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(54) **SECURITY TRANSPARENT BAG**

DURCHSICHTIGER SICHERHEITSBEUTEL

SAC DE SÉCURITÉ TRANSPARENT

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Description

FIELD OF THE INVENTION

[0001] This invention relates to a security transparent bag according to the preamble of claim 1, and more particularly a transparent bag that can be adopted while passing through security checkpoints at airports or in other restricted areas. The bag has certain security features that may result interesting for the Transportation Security Administration and other Agencies in the United States or around the world. At the same time, other portions of the bag may be adopted for advertising, loyalty programs, lotteries and other commercial activities.

BACKGROUND OF THE INVENTION

[0002] To protect passengers against the new threat of liquid explosives, the United States and Canada - in September 2006 -, the European Union, Switzerland, Norway and Iceland - in November 2006 - have jointly adopted new security rules that restrict the amount of liquids that passengers can carry through the security checkpoints at airports. Passengers are now allowed to take only small quantity of liquids in individual containers. The general rule allows bringing three ounce bottles in one quart-sized fully transparent plastic, zip-top bag per person. Due to the different metric system, for convenience purposes, the European Rule allows 100 milliliters containers in one liter bag.

[0003] The bags in use for this purpose are of various plastic materials and shape and, typically, are fluid-tight, so as to prevent liquids stored in the containers inside the bag from accidentally spilling out of the bag.

[0004] All of the bags satisfying the requirements currently in use at checkpoints in airports should have the fundamental characteristic of being completely transparent, so that their contents can be inspected from any possible view or perspective without opening the mouth of the bag.

[0005] To this aim, such bags can consist of two transparent plastic panels which are sealed to each other at three edges and define a mouth at the fourth edge, which mouth comprises a resealable fastener having profiles adapted to resealably interlock with each other, such as a zip-lock fastener without a slider.

[0006] Bags are also known which are not used for security checks in restricted areas, but which are instead used as cases for various items. Such bags may be formed by more than two panels, which are sealed to one another at their edges so as to obtain a sort of prismatic shape, for instance of triangular cross section. A zip-lock slider fastener is usually provided on a corner of such prism-shaped bags.

[0007] DE 202006007787U discloses a transparent storage bag according to the preamble of claim 1.

[0008] Moreover, suitcases are known which comprise a transparent window through which a partial view of the contents of the suitcase is possible.

[0009] The transparency requirement, although may have positive advertising effects for cosmetic, personal care or drug industries because the brands of cosmetic or drug products are visible from the outside of the bag, it is not source of revenues for the airline companies. Moreover, transparency causes serious problems to the owner of the bag, because the contents of the transparent bags to be inspected at checkpoints typically have a private nature. The owner may not like such contents to be viewed by other people while waiting for the inspection, because such contents may reveal, for instance, that the owner of the bag is affected by a specific disease, or uses a specific product.

[0010] In addition to privacy needs, another problem of the known transparent bags for inspection at checkpoints in airports and the like is that the fully transparency requirement does not allow the bag to be immediately identified, e.g. as being property of a specific person or as being associated to a particular flight or airline. In fact, if the bag comprised characters thereon, such characters would make opaque a portion of the side wall to which they are applied and, accordingly, at least one view of the inner volume of the bag would be precluded: thus, indicia on transparent bags are prevented because they may be used by criminals to hide electronic or explosive material exactly behind the indicia.

[0011] A consequence of preventing transparent bags from featuring indicia thereon is that if the bag is lost, the owner cannot be identified by either his personal identification data, or by his flight data, such as the flight number, destination and seat number, or by a tracking number which could be automatically read. Therefore, it is not possible to immediately or even automatically assign the bag to the personal belongings of the owner, e.g. to his/her luggage before boarding, or directly to the assigned seat on the flight, and/or process the bags separately from the passengers.

[0012] Moreover, another drawback related to the absence of indicia on the bag is that no commercial, promotional or sponsorship activity can be provided on the transparent bag. Therefore, there is currently no space for co-marketing and co-business activities, for a sponsorship program, or for lotteries.

SUMMARY OF THE INVENTION

[0013] Aim of the present invention is to provide a novel and secure bag which overcomes the above-described drawbacks associated with existing bags.

[0014] Within this aim, an object of the present invention is to provide a transparent bag which, although being completely transparent for allowing its contents to be viewed from the outside from any perspective, allows privacy of its contents to be maintained.

[0015] Another object is to provide a transparent bag which complies with any security standard or can be readily made compliant with such standard.

[0016] A further object is to provide a transparent bag to be used at checkpoints with indicia of any nature without altering the fully clear transparency of the bag.

[0017] Moreover, a particular object is to allow the bag to be provided with indicia independently of the manufacturer or the manufacturing location of the bag so that, for instance, the indicia could be separately provided at the checkpoint's surroundings, e.g. by an airline or a commercial company.

[0018] Yet another object is to provide a security transparent bag which is particularly useful for flight passengers and can be associated to a particular flight or airline company.

[0019] A further object is to provide a transparent bag which can be automatically tracked and/or traced back to the owner without altering the transparency characteristics of the bag.

[0020] In addition, an object of the invention is to provide a transparent travel bag which, although being univocally associated to a particular passenger or flight, can be reused, or recycled, and associated to another passenger or flight, thus reducing costs and environmental impact.

[0021] Not least object of the present invention is to provide a transparent bag that is highly reliable and relatively simple to manufacture and highly customizable.

[0022] This aim and these and other objects that will become better apparent hereinafter are achieved by a security transparent bag comprising a storage compartment which is made of plastic or plastic-like material, is completely transparent and defines a storage volume of the bag, the storage compartment comprising a mouth provided with a resealable fastener, the storage compartment comprising transparent walls which completely enclose the storage volume when the mouth is closed, characterized in that the bag comprises an opaque appendix which is movable, with respect to at least one of the walls of the storage compartment, between a covering position, in which the appendix lies at least partially on the at least one wall for at least partially screening the storage volume of the bag from outside of the storage compartment, and an inspection position, in which the appendix does not lie on the at least one wall for allowing view of the whole storage volume of the bag through any wall of the storage compartment without opening the resealable fastener, the appendix being attached to the storage compartment through an attachment means so as to hide no portion of the storage volume of the bag when the appendix is in the inspection position.

[0023] The appendix is preferably, but not necessarily, removable or peelable away from the bag.

[0024] The plastic storage compartment can be manufactured using any known prior art method such as a heat-seal process or an extrusion process of plastic materials. The appendix can be manufactured separately from the storage compartment and even in different locations and the connection of the two components of the bag may be performed along one edge of the storage compartment, leaving in full clear view its contents.

[0025] By "storage compartment" is meant the portion of the bag that permits the storage of containers, e.g. liquid containers, inserted through a closable or resealable mouth. The storage compartment preferably assures a fluid-tight seal, it is provided in any suitable design and any mouth closing means to perform such functions and it may have measures that are within a maximum volume indicated by a predetermined security rule.

[0026] The opaque appendix, which will be hereinafter also referred to as "no-volume-for-storage-appendix", may be at least one panel or sheet, of flexible or foldable nature, of different or equal thickness with respect to the bag's walls, and preferably with a colored, semi-opaque or completely opaque surface. The opaque appendix may be even a transparent panel or sheet which is made opaque by indicia, labels, tickets, cards or removable media applied thereon. In any case, the opaque appendix used in the invention is not a flap of the bag, i.e. has not the purpose of closing the mouth of the storage compartment or of providing an additional closure of the mouth. The storage compartment already comprises its own resealable fastener for this purpose. Therefore, the opaque appendix used in the invention preferably fully lies on the same side of the storage compartment when it is in the covering position.

[0027] The "no-volume-for-storage-appendix" used in the invention, due to its features, cannot hold containers or liquids or other dangerous items.

[0028] Hereinafter, the expression "opaque" is used to characterize an object through which a significant part of visible light directed to the object is not transmitted therethrough but, for instance, is back-scattered, reflected or absorbed because of surface or color properties of the object. Preferably, opacity is such that all or most of visible light is not transmitted through the object. Instead, with the term "transparent" referred to an object it is intended that most or substantially all of visible light is transmitted through the object.

[0029] It is noted that the security transparent bag described hereinafter is particularly related to aircraft operations or airport security, but is not limited to such applications. It is also applicable to other situations where checks need to be made to precisely conform to certain specific regulations.

BRIEF DESCRIPTION OF THE DRAWINGS

[0030] Further characteristics and advantages of the invention will become better apparent from the description of preferred but not exclusive embodiments of the device according to the present invention, illustrated by way of non-limitative examples in the accompanying drawings, wherein:

Figure 1 is a perspective view of the security bag according to a first general embodiment of the invention, showing the storage compartment with the no-

volume-for-storage-appendix in the inspection position.

Figure 2 is a left side elevation view of the bag shown in Figure 1.

Figure 3 is a perspective view of the bag shown in Figure 1 having the no-volume-for-storage-appendix in the covering position.

Figure 4 is a perspective view of the storage compartment of Figure 1 showing a plastic strip sealed on one edge of the storage compartment.

Figure 5 is a left side elevation view of the storage compartment of Figure 4.

Figures 6-7 are rear elevation views of no-volume-for-storage-appendixes respectively bearing an airline name and a code for a promotion or lottery.

Figure 8 is a rear elevation view of a no-volume-for-storage appendix in which two-sided adhesive tapes are used to maintain the covering position;

Figure 9 is a rear elevation view of an appendix having a transparent pocket for keeping a boarding pass or a ticket.

Figure 10 is a front elevation view of an embodiment in which the storage compartment contains liquid containers inside and the no-volume-for-storage-appendix comprises indicia on its back surface.

Figure 11 is a front elevation view of a further embodiment of the security bag, in the inspection position, having the attachment means connecting the appendix to the storage compartment at the short edge of the storage compartment.

Figure 12 is a further embodiment of the security bag, in which two plastic sheets are shown together with one cardboard therebetween.

Figure 13 is a further embodiment of the security bag, in which adhesive is applied to a strip protruding from an edge of the storage compartment.

Figure 14 shows a particular opaque appendix in which perforated lines are provided so as to obtain removable coupons.

Figures 15a-15b are perspective and left elevation views of a storage compartment according to a second preferred embodiment of the invention.

Figure 16 is a perspective view of a bag comprising the storage compartment of Figure 15a and an opaque appendix in the covering position.

Figure 17 is a perspective view of the storage compartment of Figure 15a with an adhesive applied to a joining edge thereof.

Figures 18a-18b are front and rear elevation views of an opaque appendix comprising a transparent edge region.

Figure 19 is a rear elevation view of an opaque appendix comprising an adhesive at an edge region.

Figure 20 is a left side elevation view of an embodiment of the security bag according to the invention, in which the opaque appendix of Figures 18a-18b is attached to a joining edge of the storage compartment.

Figures 21a-21c are left side elevation views of embodiments of the security bag in which the opaque appendix is attached to the storage compartment in different ways.

Figures 22a-22b are perspective and left side elevation views of an attachment means used in embodiments of the invention for joining the opaque appendix to the storage compartment.

Figures 23a-23c are perspective views of an opaque appendix using the attachment means of Figures 22a-22b.

Figures 24a-24c are perspective views of the opaque appendix of Figures 23a-23c and of a security bag using such appendix, in which an adhesive is applied to the attachment means.

Figures 25a-25b are perspective and left side elevation views of a three-band attachment means used in embodiments of the invention for joining the opaque appendix to the storage compartment.

Figure 26 shows an arrangement of an opaque appendix and of the attachment means of Figures 25a-25b.

Figures 27a-27b are front and rear elevation views of the opaque appendix of Figure 26.

Figures 28a-28b are perspective views of a security bag according to an embodiment of the invention, respectively in the inspection position and in the covering position, which comprises the opaque appendix and the attachment means of Figure 26.

Figure 28c is a perspective view of a security bag according to an embodiment of the invention, in the covering position, which comprises an appendix with labels thereon.

Figures 29a-29b are perspective views of an opaque appendix having a transparent attachment means at one edge thereof.

Figures 30a-30b are perspective views of a security bag according to an embodiment of the invention, respectively in the inspection position and in the covering position, which comprises the opaque appendix and the attachment means of Figure 29a-29b.

Figure 31 is a perspective view of a storage compartment with a first microchip on one sidewall, which can be used in embodiments of the invention.

Figure 32 is a perspective view of a storage compartment with a second microchip on one edge, which can be used in embodiments of the invention.

Figures 33a-33c are perspective views of a storage compartment with pockets, which can be used in embodiments of the invention.

Figures 34a-34b are front and rear elevation views of a three-stripe tape used as an attachment means in embodiments of the invention.

[0031] In the above drawings as well as in the following description, the same reference numbers will indicate identical or technically equivalent features.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0032] With reference to Figures 1-5, a security bag 1 according to an embodiment of the invention comprises a storage compartment 2 and an opaque appendix 3, which is attached to the storage compartment 2 through an attachment means 4.

[0033] The storage compartment 2 defines the storage volume of the bag and is made of plastic or plastic-like material, such as PVC, polyethylene or polypropylene.

[0034] Such materials can be processed according to any known method used for manufacturing plastic bags. For instance, from a given tubular transparent plastic reel, a die-cut operation for obtaining plastic sheets having the desired measures is performed and, finally, the plastic sheet or sheets are welded or heat sealed to obtain the desired form of the bag. If the bag is manufactured from a single transparent sheet, the bag may be obtained by folding such sheet substantially along a middle line and by heat sealing two edges together, so as to define one mouth. If two or more transparent plastic sheets are used as starting materials, they could be joined to each other at their edges by heat sealing.

[0035] Obviously, any joining method for manufacturing the bag other than heat sealing can be used; for instance, electrical or ultrasonic welding, gluing or sewing. Most preferably, the joining method is chosen so that the sealing junctions of the bag are fluid-tight.

[0036] The thickness of the transparent sheets, which corresponds to the thickness of the walls of the bag 1, preferably ranges from 0.20mm to 0.50mm, although any thickness may be adopted according to requirements.

[0037] The storage compartment 2, being formed by transparent sheets, is completely transparent too, so that its contents can be inspected from the outside from any perspective and without having to rotate or open the bag.

[0038] In order to access the storage volume of the bag, in all of the embodiments of the invention the storage compartment comprises a mouth 5 which comprises a resealable fastener, preferably of the kind having reciprocally facing profiles adapted to resealably interlock to each other. More preferably, the resealable fastener is a zip-lock fastener 5a which may be optionally provided with a slider 5b and stoppers 5d. As it is well known, the zip-lock fastener 5a can be independently manufactured and easily joined to the bag during manufacturing thereof by a welding operation along a line 5c.

[0039] Obviously, any sealable or resealable fastener can be provided at the mouth of the bag, such as an adhesive. However, in the preferred embodiments of the invention the bag is fluid-tight and, accordingly, the closure means of the mouth 5 are chosen so that they provide a fluid-tight seal when they are in the closed state. For simplicity, in all of the embodiments depicted in the drawings, the mouth closure means always comprises a zip-lock fastener 5a.

[0040] The storage compartment 2 comprises transparent walls 2a-2d which completely enclose the storage volume when the mouth 5 is closed. At least such storage volume, and accordingly its contents, must be completely visible from the outside of the bag and from any perspective.

[0041] The opaque appendix 3, which can be manufactured and provided separately from the storage compartment 2, is movable, with respect to at least one wall 2a of the storage compartment 2, between a covering position (Figure 3), in which the appendix 3 lies at least partially on the wall 2a for at least partially screening the storage volume of the bag from an outside view of the storage compartment 2, and an inspection position (Figures 1-2), in which the appendix 3 does not lie on the wall 2a, for allowing full view of the whole storage volume of the bag 1 through any wall 2a-2d of the storage compartment 2. In the covering position, the opaque appendix 3 fully lies on the same side of the storage compartment, as it is seen from Figure 3. The movement of the appendix 3 from the inspection position to the covering position is shown by an arrow in Figure 1.

[0042] As a consequence, when the passenger or, more generally, the holder of the bag 1 wishes to hide the contents of the bag, the appendix is brought to the covering position (Figure 3) and, for instance, the bag is held with one hand along one hip. The contents of the bag, thanks to the covering function of the no-volume-for-storage appendix 3, are hidden from a front view of the covered side of the bag. The contents are also substantially hidden from a perspective view such as that shown in Figure 3, because the portion visible is not enough to understand what the content of the security bag 1 is. The covering function is sufficient to perform the privacy protection needed and avoids displaying the contents of the storage compartment 2 to other individuals. When the bag 1 leans on a surface, like the one of a trolley, or is held along one hip of the user, a viewer has a very limited vision, similar to the one offered by the perspective shown in Figure 3. At the checkpoint, the passenger or an officer simply opens the appendix 3 to the inspection position (Figure 1), so as to inspect the contents of the bag as it occurs for conventional transparent bags at checkpoints, without opening the mouth of the bag.

[0043] Preferably, in all of the embodiments of the invention the surface extension of the appendix 3 is substantially equal to the surface extension of the covered wall 2a, so that the appendix completely covers the wall 2a when it is in the covering position. However, the extension of the appendix 3 may be less than or greater than the extension of the wall 2a, according to requirements. For instance, the appendix may be have such an extension that could be folded over the bag and cover both of the opposing walls 2a and 2b, without closing or sealing the mouth of the storage compartment.

[0044] In alternative embodiments, the security bag may comprise more than one no-volume-for-storage appendix, in order to cover corresponding walls of the storage compartment. However, from the security standards

point of view, it is preferred to provide only one appendix as shown in the embodiments depicted in the Figures, so that at least a first-sight inspection of the storage compartment is possible even when the no-volume-for-storage appendix is in the covering position, e.g. from the non-covered wall 2b of the storage compartment 2.

[0045] The no-volume-for-storage appendix according to the invention may comprise a fastening means for maintaining the appendix in the covering position after the bag has been inspected. With reference to Figures 1-11, such fastening means may be a hook-and-loop fastener, such as Velcro, applied on corresponding plastic tabs 8a-8b protruding outwardly from the periphery of the appendix 3 and of the storage compartment 2, respectively. An alternative fastening means may be a two-sided adhesive tape 18a, as shown in Figure 8, with the exposed side preferably covered with a repositionable adhesive. The tape 18a is applied to the side 13b of the no-volume-for-storage appendix 13 that will lie on the wall 2a of the storage compartment in the covering position.

[0046] Otherwise, a fastening means may be simply obtained by choosing suitable materials for the no-volume-for-storage appendix, e.g. plastic or plastic coatings, and by exploiting the static electricity that may characterize such materials of the no-volume-for-storage appendix 3 and/or of the storage compartment 2, which tends to maintain plastic surfaces attached to each other through static cling.

[0047] Optionally, a hole or slot 9 may be present in the no-volume-for-storage appendix for holding the bag 1, e.g. by using a thread 9a, as shown in Figure 10, or a finger.

[0048] It is noted that the covering position of the no-volume-for-storage appendix is not irreversible and, depending on the owner preferences or security personnel requests, the bag 1 can be carried with the no-volume-for-storage appendix in the inspection position, as shown in Figure 1, or in the covering position, as shown in Figure 3.

[0049] The attachment means according to the invention, which connects the storage compartment to the no-volume-for-storage appendix and which will be described hereinafter, is chosen so as to hide no portion of the storage volume of the bag when the appendix is in the inspection position. To this aim, the storage compartment may comprise at least one edge 6 at its periphery and outside the storage volume, and the attachment means may be located at such edge 6. Otherwise, a transparent attachment means could be used and applied on one wall of the storage compartment, which overlaps the storage volume.

[0050] In particular, with reference to Figures 1-5, the edge 6 at which the attachment means is placed is a joining edge of the storage compartment 2, which protrudes only slightly from the periphery of the storage compartment 2, e.g. less than 3mm. The attachment means, in this case, comprises a strip 4 protruding outwardly from edge 6, which is located on the bottom of the storage compartment 2.

[0051] The no-volume-for-storage appendix 3 is attached to the strip 4 through an edge region 7 of the appendix 3. In the preferred embodiments of the invention employing the strip 4 as an attachment means, the edge region connecting the appendix to the strip 4 may be one of the outermost borders of the no-volume-for-storage appendix or may be located on one side of the appendix in close proximity to such border. In the latter case, the edge region of the appendix may be either on the side 3b of appendix that lies on the wall 2a of the storage compartment in the covering position or on the opposite side 3a of the appendix 3.

[0052] It is noted that the strip 4, being external to the storage volume of the bag 1, does not compromise integrity of the storage compartment 2, which remains an independent container, and the appendix 3 is attached to the storage compartment along a line which is completely outside the storage volume. Accordingly, as it can be seen from Figures 1 and 2, the storage compartment maintains a full transparency even though a non-transparent appendix 3 is present. Security is also guaranteed by the absence of any storage volume in the appendix 3, which prevents a criminal from hiding dangerous material within the appendix. In fact, although be opaque per se or be transparent and be made opaque by application of indicia, labels, tickets, cards or removable media thereon, the appendix is a sheet or sheet-like panel made of any material, preferably non-metal material or other material suitable to pass through metal detectors.

[0053] The strip 4 is preferably made of plastic or plastic-like material and is welded to the edge 6 of the storage compartment. In an alternative, the strip may be an excess region of the storage compartment, obtained for instance by using, for obtaining the wall 2a during manufacturing, a sheet longer than the other sheets, so that the storage compartment obtained by using such sheet already comprises an integral flap protruding from one edge.

[0054] Optionally, the strip 4 comprises a tamper-evident tape 4b applied over the strip, as shown in Figure 10, which serves as a guarantee for the passenger of the integrity of the bag.

[0055] The no-volume-for-storage appendix 3 may be joined to the strip 4 according to any known methods. For instance, in the embodiment of Figures 1-11, welding is used, so that a welded region 7b on the edge region 7 of the appendix is formed which connects the appendix to the strip 4. From Figures 1-2 it is noted that such welded region 7b is at an outermost border of the appendix 3. An alternative welded region, indicated with 17b, is shown in Figure 8, which will be discussed hereinafter.

[0056] Optionally, the welded region 7b joining the no-volume-for-storage appendix 3 to the strip 4 may comprise at least one weakened region for allowing the appendix to be easily torn away from the bag. For instance, the weakened region may be a line of reduced thickness or a pre-fracture or perforated line. The weakened region

may be the welding line itself, too.

[0057] The weakened region is provided in order to make the security bag readily compliant with even the strictest security rules: if an officer at a checkpoint is not satisfied with the presence of an appendix, regardless of its possibility of being movable, the appendix may be easily removed from the storage compartment, certainly complying with any security rules. It is also noted that the action of removing the appendix would take place just few seconds before the check, allowing the passenger to maintain privacy in the most critical phase.

[0058] Moreover, the weakened region allows the storage compartment to be readily reusable by different owners, by simply removing the appendix of the previous owner, which may contain specific personal information thereon, and applying a new one.

[0059] In alternative embodiments, which will be discussed with reference to Figures 14-15, sticking or gluing are used instead of welding, for fastening the appendix to the strip. Otherwise, a seam may be used (not shown in the Figures).

[0060] The no-volume-for-storage appendix 3, in addition to providing a privacy maintaining function, defines a double surface available for several purposes.

[0061] In particular, as shown in Figures 6-8, the inner side 3b of the no-volume-for-storage appendix 3 comprises data or indicia. Obviously, indicia can be also or alternatively applied to the outer side 3a of the appendix. For instance, data 301 represents the name of the Airline Company on which the security bag will be boarded and data 302 is a sponsor: therefore, data provides a first immediate highly visible indication to the security personnel and at the same time is an advertising tool for the Airline Company 301 and for the sponsor 302.

[0062] The low section of outer side 3a and/or of the inner side 3b of the no-volume-for-storage-appendix 3 can be used for advanced identification purposes. To this aim, a univocal code 303 is provided, e.g. in the form of a bar code, which is specifically assigned to a passenger, without having the passenger's name to appear on side 3a or 3b.

[0063] Security indicia 304 may be present to indicate that the security bag 1 has been checked and it is safe for boarding. Data 306 and 305 indicate the flight and the seat where the security bag 10 should be located when not in the hands of the passenger.

[0064] Further indicia may comprise a serial number or a code identifying the appendix, printed or, more generally, applied when the appendix is manufactured.

[0065] Having provided the security bag 1 with specific data 301, 303, 304, 305, 306 opens the possibility of performing security checks without the passenger being physically present, and eventually of delivering the bags directly to the plane, reducing some of the inconveniences typical of travelers.

[0066] Further indicia could be provided on the no-volume-for-storage appendix 3. For instance, a code 307 for a promotional program or a lottery number may be applied or printed on the appendix 3, as shown in Figure 7.

[0067] The data or indicia may be alternatively or additionally applied on the side 3b of the appendix 3 that lies on the wall 2a of the storage compartment 2 in the covering position, as shown in Figures 6-8 and 10, where the same reference numbers have been used for identifying the same or technically equivalent features. It is noted that, in Figures 6-8, the welding region 17b for connecting the appendix 3 to the strip 4 of the storage compartment 2 is not on the outmost border of the appendix, as in Figure 1, but is on the side 3b of the appendix, next to such border.

[0068] In particular embodiments of the invention, an opaque appendix 23 of the bag may be provided with a transparent flat pocket 21, on either its front or rear sides, for storing a flight ticket or a boarding pass 22, as shown in Figure 9.

[0069] In other embodiments of the invention, the strip and the opaque appendix according to the invention could be provided at a lateral edge 6b of the storage compartment instead of the bottom edge. For instance, as shown in Figure 11, an opaque appendix 23a with a transparent pocket 21a is welded to a strip 24 protruding out of a lateral edge 6b of the storage compartment 2.

[0070] In a further embodiment of the invention, depicted in Figure 12, the opaque appendix 33 is formed by at least two layers 3c, 3d fixed to each other, and the strip 4 protruding from the edge 6 of the storage compartment 2 is sandwiched between such layers of the appendix 33 at the edge region 37 of the appendix. Preferably, the first layer 3c is a non-transparent sheet and the second layer 3d is a transparent plastic sheet joined to the non-transparent sheet 3c.

[0071] A cardboard 32 with indicia thereon may be enclosed between the two layers 3c and 3d.

[0072] Obviously, the two layers composing the appendix 33 may be both non-transparent, or both transparent with an opaque cardboard or sheet therebetween, or of different materials, and may comprise indicia applied on their surface.

[0073] In order to fasten the appendix 33 to the strip, an adhesive may be applied on the surfaces of the strip 4, or on the inner surfaces of the edge regions of layers 3c and 3d. As alternatives, welding or sewing may be used.

[0074] In another embodiment of the invention, which is shown in Figure 13 but which is not limited to the particular no-volume-for-storage appendix shown in Figure 13, the attachment means for connecting the no-volume-for-storage appendix to the storage compartment 2 may also comprise a first adhesive 4a applied on at least one side of the strip 4. Otherwise, a second adhesive 7a may be applied on at least one side of the appendix substantially at the edge region of the appendix, e.g. as shown in Figure 14, in which only one repositionable adhesive 18a is shown. In both cases, the contact region between the strip of the storage compartment and the edge region

of the opaque appendix will be larger with respect to the embodiments where only a welding line is used to connect the strip and the edge region together.

[0075] The first or the second adhesives 4a, 7a may be any one of a glue, a pressure sensitive adhesive, a two-sided adhesive tape, a permanent adhesive, or a repositionable adhesive.

[0076] If the storage compartment and the no-volume-for-storage appendix are provided separately, a removable liner strip may be applied on the first adhesive 4a or, as shown with number 7c for example in Figure 14, on the second adhesive 7a, which liner can be easily removed when the appendix is to be attached to the storage compartment. This arrangement is particularly preferred when the storage compartment and the appendix of the bag according to the invention are joined together at the airport, or nearby the checkpoint, or by an advertiser or an airline company providing the appendix with indicia thereon.

[0077] In the particular embodiment of Figure 13, another feature which can be used in any of the embodiments of the invention is shown. A no-volume-for-storage appendix 43 is provided which comprises a plurality of pre-fracture or perforated lines 45 arranged so as to define closed areas 46 on which respective indicia can be applied, for obtaining coupons, and which can be removed from the appendix independently of one another.

[0078] The no-volume-for-storage appendix 43 is preferably selected among cardboard, photographic paper, printer paper, or any other suitable material that is printable with laser, led, solid ink, inkjet, or thermal printers, or that can be embossed, engraved or written.

[0079] In an alternative, the no-volume-for-storage appendix may comprise a backing sheet on at least one side of which one or more adhesive labels are applied. As the coupons 46, such labels could be printed and removed independently of one another.

[0080] Optionally, a pre-fracture or weakened line 47a may be provided which separates the covering part of the appendix 43 from the edge region 47 of the appendix that will be attached to the strip 4 of the storage compartment 2. The weakened line 47a allows the covering part of the appendix 43 to be permanently removed from the bag by tearing along such line.

