March 4, 1958 D. A. HITT 2,825,497

SEALABLE SANITARY BAGS

Filed March 29, 1956 2 Sheets-Sheet 1

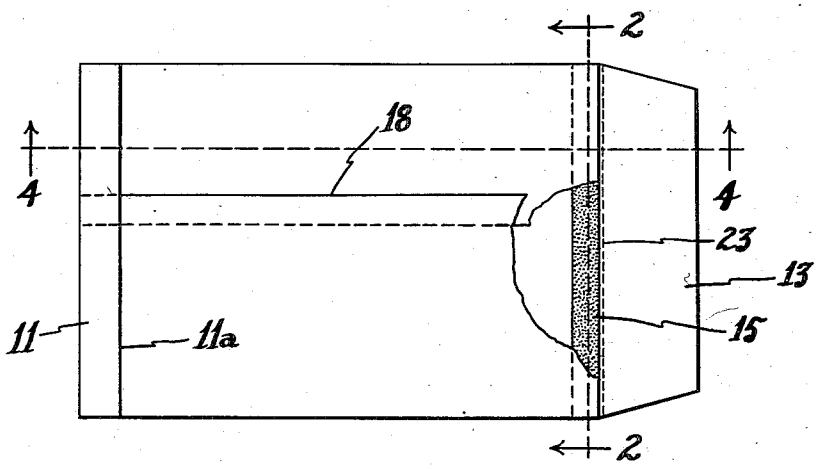


Fig 1

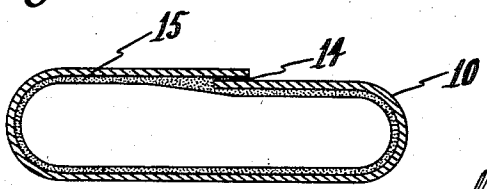


Fig 2

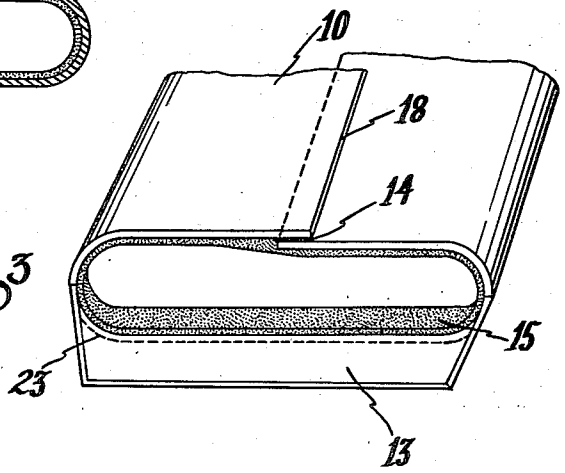


Fig 3

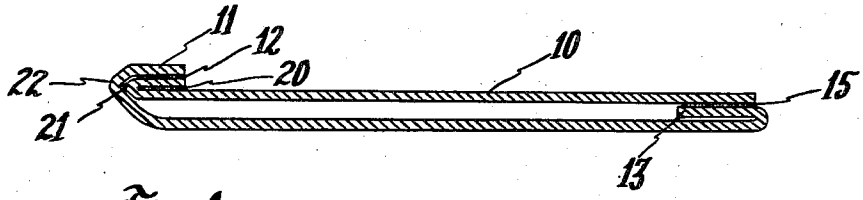


Fig 4

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SEALABLE SANITARY BAGS

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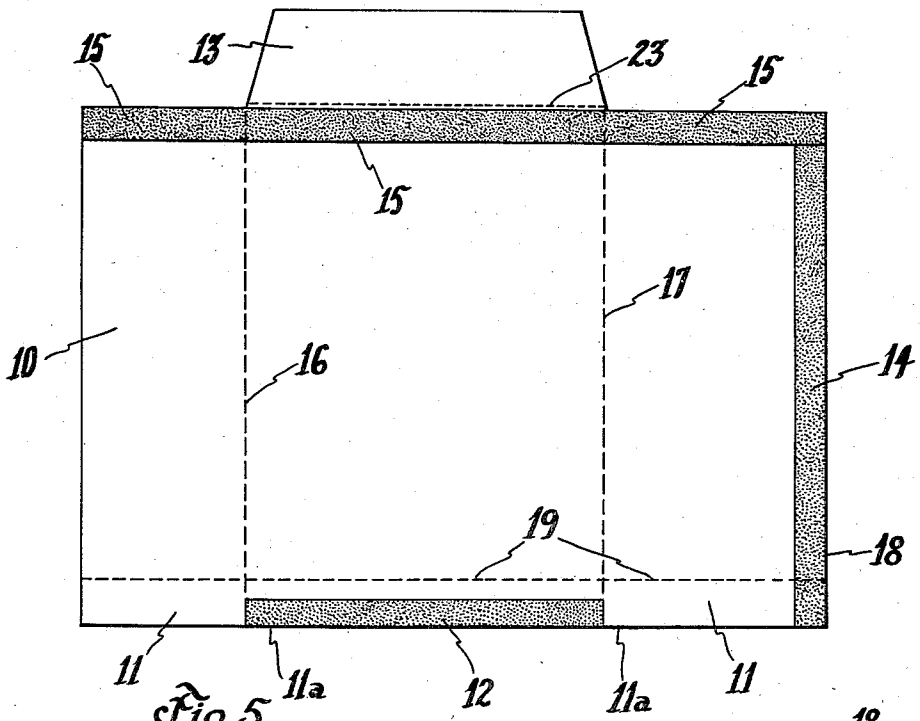


Fig 5

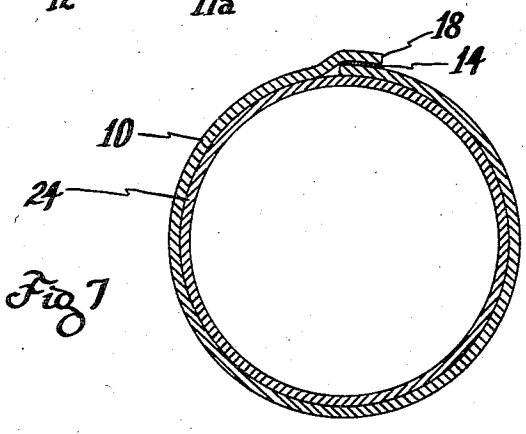


Fig 7

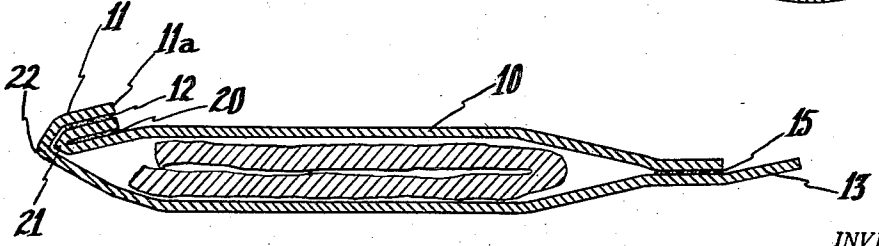


Fig 6

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SEALABLE SANITARY BAGS

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3 Claims. (Cl. 229—62)

This invention is directed to a novel disposable sanitary and sealable bag or envelope which is adapted to be used for sealing and disposing of disposable articles such as sanitary napkins or other articles. It is especially directed to the type of economically manufacturable completely sealable bags or envelopes which have quickly and easily sealable means, preferably including bands or strips of pressure-sensitive cement or adhesive adjacent the normally open ends thereof.

It is an important object of my invention to provide a quickly sealable, inexpensive and disposable bag or envelope of compact size and light weight and formed substantially from a single sheet of paper or equivalent sheet material, and which have normally projecting integral flap means adapted to be normally removably positioned in the open end of the bag and adapted to be removed to permit quick and easy sealing of the opening by manual pressure.

A further object and accomplishment of my invention is the provision of the novel bag or envelope formed from the single sheet of material which is normally open at one end thereof and which is provided with an integral projecting flap extending substantially the full width of the bag or envelope, and with a continuous band or strip of pressure-sensitive adhesive on the inside face of the bag or envelope adjacent the opening thereof, said adhesive area being adapted to permit complete sealing by manual pressure of the opening after removal of the flap from said opening.

