T. J. MALONEY.

PACKAGING OF TOBACCO PRODUCTS.

APPLICATION FILED MAR. 13, 1918.

1,291,984. Patented Jan. 21, 1919.

Fig. 1.

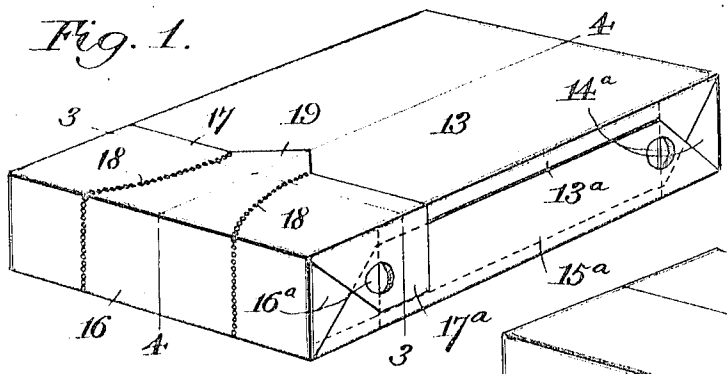


Fig. 5.

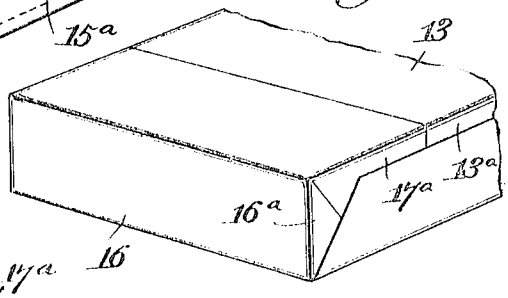


Fig. 3.

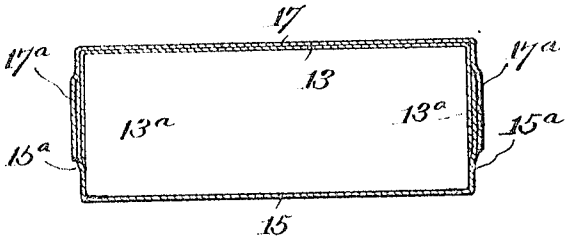


Fig. 2.

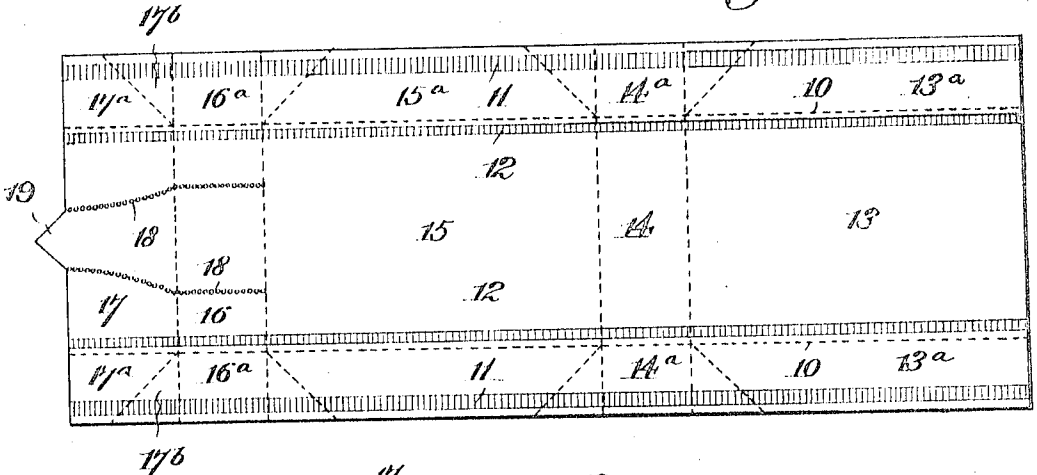
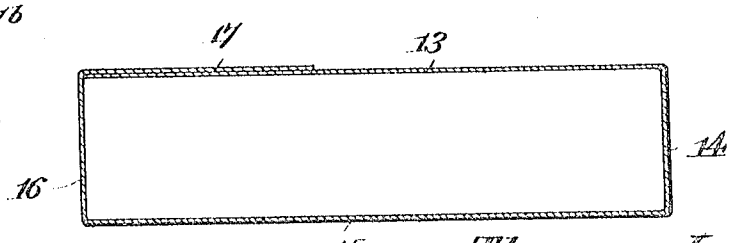


Fig. 4.



