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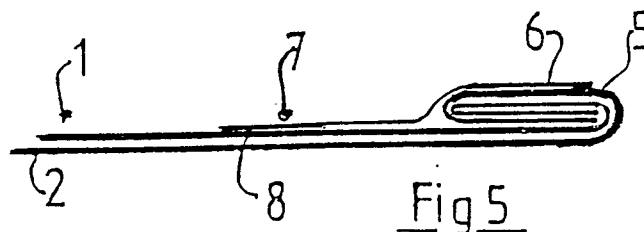
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(57) A flexible container comprises a tubular body 1 one end of which is closed by folding an end portion 4 of the container against the container across the width therefore twice to form a double fold 5. A length of adhesive tape 6 is affixed along said fold and said container to provide a tear strip for opening the container.



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"Flexible Container"

This invention relates to a flexible container.

Flexible containers in the form of paper sacks are widely used for a variety of products in industry and agriculture. Such sacks must be inexpensive to produce, secure for transport and storage and easily openable for release of the contents.

Previously a number of methods of closure have been provided. For example the ends of the sack may be stitched across to close the sack. The sack can be opened subsequently by tearing the stitching material across the end. This may lead to pieces of sack or stitching material contaminating the product as it is released from the sack. When the sack contains flour for example this is unacceptable and may lead to the batch of flour being rejected.

According to the present invention there is provided a flexible container comprising a tubular body one end of which is closed by folding an end portion of the container against the container across the width thereof, and affixing a length of tape along said fold and said container to provide a tear strip for said container.

Preferably said end portion of the container is folded twice against the container to provide a double fold before affixing said tape.

Preferably also said double fold is at least 20 mm wide.

Preferably also said tape is affixed by adhesive.

Most preferably a portion of said tape is not so affixed along its length to form a pull tab for said tape.

This may be achieved by affixing a blank strip to a portion of the tape or by folding the tape back on itself.

Embodiments of the present invention will now be described by way of example with reference to the accompanying drawings, in which:

Fig. 1 is a side view of an end portion of a paper sack before providing an end closure for the sack and with the body of the sack flattened;

Fig. 2 is an end view of part of the sack of Fig. 1 ;

Figs. 3 and 4 show the end portion of the sack of Fig. 1 at successive stages during the closure of its end;

Fig. 5 shows the sack of Fig. 1 in final closed form; and

Fig. 6 shows the sack of Fig. 1 in an alternative final closed form.

Referring to the drawings, a paper sack in accordance with the present invention comprises a body 1 which can be opened to form a tube for receiving material to be contained in the sack. In

Figs 1 to 5 the body 1 is shown folded flat. The body 1 is made of a two ply paper sheet 2 construction which is folded so that opposite ends of the sheet meet and are affixed together to form the closed body 1. A section 3 of the sheet 2 is folded inwardly at the side of the body 1 to provide a section which can open out to provide depth for the body 1 in its opened out condition.

To form a closed end for the sack 1, an end portion 4 of the body is folded back against the body 1 as shown in Fig. 3.

The end portion 4 is folded once more to produce a double fold 5 as shown in Fig. 4.

A release strip 6 is affixed over the fold 5 with adhesive and has a section 7 which is non adhesive by virtue of having a blanking strip 8 attached. This section 7 thus remains unattached to the body 1 and forms a tear strip for the sack.

Thus when a sack containing material is to be opened the tear strip section 7 can be easily grasped and pulled across the width of the sack to release the fold 5 from the body 1. The fold 5 can then be unfolded to open the end of the sack and release the contents.

A secure and easily releasable closure means is thus provided for the sack.

As an alternative to the arrangement shown in Fig. 5 the release strip 6 can be provided with a folded over end section 9 which provides a two ply finger lift for ease of release. In either case the fold 5 is arranged to be at least 20mm wide to ensure that the release strip 6 retains it firmly.

In practice a release strip tape 60 mm wide with 10mm overlap on the fold, 40mm on the body 1 and a 10mm folded section has been found to be effective.

