July 6, 1937. W. E. MOLINS 2,086,169

WRAPPING OR PACKING ARTICLE

Filed Dec. 13, 1934 2 Sheets-Sheet 1

Fig. 1.

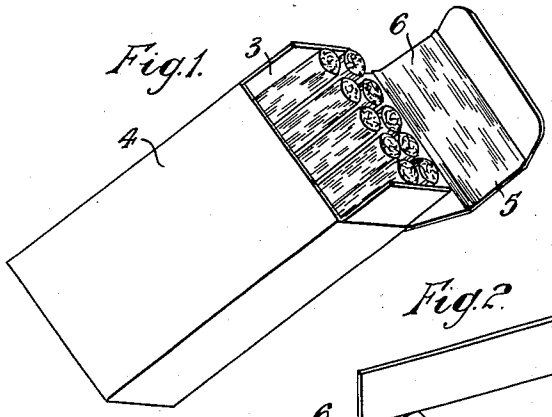


Fig. 5.

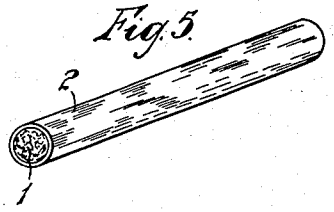
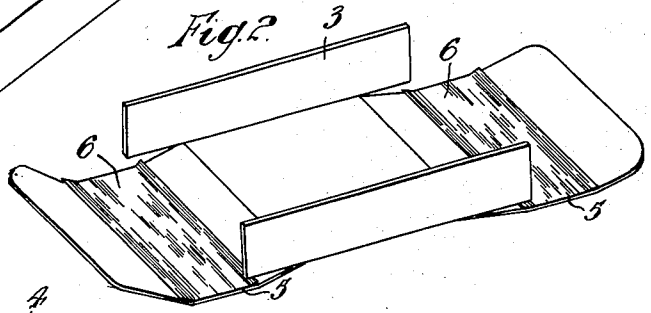


Fig. 2.



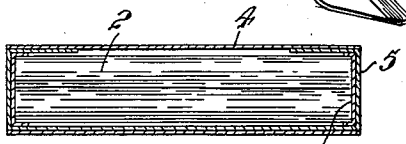


Fig. 3.



Fig. 4.

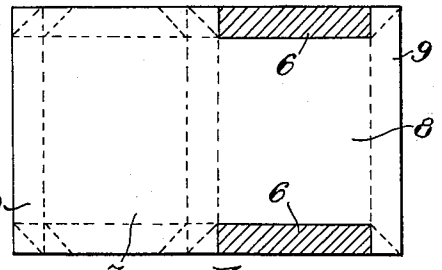


Fig. 6.

Fig. 7.

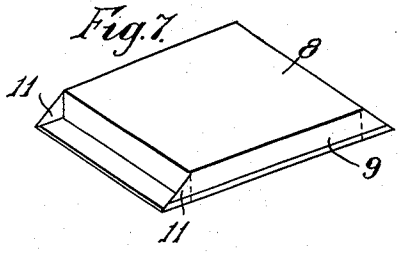
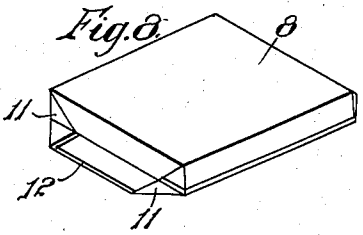


Fig. 8.



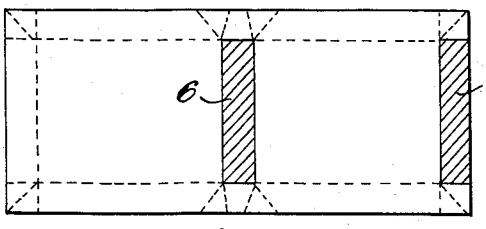


Fig. 9.

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WRAPPING OR PACKING ARTICLE

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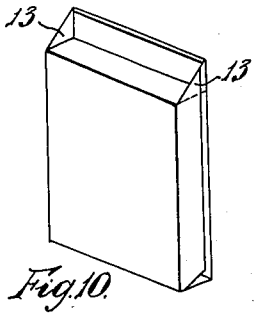


Fig.10.

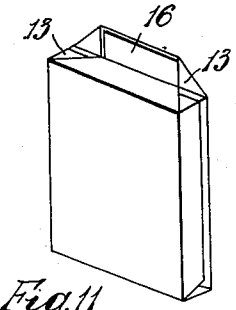


Fig.11.