A further object of my invention is the provision of a novel method of manufacturing bags or envelopes having the aforesaid features including areas of pressure-sensitive adhesive, and in which the open ends thereof may be effectively sealed by the application of pressure upon the adhesive-carrying end portions of such bag or envelope.

Other and further important objects of my invention will be apparent from the following description and appended claims.

On the drawings:

Fig. 1 is an elevational view of my sealable bag or envelope illustrating certain parts broken away.

Fig. 2 is a cross-sectional view on line 2—2 on Fig. 1.

Fig. 3 is a perspective view looking at the open end of the bag or envelope, and with the bottom portion thereof broken away.

Fig. 4 is a cross-sectional view of the bag when sealed and taken on a longitudinal plane substantially on the line 4—4 of Fig. 1.

Fig. 5 is an elevation of the single blank or sheet from which said bag or envelope is formable and illustrating the adhesive areas.

Fig. 6 is a cross-sectional view taken substantially along a longitudinal plane through one of said sealable bags or envelopes and showing the same in sealed position and containing an article therein.

Fig. 7 is a cross-sectional view of an outer relatively rigid cylinder or tube and showing one of my paper bags

mounted therein and illustrating one method of holding the bags when applying a strip or band of pressure-sensitive material to the marginal edge portion of the inside face thereof.

Numeral 10 designates a relatively thin sheet or blank which is preferably of paper of a substantially mosture and air impervious type, and which is preferably opaque. Such paper blank may optionally be scented where the bags are adapted for articles having undesirable odor. Said blank 10 is shown in elevation in Fig. 5 preliminary to its formation into a bag or envelope.

Said blank 10 is preferably of substantially rectangular form, substantially as illustrated. A layer of suitable adhesive or cement 12 is applied to the normally lower edge portion which provides a foldable flap 11 which is adapted to secure said flap.

A transverse crease 19 is preferably formed a short distance from and parallel to the normally lower margin or edge 11*a* of said blank. Said crease facilitates folding over and sealing of the bottom end portion of the bag, hereinafter referred to as flap 11.

Said blank 10 has a normally upper integral tab or flap 13 of a width to extend from one lateral edge to the other lateral edge of the bag or envelope to be formed. Said flap 13 has both of its faces substantially smooth. A line of perforations 23 is preferably formed between said flap 13 and the body of the blank.

Numeral 14 is a layer or strip of suitable adhesive or cement which is applied along one of the lateral edge portions of integral wing 18 of said blank, as shown at the right of Fig. 5. A continuous strip, layer or band 15 of a pressure sensitive adhesive is applied to and carried by the normally upper edge portion of said blank 10, as shown in Fig. 5. Said band 15 extends from one lateral edge to the other and said pressure-sensitive adhesive is of a type normally having a tacky exposed face which is not sensitive to materials other than similar adhesive.

Numerals 16 and 17 indicate optional spaced apart longitudinal creases which extend from the upper to the lower edge of the blank, as illustrated in Fig. 5. Said creases facilitate folding of the blank in the formation of the bag.

The two wing portions of the blank 10 are bent and folded back upon and over the central area of the blank 10, and with the adhesive strip 14 overlying and in sealing contact with the opposite and outside face of the other wing portion, said adhesive being preferably applied while sticky and tacky, to thereby form a tunnel or tube with its opposite ends open. The strip or band of glue 12 is preferably applied in a sticky state.

After the wing portions are adhesively secured in the described manner to form a substantially flat or oval shaped structure, a transverse band or strip of suitable adhesive 20 is applied to the normally outer face of the lower edge portion of the bag side (or flap 11), whereupon the double thickness of the bottom portion is folded and doubled back to form folds 21 and 22, and pressed into adhesive securance with said adhesive strip 20 to thereby seal the bottom portion of the bag so that it is air-tight, (see Figs. 4 and 6).