Inventor,

Thomas J. Maloney.

By his Attorneys,

Meyer, Cushman & Rea.

UNITED STATES PATENT OFFICE.

THOMAS J. MALONEY, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO P. LORILLARD COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

PACKAGING OF TOBACCO PRODUCTS.

1,291,984. Specification of Letters Patent. Patented Jan. 21, 1919.

Application filed March 13, 1918. Serial No. 222,111.

To all whom it may concern:

Be it known that I, THOMAS J. MALONEY, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Packaging of Tobacco Products, of which the following is a specification.

This invention relates to improvements in the packaging of tobacco products, although the invention is not limited to this particular use, being adapted for use in connection with the packaging of other commodities.

Owing to the fact that tobacco products are more or less subject to deterioration by atmospheric or moisture action, it has been the practice in producing packages for commercial purposes to employ a container or wrapper of types which will tend to reduce, as far as possible, the possibility of such deterioration.

One way of meeting the problem is by the use of metallic containers, the latter having a loose lining of paraffin or other form of paper or of tin foil, the tobacco content being contained within the lining. Since the container is capable of being closed, and the lining provides an additional safe-guard, the tobacco contents are protected against atmospheric and moisture effects, especially during the period in which the package remains intact—the period between the time when the package is completed by the manufacturer and the time when it is placed in the hands of the consumer, a period of more or less indefinite duration.

Another way in which the problem has been met is by the use of a wrapper formation, the latter generally including a tin foil liner, the latter being more particularly relied upon to provide the barrier for excluding air and moisture.

Owing to present day conditions, these ways of meeting the problem are not only disadvantageous by reason of the large increase in cost of the essential elements—the material for the metallic containers and the tin foil, but, in addition, the ability to secure supplies of these materials largely affects the ability to provide packages of this type. These facts practically necessitate a change in the character of the package, since the desired protection must be provided by the use of materials of unlimited supply.

Various ways of overcoming these difficulties have been provided, as by the use of a paper wrapper formation applied about an embryo package to produce a more or less sealed wrapped package. One way in which this result is obtainable is disclosed in the prior patent granted to me Nov. 27, 1917, No. 1,247,697, in which the tobacco is contained within an inner inclosure formed of stout paper to produce the embryo package, and such package then inclosed in a pair of cup-shaped paper receptacles which are positioned over the opposite ends of the package and held in position by means of a band which connects the free ends of the skirts of the respective receptacles. The form of package disclosed in said patent provides a satisfactory solution of the problem and retains the characteristics of the tobacco contents practically unimpaired, at least until the package reaches the consumer. However, since the wrapper formation practically comprises three individual elements—the two cup-shaped receptacles and the uniting band—the question of cost of production of the package becomes a factor by reason of the different operations required in the packaging operation, it being practically a necessity that such packaging be by machinery in order that the packages can be produced in sufficient quantities to meet the demands of the trade.

The present invention is designed not only to produce a package capable of meeting the problems which are incident to the packaging of tobacco products, but also to simplify the packaging operation in such manner as to reduce as far as possible the cost of producing and applying the wrapper formation to the embryo package. This is brought about by the elimination of the separate element form of the wrapper formation of the patent, and by the use of a single element in the form of a blank which can be readily applied to the embryo package by machinery and under large capacity conditions, and in

which the blank can be prepared for applying in a simple manner, the blank, when applied, providing a package which forms an efficient substitute for the types of inclosing means heretofore employed.

