O. KARTZMARK.

MATCH SAFE.

APPLICATION FILED APR. 3, 1917.

1,272,965.

Patented July 16, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

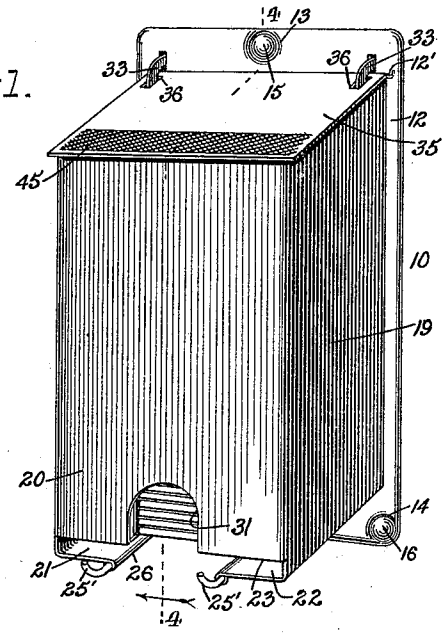


Fig. 2.

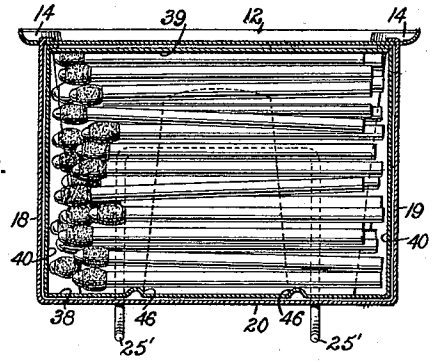


Fig. 3.

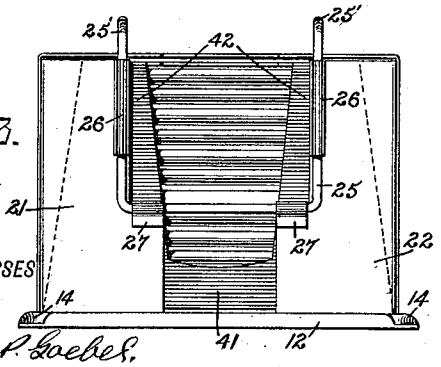


Fig. 4.

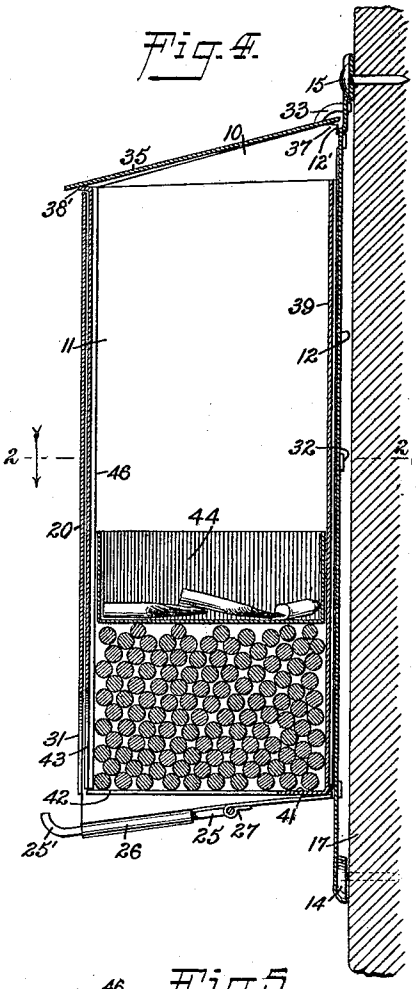
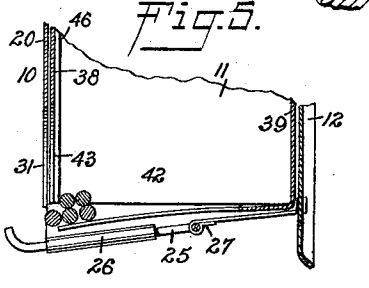


Fig. 5.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 6.

