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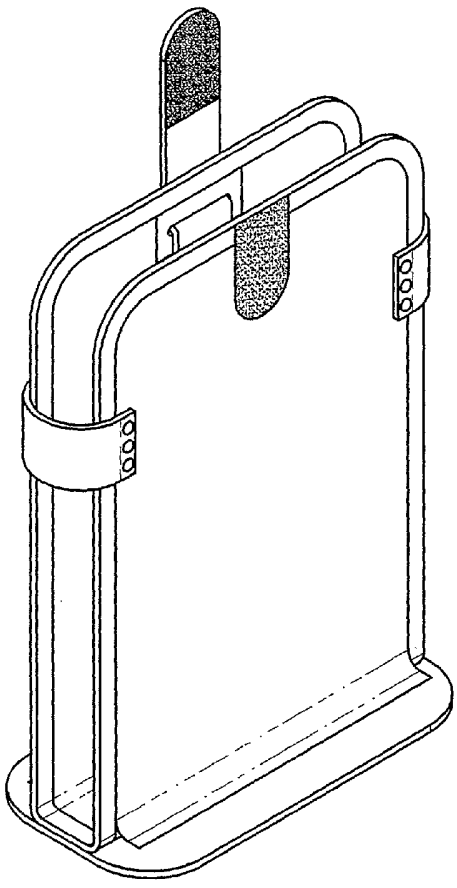
(54) Title: CARRYING BAG WITH COMPUTER-HOLDING INSERT



(57) Abstract: A carrying bag includes an insert configured to carry electronic devices such as laptop computers with other articles. The insert includes a pair of separator panels joined at a base. The base is designed to fit against the bottom of a pouch of the carrying bag. One or more tabs extend from the base to hold the separator panels in place and provide a carrying space between the panels and the pouch. A lifting strap may be provided in the insert to assist with removal of items from its interior.

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CARRYING BAG WITH COMPUTER-HOLDING INSERT

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to carrying bags and components for holding portable computers, such as laptop computers.

2. Description of Related Art

Various carrying bags and cases are known in the art for carrying laptop computers and similar electronic equipment. Such bags are frequently fashioned out of a durable but flexible fabric, and include multiple compartments, at least one of which is designed to securely hold a laptop computer. Although such bags are useful indeed for carrying computers, they are often constructed in a fairly uniform utilitarian manner, and are less aesthetically pleasing or fashionable than many general-purpose carrying bags. In addition, the plurality of pockets and compartments in such bags are useful, but often increase the cost, weight, and bulk of the bag.

General-purpose carrying bags, on the other hand, are usually available in a wide variety of styles and fashions to suit different consumer tastes, but are seldom designed for carrying electronic equipment such as laptop computers. For example, women's handbags and purses, men's handbags, and unisex handbags may be provided in a variety of styles and fashions. Such bags are often provided with a single large compartment large enough for a laptop computer. Placing the computer in the large compartment with smaller articles that the bag is also needed to hold may cause damage to both the smaller articles and the computer. In addition, it may be difficult to fully insert the computer into the carrying bag because of the presence of other items in the bottom of the bag.

It is desirable, therefore, to provide the consumer the greater selection and fashion afforded by general-purpose carrying bags, without sacrificing key functional aspects of more utilitarian computer cases.

SUMMARY OF THE INVENTION

The present invention overcomes limitations of conventional carrying cases for computers or similar electronic devices and of general-purpose carrying bags, while retaining the advantages of both.

According to an exemplary embodiment of the invention, a computer-carrying insert is provided for a general purpose carrying bag, such as a woman's handbag or other style of handbag. The insert may be attached in a permanent or semi-permanent fashion to the carrying bag, or may be designed to be readily removable from the carrying bag. The insert comprises two spaced-apart separator panels and a base along lower edges of both panels. The separator panels may be designed slightly larger than the largest area of the computer or other device they are intended to hold. They may be spaced a uniform distance apart so as to accommodate the maximum thickness of the laptop computer or other device. Side ends of the insert may be left generally open, or covered with a fabric material. Its top end should be left open, or provided with a removable closure, for insertion and removal of the computer. The separator panels and base may be comprised of a durable semi-rigid material, such as fabric-reinforced card stock, plastic, or leather materials.

