

FOLDABLE CARRIER FOR RETAINING OBJECTS

Field of the Invention

The present invention relates generally to carriers for removably retaining articles therein, and, more specifically, to such carriers formed from a folded flat web of flexible material.

Background of the Invention

Frequently, it is desirable to store various small objects such as computer disks, photographs, tape cassettes and index cards in portable packages or carriers for transport or storage. Various prior devices exist for that purpose, including hanging file disk pockets, hanging pockets, and 3 1/2" diskette viewer folders from Globe-Weis of Atapco Office Products Group, St. Louis, MO. However, such conventional containers may be deficient in certain circumstances.

Hanging file pockets, add-on pockets and the like are typically open-ended. Therefore, disks and other objects placed into the pockets can fall out, particularly if the pocket becomes inverted in use or transport. Some prior devices appear to respond to that difficulty by making the pocket more rigid and closely dimensioned to the object to be carried so as to grip the object better. Unfortunately, such devices have a tendency to be more difficult for the object to be inserted into and removed from, often requiring the users to employ both hands in the effort.

Many prior carriers were also integrally formed with or permanently secured to an underlying support, such as a folder, ring binder or documentation package. When the object is to be removed from the package, a separate, additional carrier has been employed. Also, each such package has typically employed a carrier specialized in dimension and materials which is particularly adapted to that package type alone. Thus, even where the carriers have been removable, efficient collection and storage by users of carriers from diverse packages has been inhibited.

Accordingly, it is an object of the present invention to provide an improved carrier for storing and transporting a small object or article. Other objects include the provision of a carrier which:

- a. is inexpensive and convenient to manufacture and assemble;
- b. is durable and protective of an object inserted therein,
- c. permits an object to be readily inserted and removed therefrom
for repeated storage therein;
- d. is reusable and detachable from its initial packaging;
- e. can be easily attached to or integrated into the design of various
packages; and
- f. securely retains an object once deposited therein.

Summary of the Invention

These and other objects of the present invention are attained by the provision of an object carrier formed from a folded web of flexible material having an enclosed pocket defined thereby regardless of the insertion of the object and a slit opening to that pocket

which is biased open. The pocket is preferably formed by retaining one portion of the web in bowed relation to another portion of the web, and a third portion can be employed to overlay the bowed portion as a cover. The web may be integrally formed as part of the underlying package and/or detachable therefrom.

The present invention provides the carrier from a substantially flat web of flexible material which is folded and assembled to define a pocket space and an over-pocket space for retaining at least one object on three sides or aspects. A cover panel may also be formed from a fold in the web to overlie both such spaces to retain the object therein from above and across its face. A portion of the web may also be used for attaching the carrier to another body or structure.

Especially preferred embodiments include a portable carrier which may be attached to a variety of surfaces, and which includes a single piece body, cut and scored for manual assembly from a unitary blank of suitably sized semi-flexible sheet material such as paperboard, which has an interconnected front panel, back panel, top panel and cover panel. The back panel has a fastening slit which interlocks with a locking tab and lock notch arrangement extending from the fastening edge of the front panel along with a first over-flap and a second over-flap that cooperate to hold the carrier in its folded shape when the front panel is folded over the back panel. The cover panel is then folded to overlie the front panel and thereby retains an object deposited into the carrier's pocket space from above and across the object's exposed face. A strip of adhesive or other attachment device is attached to the back panel so that, when the body is folded to form a carrier, the carrier may be attached to another article, such as an interior surface of a file folder. When the carrier is attached to an interior surface of a file folder, closure of the file folder impinges

the overlying carrier cover panel to hold the cover panel in a closed position. Once attached in this way to a file folder, the carrier provides a secure storage and transport device for objects deposited therein, while also permitting quick and easy, one-handed access to the object retained. The nature of the arrangement permits standardization of carriers across a variety of applications and easy reuse and removability of the carrier.

Other objects, advantages and novel features of the present invention will become readily apparent from the following drawings and detailed description of preferred embodiments.

Brief Description of the Drawings

Figure 1 is a plan view of the exterior face of a carrier according to the present invention in its flattened, unfolded state.

Figure 2a is a perspective view of the unfolded interior face of the carrier shown in Fig. 1.

Figures 2b through 2e are sequential perspective views of the carrier shown in Fig. 2a with various folding and assembly operations being performed.

Figure 3 is a cross-sectional view of the completed carrier taken substantially along line 3-3 of Fig. 2e.

Figure 4 is a perspective rear view of the carrier shown in Fig. 2e with a bipronged fastener.

Figures 5a and 5b are side elevational views of a carrier according to the present invention affixed to an interior surface of a file folder.

Figure 6 is a perspective view of a carrier according to the present invention in a folded and assembled state with the cover panel shown open and the retained object shown in broken lines.

Figure 7 is a plan view of the exterior face of another embodiment of the present invention in its flattened, unfolded state.

Figure 8a is a perspective view of the unfolded interior face of the embodiment shown in Fig. 7.

Figure 8b through 8f are sequential perspective views of the embodiment shown in Fig. 8a with various folding and assembly and integration operations being performed.

Figure 9 is a cross-sectional view of the completed embodiment taken substantially along line 9-9 of Fig. 8d.

Figure 10 is a perspective rear view of the embodiment shown in Fig. 8d with a bipronged fastener.

Figure 11 is a side elevational view of the embodiment shown in Fig. 8d affixed to an interior surface of a file folder in an orientation where the interior surface of the file folder and its folded edge functionally serve to retain the object from above and across its exposed face.

Figure 12a is a plan view of yet another embodiment of the present invention.

Figure 12b is a perspective view of the embodiment shown in Fig. 12a in a folded orientation.

Figure 13 is a plan view of still another embodiment of the present invention.

Figure 14 is a plan view of yet still another embodiment of the present invention.

Figure 15a is a plan view of a further embodiment of the present invention.

Figure 15b is a perspective view of the embodiment shown in Fig. 15a in a folded orientation.

Figure 16 is a perspective view of a still further embodiment of the present invention.

Figure 17 is a perspective view of another embodiment of the present invention.

Figure 18 is a plan view of another embodiment of the present invention.

Figure 19 is a perspective view of the carrier shown in Fig. 18 after it is folded and assembled.

Figure 20 is a cross-sectional view of the completed carrier taken substantially along line 20-20 of Fig. 19.

