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2,656,844

COMBINED SLEEPING BAG AND TENT

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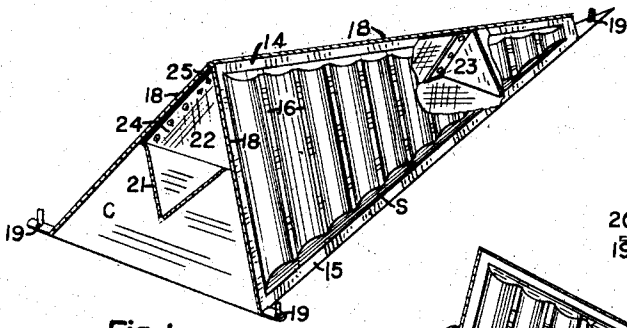


Fig. 1

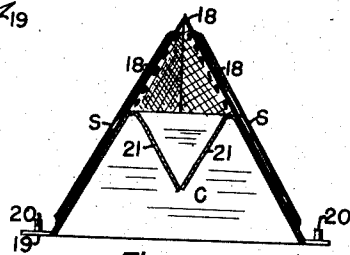


Fig. 2

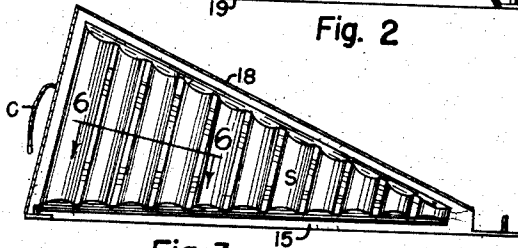


Fig. 3

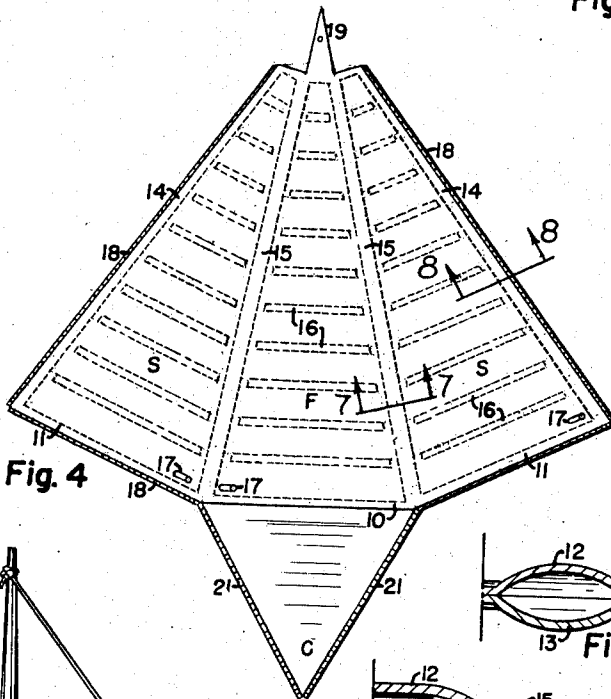


Fig. 4

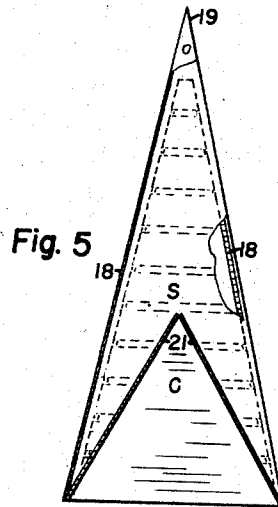


Fig. 5

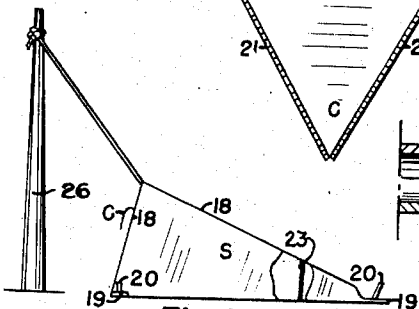


Fig. 9

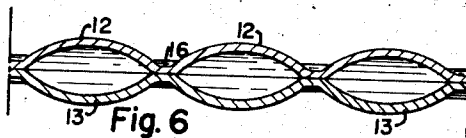


Fig. 6

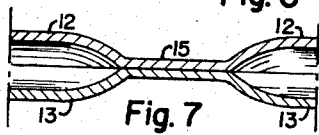


Fig. 7

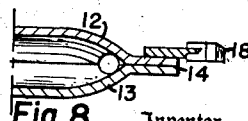


Fig. 8

Fig. 8
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UNITED STATES PATENT OFFICE

2,656,844

COMBINED SLEEPING BAG AND TENT

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1 Claim. (Cl. 135—1)

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This invention relates to improvements in combined sleeping bags and tents.

Hunters, fishermen and automobile tourists have occasion at various times to camp out at nights and for this purpose employ a small tent or sleeping bag.

It is the object of this invention to produce a combined sleeping bag and tent that has several advantages over small tents of the kind now available and over sleeping bags in general.

It is the object of this invention to produce a combined sleeping bag and tent of such construction that it can be formed from a single piece of material so shaped that it can be folded and rolled into a small package for easy transportation.

Another object is to produce a device of the class specified which shall have air tight inflatable floor and side walls of such design and construction that the side walls will have sufficient rigidity to retain themselves in operative upwardly ranging positions without additional supporting means.

A further object is to produce a combined sleeping bag and tent of triangular pyramidal shape one side of which forms the floor and the other two the side walls whose free edges are provided with cooperating slide fasteners of the "zipper" type for effecting convenient means for interconnecting the side walls.

Another object is to produce a combined sleeping bag and tent of triangular pyramidal shape having a transverse partition dividing it into a sleeping compartment and a baggage compartment the latter being accessible from the outside.

Another object is to produce a device of the class specified that can be erected without the aid of supports when the side walls are inflated and with the use of a single support if the side walls are deflated.