Optionally, the insert may be provided with a lifting strap connected to a pull tab for lifting the computer out of the insert. The pull tab may be located near the top side of the insert, and may also be configured to act as a closure for the insert. Pulling on the tab places tension on the lifting strap, lifting the computer up from the bottom of the insert.

The insert base may be configured to fit against the bottom panel of an accompanying general-purpose carrying bag. For example, the base may be generally rectangular in shape, with rounded or beveled corners, and not wider than the bottom of the carrying bag. Optionally, the base may be stitched or adhered to the bottom of a

carrying bag. In the alternative, the insert may be provided with a hook-and-loop or other fastener for removable attachment to the bottom of a carrying bag. The base may be made wider than the insert, thereby providing spaces between each separator panel and an adjacent wall of the carrying bag, for carrying smaller articles. The base may also provide stability for the bag, so that it may be placed upright on a flat surface without tipping over.

A more complete understanding of the computer-holding insert for a carrying bag will be afforded to those skilled in the art, as well as a realization of additional advantages and objects thereof, by a consideration of the following detailed description of the preferred embodiment. Reference will be made to the appended sheets of drawings which will first be described briefly.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view showing bottom and left sides of an exemplary computer-holding insert according to the invention.

Fig. 2 is a perspective view showing top and right sides of the insert shown in Fig. 1.

Fig. 3 is a perspective view showing bottom and left sides of a second exemplary computer-holding insert according to the invention.

Fig. 4 is a perspective view showing top and right sides of the insert shown in Fig. 3.

Fig. 5 is a cross-sectional view showing an exemplary insert in a carrying bag, with a computer fully inserted and a pull tab in a retracted position.

Fig. 6 is a cross-sectional view showing the insert of Fig. 5, with the pull tab extended, lifting the computer partially out of the carrying bag and insert.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The present invention provides an insert for a general-purpose carrying bag, wherein the insert is adapted for holding an electronic device such as a computer, that

overcomes the limitations of the prior art. In the detailed description that follows, like element numerals have been used to indicate like elements in one or more of the figures.

Figs. 1 and 2 show opposite perspective views of a first exemplary embodiment for an insert 100 according to the invention. Insert 100 comprises a pair 102 of spaced-apart panels 104, 106 having major surfaces 108, 110 substantially parallel to each other so as to define an interior volume 112 for holding a rectangular prism-shaped object, for example, a laptop computer. Insert 100 further comprises a base 114 joined to the pair of spaced-apart panels adjacent to lower edges 116, 118 of each panel.

Base 114 is provided with at least one tab 120 substantially perpendicular to panel 104, extending outward from the pair 102 of panels as shown. A second tab 122 may be provided on a side of the pair 102 of panels opposite to tab 120, also substantially perpendicular to, and extending outward from, the pair of panels. Tabs 120 and 122 may be formed integrally with base 114, or may comprise separate pieces of material (not shown) attached to the base or near the base. Tabs 120 and 122 serve to stabilize insert 100 inside a central compartment of a general-purpose carrying bag. Base 114 may also serve to stabilize the bottom of a carrying bag, so that it may be placed upright on a flat surface without tipping over.

Accordingly, tabs 120, 122 may be constructed of a semi-rigid material that is stiff enough to hold its shape and support the insert 100 away from the sidewalls of the carrying bag, without being too stiff or too hard so as to be uncomfortable to carry or unduly heavy. Base 114 and panels 104, 106 may be comprised of similar materials. Suitable materials may include, for example, fabric-reinforced paper or cardboard, plastic, leather, heavy fabric, metal, and various laminates or other combinations of the foregoing materials, as known in the art for use with carrying bags and articles of luggage. Each tab 120, 122 preferably extends outward of the panel pair 102 a distance of between about 0.25 and 3 inches, depending on the size of carrying bag the insert is designed for.