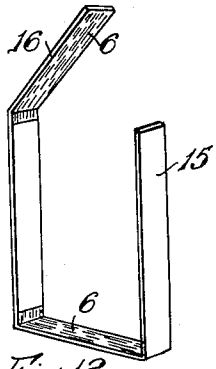


Fig.12.

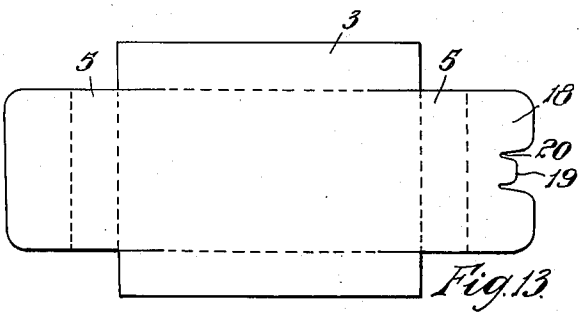


Fig.13.

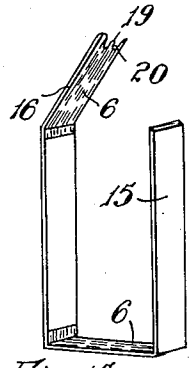


Fig.15.

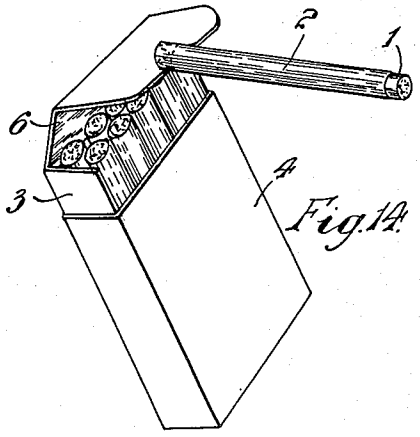


Fig.14.

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UNITED STATES PATENT OFFICE

2,086,169

WRAPPING OR PACKING ARTICLES

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Application December 13, 1934, Serial No. 757,391
In Great Britain December 13, 1933

14 Claims. (Cl. 206—41)

This invention is for improvements in or relating to wrapping or packing articles and refers more particularly to a wrapping or packing for cigarettes.

The usual wrapping of cigarettes as a batch in a common package is unsatisfactory as once the packet is opened the cigarettes become out of condition either from atmospheric conditions such as dampness, the heat of the body of the consumer or from absorbing odor or perfumes when being carried in handbags.

When cigarettes are manufactured they are subjected to conditioning or other processes of treatment in the factory, and to secure complete satisfaction to the consumer they should reach him without deterioration, and the present invention provides an improved wrapping or packing of the kind wherein each cigarette is partially contained in a wrapper and the uncovered portions of the individual cigarettes are sealed against atmospheric or any of the other conditions above described by means of a container arranged to hold a predetermined number of cigarettes. This container will be hereinafter referred to as a common wrapper or packing.

According to the present invention, there is provided a wrapping or packing for articles (for example cigarettes) wherein a predetermined number of individual articles are contained in a common wrapper or container, each individual article being provided with a wrapper which exposes at least one end of the article, wherein the edge of each wrapper at the exposed end or ends is substantially flush with the end or ends of the article, and wherein the open end or ends of the individual wrapper are sealed by the common wrapper or packing or by a liner in combination therewith.

The common wrapper may comprise a packet of the slide and shell type, and the liner forming the sealing element for the ends of the individual wrappers may be provided on those portions of the slide element of the packet which are adjacent the ends of the articles. In another form of the invention, the common wrapper may comprise a packet formed from non-rigid wrapping material (e. g., paper) and the liner forming the sealing element for the ends of the individual wrappers may be provided in combination with those portions of the wrapping material which are adjacent the ends of the articles or a reinforcing element may be provided within the common wrapper and the sealing element for the ends of the individual wrappers may be provided on those portions of the reinforcing element which are adjacent the ends of the articles.

Further, according to the present invention there may be provided in connection with the common wrapper means operative to effect the initial stripping action when the wrapper of an individual article is being removed from about the article. The means for effecting this action may comprise serrations on the edge of a closure element of a slide when the common wrapper comprises a slide and shell packet, or when a reinforcing element is used in connection with a common wrapping formed from non-rigid material, the reinforcing element may be serrated (e. g., at least one of the free ends of the reinforcing element may be serrated).

