Dec. 10, 1963 T. WILL 3,113,666

SAFETY COVERLOCK FOR BOOK MATCH PACKAGES AND THE LIKE

Filed May 7, 1962 4 Sheets-Sheet 1

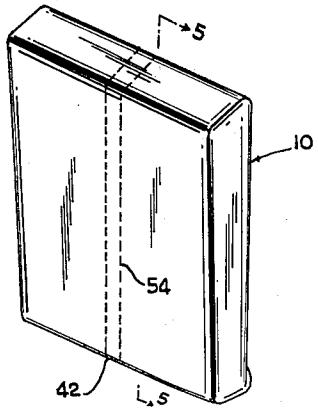


Fig. 1.

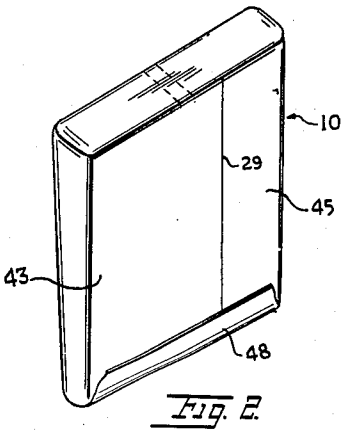


Fig. 2.

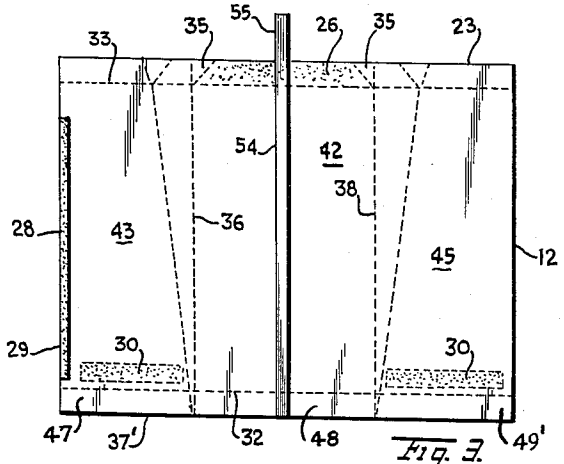


Fig. 3.

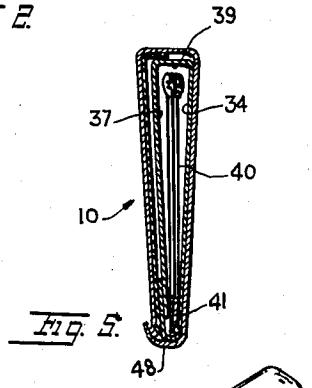


Fig. 5.

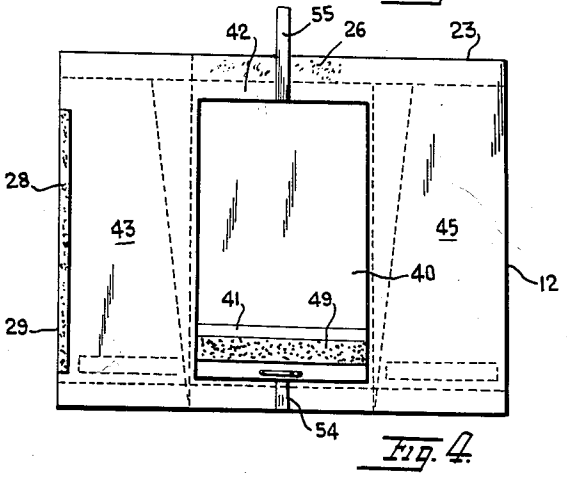


Fig. 4.

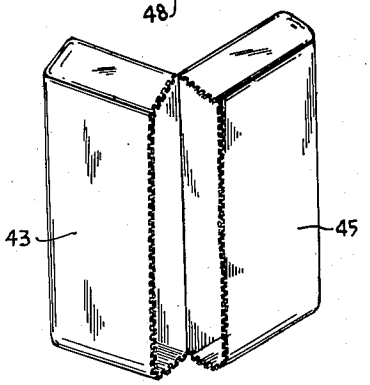


Fig. 6.

