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Barraclough

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[54] **PACK-BED**

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[52] **U.S. Cl.** ..... **5/113;** 5/82; 135/1 R

[51] **Int. Cl.**[2] **A47B 83/04**

[58] **Field of Search** ..... 5/82, 112, 113, 114, 126, 5/128; 224/9 R, 25 A; 135/1 R

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Attorney, Agent, or Firm—Ulle C. Linton

[57] **ABSTRACT**

A combined stretcher and pack wherein the stretcher comprises a substantially rectangular shaped rigid frame hinged so as to fold into a suitable sized pack frame, a series of hingedly mounted legs attached to said frame to elevate the bed in its assembled position, a sheet of sufficient width and length to form both the upper and lower cover for the bed, lower portion of the sheet being secured to the bed frame, said sheet being such that when the bed is folded the sheet forms the pack.

23 Claims, 8 Drawing Figures

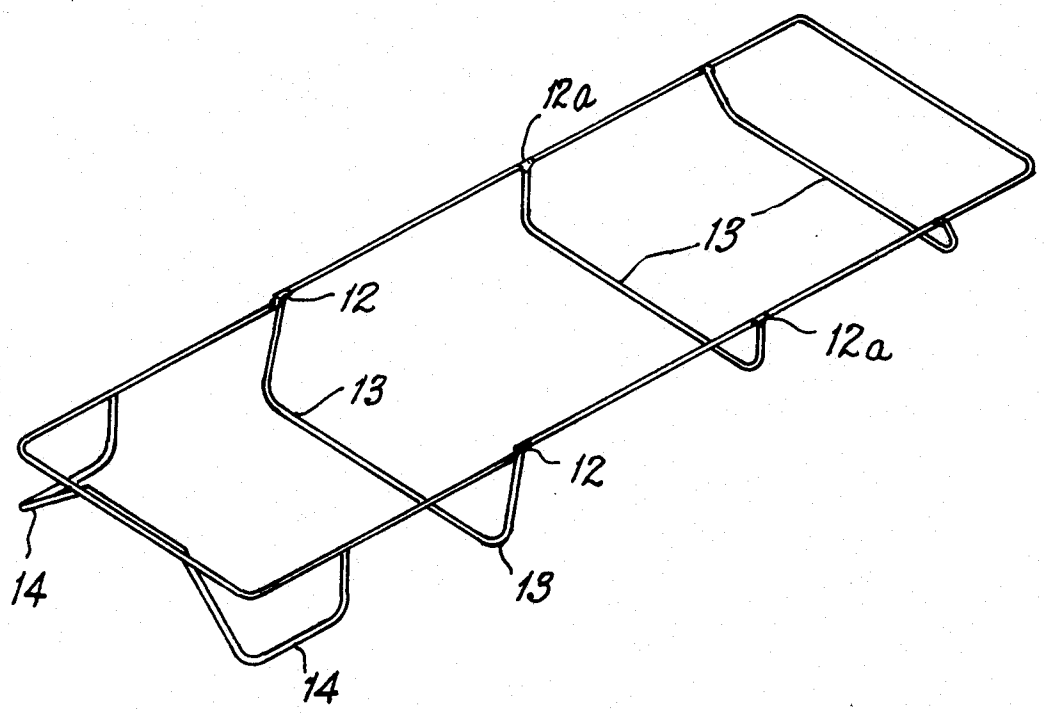
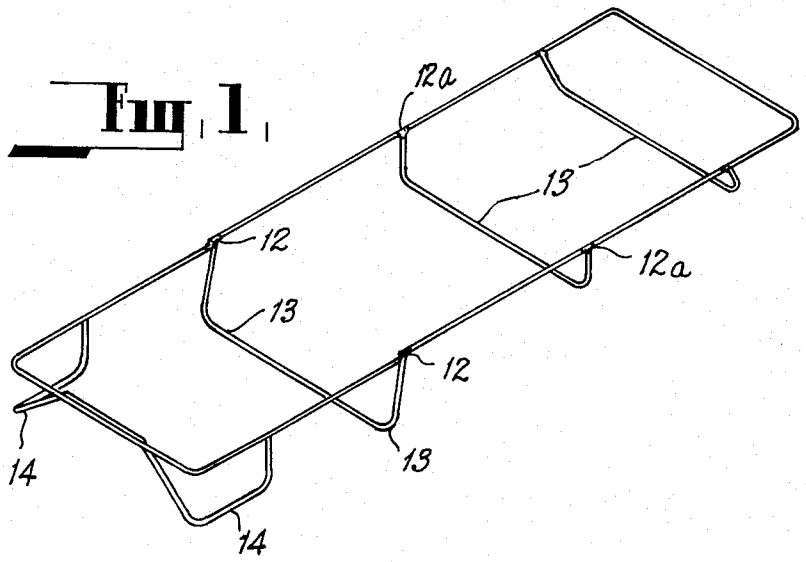


