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(54) **A bag with handles, for horticultural and fruit products**

Beutel mit Tragegriffen, für Gartenbauprodukte und für Früchte

Sac avec poignées pour produits d'horticulture et pour fruits

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US-A- 2 838 224 **US-A- 5 213 418**
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Description

[0001] The present invention relates to a mesh bag with a handle usable particularly for horticultural and fruit products, affording notable characteristics of novelty and inventive step with respect to those of the prior art.

[0002] Document CH 343279 A discloses an open bag of paper or textile material with a construction in which lateral elements join together all the length of the side borders of two laminar elements forming the bag. A handle is attached along the whole length of the two lateral edges of the bag. The bag remains open when finished.

[0003] Document US 6 095 686 A refers to a packaging bag made of plastic sheeting for personal hygiene articles, in particular nappies. A one-piece sheet is welded and the handle is a construction with an x- shape giving ground to four ends which are welded to the inside of the lateral walls of the bag.

[0004] Document EP 0 519 184 A refers to a bag of paper with a handle which is made out of a folded strip of paper joined together in most of its length, leaving the ends separate in order to embrace the upper rim of the closed bag.

[0005] In particular, the mesh bag with a handle of the present invention is especially applicable to mesh bags which are intended to hold items of fruit or other horticultural or fruit products and which have, in their upper portions and in their lower portions, respective semi-rigid regions formed by bands or plates which are preferably attached by welding and which close the bag and also allow for the writing of advertizing information or information relating to the type of material contained in the bags, or the like. In bags of this type, the arrangement of proper handles on the upper edge of the bag is a feature which is advantageous for a sector of the public; this feature facilitates handling of the bag and can also positively increase its value from the qualitative point of view.

[0006] However, the production of a handle in the upper portion of the bag represents a complication in manufacture and an increase in cost. In particular, in a currently known type, the handle is constituted by a single strip of laminar material which is secured by its ends in the inside of the mouth of the bag during the welding of the edges of the bag or their securing by another method. However, this type of handle has the disadvantage that it necessarily forms a twisted central region in which the central portion of the strip is disposed in a plane substantially parallel to the bag, that is, with the strip arranged substantially on edge, which makes manipulation of the handle difficult since the contact region of the user's hand grasping the bag handle receives a rather unpleasant, possibly even painful pressure produced by the bag handle, especially depending on the weight contained therein.

[0007] The present invention is intended to solve the problems mentioned by providing a mesh bag for horticultural and fruit products as defined in claim 1.

[0008] Further preferred embodiments of the mesh

bag are defined in dependent claims 2 to 6.

[0009] For a better understanding, some drawings of the bag of the present invention are appended by way of non-limiting example.

Figure 1 shows schematically a partial front elevational view of a bag with a handle of conventional type.

Figure 2 shows an embodiment of a mesh bag with a handle according to the present invention.

Figures 3 and 4 show respective sections through the mesh bag of Figure 2, taken in the section planes indicated.

Figures 5, 6 and 7 are views similar to Figures 2, 3 and 4 showing a second embodiment of the present invention.

Figures 8, 9 and 10 are, respectively, a perspective view and sections taken in the section planes indicated, of another version of this embodiment in which the ends are split by longitudinal incisions in a similar manner to the bag of Figures 5, 6 and 7.

Figures 11, 12 and 13 correspond to a version of the mesh bag of the present invention in which the ends of the laminar strip are secured on opposite sides of the upper closure element of the bag.

Figures 14 and 15 show schematically the fitting of handles according to the present invention on mesh bags with complete laminar bands joining the lower and upper closure regions of the bag, and in a version with simple extensions of the upper closure region of the bag.

[0010] As shown in the drawings, a conventional bag 1, Figure 1, has an upper closure element 2 with a handle 3 constituted basically by a single laminar element the ends 4 and 5 of which are secured between the individual laminar elements which constitute the closure 2, and are clasped and welded in the inside of the mouth of the closure element 2. The attachment is performed by the same welding operation that closes the bag. As can be seen, the upper portion 6 of the handle 3 is necessarily arranged substantially edgewise relative to the hand which will grasp the handle 3, so that handling of the bag is inconvenient.

[0011] Figure 2 shows a mesh bag 7 according to the present invention which has a handle 8 in the form of a single laminar strip the ends 9 and 10 of which are U-shaped transversely and overlap the front face 11 and the rear face 12 of the upper laminar closure element of the bag 7. With this arrangement, the handle is secured during the same welding operation which closes the bag so that the upper portion 13 of the handle is arranged in a transverse plane, practically perpendicular to the upper closure element of the bag constituted by the faces 11 and 12. The user's hand will thus receive the flat region 13, facilitating convenient handling of the bag.

[0012] As can be seen, the mesh bag is closed at the bottom by means of a narrow band 14 welded to the lower

ends of the bag 7. As shown in Figure 5, the present invention also comprises an alternative version in which the bag mesh 15, which also has a lower closure band 16, has a laminar element 17 constituting the handle, the ends of which have a short longitudinal incision defining two opposed branches, as indicated 18 and 18' at one end and 19, 19' at the other end. The branches are secured to the front face 20 and to the rear face 21 of the laminar closure element of the mesh bag, respectively. In this embodiment, the upper portion 22 is again arranged in a plane perpendicular to the mesh bag, that is, transversely relative thereto, achieving the same effect as the bag of Figure 2, that is, having a wide and comfortable region to be handled in the user's hand.

