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Ebert

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[54] **ACCESSORY FOR USE WITH A SLEEPING BAG**

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[52] **U.S. Cl.** **5/343,** 5/121

[51] **Int. Cl.** **A47g 9/00,** A47g 9/08

[58] **Field of Search** 5/93, 97, 121, 343, 344; 248/150, 167

[56] **References Cited**

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3,584,323	6/1971	Worley	5/343
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[57] **ABSTRACT**

An accessory article for use in combination with a sleeping bag which article is foldable into a lightweight, compact package for convenience in carrying, especially by a backpack camper. The accessory article comprises a folding frame composed of at least three generally C shaped elements pivotally connected at each end. A tubular body open at one end and fabricated of a water impermeable, flexible material on the bottom and of a flexible porous material on top having sufficient pores to permit passage of air therethrough but the openings being of a size smaller than common insects to keep insects and such away from the person using the sleeping bag and accessory article. A flap of water impermeable material is attached to the closed end of the tubular body and attaching devices are included on the end thereof. In using the article, the frame assembly is opened and the head end of the sleeping bag is placed over the pivot point of the frame and the tubular body is slipped over the frame and head end of the sleeping bag. The flap may be left open or closed when desired such as in rainy weather.

12 Claims, 4 Drawing Figures

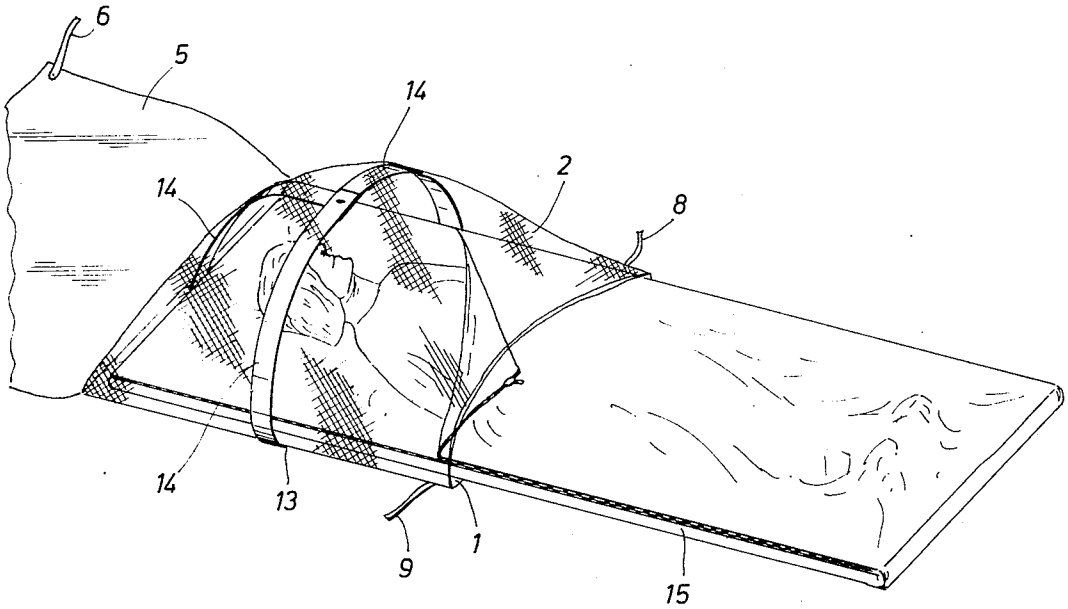


FIG. 1

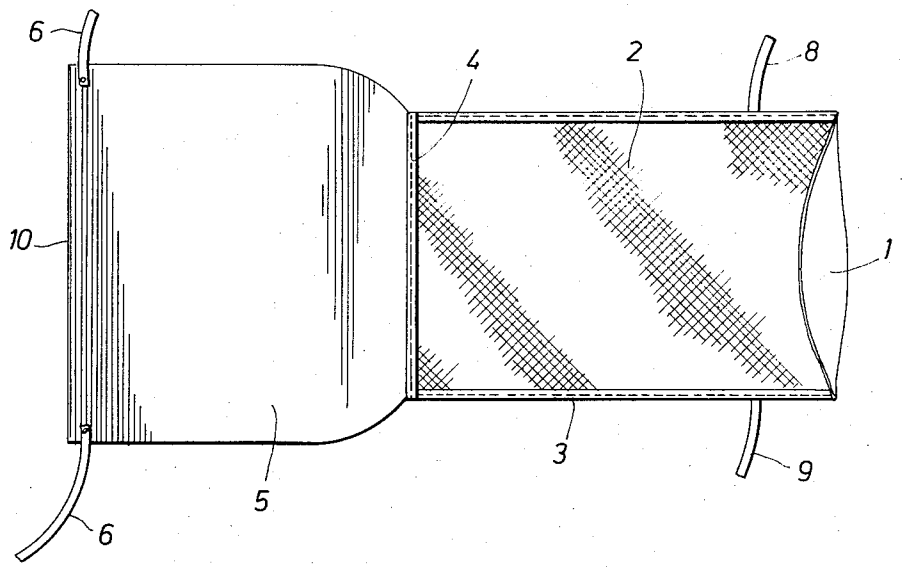
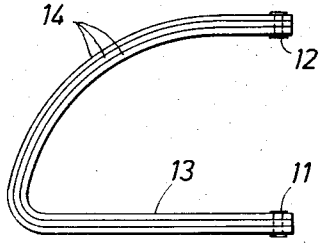


FIG. 2



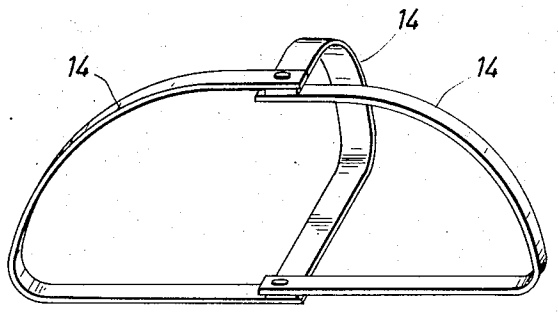


FIG. 3

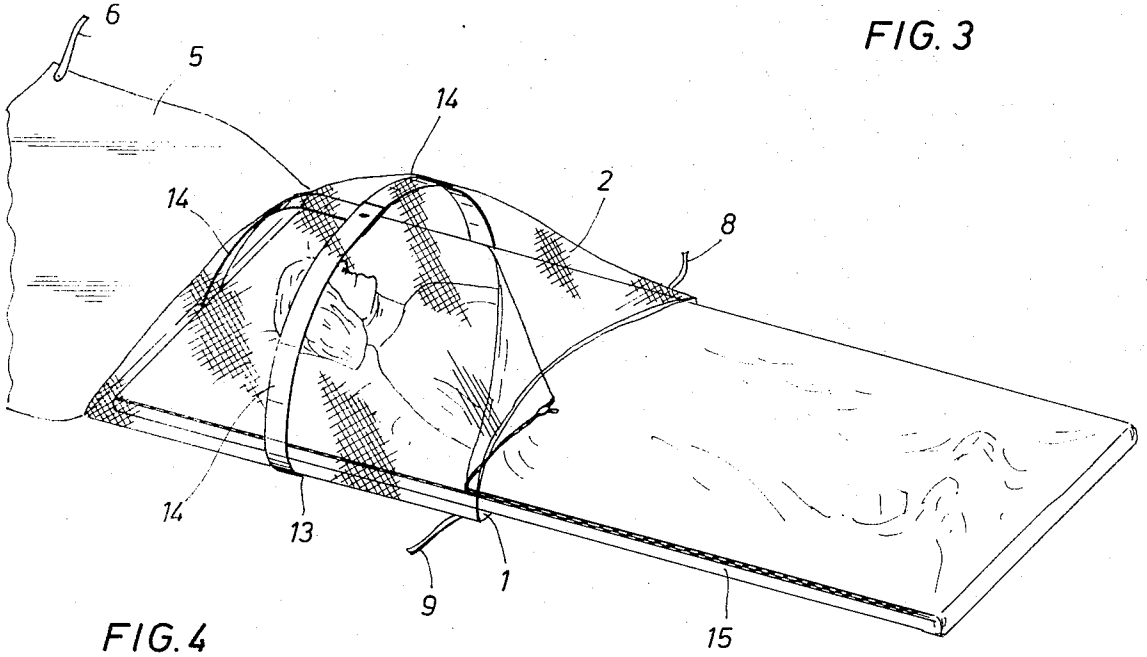


FIG. 4

ACCESSORY FOR USE WITH A SLEEPING BAG

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention pertains to an accessory article for use in conjunction with a sleeping bag to provide the user of the sleeping bag with protection against insects and shelter from rain and cold.

