



US 20060117455A1

(19) **United States**(12) **Patent Application Publication****Park et al.**(10) **Pub. No.: US 2006/0117455 A1**(43) **Pub. Date:****Jun. 8, 2006**(54) **SEAT GARMENT AND STORAGE DEVICE**(52) **U.S. Cl. 2/69.5**

(76) Inventors: **Robert Frederick Park**, Kearney, NE
(US); **Mary Ellen Park**, Chicago, IL
(US)

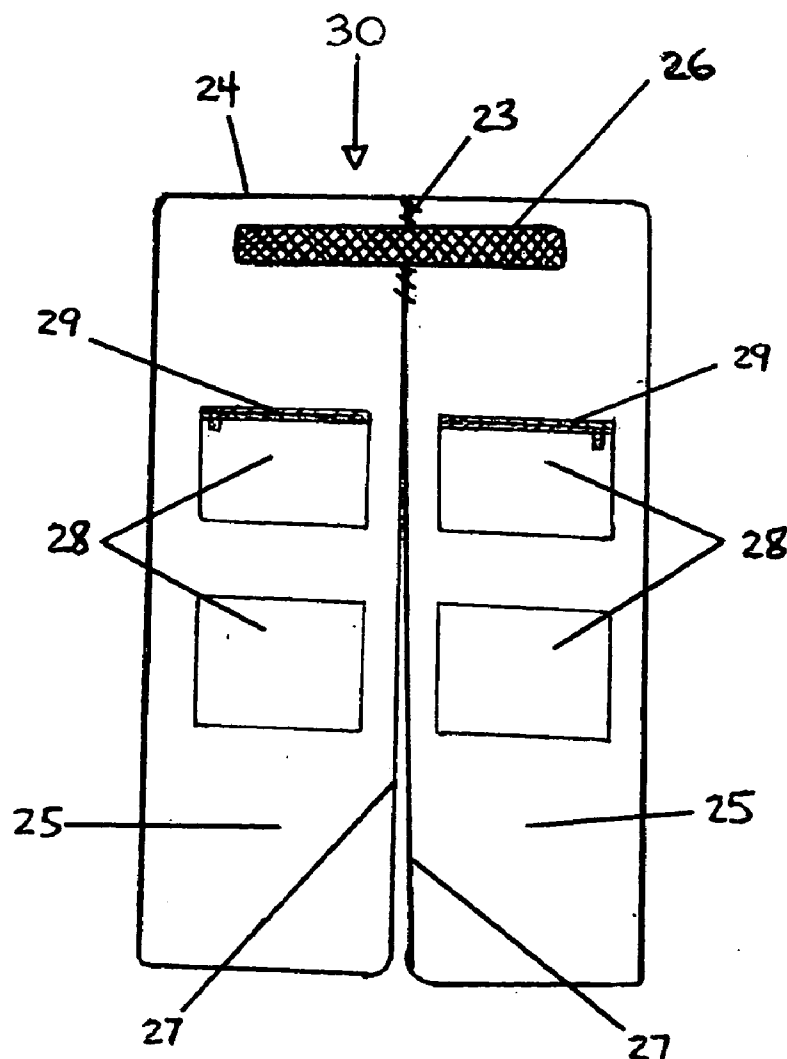
Correspondence Address:

Mark Wiemelt**Suite 3300****10 S. LaSalle St.****Chicago, IL 60603 (US)**(21) Appl. No.: **10/996,701**(22) Filed: **Nov. 24, 2004****Publication Classification**(51) **Int. Cl.****A41B 13/06**

(2006.01)

(57) **ABSTRACT**

A device is disclosed for removably attaching one or more oxygen tanks to a chair, particularly to a wheelchair, while providing a means of warmth for the seated individual and storage space for personal effects. The device comprises a holder component and a garment component. The holder component fits over the back rest of the chair and contains one or more pockets of sufficient dimension to secure one or more oxygen tanks to the rear of the chair's back rest. The garment component is attached to the holder component via a fastening means such as Velcro® or snaps and comprises long, substantially rectangular flaps which cover the seated individual, providing comfort and warmth. The garment component may also contain interior and/or exterior pockets to hold loose articles.



