July 17, 1951 H. G. ALLEN 2,560,535

TOBACCO POUCH

Filed March 5, 1946

Fig. 1.

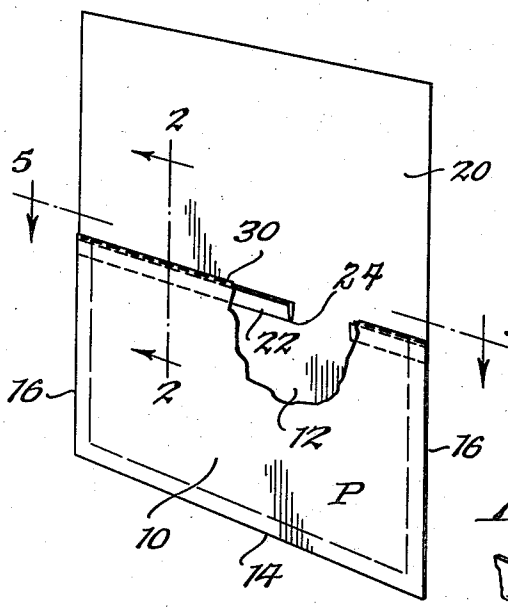


Fig. 2.

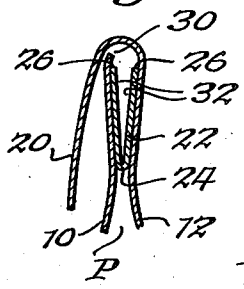


Fig. 3.

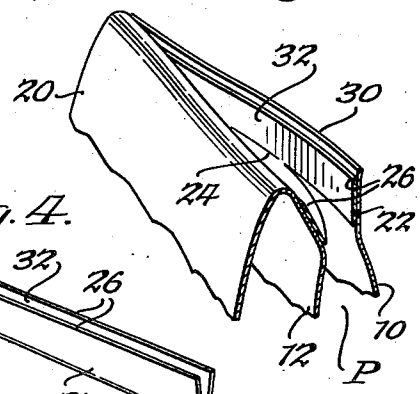


Fig. 4.

Fig. 5.

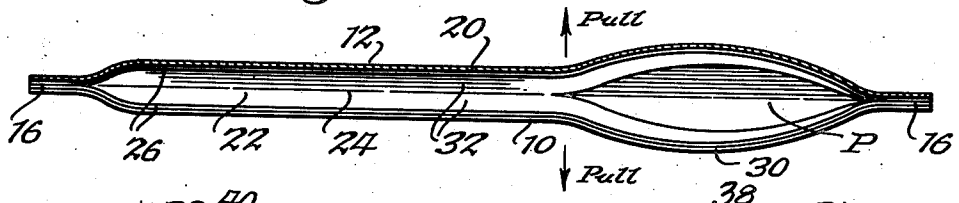


Fig. 6.

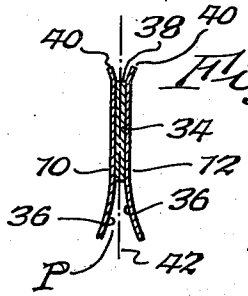


Fig. 7.

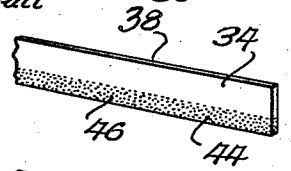


Fig. 8.

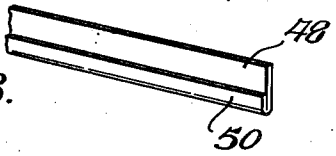
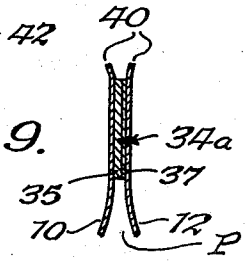


Fig. 9.



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TOBACCO POUCH

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Application March 5, 1946, Serial No. 652,070

2 Claims. (Cl. 229—76)

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This invention relates to improvements in flexible pouches, bags and similar containers, and particularly to pouches of the kind in which smoking tobacco may be packaged for sale, and after opening, used as a convenient pocket pouch for the tobacco.

Among the more commonly known sheet materials or films used for making the kind of pouches or containers named may be mentioned cellophane, rubber hydrochloride, and coated or uncoated paper as well as laminations of the foregoing materials. Some of such materials are inherentlerently capable of being sealed by the application of heat or heat and pressure, while others have applied thereto a surface layer of a suitable thermoplastic to meet the heat sealing requirements.