In addition, the package may be formed in such manner as to provide for ready opening by the consumer without necessitating removal of the wrapper.

To these and other ends, therefore, the nature of which will be readily understood as the invention is hereinafter disclosed, said invention consists in the improved construction and combination of parts hereinafter more fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

In the accompanying drawings, in which similar reference characters indicate similar parts in each of the views:

Figure 1 is a perspective view showing a completed package according to one form of the present invention, parts being broken away.

Fig. 2 is a plan view of a blank which may be employed in providing the wrapper formation for the package.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1.

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

Fig. 5 is a perspective view of a portion of a package showing a slightly different embodiment of the invention.

In the several views of the drawings, the thickness of the wrapper is more or less exaggerated with the result that the folds, etc., are varied somewhat from actual conditions. It will be understood, however, that the wrapper blank is formed of readily-foldable paper, more or less pliable in character, the wrapper formation not being designed to provide the stiffness to the package, this latter being produced by the container formation of the embryo package.

As shown more particularly in Fig. 2, the wrapper is provided from an elongated blank which is of uniform width from end to end of the main portion of the blank, the width of the blank being substantially equal to the width of a face and the opposite adjacent sides of the package, the distance between the longitudinally dotted lines 10—10 of the blank *a* in Fig. 2 indicating the width of the package face, the distance between each dotted line 10 and the adjacent parallel edge of the blank being approximately the width of the sides of the package; obviously, this width may be reduced, if desired.

While one face of the blank may be coated throughout its surface, I prefer to apply the adhesive in the form of stripes which extend lengthwise of the blank, a preferred arrangement being shown in Fig. 2, one stripe indicated at 11, extending adjacent and parallel to the side edge of the blank and at each side of the blank, another stripe, indicated at 12, extending parallel to stripe 11 but on the opposite side of folding line 10, thus placing the two stripes 12 in position for adhesive attachment to faces of the embryo package, while stripes 11 are operative in connection with the folded formation at the sides of the package. Since the stripes extend longitudinally of the blank in parallel relation, it will be understood that they may be applied during travel of the blank in the direction of length of the blank through suitable adhesive applying devices, thereby providing, in simple manner, a blank on which the adhesive is applied in advance of folding of the blank and the application of the blank to the package.

The blank, when applied, has sections 13 and 15 applied to opposite faces of the embryo package, section 14 overlying a package end. As sections 13 and 14 are practically of the same length, it will be understood that each section practically covers its face of the package and is secured to such face by the portions of adhesive stripes 12 which are carried by the section. In practice, the folding operations by means of which sections 13, 14 and 15 are secured in position, take place in advance of folding of the wings of the respective sections, the practice generally being to first tuck in wings 14^a into contact with the sides of the package, this tucking-in action producing individual flap-formations for sections 13 and 15. Wings or flaps 13^a are then turned downward into overlying relation to the sides of the package, after which section 16 is folded up into overlying relation to the opposite end of the package, and section 17 folded over on to the top of section 13 previously applied. Wings 16^a are then turned in in a manner similar to the turning in of wings 14^a—producing flap-formations for sections 15 and 17—after which wings or flaps 15^a are folded into overlying relation to wings 16^a and 13^a, completing the package with the exception of wings or flaps 17^a which are then folded down into overlying relations to wings 16^a and 15^a.

This folding, and the arrangement of the adhesive stripes provides a structure which is more or less air and moisture proof, and at the same time produces a package which is of the tight-wrap character in that the wrapper is adhesively applied to the embryo package, although the adhesive may not be applied throughout the package face. To indicate the various points at which adhesive connection is had, it may be noted that wings 14^a are adhesively secured to the package, wings or flaps 13^a to the package and wings 14^a, wings 16^a to wings or flaps 13^a (and possibly to the package, dependent

upon the relative width of wings 13ª and the embryo package), wings or flaps 15ª to wings or flaps 13ª, and wings or flaps 17ª to wings or flaps 15ª, it being understood that sections 13 and 15 are secured to the faces and sections 14 and 16 to the ends of the package (excepting where the latter are counter-sunk), and section 17 to section 13. In addition, the particular arrangement is such that wings 17ª are also adhesively secured to the triangular portions 17ᵇ which form part of the flap-forming structure produced by the in-folding of wings 16ª.