Fig. 1



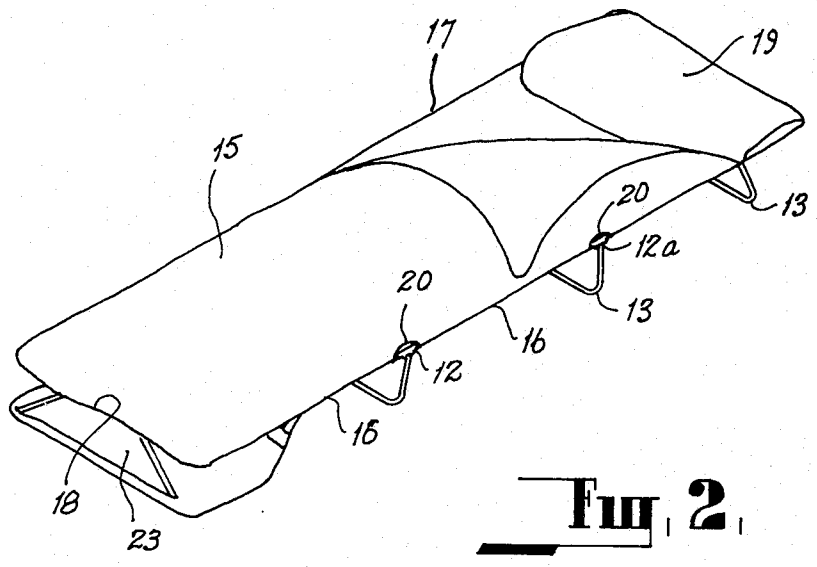
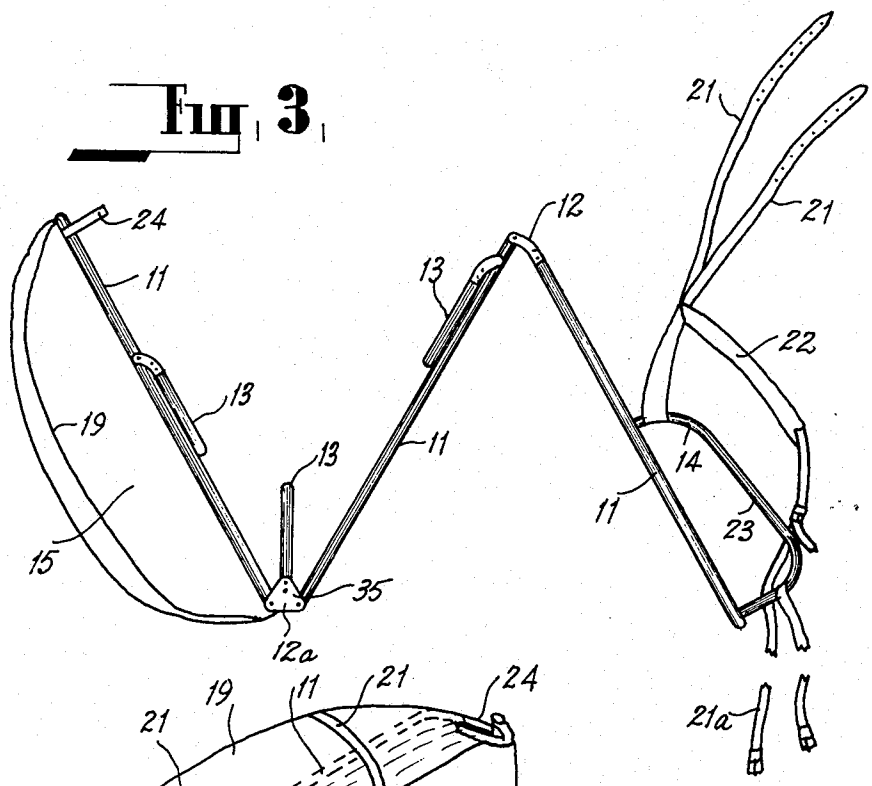