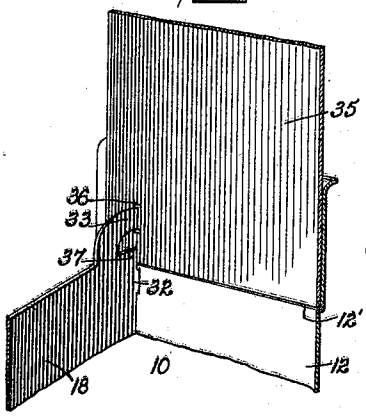


Fig. 8.

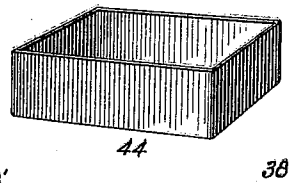


Fig. 7.

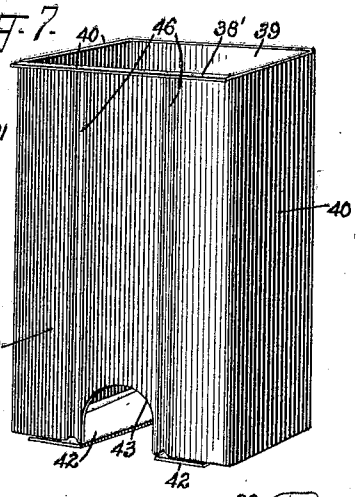
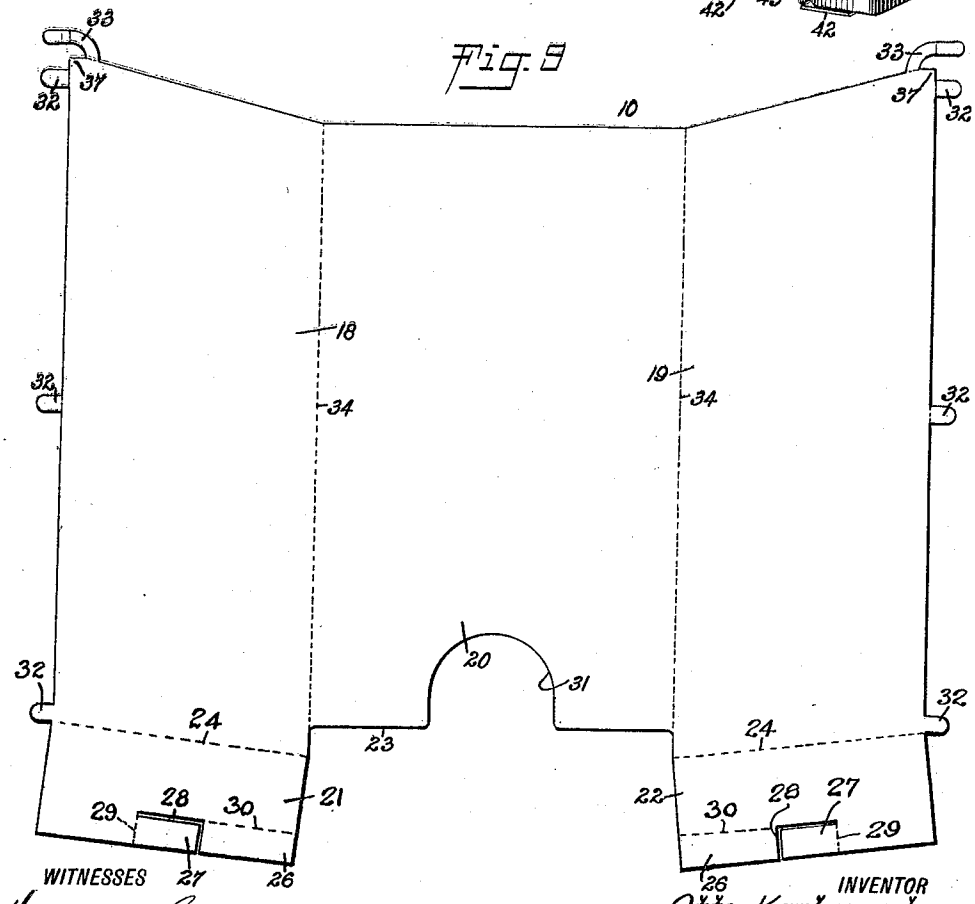


Fig. 9.



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MATCH-SAFE.

1,272,965. Specification of Letters Patent. Patented July 16, 1918.