The invention will be more particularly described with reference to the accompanying drawings, in which:—

Figure 1 is a perspective view of a packet of the slide and shell type according to the invention.

Figure 2 is a perspective view showing the slide element of a slide and shell packet constructed in accordance with the invention.

Figure 3 is a longitudinal cross section of a closed wrapper of the slide and shell type according to the invention.

Figure 4 is a fragmentary view of a portion of a folded slide element constructed in accordance with the invention.

Figure 5 is a perspective view of a cigarette contained in a wrapper open at both ends.

Figure 6 illustrates a blank formed from non-rigid material for use in forming the common wrapper in accordance with the invention.

Figures 7 and 8 show stages of the folding of the blank illustrated in Figure 6.

Figure 9 shows a modified form of blank formed from non-rigid material in accordance with the invention.

Figures 10 and 11 are perspective views illustrating various stages during the folding of the blank shown in Figure 9.

Figure 12 is a perspective view illustrating a reinforcing element constructed in accordance with the invention, such element being used in connection with the form of wrapping illustrated in Figures 6 to 11 inclusive.

Figure 13 illustrates an unfolded slide and shows means for effecting an initial stripping operation of a wrapper from about an individual article.

Figure 14 is a perspective view of a slide and shell packet constructed in accordance with the invention, and illustrates the manner in which the initial stripping action of an individual wrapper is effected.

Figure 15 is a perspective view illustrating a reinforcing element constructed in accordance with the invention, and having means for effecting an initial stripping action of an individual wrapper from about an article.

Like references refer to like parts throughout the specification and drawings.

Referring to the form of the invention illustrated in Figures 1 to 5 inclusive, the articles 1, which will hereinafter be referred to for the purpose of example as cigarettes, are partially enclosed in wrappers 2 which may, for example, be transparent wrapping material such as the impermeable transparent wrapping sold under the registered trade-mark "Cellophane". A wrapper 2 is wrapped around each cigarette so that only the ends of the cigarette are left uncovered by the wrapper and the ends of the wrapper are substantially flush with the ends of the cigarette.

A batch containing a predetermined number of cigarettes wrapped in the manner shown in Figure 5 is then inserted into a common wrapper or container which in this form of the invention comprises a slide 3 and shell 4 of well known construction. The common wrapper is so constructed that when the common wrapper is closed the ends of the cigarettes fit snugly into the wrapper, that is to say, the cigarettes are of substantially the same length as the common wrapper.

The cover flaps 5 of the slide element are provided on those faces which are adjacent the ends of the cigarettes when the common wrapper is closed, with a liner 6 which may be composed of transparent wrapping material of the kind above described, or may be composed of any form of moisture-proof material or other material suitable for the purpose of sealing the open ends of the wrappers 2.

The liner 6 may be placed on the cover flaps 5 of the slide 3 in the manner illustrated in Figures 1 and 2 of the drawings, and may be of a width slightly greater than the width of the cover flaps 5, as shown in the drawings, so that when the cover flaps 5 are in position and the common wrapper closed, the liner 6 bears on the ends of the cigarettes and slightly overlaps the ends thereof so as to form a recess for the ends of the cigarettes. In this way the sealing of each individual cigarette is more effectively made, as shown in the sectional elevation in Figure 3 of the drawings. If the liner 6 is composed of material which is of a sufficiently flexible nature, the liner may be arranged so as to extend beyond the ends of the cigarettes when the common wrapper is closed in a manner similar to that shown in Figure 4. The liners may be secured to the cover flaps by any suitable means, such for example as adhesive.

Referring to the form of the invention illustrated in Figures 6 to 8 of the drawings, the common wrapper is formed from non-rigid wrapping material, such for example as paper, and the liners 6 are applied to those portions of the wrapping material which will be adjacent the ends of the cigarettes when the material forming the common wrapper is folded about them. In forming the common wrapper about the cigarettes, the batch of cigarettes is placed upon the panel 7 of the wrapper blank and the panel 8 is then folded over the upper surface of the batch, and the side panel 9 is folded into engagement with the side panel 10 so that the wrapper forms an open ended shell about the cigarettes. The portions of the wrapper provided with the liners 6 are next folded into engagement with the ends of the cigarettes as shown in Figure 7, thereafter the narrow end folds 11 are folded in the manner shown in Figure 8 and the broad end flaps 12 are then folded upwardly in order to complete the wrapper.

