A person support accessory comprises a first support structure, a second support structure, and a third support structure. The first support structure is configured to be coupled to a person support apparatus via at least one accessory coupler coupled to the person support apparatus. The first support structure extends substantially vertically therefrom. The second support structure is configured to be coupled to the person support apparatus via an accessory coupler coupled to the person support apparatus. The second support structure extends substantially vertically therefrom. The third support structure is configured to be coupled to the first support structure and the second support structure and extend along the length of the person support apparatus.
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declarations under Rule 4.17:**

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— as to the applicant’s entitlement to claim the priority of the earlier application (Rule 4.17(ii))

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PERSON SUPPORT ACCESSORY

CROSS REFERENCE TO RELATED APPLICATIONS

This application claims priority under 35 U.S.C. § 119(e) to U.S. Provisional Application Serial No. 61/540,168, filed September 28, 2011, which is expressly incorporated by reference herein.

BACKGROUND OF THE DISCLOSURE

[0001] This disclosure relates generally to person support systems. More particularly, but not exclusively, one illustrative embodiment relates to a person support accessory that is configured to be coupled to a person support apparatus. While various devices have been developed, there is still room for improvement. Thus a need persists for further contributions in this area of technology.

SUMMARY OF THE DISCLOSURE

[0002] In one illustrative embodiment, a person support accessory comprises a first support structure, a second support structure, and a third support structure. The first support structure is couplable to a person support apparatus and extends substantially vertically there from. The second support structure is couplable to the person support apparatus and extends substantially vertically there from. The third support structure is coupled to the first support structure and the second support structure such that the third support structure extends along the length of the person support apparatus and diagonally across the person support apparatus.

[0003] In another illustrative embodiment, a person support accessory comprises a first support structure, a second support structure, a third support structure, and a fourth support structure. The first support structure is couplable to a person support apparatus and extends substantially vertically there from. The second support structure is couplable to the person support apparatus and extends substantially vertically there from. The third support structure is couplable to the person support apparatus and extends substantially vertically there from. The fourth support structure extends along the length of the person support apparatus and is supported on the first support structure, the second support structure, and the third support structure.

[0004] In another illustrative embodiment, a person support accessory comprises a first support structure, a second support structure, and a third support structure. The first support structure is configured to be coupled to a person support apparatus via at least one accessory
coupler coupled to the person support apparatus. The first support structure extends substantially vertically there from. The second support structure is configured to be coupled to the person support apparatus via an accessory coupler coupled to the person support apparatus. The second support structure extends substantially vertically there from. The third support structure is configured to be coupled to the first support structure and the second support structure and extend along the length of the person support apparatus.

[0005] Additional features alone or in combination with any other feature(s), including those listed above and those listed in the claims and those described in detail below, can comprise patentable subject matter. Others will become apparent to those skilled in the art upon consideration of the following detailed description of illustrative embodiments exemplifying the best mode of carrying out the invention as presently perceived.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] Referring now to the illustrative examples in the drawings, wherein like numerals represent the same or similar elements throughout:

[0007] Fig. 1 is a perspective side view of a person support system including a person support apparatus and a person support accessory coupled to the person support apparatus according to one illustrative embodiment;

[0008] Fig. 2 is a perspective side view of the person support accessory and upper frame of the person support apparatus of Fig. 1 showing the deck and person support receptacles;

[0009] Fig. 3 is a perspective side view of the person support accessory of Fig. 1 according to another illustrative embodiment;

[0010] Fig. 4 is a top view of the person support accessory of Fig. 1 according to another illustrative embodiment;

[0011] Fig. 5 is a top view of the person support accessory of Fig. 1 according to yet another illustrative embodiment;

[0012] Fig. 6 is a top view of the person support accessory of Fig. 1 according to yet another illustrative embodiment;

[0013] Fig. 7 is a top view of the person support accessory of Fig. 1 according to yet another illustrative embodiment;

[0014] Fig. 8 is a perspective side view of the person support accessory of Fig. 1 according to yet another illustrative embodiment;

[0015] Fig. 9 is a perspective side view of the person support accessory of Fig. 8 showing the vertical support members and horizontal;
Fig. 10 is a top view of the person support system showing the traction equipment coupled to the person support apparatus according to one illustrative embodiment; and

Fig. 11 is a perspective side view of the person support system of Fig. 10 showing the person support apparatus in a chair egress configuration with the traction equipment coupled thereto.

DETAILED DESCRIPTION OF THE DRAWINGS

While the present disclosure can take many different forms, for the purpose of promoting an understanding of the principles of the disclosure, reference will now be made to the embodiments illustrated in the drawings, and specific language will be used to describe the same. No limitation of the scope of the disclosure is thereby intended. Various alterations, further modifications of the described embodiments, and any further applications of the principles of the disclosure, as described herein, are contemplated.

A person support system 10 according to one illustrative embodiment of the current disclosure is shown in Figs. 1-9. The person support system 10 includes a person support apparatus 12 and a person support accessory 14 coupled to a person support apparatus 12. The person support apparatus 12 is a hospital bed with a first section F1 or head support section F1, where the head of a person (not shown) can be positioned, a second section S1 or a foot support section S1, where the feet of the person (not shown) can be positioned, and a seat section T1 or third section T1 located between the first section F1 and the second section S1. In other contemplated embodiments, the person support apparatus 12 can be a hospital stretcher, an operating table, a wheelchair, or other apparatus configured to support a person. The person support apparatus 12 includes a lower frame 16 or base 16, a plurality of supports 18 coupled to the lower frame 16, and an upper frame 20 movably supported by the plurality of supports 18 above the lower frame 16. In one illustrative embodiment, the supports 18 are lift mechanisms 18 that move the upper frame 20 with respect to the lower frame 16. In some contemplated embodiments, the person support apparatus 12 supports a person support surface (not shown) on the upper frame 20.