As will be seen, this arrangement provides a wrapper formation in which the wrapper has a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section of the package, the wrapper extending in overlying relation to each of these walls, the excess wrapper portion overlying and being adhesively connected to an applied wrapper portion, the adhesive application being at spaced apart points so as to provide for an unsecured portion of the wrapper at an intermediate point in the width of the package.

It will also be seen that the wing portions of the wrapper are so folded as to produce flaps which are folded upon each other at the sides of the package, the flaps of section 13 being in contact with and secured to the embryo package while the flaps of section 15 are in overlying relation to the flaps of section 13, the adhesive stripe of flaps 15ª securing these flaps to flaps 13ª; consequently the wings or flaps of the body portion for the opposite faces of the package are practically in-folded upon each other and not only secured to each other but have a securing relation to the embryo package through the adhesive stripe of flaps 13ª, the result being that the flap formations at the sides are of such character as to insure the retaining of these flaps in their folded positions. In addition, the flaps of section 17 are folded into overlying relation to the flaps from the opposite face of the package—flaps 15ª—so that at one end of the package—the end which is designed to be opened—the arrangement not only provides that flaps 15ª be adhesively secured to two flaps from the opposite face—flaps 13ª and 17ª—but also that flaps 13ª are adhesively secured to the embryo package, thus providing effective assurance that the flap formations will be maintained in proper position with respect to the embryo package and to each other. It will also be seen that the manner in which the folding is arranged provides a flap-forming structure at the opposite ends of each side of the package, flaps 15ª forming part of both flap-forming formations, while flaps 13ª and 17ª enter into the flap-forming formation only at one end—flap 13ª at one end and flap 17ª at the other end—the flap portion of the excess length portion being adhesively applied to the exterior of flap 15ª.

As will be seen, the portion of the free edge of section 17 which overlies section 13, is free from connection with section 13 excepting that provided by stripes 12 of section 17, this free edge being held in contact with the face of the package by reason of the securing of wings or flaps 17ª in position. This free edge portion, however, will permit of the introduction of the fingernail or some implement by means of which the unsecured portion of section 17 can be torn and as this unattached portion also extends across the adjacent end of the package, this tearing can be carried entirely across the end of the package, thus exposing such package end ready for opening of the inner wrapper end to expose the contents of the package. Since these embryo packages are generally made with counter-sunk ends, it will be understood that after tearing across the end, the entire portion of section 16 which overlies the end of the package can be readily torn, the walls of the counter-sink acting as guides during the tearing operation.

If desired, and this is preferred, sections 16 and 17 may be perforated as shown at 18, to facilitate this tearing action and to more or less control the tearing line, and if desired, the portion between the perforated lines 18 may have an extension 19 which, being unsecured to the face of the package, provides a tab readily grasped by the purchaser to provide the opening action. This latter form is shown in Fig. 1, while Fig. 5 omits this particular feature. The blank employed in connection with the arrangement of Fig. 5 is a true rectangular blank, one which can be readily provided from a suitable roll of paper of the desired width by a simple cutting action transverse of the length of the blank. The blank employed in connection with the arrangement of Fig. 1 has extension 19, but this form can also be produced from a roll, by suitable die action, the free end of section 13 then carrying a notch corresponding to the configuration of extension 19; as this notch is covered by section 17 during folding of the package, it does not materially affect the packaging operation.