Figure 21 is a plan view of the interior face of the carrier shown in Fig. 1 showing the function of the mouth flap design.

Corresponding reference characters indicate corresponding parts throughout the several views. Although the drawings represent various embodiments of the present invention, the drawings are not necessarily to scale and features may be exaggerated in order to better illustrate and explain aspects of the present invention.

Detailed Description of Preferred Embodiments

The embodiments disclosed in the detailed description below are not intended to be exhaustive or to limit the invention to merely the precise forms disclosed. Rather, the embodiments selected for the description are disclosed so that others skilled in the art may utilize their teachings. The limits of the patent are defined by the appended claims.

Figure 1 shows a carrier 10 according to a preferred embodiment of the present invention. Carrier 10, in its flattened or unfabricated state, includes a substantially flat web or body 12 and a thin strip of adhesive 60 which is, for example, double sided and covered by a larger protective strip of removable release liner 61 on its exposed side. Body 12 includes a front panel 18, a back panel 16, a top panel 68 and a cover panel 70. Front panel 18 and back panel 16 are preferably separated by a bottom scoreline 22 which forms the bottom edge 23 of carrier 10 when fully folded and assembled, as described in further detail below. Back panel 16 and cover panel 70 are preferably separated by a set of parallel score marks, namely a first top scoreline 65 and a second top scoreline 66, which together define the top panel 68 of carrier 10 when fully folded. A single score mark could alternatively be provided so that the width of top panel 68 is minimal if noticeable at all. Back panel 16 also contains a fastening slit 34, cut through its faces, laterally offset from center by a distance "e", oriented parallel to and spaced away from bottom scoreline 22 by a distance designated "a" in Figure 1. Fastening slit 34 also has an angled extension 33 opposite its offset end 35 as shown in Figure 1. Additionally, back panel 16 includes a first prong slit 48 and a second prong slit 49 which are adapted to receive the first prong 51 and the second prong 52 of a standard bipronged fastener 50 as shown in Figure 4.

Front panel 18 includes a mouth flap 79, a cut slit which substantially divides front panel 18 into an upper portion 86 and a lower portion 87 and defines the width of pocket mouth opening 32 when carrier 10 is fully folded and assembled as best shown in Figure 6. Mouth flap 79 is, for example, bow shaped and includes a center curve 80, a first angled side 82, a second angled side 83, a first end curve 84, and a second end curve 85.

Mouth flap 79 serves to provide the pocket mouth opening 32 which is biased toward an open position leading into pocket space 26 by the flexing of front panel 18 of carrier 10 when assembled as is described in further detail below.

Fastening edge 20 of front panel 18 has, extending from it, a locking tab 36 which includes a lock notch 38, inset and in registration with the offset end 35 of the fastening slit 34. Disposed to the sides of this locking tab 36 are a first over-flap 42 and a second over-flap 44 extending from fastening edge 20. Lock notch 38 with fastening edge 20, is inset a distance "e" from the edge of the locking tab 36 and is spaced from bottom scoreline 22 by a distance "b". The amount by which distance "b" is greater than distance "a" determines the thickness of pocket space 26, as will become apparent from the following description of the assembly and operation of carrier 10.

Assembly

Figures 2a through 2e show a folding and assembly process for a carrier 10 of the present invention. As shown in Figure 2a, body 12 can readily be cut or stamped from a single piece of substantially flat and preferably semi-flexible material during the manufacturing process.

Carrier 10 is assembled by first folding front panel 18 upwardly along bottom scoreline 22 and then downwardly toward back panel 16, as shown by the arrows in Figures 2a and 2b, so that the interior face 13 of each is in contact as best shown in Figure 2c and Figure 3. Upper portion 86 of front panel 18 is then pressed toward back panel 16 to separate upper portion 86 from lower portion 87 along mouth flap 79. Upper portion 86 is slid along back panel 16 toward bottom edge 23, as shown by the arrow in

Figure 2c, which causes lower portion 87 of front panel 18 to flex or bow outwardly generally along mouth flap 79 so that the lower portion 87 becomes spaced or bowed from back panel 16 while upper portion 86 remains substantially planar with back panel 16 and the pocket space 26 is formed. Locking tab 36 is aligningly moved laterally a distance "e" and inserted through fastening slit 34. Lock notch 38 of locking tab 36 is defined by fastening edge 20 so that once it is inserted through fastening slit 34, lock notch 38 returns a lateral distance "e" to overlies the offset end 35 of fastening slit 34, as shown in Figure 4, and secures the locking tab 36 in position. Cover panel 70 is now folded along parallel score marks, namely a first top scoreline 65 and a second top scoreline 66, to overlies front panel 18, as shown by the arrow in Figure 2d. Carrier 10, when thus assembled, creates an over-pocket space 72 above pocket space 26 and between back panel 16 and cover panel 70 as shown in Figure 2e. An object 11, such as a diskette or like article, may be placed within this over-pocket space 72 and partially inserted in pocket space 26 formed by mouth flap 79 and the outwardly bowed lower portion 87 of front panel 18 for convenient, secure transportation and storage as shown in Figure 3 and Figure 6. Figure 21 illustrates how a diskette or like article 11 can be packaged for shipment with an unassembled carrier blank 10. Figure 3 shows the interlocking connection between front panel 18 and back panel 16 of assembled carrier 10.

Referring now to Figure 4, after the release liner 61 is removed from the strip of adhesive 60, locking tab 36 may be adhered to back panel 16, leaving the remaining portion of the strip of adhesive 60 exposed. Carrier 10 may be affixed to a selected surface of a container or underlying package by pressing the remaining portion of the exposed

strip of adhesive 60 into contact with the package's surface. Depending upon the nature of the adhesive selected, the carrier can be permanently, releasably or repeatedly bound to the package.

Alternatively, the release liner 61 may be left in place and carrier 10 may be attached to a package or surface using a bipronged fastener 50. Once carrier 10 is folded and assembled according to the procedure illustrated in Figures 2a through 2e, first prong 51 and second prong 52 of bipronged fastener 50 are inserted through first prong slit 48 and second prong slit 49 from the exterior face 14 of back panel 16 to permit attachment of carrier 10 with the bipronged fastener 50 to a standard twin-hole punched file folder. Bipronged fastener 50 may optionally carry an additional fastener adhesive strip 54 that allows it to be affixed to the surface of a file folder 150 or other selected package as shown in Figure 5a.

