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(71) Applicant: **Sara Lee/DE N.V.**
3532 AA Utrecht (NL)

(72) Inventors:
• **Jongsma, Wiebe Jan**
1521 CT Wormerveer (NL)

• **Tijmensen, Wilhelmus Gerardus**
3544 NC Utrecht (NL)

(74) Representative:
Ottevangers, Sietse Ulbe et al
Vereenigde Octrooibureaux
Nieuwe Parklaan 97
2587 BN 's-Gravenhage (NL)

Remarks:

A request for correction of the pages 1 and 2 of the description has been filed pursuant to Rule 88 EPC. A decision on the request will be taken during the proceedings before the Examining Division (Guidelines for Examination in the EPO, A-V, 3.).

(54) **Double-pocket extraction unit**

(57) The double-pocket extraction unit comprises a pouch, at least one label and at least one string interconnecting the pouch and the label. The first and the second pocket are filled with the product to be extracted and interconnected at their bottom side via at least one transversely extending fold. The at least one string extends from the label to the top side of the pouch. The string further extends to an inner space of the first and second pockets. In the first and second pockets, the string extends via the transverse fold from the first pocket to the second pocket. The string can be partially pulled from the first and second pockets for compressing the pouch after extraction of its contents.

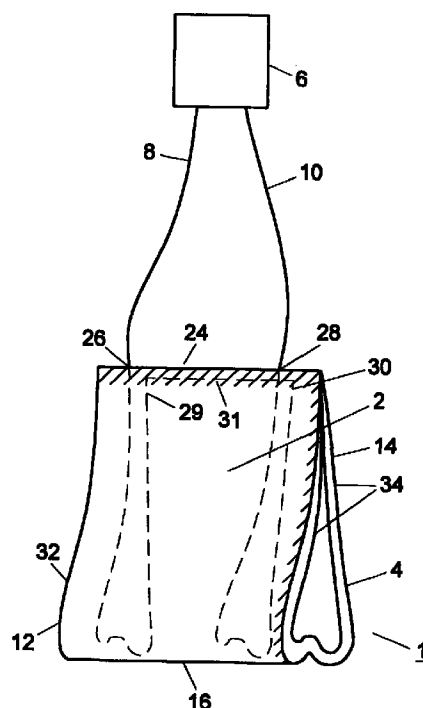


Fig. 1a

Description

[0001] This invention relates to a method for insulating walls and the like having a surface with projecting unevennesses, suitable in particular for insulating cavity walls of buildings, and to an insulating plate for practising the method.

[0002] It is known to thermally insulate cavity walls of buildings, such as dwelling houses, offices, et cetera, by providing insulating material in the cavity. The insulating material can consist, for instance, of rock wool surfaces, or of polystyrene granules or the like. A drawback of this method is that the cavity is filled up entirely, so that the ventilation of the cavity is very strongly impeded. This drawback does not arise if plates of glass wool or rock wool are used, which are secured in the cavity against the inner leaf of the cavity wall by means of special ties and/or by means of the conventional wall ties. A drawback of the use of such insulating plates is that the coherence of the material diminishes in the course of time and that the insulating material has a tendency to sag downwards in the cavity. As a result, the insulating action decreases strongly.

[0003] The risk of sagging would hardly exist, if at all, if rigid foam plates of insulating material, such as, for instance, polystyrene, polyurethane, or the like, were used. Moreover, such foam plates can provide a higher insulating value (R-value). However, a problem forming an obstacle to the application of foam plates for cavity wall insulation is the fact that the outer surface of an inner leaf of the cavity wall, in particular a brickwork cavity wall, is often very uneven due to lumps of cement, excess mortar and the like. Due to such unevennesses, rigid foam plates cannot be arranged flat against the surface to be insulated. As a result, an air gap is formed between the insulating plates and the inner leaf of the cavity wall, and adjacent insulating plates do not properly adjoin each other. Also, as a result, thermal bridges may be formed, which is undesirable.