[0081] Various embodiments of the opaque appendix used in the invention have been described which are applied to storage compartments comprising a strip protruding from an edge of the storage compartment, such as in Figure 4.

[0082] Nevertheless, the opaque appendixes described above, as well as the appendixes which will be described hereinafter, can be applied not only to storage compartment 2, but also to storage compartments 62 in which the attachment means are placed directly at a joining edge of the storage compartment that reciprocally joins at least two transparent walls (or that results from extrusion or other manufacturing process) and which significantly protrudes outwardly with respect to the storage volume of the bag so as to provide an extended attachment surface, as shown in Figures 15a-15b. In this case, the opaque appendix is attached to such joining edge of the storage compartment at an edge region of the appendix.

[0083] The extended joining edge, which is indicated in Figures 15a-15b with numeral 64, is directly obtained during manufacturing of the bag by any known technique for joining edges of panels constituting plastic bags (e.g. by extrusion or heat sealing) and may be provided at some or all of the borders of the bag. In order to provide an attachment surface, the joining edge preferably protrudes at least about 3mm, preferably 5mm and most preferably 6mm, from the periphery of the storage volume.

[0084] Any of the opaque appendixes described above may be applied at the joining edge 64, using the same means described above, e.g. by welding, gluing, sticking or sewing, for obtaining a security bag which, when the appendix is in the covering position, may appear as shown in Figure 16. For instance, as shown in Figure 17, a third adhesive 64a may be applied to the attachment surface of the joining edge 64. The third adhesive 64a is preferably a two-sided adhesive tape provided with a removable liner tape 64b. In other embodiments, the third adhesive may be any one of a glue, a pressure sensitive adhesive, a permanent adhesive, a repositionable adhesive.

[0085] As an alternative, instead of providing a third adhesive at the joining edge 64, a second adhesive may be applied on at least one side of the opaque appendix substantially at the edge region of the opaque appendix, such as in Figure 14.

[0086] In both cases, the edge region of the appendix to be attached to the joining edge 64 may be either on the side of the appendix that lies on the covered wall 62a of the storage compartment in the covering position or on the opposite side of the appendix.

[0087] As a further alternative, the appendix may be formed by a plurality of layers as previously shown in Figure 12. In this case, the joining edge 64 may be sandwiched between such layers of the appendix at the edge region 37 of the appendix 33.

[0088] In an embodiment of the invention, depicted in Figures 18a-18b, the opaque appendix 63 of the bag may comprise an opaque panel 63a made of plastic, optionally comprising a two-sided adhesive tape 68a and a corresponding liner 68b, and an edge region 67, which is preferably transparent and which is to be attached to the joining edge 64 of the storage compartment 62, as shown in Figure 20. Obviously, in other embodiments of the invention, such appendix 63 may be attached to the storage compartment 2 of Figure 4 through the strip 4 and the transparent edge region 67.

[0089] The transparent edge region 67 may be attached to the opaque panel 63a through a welding operation, obtaining a first welding line 67a between the edge region 67 and the opaque panel 63a, about which the

opaque panel 63a can pivot partially or totally with respect to the transparent edge region 67.

[0090] As an alternative, the first welding line 67a between the appendix and the transparent edge region of the appendix may be adapted to maintain the opaque panel 63a folded over the transparent edge region 67 of the appendix along the first welding line 67a, so that the appendix 63 tends to maintain the covering position.

[0091] The first welding line 67a may be such as to allow the opaque panel 63a to be removed from the bag by tearing along such welding line 67a. Weakened regions such as perforated regions may be provided to simplify the tearing or peeling operation.

[0092] Yet in other alternative embodiments, the edge region of the appendix may be obtained by folding the appendix along a folding line or along a plurality of substantially parallel folding lines.

[0093] For obtaining the security bag 60, the edge region 67 may be attached to the joining edge 64 of the storage compartment 62 through a sealing operation, although any other operation such as sewing, gluing or sticking may be used. In the case where sticking is used, one side of the edge region 67 may be covered with a two-sided adhesive 67b, optionally provided with a corresponding removable liner 67c, as shown in Figure 19.

[0094] Regardless of the attachment means used, the edge region 67 of the appendix 63 overlaps the joining edge 64 of the storage compartment 62 so that the first welding line 67a (or the folding line) is either substantially superimposed to a boundary line 164a between the joining edge 64 of the storage compartment and one of the transparent walls 62a forming such joining edge 64 (Figure 20), or substantially at a free border 164b of the joining edge of the storage compartment 62 (Figures 21a-21b).

[0095] In further embodiments of the invention, depicted in Figures 22a-22b and 23a-23c, the attachment means used in the security bag may comprise a plurality of bands 220 longitudinally joined together at one end 224, e.g. through welding so as to obtain a second welding line. Such attachment means are preferably used for attaching paper or cardboard appendixes to one edge 64 of the storage compartment 62 or to the strip 4 of storage compartment 2. At least a first band 221 of such bands 220 is to be attached to the opaque appendix 73 and at least a second band 222 is to be attached to the storage compartment 2 or 62.

[0096] In particular, a free longitudinal border 223 of the first band 221 may be attached through welding or other means to a border 77 of the appendix 73, while the second band 222 may be attached to the strip 4 of the storage compartment 2 of Figure 4 or to the extended joining edge 64 of the storage compartment 62 of Figure 15a, as shown in Figure 21c, through welding, gluing, sticking or sewing.

[0097] Preferably, at least one of the bands 221-222 comprises a fourth adhesive 225 for attaching the bands, and consequently the opaque appendix 73, to the edge of the storage compartment, be it a strip 4 or an extended joining edge 64. The fourth adhesive may be applied to reciprocally facing sides 221 a and 222a of the first band 221 and the second band 222, respectively, so that the edge of the storage compartment can be sandwiched between such facing sides 221a-222a of the first and second bands, as shown in Figure 24a-24c. As an alternative, the fourth adhesive may be applied to both sides of the strip 4 or the extended joining edge 64.

[0098] The fourth adhesive is preferably a permanent adhesive, although glue or a repositionable adhesive may be used.

[0099] With reference to Figures 25a-25b, the attachment means of the bag according to further embodiments of the invention may comprise a plurality of bands 230 longitudinally joined together at one end 234, e.g. through welding. Such attachment means are preferably used for attaching paper or cardboard appendixes to one edge 64 of the storage compartment 62 or to the strip 4 of storage compartment 2. A first band 231 and/or a third band 233 of such bands 230 are to be attached to an opaque appendix by sandwiching and at least a second band 232 is to be attached to the storage compartment 2 or 62, optionally together with the third band 233.

[0100] As a first alternative, the second band 232 and the third band 233 may be attached to the strip 4 of the storage compartment 2 of Figure 4 or to the extended joining edge 64 of the storage compartment 62 of Figure 15a by using a fourth adhesive applied to reciprocally facing sides 232a and 233a of the second band 232 and the third band 233, respectively, so that the edge of the storage compartment can be sandwiched between such facing sides 232a-233a of the second and third bands. The fourth adhesive may be alternatively applied to both sides of the strip 4 or of the extended joining edge 64, depending on the storage compartment used. In order to attach an opaque appendix to the plurality of bands 230, a first adhesive may be applied to one of the sides 231 a or 231 b of the first band 231 and an edge region of the no-volume-for-storage appendix may be attached to such side.

[0101] In alternative embodiments, an appendix 83 may be provided which comprises, at both sides 83a-83b of one edge region 87, an adhesive 88a-88b, optionally covered with a respective liner tape 88c-88d. The opaque appendix 83, shown in Figures 27a and 27b, may be a cardboard or equivalent sheet optionally with perforated lines 85 forming closed, removable areas 86, similar to the appendix of Figure 14. Otherwise, the opaque appendix 83 can be photographic paper, printer paper, or any other suitable material that is printable with laser, led, solid ink, inkjet, or thermal printers, or that can be embossed, engraved or written.

[0102] Such edge region 87 may be accordingly sandwiched between reciprocally facing sides 231b and 233b of the first and third bands, respectively, as shown in Figure 26. Obviously, the adhesive may be applied to such facing sides 231b and 233b instead of to both sides of the edge region 87 of the appendix 83. Then, the fourth

adhesive may be applied to both sides 232a and 233a of the second and third bands, for fastening the second and third bands to an edge (be it a strip 4 or a joining edge 64) of the storage compartment or may be applied to only one side 232a or 232b of the second band 232, which is finally attached to the strip 4 or to the extended joining edge 64, depending on the storage compartment used. A security bag resulting from the combination of the storage compartment 62, the appendix 83 and the plurality of bands 230 is shown in Figures 28a and 28b, in the inspection and covering position, respectively.

[0103] Figure 28c shows an analogous opaque appendix in which, instead of the pre-cut coupons 86 removable from a cardboard 83, removable adhesive labels 86a are applied to at least one side of a backing sheet 86b, which may be of plastic material. The labels 86a lying on the backing sheet 86b can be printed independently of one another, as well as the coupons 86. For instance, the backing sheet 86b with the labels 86a may be put in the tray of a printer so as to print different indicia on different labels at the same time.

[0104] In further embodiments of the invention, for attaching the opaque appendix to the edge of the storage compartment, be it a strip 4 or an extended joining edge 64, the attachment means may comprise a tape 240 consisting of three stripes, as shown in Figures 34a-34b: a first stripe 241 having an adhesive side 241 a and an opposite non-adhesive side 241 b, a second stripe 242 having a non-adhesive side 242a and an opposite adhesive side 242b, and a transparent middle stripe 243 between the first and second stripes 241-242, arranged so that the first and second stripes 241-242 feature their adhesive sides 241a 242b on opposite faces of the tape 240.

[0105] Tape 240 may be particularly useful for those embodiments in which the storage compartment is reusable for a plurality of passengers or owners. Thanks to such tape 240, an opaque appendix can be readily joined to a storage compartment such as storage compartment 62, after the latter has been cleaned or sterilized. Once the security bag has been used and disposed by passenger, it can be collected by, e.g., the airline company that provided it to the passenger, the opaque appendix can be easily removed and disposed together with the three-stripe tape 240, and the storage compartment can be cleaned and/or sterilized for a future use. In this case, in order to obtain a reusable storage container, the storage container should be sturdy enough and, accordingly, the panels constituting it should be preferably thick, e.g. about 0.5mm thick.

[0106] In the embodiments discussed above, in order to apply an opaque appendix to the storage container, attachment means which are placed at a protruding edge region of the storage compartment have been proposed.

[0107] However, another attachment means which is adapted to hide no portion of the storage volume of the bag when the opaque appendix is in the inspection position could be a transparent connection means placed directly on the wall 2a or 62a where the appendix will lie in the covering position, or on another wall of the storage compartment, and on a position which overlaps a portion of the storage volume of the bag.

[0108] In particular, such attachment means may consist of a fully transparent adhesive tape 97, having an adhesive surface 97a and being attached, on the opposite face, to a border 93a of an opaque no-volume-for-storage appendix 93 at a middle region of the tape, as shown in Figures 29a-29b, preferably through a sealing operation.

[0109] Another possible transparent attachment means may be arranged with respect to the appendix as discussed with reference to Figures 18a-18b.

[0110] Thanks to the transparent adhesive tape 97, the no-volume-for-storage appendix 93 can be attached to a storage compartment 92 in a position of one wall 92a that overlaps the storage volume of the compartment 92, as shown in Figures 30a-30b. The overlapping between such a transparent attachment means and the storage volume does not hide any portion of the storage volume of the bag when the appendix is in the inspection position, as it is particularly apparent from Figure 30a.

[0111] In all of the embodiments of the invention described above, the no-volume-for-storage appendix is made of an opaque material or a material that can be made opaque through application of indicia, labels, tickets, cards or removable media thereon. In particular, the appendix may be a single or layered sheet of a material selected from the group comprising: cardboard, paper, photographic paper, printer paper, plastic or any other material on which indicia can be applied by printing, writing, sticking, engraving or embossing.

[0112] The indicia, if present, may be applied by printing, writing, engraving or embossing either on the side of the no-volume-for-storage appendix that lies on a wall of the storage compartment in the covering position, or on the opposite side, or on both sides. The indicia may contain or be in the form of data regarding an airline company, sponsors, a univocal code assigned to a passenger, security codes, flight and seat numbers, promotional codes, discount codes, rebate codes, key or password codes, Internet access codes, loyalty codes, voucher codes, promo codes, shopping codes, rewards codes, lottery numbers.

[0113] Optionally, when the appendix is made of cardboard or an equivalent material, the appendix may comprise a plurality of pre-fracture lines arranged so as to define closed areas on which respective indicia of the kind just listed above can be applied, for obtaining coupons, which can be removed from the appendix independently of one another.

[0114] Alternatively, the appendix may comprise a backing sheet with at least one adhesive label or a plurality of adhesive labels applied on one or both sides thereof. Any indicia of the kind just listed above can be applied to one or more of such labels.

[0115] Indicia may be optionally provided on regions

of the storage compartment which do not overlap the storage volume, such as on the zip-lock fastener (Figure 33a, where the logo of an airline is depicted) or an edge at the periphery of the storage compartment (Figure 33b, where a serial number is depicted) or on the strip attached to an edge at the periphery of the storage compartment, such as the strip 4 of Figure 4, or the attachment means, such as the bands 220, 230, 240.

[0116] The security transparent bag according to the invention may comprise further optional features.

[0117] For instance, any one of the storage compartments described above, e.g. storage compartment 62, may additionally comprise a microchip 69a attached to one wall 62a as shown in Figure 31. Most preferably, a microchip 69b may be applied to one protruding edge 66 of the storage compartment 62, as shown in Figure 32, so as to lie on such edge without covering the storage volume. As an alternative, not shown in the Figures, the microchip may be applied to the opaque appendix instead of to the storage compartment, or to both.

[0118] The microchip 69a or 69b preferably comprises an RFID antenna and rewritable memory means storing one or more of the following information: tracking information, bag information, personal information of the owner of the bag, encrypted information, security information, weight information, promotional codes, loyalty bonuses, lottery numbers. Such information may be automatically read by an RFID reader, in order to determine the owner of the bag, or his/her flight, and promptly board the bag to the owner's flight or post the bag or an appropriate notice to the owner's home address. The RFID reader may even read a plurality of microchips 69a-69b at the same time, for accelerating the sorting of security transparent bags.

[0119] The possibility of encrypting the information prevents illegal rewriting of the data stored in the memory means of the microchip 69a-69b, with a resulting anti-counterfeiting feature. On the other hand, encrypting information stored in the microchip 69a-69b allows only authorized companies, such as airline companies, to rewrite the data stored in the memory means of the microchip 69a-69b, for instance when the storage compartment is to be reused by a plurality of passengers.

[0120] In any of the above embodiments of the invention, one or more walls of the storage compartment may comprise a transparent pocket, which may be even an attachment means in the sense of the claimed the invention. For instance, a first transparent pocket 65a with one inlet may be provided on the wall 62a to be covered by an opaque appendix according to the invention and a second transparent pocket 65b may be provided on the opposite wall 62b, as shown in Figures 33a and 33b, respectively. The opaque appendix for at least partially screening the contents of the storage compartment may be either a pivotable appendix attached to one edge of the storage compartment, as any of the opaque appendixes described above, or may be a cardboard or other opaque sheet inserted in the pocket 65a or 65b and removable from the pocket 65a or 65b.

[0121] In other embodiments of the invention, a third transparent pocket 65c (Figure 33c) having two inlets may be applied on either or both of walls 62a-62b of the storage compartment, so as to provide a comfortable pocket for both left-handed users and right-handed users. The opaque appendix for at least partially screening the contents of the storage compartment may be pivoted to one edge of the storage compartment, according to the various possibilities discussed above. Otherwise, as pockets 65a and 65b of the embodiment of Figures 33a-33b, the third transparent pocket 65c may be an attachment means in the sense of the claimed invention. In this case, the opaque appendix may consist in a cardboard 65d or other opaque sheet inserted into the pocket 65c, as shown in Figure 33c: the covering position of the appendix 65d would correspond to that depicted in Figure 33c and the inspection position of the appendix 65d would correspond to a complete removal of the cardboard 65d or the like from the pocket 65c.

[0122] In practice it has been found that the bag according to the invention fully achieves the intended aim and objects, since it is completely transparent and, at the same time, allows to temporarily hide the personal belongings contained in the bag. Thanks to the provision of a no-volume-for-storage appendix it is impossible to hide dangerous items even in the opaque part of the bag.

[0123] At the same time, novel surfaces have been provided for identification purposes and commercial activities, while protecting the privacy of the owner of the bag.

[0124] The novel security bag is a highly customizable item, depending on environment and marketing condition, through the connection of different types of "no-volume-for-storage-appendixes" or "appendixes". Such appendixes can be provided separately from the bag, e.g. by an airline company or by another company having advertising purposes, and finally attached to the storage compartment.

[0125] The security bags according to the invention may be provided in standard measures, for solving measuring issues. Moreover, the security bags according to the invention may be provided ready-to-use by automatic machines such as Automatic Teller Machines, which are able to print indicia onto the opaque appendixes, for decentralizing operations and avoiding long lines at check ins.

[0126] While various embodiments of the invention have been shown and discussed, it will be readily apparent to those skilled in the art that there are many modifications, such as in the materials adopted, improvements and changes which can be made without departing from the scope of the invention, as disclosed in the appended claims.

[0127] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly such

reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. Security transparent bag (1) comprising a storage compartment (2,62,92) which is made of plastic or plastic-like material, is completely transparent and defines a storage volume of the bag (1), said storage compartment (2,62,92) comprising a mouth (5) provided with a resealable fastener, said storage compartment (2,62,92) comprising transparent walls (2a-2d,62a) which completely enclose said storage volume when said mouth (5) is closed, **characterized in that** the bag (1) comprises an opaque appendix (3,13,23,23a,33,43,63,65d,73,83,93) which is movable, with respect to at least one of said walls (2a-2d,62a) of the storage compartment (2,62,92), between a covering position, in which the appendix (3,13,23,23a,33,43,63,65d,73,83,93) lies at least partially on said at least one wall (2a-2d,62a) for at least partially screening the storage volume of the bag (1) from outside of said storage compartment (2,62,92), and an inspection position, in which the appendix (3,13,23,23a,33,43,63,65d,73,83,93) does not lie on said at least one wall (2a-2d,62a,62b) for allowing view of the whole storage volume of the bag (1) through any wall (2a-2d,62a) of the storage compartment (2) without opening the resealable fastener, the appendix (3,13,23,23a,33,43,63,65d, 73,83,93) being attached to said storage compartment (2,62,92) through an attachment means so as to hide no portion of the storage volume of the bag (1) when the appendix (3,13,23,23a,33,43,63,65d, 73,83,93) is in the inspection position.

2. The security transparent bag (1) of claim 1, wherein said attachment means comprises a strip (4,24) protruding outwardly from at least one edge (6,6b) of the storage compartment (2,62) and said appendix (3,33,43) is attached to said strip through an edge region (7,37,47) of said appendix (3,33,43).

3. The security transparent bag (1) of claim 2, wherein said at least one edge of the storage compartment is a joining edge (64) which reciprocally joins at least two of said transparent walls of said storage compartment (62), said joining edge (64) protruding outwardly with respect to the storage volume (62) of said bag (1) so as to provide an extended attachment surface, said appendix being attached to said joining edge (64) of the storage compartment (62) at an edge region of said appendix.

4. The security transparent bag (1) of one or more of claims 2-3, wherein said attachment means (4) comprises a welded region (7b) which has at least one weakened region for allowing the appendix (3,33,43) to be easily torn away from the bag (1).

5. The security transparent bag of one or more of the preceding claims, wherein the appendix (3,13,23,23a,33,43,63,65d,73,83,93) is made of a material selected from the group comprising: cardboard, paper, photographic paper, printer paper, plastic or any other material on which indicia can be applied by printing, writing, sticking, engraving or embossing.

6. The security transparent bag (1) of one or more of claims 2-5, wherein said appendix (33) is formed by at least two layers (3c,3d) fixed to each other, said strip (4) or joining edge (64) being sandwiched between said at least two layers (3c,3d) of the appendix (33) at said edge region of the appendix (37).

7. The security transparent bag (1) of claim 6, wherein a first layer of said at least two layers (3c,3d) is a non-transparent sheet comprising indicia thereon and is selected among cardboard, photographic paper, printer paper, or any other suitable material that is printable with laser, led, inkjet, or thermal printers, or that can be embossed, engraved or written.

8. The security transparent bag (1) of claim 7, wherein said appendix (3) is formed by the at least two layers (3c,3d) and a cardboard (32) inserted between said at least two layers (3c,3d).

9. The security transparent bag (1) of any claim 2 to 8, wherein said edge region (47) of the appendix (43) comprises a pre-fracture or weakened line (47a), for allowing permanent removal of the appendix (43) from the bag (1) by tearing along such pre-fracture or weakened line (47a).

10. The security transparent bag (1) of one or more of the preceding claims, wherein the attachment means is transparent and is placed on said at least one wall (2a-2d, 62a) of the storage compartment so as to overlap a portion of the storage volume of the bag (1).

11. The security transparent bag (1) of one or more of the preceding claims, wherein the edge region (67) of the appendix (63) is covered with a two sided adhesive (67b), optionally provided with a corresponding removable liner (67c).

12. The security transparent bag (1) of one or more of the preceding claims, wherein said storage compartment (2,62,92) is fluid-tight when the resealable fastener is closed.

13. The security transparent bag (1) of one or more of the preceding claims, wherein the opaque appendix (3,13,23,23a,33,43,63,65d,73,83,93) and the storage compartment (2,62,92) comprises a microchip (69a,69b), said microchip (69a,69b) comprising an RFID antenna and memory means storing one or more of tracking information, bag information, personal information of the owner of the bag, encrypted information, security information, weight information, promotional codes, loyalty bonuses and lottery numbers.

14. The security transparent bag (1) of one or more of the preceding claims, wherein said appendix (3,13,23,23a,33,43,63,65d,73,83,93) comprises a pocket (65a,65b,65c).

15. The security transparent bag (1) of claim 14, wherein the attachment means is the pocket (65a,65b,65c) and the appendix is a cardboard or other opaque sheet (65d) inserted into the pocket (65a,65b,65c).

Patentansprüche

1. Durchsichtiger Sicherheitsbeutel (1), der ein Aufbewahrungsfach (2, 62, 92) umfasst, welches aus Kunststoff oder kunststoffähnlichem Material besteht, vollständig transparent ist und ein Aufnahmevolumen des Beutels (1) bestimmt, wobei das Aufbewahrungsfach (2, 62, 92) eine Öffnung (5) umfasst, die mit einem wiederverschließbaren Verschluss ausgestattet ist, wobei das Aufbewahrungsfach (2, 62, 92) durchsichtige Wände (2a-2d, 62a) umfasst, die das Aufnahmevolumen vollständig einschließen, wenn die Öffnung (5) geschlossen ist, **dadurch gekennzeichnet, dass** der Beutel (1) einen undurchsichtigen Anhang (3, 13, 23, 23a, 33, 43, 63, 65d, 73, 83, 93) umfasst, der, im Verhältnis zu mindestens einer der Wände (2a-2d, 62a) des Aufbewahrungsfachs (2, 62, 92), zwischen einer Abdeckposition, in der der Anhang (3, 13, 23, 23a, 33, 43, 63, 65d, 73, 83, 93) zumindest teilweise an der mindestens einen Wand (2a-2d, 62a) liegt, zum zumindest partiellen Abschirmen des Aufnahmevolumens des Beutels (1) von außerhalb des Aufbewahrungsfachs (2, 62, 92), und einer Untersuchungsposition bewegt werden kann, in welcher der Anhang (3, 13, 23, 23a, 33, 43, 63, 65d, 73, 83, 93) nicht an der mindestens einen Wand (2a-2d, 62a, 62b) liegt, um eine Sichtung des gesamten Aufnahmevolumens des Beutels (1) durch eine beliebige Wand (2a-2d, 62a) des Aufbewahrungsfachs (2) zu ermöglichen, und zwar ohne Öffnung des wiederverschließbaren Verschlusses, wobei der Anhang (3, 13, 23, 23a, 33, 43, 63, 65d, 73, 83, 93) durch ein Anbringungsmittel so an dem Aufbewahrungsfach (2, 62, 92) angebracht ist, dass kein Teil des Aufnahmevolumens des Beutels (1) verborgen ist, wenn der Anhang (3, 13, 23, 23a, 33, 43, 63, 65d, 73, 83, 93) sich in der Untersuchungsposition befindet.

2. Der durchsichtige Sicherheitsbeutel (1) gemäß Anspruch 1, worin das Anbringungsmittel einen Streifen (4, 24) umfasst, der von mindestens einer Kante (6, 6b) des Aufbewahrungsfachs (2, 62) nach außen ragt, und wobei der Anhang (3, 33, 43) an dem Streifen durch einen Kantenbereich (7, 37, 47) des Anhangs (3, 33, 43) angebracht ist.

3. Der durchsichtige Sicherheitsbeutel (1) gemäß Anspruch 2, worin die mindestens eine Kante des Aufbewahrungsfachs eine Verbindungskante (64) ist, die mindestens zwei der durchsichtigen. Wände des Aufbewahrüngsfachs (62) miteinander verbindet, wobei die Verbindungskante (64) in Bezug zum Aufnahmevolumen (62) des Beutels (1) nach außen ragt, um so eine erweiterte Anbringungsoberfläche bereitzustellen, wobei der Anhang an der Anbringungskante (64) des Aufbewahrungsfachs (62) an einem Kantenbereich des Anhangs angebracht ist.

4. Der durchsichtige Sicherheitsbeutel (1) gemäß einem oder mehreren der Ansprüche 2-3, worin das Anbringungsmittel (4) einen verschweißten Bereich (7b) umfasst, der mindestens einen geschwächten Bereich hat, um zu gestatten, dass der Anhang (3, 33, 43) leicht vom Beutel (1) abgerissen wird.

5. Der durchsichtige Sicherheitsbeutel gemäß einem oder mehreren der obigen Ansprüche, worin der Anhang (3, 13, 23, 23a, 33, 43, 63, 65d, 73, 83, 93) aus einem Material besteht, das gewählt ist aus der Gruppe, die Folgendes umfasst: Pappe, Papier, Fotopapier, Druckerpapier, Kunststoff oder ein beliebiges anderes Material, auf Freimachungsvermerke durch Drucken, Schreiben, Kleben, Gravieren oder Prägen aufgetragen werden können.

6. Der durchsichtige Sicherheitsbeutel (1) gemäß einem oder mehreren der Ansprüche 2-5, worin der Anhang (33) von mindestens zwei Schichten (3c, 3d) gebildet wird, die aneinander befestigt sind, wobei der Streifen (4) oder die Verbindungskante (64) zwischen die mindestens zwei Schichten (3c, 3d) des Anhangs (33) an dem Kantenbereich des Anhangs (37) eingeschlossen ist.

7. Der durchsichtige Sicherheitsbeutel (1) gemäß Anspruch 6, worin eine erste Schicht der mindestens zwei Schichten (3c, 3d) eine nicht-transparente Folie ist, die Freimachungsvermerke darauf umfasst und ausgewählt ist aus Pappe, Fotopapier, Druckerpapier oder einem beliebigen anderen geeigneten Material, das mit Laser-, LED-, Tintenstrahl- oder Thermodruckern bedruckt oder geprägt, graviert oder be-

schrieben werden kann.

8. Der durchsichtige Sicherheitsbeutel (1) gemäß Anspruch 7, worin der Anhang (3) von den mindestens zwei Schichten (3c, 3d) und einer Pappe (32) gebildet wird, die zwischen die mindestens zwei Schichten (3c, 3d) eingefügt ist.

9. Der durchsichtige Sicherheitsbeutel (1) gemäß einem beliebigen Anspruch 2 bis 8, worin der Kantenbereich (47) des Anhangs (43) eine Sollbruchstelle oder eine geschwächte Linie (47a) umfasst, um das dauerhafte Entfernen des Anhangs (43) vom Beutel (1) durch Reißen entlang einer solchen Sollbruchstelle oder einer solchen geschwächten Linie (47a) zu ermöglichen.

10. Der durchsichtige Sicherheitsbeutel (1) gemäß einem oder mehreren der obigen Ansprüche, worin das Anbringungsmittel transparent ist und so auf die mindestens eine Wand (2a-2d, 62a) des Aufbewahrungsfachs platziert ist, dass es einen Teil des Aufnahmevolumens des Beutels (1) überlappt.

11. Der durchsichtige Sicherheitsbeutel (1) gemäß einem oder mehreren der obigen Ansprüche, worin der Kantenbereich (67) des Anhangs (63) mit einem zweiseitigen Klebstoff (67b) bedeckt ist, der wahlweise mit einem entsprechenden abnehmbaren Liner (67c) versehen ist.

