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(54) **CARRYING APPARATUS FOR ELECTRONIC DEVICE**

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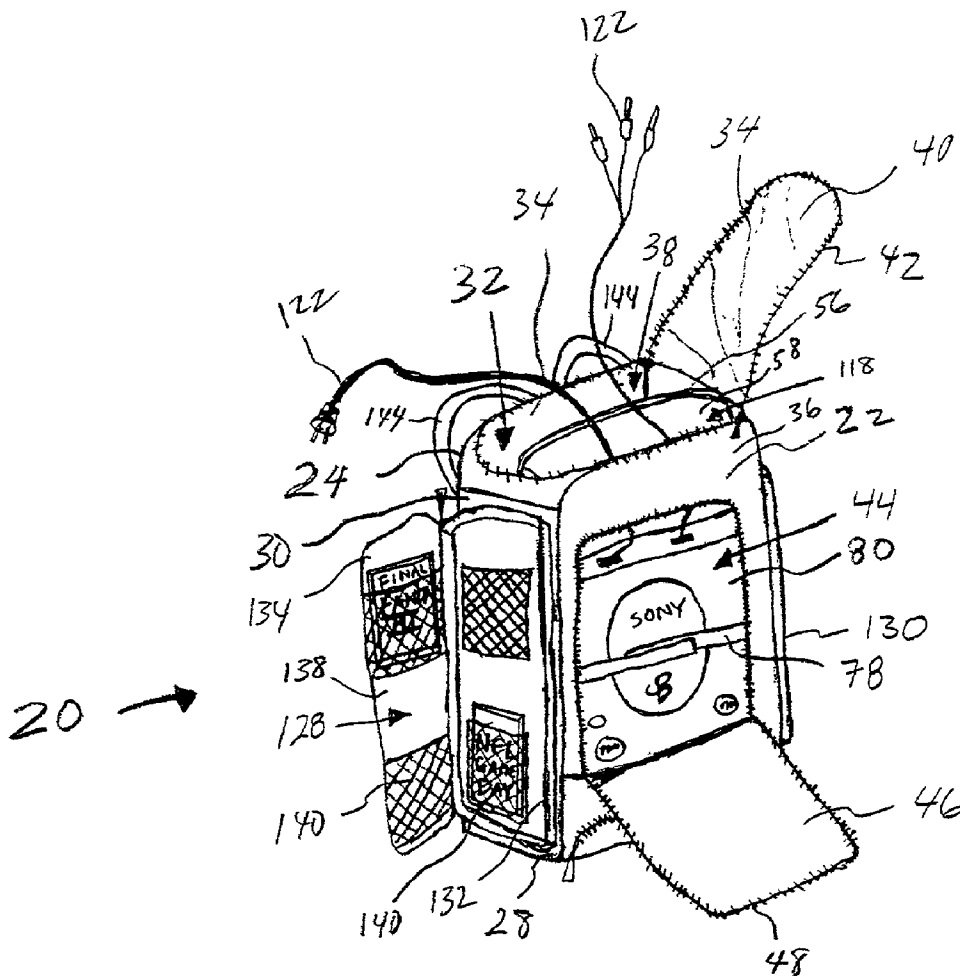
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(57) **ABSTRACT**

A carrying apparatus for use in transporting devices is provided whereby the devices may be transported and used while maintained within the carrying apparatus. At least a sealable opening is provided on the carrying apparatus for inserting a device within a chamber thereof. The device is removably secured within the carrying apparatus, yet access thereto is provided through the opening.

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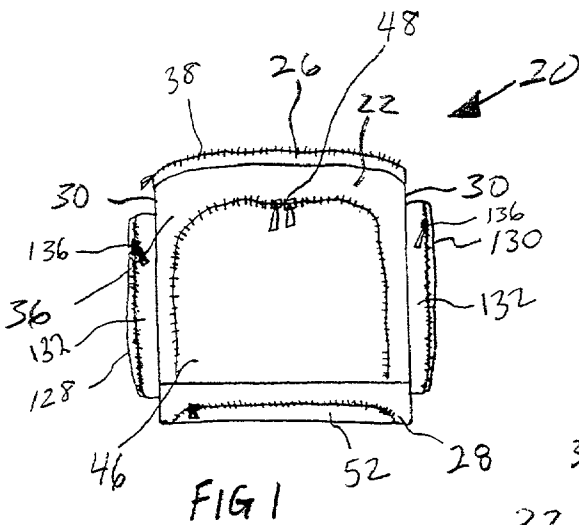