Fig. 2

Fig. 3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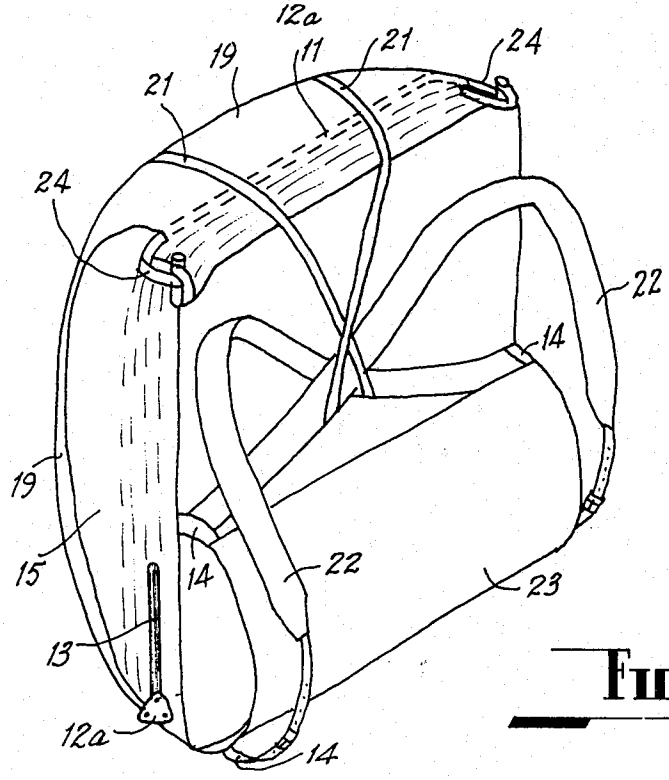
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Fig. 4

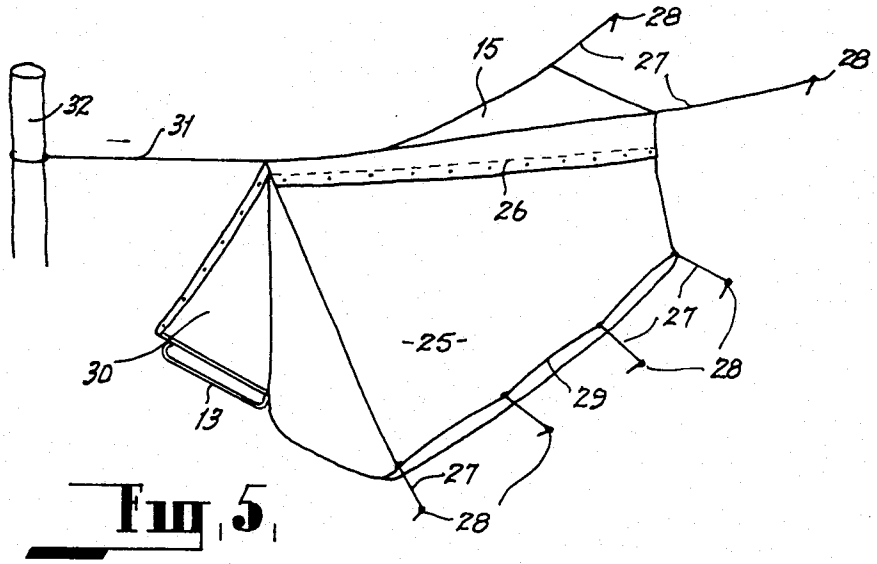
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Fig. 5

