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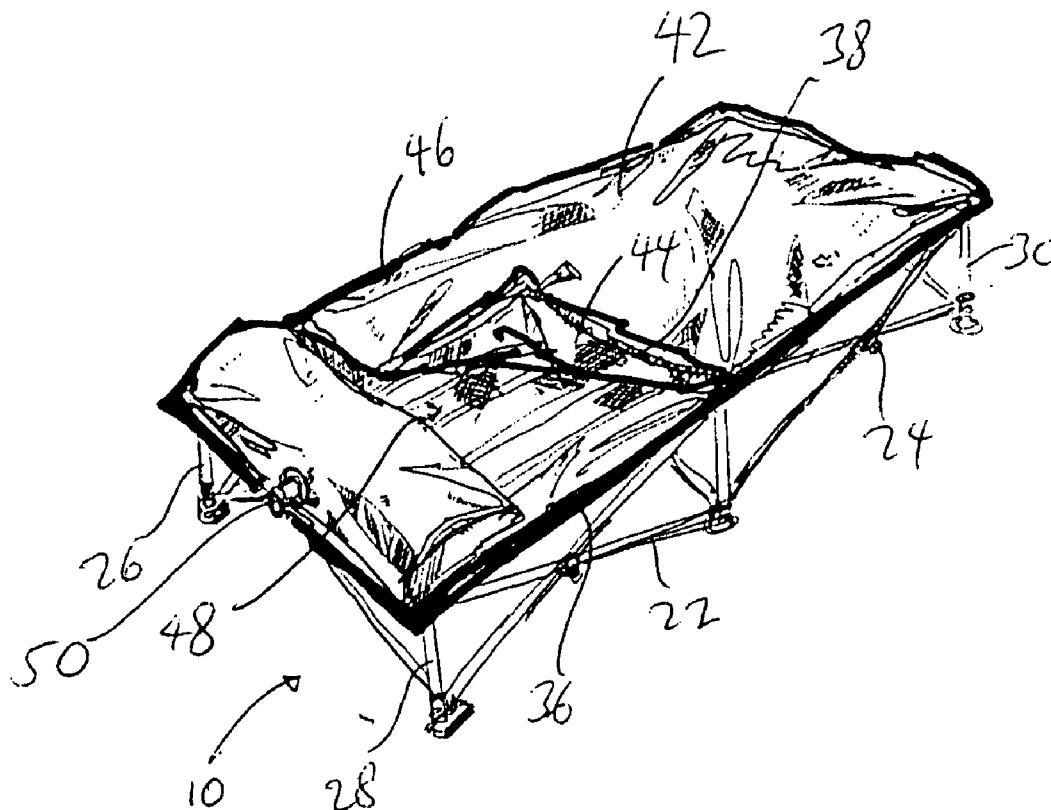
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(57) **ABSTRACT**

A sleeping apparatus has a collapsible base that assumes a deployed position and a collapsed position where the base has a smaller size than in the deployed configuration, and a sleeping mat that is removably attached to the top panel of the base.