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To all whom it may concern:

Be it known that I, OTTO KARTZMARK, a citizen of the United States, and resident of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Match-Safe, of which the following is a full, clear, and exact description.

This invention relates to match safes and has particular reference to such devices intended, among other things, for the single delivery of the matches from the bulk thereof contained in the match safe or holder.

Among the objects of the invention is to provide a single delivery match safe with improved match delivery controlling devices.

A further object of the invention is to provide a match safe construction having inner and outer telescopic sections the latter of which is adapted to be fixed rigidly and permanently to its support insuring that the match safe will not be accidentally dropped or thrown from its connections in practice.

Another object of the invention is to improve the top or lid construction constituting a part of the fixed casing, so that the manipulation of the inner section will be facilitated.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings, in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a front perspective view showing my improvement in normal operative position.

Fig. 2 is a horizontal sectional view of the same on the line 2—2 of Fig. 4.

Fig. 3 is a bottom plan view.

Fig. 4 is a vertical sectional view on the line 4—4 of Fig. 1.

Fig. 5 is a detail view corresponding to the lower portion of Fig. 4 showing the delivery action.

Fig. 6 is a detail view indicating the upper corner structure in the manner of hinging the lid to the main portion of the fixed casing.

Fig. 7 is a front perspective view of the inner casing detached.

Fig. 8 is a perspective view of the burned match member or follower; and

Fig. 9 is a plan view of the blank used in forming the front and side portions of the fixed casing.

As already premised, the device comprises two main telescopic casings 10 and 11, the former of which comprises a back panel 12 provided with any suitable number of countersunk holes 13 and 14 for accommodation of the heads of securing means, such as nails or screws 15 and 16. The periphery of the back panel 12 is preferably rolled sufficiently to hold the main portion thereof spaced from the wall 17 or other support into which the nails are driven. This structure therefore is not only stiffened but accommodates itself immediately to the formation of the countersinks or depressions 13 and 14. As a further incident moreover to the rolling or beading of the edges of the back panel, there is provided adjacent to the upper end of the back panel a shoulder or offset 12′. The fixed casing includes side panels 18 and 19, a front panel 20, and bottom wings or panels 21 and 22. By reference to the blank in Fig. 9 the manner of forming the main part of the casing 10 and the relative shapes and sizes of the several parts thereof will be understood. The side panels 18 and 19 extend enough below the bottom of the front panel to provide a slot 23 for the removal of the matches. The bottom panels 21 and 22 are formed as extensions of the side panels being bendable inwardly toward each other and in the same plane around the bending lines 24. These bottom panels, however, or those bent inwardly are spaced from each other as shown in the central part of Fig. 3. This space is bridged over by a wire yoke 25 of U-shape which serves several important functions among which is to stiffen this bottom structure, the yoke being held firmly in position by means of two pairs of lips 26 and 27 formed along the inner edges of the panels 21 and 22. The lips 27 are cut on two sides along the line 28 from the edges of the panels and are bendable along the lines 29 so as to embrace the rear portion of the yoke. This slitting at 28 determines the length of the lips 26 which are bendable along lines 30 so as to embrace the side bars of the yoke 25. It will thus be seen that in the design

of the blank and the manner of cutting out the parts thereof the element of economy in material is observed. The central part of the lower end of the panel is raised or notched at 31 to provide clearance for the fingers for grasping the matches. The rear edges of the panels 18 and 19 are provided with any suitable number of lugs 32 and 33 which project through correspondingly arranged holes in the back panel 12, the ends of such lugs being bent over in a manner well understood in the sheet metal art. The bending lines 34 around which the side panels are bent constitute upward extensions from the ends of the slot 23 so that there is no obstruction at the slot ends to interfere with the free removal of the matches.

Another main function of the yoke 25 is to provide upwardly projecting feet 25′ on the outside of the casing which serve to prevent the dropping of any matches that may be withdrawn from the inner casing. These feet or hooks 25′ are spaced outwardly and directed upwardly so as to give ample clearance for the intended removal of the matches.