12. Der durchsichtige Sicherheitsbeutel (1) gemäß einem oder mehreren der obigen Ansprüche, worin das Aufbewahrungsfach (2, 62, 92) flüssigkeitsdicht ist, wenn der wiederverschließbare Verschluss verschlossen ist.

13. Der durchsichtige Sicherheitsbeutel (1) gemäß einem oder mehreren der obigen Ansprüche, worin der undurchsichtige Anhang (3, 13, 23, 23a, 33, 43, 63, 65d, 73, 83, 93) und das Aufbewahrungsfach (2, 62, 92) einen Mikrochip (69a, 69b) umfassen, wobei der Mikrochip (69a, 69b) eine RFID-Antenne und Speichermittel umfasst, die eine oder mehrere Nachverfolgungsinformationen, Gepäckinformationen, persönliche Informationen des Gepäckeigentümers, verschlüsselte Informationen, Sicherheitsinformationen, Gewichtsinformationen, Werbecodes, Treueboni und Lotteriezahlen speichern.

14. Der durchsichtige Sicherheitsbeutel (1) gemäß einem oder mehreren der obigen Ansprüche, worin der Anhang (3, 13, 23, 23a, 33, 43, 63, 65d, 73, 83, 93) eine Tasche (65a, 65b, 65c) umfasst.

15. Der durchsichtige Sicherheitsbeutel (1) gemäß Anspruch 14, worin das Anbringungsmittel die Tasche (65a, 65b, 65c) ist und der Anhang eine Pappe oder andere undurchsichtige Folie (65d) ist, die in die Tasche (65a, 65b, 65c) eingeführt wird.

Revendications

1. Sac de sécurité transparent (1), comprenant un compartiment de stockage (2,62,92), formé en matière synthétique ou en un matériau analogue à une matière synthétique, complètement transparent et définissant un volume de stockage du sac (1), ledit compartiment de stockage (2,62,92) comprenant une embouchure (5) munie d'un organe de fixation désolidarisable, ledit compartiment de stockage (2,62,92) comprenant des parois (2a à 2d, 62a) transparentes, enclosant complètement ledit volume de stockage lorsque ladite embouchure (5) est fermée, **caractérisé en ce que** le sac (1) comprend un appendice (3,13,23,23a,33,43,63,65d,73,83,93) opaque, déplaçable, par rapport à au moins l'une desdites parois (2a à 2d, 62a) du compartiment de stockage (2,62,92), entre une position de recouvrement, dans laquelle l'appendice (3,13,23,23a, 33,43,63,65d,73,83,93) est situé au moins partiellement sur ladite au moins une paroi (2a à 2d, 62a), pour masquer au moins partiellement le volume de stockage du sac (1) vis-à-vis de l'extérieur dudit compartiment de stockage (2,62,92), et une position d'inspection, dans laquelle l'appendice (3,13,23,23a,33,43,63,65d,73,83,93) n'est pas situé sur ladite au moins une paroi (2a à 2d, 62a, 62b), pour permettre la vue de la totalité du volume de stockage du sac (1) à travers une paroi (2a à 2d, 62a) quelconque du compartiment de stockage (2), sans ouvrir l'organe de fixation désolidarisable, l'appendice (3,13,23,23a,33,43,63,65d,73,83,93) étant attaché audit compartiment de stockage (2,62,92) par des moyens d'attachement, de manière à ne cacher aucune partie du volume de stockage du sac (1), lorsque l'appendice (3,13,23,23a,33,43,63,65d, 73,83,93) se trouve dans la position d'inspection.

2. Sac de sécurité transparent (1) selon la revendication 1, dans lequel lesdits moyens d'attachement comprennent une bande (4, 24) faisant saillie extérieurement d'au moins un bord (6, 6b) du compartiment de stockage (2, 62) et ledit appendice (3, 33, 43) est attaché à ladite bande par une région de bord (7, 37, 47) dudit appendice (3, 33, 43).

3. Sac de sécurité transparent (1) selon la revendication 2, dans lequel ledit au moins un bord du compartiment de stockage est un bord de liaison (64), qui relie réciproquement au moins deux desdites parois transparentes dudit compartiment de stockage (62), ledit bord de liaison (64) faisant saillie extérieurement par rapport au volume de stockage (62) dudit sac (1), de manière à fournir une surface d'attache-

ment étendue, ledit appendice étant attaché audit bord de liaison (64) du compartiment de stockage (62), au niveau d'une région de bord dudit appendice.

4. Sac de sécurité transparent (1) selon une ou plusieurs des revendications 2 à 3, dans lequel lesdits moyens d'attachement (4) comprennent une région soudée (7b), qui comprend au moins une région affaiblie, pour permettre à l'appendice (3, 33, 43) d'être aisément déchiré du sac (1).

5. Sac de sécurité transparent selon une ou plusieurs des revendications précédentes, dans lequel l'appendice (3,13,23,23a,33,43,63,65d,73,83,93) est fait d'un matériau sélectionné dans le groupe comprenant : carton, papier, papier photographique, papier pour imprimante, matière synthétique ou tout autre matériau sur lequel des indications peuvent être appliquées par impression, écriture, accrochage, gravure ou embossage.

6. Sac de sécurité transparent (1) selon une ou plusieurs des revendications 2 à 5, dans lequel ledit appendice (33) est formé d'au moins deux couches (3c,3d) fixées les unes aux autres, ladite bande (4) ou bord de liaison (64) étant pris en sandwich entre lesdites au moins deux couches (3c,3d) de l'appendice (33), au niveau de ladite région de bord de l'appendice (37).

7. Sac de sécurité transparent (1) selon la revendication 6, dans lequel une première couche desdites au moins deux couches (3c,3d) est une feuille non transparente, présentant sur elle des indications, et est sélectionnée parmi le carton, papier photographique, papier pour imprimante, ou tout autre matériau approprié, imprimable au laser, led, jet d'encre, ou imprimantes thermiques, ou pouvant être embossé, gravé ou écrit.

8. Sac de sécurité transparent (1) selon la revendication 7, dans lequel ledit appendice (3) est formé par les au moins deux douches (3c,3d) et un carton (32) inséré entre lesdites au moins deux couches (3c,3d)

9. Sac de sécurité transparent (1) selon une ou plusieurs des revendications 2 à 8, dans lequel ladite région de bord (47) de l'appendice (43) comprend une ligne de pré-fracturation ou d'affaiblissement (47a), pour permettre un enlèvement permanent de l'appendice (43) du sac (1), par déchirement le long d'une telle ligne de pré-fracturation ou d'affaiblissement (47a).

10. Sac de sécurité transparent (1) selon une ou plusieurs des revendications précédentes, dans lequel les moyens d'attachement sont transparents et sont placés sur ladite au moins une paroi (2a à 2d, 62a) du compartiment de stockage, de manière à chevaucher une partie du volume de stockage du sac (1).

11. Sac de sécurité transparent (1) selon une ou plusieurs des revendications précédentes, dans lequel la région de bord (67) de l'appendice (63) est couverte avec un adhésif double face (67b), muni en option d'un revêtement amovible (67c) correspondant.

12. Sac de sécurité transparent (1) selon une ou plusieurs des revendications précédentes, dans lequel ledit compartiment de stockage (2,62,92) est étanche aux fluides lorsque l'organe de fixation amovible est fermé.

13. Sac de sécurité transparent (1) selon une ou plusieurs des revendications précédentes, dans lequel l'appendice (3,13,23,23a,33,43,63,65d,73,83,93) opaque et le compartiment de stockage (2,62,92) comprennent une micro-puce électronique (69a, 69b), ladite micro-puce électronique (69a,69b) comprenant une antenne RFID et des moyens de mémoire, stockant une ou plusieurs parmi une information de poursuite en localisation, une information de sac, une information personnelle du propriétaire du sac, une information chiffrée, une information de sécurité, une information de poids, des codes promotionnels, des bonus de fidélité et des numéros de loterie.

14. Sac de sécurité transparent (1) selon une ou plusieurs des revendications précédentes, dans lequel ledit appendice (3,13,23,23a,33,43,63,65d, 73,83,93) comprend une poche (65a, 65b, 65c).

15. Sac de sécurité transparent (1) selon la revendication 14, dans lequel les moyens d'attachement sont la poche (65a, 65b, 65c), et l'appendice est une feuille (65d), en carton ou autrement opaque, insérée dans la poche (65a, 65b, 65c).

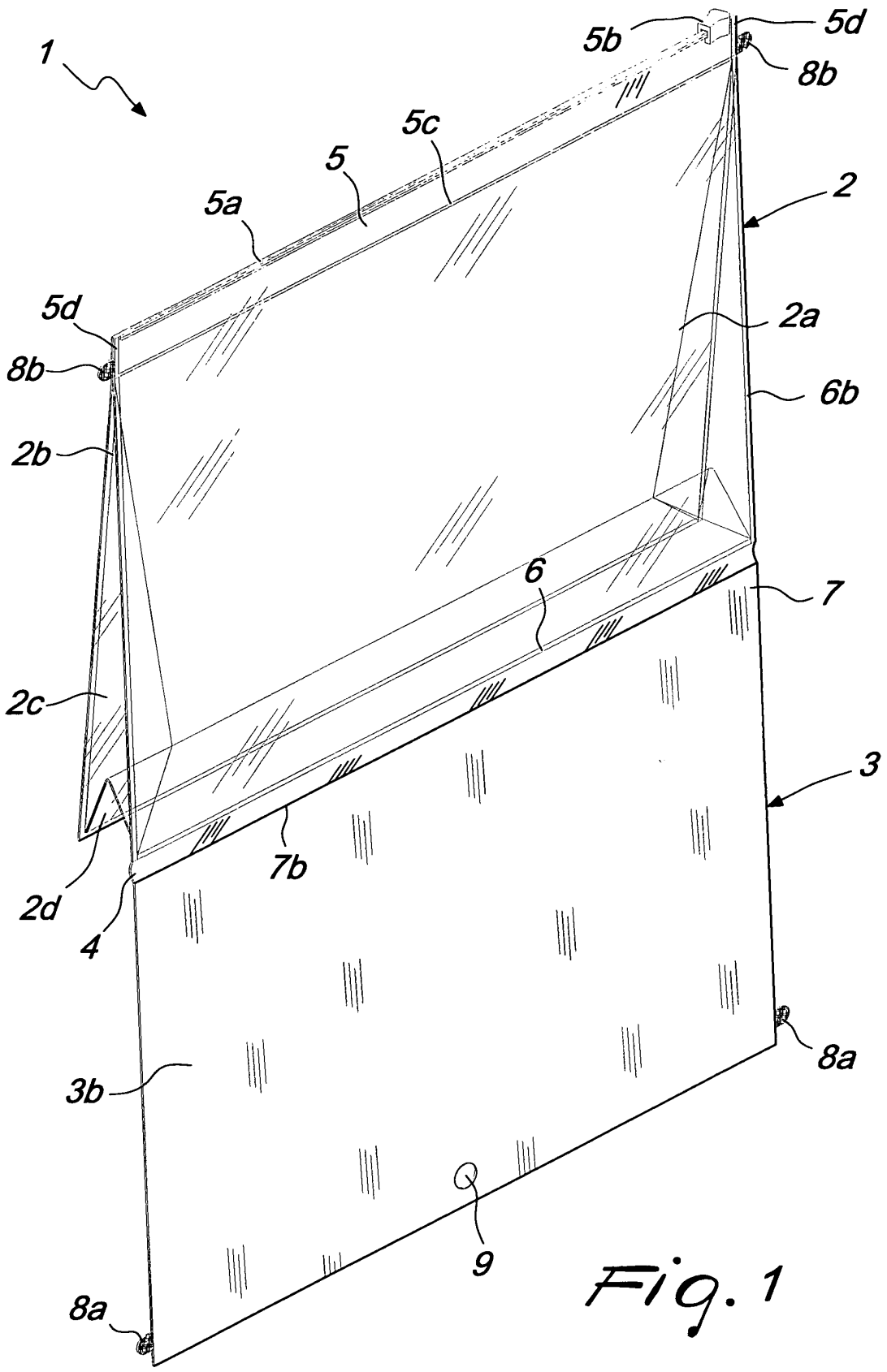

Fig. 1

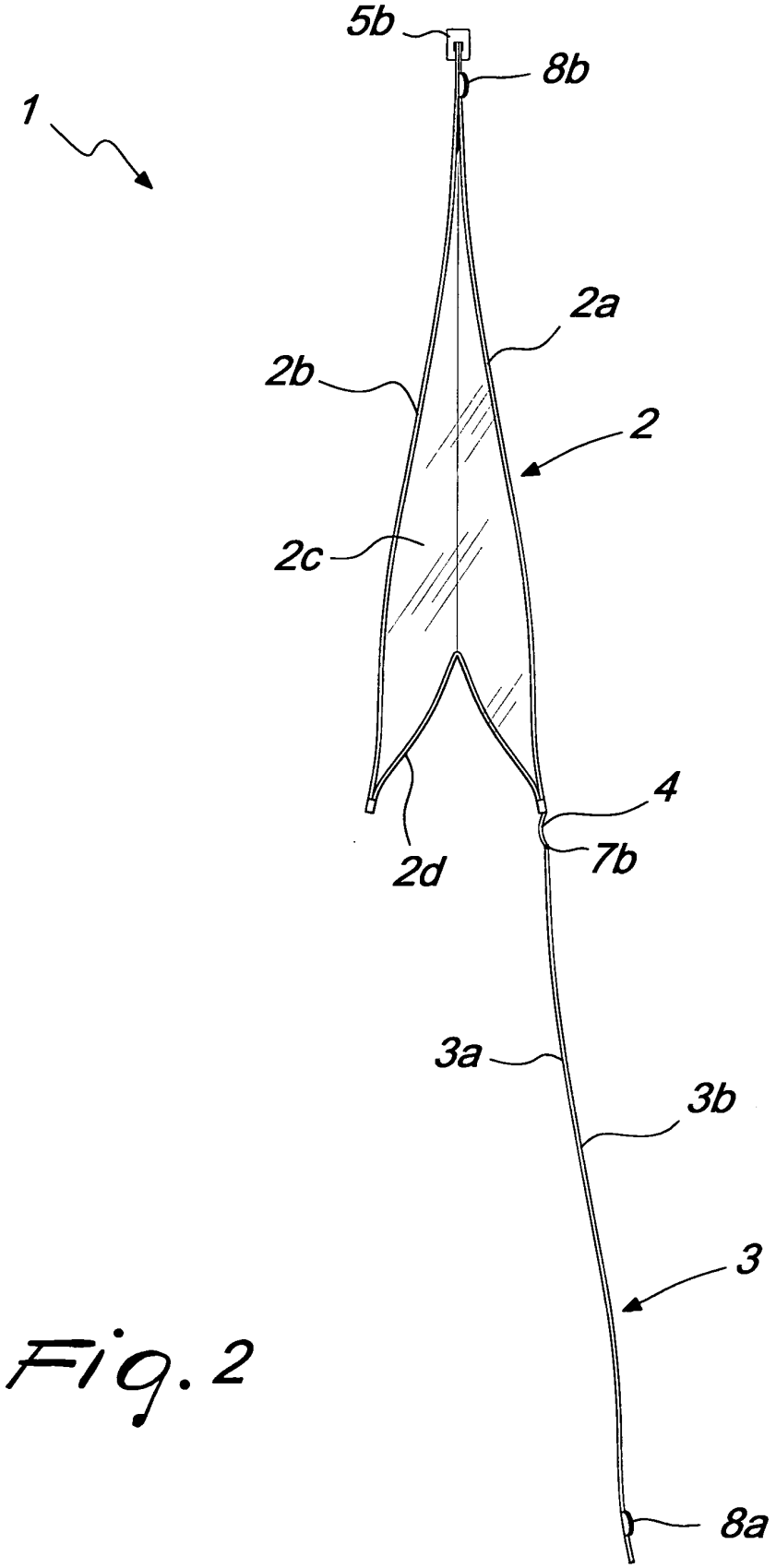

Fig. 2

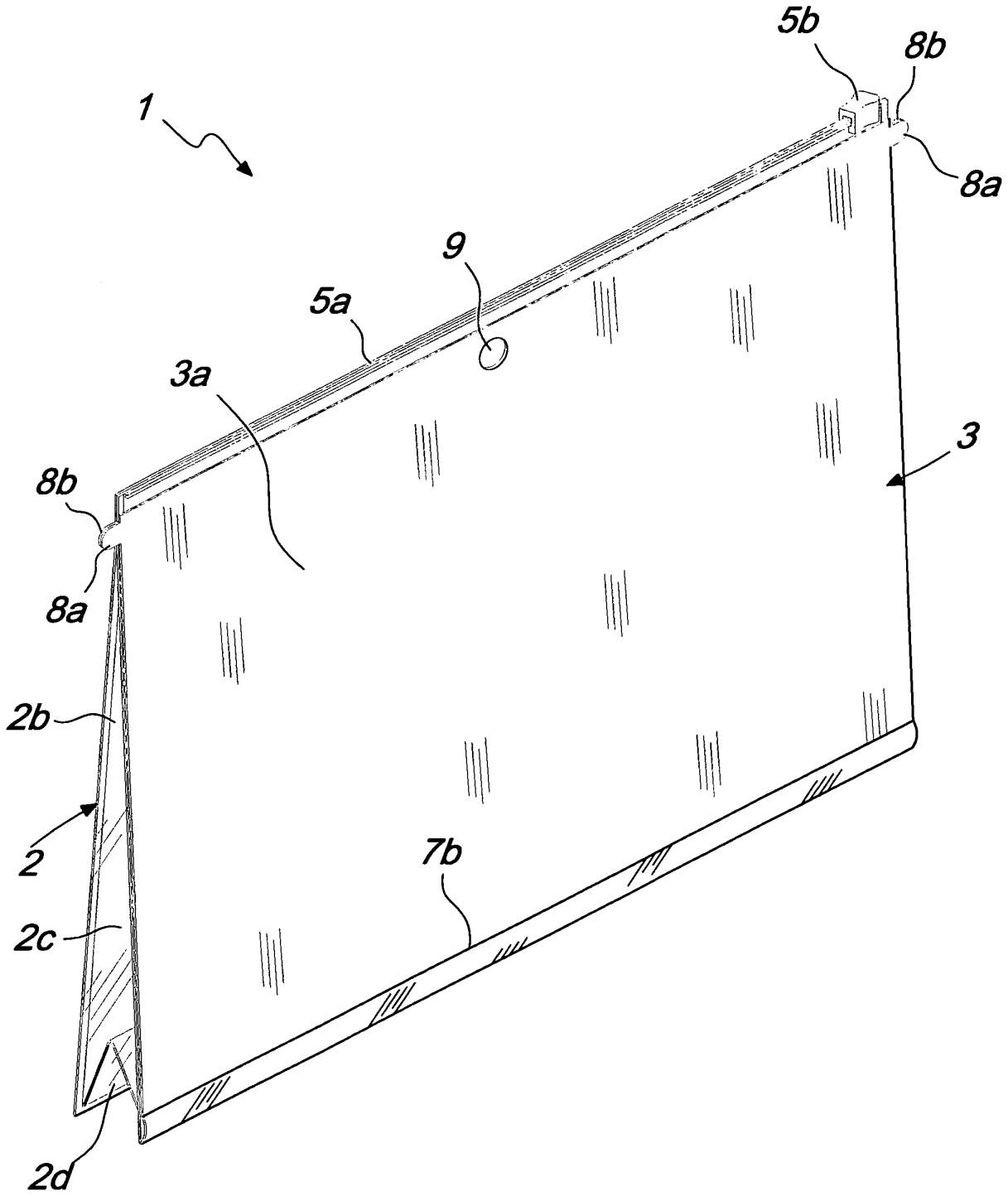

Fig. 3

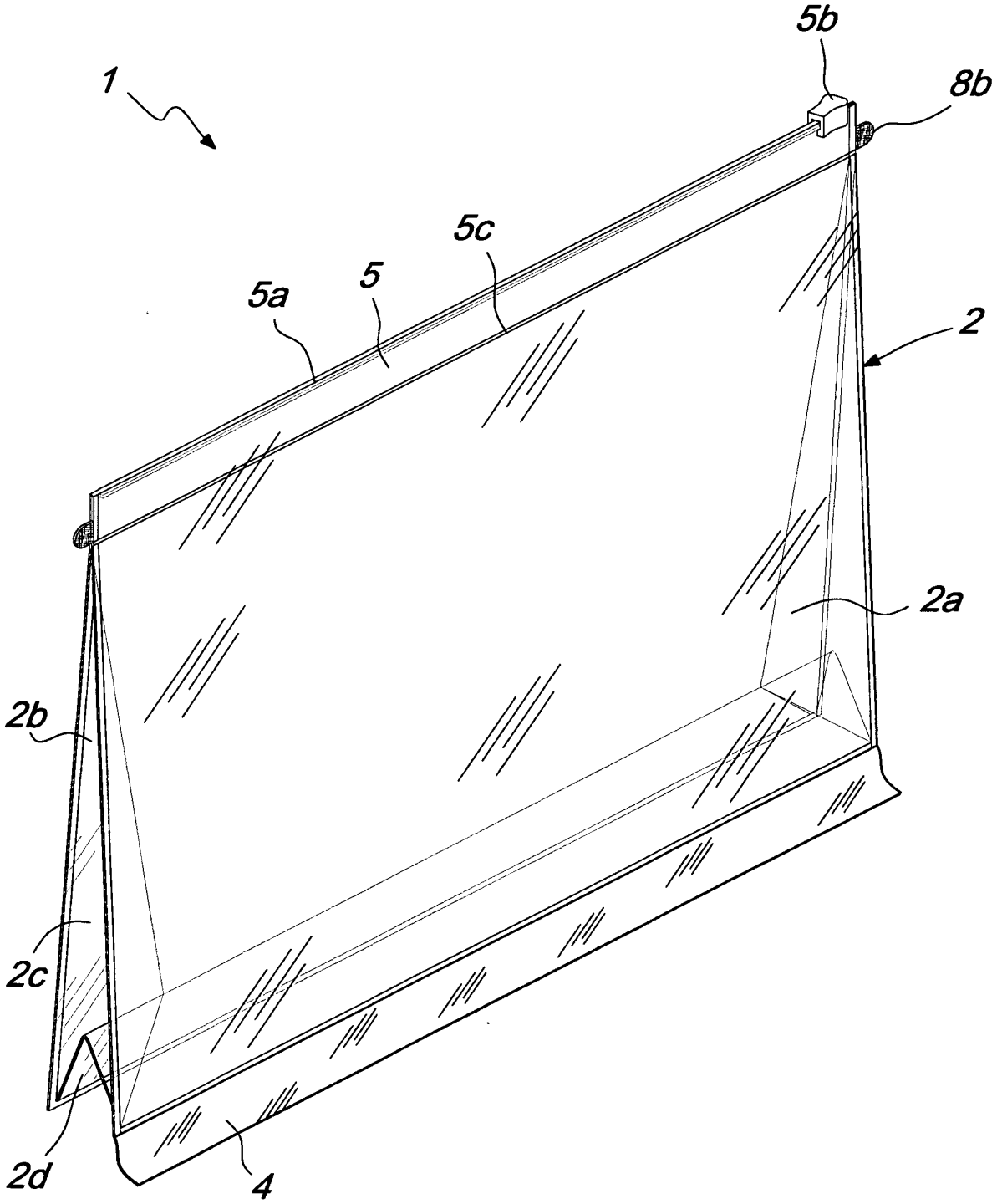

Fig. 4

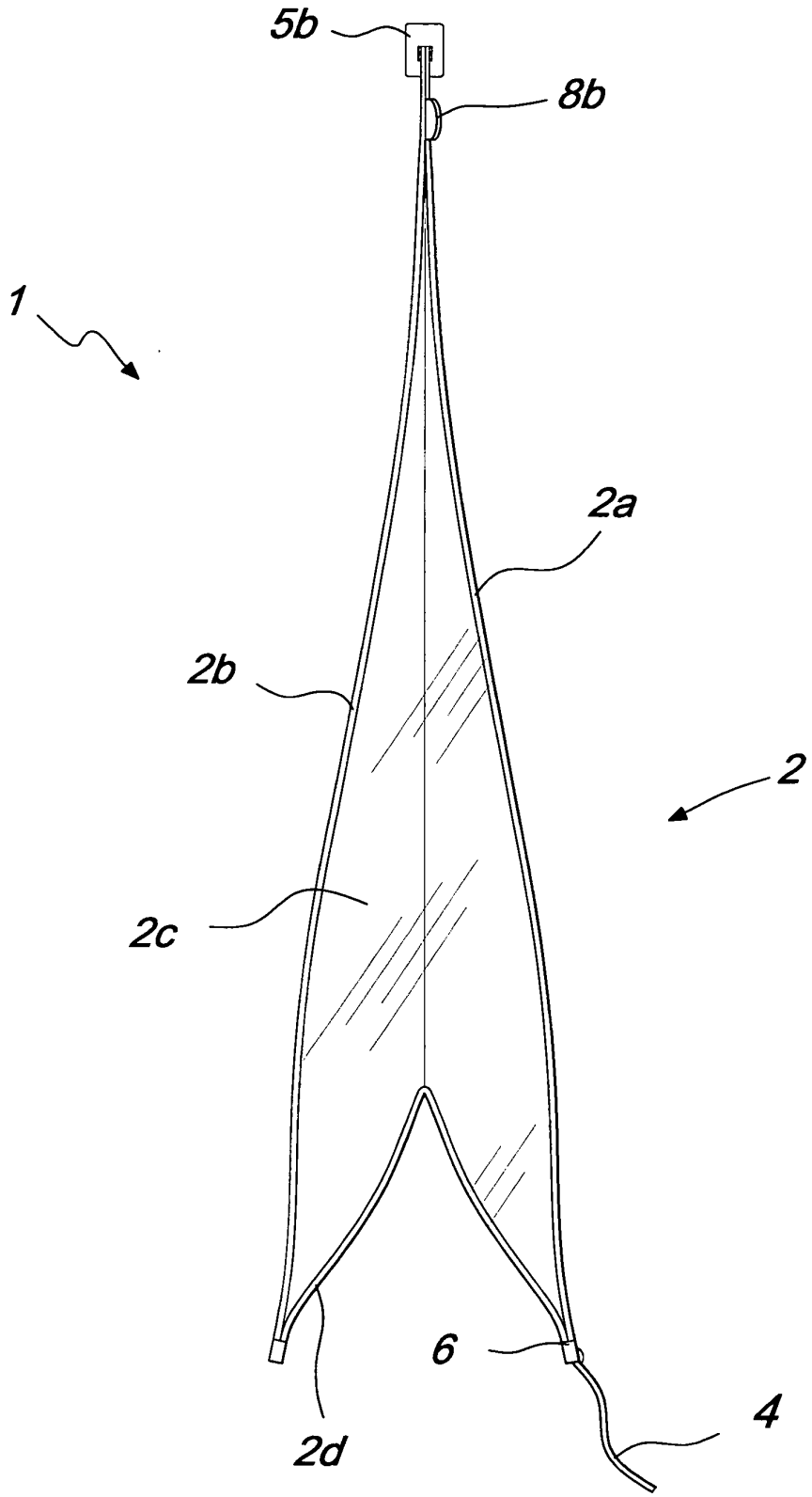

Fig. 5

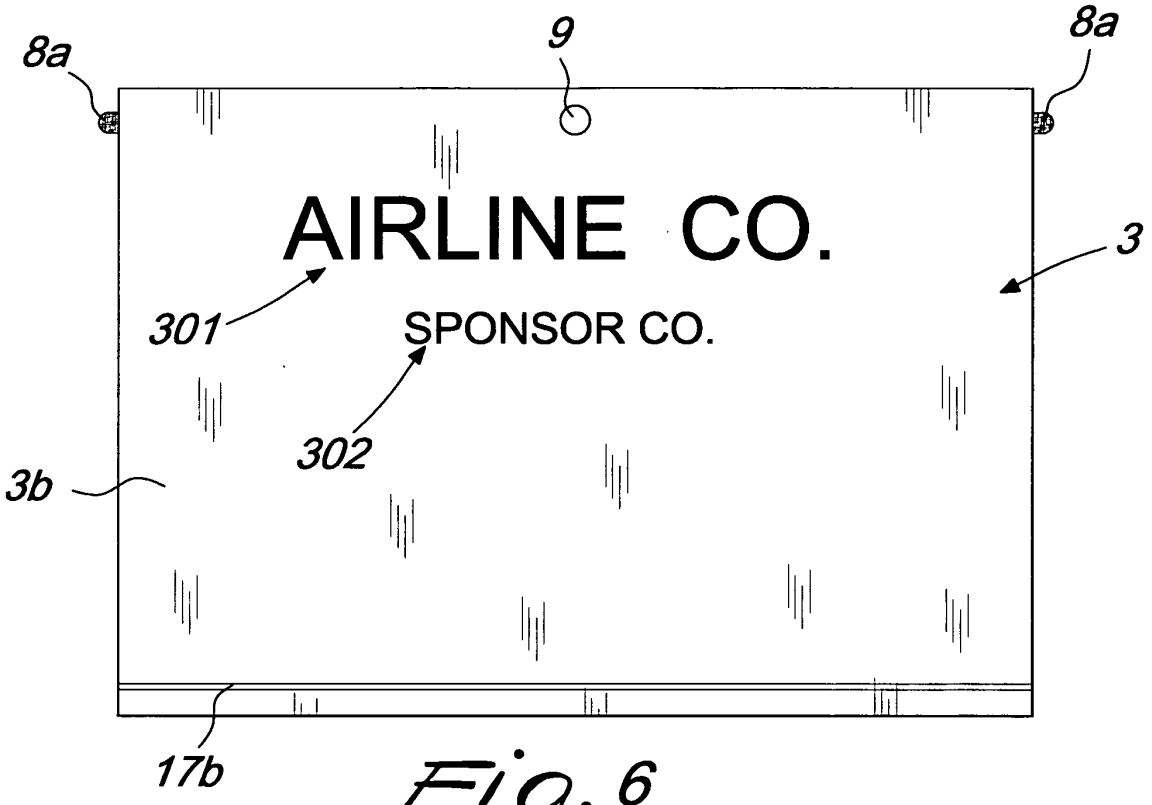
8a
9
8a
AIRLINE CO.
3
301
SPONSOR CO.
302
3b
17b