[0004] Accordingly, there is a need for a method and an insulating plate, respectively, which obviate the above-indicated drawbacks. The object of the invention is to meet the need outlined. To that end, according to the invention, a method of the above-described kind is characterized in that a hybrid insulating plate is arranged against the surface having unevennesses, which hybrid insulating plate comprises a stiff base layer of insulating material and an at least locally compressible layer of insulating material, provided on the base layer, and the insulating plate is pressed and secured, through the locally compressible layer thereof, against the uneven surface, such that the compressible layer at least partly envelops the unevennesses. An insulating plate suitable in particular for insulating walls and the like with a surface having projecting unevennesses is characterized, according to the invention, by a stiff base layer of insulating material, which base layer is provided with a layer of at least locally compressible insulating

material.

[0005] Hereinafter, the invention will be further described with reference to the accompanying drawings of an exemplary embodiment.

Fig. 1 schematically shows in section an example of a part of a cavity wall having therein a rigid insulating plate;

Fig. 2 schematically shows in cross section an example of an insulating plate according to the invention;

Fig. 3 schematically shows in cross section a part of a cavity wall, in which an insulating plate according to the invention is arranged; and

Fig. 4 shows a variant of Fig. 2.

[0006] Fig. 1 schematically shows in cross section a part of a cavity wall 1 having an inner leaf 2, an outer leaf 3, and a cavity 4 located between the cavity leaves. The surfaces of

- the second string extends from the label to the top side of the first pocket, from the top side of the first pocket through the first pocket to the bottom side of the first pocket, via the transversely extending fold in the pouch from the first pocket to the second pocket and from the bottom side of the second pocket through the second pocket to the top side of the second pocket, wherein adjacent the top side of the second pocket, a free end of the second string is connected to the pouch.

[0007] The invention will presently be specified with reference to the accompanying drawings. In these drawings:

Fig. 1a is a partially cutaway front view of a first embodiment of a double-pocket extraction unit according to the invention;

Fig. 1b is a partially cutaway side elevation of the double-pocket extraction unit according to Fig. 1a;

Fig. 1c is a partially cutaway side elevation of the double-pocket extraction unit according to Fig. 1a when compressed according to the mechanism of the invention;

Fig. 2a is a partially cutaway front view of a second embodiment of a double-pocket extraction unit according to the invention;

Fig. 2b is a partially cutaway side elevation of the double-pocket extraction unit according to Fig. 2a;

Fig. 3a is a partially cutaway front view of a third embodiment of a double-pocket extraction unit according to the invention;

Fig. 3b is a partially cutaway side elevation of the double-pocket extraction unit according to Fig. 3a; and

Fig. 4 is an intermediate product from which the double-pocket tea bag according to Figs. 1a-1c can

be produced.

[0008] In Figs. 1a-1c, reference numeral 1 designates a first embodiment of a double-pocket extraction unit according to the invention. In this example, the double-pocket extraction unit is designed as a tea bag filled with a product 2 to be extracted, in this case tea.

[0009] The double-pocket extraction unit 1 comprises a pouch 4, a label 6, a first string 8 and a second string 10. By means of the first string 8 and the second string 10, the label 6 is connected to the pouch 4. The pouch 4 is composed of a first pocket 12 and a second pocket 14. The first and second pockets 12, 14 are manufactured from a liquid-permeable material such as filtering paper. As appears from the drawing, the first and second pockets 12, 14 lie side by side. The two pockets are filled with the product 2 to be extracted. The first and second pockets 12, 14 have their bottom sides interconnected via a transversely extending fold 18 in the pouch 4. In other words, via the fold 18, an inner space 20 of the first pocket 12 communicates with an inner space 22 of the second pocket 14.