The cover 35 for the casing consists of a flat rectangular piece of sheet material and is provided with a pair of elongated holes 36 near its rear edge through which the lugs 33 project. These lugs 33 are of special form and bear a peculiar relation to the other parts of the structure. As will be appreciated especially from Fig. 9 these lugs are formed as arcs of circles of about 90 degrees, the centers of which lie substantially in the corners 37 of the side panels just above the uppermost lugs 32. As shown in Fig. 6 these lugs 32 project through the rear panel just below the offset 12′ whereby there is provided between the offset portion of the rear panel and the corners or shoulders 37 recesses into which the lower edge of the cover, when in open position, lies and whereby the cover in said open position is held flatly against the offset portion of the rear panel and with its then outer surface lying either flush with the main portion of the main part of the surface of the back panel or within the same. When, however, the cover is to be closed it will swing freely downwardly over the lugs 33 as hinges. The relation moreover between the upper or rear edge of the cover and the lines of connection between the same and the arc shaped lugs 33 is such that when the lid is closed said upper edge will lie close against the rear panel.

The inner casing 11 is of substantially rectangular form and is so made as to slip with an easy sliding fit into the outer casing 10 when the lid is up and in its unobstructing position with respect to the offset 12′ as shown in Fig. 6. This inner casing comprises front and rear panels 38 and 39 connected by side panels 40. All of these panels are substantially the same length except the rear panel which is extended downwardly and bent forwardly as shown at 41, which portion is provided with two spaced spring tongues 42. (See Fig. 3). The space between the tongues corresponds to the notching at 31 and 43 at the bottom of the front portion of both casings and also approximates the spacing of the side portions of the yoke 25. The tongues 42 being unconnected with the front and side portions of the inner casing are free to bend downwardly at their front ends as shown in Fig. 5 to permit the matches to be withdrawn singly. The length of the spring tongues 42 corresponds substantially to the width of the side panels 40 of the inner casing so that the ends thereof will just meet the lower end of the front panel on opposite sides of the notch 43. As will be appreciated from Fig. 7 the inner casing is readily removable from the outer casing and is made of a size to accommodate easily a standard box or carton of matches. The manner of use of the device as thus far described is as follows: A carton of matches is cut or broken at one end and while held in the hand with the open end upward the inner casing, in inverted position, is slipped directly over the carton of matches, the carton almost filling said inner casing. The casing 11 is then turned upright again and the carton is withdrawn leaving all of the matches in order in the casing 11 as indicated in Figs. 1 to 3. When, however, the carton is withdrawn ample space is left at the top to accommodate a shallow rectangular tray 44 which has an easy sliding fit up and down within the inner casing. This tray has a closed bottom and sides which extend up only far enough to prevent the likelihood of the tilting of the tray in operation. After the matches are thus introduced into the casing 11 this casing is slipped into the fixed casing to the position shown in Fig. 4 where it will be held upon the rear edge of the bottom inclined portion of the fixed casing. The front panel 38 of the inner casing may be provided with a forwardly projecting flange or lip 38′ to facilitate the removal of the inner casing. With the matches thus in place the tray will be introduced into the top of the device resting naturally upon the top of the bulk of matches. The matches may then be readily withdrawn in the desired manner from the bottom of the match safe and while the bulk of matches will thus be lowered by the withdrawal of the matches from the bottom, the tray will settle accordingly. The purpose of the tray is to receive the burned matches which may be dropped directly thereinto beneath the cover. Obviously the cover projects slightly beyond

the main body of the match safe so that it is easily lifted for this purpose. A striker 45 may be applied to the top or any other convenient portion of the device for its usual purpose. By the time the matches are all withdrawn from the bottom of the safe the tray will have settled all the way down giving ample room for all of the burned matches so that there is no likelihood that the burned matches will be thrown about to litter or endanger the premises. When the matches have all been used and the supply is to be replenished the operator simply throws the lid back to its upright position as shown in Fig. 6 and then withdraws the inner casing with its supply of burned matches. The lid being back of or within the plane of the back of the fixed casing offers no obstruction to the withdrawal of the inner casing nor is it liable to cause injury to the operator's fingers since the lower edge thereof which may be otherwise exposed is guarded from contact by the offset 12′ and the shoulders 37. The burned matches are then dumped into the stove or other proper place and the operation is repeated as already described.