[0013] In the version shown in Figure 8, a bag 23 is shown which, as in the previous embodiments, is provided with a lower closure band 24 and with two, opposed, upper closure elements 25 and 26 between which the ends of the single laminar strip 27 which constitutes the handle of the bag are introduced; as in the embodiment of the bag of Figure 5, the ends of the strip are also provided with short longitudinal incisions defining respective branches which are attached to the inner faces of the elements 25 and 26, respectively, in respective opposed positions. In this embodiment, the upper portion 28 of the handle 27 again presents a wide and easily grasped region to the user's hand.

[0014] Figure 11 shows another version in which the mesh bag 29, which is provided with a lower closure band 30 and opposed laminar closure elements 31 and 32, has a handle 33, again in the form of a single strip, which is attached at one of its ends, indicated 34, to the outer face of the laminar element 31 whereas, at the other end, indicated 35, it is fitted on the outer face of the laminar element 32 so that the faces that are attached to the elements 31 and 32 correspond to distinct faces of the laminar element 33. In this embodiment, the upper portion 36 of the handle again presents its wider side to the user's hand, facilitating grasping thereof.

[0015] The mesh bag of the present invention may adopt the general structure shown in Figures 2 to 11, or may have laminar bands on one or on both faces, such as the band 37 shown in Figure 14, which is attached to the lower transverse band 38 and to the upper closure element or elements of the bag 39, respectively, the bag being able to receive handles 40, 41 or 42 corresponding, respectively, to the version with the U-shaped end, to the version with the end provided with a longitudinal incision, and to the version with the straight end, as in the drawings indicated and described above.

[0016] As can be seen in Figure 15, the mesh bag of the present invention may also be formed with a lower transverse band 43 and upper flat laminar closure elements 44 which will form the mouth of the mesh bag and to which the three basic versions of the elements constituting the handle, indicated 45, 46 and 47, will be secured.

[0017] As can be seen, the essential characteristic of the mesh bag of the present invention is that the handle

is produced as a single laminar element in the form of a straight strip, but is secured by its ends to the laminar elements for closing the mouth of the bag in a manner such that the upper portion is included substantially in a plane perpendicular to that of the laminar closure elements of the bag, the strip which forms the handle being in a flat arrangement for its contact with the user's hand, facilitating the handling of the mesh bag.

Claims

1. A mesh bag (7, 15, 23, 31) for horticultural or fruit products, a lower end of the bag being secured by means of a narrow, welded transverse band (14, 16, 24, 30) and an upper end having opposed laminar elements (11, 12; 20, 21; 25, 26; 31, 32) secured to the edges of the bag and constituting a mouth through which the bag is filled, the bag being closed after filling by welding said upper opposed laminar elements (11, 12; 20, 21; 25, 26; 31, 32), thus forming a closed mouth of the bag, the bag having a handle formed by a single laminar element in the form of a narrow strip, **characterized in that** the single laminar element forming the handle (8, 17, 27, 33) has a grasping portion (13, 22, 28, 36) part of which is parallel to the upper welded border of the bag and arranged is transverse relative to the closed mouth of the bag, said grasping portion having two arms (9, 10), the ends of said two arms (9, 10; 18, 18', 19, 19'; 34, 35) being attached to the upper laminar elements (11, 12; 20, 21; 25, 26; 31, 32) closing the mouth of the bag.
2. A mesh bag, according to Claim 1, **characterized in that** the arms of the handle (8) overlap by its ends (9, 10) the front face (11) and the rear face (12) of the upper laminar closure elements of the bag.
3. A mesh bag, according to Claim 1, **characterized in that** each of the arms of the handle has in its ends corresponding short longitudinal incisions defining two branches (18, 18'; 19, 19') respectively secured to the front face (20) and to the rear face (21) of the laminar closure elements of the bag.
4. A mesh bag, according to claim 3, **characterized in that** the two branches of each of the ends of the arms of the handle are respectively attached to the inner faces (25, 26) of the laminar mouth closing elements in respective opposed positions.
5. A mesh bag, according to Claim 1, **characterized in that** one of the ends (34) of the arms of the handle is attached to the outer face of one of the bag closing laminar elements (31) whereas the other end (35) is seated on the outer face of the other bag closing laminar element (32), so that the faces that are at-

tached to said laminar elements correspond to distinct faces of the handle strip (33).

6. A mesh bag, according to anyone of claims 1-4, wherein the upper and lower ends of the bag are welded between two laminar plastic bands which extend from the upper end to the lower end of the mesh bag, the mesh bag being interposed between the two bands.