[0010] The first and second pockets 12, 14 are each sealed at their top side 24. The first string 8 extends from the label 6 to the top side 24 of the first and second pockets. Further, via a first opening 26 in the pouch, the first string 8 extends to the inner space 20 of the first pocket 12. From the top side of the first pocket 12, the first string 8 extends through the first pocket to the bottom side 16 of the first pocket 12. From the bottom side 16 of the first pocket 12, the first string 8 extends, at the transversely extending fold 18, from the first pocket 12 to the second pocket 14. The first string 8 then extends from the bottom side 16 of the second pocket 14 through the inner space 22 of the second pocket to the top side 24 of the second pocket 14. One end 29 of the first string 8 is connected to the pouch 4 adjacent the top side 24 of the second pocket 14. The second string 10 likewise extends from the label 6 to the top side 24 of the first pocket 12. Via a second opening 28 in the pouch, the second string then extends to the inner space 20 of the first pocket 12. From the top side 24 of the first pocket 12, the second string 10 extends in the inner space 20 of the first pocket to the bottom side 16 of the first pocket 12. Next, the second string 10 extends from the inner space 20 of the first pocket 12 to the inner space 22 of the second pocket 14 via the fold 18. From the bottom side 16 of the second pocket 14, the second string 10 extends through the inner space 22 of the second pocket 14 to the top side 24 of the second pocket 14. One end 30 of the second string 10 is connected to the pouch 4 adjacent the top side 24 of the second pocket 14.

[0011] As is clearly visible in Fig. 1a, each pocket of the pouch comprises first and second opposite longitudinal edges 32, 34, directed at least substantially perpendicularly to the fold 18. The first longitudinal edges of the first and second pockets 12, 14 are located adjacent

each other. Likewise, the second longitudinal edges 34 of the first and second pockets 12, 14 are located adjacent each other. The first opening 26 is provided adjacent the first longitudinal edges 32. Likewise, the second opening 28 is provided adjacent the second longitudinal edges 34. Accordingly, the first string 8 extends in the first and second pockets 12, 14 adjacent the first longitudinal edges 32, and the second string 10 extends in the first and second pockets 12, 14 adjacent the second longitudinal edges 34.

[0012] In use, the double-pocket extraction unit, in this example designed as a tea bag, is introduced into a bowl of hot water, the label 6 hanging over the rim of the bowl. Now, the extraction of the tea can take place. When the extraction process has been completed, the label 6 is gripped for lifting the pouch 4 from the hot water. Next, the label 6 is moved away from the pouch 4. This can be performed by moving the top side 24 away from the label 6. As a result, both the first and the second string 8, 10 are at least partially pulled from the first and second pockets 12, 14. Thus, the pouch 4 will be compressed, causing the residual liquid that is still present in the pouch 4 to be squeezed from the pouch. This residual liquid can be collected in the bowl. The thus compressed pouch 4 is shown in Fig. 1c. Next, the pouch 4 can be discarded without involving the risk of leakage of yet a large amount of liquid from the pouch. Hence, during discarding of the pouch, little or no liquid will be spilled. As the operation of at least partially pulling out the first and second strings 12, 14 requires that the pouch 4 be gripped only at its top side 24, a user will not burn and/or foul his fingers.

[0013] In the drawings, those parts of the pouch that are provided with a heat seal are hatched.

[0014] In this example, the first and second pockets are each closed at a top side by means of a heat seal. Also, the first and second pockets have their top sides interconnected by means of a heat seal. Further, the first and second pockets are closed by means of a heat seal adjacent their first longitudinal edges 32. Adjacent the second longitudinal edges 34, only a fold and no heat seal is present.

[0015] The first and second openings 26, 28 are formed in that, at that location, no connection by means of a heat seal is present. However, it is also possible that the pouch of Fig. 1a is provided with one common opening through which both the first string 8 and the second string 10 are passed. This opening could then for instance be located at the center of the top side 24 of the pouch 4.

[0016] It is also possible that the end 29 of the first string is connected to the end 30 of the second string. In this respect, it may even be the case that the first and second strings form part of one and the same string and, accordingly, constitute one undivided string, in that said ends are interconnected. In that case, a part 31 of the undivided string extends through the heat seal at the top side.

[0017] Figs. 2a and 2b show an alternative embodiment of a double-pocket extraction unit. Parts corresponding to those of Figs. 1a-1c have been provided with the same reference numerals. The first string 8 is connected to the pouch 4 in a manner entirely analogous with the one discussed with respect to Fig. 1a. The second string 10, however, is provided differently. The second string 10 extends from the label to the top side 24 of the second pocket 14. From a second opening 28 in the second pocket 14, the second string extends to the inner space 22 of the second pocket 14. From the top side of the second pocket, the second string extends in the inner space of the second pocket 14 to the bottom side 16 of the second pocket 14. Next, the second string 10 extends via the transverse fold 18 in the pouch from the inner space 22 of the second pocket 14 to the inner space 20 of the first pocket 12. From the bottom side of the first pocket 12, the second string 10 then extends in the inner space 20 of the first pocket 12 to the top side of the first pocket. Adjacent the top side of the first pocket, one end 30 of the second string is connected to the pouch.