The upper frame 20 includes an upper frame base 22, a deck 24, siderails 26, endboards 28 (including a head endboard 28a and a foot endboard 28b), an accessory support 30, and equipment receptacles 32 as shown in Figs. 1-9. The upper frame base 22 is coupled to the supports 18 and supports the deck 24, the siderails 26, the endboards 28, the accessory support 30, and the equipment receptacles 32. The deck 24 includes a head portion 34, a seat...
portion 36, and a foot portion 38 as shown in Figs. 1-8. The head portion 34, the seat portion 36, and the foot portion 38 are movably coupled to each other and the upper frame base 22 and are configured to cooperate with one another to move the person support apparatus 12 between a relatively horizontal configuration and a chair egress configuration as shown in Fig. 11. In some contemplated embodiments, the deck 24 and the upper frame base are configured to cooperate to move the person support apparatus 12 between a relatively horizontal configuration and a reclined configuration. In some contemplated embodiments, the seat portion 36 includes first and second movable seat portions 36a that are configured to move with respect to the upper frame base 22, and first and second stationary seat portions 36b that are configured to be non-movably coupled to the upper frame base 22. In other contemplated embodiments, the person support apparatus 12 is configured to move between a relatively horizontal configuration and a reclined configuration (not shown).

[0021] The equipment receptacles 32 are coupled to the upper frame base 22 and are configured to removably receive equipment, such as, the person support accessory 14. In one illustrative embodiment, there are four equipment receptacles 32a-32d as shown in Figs. 1-9. Two receptacles are coupled to the upper frame base 22 near the head support section F1 (equipment receptacles 32a and 32b), and two receptacles are coupled to the seat section T1 and are accessed through openings 37 in the first and second stationary seat portions 36b (equipment receptacles 32c and 32d). The equipment receptacles 32a and 32b near the head support section F1 are positioned where the person support accessory 14 can engage the equipment receptacles 32a-32b when the person support apparatus 12 is in the horizontal configuration and in the chair configuration or reclined configuration. In some contemplated embodiments, the head portion 34 is configured to move as disclosed in U.S. Patent Application No. 2010/0122415 titled ANTHROPOMETRICALLY GOVERNED OCCUPANT SUPPORT. In some illustrative embodiments, the equipment receptacles 32 are used to couple traction equipment TE1, such as, a traction frame or fracture frame, to the person support apparatus 12 as shown in Figs. 10 and 11.

[0022] The person support accessory 14 is coupled to the person support apparatus 12 via the equipment receptacles 32 on the upper frame 20. In some contemplated embodiments, the person support apparatus 12 is configured to be movable between a first configuration where the deck sections are substantially co-planar (for example, a substantially horizontal position, a Trendelenburg position, and a reverse Trendelenburg position) and a second configuration where the deck sections are not substantially co-planar (for example, a chair egress position, a reclined position, a chair position, and a position where the head portion of
the deck is raised or the foot portion of the deck is raised or lowered) position while the person support accessory 14 (or traction equipment TE1) is coupled thereto via the equipment receptacles 32 on the upper frame 20 as shown in Fig. 11. In one illustrative embodiment, the person support accessory 14 includes first and second vertical supports 38a and 38b, a horizontal support 40 extending there between, and a handle 42 coupled to the horizontal support 40 as shown in Figs. 1-5. In some contemplated embodiments, the horizontal support 40 is substantially straight as shown in Figs. 1-3 or curved as shown in Fig. 4. The first and second vertical supports 38a and 38b include first ends 44a and 44b engaging the equipment receptacles 32c and 32b and second ends 46a and 46b coupled to the horizontal support 40 such that the horizontal support 40 extends diagonally across the upper frame 20. In some contemplated embodiments, the person support accessory 14 is a U-shaped aluminum bar as shown in Figs. 1 and 2. In another illustrative embodiment, the horizontal support 40 includes a portion that extends diagonally across the upper frame 20 and a portion that extends straight along the length of the upper frame 20 as shown in Fig. 4.

[0023] The engagement of only one of the equipment receptacles 32c and 32d in the seat section T1 allows one side of the person support apparatus 12 to remain open, which can help facilitate ingress/egress to/from the person support apparatus 12 that has a support structure, such as, traction equipment, coupled thereto. In some contemplated embodiments, the components of the person support accessory 14 are coupled together using retaining devices CI, such as, clamping assemblies.

[0024] The handle 42 includes a coupler 48, a tether 50, and a grip 52 as shown in Fig. 1-3 and 8. The coupler 48 is configured to move along the horizontal support 40 and be selectively maintained in a desired position by a locking mechanism (not shown), such as, a clamping assembly. In some contemplated embodiments, the handle is rotatably coupled to the traction equipment TE1 and is configured to be rotated between a storage and use position. The tether 50 is coupled to the coupler 48 and the grip 52 and allows the grip 52 to move with respect to the coupler 48. In some contemplated embodiments, the tether 50 can be extended or retracted to adjust the distance between the grip 52 and a person on the person support apparatus 12. The grip 52 is configured to be gripped by a person.

[0025] In another illustrative embodiment, the person support accessory 14 includes first, second, and third vertical supports 54a-54c, first and second horizontal supports 56a and 56b, a slide joint 58, and the handle 42 as shown in Fig. 5. The first, second, and third vertical supports 54a-54c are coupled to the equipment receptacles 32a-32c. The first horizontal support 56a is coupled to the second and third vertical supports 54b-54c and extends diagonally across
the upper frame 20. The second horizontal support 56b is coupled to the first vertical support 54a and is movably coupled to the first horizontal support 56a via the slide joint 58 where the second horizontal support 56b crosses the first horizontal support 56a. The slide joint 58 is movable along the first horizontal support 56a, which causes the second horizontal support 56b to slide with respect to the slide joint 58 and rotate about a rotational axis defined by the first vertical support 54a. In one illustrative embodiment, the slide joint 58 is selectively lockable to maintain the position of the second horizontal support 56b with respect to the first horizontal support 56a.