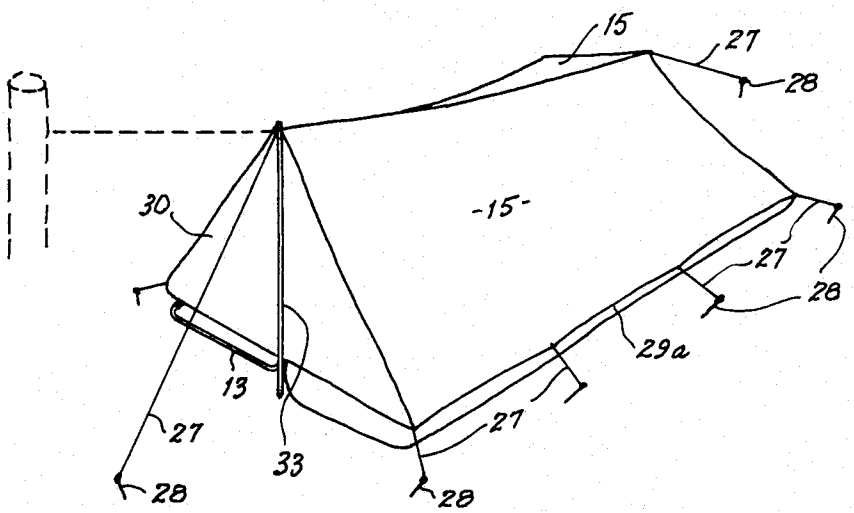
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Fig. 6

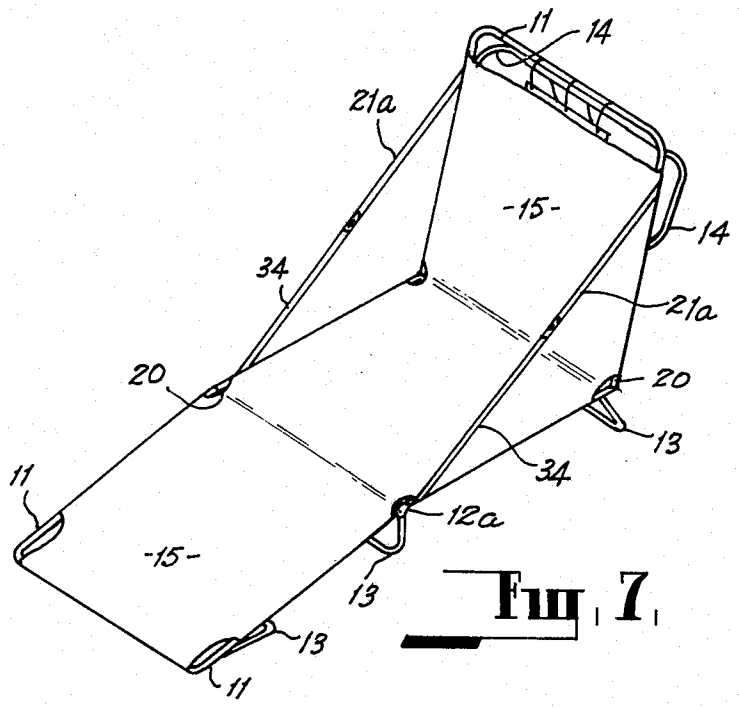
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Fig. 7

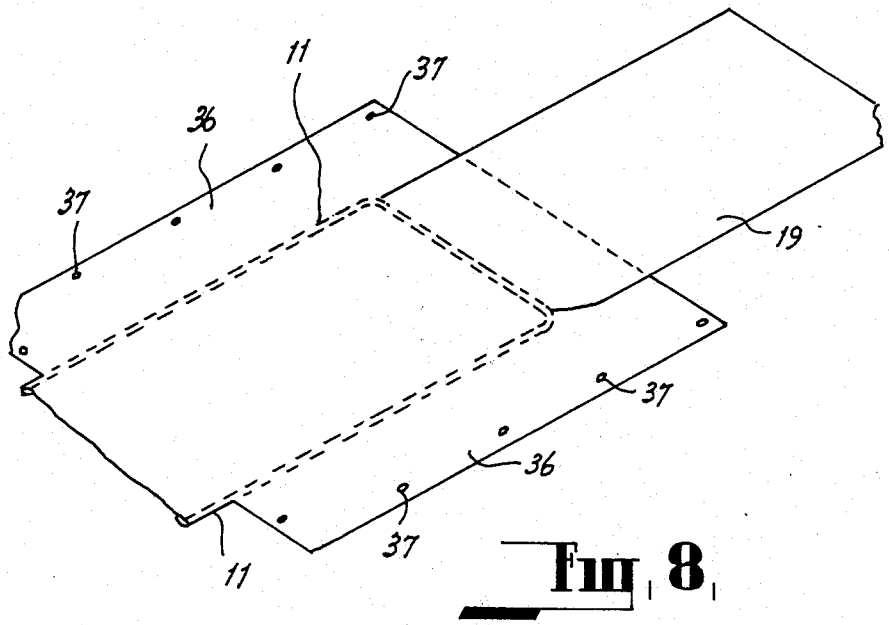
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Fig. 8