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SAFETY COVERLOCK FOR BOOK MATCH PACKAGES AND THE LIKE

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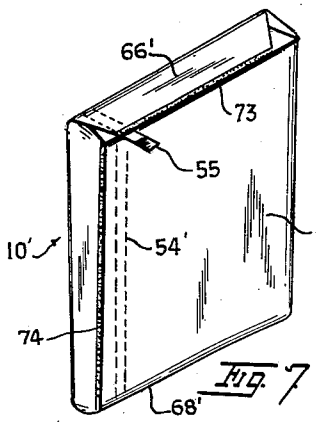


Fig. 7

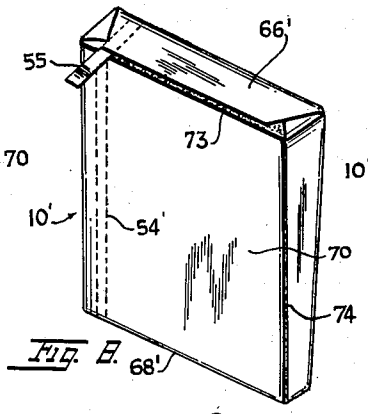


Fig. 8.

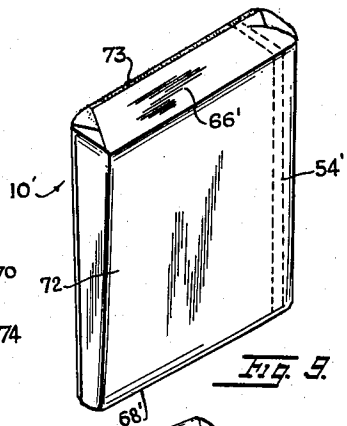


Fig. 9.

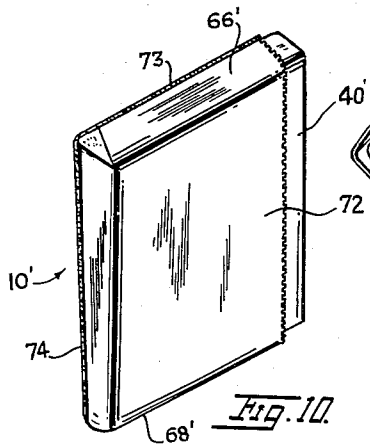


Fig. 10.

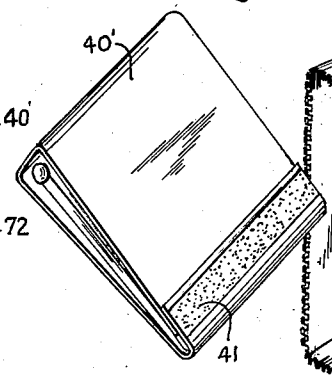
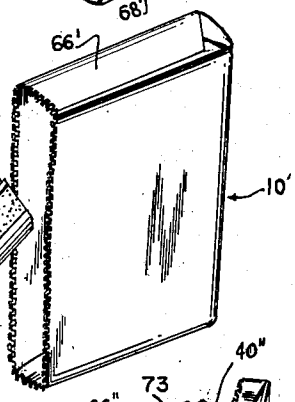


Fig. 11.



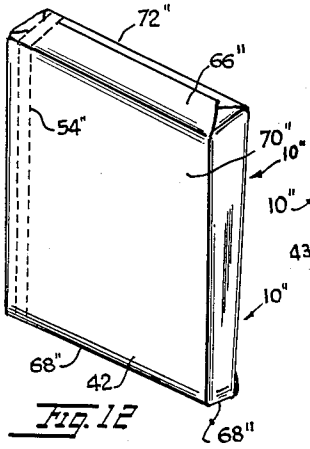


Fig. 12

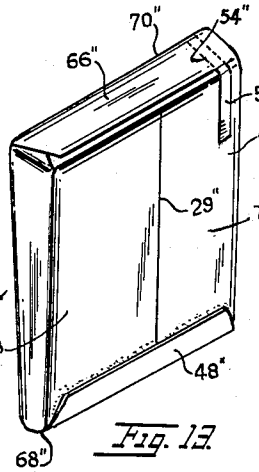


Fig. 13.

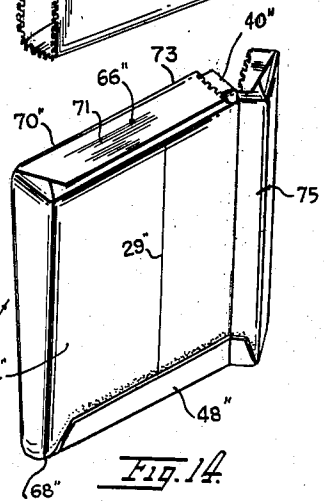


Fig. 14.

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SAFETY COVERLOCK FOR BOOK MATCH PACKAGES AND THE LIKE

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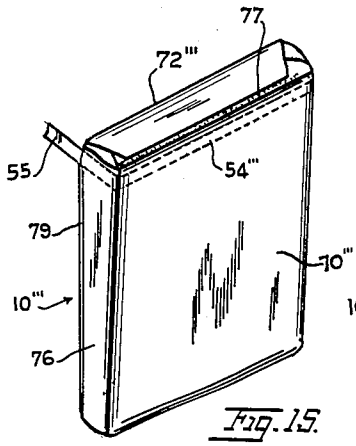


Fig. 15.