While I have referred to wings 17ª as preferably overlying wings 15ª—as in Fig. 1—the invention contemplates the possibility of folding wings 17ª in advance of wings 15ª, an action which would place wings 15ª as the outer ply of the side structure; this form is shown—for illustrative purposes only—in Fig. 5. However, I prefer to employ the formation shown in Fig. 1, since this provides a ply formation in which wings 15ª not only overlap wings 13ª, but are in turn overlapped by wings 17ª, thereby tend-

ing to decrease liability of opening of the structure under rough usage.

The cycle of operation pointed out is, of course, an illustrative one, and the specific cycle actually employed in producing the package by machinery may be varied, the cycle indicated above being one which is simple and which can be duplicated by machine operating more or less in a stage or step-by-step sequence.

While the invention is applicable for use in the production of packages in which tin foil is omitted, it will be readily understood, of course, that the application of the wrapper can be provided equally as well as where the embryo package includes a tin foil element, and the invention is therefore not limited in this respect.

It will also be understood that while the invention is designed more particularly in producing a package in which the commodity of the embryo package is a tobacco product, the invention is equally applicable for use in connection with embryo packages carrying other contents, and it is to be understood that the particular use referred to—the packaging of tobacco products—is more or less illustrative, indicating the ability to meet conditions differing from the general wrapping operations.

While I have herein shown and described several ways in which the invention may be practised, it will be readily understood that changes and modifications therein may be found desirable or necessary to meet the exigencies of use, and I desire to be understood as reserving the right to make any and all such changes or modifications as may be found desirable or essential, in so far as the same may fall within the spirit and scope of the invention as expressed in the accompanying claims when broadly construed.

What I claim is:

1. A tobacco products package comprising an embryo package, and a wrapper adhesively connected to faces thereof, said wrapper having a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section of the package and extending in overlying relation to each of such walls, the excess wrapper portion overlying and being adhesively connected to an applied wrapper portion, said wrapper having continuous marginal edges extending in parallelism with such line of section and foldable into independent wing formations adhesively connected and applied to remaining walls of the embryo package.

2. A tobacco products package comprising an embryo package, and a wrapper adhesively connected to faces thereof, said wrapper having a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section of the package and extending in overlying relation to each of such walls, the excess wrapper portion overlying and being adhesively connected to spaced portions of an applied wrapper portion to present an intermediate unconnected but overlying portion free to be torn to expose an end of the embryo package.

3. A tobacco products package comprising an embryo package, and a wrapper adhesively connected to faces thereof, said wrapper having a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section of the package and extending in overlying relation to each of such walls, the excess wrapper portion overlying and being adhesively connected to spaced portions of an applied wrapper portion to present an intermediate unconnected but overlying portion, said intermediate portion having a weakened line formation adapted to produce a tearing tab operative to expose an end of the embryo package when the tab is torn.

4. A tobacco products package comprising an embryo package, and a wrapper adhesively connected to faces thereof, said wrapper having a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section of the package and extending in overlying relation to each of such walls, the excess wrapper portion overlying and being adhesively connected to spaced portions of an applied wrapper portion to present an intermediate unconnected but overlying portion, said intermediate portion having a tab formation operative to permit tearing of unsecured overlying wrapper portions to expose an end of the embryo package.

5. A tobacco products package comprising an embryo package, and a wrapper adhesively connected to faces thereof, said wrapper having a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section of the package and extending in overlying relation to each of such walls, the excess wrapper portion overlying and being adhesively connected to spaced portions of an applied wrapper portion to present an intermediate unconnected but overlying portion, said intermediate portion having a weakened line formation adapted to produce a tearing tab operative to expose an end of the embryo package when the tab is torn, said tab having an unsecured extension adapted to form a grasping portion to facilitate the tearing operation.

6. A tobacco products package comprising an embryo package, and a wrapper adhesively connected to faces thereof, said wrapper having a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section

of the package and extending in overlying relation to each of such walls, and also having a width greater than the width of the embryo package to provide wing formations in overlying relation to the opposite side walls of the package, the excess wrapper portion overlying and being adhesively connected to applied wrapper portions, the wrapper carrying spaced-apart zones of adhesive extending in the general direction of such length.