As best shown in Figures 5a and 5b, once carrier 10 is attached to an inside surface or interior page of a file folder 150, closure of the file folder 150 and its contact with cover panel 70 permit the cover panel 70 to remain in engagement with front panel 18, as shown in Figure 5b. The impingement between the file folder 150, or its contents, and over panel 70, when the file folder 150 is closed, can prevent carrier 10 from accidentally opening and discharging a retained object 11. The overlap between cover panel 70 and front panel 18 enhances the positive closure provided by the above-mentioned impingement. Also, parallel score marks, namely the first top scoreline 65 and the second top scoreline 66, further enhance the tendency of carrier 10 to remain closed by providing cover panel 70 with clearance of the thickness of object 11 to generally assume this folded position overlying front panel 18. As such, carrier 10

resists opening so long as the file folder 150 is closed. When affixed to a file folder 150 in the above-described manner, carrier 10 secures the object 11 (shown in broken lines) loosely deposited within pocket space 26 while also allowing quick and easy one-handed removal and reinsertion of the object 11 whenever file folder 150 is opened.

An additional feature of the present invention is depicted in Figure 6. An optional retaining tab 76 is provided, which in an exemplary embodiment is a cut semi-circular slit in front panel 18. Retaining tab 76 is disposed on front panel 18 so that, when separated, retaining tab 76 receives the distal edge 71 of cover panel 70 when cover panel 70 is folded to overlie front panel 18. As such, retaining tab 76 retains cover panel 70 in its folded, closed position and additionally secures the object 11 in carrier 10 when carrier 10 is used to transport object 11. Additionally, a sticker-seal 77 may be applied to jointly overlay the cover panel 70 and the retaining tab 76, as shown in Figure 6, thereby securing the retained object 11 from pilferage during retailing operations.

Another alternate embodiment of the present invention is shown in Figure 7. Here carrier 10 has a back panel 16 that has cut through its faces a c-shaped fastening tab 24 with two extremity points 25. A front panel 18 has a simple fastening edge 20 and a c-shaped pocket mouth flap 28 cut through its faces and joined at one side along a zone of attachment 30 to the upper portion 86 of the front panel 18. Carrier 10 is assembled by first folding front panel 18 upwardly along the bottom scoreline 22 and then downwardly toward the back panel 16 as shown by the arrows in Figures 8a and 8b. Upper portion 86 of front panel 18 is then pressed toward back panel 16 to separate upper portion 86 from lower portion 87 along pocket mouth flap 28. Upper portion 86 is slid along back panel 16 toward bottom edge 23, as shown by the arrow in Figure 8c, which causes lower

portion 87 of front panel 18 to flex or bow outwardly generally along pocket mouth flap 28 so that the lower portion 87 becomes spaced or bowed from back panel 16 while upper portion 86 remains substantially planar with back panel 16 and the pocket space 26 is formed. Fastening edge 20 is then inserted under fastening tab 24 as shown in Figure 8d. Carrier 10 can then be removably or permanently bound or stapled near the distal edge 71 of the back panel 16 along with the pages of a booklet, as shown in Figure 8e, for later assembly and storage of an object. Carrier 10, when integrated along a lateral edge of back panel 16 at a lateral scoreline 146 with the right cover panel 147 of a booklet or brochure, as shown in Figure 8f, can also be assembled as just described and an object 11, such as a diskette, may be placed within the pocket space 26 for storage. In the embodiments described in Figures 8e and 8f, the left cover panel 145 and cover spine 148 of the booklet or brochure perform the retaining function performed by the top panel 68 and cover panel 70 of the carrier 10 in a previously described embodiment. Figure 9 shows the interlocking connection between front panel 18 and back panel 16 when carrier 10 is assembled.

Referring to Figure 10, after the release liner 61 is removed, fastening edge 20 may be adhered to fastening tab 24 leaving the balance of the strip of adhesive 60 free to affix carrier 10 to a file folder 150 or like article. Figure 11 shows carrier 10 attached to the inside surface of a file folder 150 oriented such that the folding edge and cover of the closed file folder 150 perform the retaining function normally performed by the top panel 68 and cover panel 70 of the carrier 10 in its preferred embodiment. Alternately, a bipronged fastener 50 with a fastener adhesive strip 54 can be used to attach carrier 10 in the same manner.

An alternate embodiment of the present invention is shown in Figures 12a and 12b. This embodiment is disclosed to demonstrate carrier 10 integrated with another article, such as the pocket folder 152 shown in the figures. The components and operation of carrier 10 are preferably substantially the same as described above except that one lateral edge of back panel 16 is connected to pocket folder 152 by an extension section 154. Also, glue or adhesive could be used to attach back panel 16 to the underlying folder leaf 156. By folding carrier 10 along folder scorehne 158, and then assembling carrier 10 in the above-mentioned manner, a pocket folder 152 with an integrally formed and internally disposed carrier 10, as shown in Figure 12b, is constructed.

An alternate embodiment of the present invention is shown in Figure 13. This embodiment is disclosed to demonstrate carrier 10 integrated into a disposable section 92 which is separated from the carrier 10 along a line of perforation 90. The components and operation of carrier 10 are substantially the same as described above except that one edge of front panel 18, back panel 16, top panel 68 and cover panel 70 is integrated with disposable section 92 along the line of perforation 90. Disposable section 92 has two or more mounting apertures 94 cut through it to allow storage in a standard ring or spiral binder prior to use. At the time of use, disposable section 92 is removed along line of perforation 90 and discarded. Carrier 10 is then folded and assembled in the same manner as described above.

Another embodiment of the present invention is shown in Figure 14. This embodiment is disclosed to demonstrate carrier 10 integrated into a side panel 98. The components and operation of carrier 10 are substantially the same as described above

except that only one lateral edge of back panel 16 is integrated with side panel 98. Front panel 18 is separated from side panel 98 by a first side perforation 100 while top panel 68 and cover panel 70 are separated from side panel 98 by a second side perforation 102. Side panel 98 has two or more mounting apertures 94 cut through it to allow storage in a standard ring or spiral binder both prior to and during use. At the time of use, front panel 18 is separated from side panel 98 along first side perforation 100 and top panel 68 and cover panel 70 are separated from side panel 98 along second side perforation 102.