Fig. 6

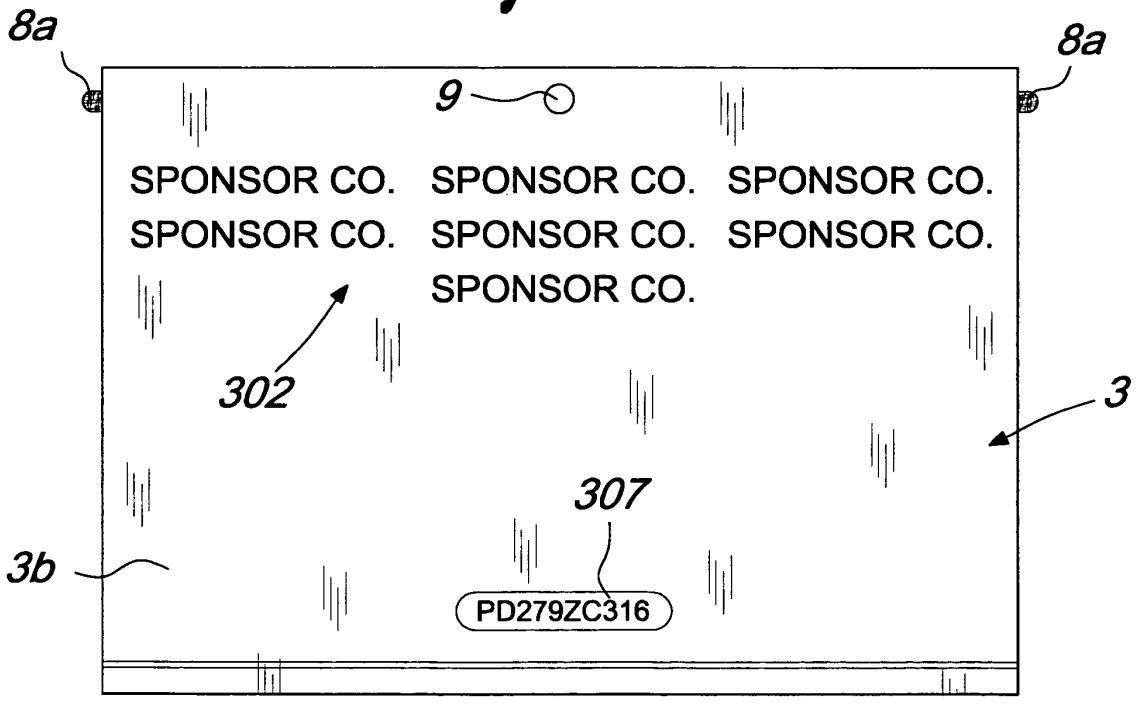
8a
9
8a
SPONSOR CO. SPONSOR CO. SPONSOR CO.
SPONSOR CO. SPONSOR CO. SPONSOR CO.
SPONSOR CO.
302
3
307
3b
PD279ZC316

Fig. 7

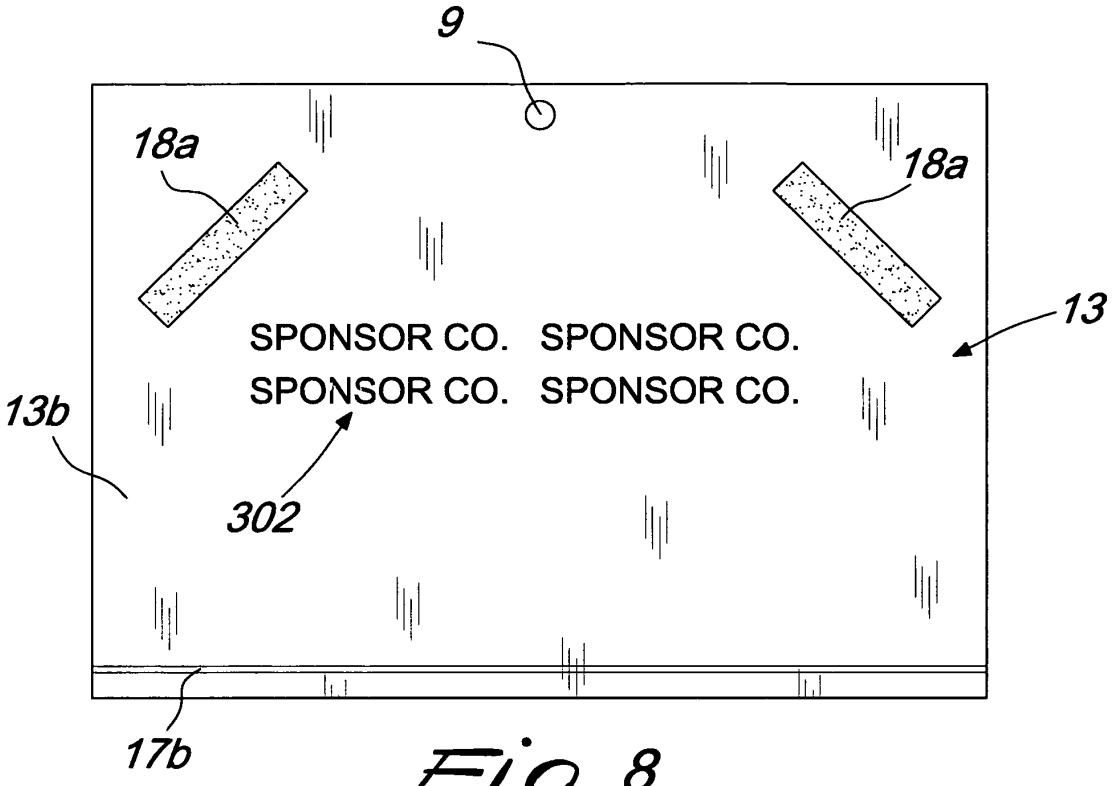
9
18a
18a
13
SPONSOR CO. SPONSOR CO.
SPONSOR CO. SPONSOR CO.
13b
302
17b

Fig. 8

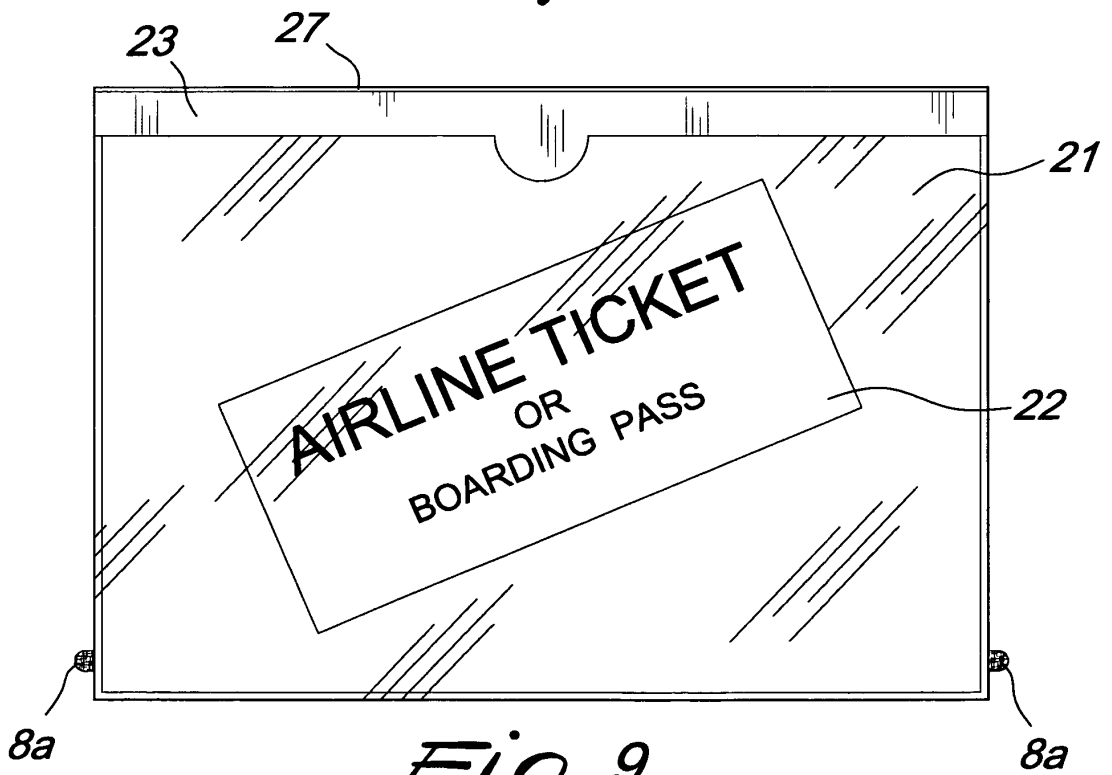
23
27
21
AIRLINE TICKET
OR
BOARDING PASS
22
8a
8a

Fig. 9

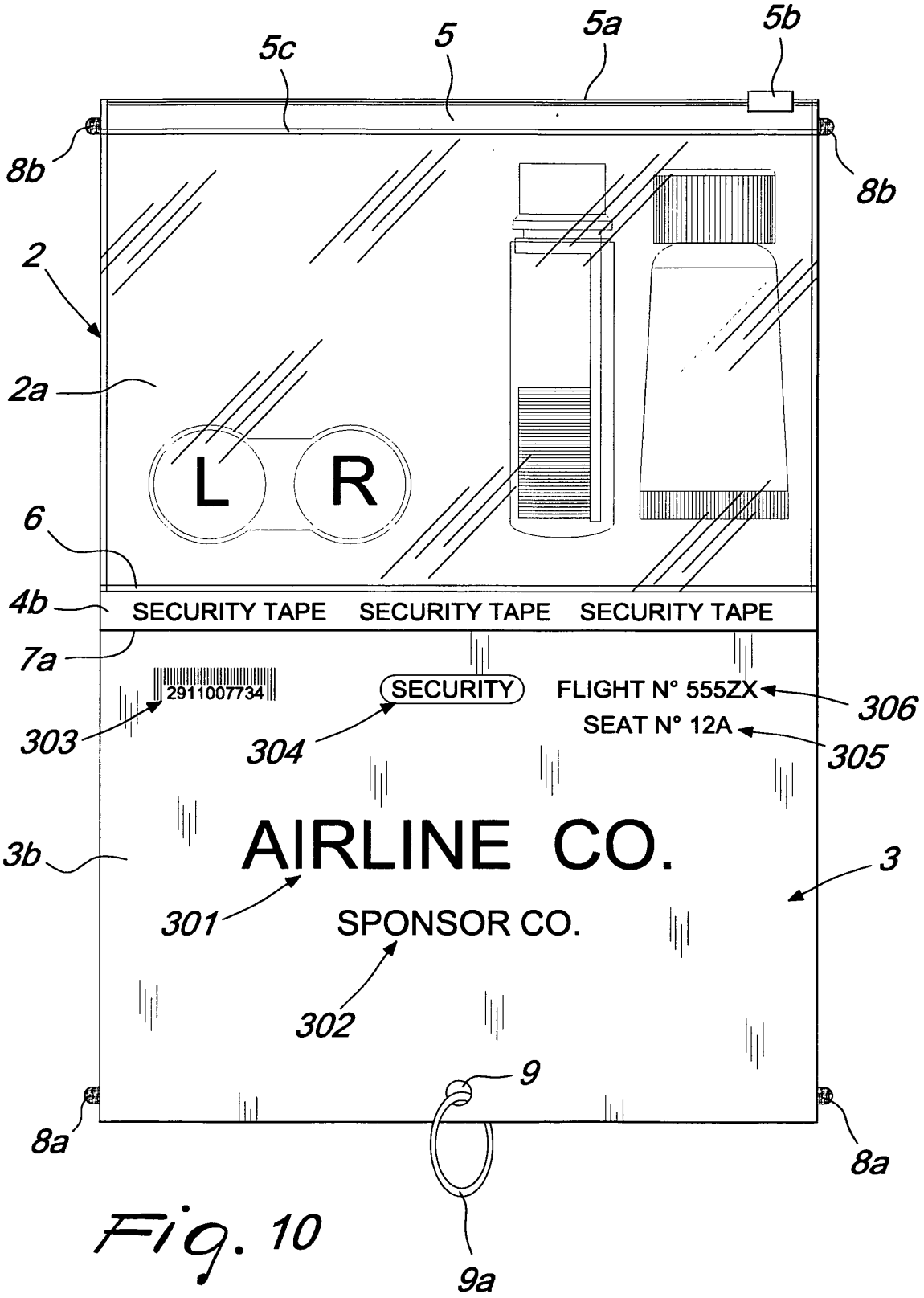
5c
5
5a
5b
8b
8b
2
2a
L
R
6
4b
SECURITY TAPE
SECURITY TAPE
SECURITY TAPE
7a
2911007734
SECURITY
FLIGHT N° 555ZX
SEAT N° 12A
303
304
306
305
3b
AIRLINE CO.
3
301
SPONSOR CO.
302
9
8a
8a
9a

Fig. 10

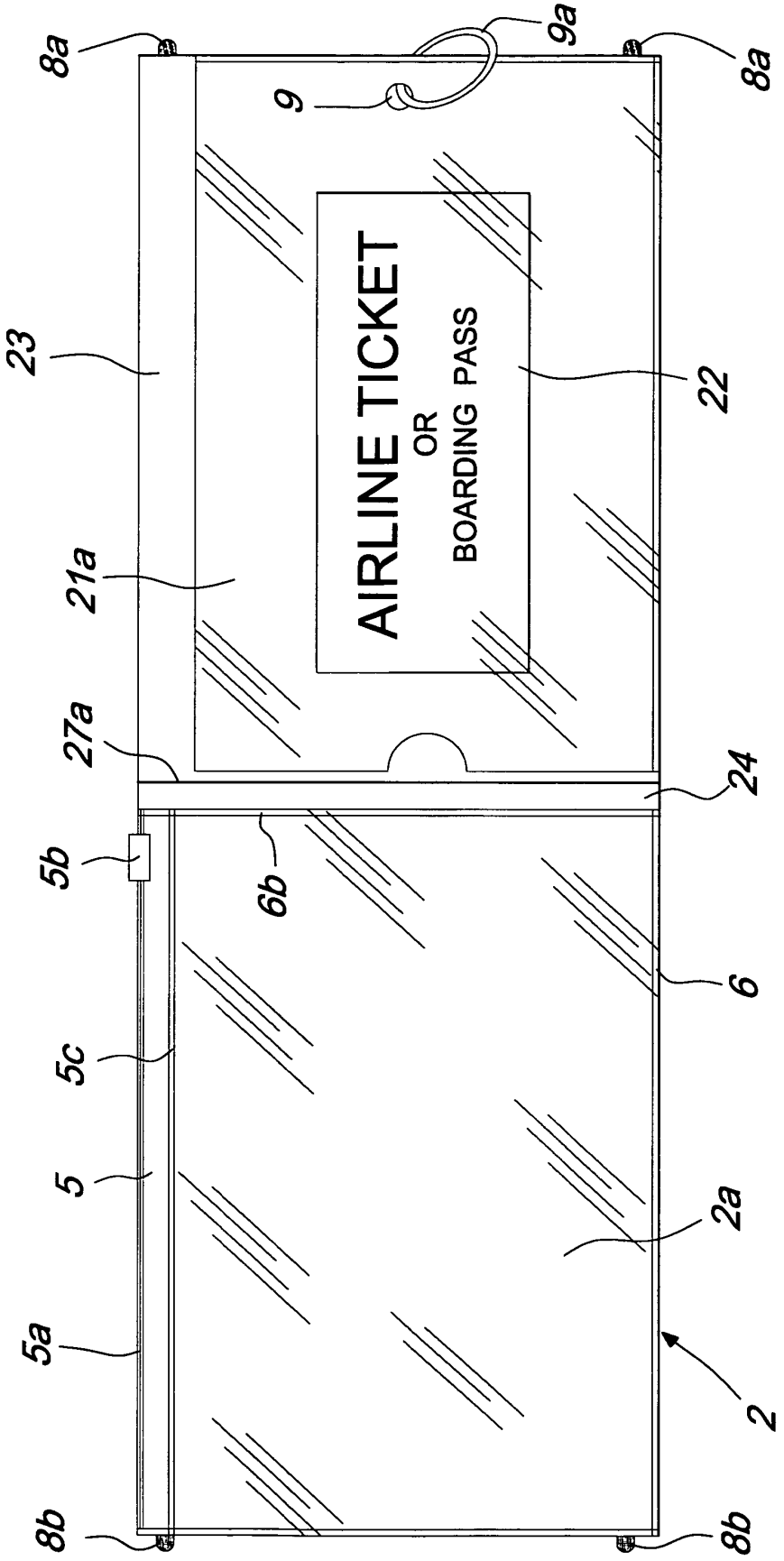
8a
9a
8a
9
AIRLINE TICKET
OR
BOARDING PASS
23
22
21a
27a
24
5b
6b
6
5c
5
2a
5a
2
8b
8b

Fig. 11

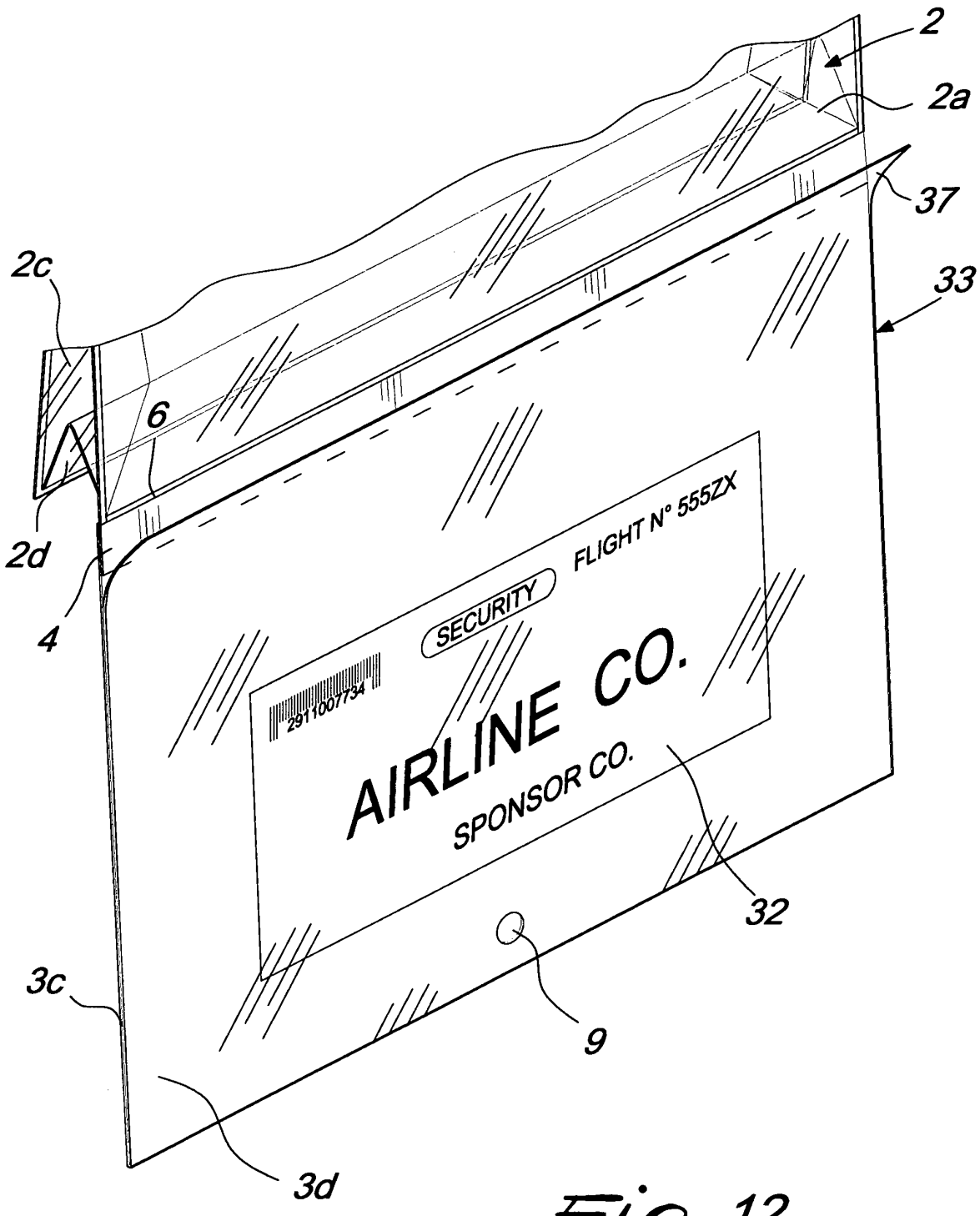
2
2a
37
33
2c
6
2d
4
SECURITY
FLIGHT N° 555ZX
2911007734
AIRLINE CO.
SPONSOR CO.
32
3c
9
3d