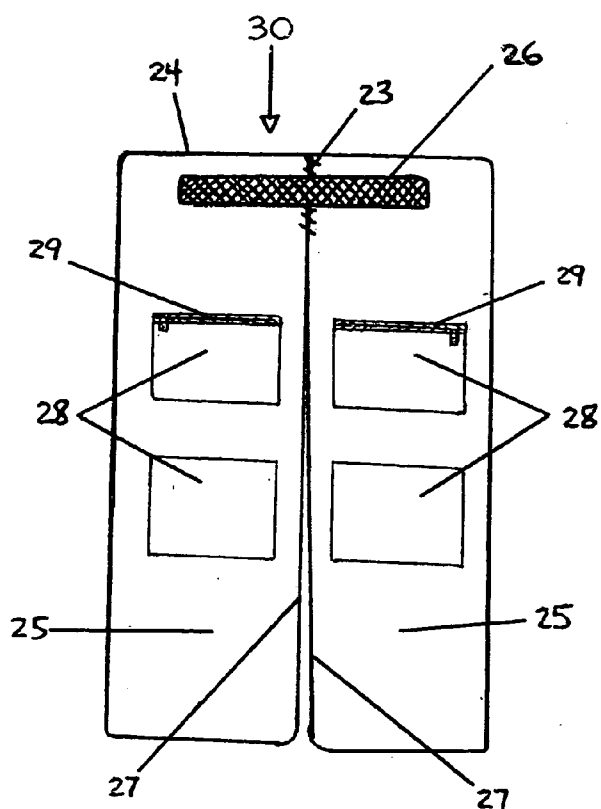


FIG. 1

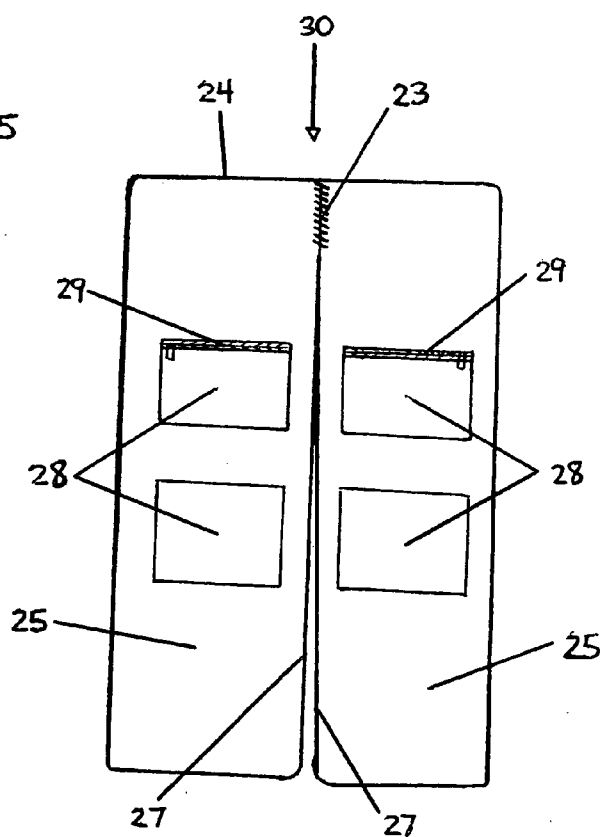


FIG. 2

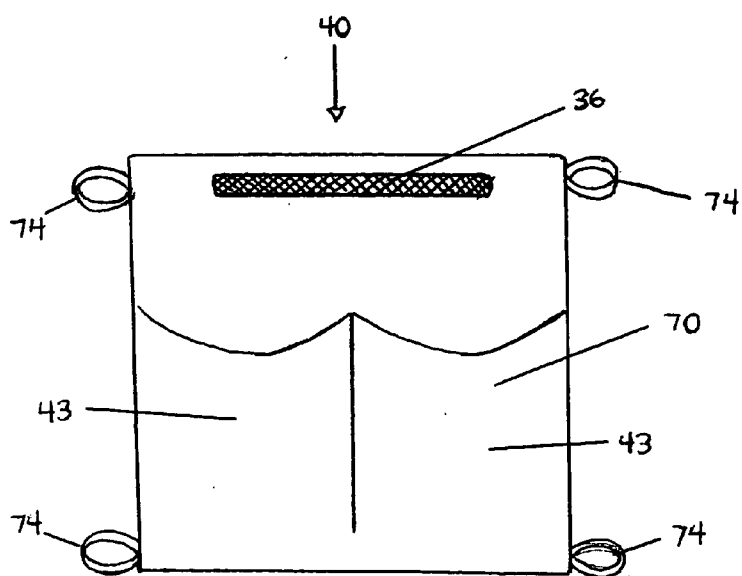


FIG. 3

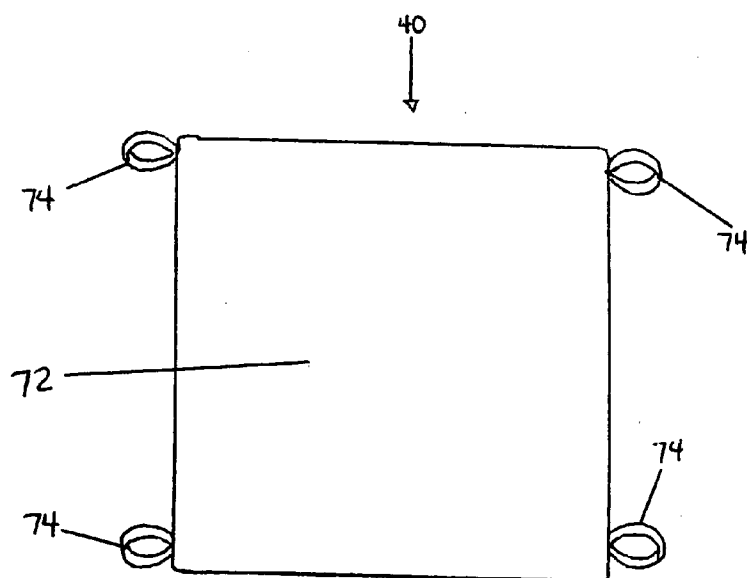


FIG. 4

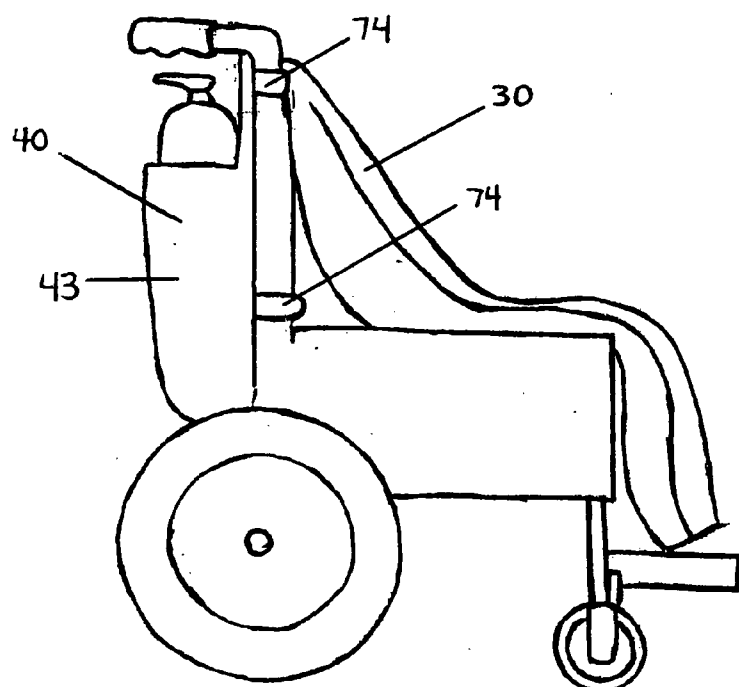


FIG. 5

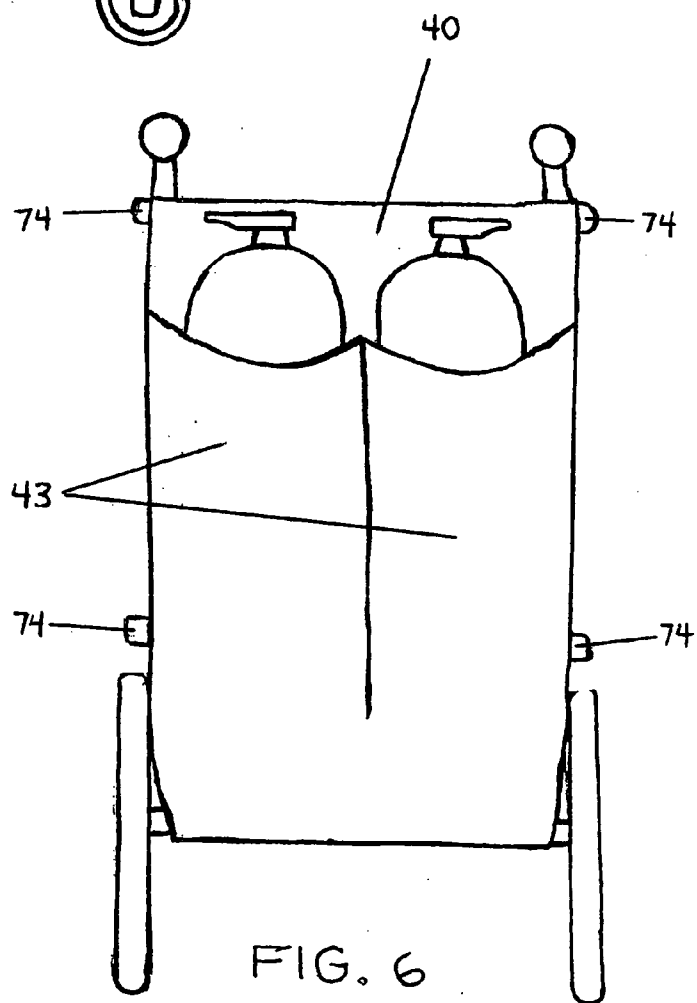


FIG. 6

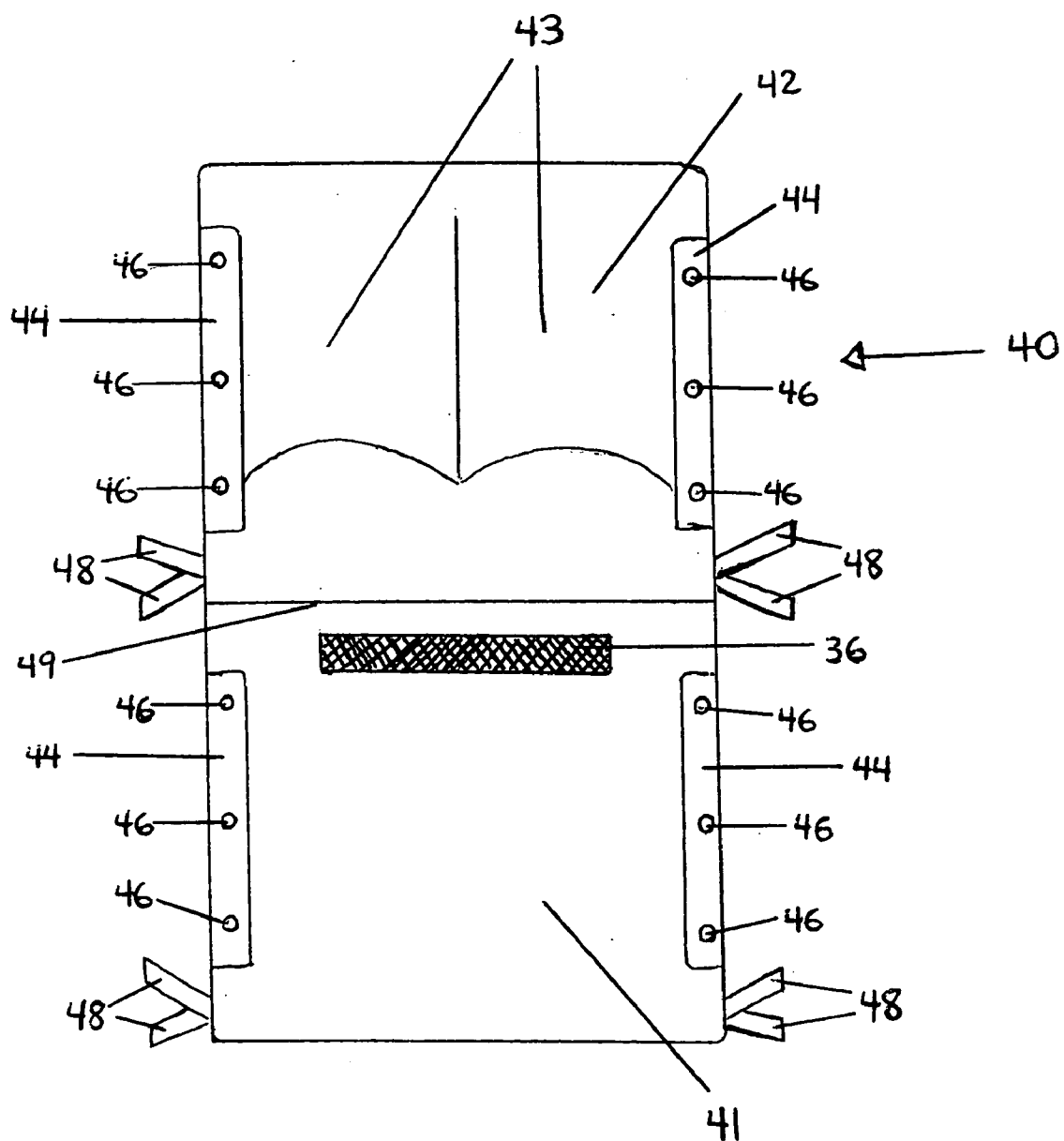


FIG. 7

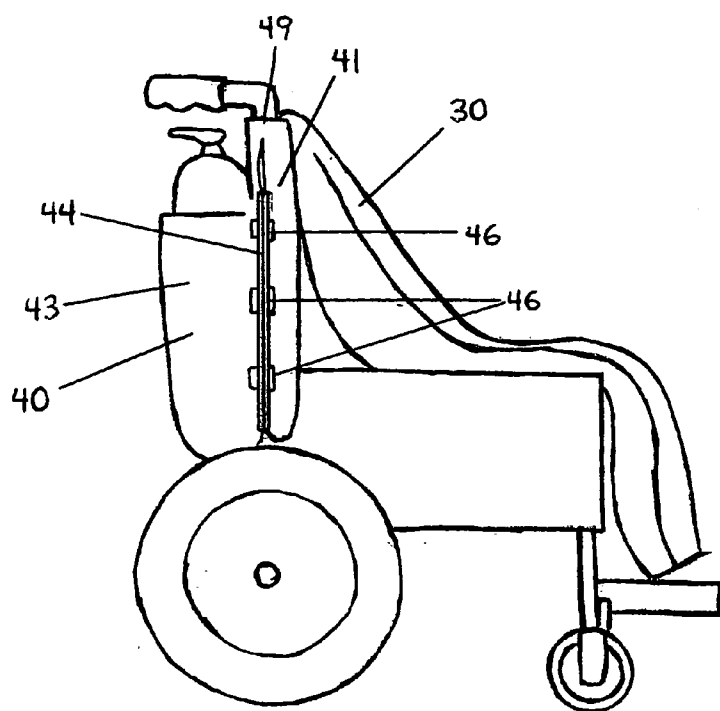


FIG. 8

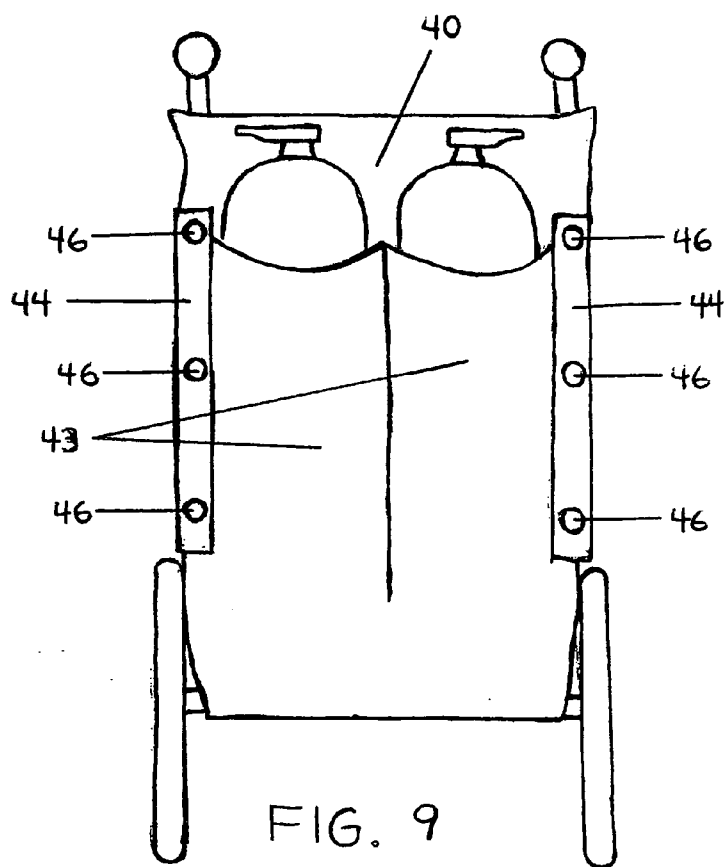


FIG. 9

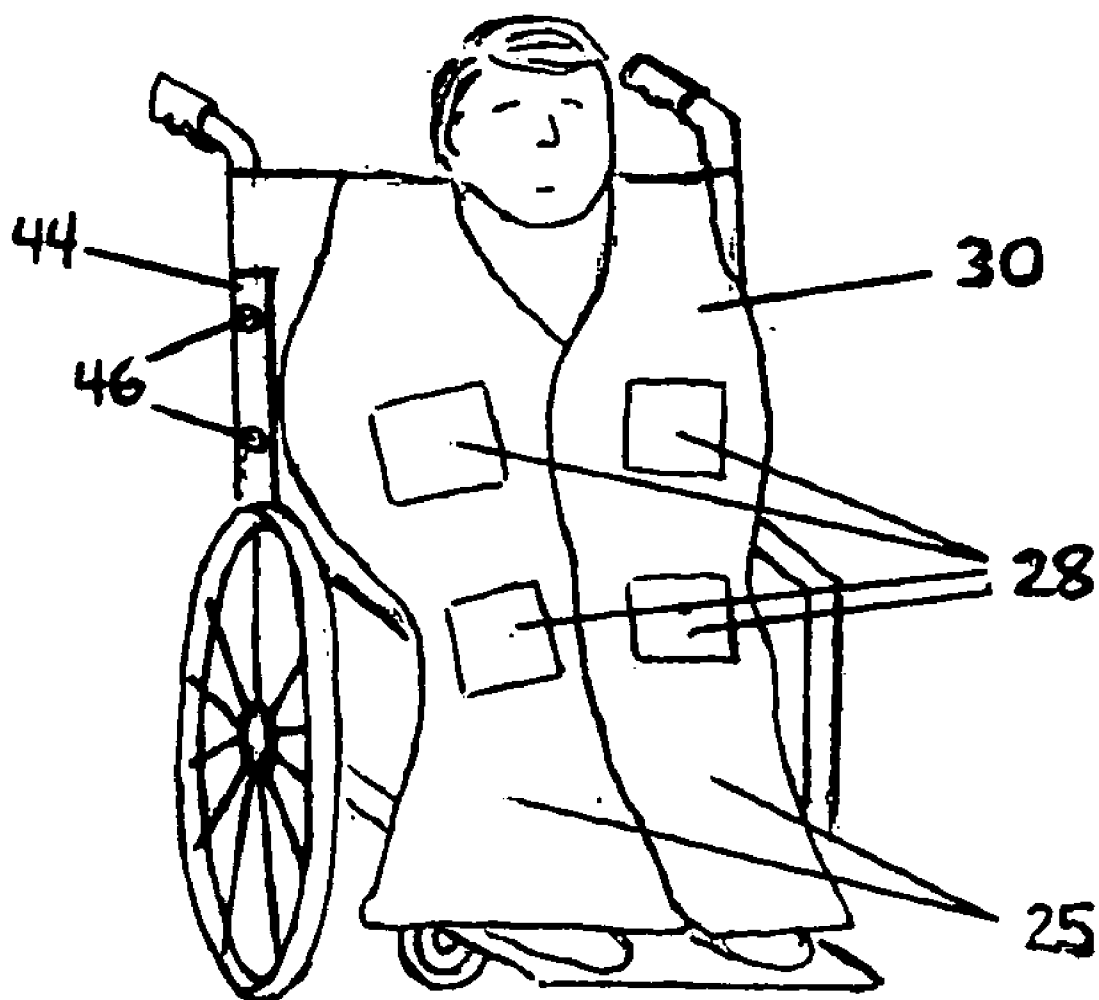


FIG. 10

SEAT GARMENT AND STORAGE DEVICE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to seat garments, and, more particularly, to devices that removably attach to a seat and provide storage space for oxygen tanks while providing a means of warmth and storage space for the personal effects of the seated individual.

[0003] 2. The Prior Art

[0004] In the field of patient care, it is often necessary to transport a patient in a wheelchair. Patients suffering from respiratory illnesses or other