Carrier 10 is then folded and assembled in the same manner as described above except that it remains connected to side panel 98 along a lateral edge of back panel 16 after first side perforation 100 and second side perforation 102 are separated from side panel 98. In this configuration, carrier 10 is retained within a standard ring or spiral binder by this side panel 98 during use.

Yet another alternate embodiment of the present invention is shown in Figure 15a and 15b. This embodiment is disclosed to demonstrate carrier 10 with an integral side extension panel 112 which extends from back panel 16 along an extension scoreline 110. By folding this side extension panel 112 along extension scoreline 110 so as to overlie back panel 16, a document space 114 is formed between these panels as seen in Figure 15b, open from above and on one side, that can receive contents such as a booklet of instructions. When carrier 10 is then folded and assembled in the manner described above, articles such as CDs can be stored and transported safely and securely. If carrier 10 is to be used for articles sensitive to scratching, such as CDs, a strip of soft fabric or paper 118 can be adhesively attached to its exterior face 14 and interior face 13 in the region of mouth flap 79 to reduce friction when articles are inserted and removed. In this

embodiment, carrier 10 provides storage for articles and associated notes or instruction booklets and has expansive, unbroken surfaces for advertising or instructions on the exterior face 14 of back panel 16, top panel 68 and cover panel 70

Still another alternate embodiment of the present invention is shown in Figure 16. This embodiment is disclosed to demonstrate carrier 10 with a unshaped cut hanging tab 120 in the upper portion of the back panel 16, laterally centered with its open end adjacent the first top scoreline 65, and attached to the back panel 16 by at least two narrow points of interconnection or nicks 121 where the cut is interrupted. Hanging tab 120 has centered within it a hanging aperture 124. When the nicks 121 are manually broken and hanging tab 120 is bent upward through 180 degrees, hanging aperture 124 can be used to mount carrier 10 on a hook or post for retailing operations.

A further alternate embodiment of the present invention is shown in Figure 17. This embodiment has two pin apertures 128 cut in the upper portion of back panel 16, laterally centered and adjacent to the first top scoreline 65. These pin apertures 128 receive a safety-pin fastener 130 oriented so the carrier 10 can be attached to a person's apparel for use in trade shows or as a means of identification based on information applied to the exterior face of the cover panel 70.

Yet still another alternate embodiment of the present invention is shown in Figure 18. This embodiment is disclosed to demonstrate carrier 10 having a body 12 with a front panel 18 extended in length and its fastening edge 20 replaced by a semi-circular internal locking tab 136, laterally centered and having an internal lock slit 138 inset a distance (e), both cut through the faces of the front panel 18. This semi-circular shaped internal locking tab 136 has extremity points 25 disposed to form a line generally parallel to bottom

scoreline 22 and located a predetermined distance (b) from it. The front panel 18 is further subdivided by a first top scoreline 65 and a second top scoreline 66 that define a top panel 68 and a cover panel 70. The back panel 16 has a fastening slit 34, laterally offset from center by a distance (e) to match the lateral inset of the internal lock slit 138. Carrier 10 is then assembled by first folding front panel 18 upwardly along bottom scoreline 22 to overlies the back panel 16. The internal locking tab 136 is then urged through the fastening slit 34 in a manner similar to the preferred embodiments described above, as shown in Figure 20, whereupon the front panel 18 bows outward and the pocket mouth flap 28 flexes inward and internal lock slit 138 comes to engagingly overlies the offset end 35 of fastening slit 34. Finally, top panel 68 and cover panel 70 are folded along the two top scorelines to overlies the front panel 18 and its pocket mouth opening 32 as shown in Figure 19. The opposing edge of the cover panel 70 is then inserted under the retaining tab 76. Two mounting apertures 94 adjacent the opposing edge of back panel 16 allow the carrier 10 to be retained by any two of the rings in a standard 3-ring binder. Alternately, a first prong slit 48 and a second prong slit 49 located adjacent the opposing edge of the back panel 16 can be used to attach a bipronged fastener 50 with a fastener adhesive strip 54 to the carrier 10, in a manner already disclosed above, so that the carrier 10 can be attached to articles such as a file folder 150 and the like in any desired orientation.

While this invention has been described as having exemplary embodiments, the present invention can be further modified within the spirit and scope of this disclosure and appended claims. This application is thus intended to cover any variations, uses, or adaptations of the invention using its general principles. For example, the flexible materials used to form the carrier may be of paper, cardboard, paperboard or plastic and

colored, patterned or textured. Where desired for particular applications, the carrier material may be transparent to microwave energy and the carrier may be filled and shrink-wrapped for retail merchandising.

What is Claimed is:

1. A carrier for retaining at least one object, the carrier comprising a body, the body including in combination an interior face, an exterior face, a bottom scoreline subdividing the body for folding into a front panel and a back panel, the back panel terminating in a distal edge opposite the bottom scoreline and including a fastening tab, cut interior to the edges and through the faces of the back panel, the tab having two extremity points, the extremity points defining a line disposed generally parallel to the bottom scoreline and spaced from the bottom scoreline by a distance (a), the front panel having a fastening edge opposing and generally parallel to the bottom scoreline, at least along its point of engagement with the fastening tab, and spaced from the bottom scoreline by a distance (b) so that, in assembling said carrier, the front panel is folded along the bottom scoreline so that its interior face overlies the interior face of the back panel and the fastening edge is engaged under the fastening tab, with the predetermined difference between the greater distance (b) and the lesser distance (a) causing the front panel to compressively bow outward from the back panel and create a pocket space between the opposing interior faces, sufficient in size to accommodate the thickness of the object to be retained.

2. A carrier according to claim 1 wherein said front panel further comprises an aperture means, the aperture means including a c-shaped pocket mouth flap transversely disposed interior to the front panel lateral edges dividing it into an upper portion and a lower portion, cut through its faces and positioned so that, when the fastening edge is engaged under the fastening tab during assembly, the bowing action of the front panel simultaneously causes said pocket mouth flap to flex inward, bending along a zone of

This Sheet Has Been Replaced

attachment to create a pocket mouth opening which provides access to the pocket space and through which the object is inserted and loosely retained in the pocket space from below at the line of fold along the bottom scoreline, laterally by the sides of the pocket mouth opening and across both faces by the opposing interior faces of the assembled carrier.