In Figures 9 to 11, a further form of the invention is illustrated, and in this form the invention is also applied to a common wrapper composed of non-rigid material, and the material of the common wrapper is folded about the articles in the form of a U-shaped block ended wrapper of well known construction. Referring to Figure 9, it will be seen that the liners 6 are applied to those portions of the wrapper which form the block end of the wrapper and which are adjacent the end of the cigarettes at that end of the wrapper opposite the block end thereof respectively. The wrapper blank is folded about the cigarettes into a U-shaped block ended wrapper, open at one end, in the usual manner, and that portion of the wrapper, at the open end of the common wrapper, which is provided with the liner 6 is then folded into engagement with the ends of the cigarettes as shown in Figure 10, whereafter the narrow end folds 13 are folded downwardly and the broad end flap 14 is folded to complete the wrapper.

Figure 12 illustrates a further modified form of the invention, and consists of a reinforcing strip 15 formed from cardboard or similar material, such strips being commonly used in conjunction with wrappers of the non-rigid types above referred to and being placed within the wrappers in order to give the wrappers the necessary rigidity.

When a reinforcing strip 15 is used in accordance with the invention, the non-rigid wrapping material of the common wrapper is not provided with liners in the manner previously described, but the liners are applied to the portions 16 and 17 of the reinforcing strip as shown in Figure 12.

In each form of the invention described above, when the consumer opens the container, the ends of the cigarettes are exposed in the normal way, and the consumer then removes a cigarette from the package and strips off the outer wrapper which envelops the individual cigarette, the cigarette then being ready for smoking. When the consumer closes the packet after taking out a cigarette, the remaining cigarettes are again sealed by the liner 6 in the manner above described.

In order to facilitate the removal of the wrapper from the individual cigarette after it is removed from the packet, means may be provided in accordance with the invention to effect the initial stripping operation of the wrapper from about the individual cigarette. In Figures 13 and 14 there is illustrated one way by which the initial wrapping operation may be effected, and in this way one or both of the closure flaps 18 of the slide element of the slide and shell packet is cut away as shown at 19 by means of serrations 20, which leave between each pair of serrations a tongue portion which is preferably of a width slightly less than the diameter of the cigarette from which the wrapper is to be stripped. The method of stripping the wrapper from the

cigarette is clearly illustrated in Figure 14, from which it will be seen that the end of the cigarette from which the wrapper is to be stripped is pressed into engagement with the end of the tongue, and the wrapper 2 is pressed over the tongue as illustrated in the drawings. When this operation has been effected, the end of the cigarette projects from one end of the wrapper 2, as shown in Figure 14, and the free end of a cigarette can be readily gripped and the cigarette withdrawn from the wrapper.

Figure 15 illustrates the manner in which the stripping means may be applied to a reinforcing strip 15, and since the free end of the portion 16 is serrated in the manner similar to that described above, it is not necessary further to describe the manner in which the stripping means is applied to the strip 15.

It will be appreciated that although the tongue is shown in the drawings as being out below the edges of the closure flap 18 and element 16 respectively that the end of the tongue may be substantially parallel with the edges or may, if desired, be arranged to project beyond the ends of the said edges.

The word "cigarette", as employed in the appended claims, designates a complete cigarette comprising comminuted tobacco enclosed in the usual wrapper of cigarette paper or tobacco, which wrapper is intended to be consumed with the tobacco. The "separate wrapper" referred to in the claims is a wrapper entirely distinct from said usual wrapper, applied outside of said usual wrapper and intended to serve as a protective covering for the latter as well as for the tobacco filler. The term "protective" as used in the claims designates a wrapper or wrapping material having characteristics, such as increased resistance to moisture, etc., rendering it superior to the said usual wrapper, which is a part of the cigarette, for the purpose of protecting the cigarette as hereinbefore set forth.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A wrapping or packing for cigarettes which comprises a separate protective wrapper for each cigarette so formed as to leave at least one end of the cigarette exposed, and a common container receiving a plurality of wrapped cigarettes, said container having protective wrapping material associated therewith and arranged for cooperation with the separate wrappers at exposed ends of the cigarettes to complete the enclosure of the latter.

2. A wrapping or packing for cigarettes which comprises a separate, generally tubular wrapper of protective material for the individual cigarettes leaving at least one end exposed, and a common container for the cigarettes having protective wrapping material positioned for engagement with the exposed ends of the cigarettes to form a closure for the latter.

3. A wrapping or packing for cigarettes which comprises a separate, generally tubular wrapper of protective material for the individual cigarettes leaving at least one end exposed, and a common container for the cigarettes having a protective portion positioned for engagement with the exposed ends of the cigarettes to form a closure for the latter, said portion constituting a closure flap for the container.