[0026] In another illustrative embodiment, the person support accessory 14 includes a first vertical support structure 60, a second vertical support structure 62, and a horizontal support structure 64 as shown in Figs. 6-9. The first vertical support structure 60 is couplable to one of the equipment receptacles 32c and 32d and the horizontal support structure 64. The first vertical support structure 60 includes a first vertical support 66 and a first horizontal extension 68. The first vertical support 66 is coupled to the first horizontal extension 68 and is couplable to one of the equipment receptacles 32c and 32d. In one illustrative embodiment, the first horizontal extension 68 is coupled to the horizontal support structure 64 as shown in Fig. 7. In another illustrative embodiment, the first horizontal extension 68 is rotatably coupled to the horizontal support structure 64 at a pivot PI and allows the first vertical support 66 to be rotated with respect to the horizontal support structure 64 so that the first vertical support 66 can be coupled with either of the equipment receptacles 32c and 32d as shown in Fig. 6. In some contemplated embodiments, the first vertical support 66 is coupled directly to the second vertical support structure 62 as shown in Fig. 8.

[0027] The second vertical support structure 62 is coupled to both of the equipment receptacles 32a and 32b and the horizontal support structure 64 as shown in Figs. 6-9. In one illustrative embodiment, the second vertical support structure 62 includes first and second vertical supports 70a and 70b configured to be coupled to the equipment receptacles 32a and 32b and the horizontal support structure 64 as shown in Fig. 6. In another illustrative embodiment, the second vertical support structure 62 includes first and second vertical supports 72a and 72b configured to be coupled to the equipment receptacles 32a and 32b, a horizontal extension 74 configured to be coupled between the first and second vertical supports 72a and 72b, and a third vertical support 75 coupled to the horizontal extension 74 and the horizontal support structure 64 as shown in Figs. 7-9.

[0028] The horizontal support structure 64 is configured to be coupled to the first vertical support structure 60 and the second vertical support structure 62 and extend along the
person support apparatus 12 between the head support section F1 and the seat section T1 as shown in Figs. 6-9. In one illustrative embodiment, the horizontal support structure 64 includes a substantially linear support member 76 that extends lengthwise substantially along the middle of the person support apparatus 12 as shown in Fig. 7. In another illustrative embodiment, the horizontal support structure 64 includes a first angled support 78a and second angled support 78b coupled to the second vertical support structure 62 and configured to converge to couple to a first horizontal support 80, which extends lengthwise substantially along the middle of the person support apparatus 12 to couple with the first support structure 60 as shown in Fig. 6.

[0029] Many other embodiments of the present disclosure are also envisioned. For example, a person support accessory comprises a first support structure, a second support structure, and a third support structure. The first support structure is couplable to a person support apparatus and extends substantially vertically there from. The second support structure is couplable to the person support apparatus and extends substantially vertically there from. The third support structure is coupled to the first support structure and the second support structure such that the third support structure extends along the length of the person support apparatus and diagonally across the person support apparatus.

[0030] In another example, a person support accessory comprises a first support structure, a second support structure, a third support structure, and a fourth support structure. The first support structure is couplable to a person support apparatus and extends substantially vertically there from. The second support structure is couplable to the person support apparatus and extends substantially vertically there from. The third support structure is couplable to the person support apparatus and extends substantially vertically there from. The fourth support structure extends along the length of the person support apparatus and is supported on the first support structure, the second support structure, and the third support structure.

[0031] In another example, a person support accessory comprises a first support structure, a second support structure, and a third support structure. The first support structure is configured to be coupled to a person support apparatus via at least one accessory coupler coupled to the person support apparatus. The first support structure extends substantially vertically there from. The second support structure is configured to be coupled to the person support apparatus via an accessory coupler coupled to the person support apparatus. The second support structure extends substantially vertically there from. The third support structure is configured to be coupled to the first support structure and the second support structure and extend along the length of the person support apparatus.
Any theory, mechanism of operation, proof, or finding stated herein is meant to
further enhance understanding of principles of the present disclosure and is not intended to
make the present disclosure in any way dependent upon such theory, mechanism of operation,
illustrative embodiment, proof, or finding. It should be understood that while the use of the
word preferable, preferably or preferred in the description above indicates that the feature so
described can be more desirable, it nonetheless can not be necessary and embodiments lacking
the same can be contemplated as within the scope of the disclosure, that scope being defined by
the claims that follow.

In reading the claims it is intended that when words such as "a," "an," "at least
one," "at least a portion" are used there is no intention to limit the claim to only one item unless
specifically stated to the contrary in the claim. When the language "at least a portion" and/or "a
portion" is used the item can include a portion and/or the entire item unless specifically stated
to the contrary.

It should be understood that only selected embodiments have been shown and
described and that all possible alternatives, modifications, aspects, combinations, principles,
variations, and equivalents that come within the spirit of the disclosure as defined herein or by
any of the following claims are desired to be protected. While embodiments of the disclosure
have been illustrated and described in detail in the drawings and foregoing description, the same
are to be considered as illustrative and not intended to be exhaustive or to limit the disclosure to
the precise forms disclosed. Additional alternatives, modifications and variations can be
apparent to those skilled in the art. Also, while multiple inventive aspects and principles can
have been presented, they need not be utilized in combination, and various combinations of
inventive aspects and principles are possible in light of the various embodiments provided
above.
WHAT IS CLAIMED IS:

1. A person support accessory, comprising:
   a first support structure configured to be coupled to a person support apparatus via at least one accessory coupler coupled to the person support apparatus, the first support structure extending substantially vertically there from;
   a second support structure configured to be coupled to the person support apparatus via an accessory coupler coupled to the person support apparatus, the second support structure extending substantially vertically there from; and
   a third support structure configured to be coupled to the first support structure and the second support structure and extend along the length of the person support apparatus.