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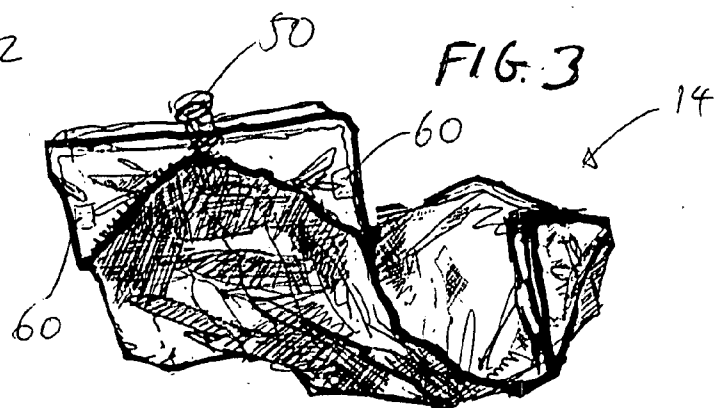
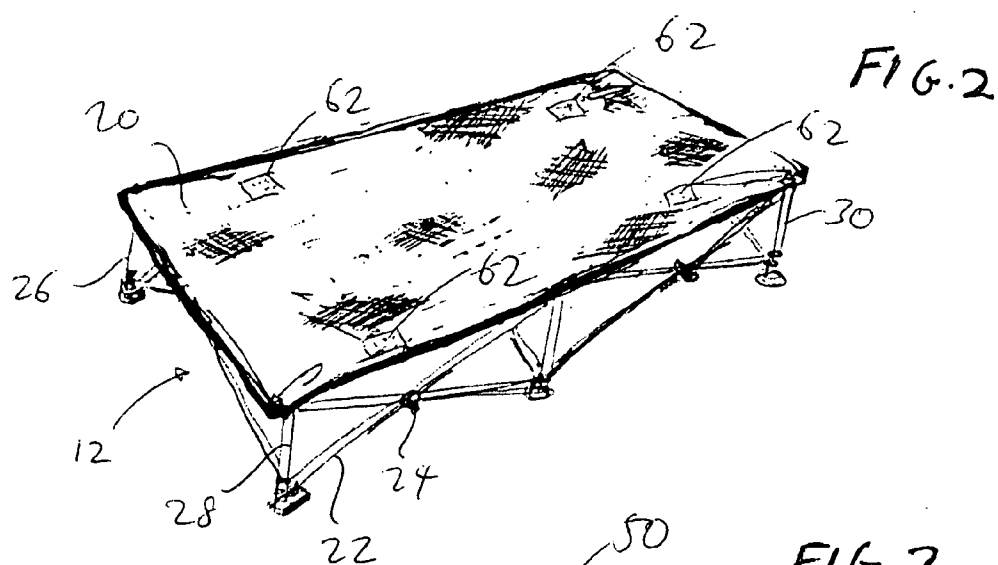
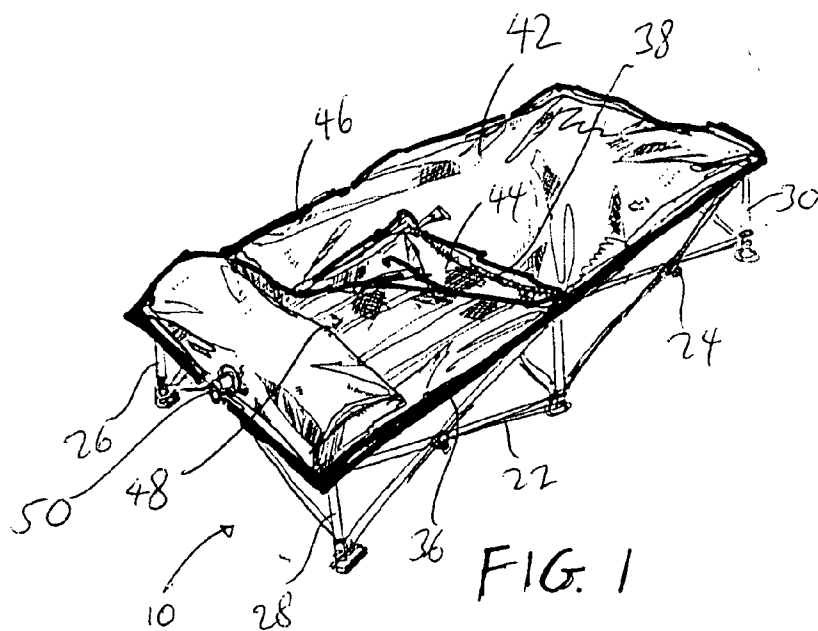