ailments requiring a supply of oxygen are often bound to a wheelchair and require an oxygen supply to be transported with them wherever they go. Oxygen tanks are sufficiently heavy and bulky that they must be carried on an extra cart and pushed alongside the wheelchair or must otherwise be coupled to the wheelchair in some manner. It would be useful to have a convenient and easy means of transporting oxygen tanks along with a wheelchair.

[0005] Wheelchair occupants also encounter difficulties carrying numerous personal articles which may be inconvenient to hold loosely, including various medications, glasses, and keys. Such individuals currently have the option of carrying loose articles in a bag on their lap, but it would be useful for wheelchair-bound individuals to have a convenient and readily accessible place to store their personal effects while in the wheelchair without having to carry an extra bag or container.

[0006] Further, many wheelchair occupants are elderly, infirm, or are recovering from an illness or surgery. Such individuals have a great need for warmth and require a greater degree of protection from the elements. It would be advantageous to have a means of providing warmth and comfort conveniently attached to the wheelchair so that such means are available whenever needed, even when unforeseen circumstances arise.

[0007] Despite the advantages provided by devices known in the art directed toward the aforementioned purposes, there remains no single device that meets all of these needs. Specifically, there is an unmet need for a device which can support and carry oxygen tanks, provide convenient and easily accessible storage space for medical items and other personal articles, and provide comfort and warmth to the seated individual.

SUMMARY OF THE INVENTION

[0008] The present invention is a device which is removably attached to the back rest of a chair and is particularly functional when used with a wheelchair. The device provides storage space for oxygen tanks while providing a means of warmth for the seated individual and storage space for personal effects.

[0009] The device comprises two major components: (1) a holder component, and (2) a garment component. The holder component attaches to the back rest of the chair and contains one or more pockets of sufficient dimension to secure one or more oxygen tanks proximate the rear of the chair's back rest. The garment component is attachable to the holder

component via a fastening means such as Velcro®, a zipper, buttons, ties, buckles, belts, snap-hooks, adjuster bars, slides or snaps. The garment component comprises two long flaps that are substantially rectangular in shape, although other dimensions are also effective. The garment component attaches to the holder component at or near the top of the chair's back rest and drapes over and around the seated individual, providing comfort and warmth. The garment component may also contain interior and/or exterior pockets to hold loose articles.