2. The person support accessory of claim 1 further comprising a handle assembly configured to be coupled to the third support structure.

3. The person support accessory of claim 2, wherein the handle assembly includes a coupler configured to selectively move along the third support structure, a grip, and a tether extending between the grip and the coupler.

4. The person support accessory of claim 1, wherein the second support structure includes one support member.

5. The person support accessory of claim 1, wherein the first support structure includes at least one support member.

6. The person support accessory of claim 1, wherein the first support structure includes a first vertical support member configured to be coupled to a first accessory coupler, a second vertical support member configured to be coupled to a second accessory coupler, a cross member configured to be coupled to the first vertical support member and the second vertical support member and extend there between, and a third vertical support member coupled to the cross member and the third support structure.

7. The person support accessory of claim 1, wherein the first support structure includes a substantially vertical portion and a substantially horizontal portion.
8. The person support accessory of claim 1, wherein the second support structure includes a vertical support member and a cross member coupled to the vertical support member and the third support structure.

9. The person support accessory of claim 8, wherein the cross member is rotatably coupled to the third support structure.

10. The person support accessory of claim 1, wherein the second support structure includes a substantially vertical portion and a substantially horizontal portion.

11. The person support accessory of claim 1, wherein the second support structure is rotatably coupled to the third support structure.

12. The person support accessory of claim 1, wherein the third support structure includes a first member coupled to the first support structure, a second member coupled to the first support structure, and a third member coupled to the second support structure, wherein the first member and the second member converge to couple with the third member.

13. The person support accessory of claim 12, wherein the first support structure includes a first vertical member and a second vertical member, the first member being coupled to the first vertical member and the second member being coupled to the second vertical member.

14. The person support accessory of claim 1, wherein the third support structure includes a portion that extends substantially straight along the length of the person support apparatus and a portion that extends diagonally across the person support apparatus.

15. The person support accessory of claim 1, wherein the third support structure includes a first member and a second member, the first member being coupled to the first support structure and the second support structure, the second member being coupled to the first support structure and crossing the first member.

16. The person support accessory of claim 15, wherein the second member is coupled to the first member via a slide configured to selectively move along the first member.
17. The person support accessory of claim 15, wherein the second member rotates about a rotational axis passing through the first support structure.

18. The person support accessory of claim 15, wherein the second member is positioned vertically above the first member.

19. The person support accessory of claim 1, wherein the first support structure, the second support structure, and the third support structure are coupled together using a clamping assembly.

20. A person support accessory, comprising:
   a first support structure couplable to a person support apparatus and extending substantially vertically there from;
   a second support structure couplable to the person support apparatus and extending substantially vertically there from; and
   a third support structure coupled to the first support structure and the second support structure such that the third support structure extends along the length of the person support apparatus and diagonally across the person support apparatus.

21. The person support accessory of claim 20 further comprising a handle assembly configured to be coupled to the third support structure.

22. The person support accessory of claim 21, wherein the handle assembly includes a coupler configured to selectively move along the third support structure, a grip, and a tether extending between the grip and the coupler.

23. The person support accessory of claim 20, wherein the second support structure includes one support member.

24. The person support accessory of claim 20, wherein the first support structure includes at least one support member.

25. The person support accessory of claim 20, wherein the first support structure includes a first vertical support member configured to be coupled to a first accessory coupler, a second
vertical support member configured to be coupled to a second accessory coupler, a cross member configured to be coupled to the first vertical support member and the second vertical support member and extend there between, and a third vertical support member coupled to the cross member and the third support structure.

26. The person support accessory of claim 20, wherein the first support structure includes a substantially vertical portion and a substantially horizontal portion.

27. The person support accessory of claim 20, wherein the second support structure includes a substantially vertical portion and a substantially horizontal portion.

28. The person support accessory of claim 20, wherein the second support structure is rotatably coupled to the third support structure.

29. The person support accessory of claim 20, wherein the third support structure includes a portion that extends substantially straight along the length of the person support apparatus and a portion that extends diagonally across the person support apparatus.

30. The person support accessory of claim 20, wherein the third support structure includes a first member and a second member, the first member being coupled to the first support structure and the second support structure, the second member being coupled to the first support structure and crossing the first member.

31. The person support accessory of claim 30, wherein the second member is coupled to the first member via a slide configured to selectively move along the first member.

32. The person support accessory of claim 30, wherein the second member rotates about a rotational axis passing through the first support structure.

33. The person support accessory of claim 30, wherein the second member is positioned vertically above the first member.
34. The person support accessory of claim 20, wherein the first support structure, the second support structure, and the third support structure are coupled together using a clamping assembly.

35. A person support accessory, comprising:

   a first support structure couplable to a person support apparatus and extending substantially vertically there from;
   
   a second support structure couplable to the person support apparatus and extending substantially vertically there from;
   
   a third support structure couplable to the person support apparatus and extending substantially vertically there from; and
   
   a fourth support structure extending along the length of the person support apparatus and supported on the first support structure, the second support structure, and the third support structure.

36. The person support accessory of claim 35 further comprising a handle assembly configured to be coupled to the fourth support structure.

37. The person support accessory of claim 36, wherein the handle assembly includes a coupler configured to selectively move along the fourth support structure, a grip, and a tether extending between the grip and the coupler.