After the tobacco or other contents have been introduced into the pouch it has been found desirable to then adhesively secure or heat seal the marginal portions of the mouth of the pouch so that the contents can be confined and kept in good condition and the desired moisture content and aroma of the tobacco retained while the package is in storage, prior to sale and use. This sealed mouth must be opened in some manner for access to the contents.

It has heretofore been proposed to seal pouch mouths in different ways so that the sealed pouches may be opened by pulling on the mouth edges to cause the parts to separate by forcing open or causing the sealed surfaces to part. Even when the pouch material is strong and tough, such procedure is liable to cause tearing of the pouch adjacent the mouth due, it is believed, to the seal often being as strong, or nearly as strong as the material.

An object of the present invention is to provide a sealed or closed mouth pouch or container of the type referred to which may be easily and neatly opened without tearing or mutilating the pouch walls, even by the more careless and hasty user.

Another object contemplates a sealed or closed mouth pouch or container of novel construction enabling the pouch to be initially opened in a manner to leave at the edges or portions adjacent the pouch mouth a reinforcement to strengthen those portions against mutilation or undue wear during use of the pouch.

A further object is to construct a pouch or container, the walls of which are of relatively strong and tough sheet or film material and between which, at the mouth portion thereof, there is secured material of lesser tensile strength

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and toughness which may be sealed to and between said walls, so that, when the pouch is initially opened, the interposed material, rather than the pouch walls, will yield or tear open in a manner resulting in a neat and clean mouth portion.

Other objects of this invention are to provide a novel sealed mouth, flexible pouch or container which is of relatively simple construction; which can be easily and inexpensively manufactured; which will be of rugged and durable form, so that after being initially opened, the pouch can be opened and closed repeatedly until the contents are used up, without undesirable wear; and which will be effective in affording preservation of desired condition of the tobacco or other contents during storage prior to sale and opening of the pouch and also while the contents are in use.

With these and other objects not specifically mentioned in view, the invention consists in certain combinations and constructions which will be hereinafter fully described, and then set forth in the claims hereunto appended.

In the accompanying drawings, which form a part of this specification:

Fig. 1 is a perspective view of a portion of a sealed mouth tobacco pouch or the like flexible container constructed in accordance with an embodiment of this invention, showing the flap thereof in open position.

Fig. 2 is a transverse section of the pouch illustrated in Fig. 1 on an enlarged scale, taken on line 2—2 of that figure, but showing a portion of the pouch flap in pouch closing position.

Fig. 3 is a fragmentary perspective view thereof showing the pouch mouth partly opened.

Fig. 4 is a perspective view of one form of insert used at the mouth portion of the pouches of this invention.

Fig. 5 is an enlarged plan view, partly in section approximately on line 5—5 of Fig. 1 illustrating the pouch of Fig. 1 in partly initially opened condition.

Fig. 6 is a vertical section of a pouch of modified construction.

Fig. 7 is a fragmentary perspective of a portion of the insert shown in Fig. 6.

Fig. 8 is a similar view of a portion of another form of insert.

Fig. 9 is a section of an insert strip of laminated formation.

The pouch or container, as before stated, may be formed of one or more sheets or layers of a selected kind or type, or more than one type, of

tough, flexible sheet materials. The pouch can be made in different ways to produce its final form, within the scope of the present invention.

One such container or pouch structure is illustrated in the drawings and includes a front wall 20 and a rear wall 12 of the selected sheet material forming the pouch or pocket P for the tobacco or other commodity. To form this pocket P the sheet material may be made from a blank of suitable shape, folded at 14, Fig. 1, to provide the closed bottom, and the side marginal or edge portions are secured together to form the opposite side seams or portions 16. The precise manner of accomplishing the foregoing may follow any well known procedure, as by engaging the adjacent marginal or side portions face to face and then causing these portions to adhere by application of heat and pressure in those cases where the adjacent faces of the sheets are provided with, or formed of a suitable plastic or heat-sealable coating. Alternatively the marginal parts forming the seams 16 may be secured by adhesive applied at the time of making the pouch, the adhesive being allowed to set under pressure.

If desired, the front and back walls 10 and 12 may be formed of separate films or sheets, of like or different materials, and the bottoms of the pouch closed by a seam similar to the side seams or folds 10 and 12.