PACK-BED

This invention relates to a HIkers Pack-bed.

Heretofore hikers, bushwalkers, campers and the like have had to carry their sleeping equipment separately from their pack. This especially being the case if a stretcher type of bed is to be used. However, due to the awkwardness and weight involved this method was soon abandoned and the rucksack style of pack was developed whereby a sleeping bag can be conveniently stowed for transport within the pack and forms an integral part of the pack. This type of pack was developed in an attempt to try and reduce the weight that had to be carried by the bushwalker. In most cases besides carrying a sleeping bag within the pack it also became necessary to include a water proof ground sheet which would be placed beneath the sleeping bag to ensure that ground moisture did not penetrate the sleeping bag. This means that an additional piece of equipment had to be carried thus adding to the hikers load and even when his "camp" was set up and the hiker bedded down for the night more often than not he did not have as comfortable a nights sleep as he would have liked.

The object of this invention is to provide a pack which overcomes all of the above described disadvantages in that the frame of the pack is formed from a collapsible stretcher thereby providing the hiker with a combination pack and elevated bed which substantially reduces the weight carried when separate pack, ground cover and sleeping bag are used.

In one form the invention resides in a combined stretcher and pack wherein the stretcher comprises a substantially rectangular shaped rigid frame hinged so as to fold into a suitable sized pack frame, a series of hingedly mounted legs attached to said frame to elevate the bed in its assembled position, a sheet of sufficient width and length to form the upper and lower cover for the bed, lower portion of the sheet being secured to the bed frame, said sheeting being such that when the bed is folded into its pack form the sheet forms the pack.

In another form the combination stretcher and pack as outlined above may be constructed with the head end portion of the lower sheet comprising an inflatable bladder for use as a pillow and constructed so that when the said pillow section is deflated it may be used as the pack cover.

A still further form of the invention resides in a combined stretcher and pack as described above wherein the upper sheet member may be substituted by a pair of flap sheet members secured to the longitudinal sides of the head portion of the frame such that when the pack is in its folded form said flap members fold inwardly to encase the framework and so form a pack.

The invention will be better understood by reference to the description of one specific embodiment as shown in the accompanying drawings wherein:

FIG. **1** is a perspective view of the stretcher frame;

FIG. **2** is a perspective view of the pack made-up as a bed;

FIG. **3** is a view of the invention being folded from the bed position to the pack form or vice versa;

FIG. **4** is a perspective view of the assembled pack;

FIG. **5** is a perspective view of a tent structure using the invention and a zip on cover;

FIG. **6** is a further perspective view of a tent structure using the invention and an additional, sewn on sheet.

FIG. **7** shows the foot end portion of the stretcher raised so as to form a chair; and

FIG. **8** shows the head end portion of the bed with flap members attached.

In this embodiment a stretcher comprising a substantially rectangular shaped rigid frame **11** is hinged at several points **12** along its length to allow the frame to be folded. A series of legs **13** are pivotally mounted on frame **11** to elevate the bed when in the down or locked position. A pair of fixed legs **14** are provided at the base of the bed. A sheet member **15** is attached to the frame **11** and is of sufficient length and width to form both the upper and lower covers for the bed. The portion of the sheet which is to form the base of the bed is attached to frame **11** by any suitable means. One side portion **16** being the fold of sheet **15** whilst the other side **17** is fitted with a zipper or similar device which will allow free entry and exit to the bed by the occupant. The foot end portion **18** of sheet member **15** is sealed by any suitable means such as by stitching, glueing or the use of a zipper or the like. The end result being one of an elevated sleeping bag. The head end portion **19** of the lower sheet member may be formed so as to hang over the end of the bed and may contain an inflatable pillow.