The resulting structure is a single walled envelope or bag with an end opening defined by the continuous band 15 of pressure-sensitive adhesive or cement, as illustrated in Figs. 1, 3 and 8.

The upper flap 13 is bent along a transverse line coinciding with the edge of the open end of the bag and loosely and removably inserted and positioned between the opposed areas of pressure-sensitive adhesive 15 to keep the latter from contacting each other, until the bag is to be used and sealed in the described manner.

Said open ended bag or envelope is available for use,

such as the insertion of articles having odor and which it is desirable to completely seal. After insertion of the article, such as a sanitary napkin or the like, the projecting flap **13** is removed or folded out of the opening. Thereupon the user will press together the opposed faces of the tacky pressure-sensitive adhesive band **15** which are positioned on opposite sides of said opening. This will effectively and completely seal the open end of the envelope or bag without leaving any air or moisture vents along the mouth edge of the bag. The user may optionally tear off the flap **13** along the weakened line formed by perforations **23**.

In Fig. 3, I have illustrated the open end portion of the bag with the flap **13** extending outwardly. In Figs. 4 and 6 the completely sealed envelope is shown in longitudinal cross section.

In Fig. 7, I have illustrated in cross section a rigid cylinder **24** which may optionally be used to temporarily mount the paper blank after the bands of adhesive **14** and **15** have been applied thereto, to facilitate easy and correct application of manual or roller applied pressure to the overlapped lateral marginal edges of the blank, one of which edges carries the soft and sticky strip of adhesive **14**. In this manner, uniformity of the degree of overlapping of the lateral edges is assured and consequent uniform circumference and size of the bag is assured.

While I have referred to use of manual pressure to effect adhesion of parts carrying an adhesive I desire it to be understood that the pressure as well as heat may be applied by mechanical means to effect so-called "heat seals" or heat-assisted bonding of the parts to be connected, and that such "heat-sealing" and such bags sealed thereby are within the scope of my invention and equivalent to the structure and steps described.

As many changes could be made in the above construction, and as many apparently widely different embodiments of my invention within the scope of the claims could be constructed without departing from the spirit and scope thereof, it is intended that all matter contained in the accompanying specification shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. In a sealable envelope formed of a single blank of paper having the opposite lateral edges of said blank overlapped and cemented together; an integral bottom flap doubled back and secured to the body portion of said envelope to provide an airtight seal; a closable upper flap integral with the normally open end of said envelope and extending substantially from one lateral edge to the other thereof; and a continuous band of pressure-sensitive adhesive on the inside face of the envelope adjacent the opening thereof; said upper flap being normally removably inserted in said opening to keep the opposed areas of said pressure-sensitive adhesive apart; said upper flap being removable to permit selective manually actuated adhesion of the adhesive bearing positions of said envelope.

2. In a sealable envelope for odoriferous articles, an elongated body formed from a single blank of sheet material and having the opposite lateral edges of said blank overlapped and cemented together; a bottom flap integral with one side portion of said envelope and doubled back and sealed upon the opposite side thereof and forming an air-tight seal; a continuous area of pressure-sensitive cement on the inside surface of said envelope adjacent the opening of said envelope; and a flexible flap integral with one side wall of said envelope and extending substantially the full width thereof and normally removably positioned between said cement-bearing areas; said flap having a line of perforations between it and the adjacent wall of said envelope, and being selectively removable and tearable along said perforations; and said areas bearing said pressure-sensitive cement being pressable against each other after removal of said flexible flap to form an air-tight seal.

3. A flat paper blank for making an envelope comprising a sheet of substantially rectangular form; a band of pressure-sensitive cement secured along the normally upper edge portion of said blank; an openable flexible projecting flap integral with the intermediate portion of said blank; a bottom flap for hermetically closing the normally lower end portion of said envelope; a layer of cement on one of the lateral edges of said blank to facilitate air-tight securance of the opposite lateral edges thereof in overlapping position; said openable flap adjacent said pressure-sensitive band of cement being adapted to be removably inserted in the opening between opposite portions of said cement-bearing band to keep separated the opposed cemented areas, said openable flap being removable to permit selective adhesion of said cement-bearing areas.

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