FIG. 4

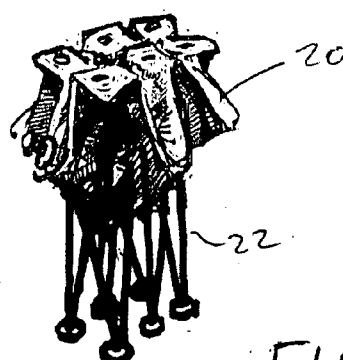


FIG. 5

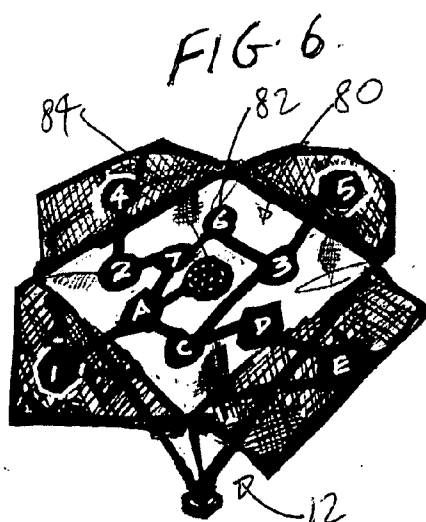


FIG. 6

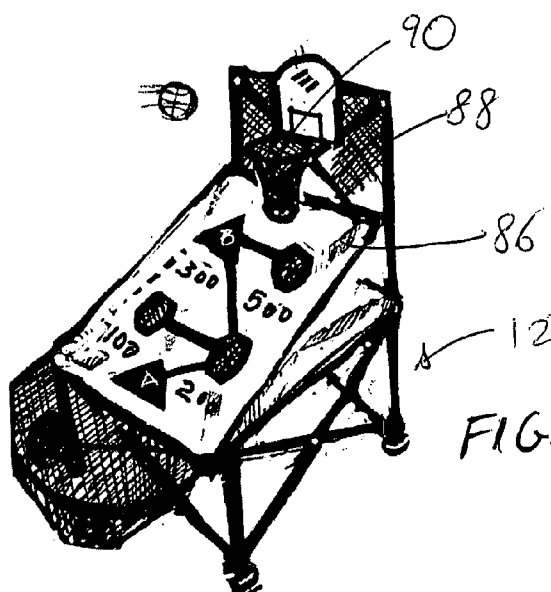


FIG. 7

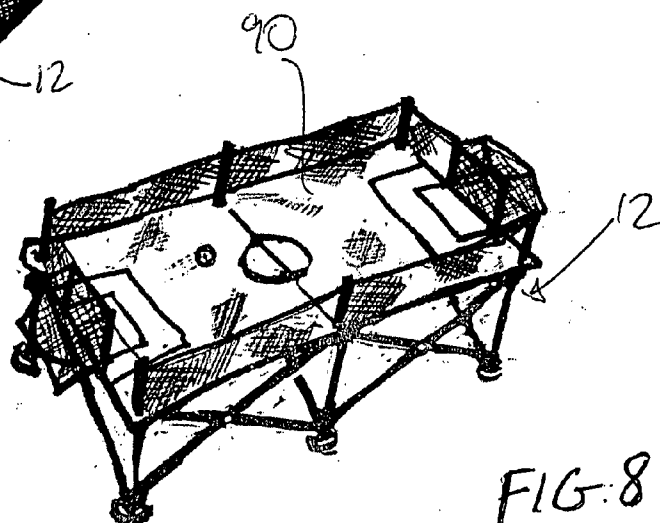


FIG. 8

PORTABLE SLEEPING ASSEMBLY**BACKGROUND OF THE INVENTION**

[0001] 1. Field of the Invention

[0002] The present invention relates to a portable sleeping assembly, and in particular, to a bed assembly which can be disassembled for convenient storage and transportation.

[0003] 2. Description of the Prior Art

[0004] Conventional beds are rather bulky and heavy, and are therefore difficult to move around. However, in today's society, people are constantly moving around, and the need for portable bedding is greater than ever.