38. The person support accessory of claim 35, wherein the third support structure includes one support member.

39. The person support accessory of claim 35, wherein at least one of the first support structure and the second support structure includes a substantially vertical portion and a substantially horizontal portion.

40. The person support accessory of claim 35, wherein the third support structure includes a vertical support member and a cross member coupled to the vertical support member and the fourth support structure.
41. The person support accessory of claim 40, wherein the cross member is rotatably coupled to the fourth support structure.

42. The person support accessory of claim 35, wherein the third support structure includes a substantially vertical portion and a substantially horizontal portion.

43. The person support accessory of claim 35, wherein the third support structure is rotatably coupled to the fourth support structure.

44. The person support accessory of claim 35, wherein the fourth support structure includes a first member coupled to the first support structure, a second member coupled to the second support structure, and a third member coupled to the third support structure, wherein the first member and the second member converge to couple with the fourth member.

45. The person support accessory of claim 35, wherein the fourth support structure includes a portion that extends substantially straight along the length of the person support apparatus and a portion that extends diagonally across the person support apparatus.

46. The person support accessory of claim 35, wherein the fourth support structure includes a first member and a second member, the first member being coupled to the first support structure and the third support structure, the second member being coupled to the second support structure and crossing the first member.

47. The person support accessory of claim 46, wherein the second member is coupled to the first member via a slide configured to selectively move along the first member.

48. The person support accessory of claim 46, wherein the second member rotates about a rotational axis passing through the second support structure.

49. The person support accessory of claim 46, wherein the second member is positioned vertically above the first member.
50. The person support accessory of claim 35, wherein the first support structure, the second support structure, the third support structure, and the fourth support structure are coupled together using a clamping assembly.

51. A person support system, comprising:
   a person support apparatus including a frame and a deck movably coupled to the frame, the frame and the deck including a head portion, a seat portion, and a foot portion, the frame also including a first equipment socket coupled to the head portion and a second equipment socket coupled to the seat portion;
   a person support accessory coupled to the person support apparatus via the first equipment socket and the second equipment socket, wherein the person support apparatus is configured to move between a substantially planar configuration to a chair egress configuration while the person support accessory is coupled thereto.

52. The person support system of claim 51, wherein the first equipment socket and the second equipment socket are vertically oriented.

53. The person support system of claim 51, wherein the seat portion of the deck includes a seat panel, a thigh panel, and side panels, the seat panel and the thigh panel being movably coupled to the frame and the side panels being secured to the seat portion of the frame, the side panels being spaced apart and extending substantially parallel to one another along the length of the frame, the seat panel and the thigh panel being positioned between the side panels.

54. The person support system of claim 53, wherein at least one of the side panels includes a hole there thorough, the hole being configured to allow the second equipment socket to be accessed through the seat portion.

55. The person support system of claim 54, wherein the hole is located adjacent to a perimeter edge of the deck extending along the length of the deck.

56. The person support system of claim 55, wherein a person support surface is supported on the deck and is configured to cover at least a portion of the hole when the person support accessory is not coupled to the second equipment socket.
57. The person support system of claim 56, wherein the hole is positioned adjacent to the perimeter edge of the person support surface.

58. The person support system of claim 51, wherein the seat portion of the deck includes a seat panel and a thigh panel, at least one of the seat panel and the thigh panel including a hole configured to allow the second equipment socket to be accessed through the seat portion.

59. The person support system of claim 51, wherein at least one of the seat panel and the thigh panel is movably coupled to the frame.

60. The person support system of claim 51, wherein the person support accessory includes at least two substantially vertical members connected to the frame by the first equipment socket and the second equipment socket and a connecting assembly that extends between the two substantially vertical members, the person support accessory extending diagonally across the frame.

61. The person support system of claim 51, wherein the person support accessory includes a traction frame.

62. The person support system of claim 61, wherein a handle is coupled to the traction frame to assist a person attempting to egress from the person support apparatus when the person support apparatus is in the chair egress configuration.

63. The person support system of claim 62, wherein the handle extends outwardly from the traction frame in a deployed position.

64. The person support system of claim 51, wherein the person support accessory includes a patient helper configured to help a person move from a first position to a second position.

65. The person support system of claim 51, wherein the person support accessory consists of a first vertical member and a second vertical member coupled to the frame via the first equipment socket and the second equipment socket and a connector assembly extending between the first vertical member and the second vertical member.
66. The person support system of claim 65, wherein the person support accessory extends diagonally across the frame.

67. The person support system of claim 51, wherein the person support accessory consists of a first vertical member and a second vertical member and a third vertical member coupled to the frame and a first connector assembly extending between the first vertical member and the second vertical member and a second connector assembly extending between the first connector and the third vertical member.

68. The person support system of claim 51, wherein the person support accessory consists of a first vertical member and a second vertical member and a third vertical member coupled to the frame and a first connector connected to the first vertical member and a second connector connected to the second vertical connector and a third connector connected to the third vertical member, the first connector and the second connector and the third connector connecting to one another at a joint.

69. The person support system of claim 51, wherein the person support apparatus includes a third equipment socket coupled to the head portion of the frame and a fourth equipment socket coupled to the seat portion of the frame.

70. The person support system of claim 69, wherein the person support accessory includes a first vertical support connected to the first equipment socket, a second vertical support connected to the third equipment socket, a third vertical support connected to the second equipment socket, a first connector assembly extending between the second vertical support and the third vertical support, and a second connector assembly extending from the first vertical support to define a cantilever.

71. The person support system of claim 70, wherein the second connector assembly is slidably coupled to the first connector assembly.

72. The person support system of claim 69, wherein the person support accessory includes a first vertical support connected to the first equipment socket, a second vertical support connected to the third equipment socket, a third vertical support connected to the second
equipment socket and a connector assembly connecting the first vertical support, the second vertical support and the third vertical support.