Fig. 12

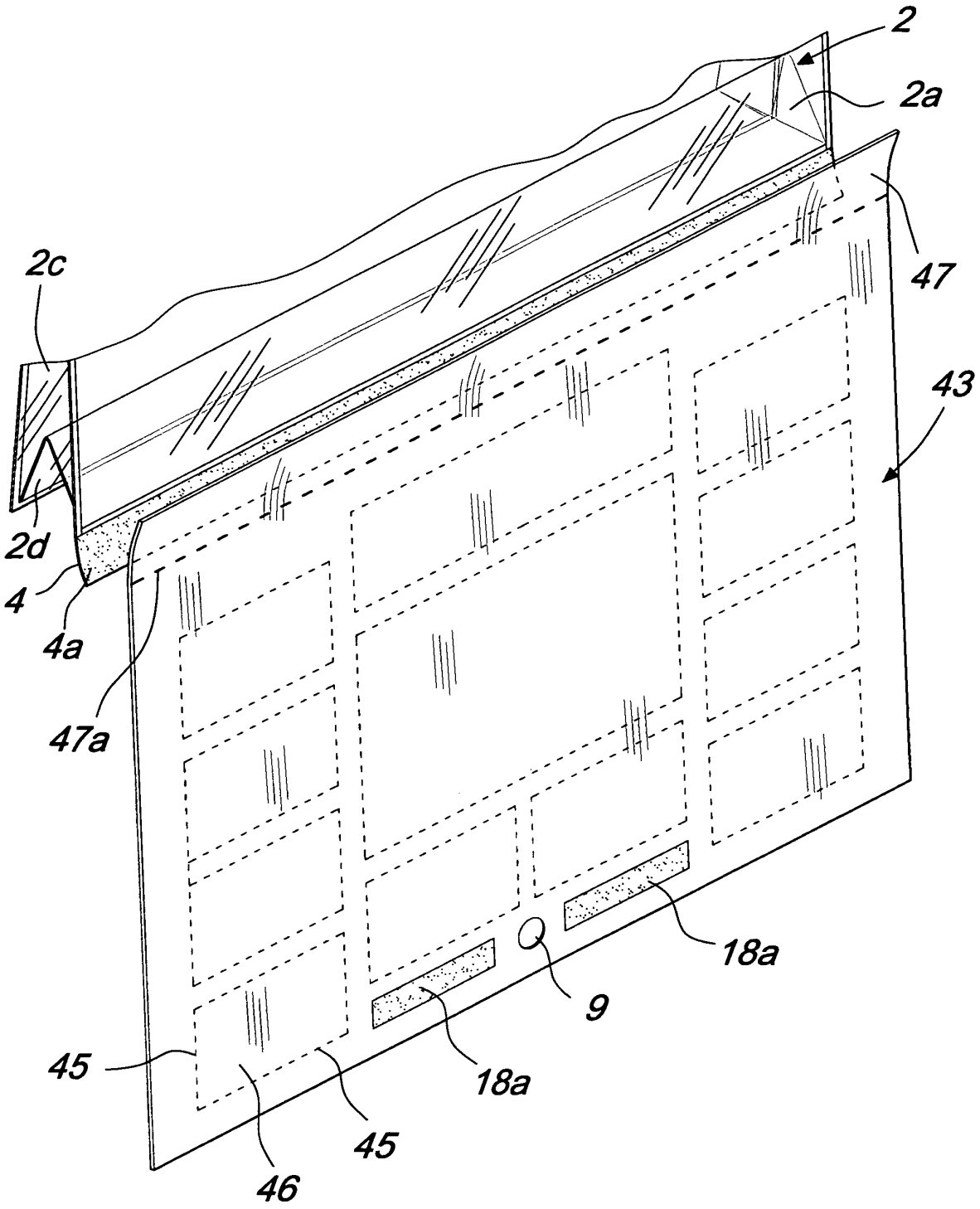

Fig. 13

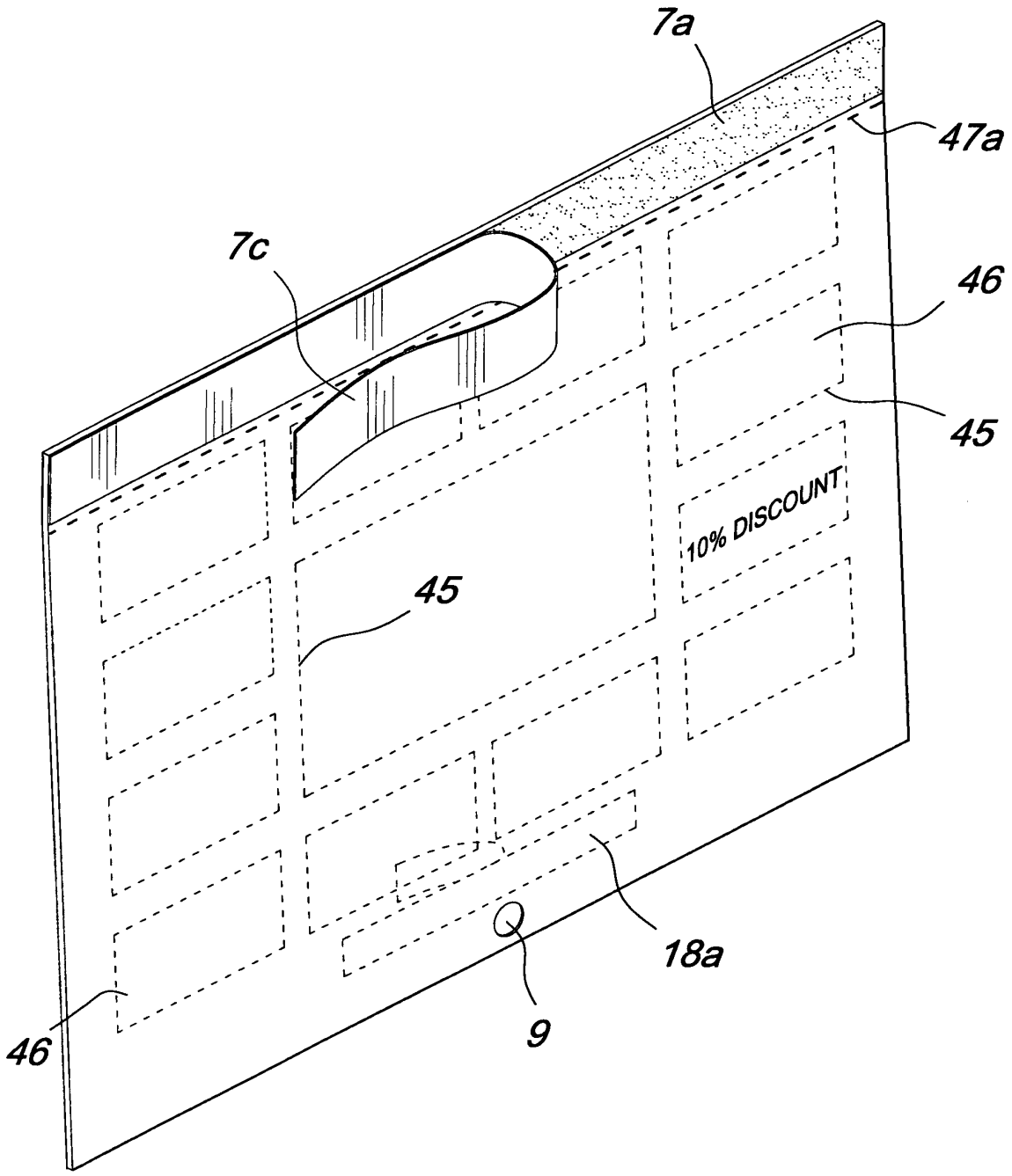

Fig. 14

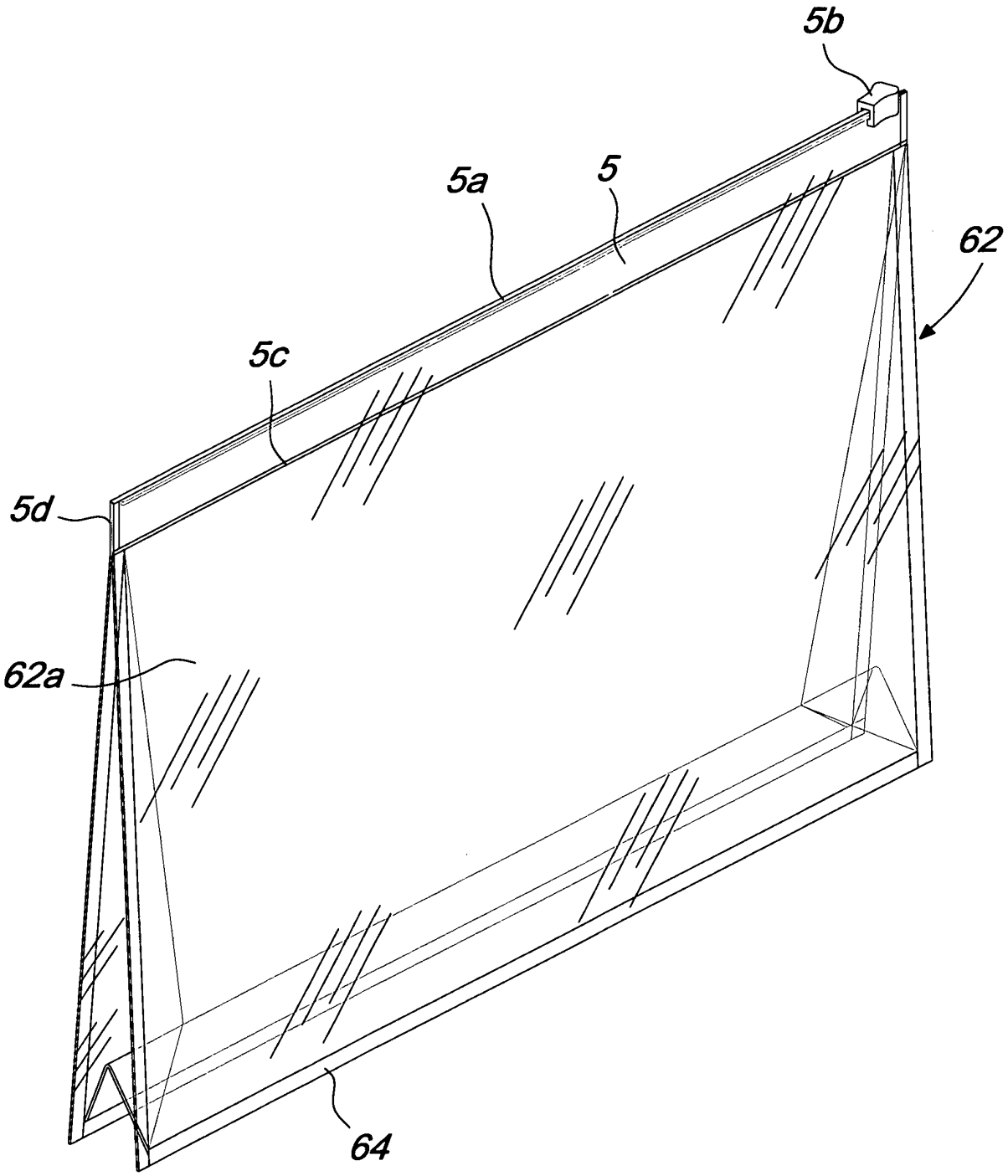

Fig. 15a

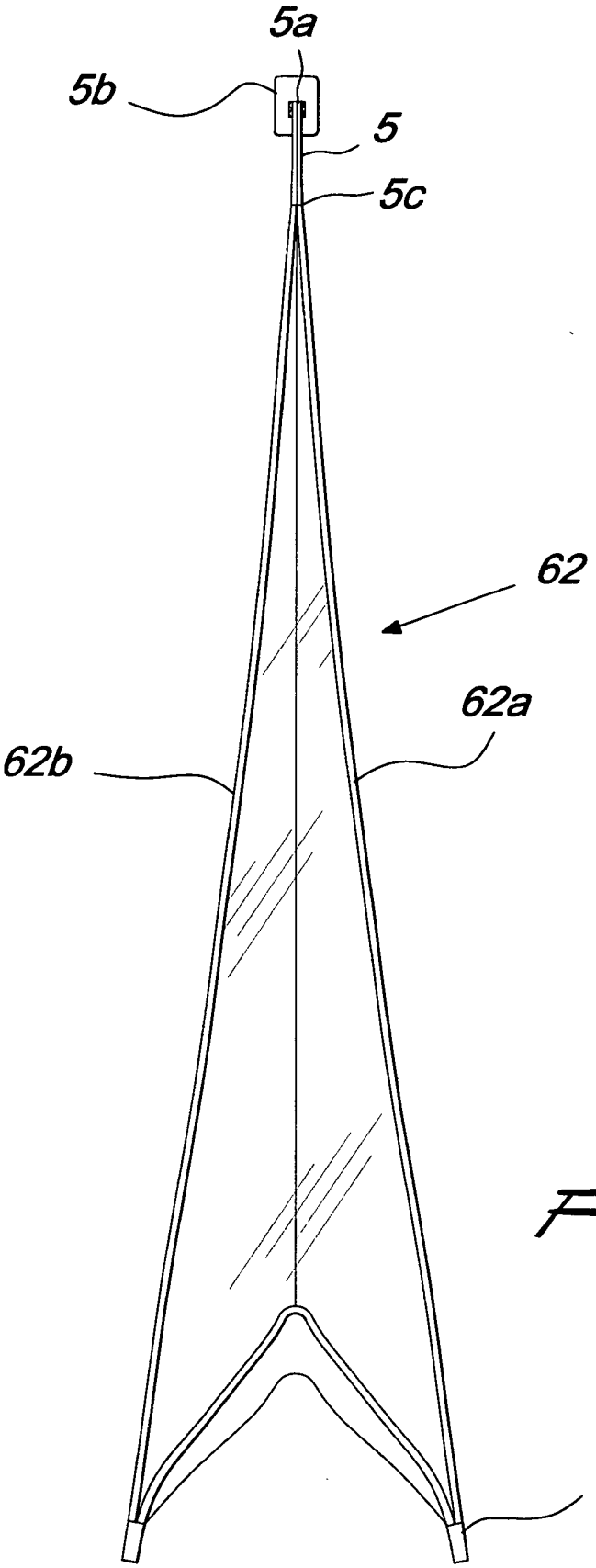

Fig. 15b

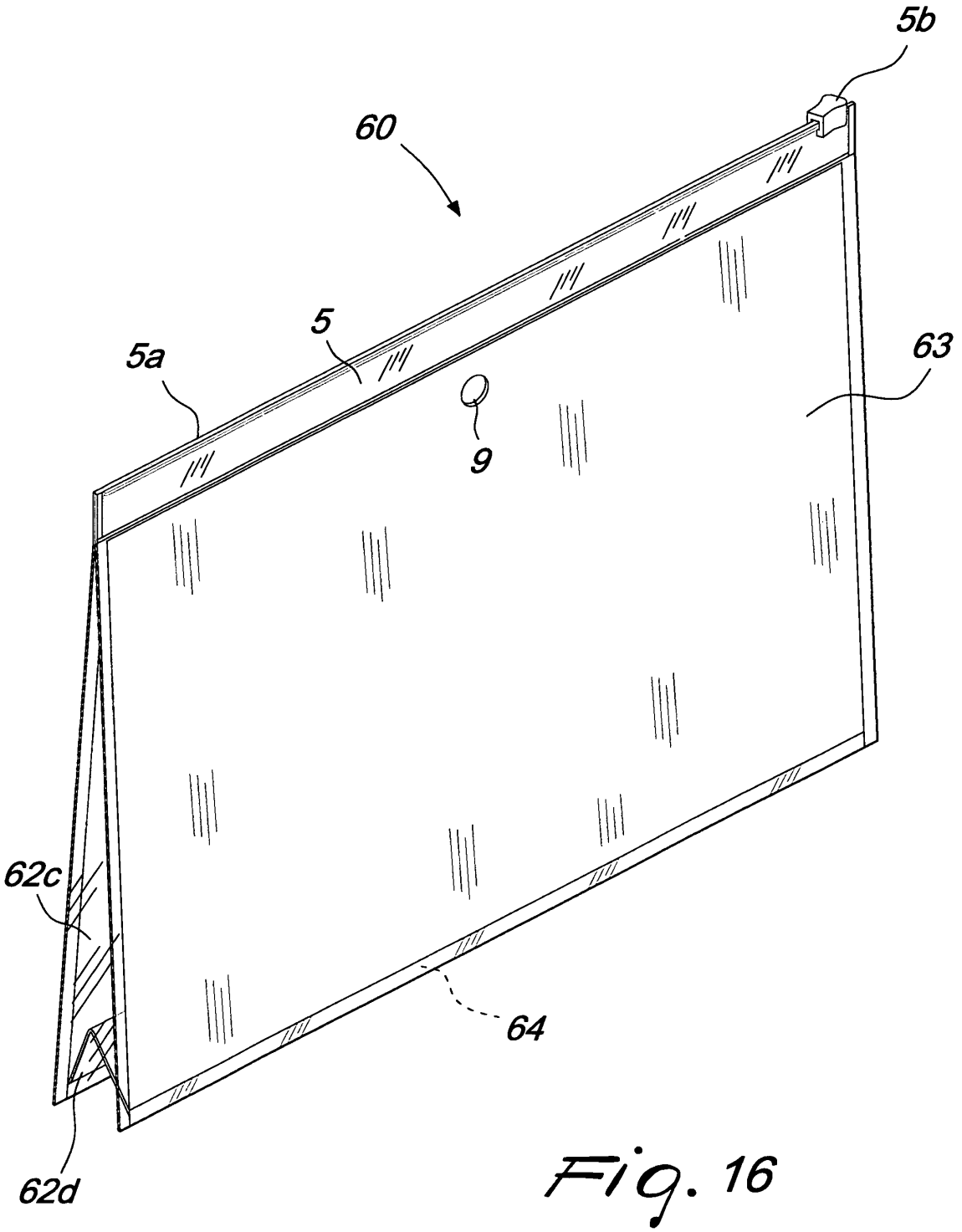

Fig. 16

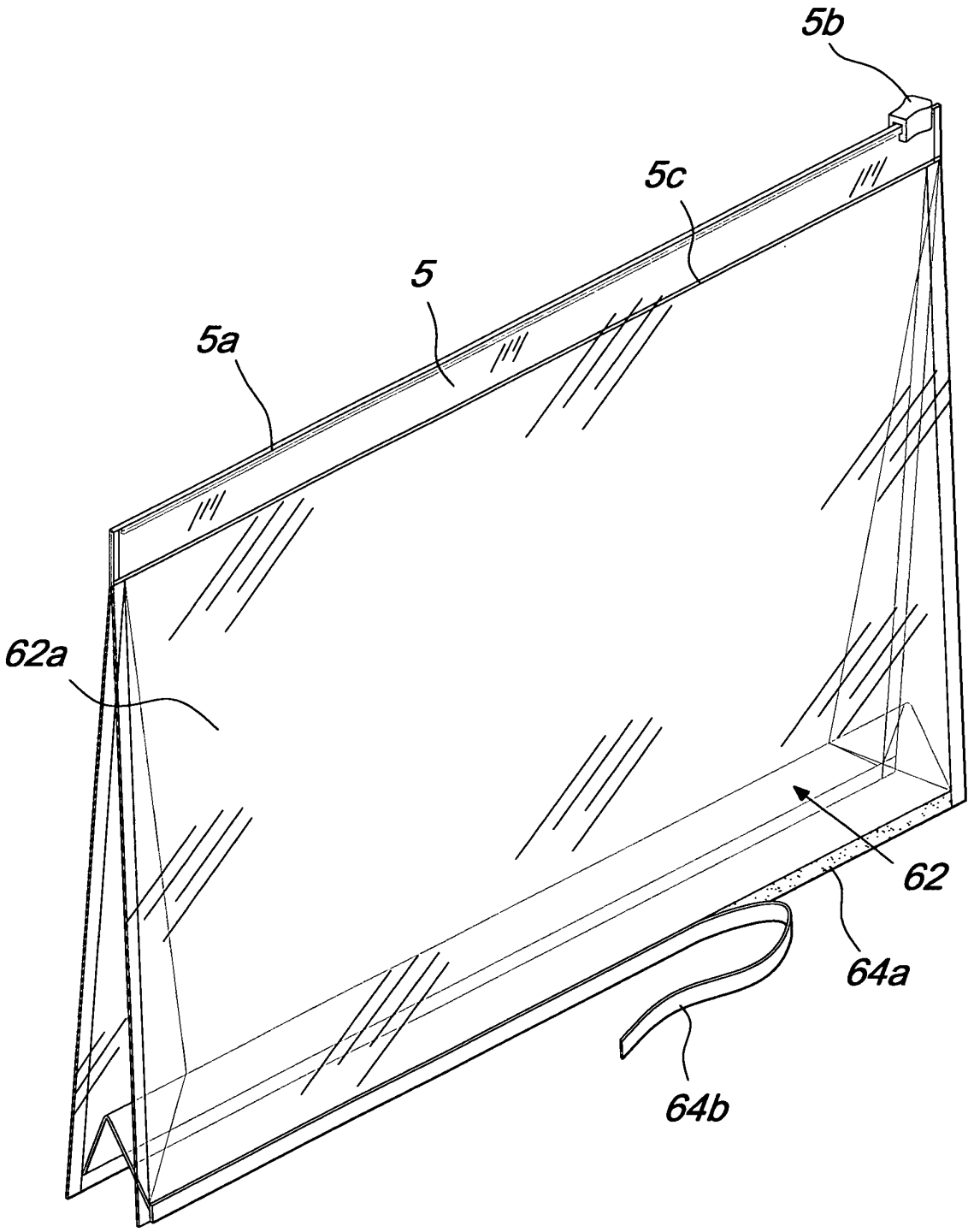

Fig. 17

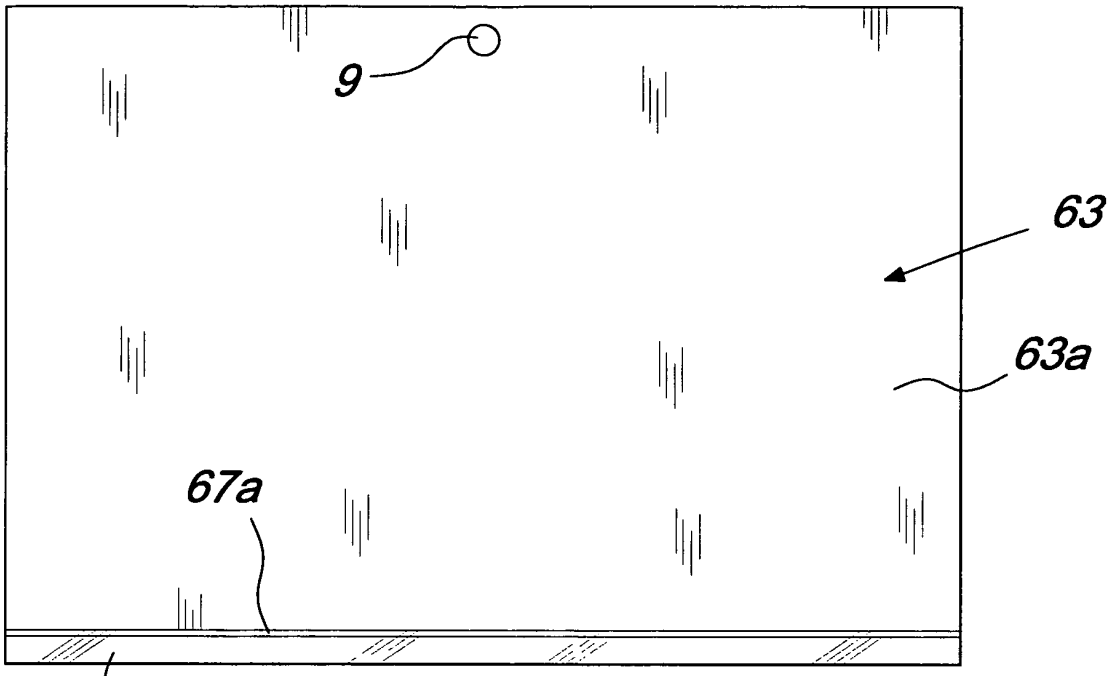

Fig. 18a

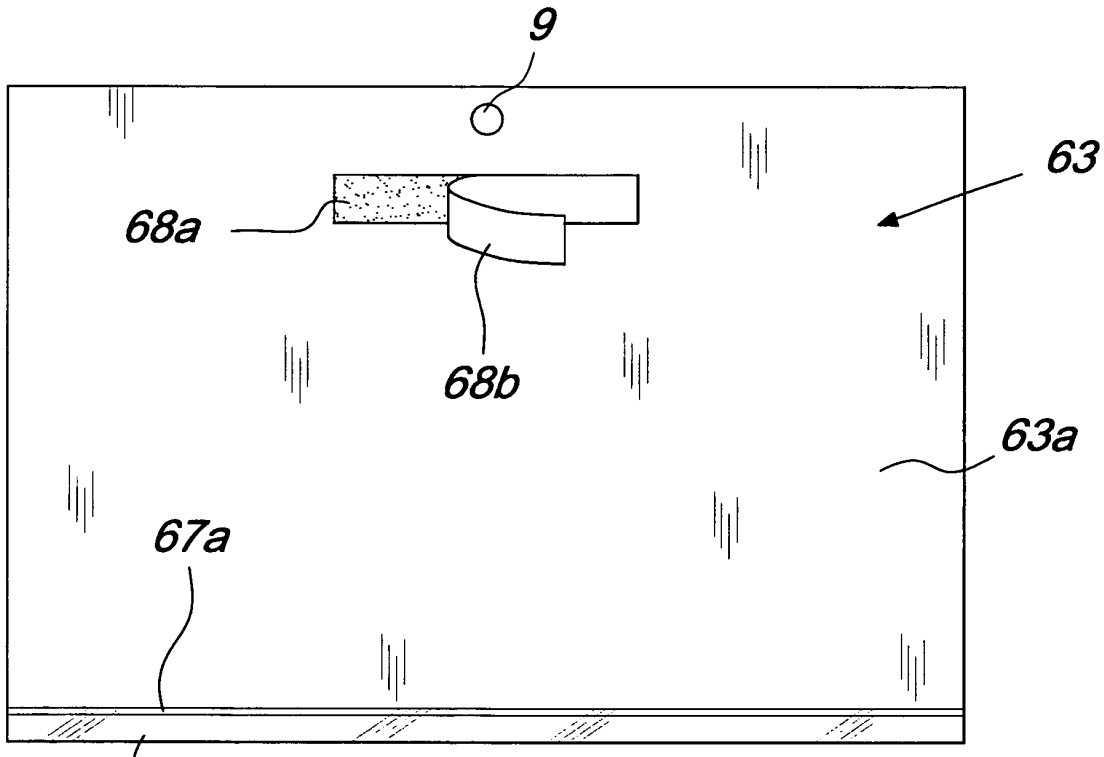

Fig. 18b

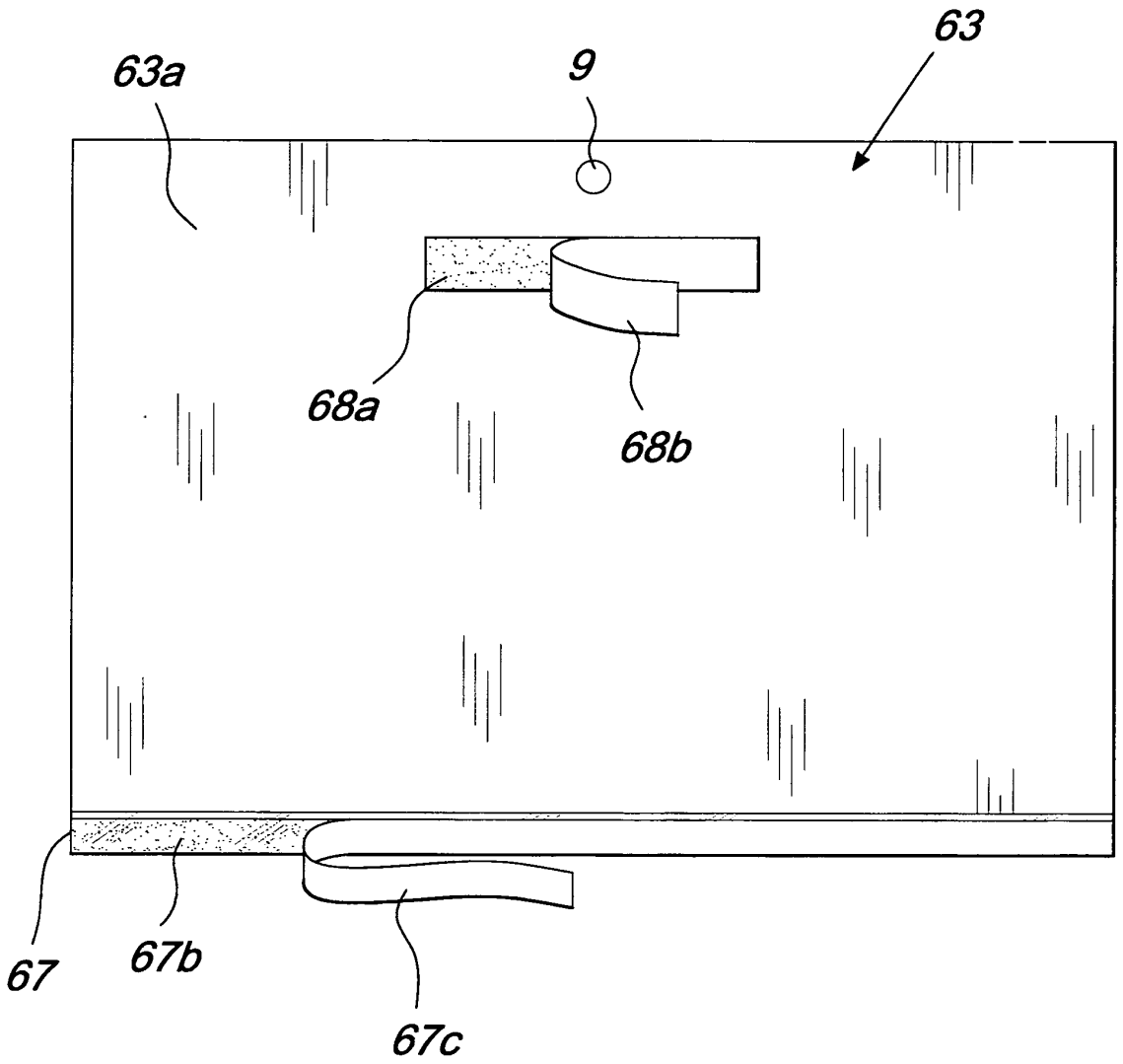

Fig. 19

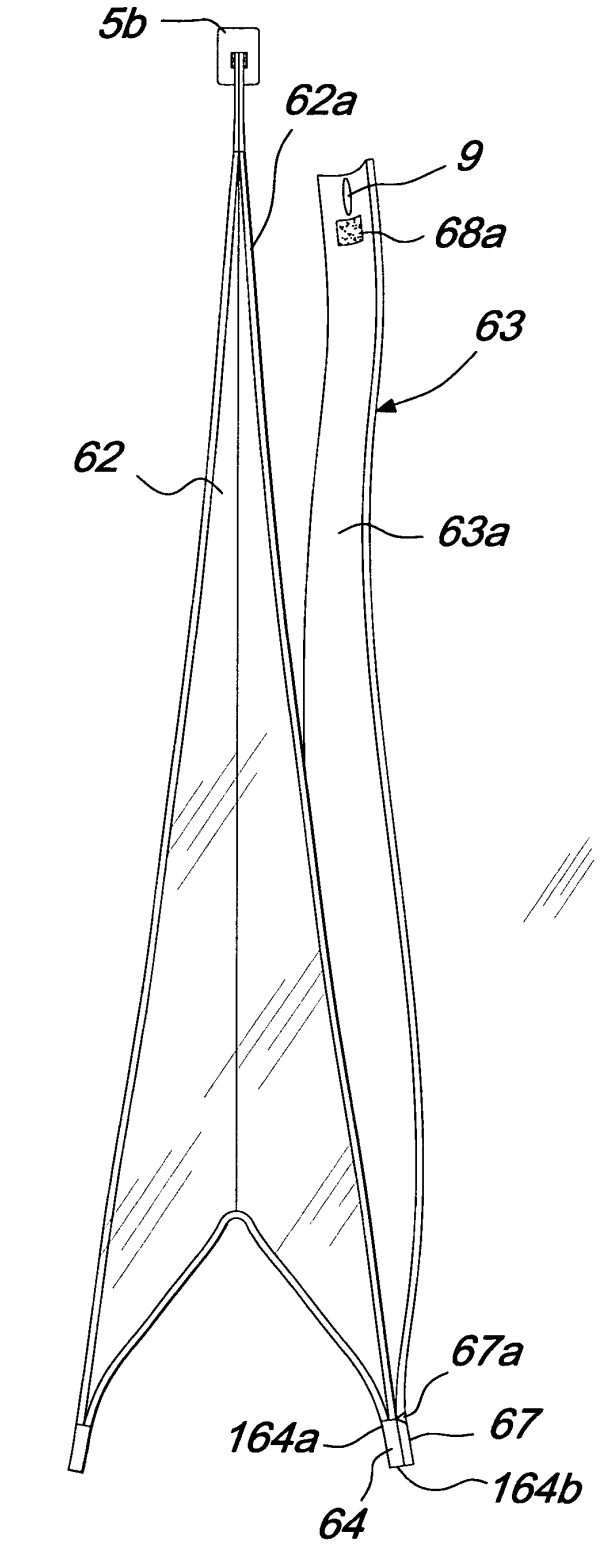

Fig. 20