When the pillow is inflated the end portion is turned over onto the bed to be used as a pillow or when deflated the end portion is turned over and acts as a cover for the folded pack. A plurality of cut away sections **20** are provided in sheet **15** so as to enable the stretcher to freely fold and unfold.

To fold up as a pack, the legs **13** are swung inwardly and the frame **11** folded at points **12** as shown in FIG. **3.** Straps **21** are necessary to prevent the pack from unfolding and also assist in holding the pack contents in place. Shoulder straps **22** are provided for carrying the pack. A back support strap **23** is positioned between leg members **14** and shoulder straps **23** are attached to feet **14.** In the folded form the pillow is deflated and the head end portion **19** provides the water proof cover of the pack as shown in FIG. **4.** An inner bag may be provided for the pack to ensure that foodstuffs, utensils and the like will not soil or damage the interior of the bed. If necessary a small strap **24** or heavy elastic band may be used to hold the pack in its folded form while the straps **21** are fastened. Straps **24** also ensure that the pack frame **11** remains in the folded position during hiking.

A further form of the invention is illustrated in FIG. **8** of the accompanying drawings wherein the pack is constructed with a lower cover only. The upper sheet member is replaced by a pair of flap sheet members **36** which are secured to the longitudinal sides of the head portion **19** of the frame **11.** The upper head end portion **19** of the lower sheet member may still be formed so as to hang over the end of the bed and contain an inflatable pillow.

When the bed is folded into the pack form, flap sheet members **36** are folded inwardly so as to encase the framework and so form a pack. The periphery of the flap members is provided with a plurality of eyelets **37** or similar devices to enable the sheets to be secured in position.

This alternative method of folding the bed into a pack form enables a far more economical unit to be marketed and provides the consumer with several alternative pack beds. If desired the pack bed may be constructed with both an upper and lower cover of rela-

tively light material and be fitted with strong wearing flap sheet members. The flap sheet members protect the bed whilst hiking by preventing tears and the like from scrubs and rocks. With various attachments to the invention it is possible for the hiker to form a tent as shown in FIGS. **5** and **6** or if he so desires the bed can be converted into a chair as illustrated in FIG. **7** of the drawings. For the construction of a tent as shown in FIG. **5** of the drawings, the hiker need only carry one additional sheet of material **25.** This additional sheet is provided with a zipper **26** on one longitudinal edge to engage the top cover of the bed and a zipper on its other longitudinal edge to engage the lower sheet portion of the bed. Ropes **27** and pegs **28** are used to brace the construction with the ropes being connected to the tent through eyelets provided around its periphery **29.** The additional sheet member **25** also provides a floor for the tent construction. If required the opening **30** of the tent may be fitted with a removeable tent fly. The tent fly being fitted to the top cover by way of a zipper and clipped or tied to the additional sheet member. A rope or line **31** is connected from the apex of the opening **30** to a post **32** tree or any other suitable anchoring point.

FIG. **6** of the drawings shows an alternative method of constructing a tent out of the pack bed. The upper cover of the bed is made of sufficient width and shape so that it may be elevated by the use of a support column **33** or similar means and the periphery **29A** may be pegged out so as to form the tent as revealed in FIG. **6** of the drawings. When not in use as a tent the upper cover is used as shown in FIG. **2** of the drawings. To construct a lounge type of chair a small hole is formed into hinge member **12A.** A strap **34** fitted with a small hook on one end is attached to straps **21A** and the hook is engaged in the hole **35.** This elevates the foot end of the stretcher and] chair is formed.

Still further, a stretcher may be formed for carrying medical supplies, food and injured personnel into and out of remote and sometimes almost inaccessible areas. Two saplings need only to be cut and each one secured at several points along the longitudinal sides of the frame **11.** The saplings would then provide the necessary gripping and lifting means.