73. The person support system of claim 72, wherein the second vertical support is rotatably coupled to the connector assembly and is configured to be rotated between a first position where the third vertical support is connected to the second equipment socket and a second position where the third vertical support is connected to the fourth equipment socket.

74. A person support apparatus including a head portion, a seat portion, and a foot portion, comprising:
   a lower frame;
   a lift mechanism coupled to the lower frame;
   an upper frame movably supported above the lower frame by the lift mechanism, the lift mechanism being configured to raise and lower the upper frame with respect to the lower frame;
   a deck movably supported on the upper frame, the deck, the upper frame, and the lift mechanism being configured to cooperate to move the person support apparatus between a first position where the deck is substantially planar and a second position where the person support apparatus is in a chair egress configuration;
   a first equipment socket coupled to the head portion of the upper frame; and
   a second equipment socket coupled to the seat portion of the upper frame, wherein the first equipment socket and the second equipment socket are configured to couple a person support accessory to the person support apparatus.

75. The person support system of claim 74, wherein the first equipment socket and the second equipment socket are vertically oriented.

76. The person support system of claim 74, wherein the seat portion of the deck includes a seat panel, a thigh panel, and side panels, the seat panel and the thigh panel being movably coupled to the upper frame and the side panels being secured to the seat portion of the upper frame, the side panels being spaced apart and extending substantially parallel to one another along the length of the upper frame, the seat panel and the thigh panel being positioned between the side panels.
77. The person support system of claim 76, wherein at least one of the side panels includes a hole there through, the hole being configured to allow the second equipment socket to be accessed through the seat portion.

78. The person support system of claim 77, wherein the hole is located adjacent to a perimeter edge of the deck extending along the length of the deck.

79. The person support system of claim 78, wherein a person support surface is supported on the deck and is configured to cover at least a portion of the hole when the person support accessory is not coupled to the second equipment socket.

80. The person support system of claim 79, wherein the hole is positioned adjacent to the perimeter edge of the person support surface.

81. The person support system of claim 74, wherein the seat portion of the deck includes a seat panel and a thigh panel, at least one of the seat panel and the thigh panel including a hole configured to allow the second equipment socket to be accessed through the seat portion.

82. The person support system of claim 74, wherein at least one of the seat panel and the thigh panel is movably coupled to the upper frame.

83. The person support system of claim 74, wherein the person support accessory includes at least two substantially vertical members connected to the upper frame by the first equipment socket and the second equipment socket and a connecting assembly that extends between the two substantially vertical members, the person support accessory extending diagonally across the upper frame.

84. The person support system of claim 74, wherein the person support accessory includes a traction frame.

85. The person support system of claim 84, wherein a handle is coupled to the traction frame to assist a person attempting to egress from the person support apparatus when the person support apparatus is in the chair egress configuration.
86. The person support system of claim 85, wherein the handle extends outwardly from the traction frame in a deployed position.

87. The person support system of claim 74, wherein the person support accessory includes a patient helper configured to help a person move from a first position to a second position.

88. The person support system of claim 74, wherein the person support accessory consists of a first vertical member and a second vertical member coupled to the upper frame via the first equipment socket and the second equipment socket and a connector assembly extending between the first vertical member and the second vertical member.

89. The person support system of claim 88, wherein the person support accessory extends diagonally across the upper frame.

90. The person support system of claim 74, wherein the person support accessory consists of a first vertical member and a second vertical member and a third vertical member coupled to the upper frame and a first connector assembly extending between the first vertical member and the second vertical member and a second connector assembly extending between the first connector and the third vertical member.

91. The person support system of claim 74, wherein the person support accessory consists of a first vertical member and a second vertical member and a third vertical member coupled to the upper frame and a first connector connected to the first vertical member and a second connector connected to the second vertical connector and a third connector connected to the third vertical member, the first connector and the second connector and the third connector connecting to one another at a joint.

92. The person support system of claim 74, wherein the person support apparatus includes a third equipment socket coupled to the head portion of the upper frame and a fourth equipment socket coupled to the seat portion of the upper frame.

93. The person support system of claim 92, wherein the person support accessory includes a first vertical support connected to the first equipment socket, a second vertical support connected to the third equipment socket, a third vertical support connected to the second
equipment socket, a first connector assembly extending between the second vertical support and
the third vertical support, and a second connector assembly extending from the first vertical
support to define a cantilever.

94. The person support system of claim 93, wherein the second connector assembly is
slidably coupled to the first connector assembly.

95. The person support system of claim 92, wherein the person support accessory includes a
first vertical support connected to the first equipment socket, a second vertical support
connected to the third equipment socket, a third vertical support connected to the second
equipment socket and a connector assembly connecting the first vertical support, the second
vertical support and the third vertical support.

96. The person support system of claim 95, wherein the second vertical support is rotatably
coupled to the connector assembly and is configured to be rotated between a first position
where the third vertical support is connected to the second equipment socket and a second
position where the third vertical support is connected to the fourth equipment socket.

97. A person support system, comprising:
   a person support apparatus including a frame and a deck movably coupled to the frame,
   the frame and the deck including a head portion, a seat portion, and a foot portion, the frame
   also including a first equipment socket coupled to the head portion and a second equipment
   socket coupled to the seat portion;
   a person support accessory coupled to the person support apparatus via the first
equipment socket and the second equipment socket.

98. The person support system of claim 97, wherein the person support apparatus is
configured to move between a substantially planar configuration to a chair egress configuration
while the person support accessory is coupled thereto.