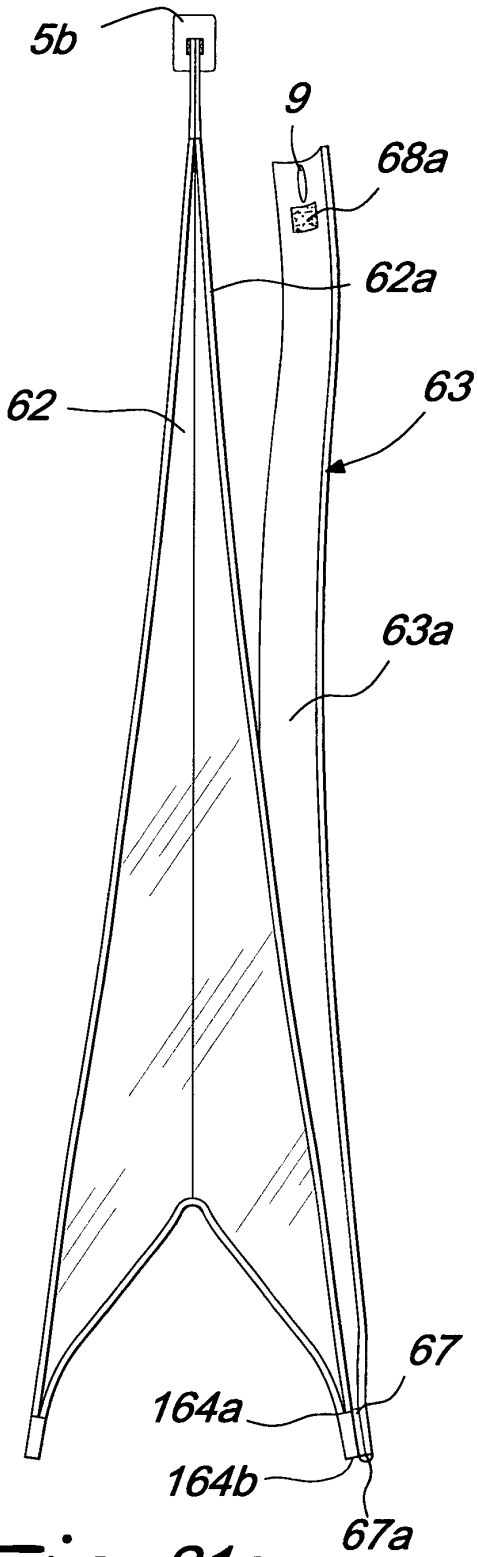

Fig. 21a

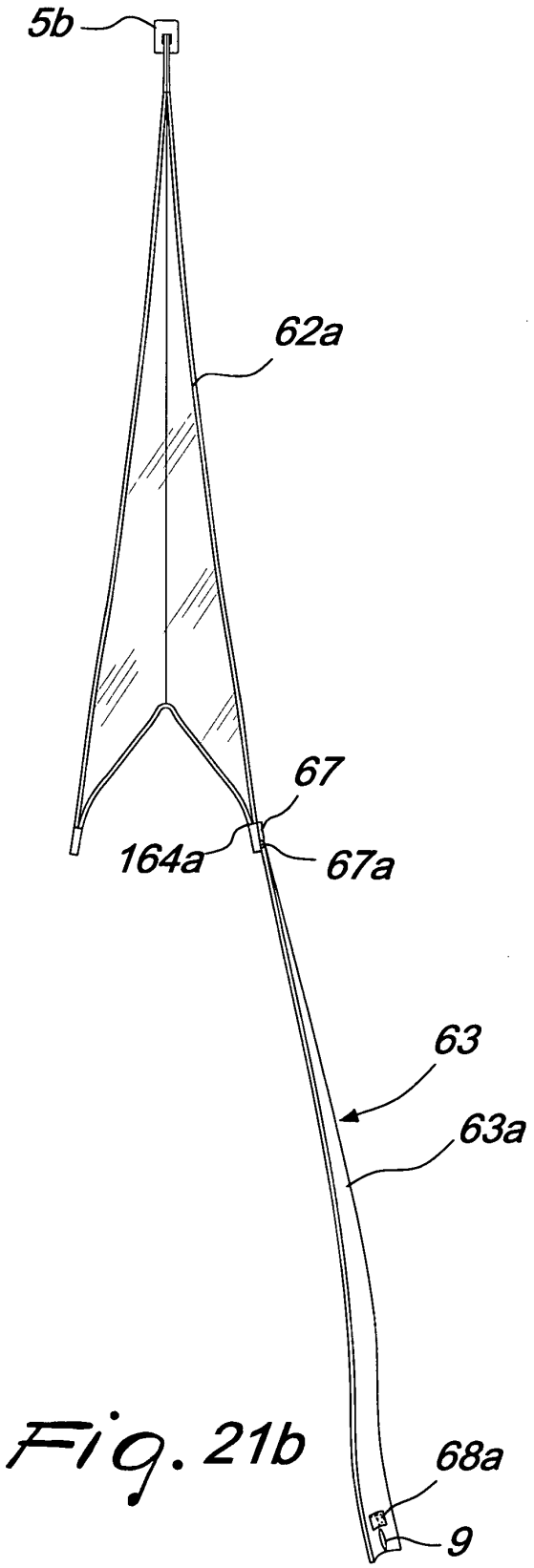

Fig. 21b

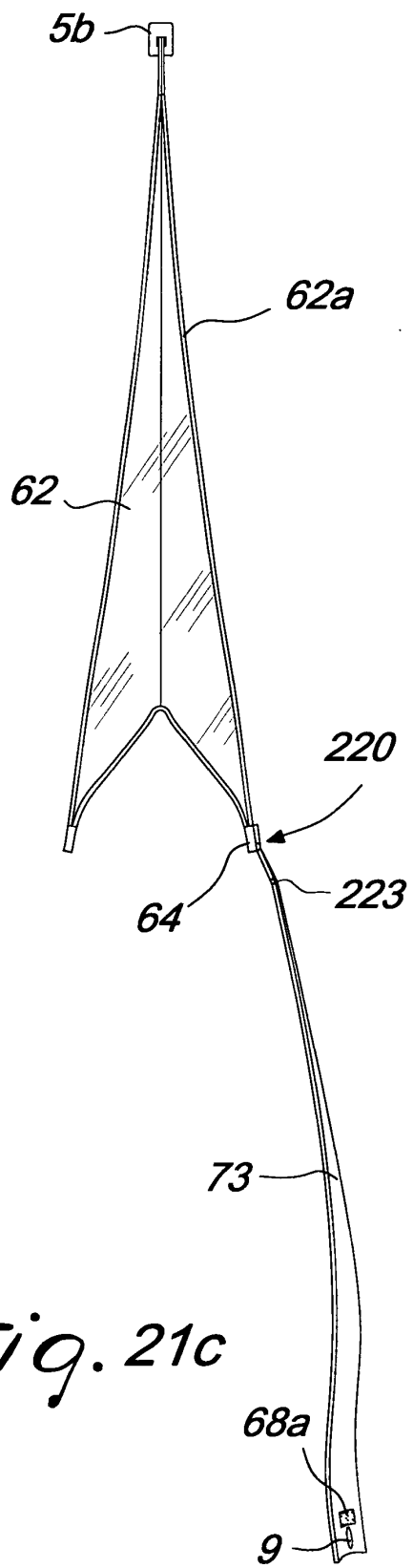

Fig. 21c

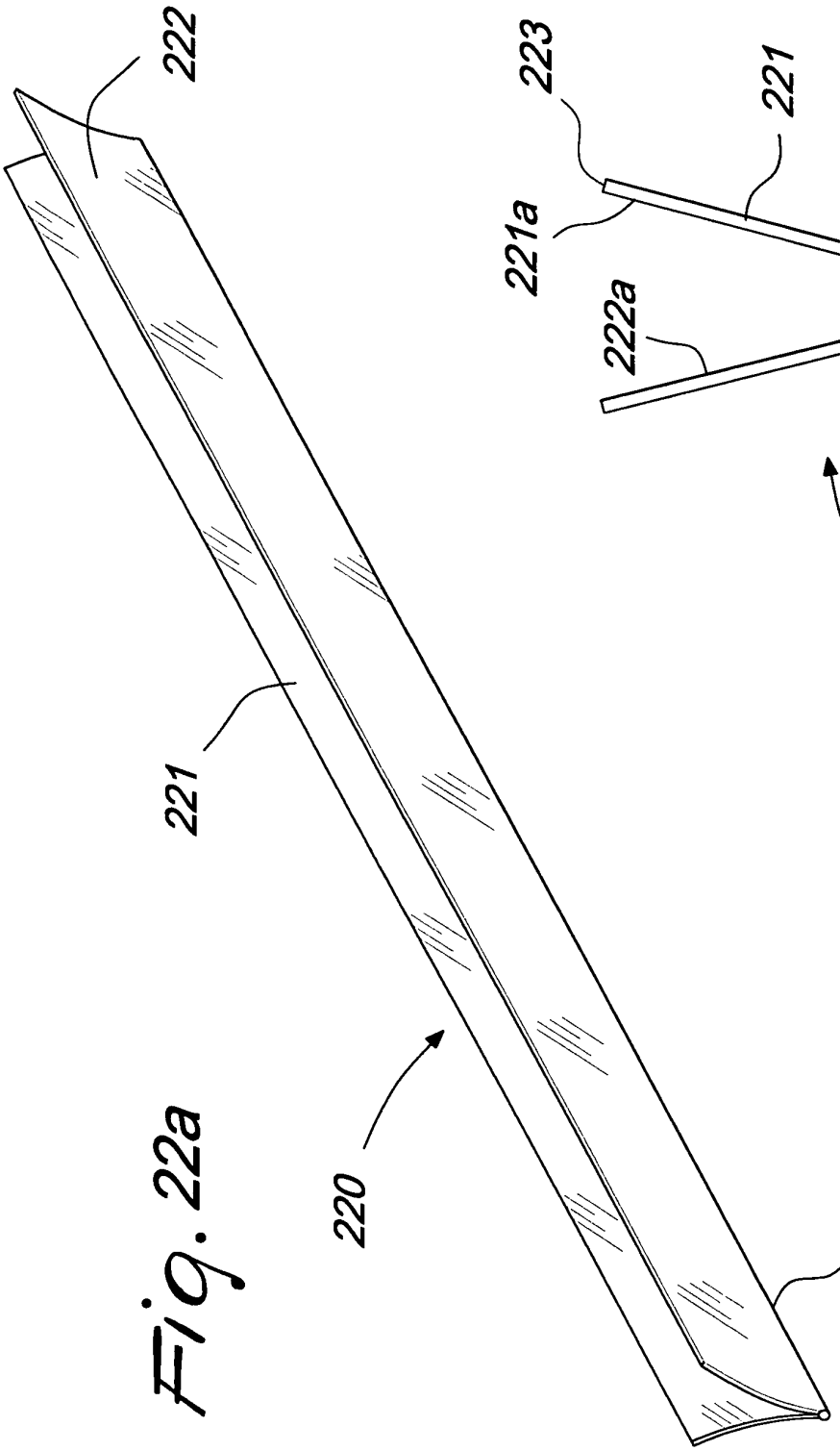

Fig. 22a

Fig. 22b

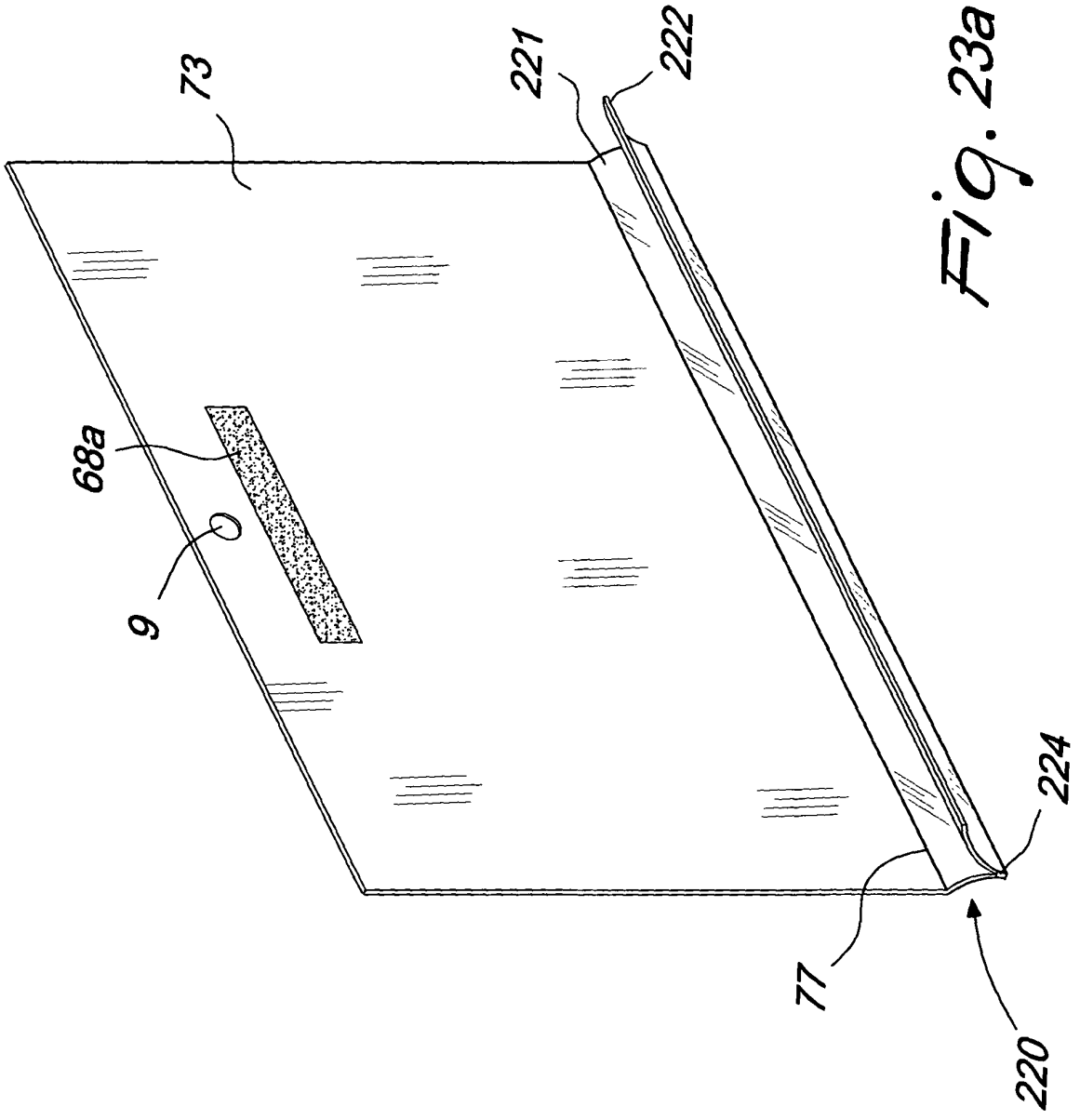

Fig. 23a

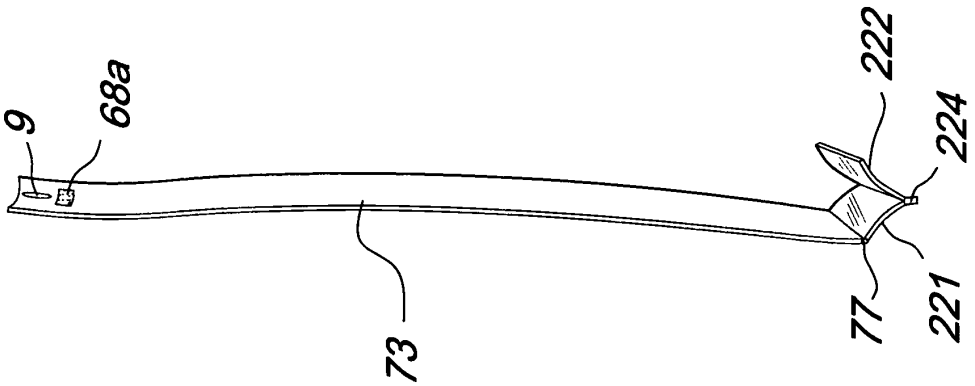

Fig. 23c

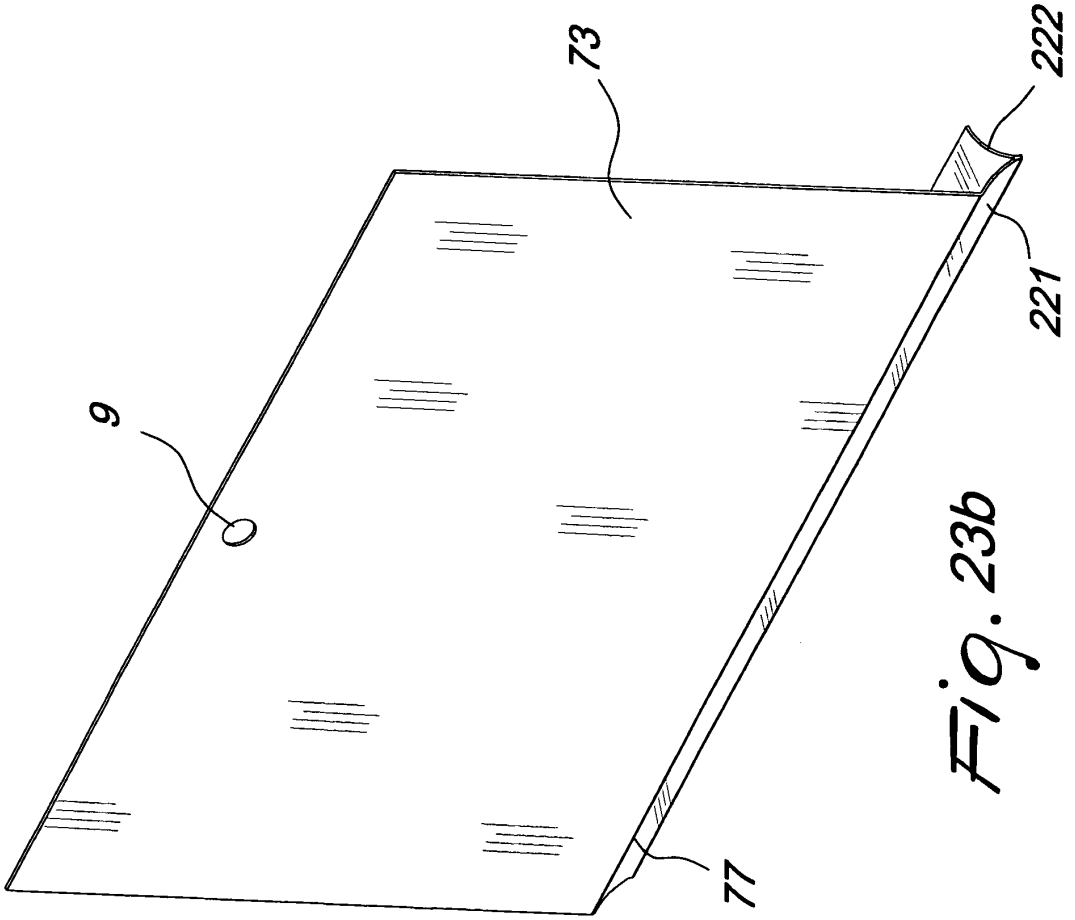

Fig. 23b

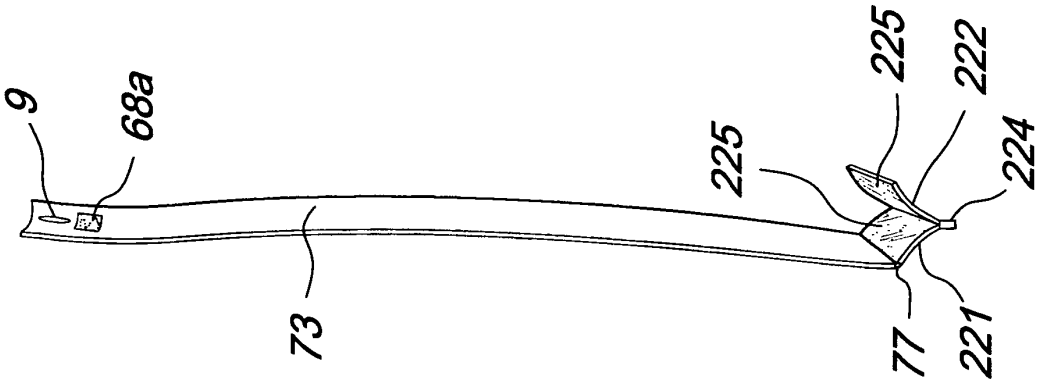

Fig. 24b

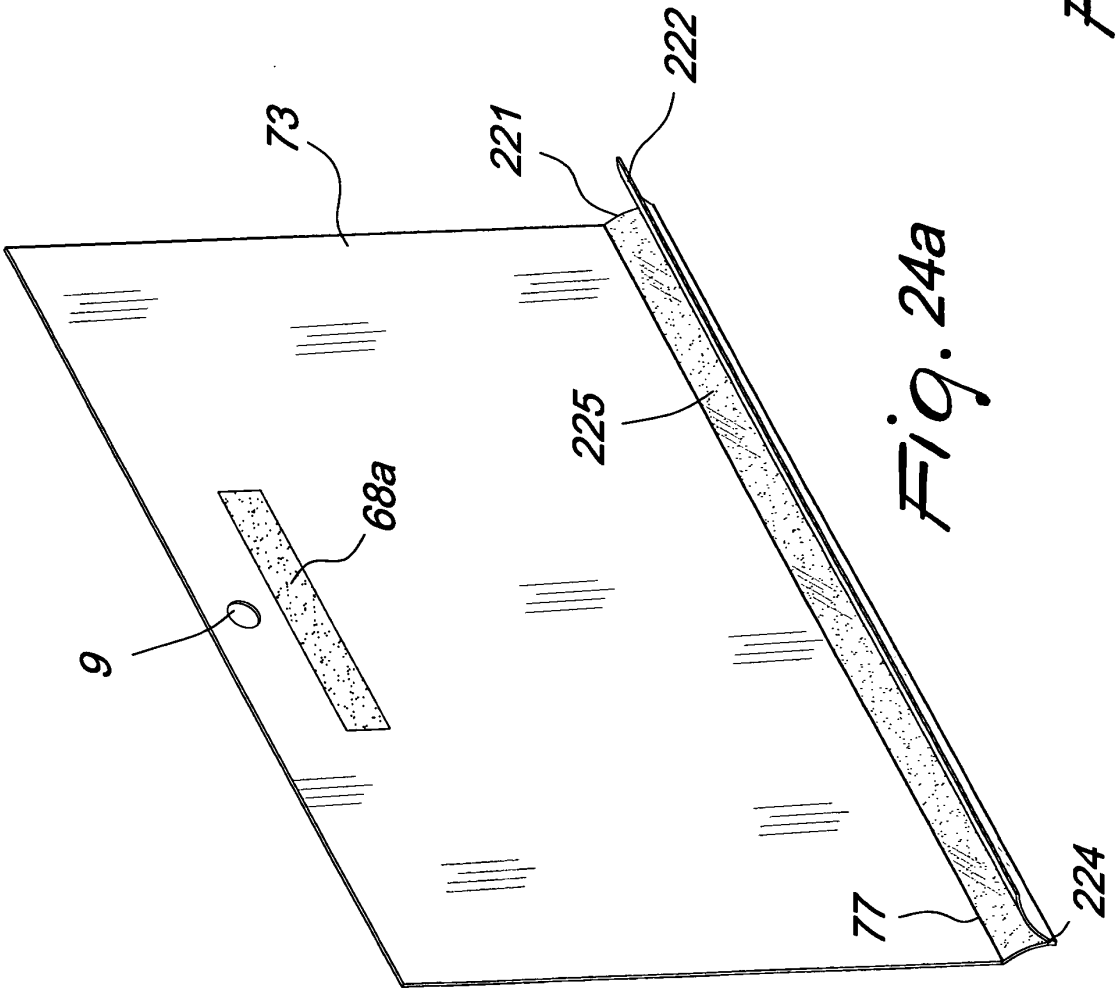

Fig. 24a

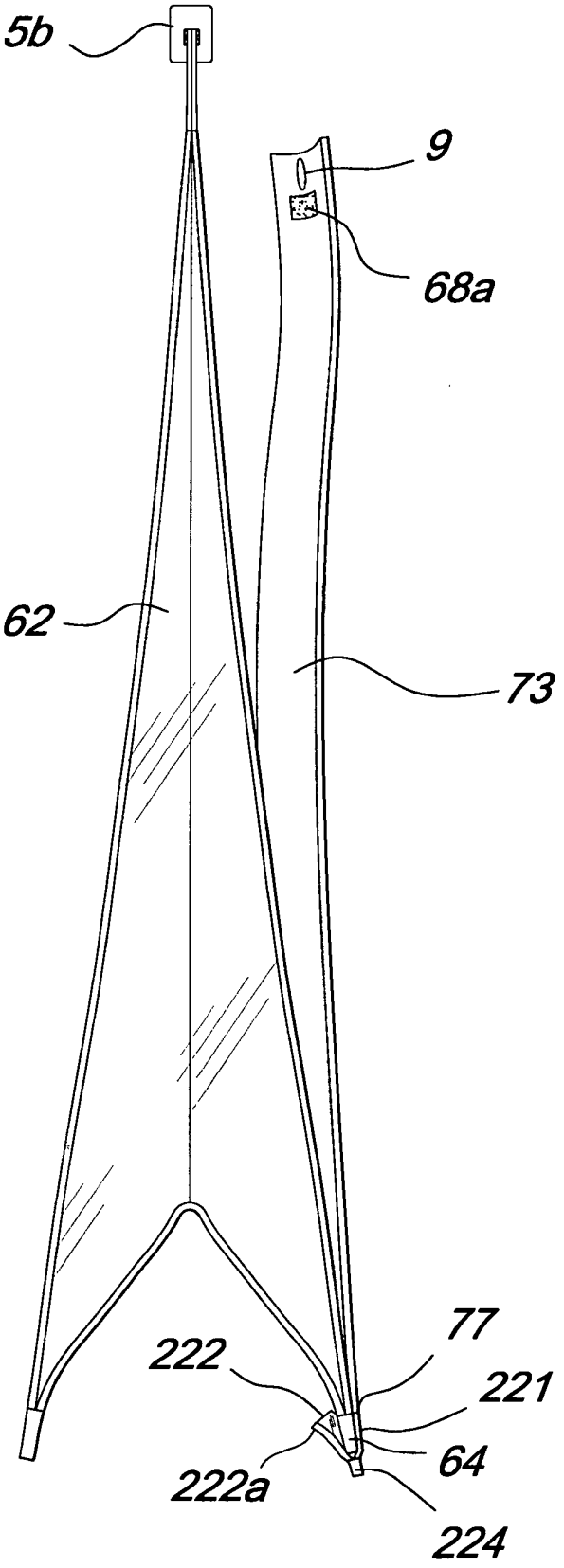

Fig. 24c