FIG 1

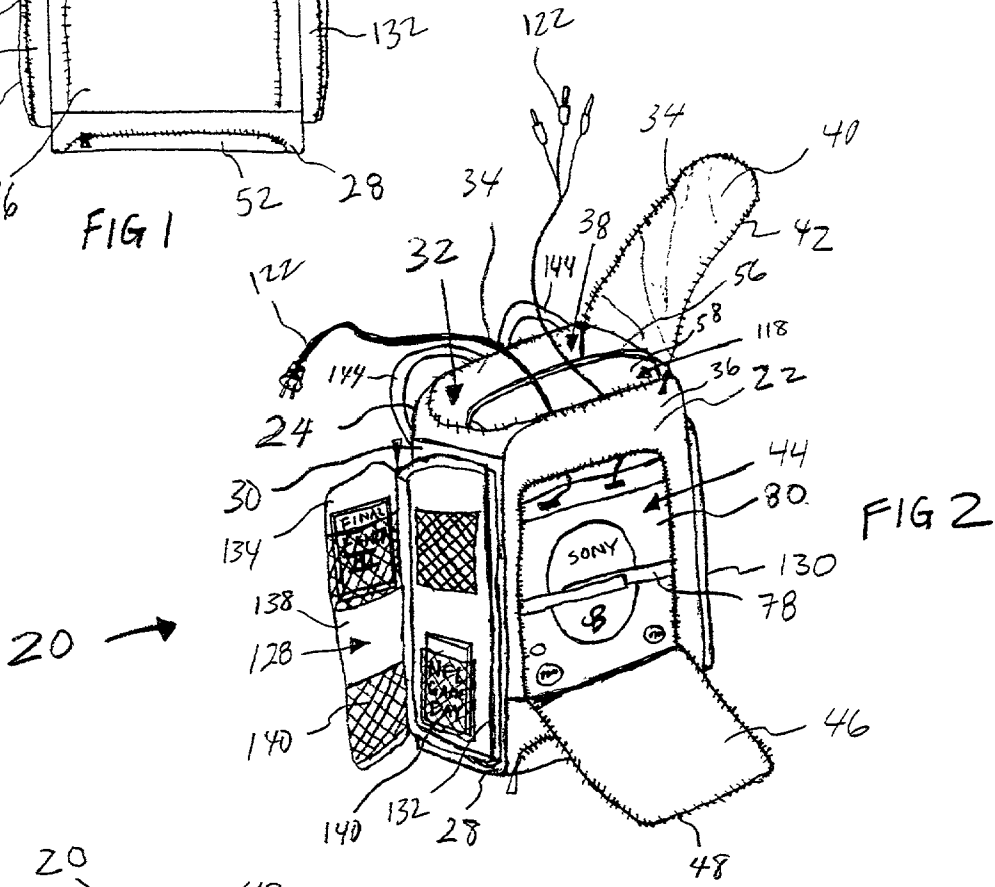


FIG 2

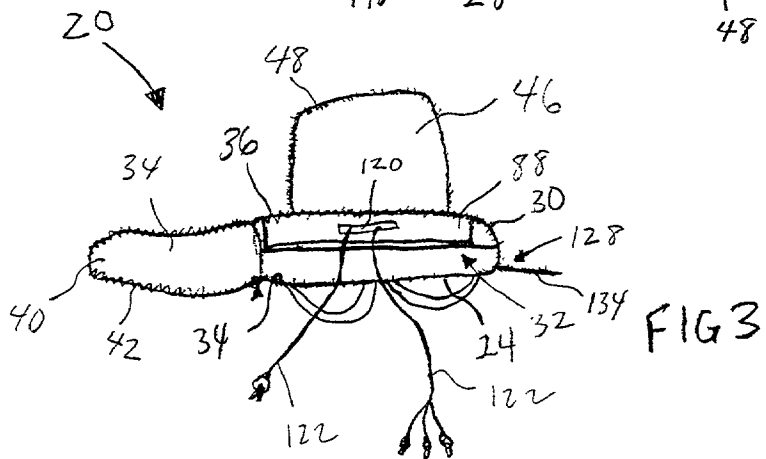
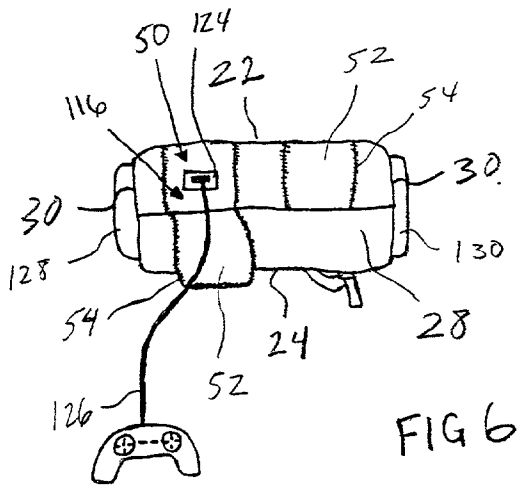
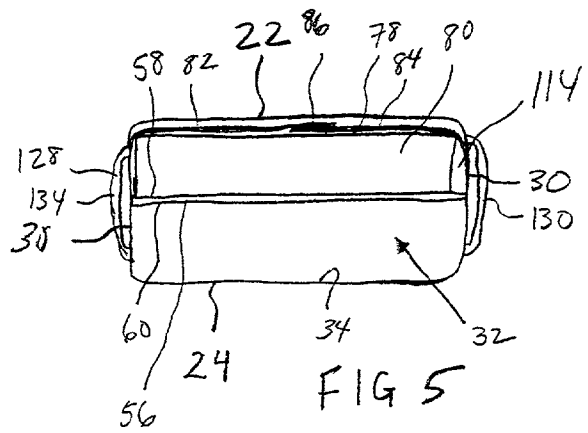
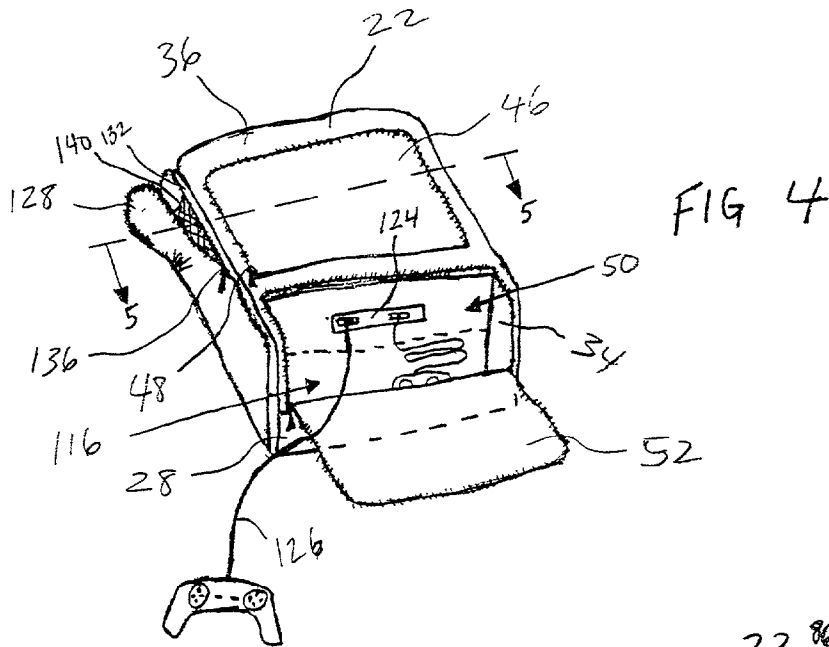