[0018] It is also possible that the end 29 of the first string is connected to the end 30 of the second string. It may even be the case that the first and second strings form part of one and the same string and hence together constitute one undivided string, in that said ends are interconnected. A part 31 of the undivided string then extends through the heat seal at the top side.

[0019] The use of the double-pocket extraction unit including the compression of the pouch 4 is entirely analogous with the use as discussed with respect to Figs. 1a-1c.

[0020] Figs. 3a and 3b show a third embodiment of a double-pocket extraction unit in the form of a tea bag. In Figs. 1a, 1b and 1c, 3a and 3b, corresponding parts have been provided with the same reference numerals.

[0021] The double-pocket extraction unit according to Figs. 3a and 3b comprises only one string 8. The string 8 comprises a first free end 36 and a second free end 38, each being connected to the label 6. The string 8 extends from the first free end 36 to the top side of the first pocket 12. In the pouch, there is again an opening 26 via which opening the string 8 extends to the inner space 20 of the first pocket 12. From the top side of the first pocket 12, the string 8 extends via the inner space of the first pocket to the bottom side of the first pocket. At the bottom side of the first pocket, the string extends via the fold 18 from the inner space 20 of the first pocket to the inner space 22 of the second pocket. Next, the string extends from the bottom side of the second pocket through the inner space 22 of the second pocket to the top side 24 of the second pocket 14. The pouch is provided with a second opening 28 via which the string extends outwards from the inner space 22 of the second pocket. From the top side 24 of the second pocket, the string then extends to the label 6, where it has its free end 38 connected to the label 6.

[0022] In respect of the embodiment according to Figs. 3a, 3b, too, it applies that the use thereof is entirely analogous with the use as described with respect to Figs. 1a-1c.

[0023] An advantage of the embodiment according to Figs. 1a-1c is the possible simple manner of production. First, as an intermediate product, a tubular sachet is produced (see Fig. 4, where parts corresponding to Figs. 1a-1c have been provided with the same reference numerals). Next, the tubular sachet is folded about the axis V, as shown in Fig. 4, after which the folded parts are interconnected at their top side by means of a heat seal, to obtain the double-pocket tea bag.

[0024] The invention is by no means limited to the embodiments outlined hereinabove. For instance, instead of two strings, three or more strings may be used, connected to the label and the pouch in a comparable manner. It is also conceivable that more than one label is connected to the pouch. Such variants are each understood to fall within the framework of the invention.

Claims

1. A double-pocket extraction unit such as a tea bag filled with a product to be extracted, comprising a pouch, at least one label and at least one string interconnecting the pouch and the label, wherein the pouch is composed of a first and a second pocket manufactured from a liquid-permeable material such as filtering paper, wherein the first and second pockets lie side by side and are filled with the product to be extracted, wherein the first and second pockets are interconnected at their bottom side at at least one transversely extending fold in the pouch and wherein the first and second pockets are closed at their top side, wherein the at least one string at least extends from the label to the top side of the first and second pockets, **characterized in that** the at least one string further extends via at least one opening in the pouch to an inner space of the first and second pockets, wherein in the first and second pockets, the at least one string extends via the transversely extending fold in the pouch from the first pocket to the second pocket, and wherein via the opening in the pouch, the at least one string can be partially pulled from the first and second pockets for compressing the pouch.
2. A double-pocket extraction unit according to claim 1, characterized in that by means of a first and a second string, the pouch is connected to the label, wherein:
 - the first string extends from the label to the top side of the first pocket, from the top side of the first pocket through the first pocket to the bottom side of the first pocket, via the transversely extending fold in the pouch from the first pocket