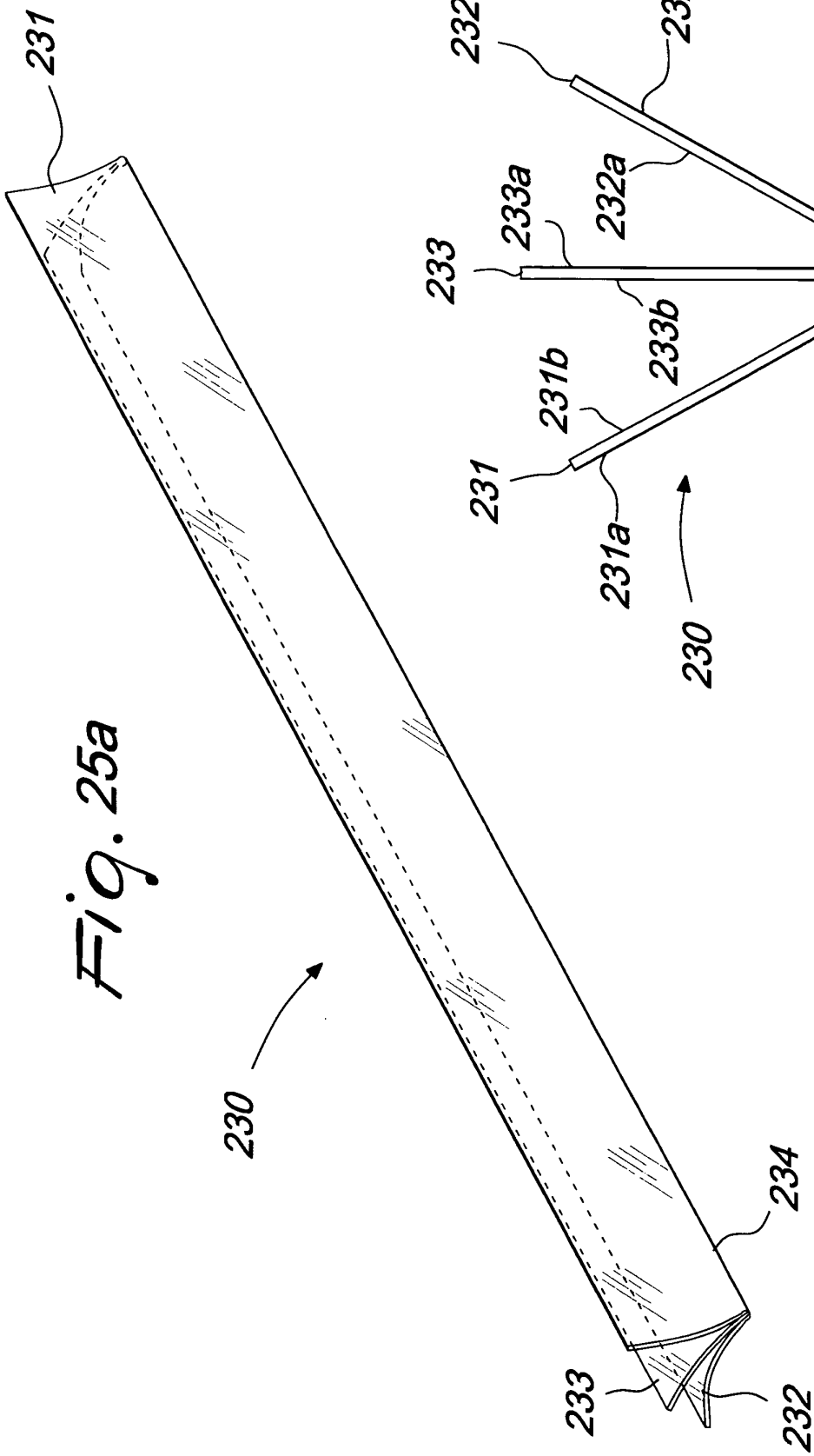

Fig. 25a

Fig. 25b

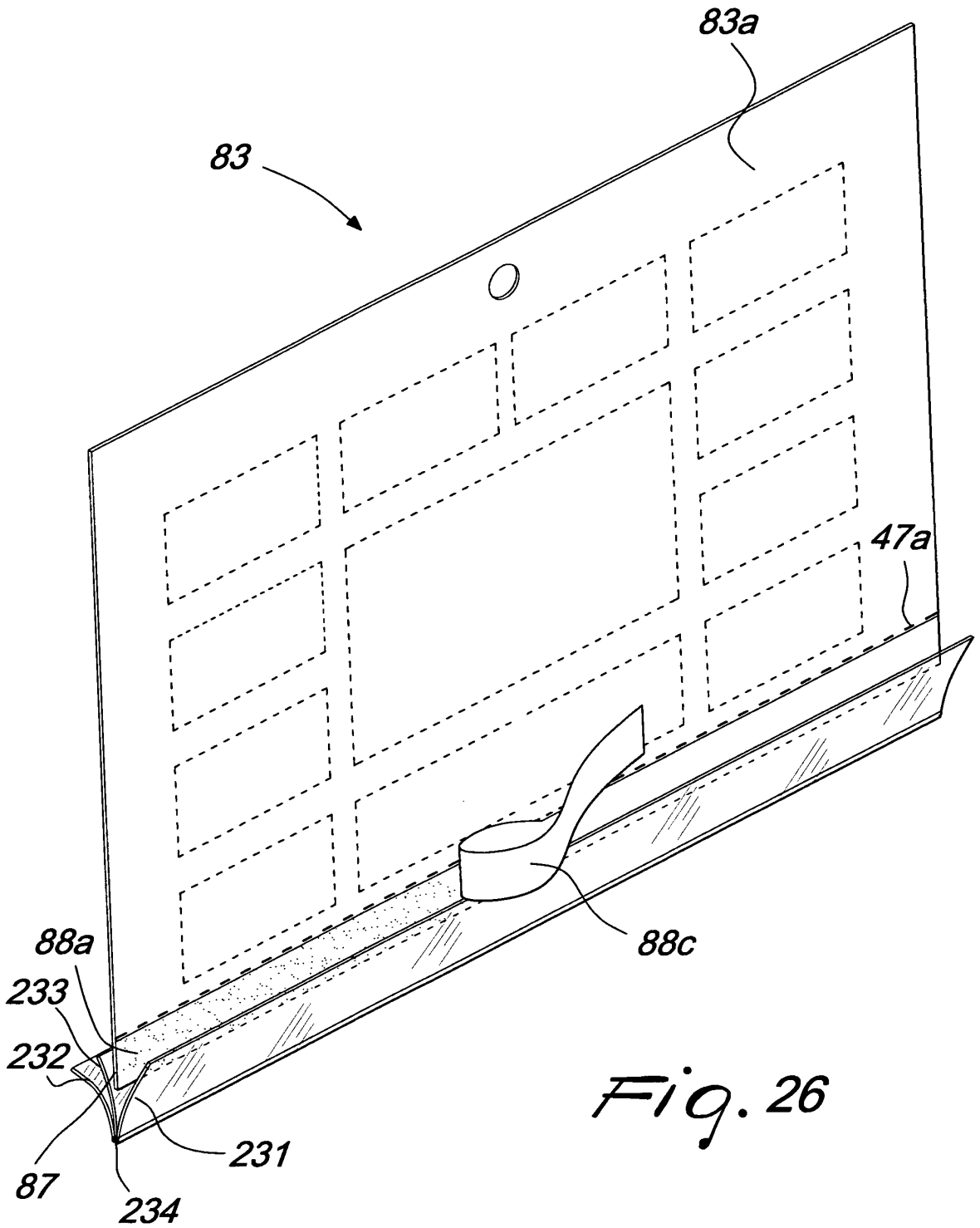

Fig. 26

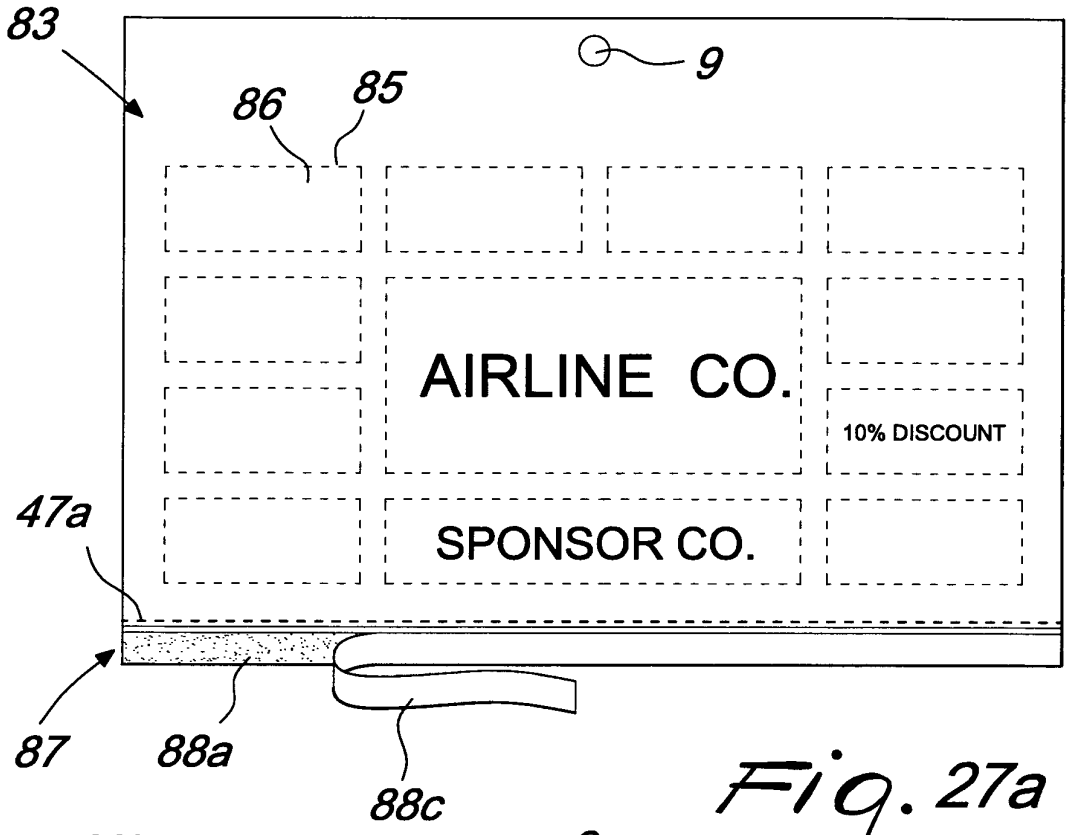

Fig. 27a

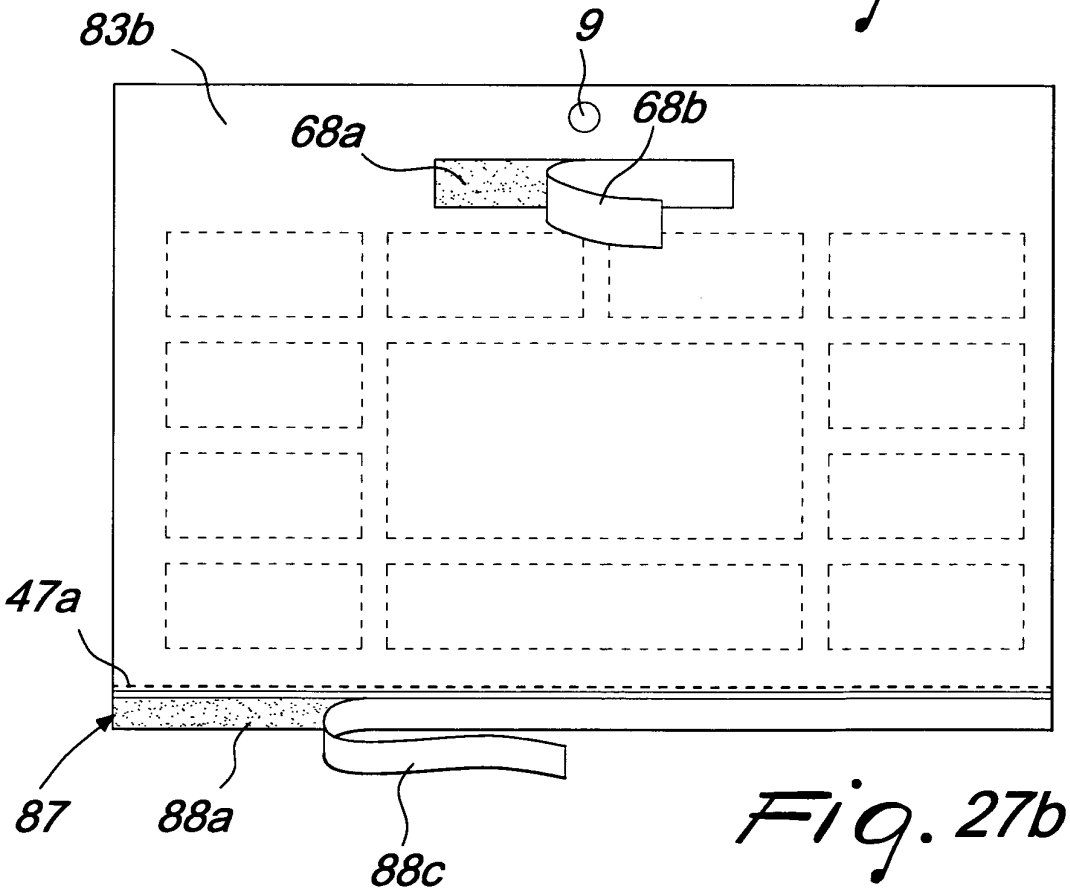

Fig. 27b

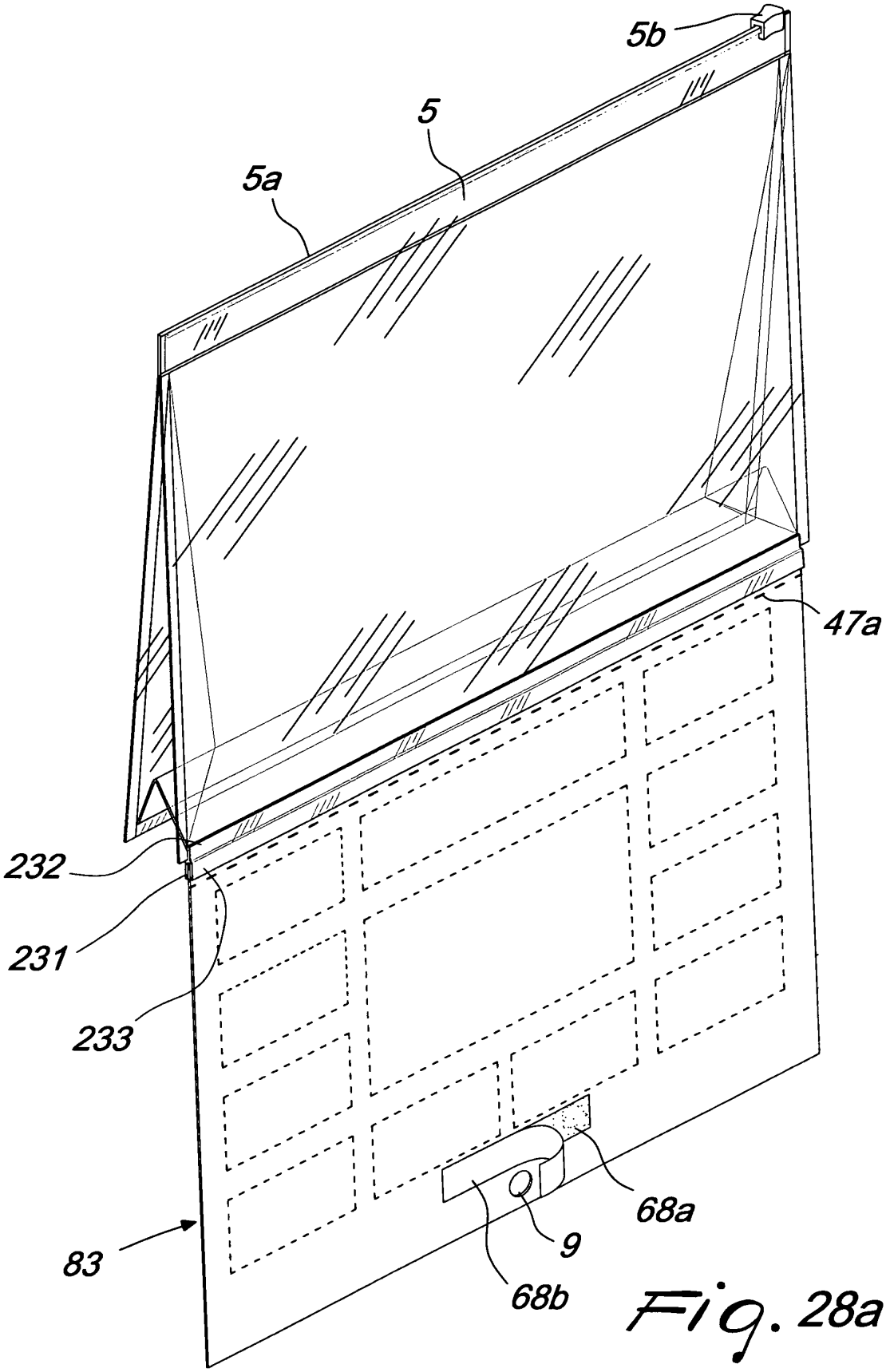

Fig. 28a

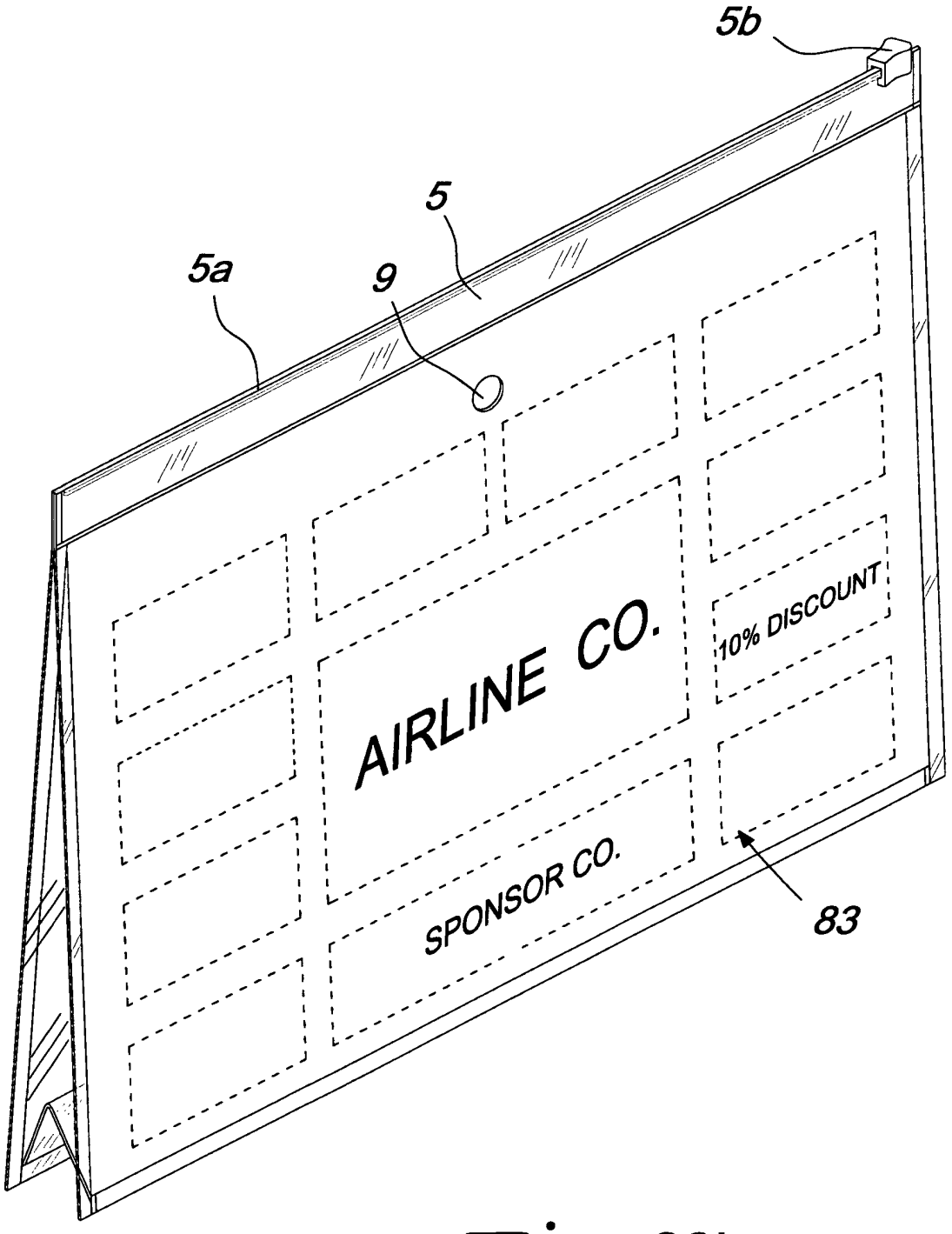

Fig. 28b

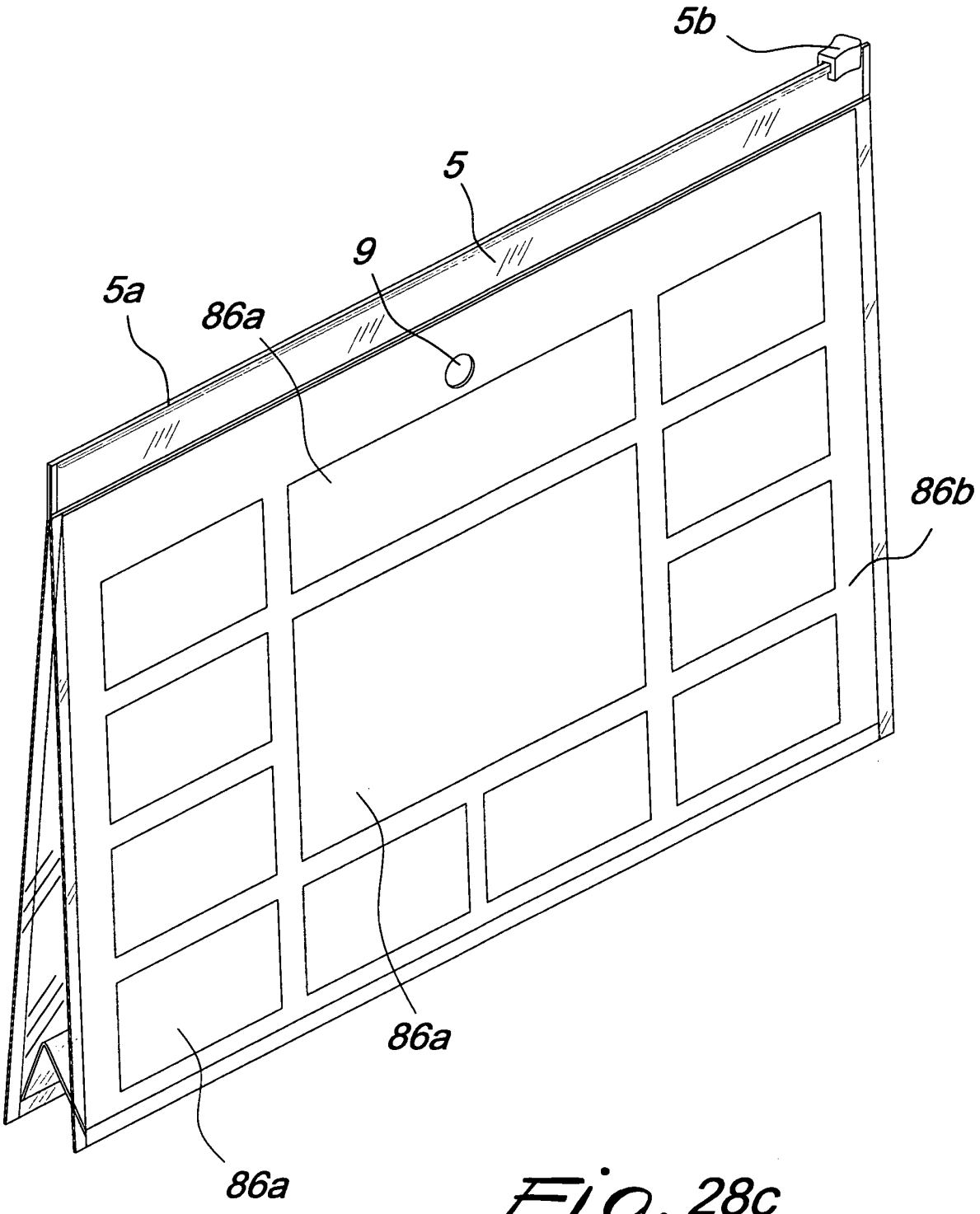

Fig. 28c

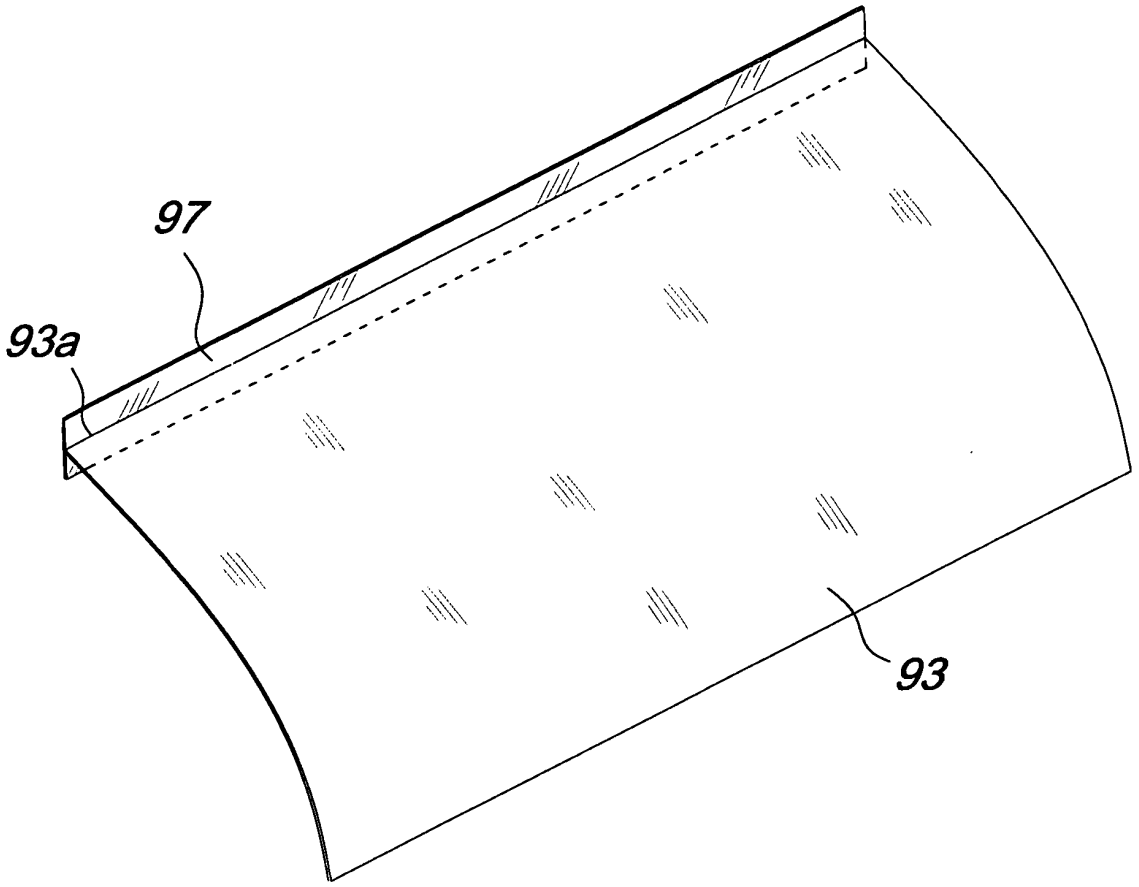

Fig. 29a

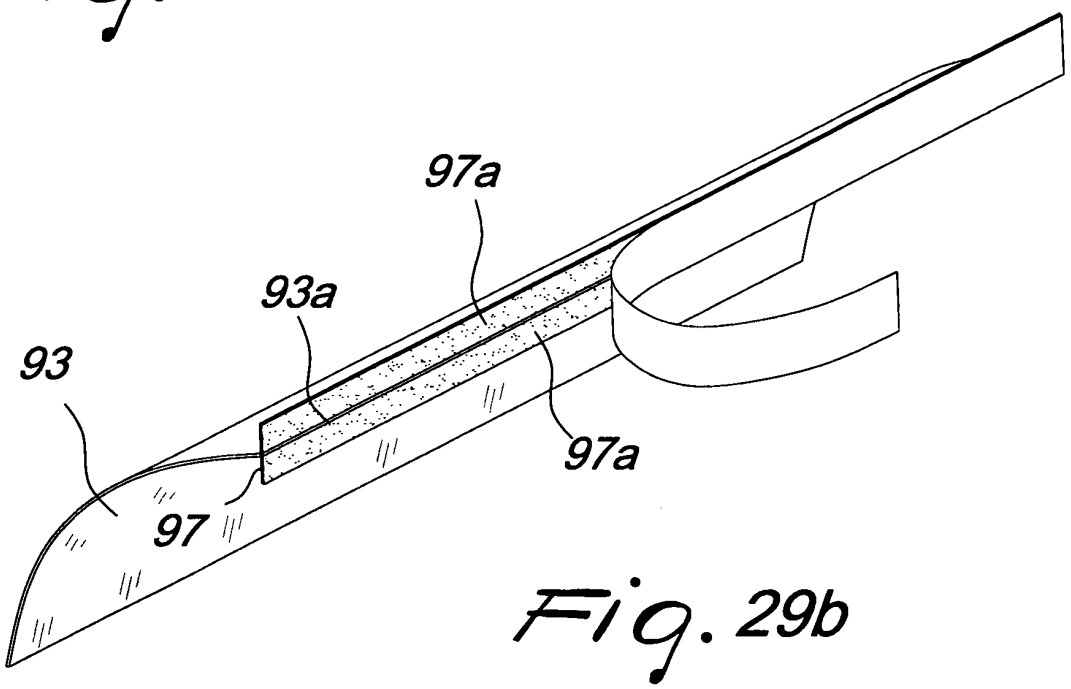

Fig. 29b

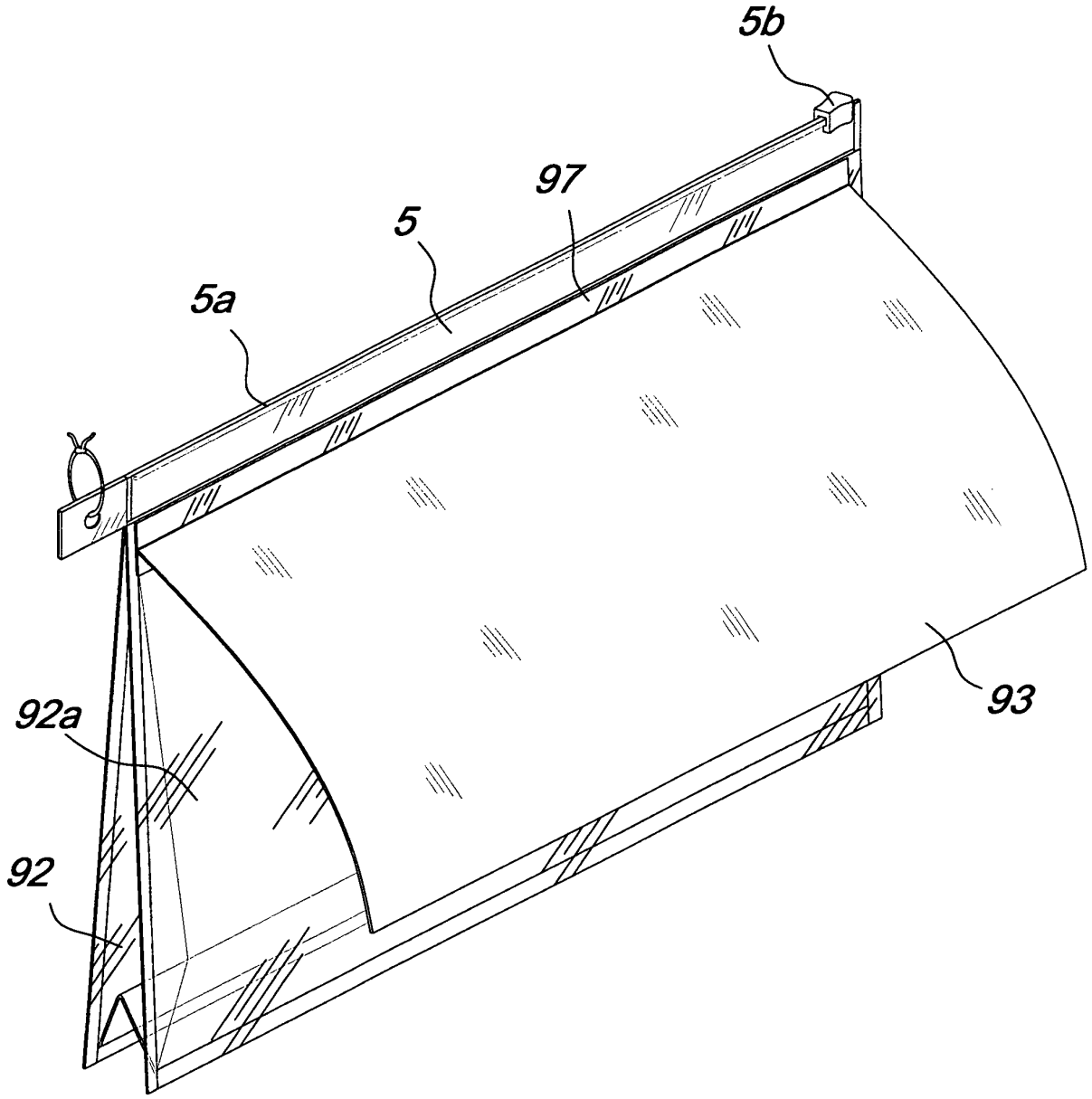