FIG 3



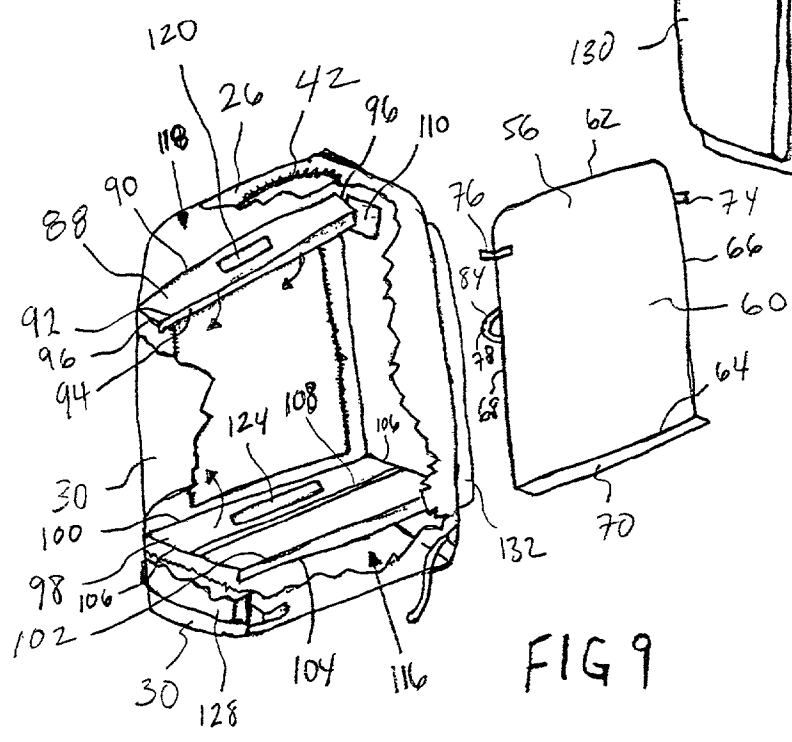
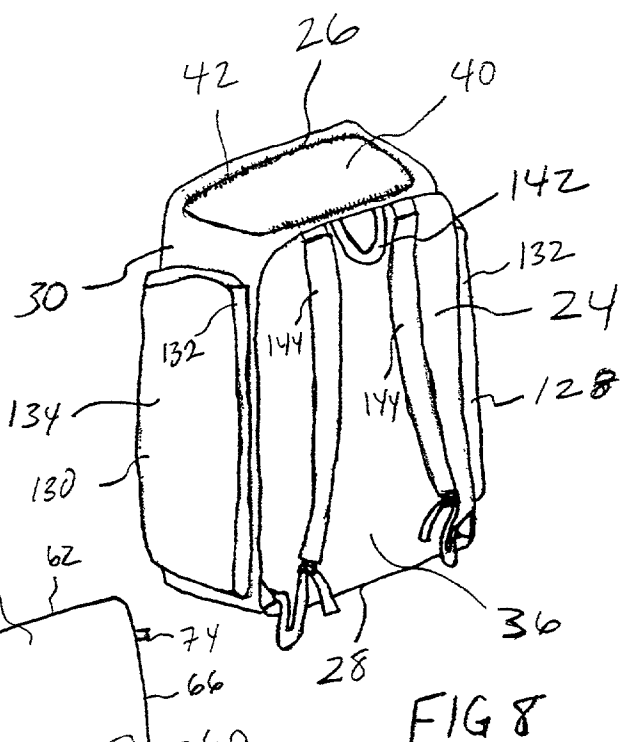
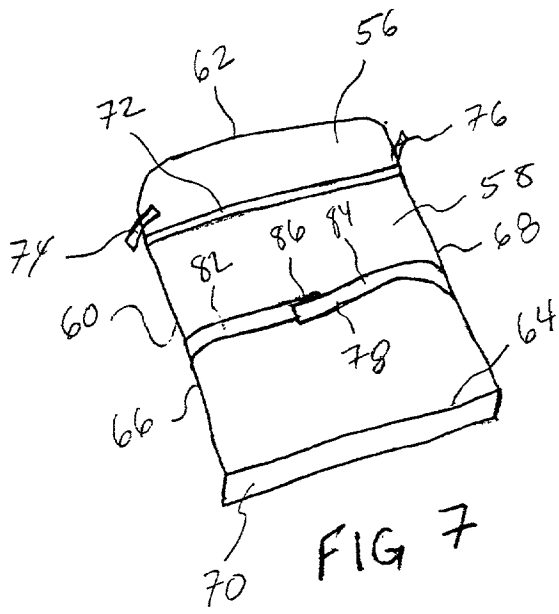