- to the second pocket and from the bottom side of the second pocket through the second pocket to the top side of the second pocket, wherein adjacent the top side of the second pocket, one end of the first string is connected to the pouch; and
- the second string extends from the label to the top side of the first pocket, from the top side of the first pocket through the first pocket to the bottom side of the first pocket, via the transversely extending fold in the pouch from the first pocket to the second pocket and from the bottom side of the second pocket through the second pocket to the top side of the second pocket, wherein adjacent the top side of the second pocket, one end of the second string is connected to the pouch.
3. A double-pocket extraction unit according to claim 1, characterized in that by means of a first and a second string, the pouch is connected to the label, wherein:
- the first string extends from the label to the top side of the first pocket, from the top side of the first pocket through the first pocket to the bottom side of the first pocket, via the transversely extending fold in the pouch from the first pocket to the second pocket and from the bottom side of the second pocket through the second pocket to the top side of the second pocket, wherein adjacent the top side of the second pocket, one end of the first string is connected to the pouch; and
 - the second string extends from the label to the top side of the second pocket, from the top side of the second pocket through the second pocket to the bottom side of the second pocket, via the transversely extending fold in the pouch from the second pocket to the first pocket and from the bottom side of the first pocket through the first pocket to the top side of the first pocket, wherein adjacent the top side of the first pocket, one end of the second string is connected to the pouch.
4. A double-pocket extraction unit according to claim 2 or 3, characterized in that each pocket of the pouch comprises a first and a second upright longitudinal edge, located opposite each other and directed at least substantially perpendicularly to the fold, wherein the first longitudinal edges on one side and the second longitudinal edges on the other are located adjacent each other, wherein the first string extends in the first and second pockets adjacent the first longitudinal edges, and wherein the second string extends in the first and second pockets adjacent the second longitudinal edges.
5. A double-pocket extraction unit according to claim 2, 3 or 4, characterized in that the end of the first string is connected to the end of the second string.
6. A double-pocket extraction unit according to claim 5, characterized in that the first and the second string together form an undivided string.
7. A double-pocket extraction unit according to claim 1, characterized in that the string extends from the label to the top side of the first pocket, from the top side of the first pocket through the first pocket to the bottom side of the first pocket, via the transversely extending fold in the pouch from the first pocket to the second pocket, from the bottom side of the second pocket through the second pocket to the top side of the second pocket and from the top side of the second pocket to the label.
8. A double-pocket extraction unit according to any one of the preceding claims, characterized in that the first and second pockets each have their top sides sealed by means of a heat seal.
9. A double-pocket extraction unit according to any one of the preceding claims, characterized in that the first and second pockets have their top sides interconnected by means of a heat seal.
10. A double-pocket extraction unit according to claim 4, characterized in that the first and second pockets are sealed, adjacent their first longitudinal edges, by means of a heat seal.