The invention whilst having been described with reference to one specific embodiment is not limited thereto. A bed constructed of members which telescope into one another to form a pack when in the closed position and to provide a frame for a bed with or without detachable feet when in the open position is also considered to fall within the scope of this invention. Similarly a bed may be constructed from a pack wherein the frame and legs are formed from separate members each fitting together by a male/female joint or other suitable connection.

Similarly whilst the description referred to various members being connected by the use of zippers it is not restricted to this type of connecting means and other means may be used if so desired. It can be seen from the above description that numerous applications can be made with this invention and its use is not restricted to those outlined nor to the method described of folding the bed or the way of attaching the bed base and cover to the bed frame.

I claim:

1. A combined stretcher and pack wherein the stretcher comprises a substantially rectangular shaped rigid bed frame hinged so as to fold into a suitable sized pack frame, a series of hingedly mounted legs attached to said frame to elevate the bed in its assembled position, a sheet of sufficient width and length to form the lower cover for the bed, and said sheet being secured to the bed frame, at least one flap member secured to one longitudinal side of the head portion of the frame such that when the bed is in its folded form, said flap member folds inwardly across member width of said stretcher to securely enclose the framework and so form a pack.

2. A combined stretcher and pack wherein the stretcher comprises a substantially rectangular shaped rigid bed frame hinged so as to fold into a suitable sized pack frame, a series of hingedly mounted legs attached to said frame to elevate the bed in its assembled position, a sheet of sufficient width and length to form both the upper and lower cover for the bed, lower portion of the sheet being secured to the bed frame, at least one flap member secured to one longitudinal side of the head portion of the frame such that when the bed is in its folded form said flap members folds inwardly across the width of said stretcher to securely encase the framework and so form a pack.

3. A combined stretcher and pack wherein the stretcher comprises a substantially rectangular shaped rigid bed frame hinged so as to fold into a suitable sized pack frame, a series of hingedly mounted legs attached to said frame to elevate the bed in its assembled position, a sheet of sufficient width and length to form both the upper and lower cover for the bed, lower portion of the sheet being secured to the bed frame, a pack suitably shaped and adapted to be secured to the stretcher such that when the stretcher is in its folded position the pack attains a substantially upright position and when the stretcher is in its unfolded position the pack attains a substantially horizontal position.

4. A combined stretcher and pack wherein the stretcher comprises a substantially rectangular shaped rigid bed frame hinged so as to fold into a suitable sized pack frame, a series of hingedly mounted legs attached to said frame to elevate the bed in its assembled position, a sheet of sufficient width and length to form the lower cover for the bed, a pack suitably shaped and adapted to be secured to the stretcher such that when the stretcher is in its folded position the pack attains a substantially upright position and when the stretcher is in its unfolded position the pack attains a substantially horizontal position.

5. A combined stretcher and pack as claimed in claim **3** wherein the interior of the pack is accessable in both the upright and horizontal positions.

6. A combined stretcher and pack as claimed in claim **4** wherein the interior of the pack is accessable in both the upright and horizontal positions.

7. A combined stretcher and pack as claimed in claim **1,** wherein the lower foot end section of the frame is provided with legs, said legs being linked by a back support strap and carrying straps and pack retaining straps being attached to said legs.

8. A combined stretcher and pack as claimed in claim **2,** wherein the lower foot end section of the frame is provided with legs, said legs being linked by a back support strap and carrying straps and pack retaining straps being attached to said legs.

9. A combined stretcher and pack as claimed in claim **3,** wherein the lower foot end section of the frame is

provided with legs, said legs being linked by a back support strap and carrying straps and pack retaining straps being attached to said legs.

10. A combined stretcher and pack as claimed in claim **4,** wherein the lower foot end section of the frame is provided with legs, said legs being linked by a back support strap and carrying straps and pack retaining straps being attached to said legs.

11. A combined stretcher and pack as claimed in claim **1,** wherein the foot end portion of the stretcher may be elevated and fastened by suitable means to the framework so as to form a chair.

12. A combined stretcher and pack as claimed in claim **2,** wherein the foot end portion of the stretcher may be elevated and fastened by suitable means to the framework so as to form a chair.

13. A combined stretcher and pack as claimed in claim **3,** wherein the foot end portion of the stretcher may be elevated and fastened by suitable means to the framework so as to form a chair.