FIG 9

CARRYING APPARATUS FOR ELECTRONIC DEVICE

FIELD OF THE INVENTION:

[0001] This invention relates to a transporting apparatus for electronic devices in general, and more specifically, relates to an apparatus that may be carried manually or on the shoulders for transporting video game machines and using the same without removal therefrom.

BACKGROUND OF THE INVENTION:

[0002] Backpacks have for some time been very popular with children and young adults for carrying books and other articles to school or recreational activities. Recently, it has been increasingly common for older adults to use backpacks in place of large handbags or briefcases. The user of a backpack often has occasion to carry a backpack by hand. Accordingly, most backpacks have a carrying handle, which is usually a length of webbing that is attached at its ends to the upper end of the back of the backpack body and forms a loop that is large enough to be grasped. Frequently, the user finds it more comfortable to use one of the shoulder straps as a carrying handle.

[0003] Another aspect of the construction of a backpack is the manner by which the straps are supported comfortably on the tops of the user's shoulders. Care must be taken in the design of the backpack to have the portions of the shoulder straps that rest on the shoulders stay in place and not slip off to the sides. At the same time, the straps should not tend to pull toward each other at the back of the user's neck. The positions of the portions of the shoulder straps that rest on the tops of the user's shoulders is largely governed by the spacing between the upper ends of the straps where they are attached to the body of the backpack.

[0004] Heretofore however, backpacks have not been used to carry electronic devices in a secure yet removable fashion. In addition, carrying devices have not been provided that allow for the use of the electronic equipment contained therein without removal thereof. Accordingly, it has been cumbersome to transport and use video game machines between residences or even use thereof in a motor vehicle.

[0005] The prior art does not address the need for a carrying apparatus that allows the transportation of electronic devices and allows use thereof while maintained therein. Therefore, there remains a long standing and continuing need for an advance in the art of backpacks for use in transporting video game devices that is simpler in both design and use, is more economical, sturdy, and efficient in its construction and use, and allows the video game device to quickly and easily be installed and removed from a video display screen.

SUMMARY OF THE INVENTION:

[0006] Accordingly, it is general object of the present invention to overcome the disadvantages of the prior art.

[0007] In particular, it is an object of the present invention to provide a carrying apparatus that can transport electronic devices in a secure fashion.

[0008] It is another object of the present invention to provide a carrying apparatus that is economical to produce.

[0009] It is yet another object of the present invention to provide a carrying apparatus that is provided with a compartment for storing the electronic device.

[0010] It is another object of the present invention to provide a carrying apparatus with at least one opening that allows use of the electronic device contained therein without removal therefrom.

[0011] It is another object of the carrying apparatus that provides a plurality of compartments for storing accessories of the electronic device.

[0012] It is still another object of the present invention to provide a carrying apparatus that provides at least one receptacle for storing video games to be used with the electronic device.

[0013] It is another object of the present invention to provide a compartment built of heat dissipating material that allows heat to escape while the electronic device is in use.

[0014] It is yet another object of the present invention to provide a compartment that is sufficiently rigid to protect the electronic device contained therein during transportation.

[0015] In keeping with the principles of the present invention, a unique carrying apparatus for electronic equipment is presented which overcomes the shortfall of the prior art. It is to be understood that although a back pack styled carrying apparatus is illustrated herein, the principles of the invention are applicable to any carrying apparatus and are not limited to the specific embodiments illustrated and described.