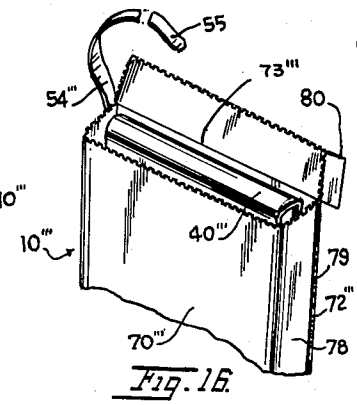


Fig. 16.

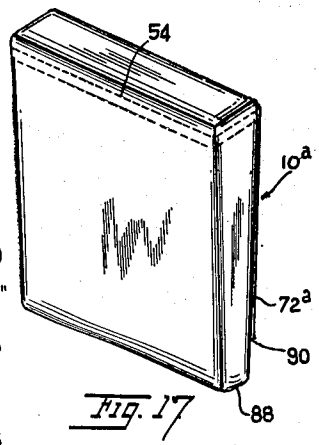


Fig. 17

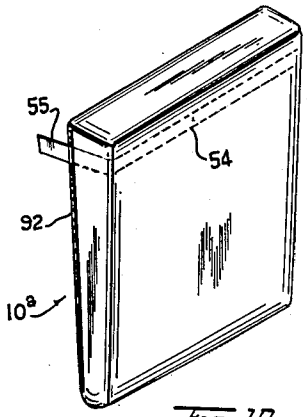


Fig. 18.

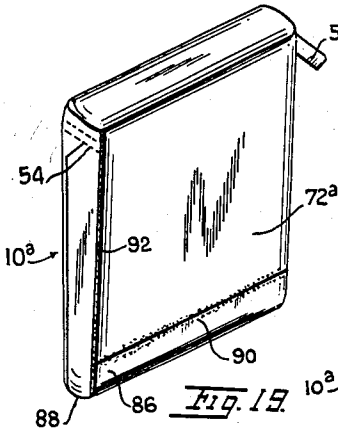


Fig. 19.

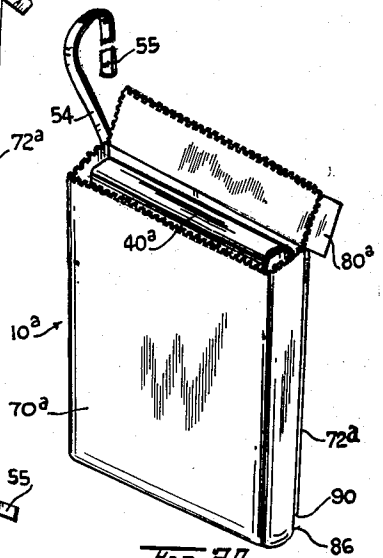


Fig. 20.

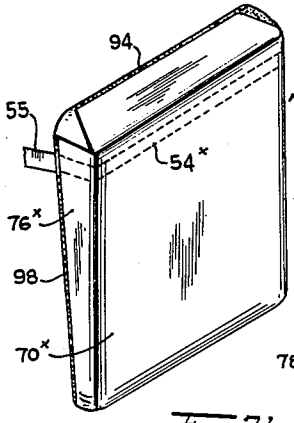


Fig. 21.

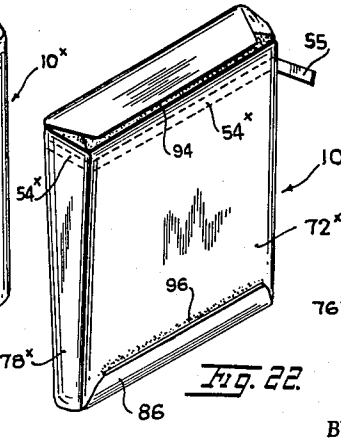


Fig. 22.

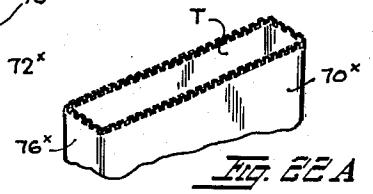


Fig. 22A

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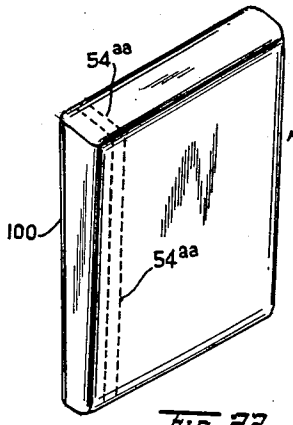


Fig. 23.