2. Background and Prior Art

Camping is becoming increasingly popular with many people. While some persons prefer to use large tents or trailers for camping, providing considerable comfort and convenience, many persons prefer the simpler, more primative style of camping using only a sleeping bag as combination bed and cover. Sleeping bags are especially popular with persons who prefer to backpack or carry everything needed for their camping trip in a pack strapped to their back, and hike into the area where they intend to camp. Indeed there are many beautiful camping areas which are not accessable to cars or other vehicles.

While campers may choose to forego many luxuries when camping, there are basic elements of shelter which most persons would prefer not to do without for reasons of comfort or health. For example, there are many types of insects which can be bothersome or even dangerous, and there is a substantial need for keeping insects away from the campers face and body while he is sleeping. Furthermore, rain and other adverse weather conditions can cause substantial discomfort and inconvenience. There is accordingly a need for providing shelter from rain and the like.

The above described needs have been recognized at least in part by the persons skilled in the art, and solutions have been proposed therefore in the prior art. For example, in U.S. Pat. No. 2,015,588, Brown, 1935, there is described a sleeping bag having a canopie supported by rigid upright and horizontal members and steadied laterally by guy lines attached to nearby trees and the like. An insect-proof enclosure is included and so insect and rain protection is provided the user. While this arrangement does provide appreciable protection, it is difficult and time consuming to set up and requires external items for errection such as sapling trunks for the support elements and trees to attach the guy lines to. Such items are not always available and furthermore the assembley is bulky, heavy and does not readily fold for inclusion in a back pack or the like.

In U.S. Pat. No. 2,594,438, Howe, 1952, there is disclosed a sleeping bag having a self supporting, rigid insect guard over the head of the user when protection from insects is desired. While the arrangement does provide the desired protection, it is bulky and not susceptible to folding in any manner as is required for use in a backpack.

In U.S. Pat. No. 2,555,051, Miller, 1951, there is disclosed a sleeping bag having a head assembly attached to the head end of the sleeping bag supported by an assembley of straight vertical and horizontal frame members steadied by guy wires anchored on their outer ends to anchors driven into the ground. While this design affords appreciable protection from insects and foul weather, it is not readily collapsible into a small volume, convenient for packing and is not self supporting.

From the foregoing discussion it can be readily appreciated that there is still a substantial, unfulfilled need for an accessory unit which will provide protection from insects and inclimate weather when desired, and which is readily folded into a lightweight, small volume, compact unit for inclusion in a back pack or the like, and which may be quickly and easily assembled when needed and is self supporting and self sufficient.

It is an object of the present invention to provide an accessory article for use with an ordinary sleeping bag which will provide the user thereof with protection from insects, and from rain, wind and cold weather when desired.

Another object of the present invention is to provide such an article in a form which is readily foldable into a lightweight package of a sufficiently small size that it can be carried in a back pack.

Still another object of my invention is to provide an accessory article which is self sufficient, requiring no branches or other items to be obtained from the camping area.

Still another object of the present invention is to provide a unit which is self supporting and requires no guy wires or lines to provide lateral support.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of the main tubular body of the article of my invention, showing the waterproof bottom, top insect-proof cover and rain-proof weather flap.

FIG. 2 is a view of the three element frame in a folded configuration for inclusion in a backpack.

FIG. 3 is a perspective view of the frame in an opened position, ready to support the insect-proof cover.

FIG. 4 is a perspective view of the accessory article in use showing its relation to a sleeping bag, with the insect proof cover in place and the weather flap folded back out of the way.