[0016] A carrying apparatus is constructed of a front panel and a back panel in parallel relation thereto, which are interconnected by a top panel, a bottom panel, and a pair of side panels to define a chamber therein which may contain an electronic device besides other elements. A first sealable opening is provided on the top panel, a second sealable opening is provided on the front panel, and a third sealable opening is provided on the bottom panel. Each of the first, second, and third openings allow access to the chamber of the carrying apparatus.

[0017] A partition may be provided within the chamber which is in a parallel plane with the front and back panels. The partition may be removably attached within the chamber to allow removal of the same to accommodate an object requiring greater space therein for transportation. The partition is attached to an inner surface of the front panel via a first sheet which is proximal to the top panel and a second sheet which is proximal to the bottom panel such that the second opening on the front panel is maintained therebetween. The first and second sheets are in perpendicular relation to the front panel and the partition and thereby form a compartment for storing the electronic device. An enclosing member is provided on the partition to securely maintain the electronic device within the compartment even if the second opening of the front panel is not sealed.

[0018] A second compartment is created between the partition, the first sheet, the top panel, and the front panel that is accessible through the first opening on the top panel. In addition, access to the chamber is also provided through the first opening on the top panel, yet when the top panel is closed, the partition separates the second compartment from the chamber.

[0019] A third compartment is created between the second sheet, the side panels and the bottom panels and access thereto is provided from the third opening located on the bottom panel. At least an aperture is located on both the first sheet and the second sheet that allows access to the first compartment and the device contained therein. The apertures are of sufficient size to allow input and output wires to be pass therethrough and connect to the electronic device contained within the first compartment. Power cords, audio/video cords, joysticks, and remote controls, may be stored within either of the second or third compartments and connected to the electronic device through the apertures.

[0020] At least a receptacle may be provided on the outer surface of the side panels for enclosing other accessories therein for transportation. A plurality of pockets may be provided for storing items such as compact discs, video games, audio cassettes, video cassettes, and the such.

[0021] Such stated objects and advantages of the invention are only examples and should not be construed as limiting this invention. These and other objects, features, aspects, and advantages of the invention herein will become more apparent from the following detailed description of the embodiments of the invention when taken in conjunction with the accompanying drawings and the claims that follow.

BRIEF DESCRIPTION OF THE DRAWINGS:

[0022] It is to be understood that the drawings are to be used for the purposes of illustration only and not as a definition of the limits of the invention. It is also to be understood that although in the figures a symmetrical apparatus is illustrated, the same elements are also applicable to an asymmetrical apparatus.

[0023] In the drawings, wherein similar reference characters denote similar elements throughout the several views:

[0024] FIG. 1 is a frontal elevational view of a carrying apparatus in a closed state.

[0025] FIG. 2 is a perspective view of a carrying apparatus illustrating some of the possible openings that are available.

[0026] FIG. 3 is a top perspective view of a carrying apparatus in an open state illustrating the inside thereof.

[0027] FIG. 4 is a rearward perspective view in an open state illustrating the inside thereof.

[0028] FIG. 5 is a cross-sectional view taken along line 5-5 of FIG. 4 illustrating an electronic device maintained within a carrying apparatus.

[0029] FIG. 6 is a bottom perspective view of an alternate preferred embodiment of a carrying device in a partially open state.

[0030] FIG. 7 is a perspective view of a partition that is adapted to be received within a carrying apparatus.

[0031] FIG. 8 is a perspective view from the back of a carrying apparatus.

[0032] FIG. 9 is a perspective partially cut out and exploded view of a carrying apparatus taken from the back thereof receiving a partition therein.

DETAILED DESCRIPTION OF THE INVENTION:

[0033] Referring now to FIGS. 1, 2, and 3, therein is illustrated a carrying apparatus 20 having a front panel 22 and a back panel 24 which are interconnected by a top panel 26, a bottom panel 28, and a pair of side panels 30 to define a chamber 32 therein. As a result, apparatus 20 also has an inner surface 34 and an outer surface 36 on all of the panels 22, 24, 26, 28, and 30. The panels 22, 24, 26, 28, and 30 may be formed of any heavy-duty material known in the art, and in a preferred embodiment are made of a woven fabric material of the type conventionally used on backpacks and other carrying devices and may be interconnected by stitching or any other appropriate method that is known in the art.

[0034] A first opening 38 is defined on top panel 26 and is adapted to be sealed and opened repetitively for insertion and removal of objects from chamber 32. In a preferred embodiment, first opening 38 is cut into top panel 26 and thereby forms a first flap 40 that is substantially "U" shaped. Flap 40 is connected to top panel 26 along a portion thereof in a permanent fashion. Along another portion of an outer edge of first flap 40 is situated at least a first attaching means 42 for removably connecting first flap 40 to top panel 26 in a secure manner. First attaching means 42 is preferably a zipper apparatus that is commonly known in the art, however, it is to be understood that any suitable attaching means may be utilized therefor such as, but not limited to, hook and loop fasteners or male and female attaching components.