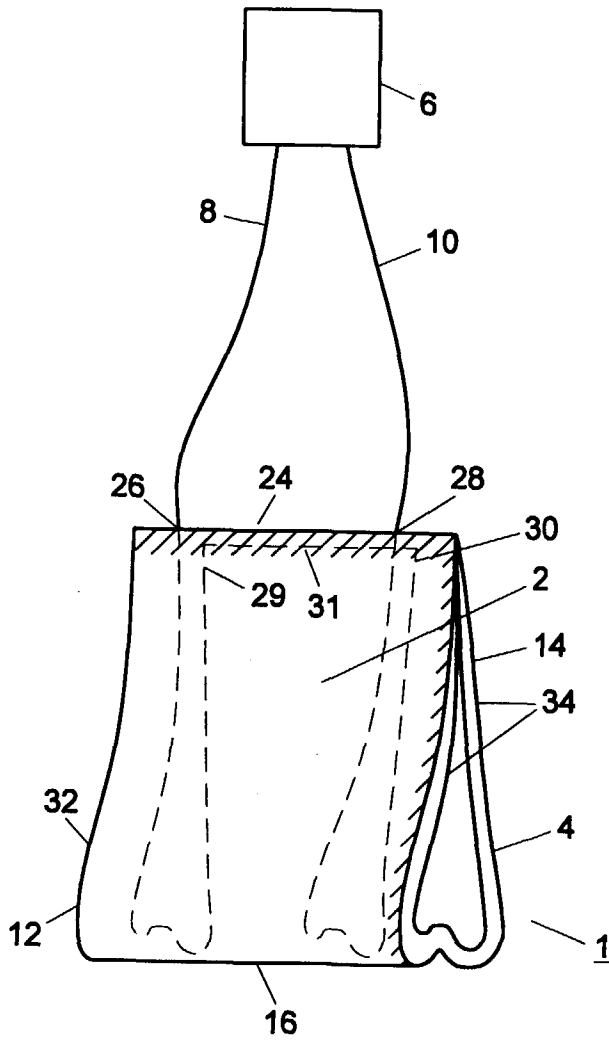


Fig. 1a

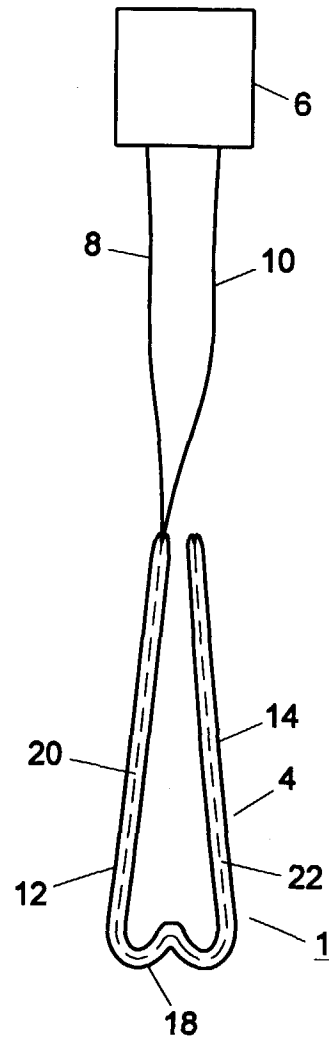


Fig. 1b

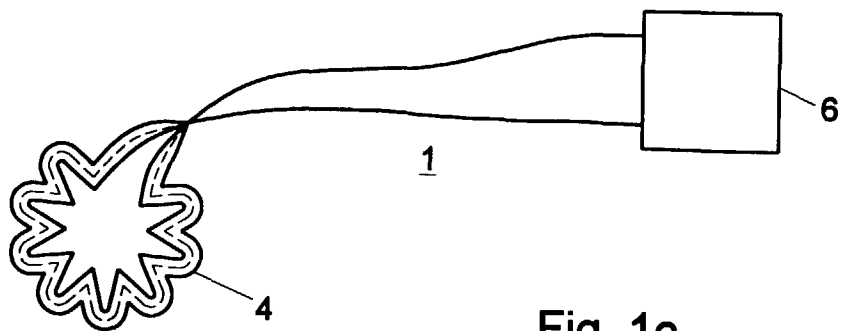