14. A combined stretcher and pack as claimed in claim **4,** wherein the foot end portion of the stretcher may be elevated and fastened by suitable means to the framework so as to form a chair.

15. A combined stretcher and pack as claimed in claim **2,** wherein an additional sheet member is attached to the bed upper and lower sheets such that when the additional sheet is elevated and its periphery "pegged out" then a tent is constructed.

16. A combined stretcher and pack as claimed in claim **3,** wherein an additional sheet member is attached to the bed upper and lower sheets such that when the additional sheet is elevated and its periphery "pegged out" then a tent is constructed.

17. A combined stretcher and pack as claimed in claim **2,** wherein the upper cover is constructed of sufficient width such that when the upper cover is elevated and "pegged out" then a tent is constructed.

18. A combined stretcher and pack as claimed in claim **3,** wherein the upper cover is constructed of sufficient width such that when the upper cover is elevated and "pegged out" then a tent is constructed.

19. A combined stretcher and pack wherein the stretcher comprises a substantially rectangular shaped rigid bed frame hinged so as to fold into a suitable sized pack frame, a series of hingedly mounted legs attached to said frame to elevate the bed in its assembled position, a sheet of sufficient width and length to form the lower cover for the bed, said sheet being secured to the bed frame, at least one flap member secured to at least one longitudinal side of the head portion of the frame such that when the bed is in its folded form, said flap member folds inwardly across the width of said stretcher to securely enclose the framework and so form a pack, the upper head portion of said sheet being fitted with an inflatable bladder for use as a pillow when inflated and when in a deflated condition serves to act as a pack cover when the pack is in the folded position.

20. A combined stretcher and pack wherein the stretcher comprises a substantially rectangular shaped rigid bed frame hinged so as to fold into a suitable sized pack frame, a series of hingedly mounted legs attached to said frame to elevate the bed in its assembled position, a sheet of sufficient width and length to form both the upper and lower cover for the bed, lower portion of the sheet being secured to the bed frame, at least one flap member secured to at least one longitudinal side of the head portion of the frame such that when the bed is in its folded form said flap member folds inwardly across the width of said stretcher to securely encase the framework and so form a pack, the upper head portion of the lower bed cover being fitted with an inflatable bladder for use as a pillow when inflated and when in a deflated condition serves to act as a pack cover when the pack is in the folded position.

21. A combined stretcher and pack wherein the stretcher comprises a substantially rectangular shaped rigid bed frame hinged so as to form into a suitable sized pack frame, a series of hingedly mounted legs attached to said frame to elevated the bed in its assembled position, a sheet of sufficient width and length to form both the upper and lower cover for the bed, lower portion of the sheet being secured to the bed frame, a pack suitably shaped and adapted to be secured to the stretcher such that when the stretcher is in its folded position the pack attains a substantially upright position and when the stretcher is in its unfolded position, the pack attains a substantially horizontal position, the upper head portion of the lower bed cover being fitted with an inflatable bladder for use as a pillow when inflated and when in a deflated condition serves to act as a pack cover when the pack is in the folded position.

22. A combined stretcher and pack wherein the stretcher comprises a substantially rectangular shaped rigid bed frame hinged so as to fold into a suitable sized pack frame, a series of hingedly mounted legs attached to said frame to elevate the bed in its assembled position, a sheet of sufficient width and length to form the lower cover for the bed, a pack suitably shaped and adapted to be secured to the stretcher such that when the stretcher is in its folded position the pack attains a substantially upright position and when the stretcher is in its unfolded position the pack attains a substantially horizontal position, the upper head portion of said sheet being fitted with an inflatable bladder for use as a pillow when inflated and when in a deflated condition serves to act as a pack cover when the pack is in the folded position.

23. A combined stretcher and pack wherein the stretcher comprises a substantially rectangular shaped rigid bed frame hinged so as to fold into a suitable sized pack frame, a series of hingedly mounted legs attached to said frame to elevate the bed in its assembled position, a sheet of sufficient width and length to form both the upper and lower cover for the bed, the lower portion of the sheet being secured to the bed frame, the upper head portion of the lower bed cover being fitted with an inflatable bladder for use as a pillow when inflated and when in a deflated condition serves to act as a pack cover when the pack is in the folded position.

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