In the pouch illustrated, the back sheet or wall 12 is extended upwardly beyond the top edge of the front wall to thereby provide a flap or wrapper element 20. This flap, as usually made, is of a length to be wrapped completely about the pouch or pocket portion P of the container, so that after seal at the mouth has been opened its margins can be held in contact to confine the contents. Such an arrangement also aids in the retension of moisture and aroma in the tobacco during use of the pouch.

The novel, easy-opening sealing means of this invention is not, however, limited in its application to pouches having such enfolding flaps, since it can as well be employed to seal pouches or containers in which no flap is provided and in which the pouch mouth is formed with similar, alined or flush opposite margins.

In the form of my invention illustrated in Figs. 1–5, the novel, easily openable pouch mouth sealing means there provided is in the form of a relatively narrow strip 22 of selected sheet material folded into V section. This strip is of a length enabling it to be positioned as an insert between the front marginal mouth portions of the front wall 10 and the opposed face of the rear wall 12 so as to extend from one side margin 16 to the other. The lower or folded edge 24 of the strip 22 is arranged to face inwardly parallel to the free upper edges 26. The opposite ends of the strip may either abut the inner edge portions of the side folds or margins 16, or the strip may be long enough so that those ends may extend within these folds or margins and terminate at the extreme edges thereof, as deemed most desirable.

As previously explained, the pouch walls are preferably made of a selected tough sheet material. The strip 22 however is made of some kind of sheet material which is of lesser tensile strength or toughness than the side walls, or is otherwise made more readily tearable, for the reasons described.

The strip 22 may be secured to the pouch in various ways. In those cases where the inner faces of walls 10 and 12 having a coating or layer of heat sealing plastic or other substance thereon, or in which such walls have such characteristic inherently, the strip or insert 22 can be secured by application of heat and pressure, causing its outer faces to be completely sealed to the sheets 10 and 12, over the entire area of the strip faces.

As an alternate arrangement the outer faces of the folded strip 22 may have a heat sealable coating by which it can be sealed to the pouch. That form of a strip would be desirable where the pouch walls have no heat sealable surface.

Other specific ways of securing the strip in the desired manner, should be apparent.

In practice it may be desirable that the upper edges 26 of the strip 22 should be disposed a short distance below the plane of the top edge of the wall 10 so that a free edge or grip 30 may be provided at the mouth, which, together with the free flap 20, will afford gripping portions to be grasped in starting the opening of the pouch mouth. Where the flap 20 is omitted, the back wall 12 will also have a free edge or grip similar to the edge 30 (see Fig. 6).

It will be apparent from the foregoing that, while the outer faces of the strip 22 are securely fastened to the inner faces of the pouch mouth, the opposed inner faces 32 of the strip are entirely separated, except for the connection formed by the fold 24 at the bottom of the strip.

It will be seen that the sealing strip 22 described is confined entirely within the pouch mouth and desirably below the extremity thereof. By this arrangement the sealing strip has no parts projecting out of or beyond the mouth where it would be liable to bending and damage, especially where a fold-over flap, such as 20, is used.

When it is desired to initially open the pouch mouth the marginal portions, i. e., the edge 30 and flap 20, or the two edges 30, as the case may be, are grasped and pulled outwardly in opposite directions. This operation will cause the strip 22 to easily and quickly be separated along the fold 24, see Figs. 3 and 5, since the strip is made of less strong and tough material compared with the material of the pouch body.

After the pouch mouth has been opened the separated leg portions of the V-shaped strip 22 remain attached throughout their area to the walls 10 and 12. They thus provide desirable reinforcements which reduce the possibility of tearing while the pouch is in use. These reinforcements, lying flat against the pouch walls offer no appreciable obstruction to the free discharge of or access to the contents of the pouch.

A somewhat different form of pouch mouth sealing element, embodying the invention, is shown in Figs. 6 and 7. Here, instead of using the double or folded strip 22 of Figs. 1–5, I employ a single, flat strip 34 of material which is inserted within the opposed marginal wall portions 36 of the pouch mouth in a manner similar to the introduction of strip 22. This strip 34 has its opposite flat faces sealed or adhesively secured to the walls of the pouch preferably with its upper edge 38 disposed somewhat below the edges 40 of the pouch mouth, to provide gripping portions, as before.

The strip 34 is made of material selected for a reduced tensile strength and toughness as compared with the material of the walls 36 of the pouch.