[0005] One conventional type of portable bedding is the sleeping bag. Sleeping bags can be rolled or folded up, thereby making them easy to pack, store and carry around. Sleeping bags are also very easy to set up for use. Unfortunately, sleeping bags are not very comfortable because the user is essentially sleeping directly on the ground, and most conventional sleeping bags do not provide enough padding so that the user will inevitably feel the ground as he/she is sleeping in the sleeping bag. Conventional mats are similar to sleeping bags and suffer from similar drawbacks.

[0006] Another conventional type of portable bedding is an inflatable mattress. Inflatable mattresses come close to providing the comfort and environment of a traditional bed as they elevate the user from the ground while providing a comfortable yet sufficiently firm sleeping surface. However, inflatable mattresses are not as convenient to use. They must be inflated for use, and then deflated for storage. Unless the user has access to a pump, the inflation and deflation of an inflatable mattress can be very time-consuming.

[0007] Thus, there still remains a need for portable bedding that is comfortable for the user, yet is easy to install and disassemble for storage.

SUMMARY OF THE DISCLOSURE

[0008] The present invention provides a sleeping apparatus that has a collapsible base that assumes a deployed position and a collapsed position where the base has a smaller size than in the deployed configuration, and a sleeping mat that is removably attached to the top panel of the base.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a perspective view of a portable sleeping assembly according to one embodiment of the present invention.

[0010] FIG. 2 is a perspective view of the collapsible base of the assembly of FIG. 1.

[0011] FIG. 3 is perspective view of the sleeping bag of the assembly of FIG. 1.

[0012] FIGS. 4-5 illustrate how the collapsible base of FIG. 2 can be collapsed for storage.

[0013] FIGS. 6-8 illustrate portable assemblies according to other embodiments of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0014] The following detailed description is of the best presently contemplated modes of carrying out the invention. This description is not to be taken in a limiting sense, but is made merely for the purpose of illustrating general principles of embodiments of the invention. The scope of the invention is best defined by the appended claims.

[0015] Referring to FIGS. 1-3, the present invention provides a portable sleeping assembly 10 which includes a collapsible base 12 and a sleeping bag 14 that can be removably attached to the base 12.

[0016] The collapsible base 12 has a top panel 20 that can be made of a fabric. A collapsible frame system is provided below the top panel 20 to support the top panel 20 above the ground. The frame system also functions to allow the entire base 12 to be collapsed into a smaller size and shape for storage. The frame system can be any known collapsible frame system, but in the present embodiment, can include a plurality of struts 22 that are connected to each other at hinges 24. The struts 22 are adapted to be folded or pivoted at the locations of the hinges 24. Four vertical struts 26, 28, 30 at the four corners of the base 12 function as legs for supporting the top panel 20 at a raised or suspended position with respect to the ground. The top panel 20 can be secured to the top of the frame system. As shown in FIGS. 4 and 5, the frame system can be folded and collapsed by pivoting the struts 22 about the hinges 24 to fold the frame system into a small and compact arrangement. Since the top panel 20 is made of a fabric, it can be folded and tucked into the spaces between the respective struts 22.

[0017] The sleeping bag 14 can be any conventional sleeping bag or mat piece, but according to one embodiment of the present invention, the sleeping bag 14 can be embodied in the form of the sleeping bag described in connection with FIG. 1 of U.S. Pat. No. 6,557,192, whose entire disclosure is incorporated by this reference as though set forth fully herein. In particular, the sleeping bag has a generally rectangular outer layer 42 that is made of a suitable water-resistant sheet material, and a co-extensive inner rectangular layer or liner 44 that is preferably of a nappy material such as flannel. The outer and inner layers 42, 44 are connected together around their perimeters by a stitching to form a two-layer bag panel. The air space between the layers 42, 44 provides a certain amount of insulation. Zipper slides 36, 38 can be secured by a stitching to the opposite side edges of the bag panel, and to the bottom of the bag panel on opposite sides of a vertical centerline 46, so that when the bag panel is folded along the centerline, the zipper slides 36, 38 may be joined together by a zipper slider to form the sleeping bag shown in FIG. 1. Access to the interior of the sleeping bag 14 can be through the open head 48 of the bag 14. The bottom of the sleeping bag 14 can be provided with removable attachment mechanisms (e.g., VELCRO™ pads 60) that can be removably attached to removable attachment mechanisms (e.g., VELCRO™ pads 62) provided on the top surface of the top panel 20.