7. A tobacco products package comprising an embryo package, and a wrapper adhesively connected to faces thereof, said wrapper having a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section of the package and extending in overlying relation to each of such walls, and also having a width greater than the width of the embryo package to provide wing formations in overlying relation to the opposite side walls of the package, the excess of the body portion of the wrapper overlying and being adhesively connected to an applied body portion of the wrapper, said excess also being of a width greater than the package width to form wings adhesively applied to and extending in overlying relation to the wing-formed side-wall wrappings of the embryo package.

8. A tobacco products package comprising an embryo package, and a wrapper adhesively connected to faces thereof, said wrapper being in the form of a blank having a body portion and wing-forming portions, said blank having a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section of the package and having its body portion forming a complete inclosure of the embryo package on said line of section with the excess of length in overlying relation to an applied portion of the blank body portion, the wing-forming portion of the blank being foldable to provide a flap-formation at each end of the opposite sides of the package with the flap portion of the excess length adhesively applied to the exterior of the flap portion of the wrapper body covering the opposite face of the package.

9. A tobacco products package comprising an embryo package, and a wrapper adhesively connected to faces thereof, said wrapper being in the form of a blank having a body portion and wing-forming portions, said blank having a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section of the package and having its body portion forming a complete inclosure of the embryo package on said line of section with the excess of length in overlying relation to an applied portion of the blank body portion, the wings of the body portion applied to opposite faces of the embryo package extending in overlying relation at the sides of the package, the wings of the excess length portion overlying and being adhesively secured to the wings of the opposite face portion.

10. A tobacco products package comprising an embryo package, and a wrapper adhesively connected to faces thereof, said wrapper being in the form of a blank having a body portion and wing-forming portions, said blank having a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section of the package and having its body portion forming a complete inclosure of the embryo package on said line of section with the excess of length in overlying relation to an applied portion of the blank body portion, the wings of the body portion applied to opposite faces of the embryo package extending in overlying relation at the sides of the package, the wings of the excess length portion overlying and being adhesively secured to the wings of the opposite face portion and coöperating with the wings of such portion in the formation of flap-forming folds.

11. A tobacco products package comprising an embryo package, and a wrapper adhesively connected to faces thereof, said wrapper being in the form of a blank having a body portion and wing-forming portions, said blank having a length greater than the total peripheral length of the walls of the embryo package on a longitudinal section of the package and having its body portion forming a complete inclosure of the embryo package on said line of section with the excess of length in overlying relation to an applied portion of the blank body portion, the wings of the body portion applied to opposite faces of the embryo package extending in overlying relation at the sides of the package, the wings of the excess length portion coöperating with the wings of the opposite face portion to provide a flap formation overlying the wings of the body portion to which the excess length is applied.

12. A wrapper blank for adhesive connection to an embryo package to complete a wrapped package, said blank being of substantially uniform width and having a plurality of stripes of adhesive extending in spaced relation and in the direction of length of the blank, said blank having a length greater than the total peripheral length of the walls of the embryo package to be wrapped on a longitudinal section of such package, and having a width greater than the width of such package, the excess width of the blank being adapted to be folded to provide wing or flap formations extending on opposite sides of the package and in un-

derlying relation to the wing or flap formation of the excess length portion.

13. A wrapper blank for adhesive connection to an embryo package to complete a wrapped package, said blank being of substantially uniform width and having a plurality of stripes of adhesive extending in spaced relation and in the direction of length of the blank, said blank having a length greater than the total peripheral length of the walls of the embryo package to be wrapped on a longitudinal section of such package, and having a width greater than the width of such package, the excess width of the blank being adapted to be folded to provide wing or flap formations extending on opposite sides of the package, the relative location of the several stripes of adhesive being such as to locate a stripe on a wing-forming portion of the blank and an adjacent stripe on the body portion of the blank.

In testimony whereof I have hereunto set my hand.

THOMAS J. MALONEY.