[0010] It is an object of this invention to provide a removable wheelchair attachment which is capable of holding oxygen tanks upright proximate the rear of the wheelchair while providing a means of comfort and warmth to the seated occupant as well as storage space for the personal articles of the seated individual.

[0011] It is an object of this invention to provide a device by which oxygen tanks may be removably coupled to a wheelchair so that no additional person is needed to handle the oxygen tanks during the travels of the seated occupant.

[0012] It is a further object of this invention to provide a means for the storage of oxygen tanks and personal articles and providing warmth and comfort while seated in any chair having a back rest.

[0013] It is a further object of this invention to provide an oxygen tank holding device which is constructed of inexpensive materials, is easy to use, and is simple to install onto a wheelchair.

[0014] It is an advantage of this invention that providing a means for holding the various personal effects of individuals bound to a wheelchair leaves their hands free for other tasks that may become necessary.

[0015] It is an advantage of this invention that its use will make life easier and more comfortable for wheelchair users.

[0016] Further objects and advantages of the present invention will become apparent to those skilled in the art to which the invention relates, from the following embodiments described with reference to the accompanying drawings, the specification and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] The foregoing and other additional objects of the present invention will be readily appreciated by those skilled in the art upon gaining an understanding of the preferred embodiment as described in the following detailed description and shown in the accompanying drawings in which:

[0018] **FIG. 1** is a front elevational view of the exterior of the garment component showing exterior pockets.

[0019] **FIG. 2** is an elevational view of the interior of the garment component showing interior pockets.

[0020] **FIG. 3** is an elevational view illustrating the pocket side of the holder component.

[0021] **FIG. 4** is an elevational view of the chair side of the holder component.

[0022] **FIG. 5** is a side elevational view of the garment component attached to the holder component which is secured to a wheelchair.

[0023] FIG. 6 is an elevational view of the rear of the holder component secured to a wheelchair and holding two oxygen tanks.

[0024] FIG. 7 is an elevational view of the alternate embodiment showing the front and rear sections of the holder component.

[0025] FIG. 8 is a side elevational view of the garment component attached to the alternate embodiment of the holder component which is secured to a wheelchair.

[0026] FIG. 9 is an elevational view of the rear section of the alternate embodiment of the holder component secured to a wheelchair and holding two oxygen tanks.

[0027] FIG. 10 is a front perspective view of the seat garment and storage device being used by a wheelchair occupant.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0028] While this present invention is susceptible of embodiments in many different forms, there are shown in the drawings and will be described in detail herein, a preferred embodiment, with like parts designated by like reference numerals and with the understanding that the present disclosure is to be considered as an exemplification of the principles of the present invention, and is not intended to limit the claims to the illustrated preferred embodiment.

[0029] Referring now to FIG. 1, the garment component 30 of the invention is depicted in a front elevational view of the exterior surface of the garment component 30. The garment component 30 may be fashioned out of any suitable material or fabric. The garment component 30 is preferably composed of a sufficiently warm, insulating and/or water-proof material as is necessary for outdoor use. The material should also be easy to clean. By way of example, the garment component could be composed of a knit, fleece, canvas, vinyl or nylon material, or any such material as is necessitated by the climate in which the device is to be used.

[0030] In the preferred embodiment, the garment component 30 is composed of two elongate, substantially rectangular flaps 25 approximately 57 inches in length and 14 inches wide; however, other shapes and dimensions could be successfully employed. The two rectangular flaps 25 are joined by stitching the fabric along the adjacent sides 27 from a point at or near the top edge 24 to a point approximately 6 inches below the top edge 24. Note, however, that any equivalent means of joining the two rectangular flaps 25 would achieve a similar result. The two rectangular flaps 25 drape over the seated individual and provide a generous amount of material for warmth and comfort. The material near the top edge 24 contains a fastening means 26 by which the garment component 30 can be attached to the holder component 40, as shown in FIG. 5. The illustrated embodiment utilizes mating strips of Velcro® 26, 36 as the fastening means. In alternate embodiments, the garment component 30 could be fastened by some means directly to the back rest of the chair, such as a zipper, buttons, ties, buckles, belts, snap-hooks, adjuster bars, slides or snaps. FIG. 1 also shows a plurality of exterior pockets 28 on the garment component 30 for storage of personal articles. Some of the exterior pockets 28 may be closed with zippers 29 for added safe-keeping.

[0031] Alternatively, the garment component 30 is not fashioned out of two separate pieces of material which are secured to one another. Instead, the garment component 30 is created from one continuous piece of material which is tailored in whatever manner necessary to form a suitable cover for the seated occupant. For example, a large, rectangular piece of material could be cut along the long axis of the rectangle to a point approximately six inches from the top edge 24, thereby creating two elongate rectangular flaps which function similarly to the preferred embodiment of the garment component 30 discussed above.

[0032] FIG. 2 shows an elevational view of the interior surface of the garment component 30. The interior surface is in contact with the body during use. The garment component 30 contains interior pockets 28 for the storage of personal items. The interior pockets 28 may contain zippers 29 for added security.