99. The person support system of claim 97, wherein the first equipment socket and the
second equipment socket are vertically oriented.
100. The person support system of claim 97, wherein the seat portion of the deck includes a seat panel, a thigh panel, and side panels, the seat panel and the thigh panel being movably coupled to the frame and the side panels being secured to the seat portion of the frame, the side panels being spaced apart and extending substantially parallel to one another along the length of the frame, the seat panel and the thigh panel being positioned between the side panels.

101. The person support system of claim 100, wherein at least one of the side panels includes a hole there thorough, the hole being configured to allow the second equipment socket to be accessed through the seat portion.

102. The person support system of claim 101, wherein the hole is located adjacent to a perimeter edge of the deck extending along the length of the deck.

103. The person support system of claim 102, wherein a person support surface is supported on the deck and is configured to cover at least a portion of the hole when the person support accessory is not coupled to the second equipment socket.

104. The person support system of claim 103, wherein the hole is positioned adjacent to the perimeter edge of the person support surface.

105. The person support system of claim 97, wherein the seat portion of the deck includes a seat panel and a thigh panel, at least one of the seat panel and the thigh panel including a hole configured to allow the second equipment socket to be accessed through the seat portion.

106. The person support system of claim 97, wherein at least one of the seat panel and the thigh panel is movably coupled to the frame.

107. The person support system of claim 97, wherein the person support accessory includes at least two substantially vertical members connected to the frame by the first equipment socket and the second equipment socket and a connecting assembly that extends between the two substantially vertical members, the person support accessory extending diagonally across the frame.
108. The person support system of claim 97, wherein the person support accessory includes a traction frame.

109. The person support system of claim 108, wherein a handle is coupled to the traction frame to assist a person attempting to egress from the person support apparatus when the person support apparatus is in the chair egress configuration.

110. The person support system of claim 109, wherein the handle extends outwardly from the traction frame in a deployed position.

111. The person support system of claim 97, wherein the person support accessory includes a patient helper configured to help a person move from a first position to a second position.

112. The person support system of claim 97, wherein the person support accessory consists of a first vertical member and a second vertical member coupled to the frame via the first equipment socket and the second equipment socket and a connector assembly extending between the first vertical member and the second vertical member.

113. The person support system of claim 112, wherein the person support accessory extends diagonally across the frame.

114. The person support system of claim 97, wherein the person support accessory consists of a first vertical member and a second vertical member and a third vertical member coupled to the frame and a first connector assembly extending between the first vertical member and the second vertical member and a second connector assembly extending between the first connector and the third vertical member.

115. The person support system of claim 97, wherein the person support accessory consists of a first vertical member and a second vertical member and a third vertical member coupled to the frame and a first connector connected to the first vertical member and a second connector connected to the second vertical connector and a third connector connected to the third vertical member, the first connector and the second connector and the third connector connecting to one another at a joint.
116. The person support system of claim 97, wherein the person support apparatus includes a third equipment socket coupled to the head portion of the frame and a fourth equipment socket coupled to the seat portion of the frame.

117. The person support system of claim 116, wherein the person support accessory includes a first vertical support connected to the first equipment socket, a second vertical support connected to the third equipment socket, a third vertical support connected to the second equipment socket, a first connector assembly extending between the second vertical support and the third vertical support, and a second connector assembly extending from the first vertical support to define a cantilever.

118. The person support system of claim 117, wherein the second connector assembly is slidably coupled to the first connector assembly.

119. The person support system of claim 116, wherein the person support accessory includes a first vertical support connected to the first equipment socket, a second vertical support connected to the third equipment socket, a third vertical support connected to the second equipment socket and a connector assembly connecting the first vertical support, the second vertical support and the third vertical support.

120. The person support system of claim 119, wherein the second vertical support is rotatably coupled to the connector assembly and is configured to be rotated between a first position where the third vertical support is connected to the second equipment socket and a second position where the third vertical support is connected to the fourth equipment socket.

121. A person support apparatus including a head portion, a seat portion, and a foot portion, comprising:
   a lower frame;
   a lift mechanism coupled to the lower frame;
   an upper frame movably supported above the lower frame by the lift mechanism, the lift mechanism being configured to raise and lower the upper frame with respect to the lower frame;
   a deck movably supported on the upper frame;
   a first equipment socket coupled to the head portion of the upper frame; and
a second equipment socket coupled to the seat portion of the upper frame, wherein the first equipment socket and the second equipment socket are configured to couple a person support accessory to the person support apparatus.

122. The person support system of claim 121, wherein the deck, the upper frame, and the lift mechanism are configured to cooperate to move the person support apparatus between a first position where the deck is substantially planar and a second position where the person support apparatus is in a chair egress configuration.

123. The person support system of claim 121, wherein the first equipment socket and the second equipment socket are vertically oriented.

124. The person support system of claim 121, wherein the seat portion of the deck includes a seat panel, a thigh panel, and side panels, the seat panel and the thigh panel being movably coupled to the upper frame and the side panels being secured to the seat portion of the upper frame, the side panels being spaced apart and extending substantially parallel to one another along the length of the upper frame, the seat panel and the thigh panel being positioned between the side panels.

125. The person support system of claim 124, wherein at least one of the side panels includes a hole therethrough, the hole being configured to allow the second equipment socket to be accessed through the seat portion.

126. The person support system of claim 125, wherein the hole is located adjacent to a perimeter edge of the deck extending along the length of the deck.

127. The person support system of claim 126, wherein a person support surface is supported on the deck and is configured to cover at least a portion of the hole when the person support accessory is not coupled to the second equipment socket.

128. The person support system of claim 127, wherein the hole is positioned adjacent to the perimeter edge of the person support surface.
129. The person support system of claim 121, wherein the seat portion of the deck includes a seat panel and a thigh panel, at least one of the seat panel and the thigh panel including a hole configured to allow the second equipment socket to be accessed through the seat portion.