The material used for the release strip is that manufactured by 3M (TM) as buff polypropylene tape No. 3705.

This tape has been found to have an adhesive which withstands pressure adequately and the tape is not heat sensitive so does not soften when hot.

Modifications and improvements may be incorporated without departing from the scope of the invention.

Claims

1. A flexible container comprising a tubular body one end of which is closed by folding an end portion of the container against the container across the width thereof and affixing a length of tape along said fold and said container to provide a tear strip for said container.

2. A flexible container as claimed in Claim 1, wherein said end portion of the container is folded twice against the container to provide a double fold before affixing said tape.

3. A flexible container as claimed in Claim 2, wherein said double fold is at least 20 mm wide. 5

4. A flexible container as claimed in any one of the preceding Claims, wherein said tape is affixed by adhesive.

5. A flexible container as claimed in Claim 4, wherein a portion of said tape is not so affixed along its length to form a pull tab for said tape. 10

6. A flexible container as claimed in Claim 5, wherein the pull tab is formed by affixing a blank strip to a section of the tape. 15

7. A flexible container as claimed in Claim 5, wherein the pull tab is formed by folding a portion of the tape back on itself.

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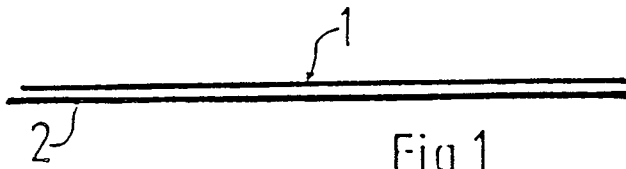


Fig 1

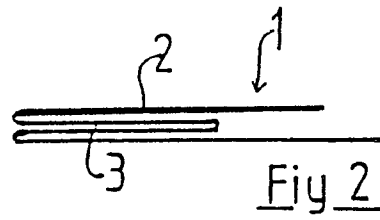


Fig 2

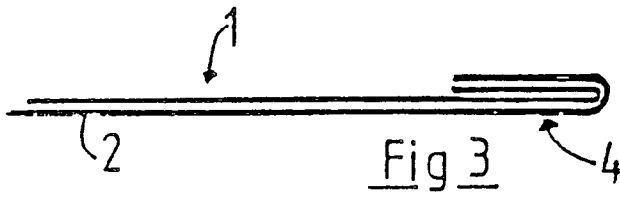


Fig 3

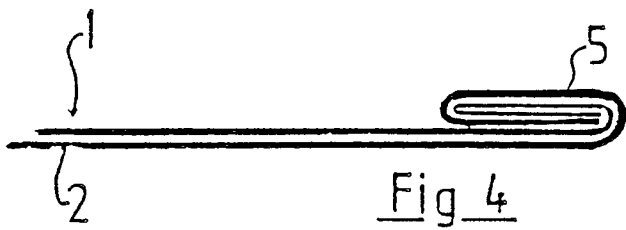


Fig 4

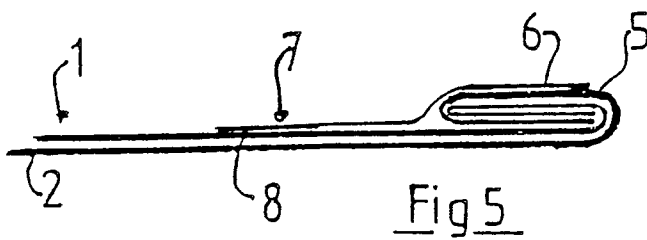


Fig 5

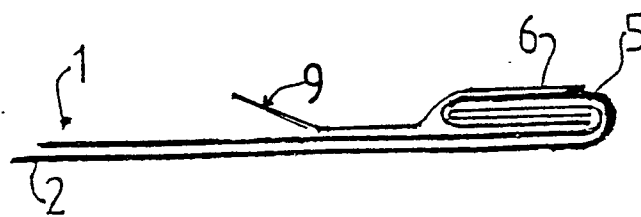


Fig 6