The above and any other object that may become apparent as the description proceeds are attained by means of a construction and an arrangement of parts that will now be described in detail for which purpose reference will be had to the accompanying drawing in which the invention has been illustrated and in which;

Figure 1 is a perspective view of the tent showing the same as it appears when the walls are inflated and no other supports are used, a portion of one side wall being broken away to show the partition;

Figure 2 is an end elevation looking in the direction of the left hand end of Figure 1;

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Figure 3 is a side elevation looking towards the left in Figures 1 and 2;

Figure 4 is a plan view showing the tent open with the sides, bottom, and end closure lying on a flat surface;

Figure 5 shows the four sections folded onto each other in position to be rolled or folded into a small package;

Figure 6 is a section taken on line 6—6 of Figure 3 and shows the appearance when inflated;

Figure 7 is a section taken on line 7—7, Figure 4, and shows the parts to a somewhat enlarged scale;

Figure 8 is a section taken along line 8—8, Figure 4, and shows the "zipper" attached and

Figure 9 is a side elevation showing how the tent with its side walls deflated, may be erected by the use of a single support.

Referring now to the drawing where the invention has been illustrated in detail and more particularly to Figure 4, reference characters F, S, and C represent respectively the floor section, the two side wall sections and the end closure. In the drawing the three sections have been shown as isosceles triangles which is the preferable shape, but other triangle shapes may be used if desired.

The material for use in making the floor and side walls must be water proof and air tight. For this description it will be assumed that the material employed is one of the many plastics now on the market or woven fabric coated and/or impregnated with a suitable plastic.

The floor and sides have been shown as of substantially the same size and shape; the base of the triangular section F has been designated by reference numeral 10 and the corresponding portions of section S have been designated by numeral 11. The side edges of the sections are all of the same length and have not been given any identifying number or numbers.