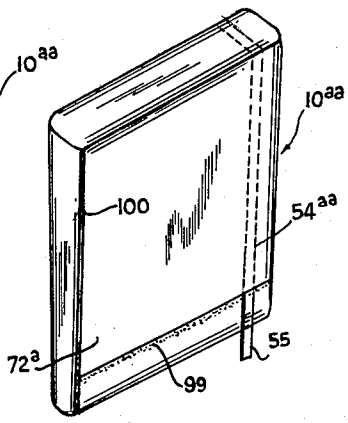


Fig. 24.

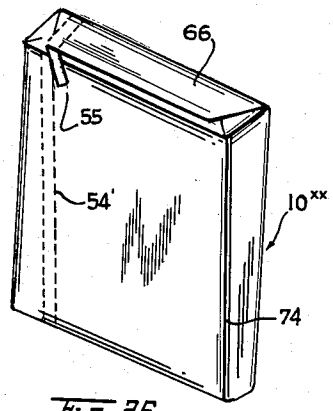


Fig. 25.

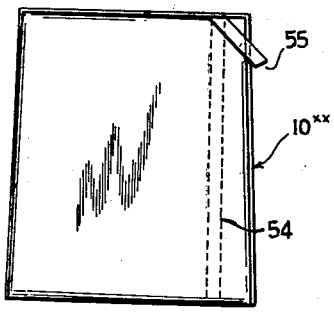


Fig. 26.

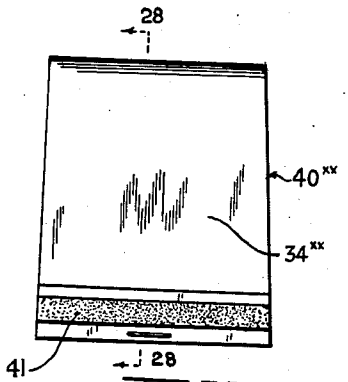


Fig. 27.

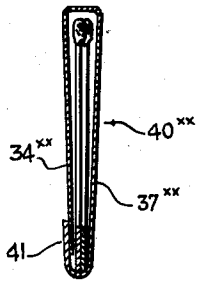


Fig. 28.

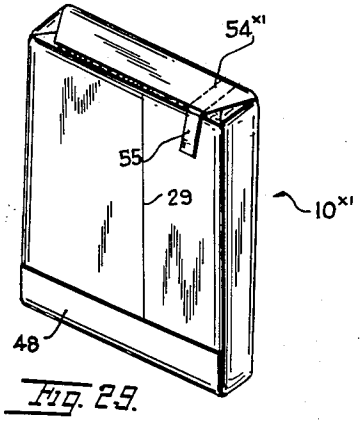


Fig. 29.

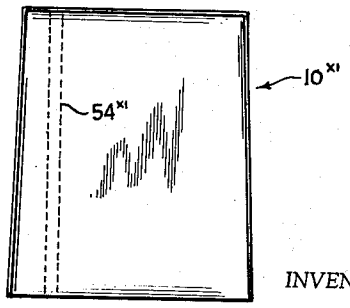


Fig. 30.

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United States Patent Office 3,113,666 Patented Dec. 10, 1963

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SAFETY COVERLOCK FOR BOOK MATCH PACKAGES AND THE LIKE

Theodore Will, Syosset, N.Y., assignor to Fund-Del Inc., Syosset, N.Y., a corporation of New York

Filed May 7, 1962, Ser. No. 192,695
3 Claims. (Cl. 206—29)

This invention relates to a safety cover and seal for books of safety matches and similar packages that is adapted to be re-used, and this application is a continuation-in-part of my copending application Serial Number 862,008, filed December 24, 1959, now Patent No. 3,033,361.

According to the invention, there is provided an enclosure for a tapered or wedge-shaped package or book of matches. The enclosure is formed from a properly folded blank of paper, metal foil, plastic material, or other suitable sheet material. The enclosure may be provided with a tear strip for opening the enclosure lengthwise at its center or to one side of the center and also for opening one end of the enclosure. The tear strip may be so located that when the enclosure is opened there will be provided a tapered receptacle with opened side or top for reinserting the book of matches for re-use. This receptacle can be used to hold the match book in closed condition or as a cover lock and can even serve as a protective cover for the matches in the absence of the regular cover, and after being opened can be re-used.