[0018] As an alternative, the sleeping bag 14 can be an inflatable sleeping bag which can be inflated via inflation ports 50.

[0019] In use, the sleeping bag 14 can be folded together, or rolled up, to reduce its size and shape. The base 12 can be folded and collapsed by pivoting the struts 22 about the hinges 24 to fold the frame system into a small and compact arrangement, as shown in FIGS. 4-5. The collapsed bag 14 and base 12 are lightweight, and can be conveniently stored in a small storage space. The portable sleeping assembly 10 can be deployed by extending and unfolding the base 12 until it assumes the configuration shown in FIG. 2. Next, the sleeping bag 14 can be unfolded, and then secured to the top panel 20, and the portable sleeping assembly 10 would be ready for use. The sleeping bag 14 is raised from the ground by the base 12, thereby providing the user with a more comfortable sleeping surface. In addition, by providing the sleeping bag 14 to be removable from the base 12, the sleeping bag 14 can be washed, or even replaced with another sleeping bag 14.

[0020] The principles of the present invention can be extended to non-sleep applications. FIG. 6-8 illustrate the foldable base 12 being used to support game surfaces. FIG. 6 illustrates the base 12 being used to support a generally flat or planar game surface 80 that can be made of fabric or foldable cardboard, and having electronic touch pads 82 and a speaker 84 provided thereon. FIG. 7 illustrates the base 12 being used to support a generally flat or planar game surface 86 that has been angled with respect to the top panel 20 of the base 12, and having a detachable backboard 88 that supports a net 90. FIG. 8 illustrates the base 12 being used to support a generally flat or planar ping pong surface 90 that can be made of cardboard or a hard material. All the surfaces 80, 86 and 90 can be made of any appropriate material that facilitates the desired activity while being convenient to fold or reduce in size. The surface 80, 86, 90 can be removably attached to the base panel 20 in the same manner as described above in FIGS. 1-3.

[0021] While the description above refers to particular embodiments of the present invention, it will be understood that many modifications may be made without departing from the spirit thereof. The accompanying claims are intended to cover such modifications as would fall within the true scope and spirit of the present invention.

What is claimed is:

1. A sleeping apparatus, comprising:

- a collapsible base that assumes a deployed position and a collapsed position where the base has a smaller size than in the deployed configuration, the base having a top panel; and
- a sleeping mat that is removably attached to the top panel.

2. The apparatus of claim 1, wherein the base comprises a plurality of struts connected to a plurality of hinges, with the struts folded about the hinges when the base is converted from the deployed position to the collapsed position.

3. The apparatus of claim 1, further including removable attachment mechanisms provided between the top panel and the sleeping bag to removably attach the sleeping bag to the top panel.

4. The apparatus of claim 1, wherein the sleeping bag comprises:

- an outer layer having an outer surface;
 - an inner liner superimposed and coextensive with the outer layer, the inner liner having an outer surface; and
 - wherein the inner liner and outer layer are secured together.
5. A play apparatus, comprising:
- a collapsible base that assumes a deployed position and a collapsed position where the base has a smaller size than in the deployed configuration, the base having a top panel; and
 - a game surface that is removably attached to the top panel.

6. The apparatus of claim 5, wherein the base comprises a plurality of struts connected to a plurality of hinges, with the struts folded about the hinges when the base is converted from the deployed position to the collapsed position.

7. The apparatus of claim 5, further including removable attachment mechanisms provided between the top panel and the game surface to removably attach the sleeping bag to the top panel.

8. The apparatus of claim 5, wherein the game surface includes electronic pads provided thereon.

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