Revendications

1. Sac en mailles (7, 15, 23, 31) destiné à des produits horticoles ou des fruits, une extrémité inférieure du sac étant fixée au moyen d'une bande transversale étroite soudée (14, 16, 24, 30) et une extrémité supérieure ayant des éléments laminaires opposés (11, 12 ; 20, 21 ; 25, 26 ; 31, 32) fixés sur les bords du sac et constituant une ouverture à travers laquelle le sac est rempli, le sac étant fermé après le remplissage en soudant lesdits éléments laminaires opposés supérieurs (11, 12 ; 20, 21 ; 25, 26 ; 31, 32), formant ainsi une fermeture du sac, le sac comportant une poignée formée par un seul élément laminaire se présentant sous la forme d'une bande étroite, **caractérisé en ce que** le seul élément laminaire formant la poignée (8, 17, 27, 33) a une partie de prise (13, 22, 28, 36) dont une partie est parallèle à la bordure supérieure soudée du sac et agencée de manière transversale par rapport à l'ouverture fermée du sac, ladite partie de prise ayant deux bras (9, 10), les extrémités des deux bras (9, 10 ; 18, 18', 19, 19' ; 34, 35) étant fixées sur les éléments laminaires supérieurs (11, 12 ; 20, 21 25, 26 ; 31, 32) fermant l'ouverture du sac.
2. Sac en mailles selon la revendication 1, **caractérisé en ce que** les extrémités (9, 10) des bras de la poignée (8) chevauchent la face avant (11) et la face arrière (12) des éléments de fermeture laminaires supérieurs du sac.
3. Sac en mailles selon la revendication 1, **caractérisé en ce que** chacun des bras de la poignée possède dans ses extrémités, des incisions longitudinales courtes correspondantes définissant deux branches (18, 18', 19, 19') fixées respectivement sur la face avant (20) et sur la face arrière (21) des éléments de fermeture laminaires du sac.
4. Sac en mailles selon la revendication 3, **caractérisé en ce que** les deux branches opposées de chacune des extrémités des bras de la poignée sont respectivement fixées sur les faces internes (25, 26) des éléments laminaires fermant l'ouverture dans des positions respectives opposées.

5. Sac en mailles selon la revendication 1, **caractérisé en ce que** l'une des extrémités (34) des bras de la poignée est fixée sur la face externe de l'un des éléments laminaires (31) de fermeture de sac, alors que l'autre extrémité (35) est installée sur la face externe de l'autre élément laminaire (32) de fermeture de sac, de sorte que les faces qui sont fixées sur lesdits éléments laminaires correspondent aux faces distinctes de la bande (33) de la poignée.
6. Sac en mailles selon l'une quelconque des revendications 1 à 4, dans lequel les extrémités supérieure et inférieure du sac sont soudées entre deux bandes de plastique laminaires qui s'étendent de l'extrémité supérieure à l'extrémité inférieure du sac en mailles, le sac en mailles étant interposé entre les deux bandes.

Patentansprüche

1. Ein Netzbeutel (7, 15, 23, 31) für Gartenbau- oder Fruchtprodukte, wobei ein unteres Ende des Beutels mittels eines schmalen, geschweißten Querbandes (14, 16, 24, 30) gesichert ist und ein oberes Ende einander gegenüberliegende flächige Elemente (11, 12; 20, 21; 25, 26; 31, 32) besitzt, die an den Kanten des Beutels befestigt sind und eine Öffnung bilden, durch die hindurch der Beutel gefüllt wird, wobei der Beutel nach dem Füllen durch Verschweißen der oberen gegenüberliegenden flächigen Elemente (11, 12; 20, 21; 25, 26; 31, 32) geschlossen ist, um somit eine verschlossene Öffnung des Beutels zu bilden, wobei der Beutel einen Griff besitzt, der durch ein einzelnes flächiges Element in der Form eines schmalen Streifens gebildet ist, **dadurch gekennzeichnet, daß** das einzelne, den Griff (8, 17, 27, 33) bildende flächige Element einen Greifabschnitt (13, 22, 28, 36) besitzt, von dem ein Teil parallel zu dem oberen verschweißten Rand des Beutels verläuft und relativ zu der verschlossenen Öffnung der Tasche quer angeordnet ist, wobei der Greifabschnitt zwei Arme (9, 10) besitzt und die Enden der beiden Arme (9, 10; 18, 18', 19, 19'; 34, 35) an den oberen flächigen Elementen (11, 12; 20, 21; 25, 26; 31, 32), die die Öffnung des Beutels verschließen, befestigt sind.
2. Ein Netzbeutel gemäß Anspruch 1, **dadurch gekennzeichnet, daß** die Arme des Griffs (8) mit ihren Enden (9, 10) die Vorderseite (11) und die Rückseite (12) der oberen flächigen Verschlusselemente des Beutels überlappen.
3. Ein Netzbeutel gemäß Anspruch 1, **dadurch gekennzeichnet, daß** jeder der Arme des Griffs an seinen Enden zugehörige kurze Längseinschnitte besitzt, die zwei Zweige (18, 18'; 19, 19') definieren,

welche entsprechend an der Vorderseite (20) und der Rückseite (21) der flächigen Verschlusselemente des Beutels befestigt sind.