SUMMARY OF THE INVENTION

The accessory article or kit is comprised of a multi-element folding frame assembley and a tubular body which fits over the frame and head end of the sleeping bag. The frame assembley is formed of three generally C shaped rigid members pivotally connected together at each end. The two pivot points axes are essentially in line, and in use one pivot point will be below the head portion of the sleeping bag and the other will be immediately above the head of the user. When the elements are folded together the frame is very compact; whereas when the frame is folded out it defines a space for the head of the camper and provides support for the insect restraining top of the tubular body and the weather flap if needed. The frame is entirely self supporting and requires neither guy lines or the like nor vertical supports to be fashioned from branches or other items from the camping area. The tubular body is constructed of flexible material, sewn or otherwise fastened along two sides and one end, but open on the other end. Attached to the closed end is a weather flap of flexible, water-proof material such as thin plastic sheeting or treated canvas or the like, and has fastening devices near the outer corners thereof for attaching to similar fastening devices on the open end of the tubular body when it is desired to position the weather flap in place above the frame. The bottom of the tubular body is constructed of water-proof material such as plastic film or canvas, and the upper part of the tubular body is constructed of a flexible, porous material such as woven mosquito netting. The dimensions of the frame

elements are such that the sleeping bag with which the article is to be used can be inserted between the two frame elements when they are in a maximum 180° open position, with the middle frame element extended behind the head end of the sleeping bag. The tubular body of the article must similarly be large enough to slip easily over the frame assembley in an opened configuration.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

My invention can best be understood by referring to the drawings, in which FIG. **1** is a plan view of the tubular body. The tubular body is constructed of a water proof bottom panel **1** which will be essentially flat and, when in use, will be immediately under the sleeping bag bottom. The bottom panel is preferably made of flexible, non-porous plastic sheeting such as polyethylene film from about two to about ten mils in thickness. Waterproof canvas or duck may also be used. The width of the bottom panel will be at least a few inches greater than the width of the sleeping bag with which it is to be used. Attached to the bottom panel along both sides and one end is the top panel **2,** which is constructed of a porous material to facilitate free passage of air therethrough. Open mesh, woven material such as cheesecloth or mosquito netting is quite satisfactory for the top panel. In order to avoid the need for one or more closure seams, the top panel is made of a very flexible material and with considerable fullness, and may be pleated to provide still more fullness, so the user can slide the panel up to facilitate getting into and out of the sleeping bag, and to prevent the top panel to be pulled back into position when the camper is in position in the sleeping bag. The end of the top panel will fall loosely against the top of the sleeping bag, thereby providing an insect-proof closure without the need for a zipper or other fastening device.

In a slightly different embodiment, closure devices such as zippers or the loop and hook, all fabric closure devices such as Velcrotabs are provided along one edge of the tubular body to facilitate entering the sleeping bag with the insect retarding screen in place. For example, in FIG. **1,** seam **3** sould be replaced by a zipper or Velcrotab strip for the convenience of the user. Similarily, fastening devices such as snaps may be placed along the open end of the top panel for making connections with corresponding devices added to the top of the sleeping bag. While such closure devices add to the convenience of the accessory article of my invention they also will increase the cost and weight thereof.

Attached to the closed end **4** of the tubular body is weather flap **5** constructed of a waterproof, flexible and lightweight material similar to that used for bottom panel **1.** This flap may be left lying back of the accessory article on the ground when the weather is good, or may be placed over the supporting frame in rainy, cold ow windy weather. To insure that the weather flap stays in position, some type of fastening device is provided. For example, in the embodiment illustrated in FIG. **1,** strips **6** and **7** are attached near the outer corners of weather flap **5,** and corresponding tie strips **8** and **9** are attached on each side and near the open end of the main tubular body. When the camper desires to place the weather flap in place, as for example if it were raining, he would pull end **10** of flap **5** over the frame, and tie strap **6** to strap **8** and tie strap **7** to strap **9.** This insures that the waterproof cover is held in place over the frame so as to prevent the top from being blown off.

FIG. **2** illustrates how the frame members fold together for storing. The frame assembley utilizes three or more elements, whose shape is illustrated in FIG. **2,** each element being slightly different in size so they will nest together, one inside the other when folded. The elements are pivotally connected at points **11** and **12,** and the axes of the pivots are in line. The top of bottom pivot **11** should be nearly flush with the frame elements since this portion will slip under the sleeping bag near the area where the head of the camper will rest.