It is therefore a principal object of the invention to provide a removable, sealed and safety enclosure for a package of book matches that is adapted to be re-used.

Another object of the invention is to provide an enclosure for a book of matches, said enclosure being provided with a tear strip to facilitate opening of the enclosure.

A further object of the invention is to provide an enclosure for a book of matches, said enclosure having a tear strip so located that the opened closure can serve as a reusable protective cover for the book of matches.

Yet another object is to provide a novel blank for forming an enclosure or cover for a book of matches.

It is also an object to provide an enclosure for a package of book matches that is fully sealed, weathertight, adapted to keep the match striking surface dry and fresh and is reasonably childproof.

It is also an object to provide an enclosure for a package of book matches that keeps the match pack safe from likelihood of accidental ignition of the matches prior to use.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

FIG. 1 is a front perspective view of an enclosure made in accordance with one form of the invention, with a book of matches therein.

FIG. 2 is a rear perspective view thereof.

FIG. 3 is a top plan view of a blank from which the enclosure of FIG. 1 was formed.

FIG. 4 is a similar view but showing a book of matches superposed on the blank in position for enfolding thereby.

FIG. 5 is a sectional view taken on the line 5—5 of FIG. 1.

FIG. 6 is a front perspective view showing the enclosure of FIG. 1 cut down the middle, with the halves spaced apart.

FIG. 7 is a front perspective view of an enclosure with a book of matches therein embodying a modified form of the invention as seen from the left-hand side.

FIG. 8 is a similar view as seen from the right-hand side.

FIG. 9 is a rear perspective view thereof.

FIG. 10 is a rear perspective view of the enclosure showing one side torn off, exposing the book of matches therein.

FIG. 11 is a front perspective view of the enclosure showing one side torn off and showing a book of matches in position preparatory to reinsertion into the enclosure for re-use of the enclosure.

FIG. 12 is a front perspective view of an enclosure with a book of matches therein embodying another modified form of the invention.

FIG. 13 is a rear view thereof.

FIG. 14 is a rear view showing one side of the enclosure torn and separated exposing a book of matches therein, preparatory to removal from the enclosure.

FIG. 15 is a front perspective view of an enclosure with a book of matches therein embodying a further modified form of the invention.

FIG. 16 is a similar view of the top of the enclosure showing its top end opened and hinged rearwardly, the book of matches being present, parts being shown broken away.

FIG. 17 is a front perspective view of an enclosure with a book of matches therein embodying a still further modified form of the invention as seen from the right.

FIG. 18 is a similar view as seen from the left.

FIG. 19 is a rear perspective view thereof.

FIG. 20 is a front perspective view thereof showing the top torn off and swung rearwardly.

FIG. 21 is a front perspective view of an enclosure with a book of matches therein embodying yet another modified form of the invention.

FIG. 22 is a rear perspective view thereof.

FIG. 22A is a perspective view of the top end of the enclosure of FIG. 21 after the top has been torn off.

FIG. 23 is a front perspective view of an enclosure with a book of matches therein, embodying a still further modified form of the invention.

FIG. 24 is a rear perspective view thereof.

FIG. 25 is a rear perspective view of an enclosure with a book of matches therein embodying yet another modified form of the invention.

FIG. 26 is a front elevational view thereof.

FIG. 27 is a front elevational view of the book of matches wrapped in the enclosure of FIGS. 25 and 26.

FIG. 28 is a vertical sectional view taken on the line 28—28 of FIG. 27.

FIG. 29 is a rear perspective view of an enclosure with a book of matches therein embodying a still further modified form of the invention.

FIG. 30 is a front elevational view thereof.

Referring in detail to the drawings, in FIG. 1 an enclosure for a book of matches is shown and designated generally by the reference numeral **10**. In FIG. 3, the blank **12** from which the enclosure **10** was made is shown. The blank may be made of paper, metal foil, plastic material or any other suitable sheet material, which blank may be die cut. The blank is generally rectangular in shape and along one long edge **23** thereof there is a coating of adhesive **26** on the surface thereof. A strip **28** of adhesive is applied on the same surface along a short edge **29** of the blank. On the opposite surface of the blank, there are rectangular patches **30**, **30** of adhesive extending perpendicularly to strip **28**. Longitudinal fold lines **32**, **33** and transverse fold lines **36** and **38** define a central panel **42** and side panels **43** and **45**. When the blank is folded along the lines **32**, **33**, **36**, **38**, it forms the en-

closure **10** for a tapered or wedge-shaped book of matches or match book folder **40** shown superimposed on the blank on the panel **42**, in FIG. 4. The book of matches is formed of a unitary elongated strip of flexible material forming a front cover panel or wall **34**, a back cover panel or wall **37** connected by a top cover panel or wall **39**, said back cover panel having an upwardly projecting flap **41** with a striking element **49** for the matches along the outer surface of the flap, said flexible panel forming a complete closure for the matches. Triangular spots **35** of adhesive are also applied to the reverse surface of the blank at the corners of the panel **42**.