It will be assumed that the floor and side wall sections are constructed from heat softenable plastic. The sheets have been designated by reference numerals 12 and 13, numeral 13 being applied to the sheet that forms the inside, as illustrated. At this point attention is called to the fact that the construction illustrated is reversible and that one side may be white and the other olive drab or any other color.

For the purpose of this description it will be assumed that the material employed is a plastic of the type that can be welded by heat, a method now in common use.

The three sections F and S are each formed from two sheets of the size and shape to form all three. The outer edges are subjected to a heat welding action forming air tight welds 14, like that shown in Figure 8, along the entire outer edge. The material forming section F is separated from sections S by weld 15 which is wider than welds 14 and functions as hinges about which the sections turn when angularly displaced. The three sections are provided with a number of welds 16 that are parallel with their bases. Welds 16 terminate short of the peripheral weld 14 and from welds 15. Each section has a valve stem 17 through which air may be introduced by means of an air pump. When the sections are inflated the sides between the welds will bulge outwardly as shown in Figures 6, 7 and 8. The greater the air pressure the greater the curvature of the material between the welds will be and the greater the rigidity of the sections will be. It is well known that any inflated tubular body tends to become straight and quite rigid compared to its normal state; this is illustrated strikingly by long tubular balloons. The sections may be inflated while resting on the ground, as in Figure 4.

The two free edges of sections S are provided with slide fasteners 18 preferably the kind sold under the name of "zippers" or "Talons." Any other fasteners may be used and it is even possible to use buttons or hooks and eyes. It is evident that slide fasteners are preferable.

After the sections have been inflated sections S are turned about welds 15 until the free edges of the long sides are brought into such close contact that the fasteners can be engaged; the slide is then pulled and the edges thus connected form the ridge of the roof. The tent or the sleeping bag now has the appearance shown in Figures 1, 2 and 3. Perforated flaps 19 are provided at the corners and vertex. Tent pins 20 serve to anchor the flaps to the ground. End closure C is not provided with spaced welds and is preferably constructed from fabric, such as canvas, and with a substantial flexible lining. The side edges of the end closure are provided with slide fastener means 21 for cooperative engagement with the ones on bases 11 of sections S. Figure 1 shows how the end closure can be unfastened from the top leaving an opening 22 for light and ventilation.

A partition 23 separates the interior of the tent into two compartments, the smaller being for storage of food and/or clothes, etc. and the larger for sleeping. The smaller compartment can be entered from the outside by separating the slide fastener that closes the roof ridge. The partition may be detachable if desired.

The tent may be provided with a lining 24 that can be removably secured in place by means of buttons 25.

In the event that the tent is to be used without first inflating the sides it may be erected as shown in Figure 9 where 26 designates a post, a tree or a portion of an automobile.

The lining may have pockets and clothes hangers attached thereto but these have not been shown.

After the tent has been used and is to be packed for transportation the "zipper" at the roof ridge is opened and the material spread out as shown in Figure 4. Sides S are then folded over side F as shown in Figure 5 after which closure C is folded over sides S. The whole assembly can now be rolled into a comparatively small package.

Since the tent is reversible the side surfaces may be of different color so as to serve to some extent to lower the visibility.

Attention is called in particular to the construction that makes the side walls self supporting due to the inflatable feature.

What is claimed as new is:

A self supporting tent of the type having a floor and side walls of isosceles triangle shape interconnected along fold lines so as to form a triangular pyramidal tent, the floor and side walls comprising two layers of air tight material attached to each other along their edges and along spaced lines parallel to their bases forming air compartments, the several compartments of each section being in communication with each other to permit equalization of air pressure, whereby when the compartments are inflated the triangular sections will have a plurality of parallel ridges parallel with their bases to provide rigidity, whereby when the inflated sides are attached to each other, a triangular pyramid shaped tent will be formed that will be self supporting due to the rigidity of the sides.

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