4. A wrapping or packing for cigarettes which comprises a separate, generally tubular wrapper of protective material for the individual cigarettes leaving at least one end exposed, and a common container for the cigarettes having a portion positioned for engagement with the exposed ends of the cigarettes to form a closure for the latter, said portion constituting a closure flap for the container and having associated therewith a moisture-proof liner for direct association with the exposed cigarette ends.

5. A wrapping or packing for cigarettes which comprises a separate, generally tubular wrapper of moisture-proof material surrounding each cigarette so as to leave the ends thereof exposed, a common container receiving a predetermined number of cigarettes and provided with at least one liner of moisture-proof material cooperating with the separate wrappers at the ends of the cigarettes to complete the enclosure of the cigarettes.

6. A wrapping or packing for cigarettes as defined in claim 5 in which the container is provided with a readily opened closure flap and with separate liners secured by adhesive to the inner surfaces of the container at opposite ends thereof, at least one of said liners being associated with the closure flap.

7. A wrapping or packing for cigarettes which comprises a separate protective wrapper for each cigarette so formed as to leave at least one end of the cigarette exposed, and a common, rigid container of the slide and shell type receiving a plurality of wrapped cigarettes and having associated therewith protective wrapping material arranged for cooperation with the separate wrappers at exposed ends of the cigarettes to complete the enclosure of the latter.

8. A wrapping or packing for cigarettes which comprises a separate wrapper of moisture-proof material for each cigarette so formed as to leave at least one end of the cigarette exposed, and a common, rigid container of the slide and shell type receiving a plurality of wrapped cigarettes and having a portion thereof arranged for cooperation with the separate wrappers at exposed ends of the cigarettes to complete the enclosure of the latter, said portion of the container constituting an end of the slide adjacent the exposed ends of the cigarettes and having associated therewith a liner of moisture-proof material.

9. A wrapping or packing for cigarettes which comprises a separate wrapper of moisture proof material for each cigarette so formed as to leave at least one end of the cigarette exposed, and a common wrapper of non-rigid material receiving a predetermined number of separately wrapped cigarettes, the portion of the wrapper which is adjacent the exposed ends of the cigarettes when the wrapper is closed being provided with a liner of moisture-proof material.

10. A wrapping or packing for cigarettes which comprises a separate protective wrapper for each cigarette so formed as to leave at least one end of the cigarette exposed, a common container receiving a plurality of wrapped cigarettes, and a reinforcing strip positioned within the container and extending at least partially about the cigarettes, said strip having a protective portion cooperating with said separate wrappers to form a closure for the exposed cigarette ends.

11. A wrapping or packing for cigarettes which comprises a separate wrapper of moisture-proof material for each cigarette so formed as to leave at least one end of the cigarette exposed, and a common container receiving a plurality of wrapped cigarettes and having a portion thereof arranged for cooperation with the separate wrappers at exposed ends of the cigarettes to com-

plete the enclosure of the latter, said portion of the container having secured thereto a liner of moisture-proof material.

12. A wrapping or packing for cigarettes which comprises a separate protective wrapper for each cigarette so formed as to leave at least one end of the cigarette exposed, a common container receiving a plurality of wrapped cigarettes, and a reinforcing strip positioned within the container and extending at least partially about the cigarettes, said strip having a protective portion cooperating with said separate wrappers to form a closure for the exposed cigarette ends, one end of said reinforcing strip being formed to provide means for engaging the end of a removed, separately wrapped cigarette to facilitate withdrawal of the cigarette from the wrapper.

13. A wrapping or packing for cigarettes which comprises a separate protective wrapper for each cigarette so formed as to leave at least one end of the cigarette exposed, and a common container of relatively rigid material having a protective portion thereof arranged for cooperation with the separate wrappers at exposed ends of the cigarettes to complete the enclosure of the latter, said container being formed to provide a projecting tongue portion for engaging the end of a removed, separately wrapped cigarette to facilitate withdrawal of the cigarette from the wrapper.

14. A wrapping or packing for cigarettes which comprises a separate protective wrapper for each cigarette so formed as to leave at least one end of the cigarette exposed, and a common container of relatively rigid material, said container having a protective closure element arranged to fold across the exposed ends of the cigarettes to complete the enclosure thereof, said closure element being provided with means for engaging the end of a removed, separately wrapped cigarette to facilitate withdrawal of the cigarette from the wrapper.

WALTER EVERETT MOLINS.