[0035] A second opening 44 is defined on front panel 22 and is adapted to be sealed and opened repetitively for insertion and removal of objects from chamber 32. In a preferred embodiment, second opening 44 is cut into front panel 22 and thereby forms a second flap 46 that is substantially "U" shaped. Second flap 46 is connected to front panel 22 along a portion thereof in a permanent fashion. Along another portion of an outer edge of second flap 46 is situated at least a second attaching means 48 for removably connecting second flap 46 to front panel 22 in a secure manner. Second attaching means 48 is preferably a zipper apparatus that is commonly known in the art, however, it is to be understood that any suitable attaching means may be substituted therefor such as, but not limited to, hook and loop fasteners or male and female attaching components.

[0036] Now also referring to FIG. 4, a third opening 50 is defined partially on front panel 22 and extends to bottom panel 28 and is adapted to be sealed and opened repetitively for insertion and removal of objects from chamber 32. In a preferred embodiment, third opening 50 is cut into front panel 22 and bottom panel 28 and thereby forms a third flap 52 that is substantially "U" shaped. Third flap 52 is connected to front panel 22 or bottom panel 28 along a portion thereof in a permanent fashion. Along another portion of an outer edge of third flap 52 is situated at least a third attaching means 54 for removably connecting third flap 52 to front panel 22 and bottom panel 28 in a secure manner. Third attaching means 54 is preferably a zipper apparatus that is commonly known in the art, however, it is to be understood that any suitable attaching means may be utilized therefor such as, but not limited to, hook and loop fasteners or male and female attaching components.

[0037] Now referring to FIG. 6, therein is illustrated an alternate preferred embodiment for construction of a plural-

ity of third openings 50 extending from front panel 22 to bottom panel 28 and all third openings 50 allowing access to chamber 32. Thereby, one of a plurality of third openings 50 may be opened as needed while allowing another of the plurality of third openings 50 to remain closed to maintain objects therein.

[0038] Now also referring to FIGS. 5, 7, 8, and 9, therein is illustrated a partition 56 having a front surface 58, and a back surface 60. In addition, partition 56 has a top end 62 and a bottom end 64 that are interconnected by a first side 66 and a second side 68. An enclosing member 70 extends from first side 66 to second side 68 and is adapted to maintain an electronic device 72 therein. A first connecting means 70 is positioned on bottom end 64 of partition 56 and a second connecting means 72 is positioned on front surface 58 of partition 56 proximal to top end 62. A first affixing means 74 is positioned on said first side 66 and a second affixing means 76 is positioned on second side 68 of partition 56. An enclosing member 78 is located on said partition 56 and maintains an electronic device 80 therein. In a preferred embodiment, enclosing member 78 is formed of a first strap 82 and a second strap 84 that extend from first side 66 and second side 68 respectively. First strap 82 and second strap 84 are adapted to removably attach to one another by an engagement means 86 to securely enclose device 80 therein. Engagement means 86 is preferably a hook and loop device but is not limited thereto and may incorporate any engagement apparatus that is known in the art. It is also to be understood that the enclosing member may be formed by a single strap that extends from first side 66 to second side 68 and has an engagement means 86 thereon.

[0039] A first sheet 88 is constructed of a substantially rigid material and is preferably rectangular in shape. First sheet 88 is attached to inner surface 34 of front panel 22 in a pivoting fashion along a first edge 90. Along a second edge 92, which is distal to and substantially parallel with first edge 90, is located a third connecting means 94. A pair of lateral edges 96 are located on opposing sides of first sheet 88 and are substantially perpendicular to first edge 90 and second edge 92. First sheet 88 is sufficiently sized such that lateral edges 96 are in close proximity to inner surface 34 of side panels 30. Third connecting means 94 is adapted to removably yet securely receive second connecting means 72 located on front surface 58 of partition 56 such that first sheet 88 is maintained in perpendicular relation to the plane of front panel 22. However, when connecting means 72 and 94 are removed, first sheet 88 pivots into parallel and proximal relation to front panel 22.

[0040] A second sheet 98 is constructed of a substantially rigid material and is preferably rectangular in shape. Second sheet 98 is attached to inner surface 34 of front panel 22 in a pivoting fashion along a first border 100. A second border 102, which is in opposition to first border 100 and substantially parallel thereto, is located a fourth connecting means 104. Fourth connecting means 104 is adapted to removably connect with inner surface 34 of back panel 24. A pair of lateral borders 106 are located on opposing sides of second sheet 98 and are perpendicular to first border 100 and second border 102. Second sheet 98 is sufficiently sized such that lateral borders 106 are in close proximity to inner surface 34 of side panels 30. A fifth connecting means 108 extends from opposing lateral borders 106 and is adapted to removably yet

securely receive first connecting means 70 located on bottom end 64 of partition 56 such that second sheet 98 is maintained in perpendicular relation to the plane of front panel 22.