Fig. 1c

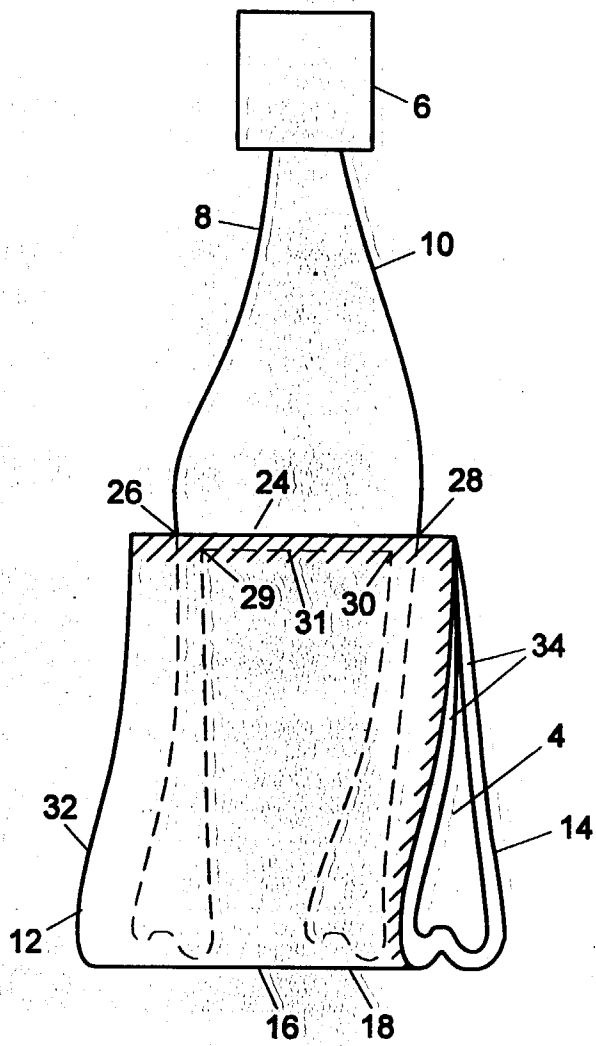


Fig. 2a

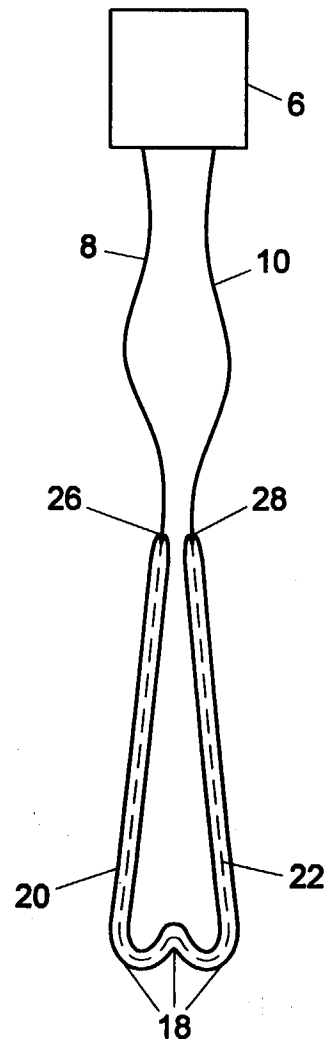


Fig. 2b