Fig. 30a

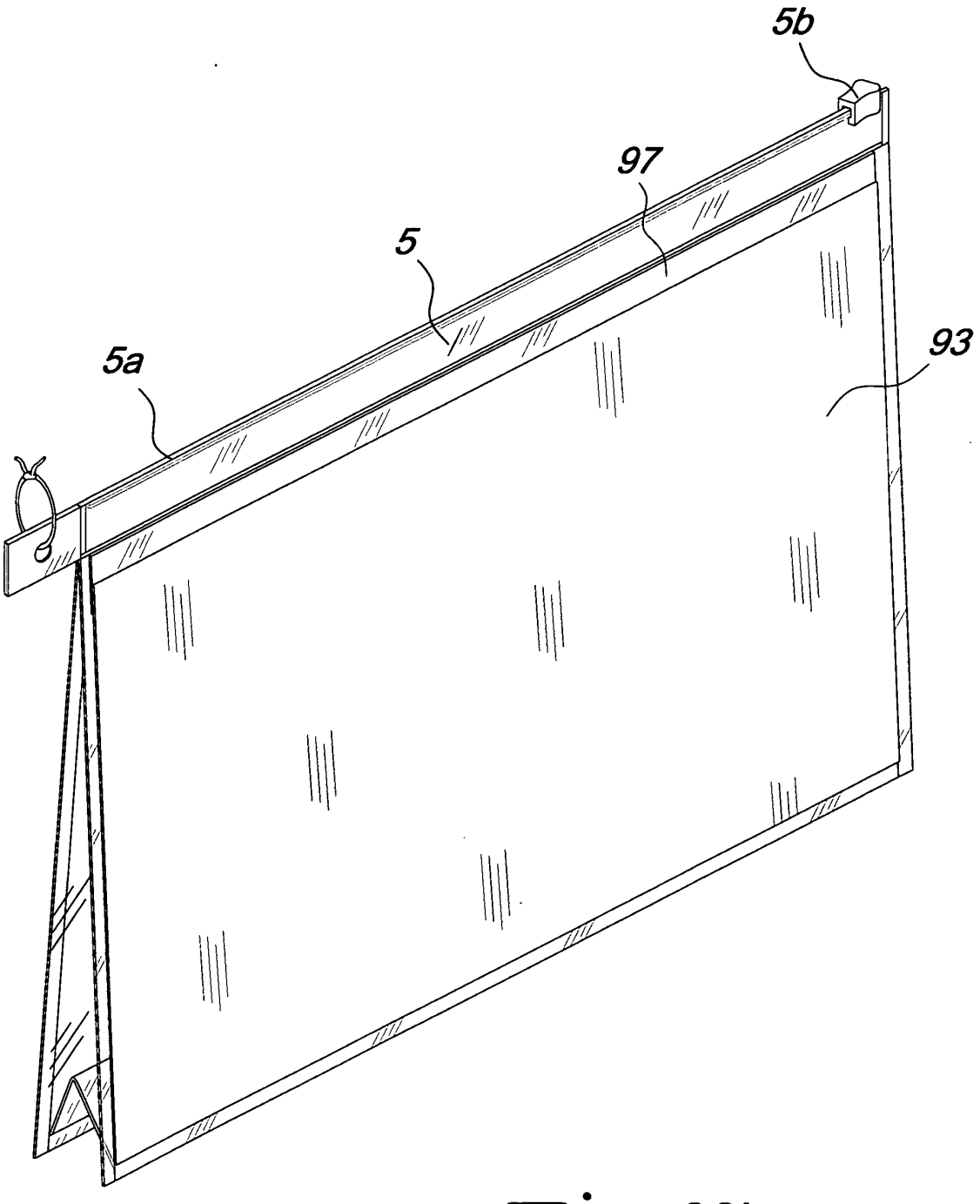

Fig. 30b

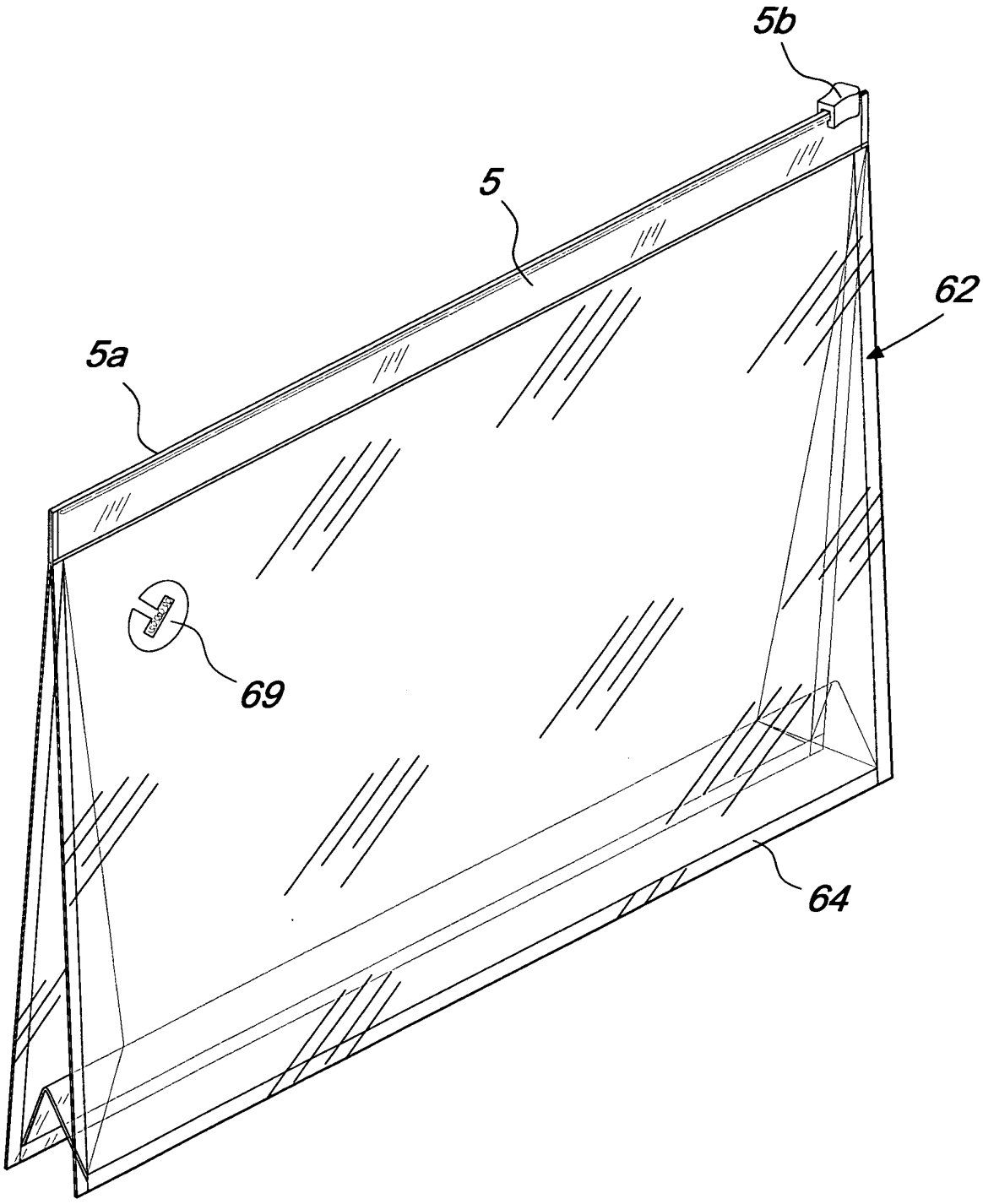

Fig. 31

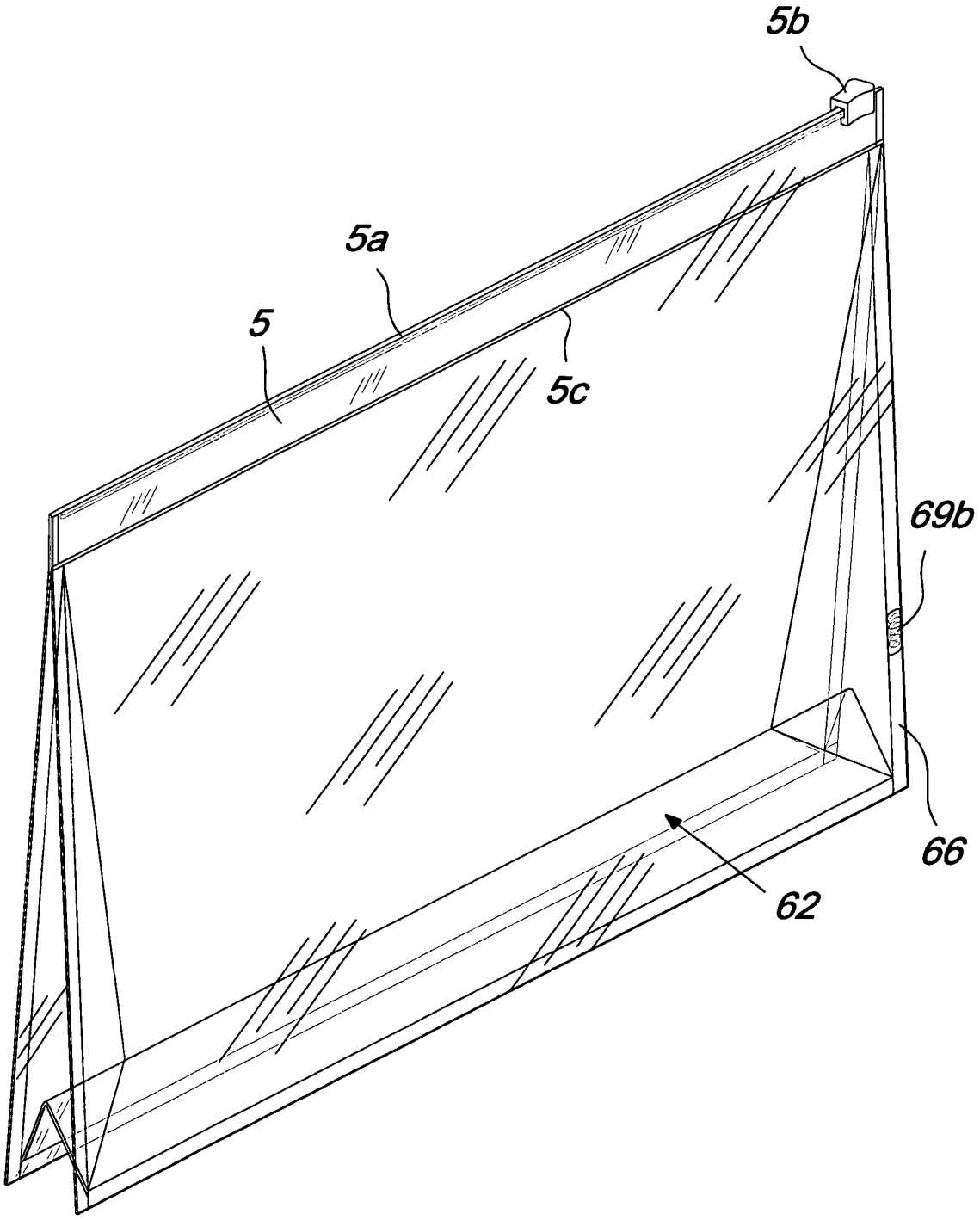

Fig. 32

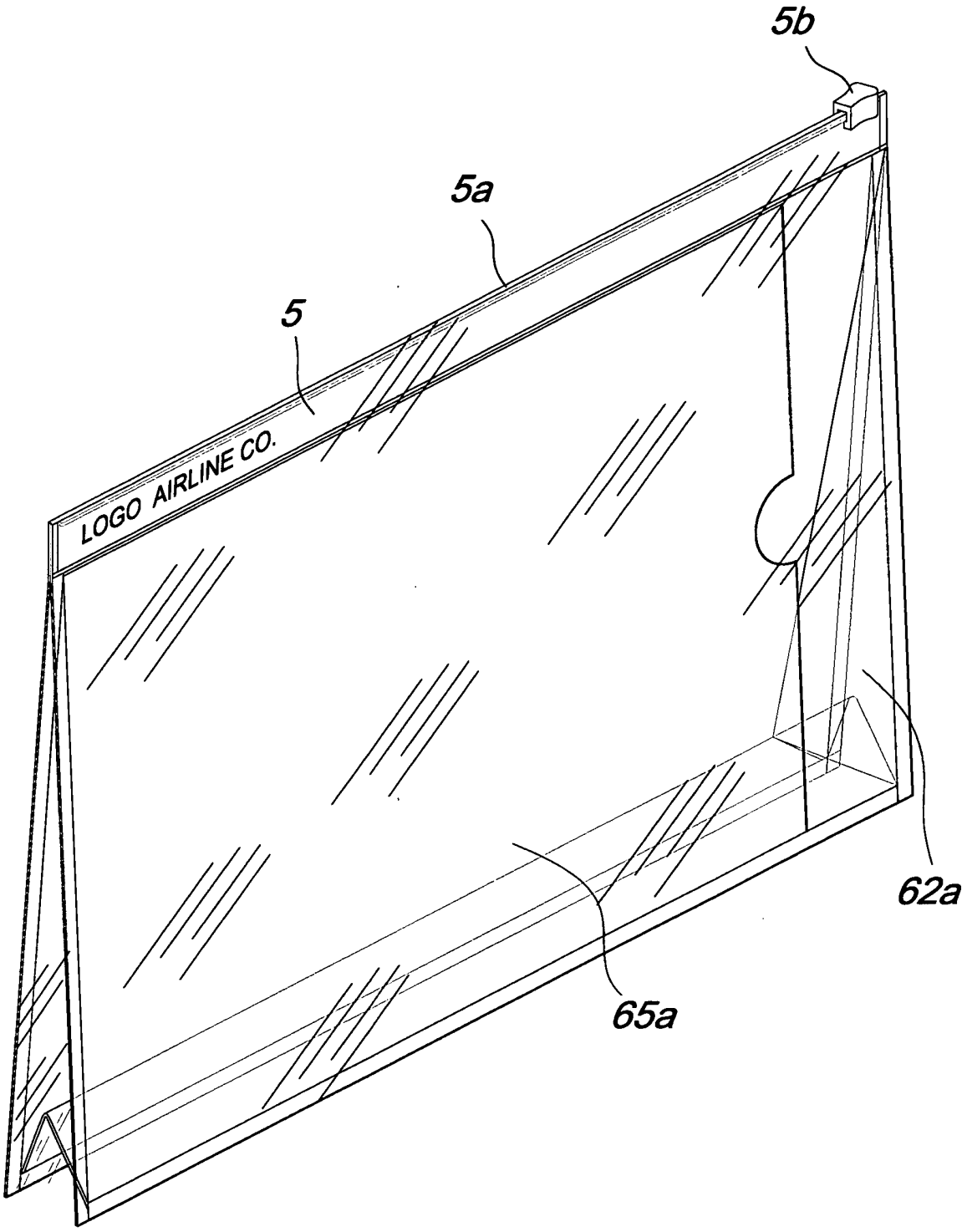

Fig. 33a

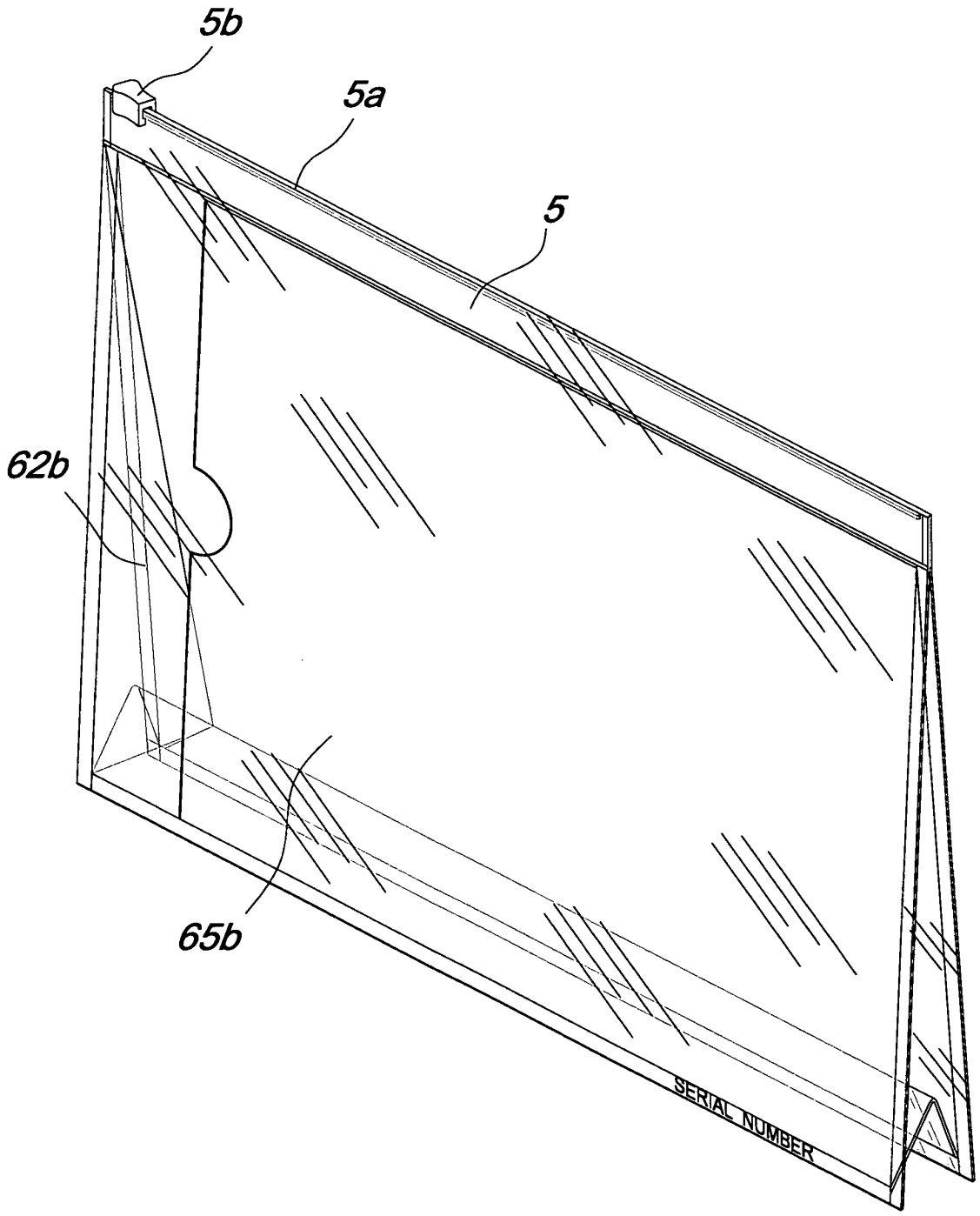

Fig. 33b

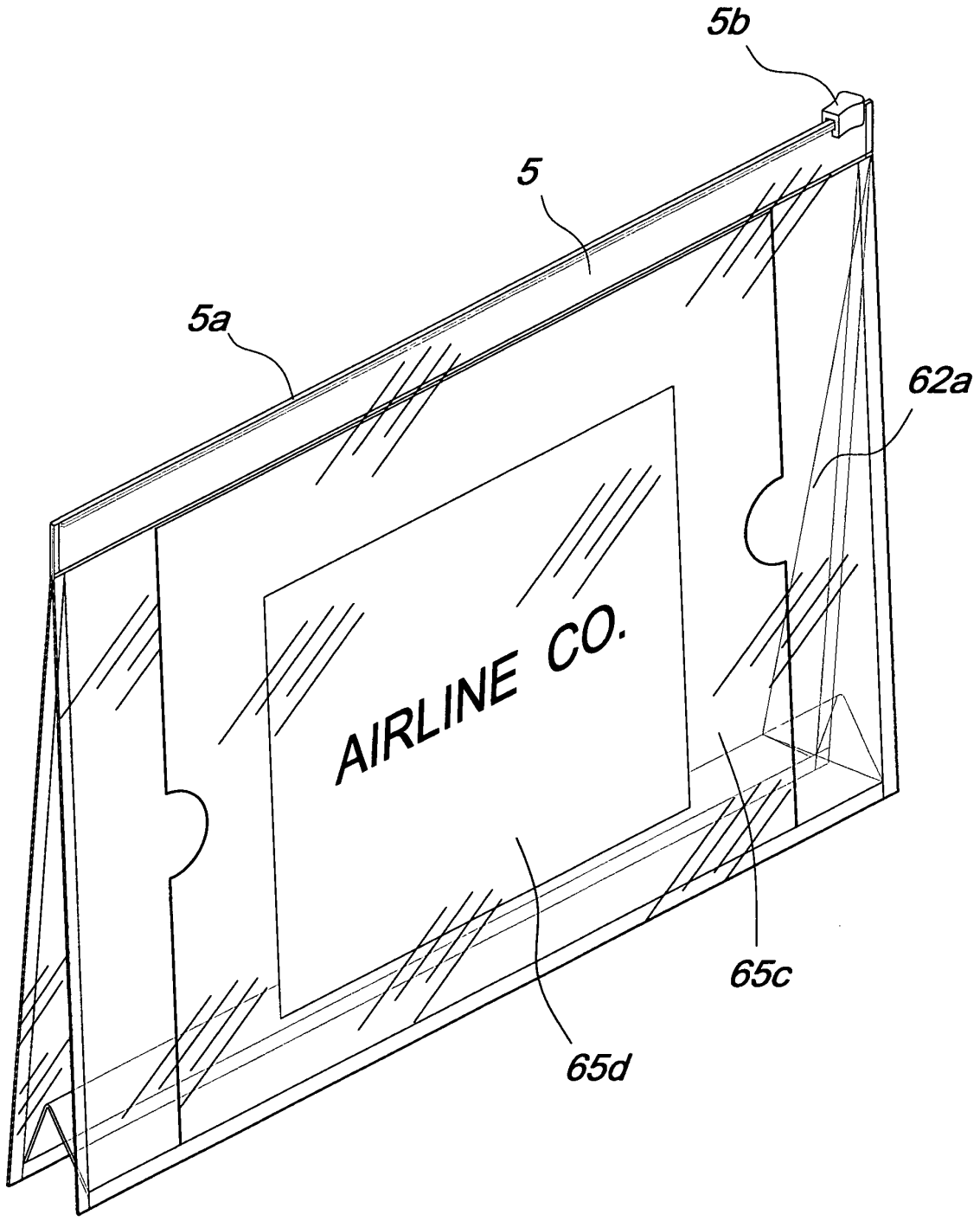

Fig. 33c

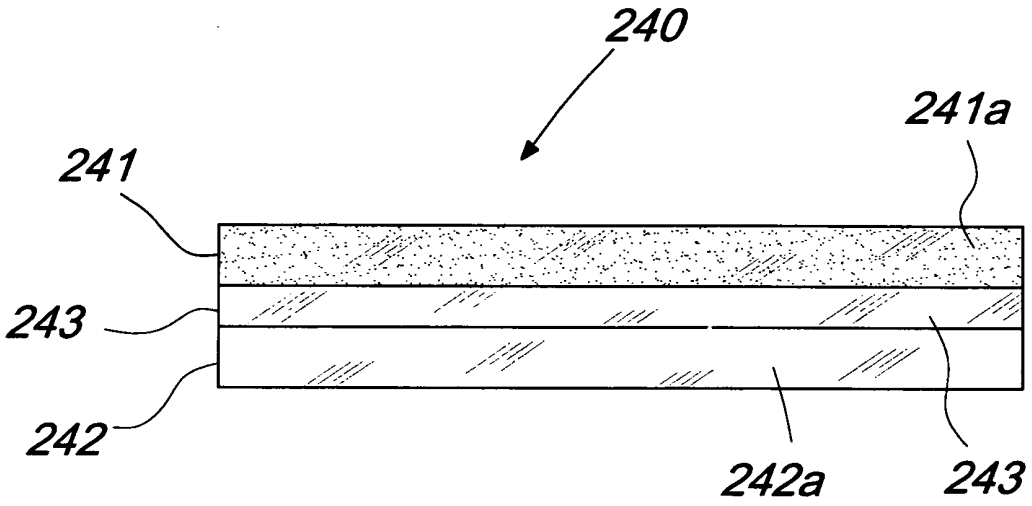

Fig. 34a

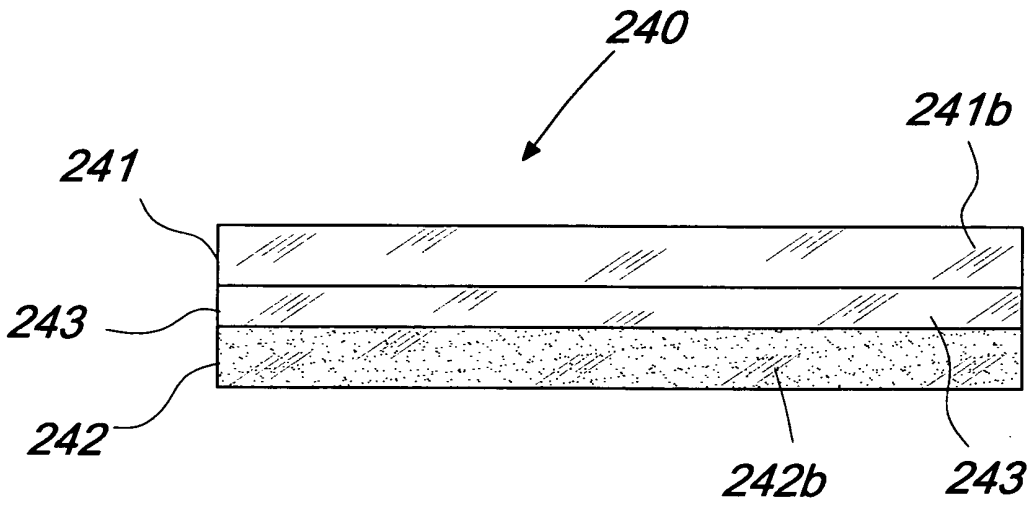

Fig. 34b

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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