Base 114 may be attached to an interior bottom of a carrying bag, such as by stitching or using an adhesive. In the alternative, a lower surface 124 of the base 114 or tabs 120, 122, or a portion of the lower surface, may comprise a suitable detachable fastener or fabric for attaching or improving adhesion between the base 114 and an adjoining bottom panel of a carry bag. For example, a suitable detachable fastener may include hook fabric or loop fabric of a hook-and-loop fastener system, one or more snaps, clips, or hooks, or a tacky coated fabric.

Panels 104, 106 may be attached together a distance away from base 114, so as to maintain the panels in substantially parallel relation. In the illustrated embodiment 100, connecting bands 126, 128 are attached to both panels 104, 106 at opposite sides of the panel pair 102. Bands 126, 128 may be fastened to panels 104, 106 using any suitable method, for example, by stitching, rivets, or adhesive. In the alternative, a removable fastening system, such as a clasp, snap, or hook-and-loop fabric may be used.

In the illustrated embodiment, the sides of the panel pair 102 are left open between bands 126, 128 and base 114. Advantageously, leaving the sides open permits the interior volume 112 to be readily cleared of debris or small articles prior to insertion of a larger object such as a laptop computer. In the alternative, but less preferably, the sides of the pair 102 may be closed using a side panel of fabric or other suitable material.

Insert 100 may further be provided with a lifting strap 130, an upper portion 132 of which may also function as a closure for the upper end of the panel pair 102. As such, the upper portion 132 may be provided with a suitable fastener for use in closing the interior volume of the insert. In the illustrated embodiment, a piece of loop fabric 134 is attached to the upper portion 132, for removable attachment to a corresponding piece of hook fabric 136 attached adjacent to an upper edge of panel 106. Other suitable fasteners, for example, hooks, clasps, snaps, or buttons may also be used instead of hook-and-loop fabrics 134, 136. Operation of the upper portion 132 as a closure should be apparent from inspection of Figs. 1 and 2.

The lifting strap 130 may also perform the function of lifting a relatively heavy object, such as a laptop computer, out of the interior volume 112. To this end, the upper portion 132 may be threaded from the interior volume 112 to the exterior of the panel pair 102 through a guide slot 140, so as to function as a pull tab for a lower portion of the lifting strap. Although not visible in Figs. 1 and 2, because it is obscured by panels 104, 106, the lower portion of the lifting strap may be wider than the end portion 132 so as to better lift an object contained in the interior volume of the insert. In general, strap 130 may be constructed of material similar to panels 104, 106, but preferably thinner and more flexible to facilitate pulling through slot 140 and flexure in the interior volume around an object to be lifted. For example, leather, fabric, plastics, and laminates or composites thereof may be suitable. Further details of the lifting strap are described below in connection with Figs. 5 and 6.

Figs. 3 and 4 show a second embodiment of an insert 200. Insert 200 may be constructed essentially similar to insert 100, except for having a different orientation of the panel pair 202. Many laptop computers comprise rectangular prism-shaped objects, having two long edges and two short edges. Insert 200 is configured to hold a rectangular prism-shaped object of the same size as insert 100, except insert 200 is designed to accommodate long edges of a rectangular prism parallel with the base and top edges of the insert. In comparison, insert 100 is designed to hold the same object with the short edges parallel to the base 114 and upper end. Either insert 100 or insert 200 may be used to carry the same object, depending on the desired style of carrying bag. It should further be apparent that inserts similar to inserts 100 or 200 may be provided in different sizes, to hold smaller or larger objects.

Figs. 5 and 6 show cross sectional views of an exemplary insert 300 similar to inserts 100 and 200, inside of a compartment 350 of an exemplary carrying bag 352. Bag 352 may comprise additional components and details (not shown) as known in the art. Insert 300 may be inserted in compartment 350, with the base disposed and attached against a bottom side of the compartment. Tabs 320, 322 extend away from the side panels of insert 300, to stabilize the insert in a central portion of the

compartment and thereby divide the compartment into two spaces 356, 358 on opposite sides of insert 300. A rectangular prism-shaped object 354, representing a laptop computer, is inserted into an interior volume of insert 100.