3. A carrier according to claim 2 wherein said fastening tab is a fastening slit, said fastening slit further comprised of an offset end and an angled extension opposite the offset end, said fastening slit cut interior to the edges and through the faces of the back panel laterally offset from center by a distance (e), oriented parallel to and spaced a distance (a) from the bottom scoreline and where the fastening edge is further comprised of a locking tab, laterally centered and extending outward from the fastening edge, the locking tab having a width slightly less than the fastening slit and having an integral lock notch extending inward from its side to a distance (e), so as to align at its innermost point with the offset end, and positioned coincident with the fastening edge which is spaced a distance (b) from the bottom scoreline such that, in assembling said carrier, when the front panel is folded along the bottom scoreline so that its interior face overlies the interior face of the back panel and when, thereafter, the fastening edge is made to slide towards the bottom scoreline causing the front panel to bow outward followed by moving the front panel laterally a distance (e) to slidably align the locking tab and fastening slit so that the locking tab can be directly inserted into and urged through the fastening slit and when, where after, by allowing the front panel to return the same distance (e), the lock notch engagingly overlies the offset end of the fastening slit and the locking tab moves into overlapping alignment with the offset end so that the bowed front panel is maintained in



secured inter engagement with the back panel and restrained from lateral and vertical movement.

4. A carrier according to claim 3 wherein said fastening edge is further comprised of a first over-flap and a second over-flap symmetrically disposed to each side of the centered locking tab, all extending roughly an equal distance outward from the fastening edge so that, during assembly of the carrier, these two over-flaps remain in close contact with the interior face of the back panel as the locking tab is inserted through the fastening slit, the pressure being exerted by the two over-flaps causing a reverse flexing to occur in the outwardly bowed front panel resulting in the locking tab being forced into close contact with the exterior face of the back panel when assembly is completed.

5. A carrier according to claim 2 further including an attachment means comprised of two mounting slits, cut through the faces of the back panel said mounting slits comprising a first prong slit and a second prong slit, laterally spaced apart and generally centered between the lateral edges in the distal edge region of the back panel, said slits being adapted to accept the prongs of a standard metal bipronged fastener device having a first prong and a second prong that are insertable through these two mounting slits from the exterior face and then bent inward to overlie the interior face of the back panel thereby holding the carrier semi-permanently to this bipronged fastener which additionally may have a fastener adhesive strip incorporated on it to allow it to be physically or adhesively attached to a file folder or like article.

6. A carrier according to claim 2 further including an attachment means comprised of an elongate strip of adhesive and a removable release liner releaseably secured to the strip of adhesive for later removal which overlies the entire length of the strip of adhesive,

This Sheet Has Been Replaced



said strip of adhesive being permanently secured to the exterior face of the back panel located in the region of the distal edge and positioned generally parallel to said bottom scoreline, transversing at least a majority of the width of the back panel wherein said release liner is removed by the user at the time it is desired to expose said strip of adhesive and attach said carrier, in appropriate orientation, to the inside surface of a book cover, a file folder or other like article.

7. A carrier according to claim 2 wherein the substantially larger back panel is further comprised of a first top scoreline and a second top scoreline, these two back panel scorelines together defining between them a top panel of sufficient dimension to accommodate the object's thickness while also defining a cover panel that can be folded along these two scorelines to pivot between an open position, providing access to the object, and a closed position overlying and enclosing an over-pocket space above the pocket mouth opening, the cover panel residing, when closed, in close contact with the exterior face of the front panel thereby restraining the object from above and across its exposed face thereby allowing the carrier to be used to retain and transport objects securely.

8. A carrier according to claim 7 further including a means for retaining said cover panel in the closed position, the retaining means including a semi-circular retaining tab, cut interior to the edges and through the faces of the front panel and having its endpoints positioned adjacent to and defining a line generally parallel to the bottom scoreline such that the tab can engage and overlie the distal edge of the cover panel and thereby retain the cover panel in its closed position overlying the exterior face of the front panel and wherein said retaining tab, when in this overlying closed state, also provides a sufficient area of

This Sheet Has Been Replaced



overlapping engagement with the cover panel to accept a sticker-seal applied so it will adhesively interlock the retaining tab and the cover panel thereby securing the contents of the carrier from pilferage.

9. A carrier according to claim 2 wherein an alternate aperture means includes a disk mouth flap, cut transversely and disposed generally midway between the fastening edge and the bottom scoreline of the front panel, said disk mouth flap further including a laterally centered center curve having end points directed towards the fastening edge, a first angled side, and a second angled side, joined with the end points of the center curve and angled towards the fastening edge and extending outward towards the lateral edges of the front panel and terminating there in a first end curve and a second end curve which are spaced inward from the lateral edges of the front panel and curved inward to face each other and wherein the size and shape of this inwardly deflected disk mouth flap is angled, dimensioned and positioned so that, when the carrier is assembled for use and a standard 3.5 inch computer data diskette is inserted, the center curve will be in proper alignment to overlies the sliding metal access panel of the diskette and thereby, during removal of the diskette, prevent it from snagging or catching on any point of this disk mouth flap.

10. A carrier according to claim 7 wherein the means of attachment comprises a line of perforation joining the body with an elongated rectangular disposable section being of sufficient length to include, interior to and disposed adjacent the lateral edge opposing said line of perforations, at least two mounting apertures arrayed to be in registration with and retained by the rings or spiral wires or posts of a storage notebook or the like.

This Sheet Has Been Replaced



11. A carrier according to claim 7 wherein the attachment means comprises an elongated rectangular side panel having sufficient length to include, interior to and disposed adjacent its free lateral edge, at least two mounting apertures arrayed to be in registration with and retained by the rings or spiral wires or posts of a storage notebook or the like and wherein the side panel remains attached along one lateral edge of the back panel while the front panel is separated along a first side perforation and the cover panel and top panel are separated along a second side perforation and where the side panel continues to retain said carrier in the notebook, or like article, while it is folded, assembled and during its use.

12. A carrier according to claim 7 further including a side extension panel hingedly affixed to the back panel along an extension scoreline and where the fastening slit is located in the side extension panel such that, when the side extension panel is folded along the extension scoreline through 180 degrees to closely overlie the interior face of the back panel then the fastening slit is in proper registration to interengage with the locking tab during assembly of said carrier and whereby this configuration further defines a document space between the side extension panel and the back panel which may be used to retain a booklet or other Eke document.