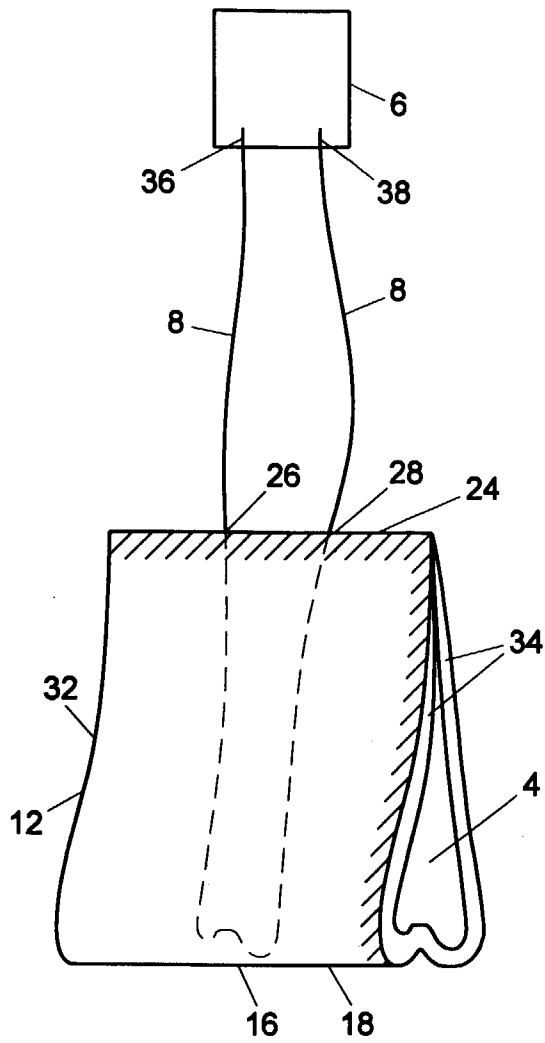


Fig. 3a

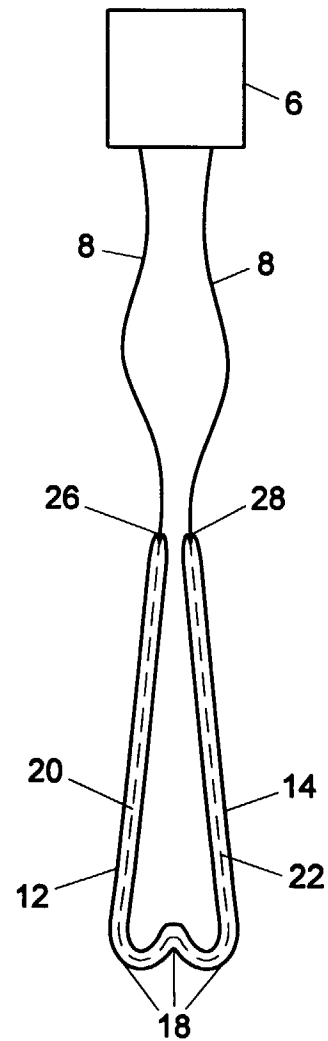


Fig. 3b

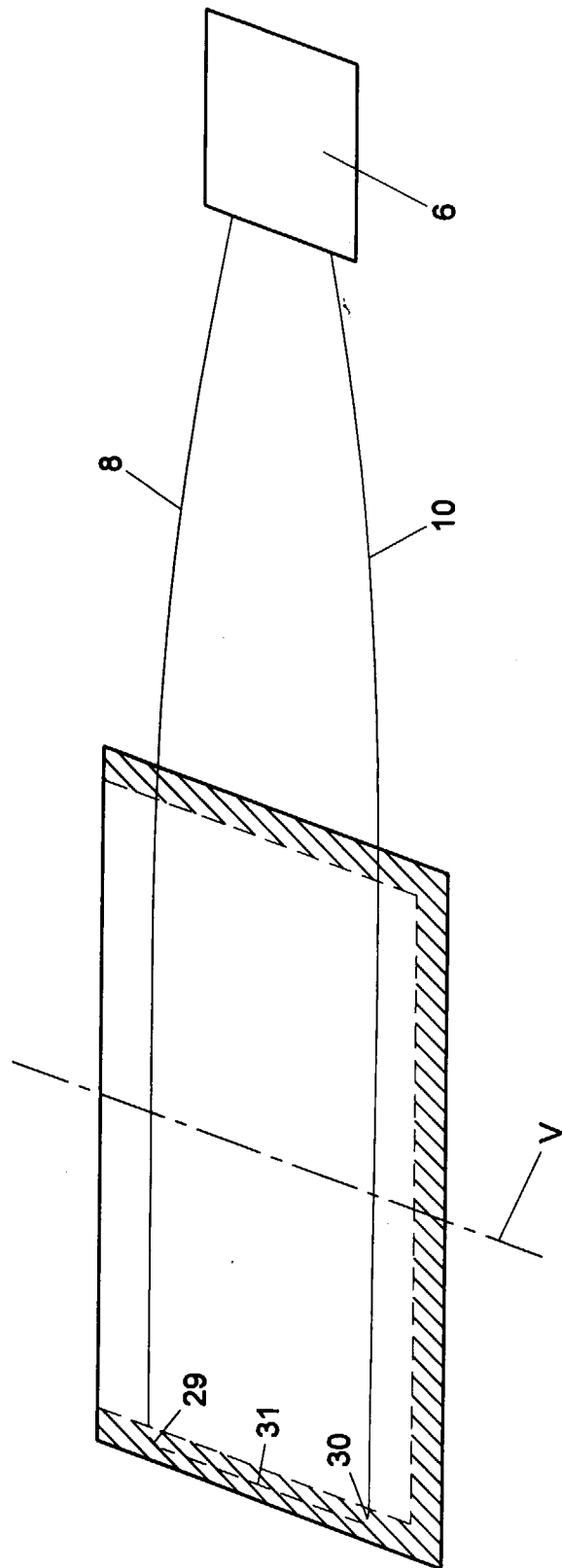


Fig. 4