[0041] To further stabilize the attachment of partition 56, first affixing means 74 and second affixing means 76 of partition 56 are removably affixed to a third affixing means 110 and a fourth affixing means 112 respectively, the affixing means 110 and 112 being located on inner surface 34 of side panels 30 respectively. In its fully attached position, front surface 58 of partition 56 in association with first sheet 88 and second sheet 98 form a first compartment 114 that is separated from chamber 32 and within which electronic device 80 may be maintained. First compartment 114 is accessible through opening second flap 46. In addition, second sheet 98 in association with inner surface 34 of bottom panel 28 form a second compartment 116 therebetween that is accessible through opening third flap 52. Furthermore, front surface 58 of partition 56 in combination with top panel 26 from a third compartment 118 therebetween that is accessible through opening of first flap 40. However, when connecting means 70, 104, and 108 and affixing means 110 and 112 are disconnected, second sheet 98 pivots into parallel and proximal relation to front panel 22 and the chamber 32 is returned to its full volume.

[0042] First sheet 88 has at least a first aperture 120 defined therein that is adapted to allow at least a first input/output means 122 to extend there through and into first compartment 114. Second sheet 98 has at least a second aperture 124 defined therein that is adapted to allow at least a second input/output means 126 to extend there through and into first compartment 114. For purposes of illustration, but not limitation, input/output means 122 and 126 may be any wiring required to operate electronic device 80 such as power outlet, audio/video connection, and joystick controls. Input/output means 122 and 126 are accessible via first opening 38 and third opening 50 without requiring removal of electronic device 80 from within first compartment 114. Accordingly, electronic device 80 may be operated when located within carrying apparatus 20 such that it is expeditiously portable and useable between differing locations.

[0043] It is to be understood that although one preferred embodiment is described in detail wherein first sheet 88 and second sheet 98 are permanently attached to the inner surface 34 of front panel 22, that alternate embodiments are also possible such as removably attaching first sheet 88 and second sheet 98 to inner surface 34 of front panel 22. In addition, in an alternate preferred embodiment, instead of having first sheet 88 and second sheet 98 removably attachable to partition 56, that sheets 88 and 98 may be permanently affixed thereto.

[0044] At least a first receptacle 128 is located on one of side panels 30 and at least a second receptacle 130 is located on the other one of side panels 30. First receptacle 128 will be described in detail with the understanding that second receptacle 130 will have similar elements. However, it is also to be understood that first receptacle 128 and second receptacle 130 may be asymmetrical and also may also be formed by any other method that is known in the art.

[0045] First receptacle 128 is formed by a wall 132 that extends substantially along side panel 30 and perpendicular thereto to form an enclosure thereby. A fourth flap 134 is

located on wall **132** and attached to a portion thereof in a permanent fashion. Along another portion of fourth flap **134** and wall **132** is situated at least a fourth attaching means **136** for removably connecting fourth flap **134** to wall **132** in a secure yet removable manner. Fourth attaching means **136** is preferably a zipper apparatus that is commonly known in the art, however, it is to be understood that any suitable attaching means may be utilized therefor such as, but not limited to, hook and loop fasteners or male and female attaching components. Located on an inside face **138** of fourth flap **134** is at least a retaining member **140**. Retaining member **140** may be in the form of an expandable pocket that is adapted to retain objects such as, but not limited to, compact discs, videos, and video games. In addition, another retaining member **140** may be located on outer surface **36** of side panel **30** to also retain objects therein.

[0046] Now referring to **FIG. 8**, in order to permit transportation of carrying apparatus **20**, a loop **142** is attached to back panel **24** in proximal relation to top panel **26** and is of sufficient size to allow grasping thereof. In order to permit transportation of carrying apparatus **20** on shoulders of an individual, at least a band **144** extends from back panel **24** proximal to top panel **26** and attaches to back panel **24** proximal to bottom panel **28**.

[0047] While the above description contains many specificities, these should not be construed as limitations on the scope of the invention, but rather as an exemplification of one preferred embodiment thereof. Many other variations are possible without departing from the essential spirit of this invention. Accordingly, the scope of the invention should be determined not by the embodiment illustrated, but by the appended claims and their legal equivalents.

What is claimed is:

1. A carrying apparatus, comprising:
 - at least a panel defining a chamber therein;
 - a device being maintained with said chamber in a secure yet removable manner;
 - at least an opening on said panel allowing access to said device and operation thereof without removal of the device from within said chamber.
2. The carrying apparatus of claim 1, wherein a front panel and a back panel are interconnected by a top panel, a bottom panel and a pair of side panels to define said chamber therein.
3. The carrying apparatus of claim 2, wherein a first sealable opening is defined on said top panel, a second sealable opening located on front panel, and a third sealable opening located on bottom panel, whereby the openings allow access to said device located securely within said chamber.
4. The carrying apparatus of claim 3, wherein a cradling means is adapted to form a compartment for maintaining said device within said chamber in a secure yet removable fashion.
5. The carrying apparatus of claim 3, wherein a first sheet extends perpendicularly from an inner surface of said front panel and is proximal to said top panel and a second sheet extends perpendicularly from said inner surface of said front panel and is proximal to said bottom panel such that said second opening is defined therebetween;

a partition, being in a substantially parallel relation to said front panel, connecting to said first and second sheets in a perpendicular manner at a point distal to said inner surface of said front panel to define a first compartment therein to retain said device in a secure yet removable fashion.