Upon grasping and pulling the edges 40 of the

pouch outwardly, the action will be such that the strip will divide or split downwardly between its attached outer faces, more or less uniformly as suggested by the dot and dash line **42**, Fig. 6, depending upon the texture and manner in which the material has been made. Thus, as in the first construction described, a portion of the strip **34** remains on each inner face of the mouth to act as a reinforcement.

To assist in more positively providing reinforcements of uniform thickness when a single strip, as in Figs. 6 and 7 is employed, the strip, if desired, can be made of suitable laminated sheet material, the layers of which are secured together by a sealable or adhesive material which would make a bond of somewhat less tenacity than the bonds between the strip and the pouch walls. Thus the strip would divide or split in a uniform plane.

Also, where such a strip is used in pouches having a flap **20**, the laminations in the strip may be arranged to provide a thicker reinforcement at the margin of the wall **10** than that on the wall **12**, since with the provision of the flap, the wall **12** might not require a reinforcement of the strength or thickness of that needed at the opposite mouth margin.

Such a strip **34***a* having laminations **35** and **37**, is indicated in Fig. 9.

In cases where the raw inner edge **44** of the strip **34** may be subjected to action of moisture in the contents of the pouch resulting possibly in a weakening and premature separation of the strip, the lower marginal portion of the strip may be treated with a suitable waterproof and substantially air tight substance, as indicated at **46** in Fig. 7. In this way protection against such deleterious action may be provided.

As an alternative way of affording protection against the undesirable condition just described, I may provide a strip **48**, see Fig. 8, in which one or both faces of the sheet material from which strip **48** is made may be coated or formed so as to be substantially moisture proof and air tight. Thus by forming a fold **50** at the lower edge of the strip, such fold, when the strip is sealed in the pouch mouth, will afford protection against undesirable action of moisture of the contents on the strip and provide an air tight closure.

When a pouch having the strip **48** embodied therein is to be unsealed, the strip will split apart, much as in the case of the strip **34**, previously described.

While I have described and shown the grip portions **30** in connection with the form of the invention shown in Figs. 1–5, the pouch there illustrated could, if desired, be made and found practical without the grips **30**. Since the insert **22** is of V-shape, the pouch could be opened by grasping the pouch mouth walls and the readily flexed legs of the insert.

It is thought to be essential however to provide grip portions, such as the parts **40**, Fig. 6, in those forms of the invention embracing a single flat strip, as in Figs. 6–9, since, if such single strips were sealed flash with the top edges of the pouch mouth it would be difficult to start the opening of the pouch.

While I have described in detail certain embodiments of the invention, as illustrative thereof, the terms and expressions which I have employed are used as terms of description and illustration, and are not intended to exclude any equivalents of the features shown and described, but recognize that various modifications are possible within the scope of the invention claimed.

I claim as my invention:

1. A pouch or container made of flexible sheet material having opposed marginally secured side walls, said pouch being open at one end to provide a mouth for said pouch, one of said walls projecting materially beyond the other wall at said mouth to form a flap foldable over said mouth, an insert of flexible sheet material of V-shape having opposed legs connected by a crease, said insert having the outer faces of the legs thereof secured throughout to the opposed inner faces of said pouch with their marginal edges within and adjacent the extremities of said pouch mouth and the crease between said legs positioned in and remote from said mouth to close the same, said pouch being opened by disrupting said crease with said insert legs remaining attached to and within said pouch, whereby said pouch has a smooth margined mouth over which said flap may be folded both before and after said pouch has been opened.

2. A pouch or container made of relatively strong flexible sheet material having opposed marginally secured side walls, said pouch being open at one end to provide a mouth for said pouch, one of said walls projecting materially beyond the other wall at said mouth to form a flap foldable over said mouth, an insert of relatively weaker flexible sheet material of V-shape having opposed legs connected by a crease, said insert having the outer faces of the legs thereof secured throughout to the opposed inner faces of said pouch with their marginal edges within and adjacent the extremities of said pouch mouth and the crease between said legs positioned in and remote from said mouth to close the same, said pouch being readily opened by disrupting said crease of said relatively weaker insert, leaving said legs thereof attached to the relatively stronger mouth portions of said pouch mouth, whereby said pouch has a smooth margined, reinforced mouth over which said flap may be folded both before and after said pouch has been opened.

HOWARD G. ALLEN.

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