130. The person support system of claim 121, wherein at least one of the seat panel and the thigh panel is movably coupled to the upper frame.

131. The person support system of claim 121, wherein the person support accessory includes at least two substantially vertical members connected to the upper frame by the first equipment socket and the second equipment socket and a connecting assembly that extends between the two substantially vertical members, the person support accessory extending diagonally across the upper frame.

132. The person support system of claim 121, wherein the person support accessory includes a traction frame.

133. The person support system of claim 132, wherein a handle is coupled to the traction frame to assist a person attempting to egress from the person support apparatus when the person support apparatus is in the chair egress configuration.

134. The person support system of claim 133, wherein the handle extends outwardly from the traction frame in a deployed position.

135. The person support system of claim 121, wherein the person support accessory includes a patient helper configured to help a person move from a first position to a second position.

136. The person support system of claim 121, wherein the person support accessory consists of a first vertical member and a second vertical member coupled to the upper frame via the first equipment socket and the second equipment socket and a connector assembly extending between the first vertical member and the second vertical member.

137. The person support system of claim 136, wherein the person support accessory extends diagonally across the upper frame.
138. The person support system of claim 121, wherein the person support accessory consists of a first vertical member and a second vertical member and a third vertical member coupled to the upper frame and a first connector assembly extending between the first vertical member and the second vertical member and a second connector assembly extending between the first connector and the third vertical member.

139. The person support system of claim 121, wherein the person support accessory consists of a first vertical member and a second vertical member and a third vertical member coupled to the upper frame and a first connector connected to the first vertical member and a second connector connected to the second vertical connector and a third connector connected to the third vertical member, the first connector and the second connector and the third connector connecting to one another at a joint.

140. The person support system of claim 121, wherein the person support apparatus includes a third equipment socket coupled to the head portion of the upper frame and a fourth equipment socket coupled to the seat portion of the upper frame.

141. The person support system of claim 140, wherein the person support accessory includes a first vertical support connected to the first equipment socket, a second vertical support connected to the third equipment socket, a third vertical support connected to the second equipment socket, a first connector assembly extending between the second vertical support and the third vertical support, and a second connector assembly extending from the first vertical support to define a cantilever.

142. The person support system of claim 141, wherein the second connector assembly is slidably coupled to the first connector assembly.

143. The person support system of claim 140, wherein the person support accessory includes a first vertical support connected to the first equipment socket, a second vertical support connected to the third equipment socket, a third vertical support connected to the second equipment socket and a connector assembly connecting the first vertical support, the second vertical support and the third vertical support.
144. The person support system of claim 143, wherein the second vertical support is rotatably coupled to the connector assembly and is configured to be rotated between a first position where the third vertical support is connected to the second equipment socket and a second position where the third vertical support is connected to the fourth equipment socket.

145. The person support system of claim 121, wherein the deck, the upper frame, and the lift mechanism are configured to cooperate to move the person support apparatus between a first position where the head portion, the seat portion, and the foot portion of the deck are substantially co-planar and a second position where the head portion, the seat portion, and the foot portion of the deck are not co-planar.
INTERNATIONAL SEARCH REPORT

Internationa1 application No.
PCT/US2012/057940

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - A61G 5/14 (2013.01)
USPC - 5/662

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - A61G 5/00, 5/10, 5/14, 7/00, 7/05, 7/03, 7/10, 7/14 (2013.01)
USPC - 5/81.1 R, 83.1, 84.1, 85.1, 87.1, 503.1, 600, 611, 613, 617, 618, 621, 624, 658, 662; 602/32, 33

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - A61G 5/10, 5/14, 7/00 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, Google Patents

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>US 4,375,707 A (BOERIGTER) 08 March 1983 (08.03.1983) entire document</td>
<td>1, 14-18, 20, 29-33, 35, 45-49</td>
</tr>
<tr>
<td>Y</td>
<td></td>
<td>60, 66, 107, 113</td>
</tr>
<tr>
<td>A</td>
<td>US 1,046,830 A (MCDONALD et al) 10 December 1912 (10.12.1912) entire document</td>
<td>1-73, 97-120</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:
  "A" document defining the general state of the art which is not considered to be of particular relevance
  "E" earlier application or patent but published on or after the international filing date
  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
  "O" document referring to an oral disclosure, use, exhibition or other means
  "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search: 06 February 2013

Date of mailing of the international search report: 19 FEB 2013

Name and mailing address of the ISA/US
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PCTOSP: 571-272-7774

Form PCT/ISA/2 10 (second sheet) (July 2009)
**INTERNATIONAL SEARCH REPORT**

**Box No. II  Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
   because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
   because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III  Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

(See Continuation Sheet Attached)

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☑ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
   - claims 1-73, 97-120

**Remark on Protest**

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet (2)) (July 2009)
CONTINUATION OF BOX III

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-73, 97-120 are drawn to a person support accessory.

Group II, claims 74-96, 121-145 are drawn to a person support apparatus including a head portion, a seat portion, and a foot portion.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I invention is a first support structure coupled to a person support apparatus and extending substantially vertically there from; a second support structure coupled to the person support apparatus and extending substantially vertically there from; and a support structure coupled to the first support structure and the second support structure are not present in the invention of Group II; and the special technical feature of the Group II invention is a lower frame; a lift mechanism coupled to the lower frame; an upper frame movably supported above the lower frame by the lift mechanism, the lift mechanism being configured to raise and lower the upper frame with respect to the lower frame; a deck, a first equipment socket; and a second equipment socket, wherein the first equipment socket and the second equipment socket are configured to couple a person support accessory to the person support apparatus are not present in the invention of Group I.

Since none of the special technical features of the Groups I and II inventions is found in more than one of the inventions, unity is lacking.