13. A carrier according to claim 2 wherein the exterior face of the pocket mouth flap in the front panel and the immediate surrounding area are covered with a strip of soft fabric or paper adhesively attached and selected to reduce friction when an object, such as a compact disk, is repeatedly inserted and removed through the pocket mouth opening.



14. A carrier according to claim 7 wherein the upper portion of the back panel includes a hanging tab cut through its faces, laterally centered and comprising a unshaped slit disposed with its end points adjacent the first top scoreline and interrupted by at least two nicks in its length that define webs of interconnection with the back panel and further including a hanging aperture centered within this hanging tab for receiving the hook or post of a retail display stand.

15. A carrier according to claim 14 wherein the hanging tab is continuously cut so as to be freely available for use without manual separation.

16. A carrier according to claim 7 wherein the upper portion of the back panel includes two pin apertures, spaced apart and laterally centered and transversely disposed adjacent to the first top scoreline whereby the base of a standard safety-pin fastener may be inserted and retained for purposes of attaching the carrier to a person's apparel for purposes of identification, using the cover panel area, and at trade shows for data exchange, using a retained data diskette.

17. A carrier according to claim 2 wherein said front panel is further comprised of a first top scoreline and a second top scoreline, these two scorelines together defining between them a top panel of sufficient dimension to accommodate the object's thickness while also defining a cover panel that can be folded along these two scorelines to pivot between an open position, providing access to the object, and a closed position overlying and enclosing an over-pocket space above a pocket mouth opening when the carrier is assembled, said front panel further comprised of a retaining tab to hold the cover panel in a

This Sheet Has Been Replaced



closed position, a c-shaped pocket mouth flap and a semi-circle shaped internal locking tab with an internal lock slit inset on one side, said internal locking tab laterally centered with extremity points forming a line generally parallel to and spaced a distance (b) from the bottom scoreline, cut through the faces and completely interior to the front panel having a width slightly less than a fastening slit spaced a distance (a) from the bottom scoreline, said fastening slit laterally offset a distance (e) equal to the depth of the internal lock slit, said fastening slit further including an offset end and an opposing angled extension such that in assembling said carrier, when the front panel is folded along the bottom scoreline so that it overlies the face of the back panel and when, thereafter, the internal locking tab is made to slide towards the bottom scoreline causing the front panel to bow outward followed by moving the front panel laterally a distance (e) to slidably align the internal locking tab and fastening slit so that the internal locking tab can be bent outward and inserted into and urged through the back panel fastening slit and by then allowing the front panel to return the same distance (e), the internal lock slit engagingly overlies the offset end of the fastening slit so that the compressively bowed front panel resulting from the predetermined difference between the greater distance (b) and the lesser distance (a), is maintained in secured interengagement with the back panel.

18. A carrier according to claim 17 wherein the means of attachment comprises at least two mounting apertures, disposed adjacent the distal edge of the back panel and arrayed to be in registration with and retained by the rings or spiral wires or posts of a storage notebook or the like.

This Sheet Has Been Replaced



19. A carrier according to claim 7 wherein said body is cut with nicks defining webs of interconnection that attach it to the surrounding rectangle of material so that printed indicia may be applied later, edge to edge across its faces, followed by manually removing the surrounding material by separating it at the nicks, and finally followed by folding and assembly.

20. A carrier, for securely retaining at least one object, adapted for manual folding and assembly, comprising in combination a body of generally rectangular shape with two lateral edges, a distal edge and opposing fastening edge, the body cut and scored from a unitary blank of flat, semi-flexible sheet material said body further comprising a larger back panel, a front panel joined to the back panel along a bottom scoreline that hingedly joins both panels when folded to closely overlies each other, at least one pocket mouth flap cut through the faces of said front panel a fastening tab cut interior to said back panel and through its faces to join the fastening edge or interior upper portion of said front panel to a central interior point on said back panel the fastening tab and fastening edge being located at two unequal predetermined distances (a) and (b) from said bottom scoreline, these distances calculated so as to cause the front panel to compressively bow away from said back panel and simultaneously cause said pocket mouth flap to deflect inward creating a pocket mouth opening leading to a pocket space between the interior faces of said front panel and said back panel through which said object can be inserted and retained.

21. A carrier comprising a body of foldable sheet material scored to define a front panel and a back panel hingedly connected to the front panel the front panel having a distal

This Sheet Has Been Replaced



end secured to the back panel so that the front panel is compressively bowed away from the back panel thus creating a pocket space between them, an interior pocket mouth flap cut through the face of the front panel and being flexed inwardly to create a pocket mouth aperture through which an object can be inserted into the pocket.

22. A carrier for removably receiving and storing an object comprising:

a web of flexible material having a first portion folded in bowed relation upon a second portion to create an enclosed pocket there between,

securing means for maintaining the pocketed relation between the first portion and the second portion, and

a slit opening in the first portion leading into the pocket which is biased open for receiving a portion of an object therein.

23. The carrier according to claim 22 wherein the web includes a third portion folded to overlay the first, bowed portion to cover the slit opening and any portion of the object protruding from the slit opening.

24. The carrier according to claim 23 wherein the first portion is of a greater longitudinal length than the second portion, the slit opening is non-linear in configuration and creates a tab area for guiding the object into the pocket, and the third portion includes a slot means for engaging the first portion to maintain closure.

This Sheet Has Been Replaced



25. The carrier according to claim 23 wherein the web further includes a fourth portion adjacent the second portion, and the third portion is folded to overlay the fourth portion so as to create an over-pocket space for receiving a portion of the object to be retained in the pocket.

This Sheet Has Been Replaced



AMENDED CLAIMS

[received by the International Bureau on 15 October 1998 (15.10.98);
original claims 1-25 replaced by new claims 1-32 (12 pages)]

10 1. A blank adapted for folding and assembly into a carrier
for removeably receiving and securely retaining at least one
object, the blank comprising, a body formed from a unitary
sheet of foldable stock having an interior face and an
exterior face and having two lateral edges, two opposing
15 edges, and a transverse bottom scoreline between said opposing
edges facilitating folding to subdivide the body into a back
panel and a shorter front panel, said front panel when folded,
adapted to be positioned in overlying relationship to a
segment of the back panel and bowing outwardly from the back
20 panel to form a pocket space there between, retaining means
for securely fastening said front panel in an overlying,
outwardly bowed relationship to the back panel, and at least
one pocket mouth opening means cut into the front panel for
providing access to the pocket space when the front panel is
25 fastened in an overlying outwardly bowed relationship to said
back panel so as to receive and securely hold an object
therein.