[0033] The holder component 40 is illustrated in FIGS. 3 and 4. The holder component 40 contains a means by which it is fastened to the chair, embodied as straps 74 in FIGS. 3 and 4. The straps 74 slip over the handles of a wheelchair, thereby securing the holder component 40 to the chair. Alternatively, mating Velcro® straps could be used as a fastening means. The pocket side 70 of the holder component 40 contains a counterpart to the fastening means on the exterior surface of the garment component 30, embodied as a Velcro® strip 26 in FIG. 1. The fastening means in the embodiment depicted in FIG. 3 is, therefore, a mating Velcro® strip 36 positioned at or near the top of the chair's back rest. The pocket side 70 contains one or more pockets 43 to hold one or more oxygen tanks. The pockets 43 are sufficiently deep to prevent the oxygen tanks from slipping out. The chair side 72 rests on or near the back rest of the chair when the holder component is secured to the chair. The holder component 40 is constructed from materials similar to those of the garment component 30; for example, a knit, fleece, canvas, vinyl or nylon material, but the chosen material should be constructed of a sufficiently rugged material to withstand the wear and tear placed upon it by heavy oxygen tanks. The straps 74 can be a thicker version of the same material or can be a different material altogether.

[0034] Referring now to FIG. 5, the holder component 40 is depicted in a side view secured over the back rest of a wheelchair with the garment component 30 attached to it. FIG. 6 shows a rear view of the holder component 40 attached to a wheelchair and holding two oxygen tanks. In addition to being a convenient location for the oxygen tanks, the rear of the chair tends to be a safe place for the oxygen tanks because they become less susceptible to being accidentally struck by people or objects passing by.

[0035] FIGS. 7-9 illustrate an alternate embodiment of the seat garment storage device 20 which can be used with a type of chair that does not contain handles or other elements around which the straps 74 shown in FIGS. 3 and 4 can be fitted. FIG. 7 is a front elevational view of the alternate embodiment of the holder component 40. In this configuration, the holder component 40 is divided by a fold 49 into a front section 41 and a rear section 42. The fold 49 is placed along the top of the back rest of a chair so that the front section 41 drapes over the front of the back rest, and the rear section 42 drapes over the rear of the back rest. The holder component 40 contains a fastening means by which the front

section **41** and rear section **42** are fastened together and secured to the back rest. In the illustrated embodiment, the fastening means is a series of snaps **46** placed along a reinforced strip **44** on each side of the front section **41** and rear section **42**. When the front section **41** and rear section **42** are positioned over the back rest, the snaps **46** secure the holder component **40** to the chair. Mating Velcro® tabs **48** may be attached to the sides of the front section **41** and rear section **42** as an alternate or redundant fastening means. The Velcro® tabs **48** may be looped around the chair frame to secure the holder component **40** to the back rest. The configuration of the holder component **40** in two separate sections has been found to be a useful construction in that it allows the holder component **40** to fit a wide range of back rest sizes. However, the holder component **40** need not be constructed in two separate sections. The holder component **40** can also be constructed as a continuous sleeve.

[0036] The rear section **42** contains one or more pockets **43** to hold one or more oxygen tanks. The pockets **43** are sufficiently deep to prevent the oxygen tanks from slipping out. The front section **41** contains a counterpart to the fastening means on the exterior surface of the garment component **30**, embodied as a Velcro® strip **26** in **FIG. 1**. The fastening means in the embodiment depicted in **FIG. 3** is, therefore, a mating Velcro® strip **36** positioned at or near the top of the chair's back rest. The holder component **40** is constructed from materials similar to those of the garment component **30**; for example, a knit, fleece, canvas, vinyl or nylon material. The front section **41** of the holder component **40** makes contact with the seated individual and should therefore be constructed of a comfortable material. The reinforced strips **44** can be a thicker version of the same material or can be a different material altogether. The rear section **42** may be constructed of the same material as the front section **41**, but the rear section **42** should be constructed of a sufficiently rugged material to withstand the wear and tear placed upon it by heavy oxygen tanks.

[0037] Referring now to **FIG. 8**, the alternate embodiment of the holder component **40** is depicted in a side view secured over the back rest of a wheelchair with the garment component **30** attached to it. It can be seen that when the fold **49** is aligned substantially parallel to the top of the chair's back rest, the front section **41** is oriented in substantially the same plane as the front of the back rest, and the rear section **42** is oriented in substantially the same plane as the rear of the back rest. **FIG. 9** shows a rear view of the holder component **40** attached to a wheelchair and holding two oxygen tanks.

[0038] **FIG. 10** shows the seat garment and storage device being used by an individual seated in a wheelchair with the garment component **30** covering the wheelchair occupant for warmth and comfort. Use of the invention does not impede the motion of the wheels, does not cause any interference to a person pushing the wheelchair from behind, nor does it restrict the range of mobility of the seated individual's arms.

[0039] In another alternate embodiment of the invention, the garment component **30** and the holder component **40** are part of a continuous piece of material and comprise a non-separable unit. In such an embodiment, a means of fastening the components together, shown as Velcro® strips **26** and **36**, are not required. However, in the preferred embodiment, the two components are separable for convenience and ease of use.

[0040] While the bulk of the foregoing discussion has been in the context of use in connection with a wheelchair, use of the device is by no means limited to a wheelchair. The invention is adaptable to virtually any type of chair or seating device containing a back rest. The device is well-suited to use in an easy chair in the home and could even be used in such venues as movie theaters or sporting events.

[0041] While the invention has been described in connection with a preferred embodiment, it will be understood that it is not intended that the invention be limited to that embodiment. On the contrary, it is intended to cover all alternatives, modifications and equivalents as may be included within the spirit and scope of the invention as disclosed.

[0042] As to the manner of usage and operation of the present invention, the same should be apparent from the above disclosure, and accordingly no further discussion relevant to the manner of usage and operation of the present invention shall be provided.

