open at its outer end, compressible and extendible hinged means at the inner ends of said portions for coupling them together and providing when compressed for the partly extending of the container portion from the outer end of the closure portion for disposing a match in position to be extracted, said hinge means forming the inner end walls of said portions and when extended retaining the container portion closed, and a foldable coupling member secured to said means exteriorly of the closure portion and bodily moving with said means, the side walls of said closure portion gradually decreasing in width from rear to front, said means including a pair of oppositely disposed spaced end wall forming sections hinged to the container portion and a pair of oppositely disposed spaced end wall forming sections hinged to said other sections and to said closure portion.

GEORGE E. KNAUTH.