Insert 300 comprises a lifting strap 330 having an upper portion 332 and a lower portion 338. The upper portion 332 is threaded through a guide slot 340 in a first side panel of insert 300, and the lower portion is attached to the opposite side panel about one-fifth to one-quarter of the panel length away from the base. Fig. 5 shows the object 354 fully inserted into insert 300, pushing the lower portion 338 of the lifting strap to base 314. From this position, pulling on the upper portion 332 will partially lift object 354 out of insert 300, as shown in Fig. 6. This may enable easier removal of the object 354 from the insert, while lessening any tendency to remove the insert itself from the compartment. Optionally, the entire insert 300 may also be removed from the compartment 350, such as when it is desired to use the carrying bad for some other purpose.

Having thus described a preferred embodiment of the computer holding insert for a carrying bag, it should be apparent to those skilled in the art that certain advantages of the within system have been achieved. It should also be appreciated that various modifications, adaptations, and alternative embodiments thereof may be made within the scope and spirit of the present invention. For example, an insert using hook-and-loop fasteners has been illustrated, but it should be apparent that the inventive concepts described above would be equally applicable to inserts with other types of fasteners, including snaps, clips, or buttons. The invention is further defined by the following claims.

CLAIMS

What is Claimed is:

1. A carrying bag, comprising:

a pouch having a closed bottom and open top;

an insert disposed in the pouch and attached to the bottom of the pouch, the insert comprising:

a pair of spaced-apart panels having major surfaces substantially parallel to each other so as to define an interior volume for holding a rectangular prism-shaped object;

a base joined to the pair of spaced-apart panels adjacent to lower edges of each member of the pair, the base having a first tab substantially perpendicular to the major surfaces of the panels, the first tab extending outward from the pair of panels; and

at least one connector attached to the pair of panels a distance away from the base, configured to retain the pair of panels in substantially parallel relation.

2. The carrying bag of Claim 1, further comprising a lifting strap disposed across a bottom end of the pair of panels inward of the base, the lifting strap comprising a pull tab disposed near an upper end of the pair of panels.

3. The carrying bag of Claim 2, wherein the pull tab is configured to act as a closure for the pair of panels, and comprises a fastener disposed for removable attachment to a member of the pair of panels.

4. The carrying bag of Claim 2, wherein the pull tab is threaded through a slot from an interior of the pair of panels to an exterior of the pair of panels.

5. The carrying bag of Claim 1, wherein sides of the pair of spaced-apart panels are substantially open to an interior of the pouch.

6. The carrying bag of Claim 1, wherein the first tab extends along substantially an entire length of the base.

7. An insert for a carrying bag, the insert comprising:

a pair of spaced-apart panels having major surfaces substantially parallel to each other so as to define an interior volume for holding a rectangular prism-shaped object;

a base joined to the pair of spaced-apart panels adjacent to lower edges of each member of the pair, the base having a first tab substantially perpendicular to the major surfaces of the panels, the first tab extending outward from the pair of panels; and

at least one connector attached to the pair of panels a distance away from the base, configured to retain the pair of panels in substantially parallel relation.

8. The insert of Claim 7, further comprising a lifting strap disposed across a bottom end of the pair of panels inward of the base, the lifting strap comprising a pull tab disposed near an upper end of the pair of panels.

9. The insert of Claim 8, wherein the pull tab is configured to act as a closure for the pair of panels, and comprises a fastener disposed for removable attachment to a member of the pair of panels.

10. The insert of Claim 8, wherein the pull tab is threaded through a slot from an interior of the pair of panels to an exterior of the pair of panels.

11. The insert of Claim 8, wherein the lifting strap and the pull tab comprise a material selected from fabric or leather.