The elements of the frame assembley may be fabricated of any suitable material which is light and strong, such as metal, plastic or wood. This strips of iron or steel are entirely satisfactory, since fairly thin gauge metal is sufficiently strong and rigid for this purpose. For example, steel strips from 1 to 2 inches wide and from about 1/16 to about ¼ inch may be utilized for the frame elements. Aluminum is also an excellent choice because it is light weight and non corrosive. Plastic, especially plastic reinforced with high tensile strength, fibrous material such as glass fibers is also a preferred material for use in making the frame elements.

It should be noted that the bottom portion **13** of each frame element is essentially flat, since this portion of the frame slides under the sleeping bag. The sides and top are preferably curved to provide a smooth lay of the top insect resistant panel.

In FIG. **3,** the frame elements are shown in opened configuration as they will be when in use supporting the top of the tubular body. Two of the frame elements are opened out completely, essentially in line, with the third frame element opened to a right angle to the line formed by the first and second element. It will be appreciated that the frame elements must be made of a sufficiently stiff material that they will retain their position when the frame assembley is opened up as shown in FIG. **3.** More than three frame elements may be used, and a slight improvement in function will result from the use of more than three elements, although the cost, weight and bulk of the assembley is also increased.

The method of using the accessory unit of my invention is shown in FIG. **4,** wherein a camper is in a sleeping bag **15** on the ground. The frame assembley of my invention is opened and the bottom **13** is placed under the head end of the sleeping bag. The sides **14** of the frame assembley are spread apart. The tubular body is slipped over the frame, with the bottom panel **1** being between the sleeping bag and the ground. The top panel **2** is stretched over the top of the frame assembley and the end of the top panel is resting against the top of the sleeping bag. The foul weather flap **5** is not in place, as is the normal situation in fair weather when only protection from mosquitos and other insects is needed. If the weather flap **5** were needed because of rain, for example, it would be brought over the top of the frame assembley, above top panel **2** and strips **6** and **8** would be tied together, as would strips **7** and **9,** to hold the weather flap in place.

While my invention has been described in terms of a number of illustrative embodiments, it is not so limited, and many variations thereof will be apparent to persons skilled in the related arts without departing from the true spirit and scope of my invention. It is my intention that my invention be limited or restricted only by such

limitations or restrictions as appear in the appended claims.

I claim:

1. An accessory article for use in combination with a sleeping bag to provide the occupant thereof with protection from insects and weather, comprising:

a. a self supporting frame assembly consisting of at least three generally C shaped elements, each pivotally connected together on each end to the corresponding ends of the other frame elements to form two pivot points with the pivot axes being essentially in line, the second and subsequent of such elements being identically shaped but sufficiently smaller then the preceeding frame element so that they will fit one inside the other when folded;

b. a flat, tubular body, the bottom of said tubular body being constructed of a flexible, water impermeable material, and the top panel being constructed of an air permeable, porous material, the size of said pores being smaller than the size of the insects from which protection is desired, said tubular body being closed on two sides and on one end, and open on one end, the inside dimension of said tubular body being greater than the sleeping bag;

c. a weather flap constructed of flexible, water-proof material, attached on at least one end to the closed end of the tubular body; and

d. connecting means on the weather flap on the tubular body for connecting same when protection from the weather is desired.

2. An aritcle as described in claim **1** wherein the frame assembly has three elements.

3. An article as described in claim **1** wherein the frame elements are constructed of a metal selected from the group consisting of steel, iron, aluminum and brass.

4. An article as recited in claim **1** wherein the frame elements are constructed of wood.

5. An article as recited in claim **1** wherein the top of the tubular body is constructed of a flexible woven cloth having openings therein smaller than the size of insects.

6. An article as recited in claim **1** wherein the weather flap is constructed of a flexible sheet plastic.

7. An article as recited in claim **1** wherein the connecting means on the tubular body are strips for tying to similar strips on the weather flap.

8. An article as recited in claim **1** wherein the bottom of the tubular body is constructed of sheet flexible plastic.

9. An article as recited in claim **1** wherein the tubular body has at least one side provided with a fastening means which may be opened for convenience in entering the article.

10. An article as recited in claim **9** wherein the fastening means is a zipper.

11. An article as recited in claim **9** wherein the fastening means is a fabric loop and hook fastener.

12. An article as recited in claim **1** wherein the frame elements are constructed of rigid plastic.

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