4. Ein Netzbeutel gemäß Anspruch 3, **dadurch gekennzeichnet, daß** die zwei Zweige eines jeden Endes der Arme des Griffs jeweils an den inneren Seiten (25, 26) der flächigen Öffnungsverschlusselemente an entsprechend gegenüberliegenden Stellen befestigt sind. 5
10
5. Ein Netzbeutel gemäß Anspruch 1, **dadurch gekennzeichnet, daß** eines der Enden (34) der Arme des Griffs an der äußeren Seite eines der flächigen Beutelverschlusselemente (31) befestigt ist, während das andere Ende (35) auf der äußeren Seite des anderen flächigen Beutelverschlusselements (32) sitzt, so daß die Seiten, welche mit den flächigen Elementen verbunden sind, unterschiedlichen Seiten des Griffstreifens (33) entsprechen. 15
20
6. Ein Netzbeutel gemäß einem der Ansprüche 1 bis 4, wobei die oberen und unteren Enden des Beutels zwischen zwei flächigen Plastikbändern verschweißt sind, welche sich von dem oberen Ende zu dem unteren Ende des Netzbeutels erstrecken, wobei der Netzbeutel zwischen den zwei Bändern angeordnet ist. 25
30
35
40
45
50
55

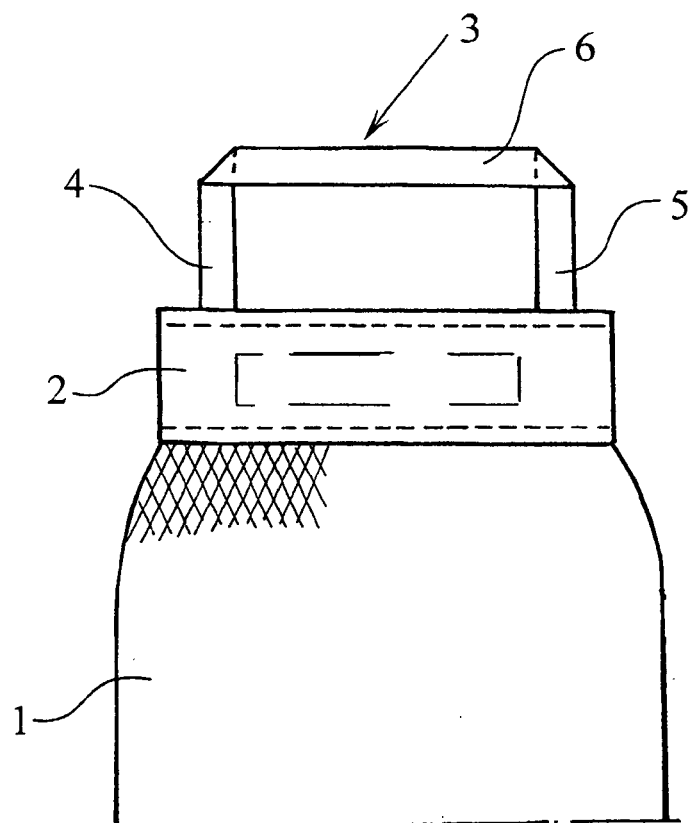