6. The carrying apparatus of claim 5, wherein an enclosing member is adapted to retain said device within said first compartment when said second opening on said front panel is in an open state.

7. The carrying apparatus of claim 6, wherein said enclosing member further comprises a first strap and a second strap with an engagement means located thereon, the first and second straps extending from a first side and a second side of said partition and enclosing said device therebetween.

8. The carrying apparatus of claim 5, wherein said partition further comprises a top end and a bottom end interconnected by a first side and a second side and having a front surface and a back surface;

said top end being of sufficient length to be integral with said top panel when in a closed state;

a second compartment being formed between said top panel, said first sheet, and said front surface of said partition.

9. The carrying apparatus of claim 5, wherein said second sheet extends from said front panel to said second panel in a perpendicular fashion such that a third compartment is formed between said bottom panel and said second sheet.

10. The carrying apparatus of claim 5, wherein at least a first aperture is defined through said first sheet to accommodate at least a first input and output means.

11. The carrying apparatus of claim 5, wherein at least a second aperture is defined through said second sheet to accommodate at least a second input and output means.

12. The carrying apparatus of claim 5, wherein at least a first aperture is defined through said first sheet to accommodate at least a first input and output means;

at least a second aperture is defined through said second sheet to accommodate at least a second input and output means;

said device being electronic in nature and said input and output means being adapted to transmit at least electrical signals to said device.

13. The carrying apparatus of claim 12, wherein the input and output means is selected from a group of products consisting of at least a power lead, an electronic game controller, a video input and output lead, an audio input and output lead, and a remote controller lead.

14. The carrying apparatus of claim 5, wherein at least a first receptacle is located on a side panel comprising retaining means therein for securely maintaining objects therein.

15. A carrying apparatus adapted for carrying at least an electronic device and allowing use thereof without removal from said carrying device comprising:

a front panel and a back panel interconnected by a top panel, a bottom panel and a pair of side panels to form a chamber therein;

a first sealable opening located on said top panel, a second sealable opening located on said front panel, and a third sealable opening located on said bottom panel;

whereby said electronic device is maintained within said chamber in a secure yet removable manner yet allowing access thereto from the first opening, the second opening, and the third opening.

16. The carrying apparatus of claim 15, wherein a first sheet extends perpendicularly from an inner surface of said front panel and is proximal to said top panel;

a second sheet extends perpendicularly from said inner surface of said front panel and is proximal to said bottom panel such that said second opening is defined between said first sheet and second sheet;

a partition, being in a substantially parallel relation to said front panel, connecting to said first and second sheets in a perpendicular manner at a point distal to said inner surface of said front panel to define a first compartment therein to retain said electronic device in a secure yet removable fashion.

17. The carrying apparatus of claim 16, wherein said partition further comprises a top end and a bottom end interconnected by a first side and a second side and having a front surface and a back surface;

said top end being of sufficient length to be integral with said top panel when in a closed state;

a second compartment being formed between said top panel, said first sheet, and said front surface of said partition;

said second sheet extends from said front panel to said second panel in a perpendicular fashion such that a third compartment is formed between said bottom panel and said second sheet.

18. The carrying apparatus of claim 17, wherein at least a video game control device can be stored within said third compartment; and

at least an audio and video input and output cord can be stored in said second compartment; and

at least a power cord can be maintained within said second compartment.

19. The carrying apparatus of claim 16, wherein at least a first aperture is defined through said first sheet to accommodate at least a first input and output means;

at least a second aperture is defined through said second sheet to accommodate at least a second input and output means;

said input and output means being adapted to transmit at least electrical signals to said electronic device.

20. A carrying apparatus for transporting and using an electronic device without requiring removal thereof from within said carrying apparatus, comprising:

a front panel and a back panel interconnected by a top panel, a bottom panel and a pair of side panels to form a chamber therein;

a first sealable opening located on said top panel, a second sealable opening located on said front panel, and a third sealable opening located on said bottom panel;

a first sheet extending perpendicularly from an inner surface of said front panel and is proximal to said top panel;

a second sheet extends perpendicularly from said inner surface of said front panel and is proximal to said bottom panel such that said second opening is defined between said first sheet and second sheet;

a partition, being in a substantially parallel relation to said front panel, connecting to said first and second sheets in a perpendicular manner at a point distal to said inner surface of said front panel to define a first compartment therein to retain said electronic device in a secure yet removable fashion and to allow access thereto from at least said second opening;

said partition further comprises a top end and a bottom end interconnected by a first side and a second side and having a front surface and a back surface;

said top end being of sufficient length to be integral with said top panel when in a closed state;

a second compartment being formed between said top panel, said first sheet, and said front surface of said partition;

said second sheet extends from said front panel to said second panel in a perpendicular fashion such that a third compartment is formed between said bottom panel and said second sheet;

whereby, access to said second compartment is obtained through said first opening and access to said third compartment is obtained through said third opening.

* * * * *