In FIGS. 1, 2 and 4, the blank **12** is shown folded around the book of matches **40** completely enclosing the book of matches and forming the enclosure **10** therefor. The body of the enclosure assumes the tapered shape of the book of matches. Panel **43** of the blank overlies panel **45** and is secured thereto by adhesive strip **28**. The center of the long edge **23** of the blank is folded along line **33** and the corners **35** folded thereover and the folded portion overlies the top of the match book and is secured thereto by the adhesive coating **26** and the adhesive on corners **35**.

The bottom longitudinal line **32** and the bottom long edge **37'** of the blank define narrow rectangular panels **47** and **49'** below panels **43** and **45**, respectively, and a narrow rectangular panel **48** below center panel **42**. The narrow panels **47**, **48**, **49'** are overlayed to form the lower end of the enclosure, and this lower end is folded up and the corners thereof inturned. The folded lower ends are secured in upturned condition by the adhesive strips **30**, **30** and the adhesive spots **35**.

Positive securing and sealing of the panels are accomplished by gluing, crimping of the material, by heat-sealing or in any combination of such processes, and the ends may be flared, turned under or over or such ends may be diamond-folded.

Furthermore, the folding and sealing may be at the sides, and top of the enclosure, instead of at the top and bottom, or on any three panels or walls to effect a sealed reuseable safety enclosure.

In accordance with the present invention, a thin plastic strip **54** is secured to the inner surface of the blank, extending from long edge **23** to long edge **37** of the blank. One end of the strip extends beyond end edge **23** forming a finger piece **55** for tearing the strip. When the blank is folded around the match book **40** along the fold lines, an enclosure **10** is provided as shown in FIGS. 1 and 2, with the finger piece **55** exposed and free to grasp for tearing the enclosure down the center of the front wall thus separating the portion of the front, top and bottom walls on one side of the strip from the portions on the other side of the strip. The back wall is imperforate serving as a hinge whereby the cut section outwardly of the tear strip can be swung backwardly away from the body of the enclosure so that the book of matches may be readily removed. The book of matches can readily be inserted into one of the separated halves and then the other half placed in position over the inserted book for re-use of the enclosure.

In FIGS. 7 to 11, inclusive, a modified form of enclosure **10'** is shown. The enclosure **10'** is similar to the enclosure **10** of FIG. 1 except that the tearing strip **54'** is moved to one side of the enclosure, the left-hand side as seen in FIG. 7, instead of being positioned at the center. The tear strip extends around the top and bottom walls **66'** and **68'** and front wall **70** and rear wall **72** so that upon tearing the strip off of the wrapper the portion of the enclosure outwardly of the strip is separated and may be removed and the book of matches **40'** exposed. Inasmuch as the enclosure tapers from top to bottom, the top of the enclosure is wider than the bottom so that the book of matches may readily be removed from the enclosure and just as readily reinserted as shown in FIG. 11 and the enclosure re-used for protecting the book of matches.

The blank from which enclosure **10'** is formed is turned upon itself and overlapped at the top and the top overlapping portions sealed by adhesive as indicated at **73**. The long side edges of the blank are overlapped forming flaps sealed together as indicated at **74**.

In FIGS. 12 to 14, inclusive, an enclosure **10''** embodying another modified form of the invention is shown. The enclosure **10''** is similar to the enclosure **10** of FIG. 1 except that the tearing strip **54''** is moved to one side of the enclosure, the left-hand side as seen in FIG. 12, instead of being positioned at the center. Furthermore, in this form of enclosure the tearing strip **54''** extends only on the top wall **66''**, bottom wall **68''** and front wall **70''** of the enclosure **10''**, leaving the rear wall **72''** unperforated. The blank is sealed by gluing the top flap **71** in place, by gluing the panel **48''** in place and by gluing the overlapping edge **29''** in place.

By reason of this construction, the rear wall **72** serves as a hinge along hinge line **73** whereby the cut section **75** outwardly of the tearing strip **54''** can be swung backwardly away from the body of the enclosure so that the book of matches **40''** may be readily removed. The cut section **75** is sufficiently flexible to permit the book of matches to be reinserted and the enclosure used over again.

In all other respects, the enclosure **10''** is similar to enclosure **10** and similar reference numerals are used to indicate similar parts.