FIG. 1

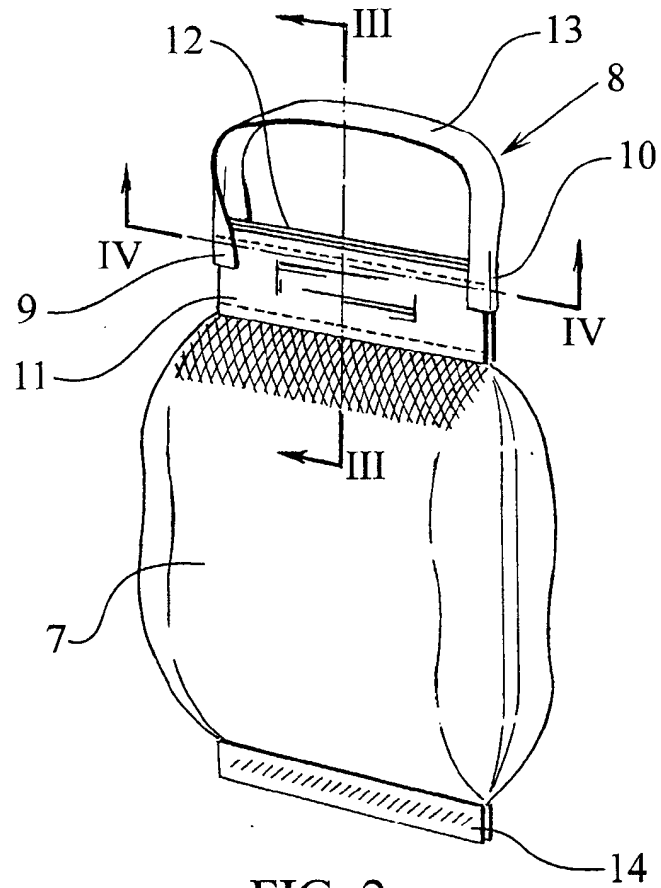


FIG. 2

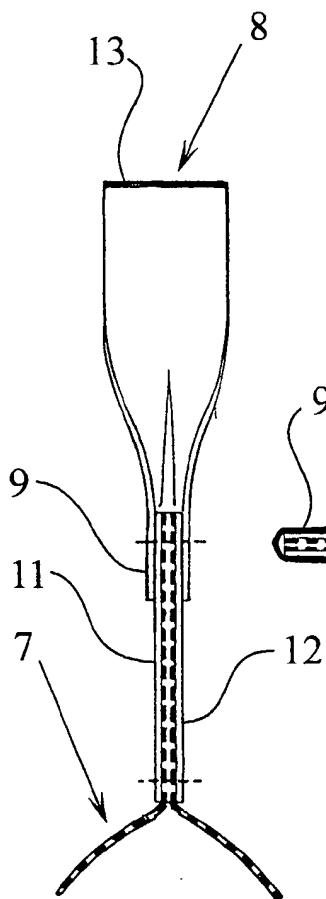


FIG. 3

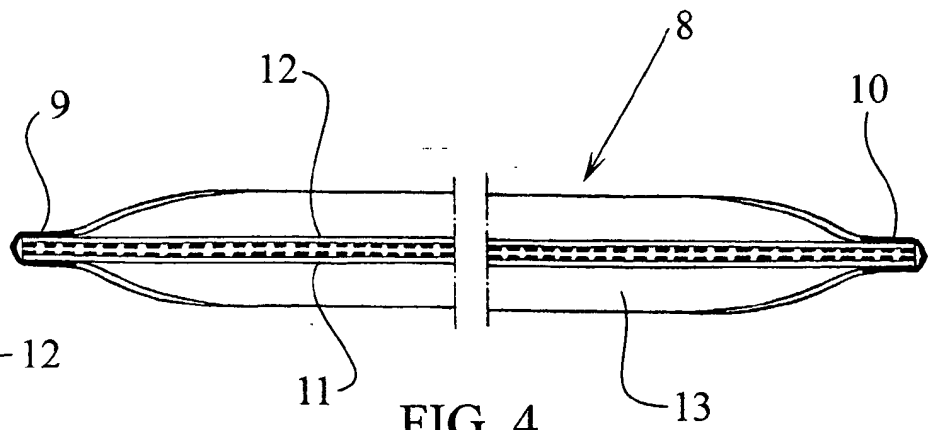


FIG. 4

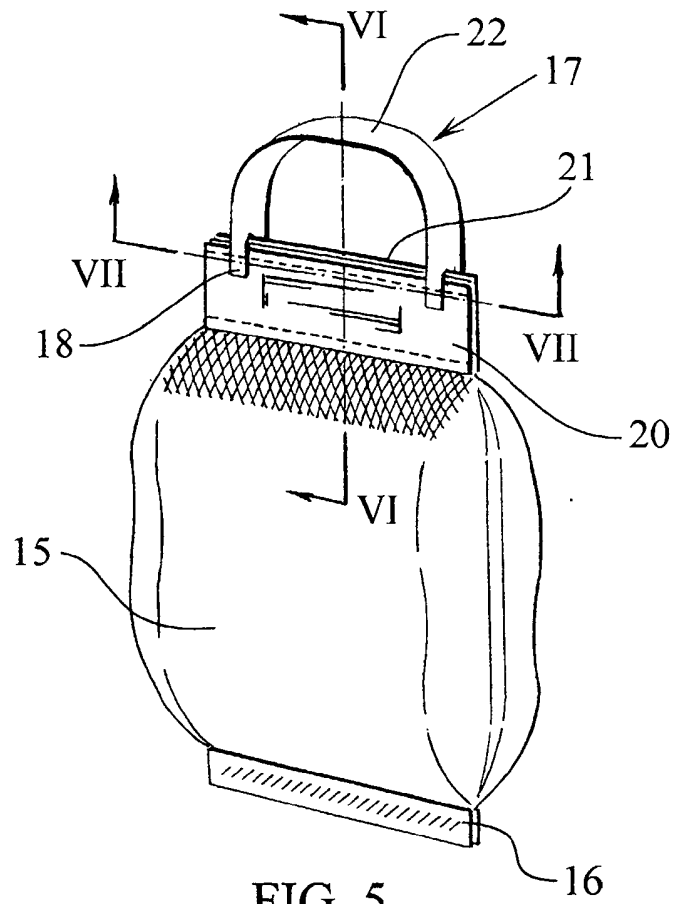


FIG. 5

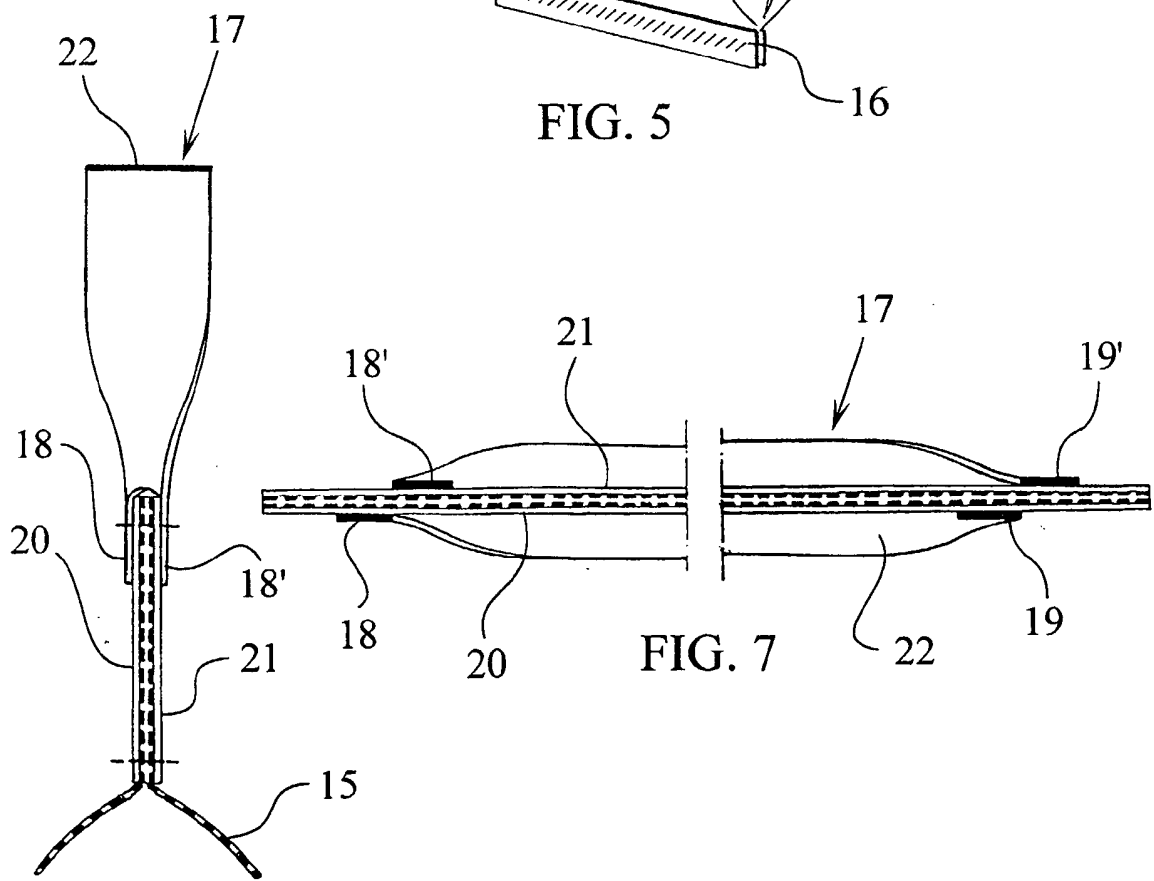


FIG. 6

FIG. 7

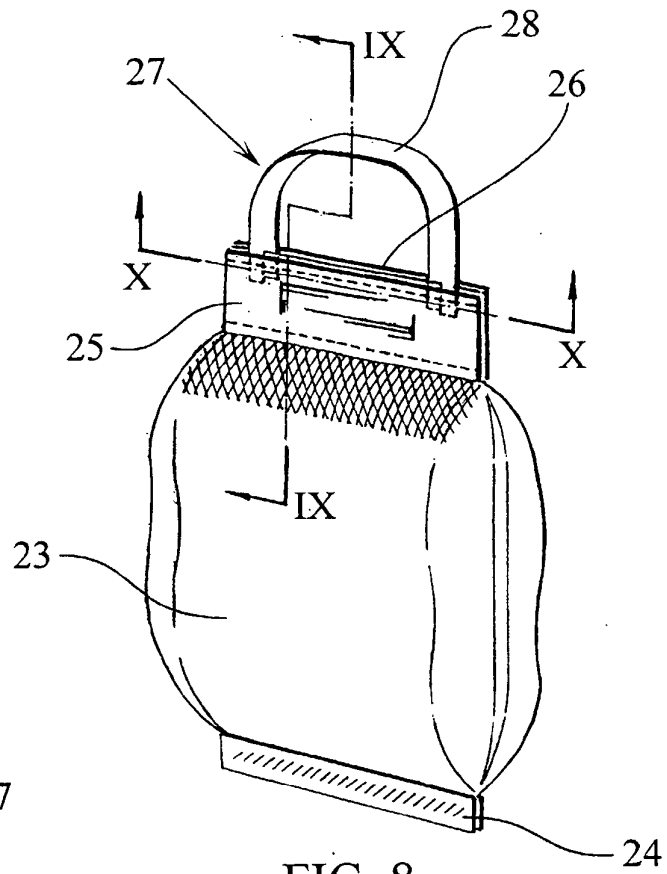


FIG. 8