Another important feature of this device resides in the formation of parallel ridges 46 in one or more of the vertical walls of the inner casing along which the match sticks are adapted to roll by direct contact, especially at the front panel. Each match being withdrawn from the front it follows that the bulk of the matches are glided down toward the bottom along the inner surface of the front panel. In the operation of single delivery match safes it is important that the bulk of the matches be maintained in true parallelism or in the same position in which they are received in the cartons. Heretofore difficulty has been encountered because of the tendency of the heads of the matches to cause the different ends thereof to advance at different speeds with the result that the matches became disarranged, interfering with the proper delivery. In this arrangement, however, the match heads have no bearing upon the walls of the match safe since the ridges 46, as shown in Fig. 2, bear only upon the sticks. These ridges or tracks may be formed in any suitable manner upon the inner wall of the match holder.

I claim:

1. In a single delivery match safe, the combination of an outer casing, means to fix the same in position, said casing having a delivery space at its bottom, a yoke bounding said space and comprising a U-shaped wire structure having its free ends projected forwardly and upwardly, a holder for matches fitted into the fixed casing and having a delivery space registering with the first mentioned space, said inner holder being provided with flexible means supporting the bulk of matches to permit the withdrawal of the same singly.

2. The herein described match safe comprising a stationary casing having front, rear and side panels, there being provided a delivery space at the lower end of the front panel of a length equal to the space between the side panels, a pair of spaced bottom panels formed as parts of and extending inwardly from the lower ends of the side panels, a U-shaped yoke bounding portions of the edges of said bottom panels stiffening and reinforcing the same, one portion of the yoke bridging the space between the panels, means comprising lips formed on the bottom panels and serving to hold the yoke rigidly in place, the free front ends of the yoke projecting forwardly beyond the casing and thence upwardly forming guard hooks, and means above the yoke to support a quantity of matches, said supporting means comprising a pair of flexible tongues spaced above the side portions of the yoke, the free front ends of the tongues being bendable downwardly under the force applied to a match to withdraw it therefrom.

3. In a match safe of the character set forth, the combination of a relatively stationary casing, a casing removably fitted within the stationary casing and adapted to carry a bulk of matches, the lower front portions of both casings being provided with registering spaces through which the matches may be grasped and withdrawn singly, guard means connected with both of the casings to control the delivery of matches therefrom, said guard means including spring members connected to the bottom of the inner casing, and having their free ends projecting forwardly above the guard means carried by the fixed casing.

4. In a match safe, the combination of a fixed casing comprising a rear panel of sheet metal bent along a horizontal line to form an offset adjacent to the upper end thereof, a flat thin cover hinged to the upper portion of the casing and adapted to seat rearwardly into said offset when being opened leaving the front surface of the main portion of the rear panel flush with the then front face of the cover, and an inner casing removably fitted to slide into and out of the fixed casing without obstruction past the cover when open, means being provided at the bottoms of both of the casings for the delivery of matches singly therefrom.

5. In a match safe, the combination of a casing having front, rear and side panels, the front and side panels being formed of a single piece of material and having rearwardly projecting lugs coöperating with the rear panels to hold the parts together, the uppermost lugs aforesaid consisting of arc shaped members each concentric with the

upper rear corner of a side panel, the lugs next to the uppermost lugs being located just below said corners, and a cover having holes through which said arc shaped lugs project forming hinges, the rear edge of the cover when open fitting between said shoulders and the rear panel.

6. In a match safe, the combination of a casing including a rear panel having holes formed therethrough and a front portion comprising front and side panels, the rear edges of the side panels being formed with lugs projectable through said holes to lock the parts together, the uppermost lugs constituting arc shaped hinge members, said rear panel being offset along a horizontal line just below the uppermost lugs, and a flat cover having holes through which said arc shaped lugs project providing for the rearward movement of the cover, the lower edge of which when open is seated in said offset of the rear panel, substantially as set forth.

7. In a match safe, the combination of a fixed casing comprising a rear panel having an offset adjacent to the upper end thereof, a cover hinged to the upper portion of the casing and adapted to seat within said offset when open leaving the front surface of the main portion of the rear panel flush with the then front face of the cover, an inner casing fitted to slide into the fixed casing without obstruction past the cover when open, means at the bottom of the casing providing for the single delivery of the matches, and a burned match tray slidably fitted into the upper end of the inner casing and supported therein upon the bulk of matches contained in the inner casing below the tray.

OTTO KARTZMARK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."