2. A blank as defined in claim 1, wherein said retaining
30 means includes an adhesive.

3. A blank as defined in claim 1, wherein the back panel has
an extension with a distal edge, removably or permanently
bound to the cover spine of a booklet.



This Sheet Has Been Replaced





4. A blank as defined in claim 1, wherein said pocket mouth opening means includes a pocket mouth flap connected along one side by a zone of attachment to the front panel so that when said front panel is folded and fastened in overlying relationship to a segment of the back panel, the pocket mouth flap flexes inwardly into said pocket space along said zone of attachment thereby permitting easy insertion and retention of an object through the resulting pocket mouth opening and within the pocket space.

5. A blank as defined in claim 1, wherein the opposing edge of the front panel functions as a fastening edge and the size of the pocket space and the thickness of the object to be accommodated is determined by the amount the front panel is bowed outwardly from the back panel which is determined by the difference between the distance from the bottom scoreline to the fastening edge of the front panel and the distance from the bottom scoreline to the point on the back panel to which the fastening edge is fastened when the blank is assembled into a carrier configuration.

6. A blank as defined in claim 4, wherein the opposing edge of the front panel functions as a fastening edge, and said retaining means includes a fastening tab cut interior to the edges and through the face of the back panel having two extremity points defining a line disposed generally parallel to the bottom scoreline and spaced a predetermined distance from said bottom scoreline, so that said predetermined distance is shorter than the distance the fastening edge of the front panel is from the bottom scoreline, the fastening edge adapted to be engaged under





the fastening tab when the blank is assembled into a carrier configuration.

7. A blank as defined in claim 4, wherein the opposing
5 edge of the front panel functions as a fastening edge, and
said retaining means includes a fastening slit having an
offset end and an angled extension opposite said offset end,
said fastening slit cut interior to the lateral edges and
10 through the faces of said back panel, laterally offset from
center by a predetermined distance, oriented parallel to and
spaced a predetermined distance from said bottom scoreline
and said fastening edge includes a locking tab, laterally
centered and extending outward from said fastening edge,
15 said locking tab having a width slightly less than said
fastening slit and having an integral lock notch extending
inward from its side the same distance which said fastening
slit is offset from center, so as to align at its innermost
point with said offset end, and positioned coincident with
20 said fastening edge which is spaced a shorter distance from
said bottom scoreline than said fastening slit is positioned
from said bottom scoreline, so that, in assembling said
carrier, when said front panel is folded along said bottom
scoreline so that said interior face portion overlies said
25 interior face portion of said back panel and when,
thereafter, said fastening edge is made to slide towards
said bottom scoreline causing said front panel to bow
outwardly followed by moving said front panel laterally to
slidingly align said locking tab and said fastening slit so
that said locking tab can be directly inserted into and
30 urged through said fastening slit and when, there after, by
allowing said front panel to return the same lateral





distance, said lock notch engagingly overlies said offset end of said fastening slit and said locking tab is moved into overlapping alignment with said offset end so that said front panel is maintained in a secured and bowed engagement with said back panel and thereby restrained from further lateral and vertical movement.

8. A blank as defined in claim 7, wherein said fastening edge includes a first over-flap and a second over-flap symmetrically disposed to each side of said locking tab, the three extending roughly an equal distance outward from said fastening edge so that, during assembly of said carrier, these two over-flaps remain in close contact with said interior face portion of said back panel as said locking tab is inserted through said fastening slit, the pressure being exerted by these two over-flaps causing a reverse flexing to occur in said outwardly bowed front panel resulting in said locking tab being forced into close contact with said exterior face portion of said back panel when assembly is completed.

9. A blank as defined in claim 1, including an attachment means having two mounting slits, cut through the faces of said back panel, the mounting slits having a first prong slit and a second prong slit, laterally spaced apart near the distal edge of said back panel, said mounting slits being adapted to accept the prongs of a standard metal bipronged fastener device having a first prong and a second prong that are insertable through the two said mounting slits then bent inward, holding said carrier semi-permanently to said bipronged fastener to be attached in a suitable orientation to





the inside cover of a file folder or to other suitable articles that may accept or be made ready to accept said bipronged fastener.

5 10. A blank as defined in claim 1, including an attachment means having an elongated strip of adhesive and a removable release liner overlying the entire length of said strip of adhesive and secured to said strip of adhesive for later removal, said strip of adhesive being permanently secured to
10 said exterior face, said release liner being removeable by the user at the time it is desired to expose said strip of adhesive and permanently attach said blank, in appropriate orientation, to the inside surface of a booklet cover, a file folder or other like article.

15

11. A blank as defined in claim 5, wherein said back panel includes a first top scoreline and a second top scoreline, these two scorelines together defining between them a top panel of sufficient dimension to accommodate the thickness of
20 an object to be carried while also defining a cover panel that can be folded along the two scorelines to pivot between an open position, providing access to said object, and a closed position overlying and enclosing an over-pocket space above said pocket mouth opening means, said cover panel, when
25 closed, in close contact with said exterior face of said front panel thereby restraining said object from above and across its exposed face thereby allowing said carrier to be handled and transported unattached to another article while still retaining said object securely.

30





12. A blank as defined in claim 11, including securing means for securing said cover panel in the closed position, the securing means including a semi-circular retaining tab, cut interior to the edges and through the faces of the front panel, and having its end points positioned adjacent to and defining a line generally parallel to the bottom scoreline so the retaining tab can engage and overlies the distal edge of the cover panel and thereby retain the cover panel in its closed position overlying the exterior face of the front panel.

13. A blank as defined in claim 12, having a sticker seal for adhesively interlocking the retaining tab and the cover panel when the retaining tab is engaged and overlying the distal edge of the cover panel, thereby securing an object contained therein from pilferage.