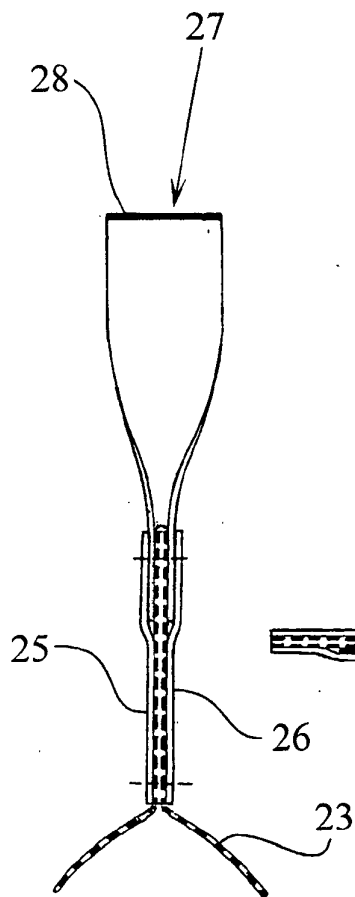


FIG. 9

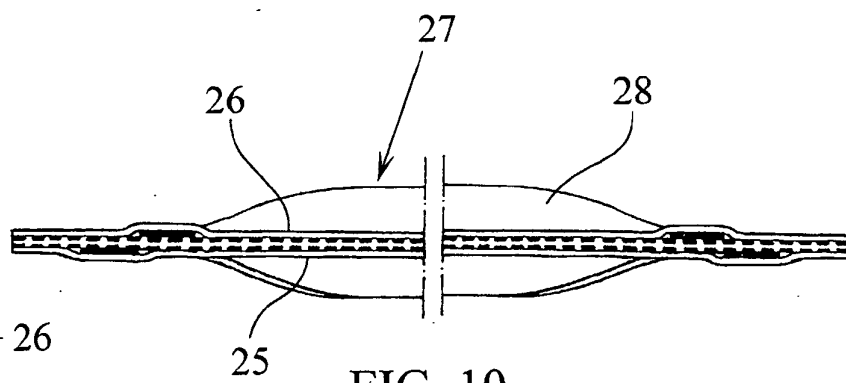


FIG. 10

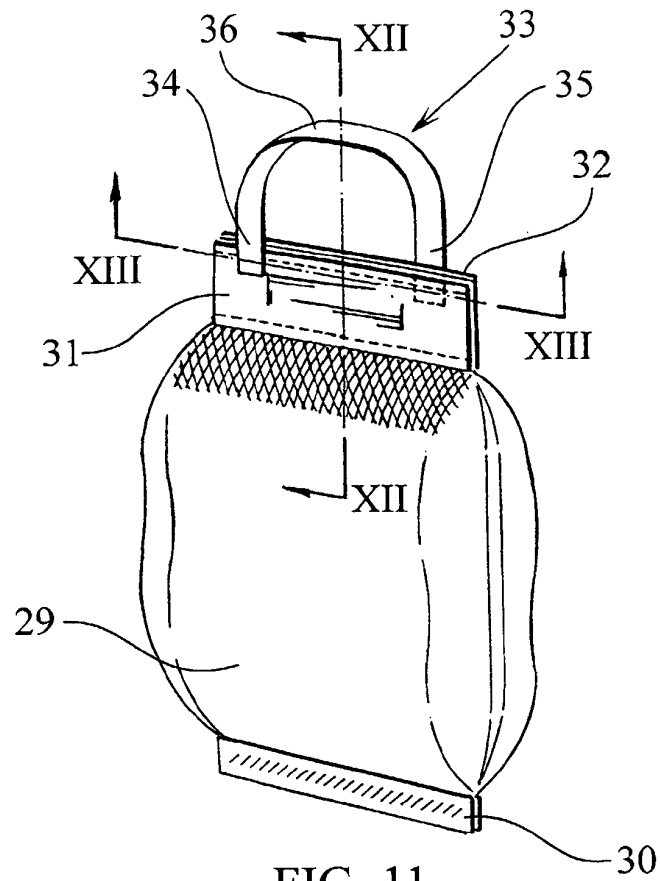


FIG. 11

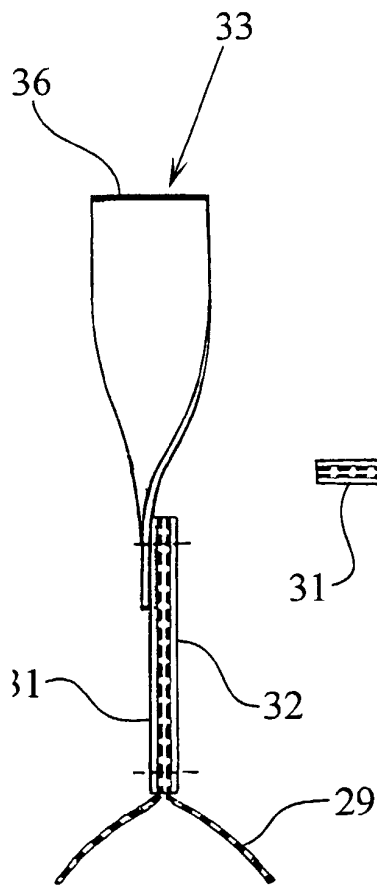


FIG. 12

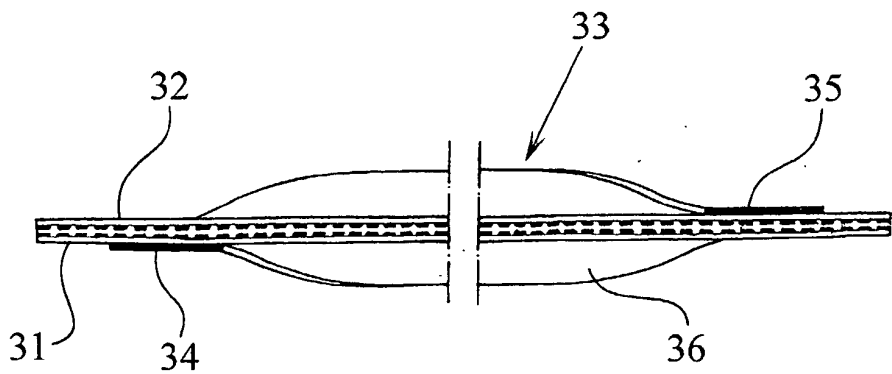


FIG. 13

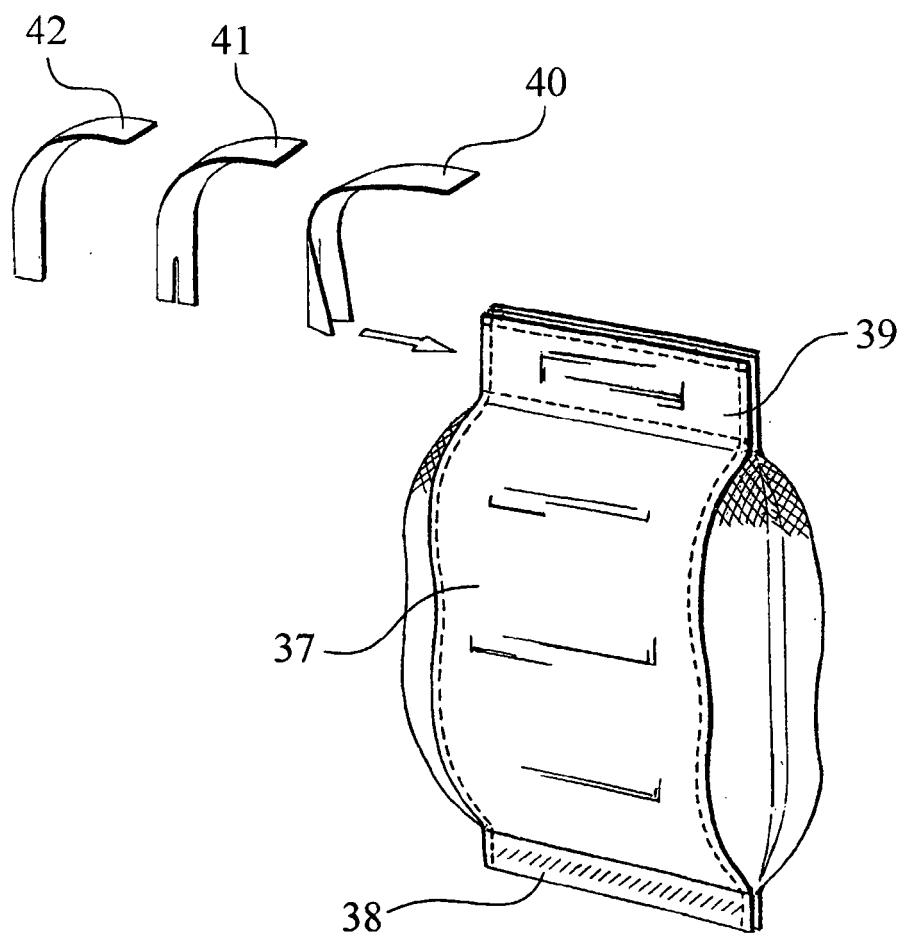


FIG. 14

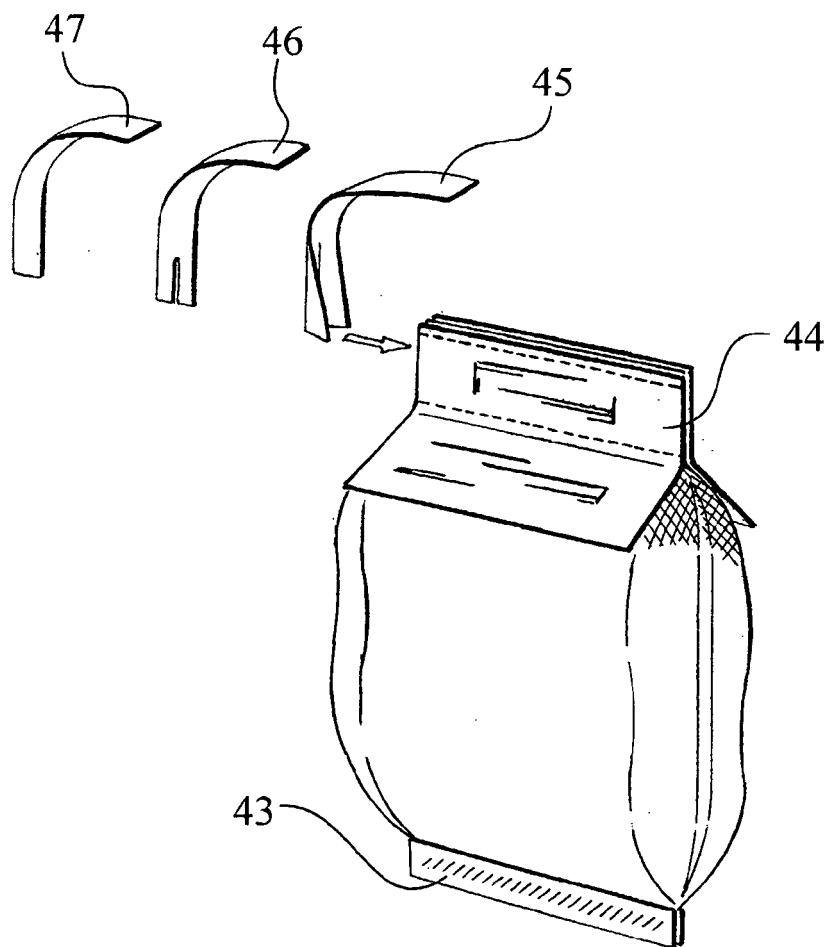


FIG. 15