An enclosure **10'''** embodying another modified form of the invention is illustrated in FIGS. 15 and 16. Enclosure **10'''** differs from the enclosure **10** in that the tearing strip **54'''** extends across the top of the front wall **70'''** and side walls **76** and **78** of the enclosure, the rear wall **72'''** being unperforated and serving as a hinge along line **73'''** whereby the cut top **80** of the enclosure may be swung rearwardly away from the body of the enclosure as shown in FIG. 16 to permit ready removal of the book of matches **40'''**.

In this form of enclosure, the blank is turned upon itself and overlapped at the top and the overlapped top ends sealed by adhesive as indicated at **77**. The long side edges of the blank are overlapped and sealed by adhesive as indicated at **79**.

After use, the book of matches can be reinserted into the enclosure and the top **80** swung to closed position in order to use the enclosure over again as a safety device.

The modified form of enclosure 10^a shown in FIGS. 17 to 20, inclusive, differs from the form of enclosure **10'''** shown in FIGS. 15 and 16 in the arrangement of sealing the blank around the book of matches 40^a. In enclosure 10^a, the blank is folded transversely over the top and bottom ends at **88** of the book of matches 40^a with the ends of the blank overlapping **86** and sealed with adhesive as indicated at **90**, and with the long side edges of the blank overlapped and sealed at the sides as indicated at **92**.

The book of matches can readily be removed from the enclosure when the cut top 80^a of the enclosure is swung away from the body of the enclosure and because of the tapered formation of the enclosure the book of matches may readily be reinserted after use and the top 80^a swung back to protective position over the top of the matches so that the enclosure may be re-used.

Another modified form of enclosure 10^x is shown in FIGS. 21 and 22. This form of enclosure 10^x is similar to enclosure 10^a shown in FIGS. 17 to 20, inclusive, except for the manner of sealing the blank forming the enclosure 10^x and the arrangement of the strip 54^x. The blank is overlapped longitudinally over the book of matches and the longitudinal edges overlapped at the top and sealed by glue as indicated at **94**, and overlapped at the bottom and turned upwardly and the upturned portion sealed to the body of the enclosure as indicated at **96**. The short side edges of the blank are overlapped at one side and sealed by glue as indicated at **98**.

The tear strip 54^{x} encircles the enclosure extending across the front and back walls 70^{x} and 72^{x} at the top thereof and across the side walls 76^{x} and 78^{x} at the tops thereof. When the tear strip 54^{x} is torn the top of the enclosure is removed leaving the top T of the enclosure open as indicated at T as best seen in FIG. 22A. The book of matches can readily be removed from the enclosure through the top thereof and after use the book of matches can readily be reinserted into the enclosure and the torn away top replaced for re-use of the enclosure.

In FIGS. 23 and 24, another modified form of enclosure 10^{aa} is illustrated. This enclosure 10^{aa} is similar to the enclosure 10' shown in FIGS. 7 to 11, inclusive, except that the blank which forms the enclosure is folded and sealed in a different manner. In the enclosure 10^{aa} the blank is folded transversely over the book of matches with the short sides overlapped at the rear and sealed by glue as indicated at 99. The long edges of the blank are folded over in overlapping relationship at the sides of the enclosure and sealed by glue as indicated at 100.

The strip 54^{aa} is situated similarly to the strip 54' of FIG. 7 and the enclosure is opened in a similar manner, and the book of matches may be reinserted into the enclosure after use and the enclosure used over again.

The modified form of enclosure 10^{xx} shown in FIGS. 25 to 28, inclusive, differs from the form of enclosure 10' shown in FIGS. 7 to 11, inclusive, merely in that the side walls taper downwardly and outwardly conforming to the shape of the wrapped book of matches 40^{xx}. The book of matches 40^{xx} is die cut and irregular in shape in that the front panel 34^{xx} tapers downwardly and inwardly, the rear panel 37^{xx} being straight. The front tapers from approximately 3/8" to 1/8" thick. Furthermore, the bottom of the book of matches 40^{xx} as viewed in FIG. 27 is wider at the bottom than at the top, the sides tapering downwardly and outwardly, the book being approximately 1¾" wide at the top and 2" wide at the bottom. The taper at the sides equals the taper on the front panel 34^{xx}.

By reason of the widening of the book of matches at the bottom and the conforming of the enclosure to the shape of the book of matches, any excess of wrapping paper material caused by the downwardly and inwardly tapering of the front panel of the book of matches is taken up by the wider dimension of the bottom of the book of matches so that a neat tight enclosure wrapper results.