14. A blank as defined in claim 1, wherein said pocket mouth opening means has a mouth flap, cut transversely and disposed generally midway between said fastening edge and said bottom scoreline of said front panel, said mouth flap further including a laterally centered center curve having end points directed towards said fastening edge, a first angled side, and a second angled side, joined with the end points of said center curve and angled towards said fastening edge and extending outward towards the lateral edges of said front panel and terminating there in a first end curve and a second end curve which are spaced inward from the lateral edges of said front panel and curved inward to face each other, the size and shape of said inwardly deflected mouth flap angled,





dimensioned and positioned so that, when said carrier is assembled for use and a standard 3.5 inch computer data diskette is the object inserted, the computer data diskette having a conventional sliding metal access panel, the center
5 curve will be in proper alignment to overlie the sliding metal access panel of the diskette and thereby, during insertion and removal of the diskette, prevent the sliding metal access panel from snagging or catching on any point of said mouth flap.

10

15. A blank as defined in claim 12, including attachment means with a line of perforation joining the body with an elongated rectangular disposable section being of sufficient length to include, interior to and disposed adjacent the
15 lateral edge opposing said line of perforation, at least two mounting apertures arranged to be in registration with and retained by rings or spiral wires or posts of a storage notebook or the like.

20

16. A blank as defined in claim 12, including attachment means having an elongated rectangular side panel with sufficient length to include, interior to and disposed adjacent its free lateral edge, at least two or more of said mounting apertures arranged to be in registration with and
25 retained by the rings or spiral wires or posts of a storage notebook or the like and wherein said side panel remains attached along one lateral edge of said back panel while said front panel is separated along a first side perforation and said cover panel and said top panel are separated along a
30 second side perforation and where said side panel continues to





retain said carrier in the notebook, or like article, while it is folded and fastened and also afterward, when it is used.

17. A blank as defined in claim 12, including a pocket
5 folder, a lateral extension section of the back panel connected to the pocket folder along a scoreline for folding the back panel into the pocket folder.

18. A blank as defined in claim 12, including a side
10 extension panel hingedly affixed to said back panel along an extension scoreline, said fastening slit being located in said side extension panel so that, when said side extension panel is folded along said extension scoreline through 180 degrees to closely overlies the interior face of the back panel, the
15 fastening slit is in proper position to engage with said locking tab during assembly of said carrier and thereby defining a document space between said side extension panel and said back panel which may be used to retain an instructional booklet or other similar document.

19. A blank as defined in claim 4, wherein the exterior face
20 of the pocket mouth flap in the front panel and the immediate surrounding area are covered with a strip of soft fabric or paper adhesively attached and selected to reduce friction when
25 an object, such as a compact disk, is repeatedly inserted and removed through said pocket mouth opening.

20. A blank as defined in claim 12, wherein an upper portion
30 of the back panel includes a hanging tab laterally centered and defined by a u-shaped slit disposed with its end points



* C L M S *



adjacent said first top scoreline and interrupted by at least two nicks in its length that define webs of interconnection with said back panel, and further including a hanging aperture centered within said hanging tab for receiving the hook or
5 post of a retail display stand.

21. A blank as defined in claim 12, wherein the upper portion of said back panel includes two pin apertures, spaced apart and laterally centered and transversely disposed adjacent to
10 said first top scoreline whereby the base of a standard safety-pin fastener may be inserted and retained for purposes of attaching said carrier to a person's apparel for purposes of identification using said cover panel area, and at trade shows for data exchange, using a retained digital storage
15 device like a 3.5 inch computer data diskette.

22. A blank as defined in claim 1, wherein said body is made of paperboard.

20 23. A blank as defined in claim 1, wherein said body is made of plastic.

24. A blank as defined in claim 1, wherein said body has at least one of the following characteristics, color, pattern or
25 surface texture.

25. A blank as defined in claim 1, wherein the body includes an additional portion extending from the front panel, the portion extending from the front panel having a first top





scoreline and a second top scoreline together defining between them a top panel of sufficient dimension to accommodate the object's thickness and also defining a cover panel that can be folded along these two scorelines to pivot
5 between an open position providing access to the object and a closed position overlying and enclosing an over-pocket space above the pocket mouth opening means when the blank is assembled.

10 26. A blank as defined in claim 25, wherein the body has an additional portion extending from the back panel and at least two mounting apertures formed in the portion extending from the back panel to be retained by the rings in a standard binder.

15 27. A blank as defined in claim 25, wherein said pocket mouth opening means includes a pocket mouth flap connected along one side by a zone of attachment to the front panel so that when said front panel is folded and fastened in overlying
20 relationship to a segment of the back panel, the pocket mouth flap flexes inwardly into said pocket space along said zone of attachment thereby permitting easy insertion and retention of an object through the pocket mouth opening means and within the pocket space.

25 28. A blank as defined in claim 27, wherein said retaining means includes a locking tab laterally centered with an internal lock slit inset a predetermined distance from center, both the locking tab and the internal lock slit cut through
30 the faces of the front panel, said locking tab having





extremity points disposed to form a line generally parallel to the bottom scoreline and located a predetermined distance from said bottom scoreline, the retaining means also including a fastening slit in the back panel laterally off set from center by a distance which matches the lateral inset of the internal lock slit from center and is located a shorter distance from said bottom scoreline than said locking tab, so that in assembling the carrier, when said front panel is folded along said bottom scoreline so that said interior face portion overlies said interior face portion of said back panel and the locking tab is urged through the fastening slit causing said front panel to bow outwardly and the internal lock slit to engagingly overlie the offset end of the fastening slit, said front panel is maintained in secured and bowed engagement with said back panel and thereby restrained from further lateral and vertical movement.

29. A blank as defined in claim 28, including securing means for securing said cover panel in the closed position, the securing means including a semi-circular retaining tab, cut interior to the edges and through the front panel, and having its end points positioned adjacent to and defining a line generally parallel to the bottom scoreline so the retaining tab can engage and overlies the distal edge of the cover panel and thereby retain the cover panel in its closed position overlying the exterior face of the front panel.

30. A blank as defined in claim 29, having a sticker seal for adhesively interlocking the retaining tab and



the cover panel when the retaining tab is engaged and overlying the distal edge of the cover panel, thereby securing an object contained therein from pilferage.

5 31. A carrier assembled from a blank as defined in any of claims 1-30.

10 32. A carrier assembled from a blank as defined in any of claims 1, 4-14, 18-21, 25, and 27-30, filled and shrink-wrapped for retail merchandising.



This Sheet Has Been Replaced