12. The insert of Claim 7, wherein sides of the pair of spaced-apart panels are substantially open.

13. The insert of Claim 7, further comprising a closure adjacent an upper end of the pair of panels, the closure comprising a flap attached to a first member of the pair of panels and a fastener disposed for removable attachment to a second member of the pair of panels.

14. The insert of Claim 7, further comprising a fastener attached to the base, configured for attachment to an interior bottom of a carrying bag.

15. The insert of Claim 14, wherein the fastener comprises a hook-and-loop material affixed to a bottom of the base.

16. The insert of Claim 7, further comprising a second tab extending outward from the pair of panels in a direction opposite to the first tab.

17. The insert of Claim 7, wherein the first tab extends away from the pair of panels for a distance of at least an inch.

18. The insert of Claim 17, further comprising a second tab extending outward from the pair of panels for at least an inch in a direction opposite to the first tab.

19. The insert of Claim 7, wherein the first tab extends along substantially an entire length of the base.

20. The insert of Claim 19, further comprising a second tab extending outward from the pair of panels in a direction opposite to the first tab and extending along substantially an entire length of the base.

21. The insert of Claim 7, wherein the pair of panels and the base comprise a material selected from leather, fabric-reinforced paper, heavy fabric, or plastic.

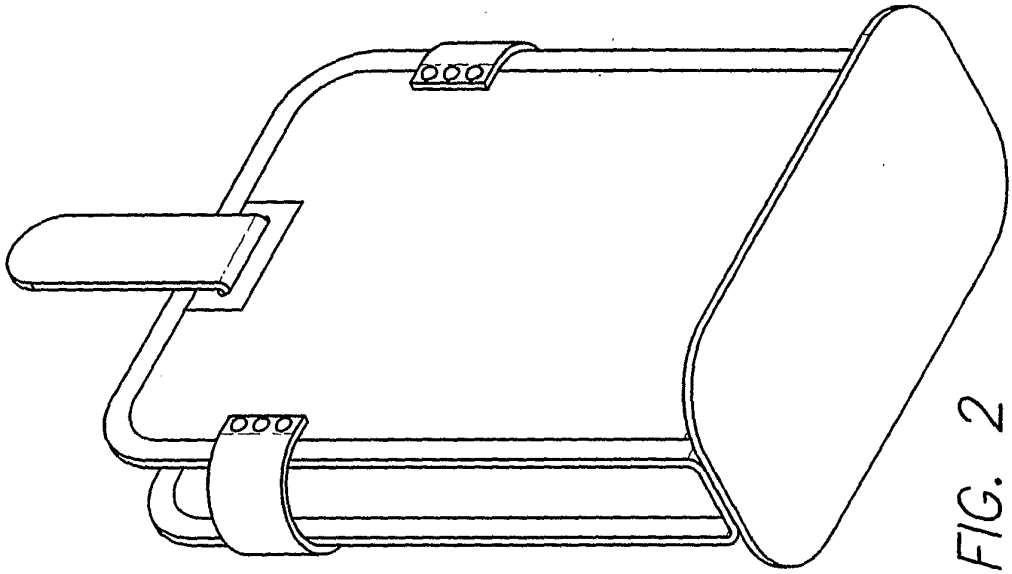

FIG. 2

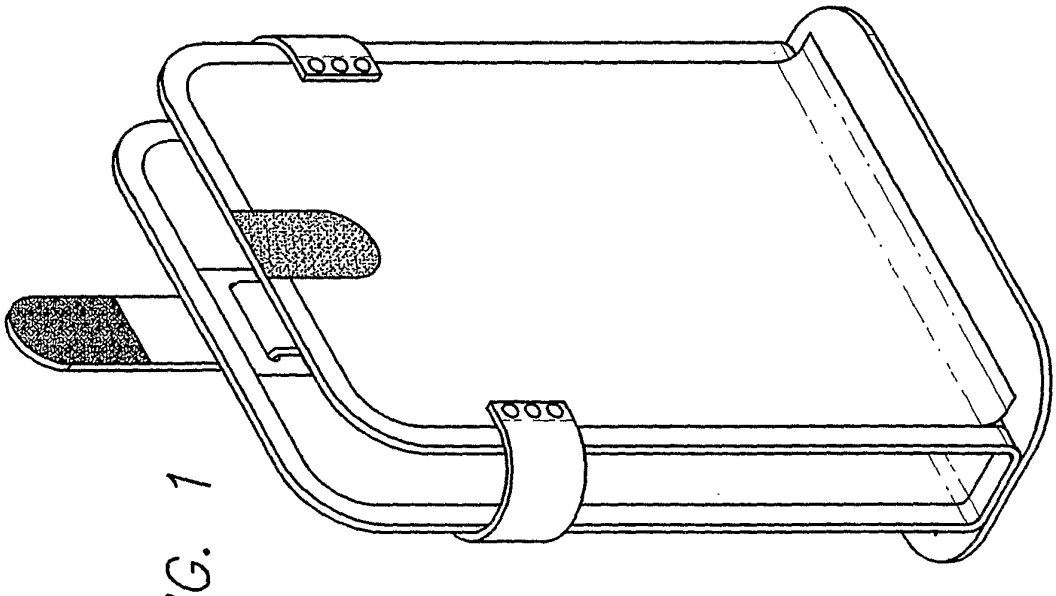

FIG. 1

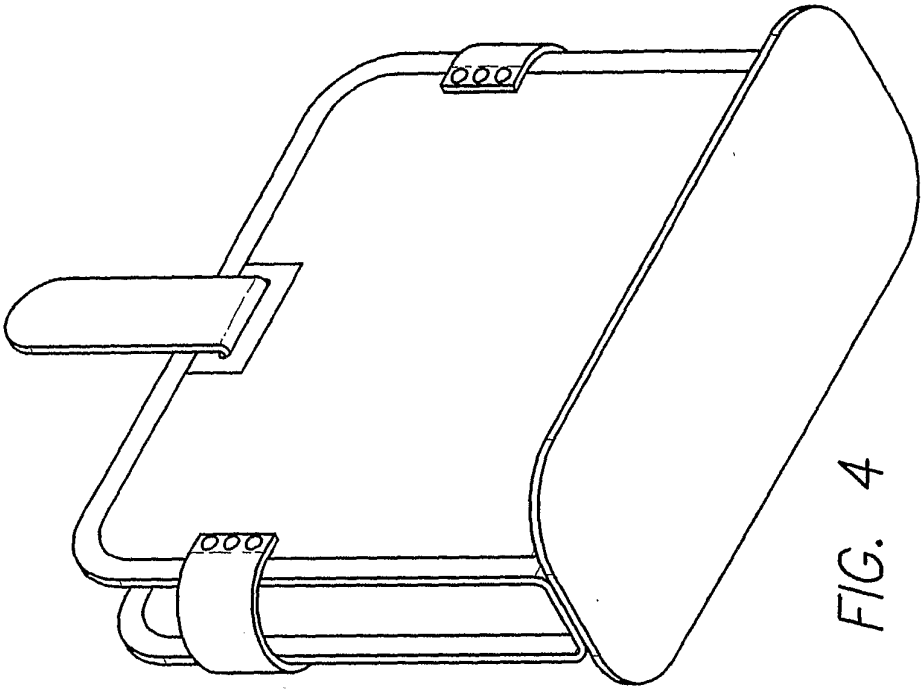

FIG. 4

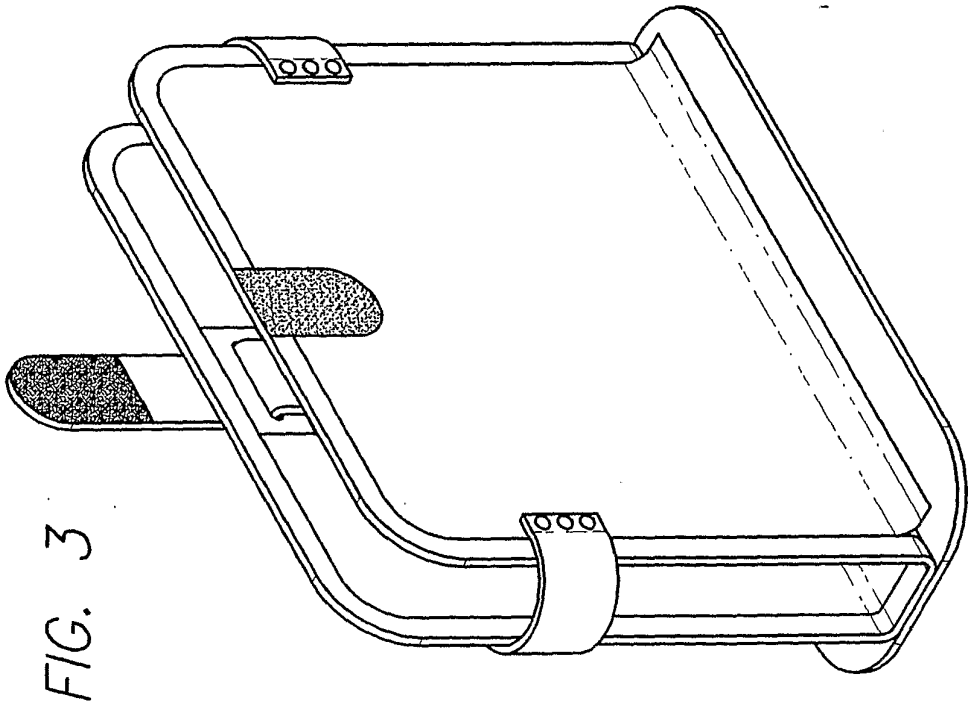

FIG. 3

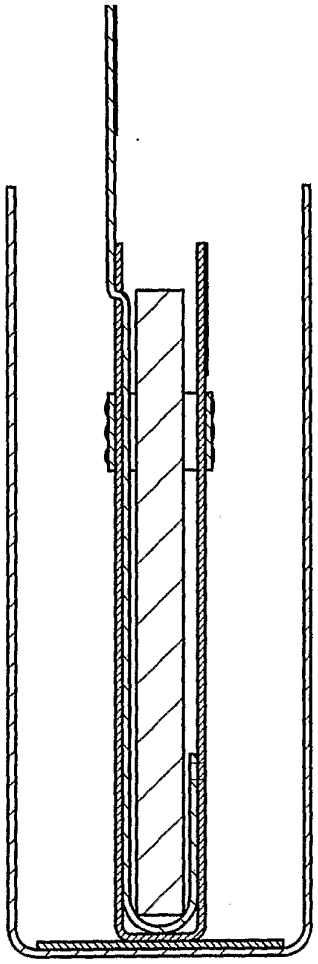

FIG. 5

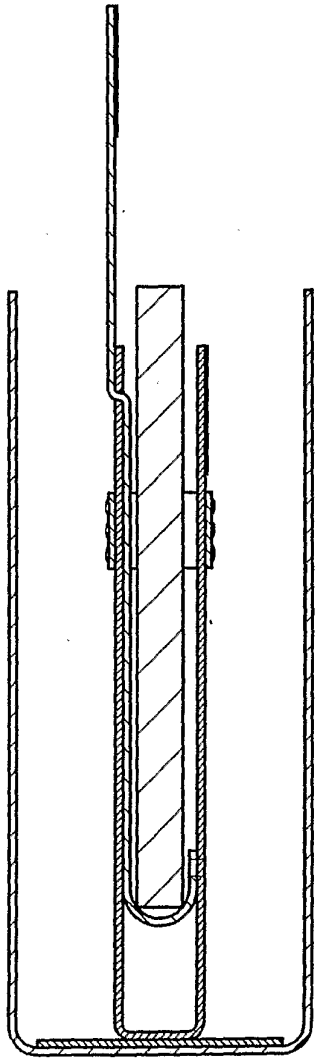

FIG. 6