In all other respects, the enclosure 10^{xx} is similar to the enclosure 10' and similar reference numerals are used to indicate similar parts.

The match book folder 10^{xx} may be die cast in various shapes. FIG. 25 illustrates a match book folder 40^{xx} narrower in width at the top and wider in width at the bottom, said widening being approximately the amount of taper from the top to the bottom of the match pack for use with enclosures having tear strips completely encircling the match book folder and for use with enclosures having tear strips extending along only three adjacent panels or walls of the match book folder.

In the modified form of enclosure $10^{x'}$ shown in FIGS. 29 and 30, the enclosure is shaped and sealed similarly to the enclosure 10" of FIGS. 12–14 to wrap a book of matches shaped and constructed similarly to the book of matches 40^{xx}. However, the separating strip $54^{x'}$ is arranged similarly to the strip 54 shown in the form of enclosure 10" shown in FIGS. 12 to 14, inclusive, that is, the strip extends longitudinally only along the front, top and bottom walls, the rear wall being imperforate and serving as a hinge.

While I have illusrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and that various changes and modifications may

be made within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A sealed re-usable safety coverlock enclosure for a tapered book of matches comprising a hollow wraparound body of thin sheet material, said sealed body having a front wall, a back wall, a top wall, a bottom wall, side walls, three of said walls constituting sealed flaps, the front wall tapering downwardly and inwardly, said bottom wall being narrower than said top wall, a thin tear strip of flexible material having a free end extending outwardly from behind one of said sealed flaps, said tear strip extending lengthwise about said sealed body adjacent the side thereof and in a plane parallel thereto completely enclosing said match book folder for separating the portion of the body of the sealed safety enclosure on the one side of the strip, from that portion on the other side of the strip, the separated portion on the other side being wider at the top than the bottom end for ready removal of the enclosed tapered book of matches therefrom and for re-use of the enclosure by reinserting the book of matches therein.

2. In combination, a match book folder and a sealed safety enclosure therefor, said match book folder comprising a wedge-shaped book of matches including a unitary elongated strip of flexible material forming a front cover panel, a back cover panel connected by a top cover panel, said back cover panel having an upwardly projecting flap, a striking element for the matches along the outer surface of said flap, the front cover panel being of less length than the back cover panel and being adapted to be tucked removably behind said flap, said flexible panel forming a complete closure for the matches, a sealed re-usable safety coverlock enclosure for said book of matches comprising a hollow wraparound body of thin sheet material, said sealed body having a front wall, a back wall, a top wall, a bottom wall, side walls, three of said walls constituting sealed flaps, the front wall tapering downwardly and inwardly, said bottom wall being narrower than said top wall, a thin tear strip of flexible material having a free end extending outwardly from behind one of said sealed flaps, said tear strip extending lengthwise about said sealed body adjacent the side thereof and in a plane parallel thereto completely enclosing said match book folder for separating the portion of the body of the sealed safety enclosure on the one side of the strip, from that portion on the other side of the strip, the separated portion on the other side being wider at the top than at the bottom end for ready removal of the enclosed tapered book of matches therefrom and for re-use of the enclosure by reinserting the book of matches therein.

3. In combination, a match book folder and a sealed safety enclosure therefor, said match book folder comprising a wedge-shaped book of matches including a unitary elongated strip of flexible material forming a front cover panel, said front cover panel tapering downwardly and inwardly, a back cover panel connected to the front cover panel by a top cover panel, said back cover panel having an upwardly projecting flap, the side edges of said front and back panels tapering downwardly and outwardly whereby the bottom of the book folder is wider than the top thereof, a striking element for the matches, along the outer surface of said flap, the front cover panel being of less length than the back cover panel and being adapted to be tucked removably behind said flap, said flexible panel forming a complete closure for the matches, a sealed re-usable safety coverlock enclosure for said book of matches comprising a hollow wraparound body of thin sheet material, said sealed body having a front wall, a back wall, a top wall, a bottom wall, side walls, three of said walls constituting sealed flaps, the front wall tapering downwardly and inwardly, the side walls taper-

ing downwardly and outwardly, said bottom wall being narrower than said top wall, a thin tear strip of flexible material having a free end extending outwardly from behind one of said sealed flaps, said tear strip extending lengthwise about said sealed body adjacent the side thereof and in a plane parallel thereto completely enclosing said match book folder for separating the portion of the body of the sealed safety enclosure on the one side of the strip from that portion on the other side of the strip, the separated portion on the other side being wider at the top than at the bottom end for ready removal of the enclosed tapered book of matches therefrom and for

re-use of the enclosure by reinserting the book of matches therein.

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