[0043] With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the present invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

[0044] Therefore, the foregoing is considered illustrative of only the principles of the present invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the claims to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the claims. Therefore the foregoing is considered illustrative of the principles of the present invention.

What is claimed is:

1. A chair-mounted seat garment and storage device, comprising:

a holder component and a garment component;

the holder component being attachable to the back rest of a chair and containing pockets of sufficient size to secure one or more oxygen tanks to the chair; and

the garment component extending from the back rest of the chair to provide a removable cover for a seated user.

2. A chair-mounted seat garment and storage device, comprising:

a holder component;

a garment component;

the holder component comprising a front section, a rear section, a fold, and a means for fastening the holder component to a chair;

the rear section containing pockets of sufficient size to secure one or more oxygen tanks to the chair;

the front and rear sections being disposed such that, when the fold is placed parallel to the top of the back rest of the chair, the front section is oriented in substantially

the same plane as the front of the back rest of the chair, and the rear section is oriented in substantially the same plane as the rear of the back rest of the chair; and

the garment component extending from the back rest of the chair to provide a removable cover for a seated user.

3. A chair-mounted seat garment and storage device, comprising:

a holder component, a garment component, and a means for fastening the holder component to the garment component;

the holder component comprising a front section, a rear section, a fold, and a means for fastening the holder component to a chair;

the rear section containing pockets of sufficient size to secure one or more oxygen tanks to the chair;

the front and rear sections being disposed such that, when the fold is placed parallel to the top of the back rest of the chair, the front section is oriented in substantially the same plane as the front of the back rest of the chair, and the rear section is oriented in substantially the same plane as the rear of the back rest of the chair; and

the garment component extending from the holder component to provide a removable cover for a seated user.

4. A chair-mounted seat garment and storage device of claim 1, wherein the garment component comprises two elongate, substantially rectangular flaps.

5. A chair-mounted seat garment and storage device of claim 2, wherein the garment component comprises two elongate, substantially rectangular flaps.

6. A chair-mounted seat garment and storage device of claim 3, wherein the garment component comprises two elongate, substantially rectangular flaps.

7. A chair-mounted seat garment and storage device of claim 1, wherein the garment component comprises one or more pockets.

8. A chair-mounted seat garment and storage device of claim 2, wherein the garment component comprises one or more pockets.

9. A chair-mounted seat garment and storage device of claim 3, wherein the garment component comprises one or more pockets.

10. A chair-mounted seat garment and storage device of claim 2, wherein the means of fastening the holder component to the chair is a series of snaps disposed along the sides of the front section and rear section.

11. A chair-mounted seat garment and storage device of claim 3, wherein the means of fastening the holder component to the chair is a series of snaps disposed along the sides of the front section and rear section.

12. A chair-mounted seat garment and storage device of claim 4, wherein the means of fastening the holder component to the chair is a series of snaps disposed along the sides of the front section and rear section.

13. A chair-mounted seat garment and storage device of claim 5, wherein the means of fastening the holder component to the chair is a series of snaps disposed along the sides of the front section and rear section.

14. A chair-mounted seat garment and storage device of claim 6, wherein the means of fastening the holder component to the chair is a series of snaps disposed along the sides of the front section and rear section.

15. A chair-mounted seat garment and storage device of claim 3, wherein the means of fastening the holder component to the garment component is a Velcro® strip positioned substantially near the top of the back rest of the chair on the holder component, and a mating Velcro® strip positioned substantially near the top edge of the garment component.

16. A chair-mounted seat garment and storage device of claim 3, wherein the garment component comprises two elongate, substantially rectangular flaps and contains one or more pockets; and the means of fastening the holder component to the garment component is a Velcro® strip positioned substantially near the top of the back rest of the chair on the holder component, and a mating Velcro® strip positioned substantially near the top edge of the garment component.

17. A chair-mounted seat garment and storage device of claim 3, wherein

the garment component comprises two elongate, substantially rectangular flaps and contains one or more pockets;

the means of fastening the holder component to the garment component is a Velcro® strip positioned substantially near the top of the back rest of the chair on the holder component, and a mating Velcro® strip positioned substantially near the top edge of the garment component; and

the means of fastening the holder component to the chair is one or more Velcro® tabs disposed along the sides of the front section and rear section.

18. A chair-mounted seat garment and storage device, comprising:

a holder component, a garment component, and a means for fastening the holder component to the garment component;

the holder component comprising a means for fastening the holder component to a chair, and pockets of sufficient size to secure one or more oxygen tanks to the chair;

the garment component extending from the holder component to provide a removable cover for a seated user.

19. A chair-mounted seat garment and storage device of claim 18, wherein the garment component comprises two elongate, substantially rectangular flaps.

20. A chair-mounted seat garment and storage device of claim 18, wherein the garment component comprises one or more pockets.

21. A chair-mounted seat garment and storage device of claim 18, wherein the means of fastening the holder component to the garment component is a Velcro® strip positioned substantially near the top of the back rest of the chair on the holder component, and a mating Velcro® strip positioned substantially near the top edge of the garment component.

22. A chair-mounted seat garment and storage device of claim 18, wherein

the garment component comprises two elongate, substantially rectangular flaps and contains one or more pockets;

the means of fastening the holder component to the garment component is a Velcro® strip positioned sub-

stantially near the top of the back rest of the chair on the holder component, and a mating Velcro® strip positioned substantially near the top edge of the garment component; and

the means of fastening the holder component to the chair is one or more Velcro® straps disposed along the sides of the holder component.

* * * * *